DCN 640

# MILITARY VALUE DATA CALL

## TECHNICAL CENTERS

| Category | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION<br>NAVAL SURFACE WARFARE CENTER |
| Location/Address | PORT HUENEME, CA |


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**TAB A** Technical Operations: Functional Support Area - Life Cycle Work Area Form

**TAB B** Facilities and Equipment: Facilities/Equipment Capability Form

**TAB C** Range Resources: Range Capability Form

**Appendix A** Functional Support Areas - Life Cycle Work Areas List

**Appendix B** Definitions for Functional Support Areas - Life Cycle Work Areas

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MILITARY VALUE MEASURES

## MISSION

1. **Mission Statement.** State the officially assigned mission of this activity and cite the reference document(s) that assigns the mission.

1. Port Hueneme Division, Naval Surface Warfare Center, Port Hueneme, CA. Provide test and evaluation, in-service engineering, and integrated logistic support for surface and mine warfare combat systems, system interface, weapons systems and subsystems, unique equipment, and related expendable ordnance of the Navy surface fleet. Execute other responsibilities as assigned by the Commander, Naval Surface Warfare Center.

2. PHD Combat Systems Test Site (PHD CSTS), Point Loma, CA - Support the mission of the Port Hueneme Division, Naval Surface Warfare Center by providing engineering and technical support for the test and development of command and control systems; land based reliability testing, integration, and certification of surface ship combat systems computer program networks both prior to initial operation and for in-service systems; design, development, and life cycle maintenance of standardized simulation systems; land based test facilities and services for the analysis of performance of in-service combat systems, subsystems, and equipments for afloat units; and land based surface warfare combat systems integration testing. Execute other responsibilities as assigned by the Command, Port Hueneme Division, Naval Surface Warfare Center.

3. PHD East Coast Operations Site, (PHD ECO), Virginia Beach, VA. Support the mission of the Port Hueneme Division, Naval Surface Warfare Center by providing planning, design, construction, testing, delivery and maintenance of combat direction systems operation programs for cruiser, destroyer, battleship, and frigate combatants; design, testing and maintenance of intercomputer communications for integrated systems, including combat direction systems and other subsystems; correction, update, modification, enhancement and distribution of operational programs in accordance with evolving fleet requirements; development and maintenance of Navy standard program generation systems computer programs; and technical assistance and computer programs to the shore establishment. Execute other responsibilities as assigned by the Commander, Port Hueneme Division, Naval Surface Warfare Center.

**** Per Brac 93 requirements, NSWC Dahlgren Division assumed administrative responsibility for NMWEA, 1 Oct 93, and is including NMWEA data in the Dahlgren Division Data Call 5 response.** R

4. Naval Mine Warfare Engineering Activity, Port Hueneme Division, Naval Surface Warfare Center, Yorktown, VA. Support the mission of the Port Hueneme Division, Naval Surface Warfare Center by providing engineering, technical and logistics management support to the Fleet for individual shipboard mine warfare combat systems, subsystems, equipments and components; and mines, destructor and depth charges. Execute other responsibilities as assigned by the Commander, Port Hueneme Division, Naval Surface Warfare Center. OPNAVNOTE 5450 OF 23 DEC 91

2. **Joint Service Missions.** State any officially assigned joint/lead service assignments missions and cite the document(s) that assigned them.

**NONE**

## TECHNICAL FUNCTIONS



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## MILITARY VALUE MEASURES

### MISSION

1. **Mission Statement.** State the officially assigned mission of this activity and cite the reference document(s) that assigns the mission.

1. Port Hueneme Division, Naval Surface Warfare Center, Port Hueneme, CA. Provide test and evaluation, in-service engineering, and integrated logistic support for surface and mine warfare combat systems, system interface, weapons systems and subsystems, unique equipment, and related expendable ordnance of the Navy surface fleet. Execute other responsibilities as assigned by the Commander, Naval Surface Warfare Center.

2. PHD Combat Systems Test Site (PHD CSTS), Point Loma, CA - Support the mission of the Port Hueneme Division, Naval Surface Warfare Center by providing engineering and technical support for the test and development of command and control systems; land based reliability testing, integration, and certification of surface ship combat systems computer program networks both prior to initial operation and for in-service systems; design, development, and life cycle maintenance of standardized simulation systems; land based test facilities and services for the analysis of performance of in-service combat systems, subsystems, and equipments for afloat units; and land based surface warfare combat systems integration testing. Execute other responsibilities as assigned by the Command, Port Hueneme Division, Naval Surface Warfare Center.

3. PHD East Coast Operations Site, (PHD ECO), Virginia Beach, VA. Support the mission of the Port Hueneme Division, Naval Surface Warfare Center by providing planning, design, construction, testing, delivery and maintenance of combat direction systems operation programs for cruiser, destroyer, battleship, and frigate combatants; design, testing and maintenance of intercomputer communications for integrated systems, including combat direction systems and other subsystems; correction, update, modification, enhancement and distribution of operational programs in accordance with evolving fleet requirements; development and maintenance of Navy standard program generation systems computer programs; and technical assistance and computer programs to the shore establishment. Execute other responsibilities as assigned by the Commander, Port Hueneme Division, Naval Surface Warfare Center.

4. Naval Mine Warfare Engineering Activity, Port Hueneme Division, Naval Surface Warfare Center, Yorktown, VA. Support the mission of the Port Hueneme Division, Naval Surface Warfare Center by providing engineering, technical and logistics management support to the Fleet for individual shipboard mine warfare combat systems, subsystems, equipments and components; and mines, destructor and depth charges. Execute other responsibilities as assigned by the Commander, Port Hueneme Division, Naval Surface Warfare Center.

OPNAVNOTE 5450 OF 23 DEC 91

2. **Joint Service Missions.** State any officially assigned joint/lead service assignments missions and cite the document(s) that assigned them.

**NONE**

## TECHNICAL FUNCTIONS

3. **Technical Functions Resource Allocations.** Appendix A provides a list of numbered functional support areas that cover the spectrum of naval warfare and support operations. Additionally, Appendix A provides a list of numbered life-cycle work areas that cover the "cradle to grave" spectrum of Navy systems acquisition. Utilizing the two lists at Appendix A, each activity will break out its entire FY1993 technical program within any applicable intersections of these two defining schemes (for example, functional support area #5.2 - life cycle work area #3 will identify the activity's level of resources allocated to sensors and surveillance systems, radar systems in advanced development). Definitions for each functional support and life cycle work area are provided in Appendix B for reference.

a. Use the form at Tab A of this data call to provide data on work years and expenditures for FY1993 to support each applicable intersection of functional support areas and life cycle work areas. When necessary, estimate data to the best of your ability

b. Similarly, use the Tab A forms to report separately on your detachments or sites that have not received this data call directly. This data may be consolidated when the detachments or sites perform work in the same area. When necessary, estimate data to the best of your ability.

## MANPOWER

4. **Work Breakdown Structure.**

a. Use Table 4.1 (below) to provide data on the general support functions at your activity. Report data as of 31 March 1994. If you are collocated with one of your subordinate base keeper commands (i.e., a NAWS or NAS collocated with a NAWC Division), describe the differences in the functions of each and provide a separate Table 4.1 for the subordinate command. Include this command in the Table 4.1 submission for your Activity.

b. Similarly, use Table 4.2 (below) to provide general support function data for all your detachments or sites that did not receive this data call directly. Consolidate data from all of these detachments into one table (4.2). Provide a list of the detachments whose data is included in Table 4.2. For each identified detachment in this list, include its name, location, UIC, and number of civilian and military personnel onboard.

**NOTE:**

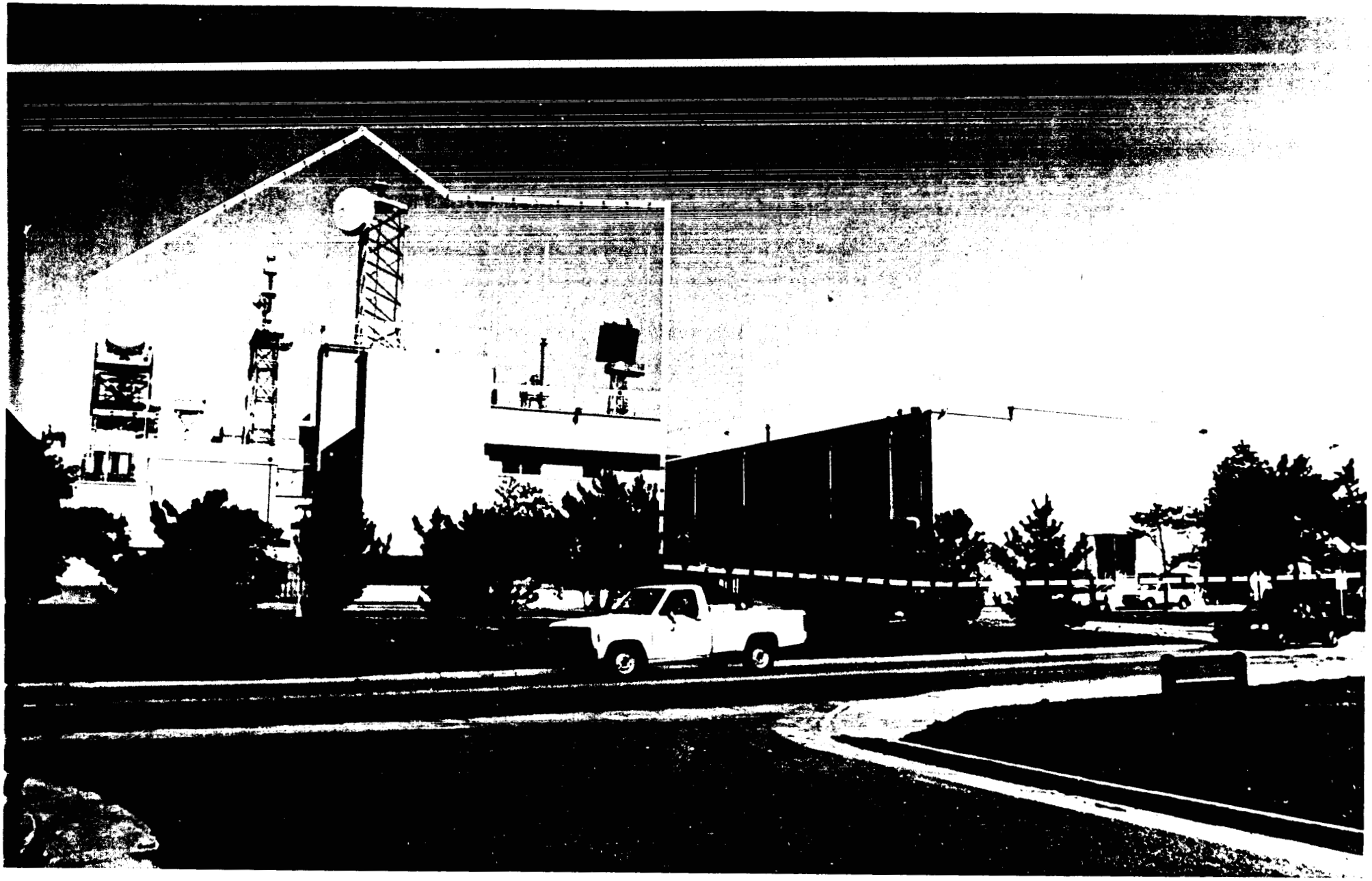
**The Port Hueneme Division of the Naval Surface Warfare Center (PHD NSWC) consists of a main site located at Port Hueneme, and two principal remote sites: the PHD East Coast Operations Site (PHD ECO) located at Virginia Beach, Va. and a PHD Combat Systems Test Site (PHD CSTS) located at Point Loma, Ca. The Port Hueneme division has no official detachments, consequently, for the purposes of this data call, the Port Hueneme Division responses include the remote sites. Data from remote sites is not reported separately unless the question being answered specifically requests that data from remote sites be provided**

In addition, if any of your detachments or separate sites not receiving an individual data call have over 50 civilian personnel or own technical facilities, provide separately a description of the site, the functions performed there, photographs showing the facilities and state the reason for that site's existence and the necessity for it to be at that location.

**PORT HUENEME DIVISION EAST COAST OPERATIONS**

**The Port Hueneme Division East Coast Operations, located in Virginia Beach, Va. is a tenant activity of the Fleet Combat Training Center, Atlantic (FCTCL), Dam Neck, Virginia Beach, VA, located entirely in building 127S. The facility consists of a Program Generation Center, several computer program generation laboratories and uses the extensive Combat Direction System suites owned by the FCTCL. PHD NSWC ECO uses these unique facilities to plan, design, create, update, test and deliver Combat Direction System operational computer programs and workstation-based tactical command display programs for cruiser, destroyer, frigate and helicopter combatants, communications programs for integrated systems, and update to these computer programs which meet evolving fleet requirements.**

**The location of this site is critical because of the synergistic effect of multiple use of the FCTCL Combat Direction System training equipment. The CDS suites are used during normal working**



# Fleet Combat Direction System Support Activity

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994

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**Combat Direction System training equipment. The CDS suites are used during normal working hours by the FCTC to train fleet crews and during the remaining time by PHD NSWC Code 6000 to support tactical computer program development and test.**

**PORT HUENEME DIVISION COMBAT SYSTEMS TEST SITE**

**The Port Hueneme Division Combat System Test Site located at Point Loma, CA is a tenant activity of Naval Coastal Center Ocean Systems Command (NCCOSC). The site is capable of functionally replicating the combat system for DD963, CV/CVN, LHD, LHA, DDG993, CGN36/38, and FFG ship classes. With this capability, new and upgraded operational programs are tested prior to fleet delivery. Software upgrades are accomplished through a comprehensive and rigorous program of requirements identification and documentation, computer program design, software coding, verification and validation, configuration management, and through quality assurance procedures. The site's location near Naval Research and Development (NRaD) has enabled the Navy to support three major programs (Combat System Integration, Advanced combat Direction System Block 0/1 and C3I with a minimum amount of equipment resources. The PHD Combat System Test Site is being moved from Point Loma, CA to Port Hueneme, CA. The move will be complete prior to FY9 in compliance with BRAC 91 direction.** R

c. Use Table 4.3 (below) to provide estimated data, for your activity only, to reflect the anticipated impact of previous BRAC decisions that have not yet been implemented. This data should provide the deltas from Table 4.1.

NOTES:

[1] Use the following definitions when providing data for the tables below:

Workyears: Consistent with those used in the preparation of inputs to the President's budget.

Contract Workyears: Actual or estimated workyears performed by support contractors with workyears defined consistent with the definition used in the President's budget.

Civilian Personnel Onboard: Full Time Permanent (FTP) employees.

[2] Any categories of personnel that are employed to support other Activities should be noted with the name of the additional Activity supported.

**hours by the FCTC to train fleet crews and during the remaining time by PHD NSWC Code 6000 to support tactical computer program development and test.**

**PORT HUENEME DIVISION COMBAT SYSTEMS TEST SITE**

**The PHD Combat Systems Test Site is an integral part of the Combat Systems Test and Analysis Department, Code 4L00. This site is the only laboratory capable of functionally replicating the combat system for DD963, CV/CVN, LHD, LHA, DDG993, CGN36/38, and FFG ship classes which is required to test new or upgraded operational computer programs prior to delivery to the fleet. If this facility were lost, testing would have to be conducted on board ship (3-9 months) or operational computer programs delivered directly to the ships.**

**The facility's location at the NRAD Point Loma, CA complex has enabled the Navy to support three major programs (Combat System Integration, Advanced Combat Direction System Block 0/1 and C3I with a minimum amount of equipment resources. This was accomplished by placing common equipment at Point Loma and having both activities share these resources to accomplish their respective missions.**

**PHD CSTS's primary workload for the future is to support the CV/CVN and Amphibious ship classes which are C3I platforms. Co-location with NRaD, which is the Navy's C3I laboratory, enables PHD CSTS access to this expertise. The results in a more efficient effort in developing and testing these ship class programs.**

c. Use Table 4.3 (below) to provide estimated data, for your activity only, to reflect the anticipated impact of previous BRAC decisions that have not yet been implemented. This data should provide the deltas from Table 4.1.

NOTES:

[1] Use the following definitions when providing data for the tables below:

Workyears: Consistent with those used in the preparation of inputs to the President's budget.

Contract Workyears: Actual or estimated workyears performed by support contractors with workyears defined consistent with the definition used in the President's budget.

Civilian Personnel Onboard: Full Time Permanent (FTP) employees.

[2] Any categories of personnel that are employed to support other Activities should be noted with the name of the additional Activity supported.

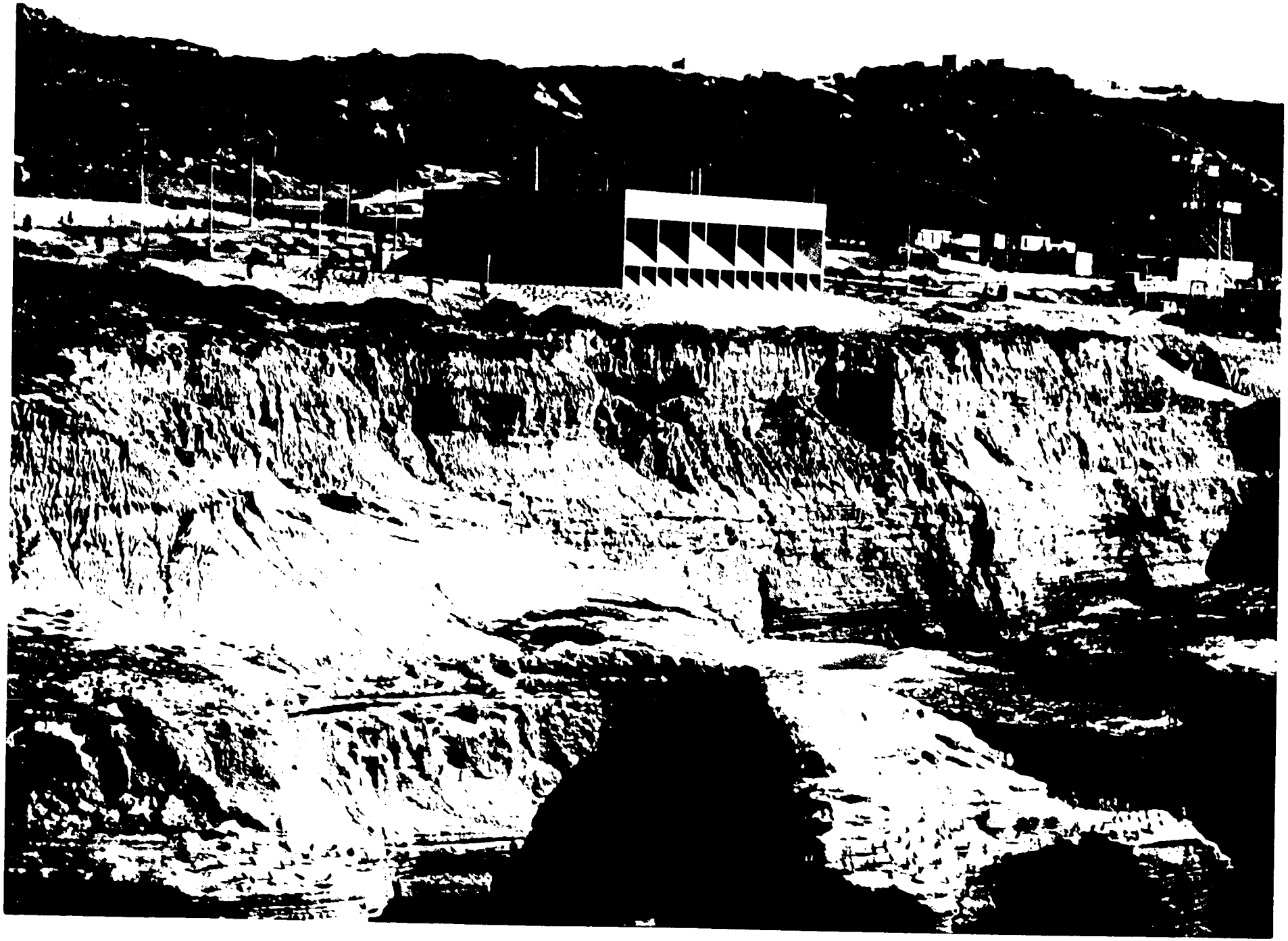

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**Table 4.1, General Support Resources for (Activity: PHD - NSWC) (UIC:N63394)[1]**

| Function | Space allocated (Gross SQ FT) | Work Years[2] | Civilian Personnel onboard[3] | Contract Work Years[4] | Military Personnel Onboard | |
|---|---|---|---|---|---|---|
| | | | | | Off | Enl |
| ADMINISTRATION | | | | | | |
| Command (CO/XO/TD/etc.) | 3,000 | 13.2 | 9 | 0 | 2 | 1 |
| Comptroller | 7,700 | 46.5 | 45 | 12.7 | 0 | 0 |
| Admin | 700 | 6.4 | 7 | 0 | 0 | 0 |
| Human Resources | 7,500 | 31.6 | 31 | 1.1 | 0 | 0 |
| OPERATIONS SUPPORT | | | | | | |
| Supply Management | 3,800 | 29 | 29 | 8.1 | 0 | 2 |
| Consolidated Computational Computer Support | 0 | 0 | 0 | 0 | 0 | 0 |
| Information Systems and Communications | 9,200 | 24.9 | 25 | 35 | 0 | 0 |
| Safety/OSH/Environmental | 5,100 | 7.3 | 7 | 0 | 0 | 1[5] |
| INFRASTRUCTURE | | | | | | |
| Physical Security | 2,700 | 9.7 | 8 | 4.7 | 0 | 2 |
| Public Works/Staff Civil Engr | 500 | 3 | 3 | 0. 1 | 0 | 0 |
| Fire Protection | 0 | 0 | 0 | 0 | 0 | 0 |
| Medical/Dental | 0 | 0 | 0 | 0 | 0 | 0 |
| Military Support | 100 | 1 | 0 | 0 | 0 | 1 |
| Air/Waterfront Operations | 0 | 0 | 0 | 0 | 0 | 0 |
| Other | 36,300 | 167.2 | 176 | 64.1 | 0 | 0 |
| TECHNICAL STAFF | | | | | | |
| Technical Operations | | | 2216 | 1166.5 | 37 | 116 |
| Totals | 76,600 | 339.8 | 2556 | 1292.3 | 39 | 123 |

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1. **Note: Technical Operations Totals include site data from Table 4.2**
2. Includes all labor hours (MIL, FTP, CO-OP, S/A, LP, OT)
3. Includes full and part time permanent personnel only
4. Includes both Gov't Orders and Commercial Contracts
5. Safety inspector deleted effective 1 Oct 94

**Table 4.1, General Support Resources for (Activity: PHD - NSWC) (UIC:N63394)[1]**

| Function | Space allocated (Gross SQ FT) | Work Years[2] | Civilian Personnel onboard[3] | Contract Work Years[4] | Military Personnel Onboard | |
|---|---|---|---|---|---|---|
| | | | | | Off | Enl |
| ADMINISTRATION | | | | | | |
| Command (CO/XO/TD/etc.) | 3,000 | 13.2 | 9 | 0 | 2 | 1 |
| Comptroller | 7,700 | 46.5 | 45 | 12.7 | 0 | 0 |
| Admin | 700 | 6.4 | 7 | 0 | 0 | 0 |
| Human Resources | 7,500 | 31.6 | 31 | 1.1 | 0 | 0 |
| OPERATIONS SUPPORT | | | | | | |
| Supply Management | 3,800 | 29 | 29 | 8.1 | 0 | 2 |
| Consolidated Computational Computer Support | 0 | 0 | 0 | 0 | 0 | 0 |
| Information Systems and Communications | 9,200 | 24.9 | 25 | 35 | 0 | 0 |
| Safety/OSH/Environmental | 5,100 | 7.3 | 7 | 0 | 0 | 1[4] |
| INFRASTRUCTURE | | | | | | |
| Physical Security | 2,700 | 9.7 | 8 | 4.7 | 0 | 2 |
| Public Works/Staff Civil Engr | 500 | 3 | 3 | 0. 1 | 0 | 0 |
| Fire Protection | 0 | 0 | 0 | 0 | 0 | 0 |
| Medical/Dental | 0 | 0 | 0 | 0 | 0 | 0 |
| Military Support | 100 | 1 | 0 | 0 | 0 | 1 |
| Air/Waterfront Operations | 0 | 0 | 0 | 0 | 0 | 0 |
| Other | 36,300 | 167.2 | 176 | 64.1 | 0 | 0 |
| TECHNICAL STAFF | | | | | | |
| Technical Operations | | | 2216 | 1166.5 | 37 | 116 |
| Totals | 76,600 | 339.8 | 2556 | 1292.3 | 39 | 123 |

**Note: Technical Operations Totals include site data from Table 4.2**

1. Includes all labor hours (MIL, FTP, CO-OP, S/A, LP, OT)
2. Includes full and part time permanent personnel only
3. Includes both Gov't Orders and Commercial Contracts
4. Safety inspector deleted effective 1 Oct 94

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**TABLE 4.2, General Support Resources for all Sites:[1,2]**
**PHD ECO, Virginia Beach, VA - UIC(63273) - 212 Civilians - 60 Military**
**PHD CSTS, Point Loma, CA - UIC(63394) - 54 Civilians - 11 Military**
**Activity: PHD NSWC (UIC: N63394)**

| Function | Space allocated (Gross SQ FT) | Work Years | Civilian Personnel onboard | Contract Work Years | Military Personnel Onboard | |
|---|---|---|---|---|---|---|
| | | | | | Off | Enl |
| **ADMINISTRATION** | | | | | | |
| Command (CO/ XO/ TD/etc.) | | | | | | |
| Comptroller | | | | | | |
| Admin | | | | | | |
| Human Resources | | | | | | |
| **OPERATIONS SUPPORT** | | | | | | |
| Supply Management | | | | | | |
| Consolidated Computational Computer Support | | | | | | |
| Information Systems and Communications | | | | | | |
| Safety/OSH/Environmental | | | | | | |
| **INFRASTRUCTURE** | | | | | | |
| Physical Security | | | | | | |
| Public Works/Staff Civil Engr | | | | | | |
| Fire Protection | | | | | | |
| Medical/Dental | | | | | | |
| Military Support | | | | | | |
| Air/Waterfront Operations | | | | | | |
| Other | | | | | | |
| **TECHNICAL STAFF** | | | | | | |
| Technical Operations | | | 266 | 263 | 24[3] | 47 |
| Totals | NA | NA | 266 | 263 | 24 | 47 |

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Notes: (1) - Date in Table 4.2 is included in Table 4.1
(2) - Table does not include data for NMWEA. Per BRAC 93, NMWEA transferred administrately to NSWC Dahlgren Division in FY94, and will transfer financially in FY95. See Dahlgren Division submittal for NMWEA data.
(3) - Includes 1 billet, assigned to San Diego site, identified for deletion in FY98.

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**TABLE 4.2, General Support Resources for all Sites:**
**PHD ECO, Virginia Beach, VA - UIC(63273) - 212 Civilians - 60 Military**
**PHD CSTS, Point Loma, CA - UIC(63394) - 54 Civilians - 11 Military**
**Activity: PHD NSWC (UIC: N63394)**

| Function | Space allocated (Gross SQ FT) | Work Years | Civilian Personnel onboard | Contract Work Years | Military Personnel Onboard | |
|---|---|---|---|---|---|---|
| | | | | | Off | Enl |
| **ADMINISTRATION** | | | | | | |
| Command (CO/ XO/ TD/etc.) | | | | | | |
| Comptroller | | | | | | |
| Admin | | | | | | |
| Human Resources | | | | | | |
| **OPERATIONS SUPPORT** | | | | | | |
| Supply Management | | | | | | |
| Consolidated Computational Computer Support | | | | | | |
| Information Systems and Communications | | | | | | |
| Safety/OSH/Environmental | | | | | | |
| **INFRASTRUCTURE** | | | | | | |
| Physical Security | | | | | | |
| Public Works/Staff Civil Engr | | | | | | |
| Fire Protection | | | | | | |
| Medical/Dental | | | | | | |
| Military Support | | | | | | |
| Air/Waterfront Operations | | | | | | |
| Other | | | | | | |
| **TECHNICAL STAFF** | | | | | | |
| Technical Operations | | | 266 | 263 | 24 | 47 |
| Totals | NA | NA | 266 | 263 | 24 | 47 |

Notes: (1) - Date in Table 4.2 is included in Table 4.1
(2) - Table does not include data for NMWEA. Per BRAC 93, NMWEA transferred administrately to NSWC Dahlgren Division in FY94, and will transfer financially in FY95. See Dahlbren Division submittal for NMWEA data.
(3) - Includes 1 billet, assigned to San Diego site, identified for deletion in FY98.

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Table 4.3, Previous BRAC Impact to General Support Resources for
(Activity: PHD-NSWC) (UIC:N63394)

| Function | Space allocated (Gross SQ FT) | Work Years | Civilian Personnel onboard | Contract Work Years | Military Personnel Onboard | |
|---|---|---|---|---|---|---|
| | | | | | Off | Enl |
| ADMINISTRATION | | | | | | |
| Command (CO/XO/ TD/etc.) | | | | | | |
| Comptroller | 100 | 1 | 1 | | | |
| Admin | 300 | 3 | 3 | 1.5 | | |
| Human Resources | 300 | 3 | 3 | | | |
| OPERATIONS SUPPORT | | | | | | |
| Supply Management | 300 | 3 | 3 | | | |
| Consolidated Computational Computer Support | | | | | | |
| Information Systems and Communications | 100 | 1 | 1 | | | |
| Safety/OSH/Environmental | | | | | | |
| INFRASTRUCTURE | | | | | | |
| Physical Security | 100 | 1 | 1 | | | |
| Public Works/Staff Civil Engr | | | | | | |
| Fire Protection | | | | | | |
| Medical/Dental | | | | | | |
| Military Support | | | | | | |
| Air/Waterfront Operations | | | | | | |
| Other | 500 | 5 | 5 | | | |
| TECHNICAL STAFF | | | | | | |
| Technical Operations | | | 31 | 0 | 0 | 0 |
| Totals | 1,700 | 17 | 48 | 1.5 | 0 | 0 |

1. Does not include BRAC 91 mandated reductions for NMWEA. Per BRAC 93 requirements, NSWC Dahlgren Division assumed administrative responsibility for NMWEA 01 Oct 93, and is including NMWEA data in the Dahlgren Division data call response.
2. Support functions for PHD NSWC sites at Virginia Beach, VA and Point Loma, CA, are direct funded as production cost centers and are therefore included in the sites' Technical Operations, as reflected in Table 4.2. Ongoing consolidation of PHD general support functions at all sites will continue to yield billet reductions in the categories listed in Table 4.3. Some of the billets reported as planned reductions in Table 4.3 are included in the Table 4.2 Technical Operations category, as technically they are not considered G&A-type support. As Table 4.2 does not require space allocations or workyears for Technical Operations staff, the entry in the Space Allocated and Work Years columns in Table 4.3 can not be accurately subtracted from the corresponding columns in Table 4.2.
3. **Figures in table represent space, workyears, and onboard count <u>reductions.</u>**

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Table 4.3, Previous BRAC Impact to General Support Resources for
(Activity: PHD-NSWC) (UIC:N63394)

| Function | Space allocated (Gross SQ FT) | Work Years | Civilian Personnel onboard | Contract Work Years | Military Personnel Onboard | |
|---|---|---|---|---|---|---|
| | | | | | Off | Enl |
| ADMINISTRATION | | | | | | |
| Command (CO/XO/ TD/etc.) | | | | | | |
| Comptroller | 100 | 1 | 1 | | | |
| Admin | 300 | 3 | 3 | 1.5 | | |
| Human Resources | 300 | 3 | 3 | | | |
| OPERATIONS SUPPORT | | | | | | |
| Supply Management | 300 | 3 | 3 | | | |
| Consolidated Computational Computer Support | | | | | | |
| Information Systems and Communications | 100 | 1 | 1 | | | |
| Safety/OSH/Environmental | | | | | | |
| INFRASTRUCTURE | | | | | | |
| Physical Security | 100 | 1 | 1 | | | |
| Public Works/Staff Civil Engr | | | | | | |
| Fire Protection | | | | | | |
| Medical/Dental | | | | | | |
| Military Support | | | | | | |
| Air/Waterfront Operations | | | | | | |
| Other | 500 | 5 | 5 | | | |
| TECHNICAL STAFF | | | | | | |
| Technical Operations | | | 31 | 0 | 0 | 0 |
| Totals | 1,700 | 17 | 48 | 1.5 | 0 | 0 |

1. Does not include BRAC 91 mandated reductions for NMWEA. Per BRAC 93 requirements, NSWC Dahlgren Division assumed administrative responsibility for NMWEA 01 Oct 93, and is including NMWEA data in the Dahlgren Division data call response.

2. Support functions for PHD NSWC sites at Virginia Beach, VA and Point Loma, CA, are direct funded as production cost centers and are therefore included in the sites' Technical Operations, as reflected in Table 4.2. Ongoing consolidation of PHD general support functions at all sites will continue to yield billet reductions in the categories listed in Table 4.3. Some of the billets reported as planned reductions in Table 4.3 are included in the Table 4.2 Technical Operations category, as technically they are not considered G&A-type support. As Table 4.2 does not require space allocations or workyears for Technical Operations staff, the entry in the Space Allocated and Work Years columns in Table 4.3 can not be accurately subtracted from the corresponding columns in Table 4.2.

5. **Technical Staff Qualifications.**

a. Use Table 5.1 (below) to provide data on the civilian personnel allocated to Technical Operations having the educational and experience levels indicated in the table for your activity. Report data as of 31 March 1994. Similarly, use Table 5.2 (below) to provide data for all your separate detachments or sites that did not receive this data call directly. Consolidate data from all of these detachments into one table (5.2). Provide a list of the detachments whose data is included in Table 5.2.

Table 5.1, Technical Staff Education Level for
**(Activity: PHD-NSWC) (UIC:N63394)**

| Highest Degree Attained | Years of Government and/or Military Service | | | | | |
|---|---|---|---|---|---|---|
| | Less than 3 Years | 3-10 Years | 11-15 Years | 16-20 Years | More than 20 Years | Total |
| Grade School | 0 | 3 | 0 | 0 | 2 | 5 |
| High School | 47 | 235 | 259 | 316 | 103 | 960 |
| B.A./B.S | 54 | 648 | 126 | 64 | 213 | 1105 |
| M.A./M.S | 4 | 47 | 18 | 15 | 56 | 140 |
| Ph.D./ M.D. | 0 | 2 | 1 | 1 | 2 | 6 |
| Total | 105 | 935 | 404 | 396 | 376 | 2216 |

NOTE: Includes data in table 5.2.

**Table 5.2, Technical Staff Education Level for all Sites - includes:**
**PHD CSTS, Point Loma, CA, UIC(63394)**
**PHD ECO, Virginia Beach, VA UIC(63273)**
**(Parent Activity: PHD-NSWC) (UIC:N63394)**

| Highest Degree Attained | Years of Government and/or Military Service | | | | | |
|---|---|---|---|---|---|---|
| | Less than 3 Years | 3-10 Years | 11-15 Years | 16-20 Years | More than 20 Years | Total |
| Grade School | 0 | 1 | 0 | 0 | 0 | 1 |
| High School | 0 | 27 | 33 | 30 | 62 | 152 |
| B.A./B.S | 3 | 40 | 13 | 14 | 21 | 91 |
| M.A./M.S | 0 | 7 | 2 | 5 | 7 | 21 |
| Ph.D./ M.D. | 0 | 0 | 0 | 0 | 1 | 1 |
| Total | 3 | 75 | 48 | 49 | 91 | 266 |

b. Use Table 5.3 (below) to provide data on the number of civilian personnel allocated to Technical Operations with graduate degrees and at least three years of applicable experience that have their highest degree in the fields indicated. Report data as of 31 March 1994. Similarly, use Table 5.4 (below) to provide data for all your separate detachments or sites that did not receive this data call directly. Consolidate data from all of these detachments into one table (5.4). Provide a list of the detachments whose data is included in Table 5.4

revised pg.

**Table 5.3, Technical Staff Academic Fields for Activity: PHD NSWC (UIC:N63394)**

| Academic field | Number |
|---|---|
| Physics | 6 |
| Chemistry | 0 |
| Biology | 0 |
| Mathematics/Statistics/ Operations Research | 3 |
| Engineering | 54 |
| Medical | 0 |
| Dental | 0 |
| Computer Science | 6 |
| Social Science | 1 |
| Other Science | 6 |
| Non-Science | 52 |
| Total | 128 |

Note: Includes data from Table 5.4

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**Table 5.4, Technical Staff Academic Fields for all Sites: PHD CSTS, Point Loma, CA - UIC(63394) PHD ECO, Virginia Beach, VA - UIC (63273) (Parent Activity: PHD-NSWC) (UIC:N63394)**

| Academic field | Number |
|---|---|
| Physics | 0 |
| Chemistry | 0 |
| Biology | 0 |
| Mathematics/Statistics/ Operations Research | 0 |
| Engineering | 7 |
| Medical | 0 |
| Dental | 0 |
| Computer Science | 6 |
| Social Science | 1 |
| Other Science | 1 |
| Non-Science | 7 |
| Total | 22 |



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**Table 5.3, Technical Staff Academic Fields for Activity: PHD NSWC (UIC:N63394)**

| Academic field | Number |
|---|---|
| Physics | 6 |
| Chemistry | 0 |
| Biology | 0 |
| Mathematics/Statistics/ Operations Research | 3 |
| Engineering | 47 |
| Medical | 0 |
| Dental | 0 |
| Computer Science | 6 |
| Social Science | 1 |
| Other Science | 5 |
| Non-Science | 45 |
| Total | 106 |

**Table 5.4, Technical Staff Academic Fields for all Sites: PHD CSTS, Point Loma, CA - UIC(63394) PHD ECO, Virginia Beach, VA - UIC (63273) (Parent Activity: PHD-NSWC) (UIC:N63394)**

| Academic field | Number |
|---|---|
| Physics | 0 |
| Chemistry | 0 |
| Biology | 0 |
| Mathematics/Statistics/ Operations Research | 0 |
| Engineering | 7 |
| Medical | 0 |
| Dental | 0 |
| Computer Science | 6 |
| Social Science | 1 |
| Other Science | 1 |
| Non-Science | 7 |
| Total | 22 |

c. Are there unique aspects of the activity's location that help or hinder in the hiring of qualified personnel?

**PHD NSWC has many unique aspects that are helpful in the hiring and retention of qualified personnel. They are:**

**(1) LOCATION - This activity is situated next to the ocean, midway between Los Angeles and Santa Barbara. It offers the advantages of country living but is close to the cultural assets of a large metropolitan area. Port Hueneme is a beautiful coastal community but is only 30 miles from the mountains of Los Padres National Forest. The Channel Islands, an hours sail away; golf and tennis, and extensive riding trails are all only a few minutes from work.**

**(2) CLIMATE - The area enjoys a magnificent climate, with average high temperatures of 65 degrees in January and 74 degrees in July.**

**(3) EDUCATION AND TRAINING - The area has more than a dozen colleges and universities available including UCLA and USC. In addition, all professionals participate in a formal development program that includes job and career planning through formal and on-the-job training.**

**(4) TRAVEL - The mission of this activity frequently involves opportunities to travel throughout the United States and sometimes overseas.**

**The high cost of living in this area and, in particular, the high cost of housing can be a hinderance, however, it is ameliorated by the interim geographic pay and use of career ladders.**

d. Technical Articles

**The following lists technical articles by PHD NSWC personnel published or accepted for publication since 1 January 1990:**

**(1) "VOC Compliant Paint Systems", WESTEC Regional Conference, Los Angeles, California, 1990.**

**(2) "An Overview of current and Candidate Titanium Alloy Applications on U.S. Navy Surface Ships", Naval Engineers Journal, May 1991.**

**(3) "Corona Breakdown in Pulse Forming Networks and Its Solution", ASNE Conference at NSWC Crane, 1991.**

**(4) "Face Hardened Armor Parts 2 and 3", (Part 1 published 1989), WARSHIP INTERNATIONAL, The Journal of The International Naval Research Organization, 1991.**

**(5) "VOC Compliant Paint Systems (Part 1) - How Well Do They Hold Up in the Marine Environment?", NACE National Corrosion Conference, New Orleans, 1991.**

**(6) "Acquire New CALS Compliant Technical Manuals - But What Do We Do**

About The 120,000 Existing Technical Manuals?", Computer Aided Acquisition and Logistics Support Proceedings, 1991.

(7) "Investigation of Applications of Diamond Films in Microwave Tubes", Microwave Power Tube Conference, May 1992.

(8) "Navy-Owned Production Drawings Improve Quality and Save Money", American Society of Naval Engineers (ASNE), September, 1992.

(9) "Observations of Secondary Electron Emission from Diamond Films", IEEE Conference, San Francisco, California, December 1992.

(10) "Analysis of Academic and Popular Literature as it Relates to Engineering Management", California State University, Northridge, College of Engineering, 1992.

(11) "Corrosion Resistant Recessed Electrical Boxes", Deckplate January - February 1993.

(12) "An Integrated Approach To Data Management", American Society Of Naval Engineers (ASNE), Seattle 17-18 March 1993; International Logistics (ASNE), Crystal City 28-30 June 1993; Logistics (ASNE), Harrisburg, 15-17 March 1994.

(13) "The Rustbusters", ASNE Conference, September 1993.

(14) "NAVSEA Technical Manual Digitization Program", American Association Of Naval Engineers Proceedings, 1993.

(15) "Combined Influence of Heat Treatment and Seawater Immersion on The Properties of Explosively Welded Bimetallic Joints", Annual Conference and Corrosion Show sponsored by NACE International, 1993.

(16) "Expert System for Provisioning", World Congress on Expert System 1994, January 1994.

(17) "MK 86/UYK 7 Enhanced Memory Unit Project - Jacking The Computer Up and Putting A Powerful New Engine Under It!", Published and presented at the Fourth Systems Reengineering Technology Workshop, 8-10 February 1994.

(18) "NAVSEA Level of Repair Analysis (LORA) Software. Bridging the Gap from Policy Procedures to User Application", Eighth Annual Logistics Symposium Sponsored by the American Society of Naval Engineers, March 1994.

(19) "Emerging Digital Technical Manual Formats and Management Issues", American Association Of Naval Engineers Proceedings, 1994.

(20) "Vertical Launching System Technical Assistance Expert System (VTAEXS)", Intelligent Ships Symposium, 1994.

**(21) "The VLS Tech Assist Expert System", The Sixth Annual Innovative Applications of Artificial Intelligence Conference, 1994.**

**(22) "Behavior of ION Vapor Deposited Aluminum in Marine Environments", NACE International, 1994.**

**(23) "Performance of New Generation VOC Compliant and Chromate-Free Coatings in Military Applications", NACE National Corrosion Conference, Baltimore, 1994.**

e. Technical Books

**The following technical book was developed and published with participation of a PHD NSWC employee:**

**(1) "Underway Replenishment of Naval Ships", textbook 574 pages, illustrated, published by U.S. Navy, Miller, M.O. (Editor), October 1992.**

f. Nobel Laureates - **None.**

g. Non-Governmental Awards

**The following are non-governmental awards presented to PHD NSWC employees for research or technical excellence since 1 January 1990:**

**(1) "ITEA, T&E Distinguished Service Award; awarded to Earl Tranby, 1992.**

**(2) National Engineers Week 1993, Ventura/Santa Barbara County "System Engineer of the Year" Award; awarded to Earl Carinio, February 1993.**

h. Governmental Awards

**The following lists governmental awards presented to PHD NSWC employees for research or technical excellence since 1 January 1990:**

**(1) A COMBAT SYSTEM OPERABILITY SEQUENCING SYSTEM LIFE CYCLE MAINTENANCE AWARD was presented to twenty-seven members of the PHD NSWC technical staff on 27 January 1993.**

**(2) A FLEET MODERNIZATION TEAM AWARD was presented to a team of twenty members of the PHD NSWC technical staff on 20 July 1993 by COMNAVSEASYSCOM, PMS 400.**

**(3) A PSA PLANNING & EXECUTION TEAM AWARD was presented to eleven members of the PHD NSWC technical staff on 20 July 1993.**

**(4) A CAPABILITIES & LIMITATIONS TEAM AWARD was presented to four members of the PHD NSWC technical staff on 1 September 1993.**

Tactical Training.

(7) The NAVY SUPERIOR CIVILIAN SERVICE AWARD was presented to Mr. D. Otto on 1 March 1994 for improving SMS operations against sea skimming threats.

(8) AEGIS EXCELLENCE AWARDS were presented to twenty-three members of the PHD NSWC technical staff during the period 1 January 1990 to the present. These awards were presented by the AEGIS Program Manager during formal award ceremonies. R

(9) A CHIEF OF NAVAL INFORMATION AWARD was presented to Robert Grahovac; 1st place - Information Graphics, 2nd place - Internal Publications for a Specific Audience (Magazine Format).

(10) A COMNAVSEASYSCOM AWARD for CIWS Test and Evaluation was awarded to Mr. Tom Sella.

(11) MERITORIOUS UNIT CITATIONs were awarded to NSWC PHD ECO (then Fleet Combat Direction Systems Support Activity, Dam Neck) in 1981 and 1991.

(12) A SUPERIOR CIVILIAN SERVICE AWARD was presented to J. May in April, 1991. R

(13) SECNAV Commendation Letter for Meritorious Service and Superior Achievement in Testing Complex Combat Software Systems, 22 Mar 1990. R

i. Patents Awarded

The following patent has been awarded to the PHD NSWC technical staff since 1 January 1990:

(1) Patent Number 5,184,322, Laser Recording Device, of 2 February 1993. John Engber and Nathan Okun.

j. Patents Applied For

The following patent has been applied for by the PHD NSWC technical staff:

(1) TWARSES, Patent Pending, E. Dahl

k. Members of the National Academy of Engineering - **None.**

l. Members of the National Academy of Science - **None.**

m. Cooperative Research and Development Agreements (CRDAs) signed since 1 January 1990 - **None**

n. Annual Royalty Income from CRDAs and Patents since 1 January 1990 - **None.**



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**(5) An ELECTROMAGNETIC PULSE TRIAL AWARD was presented to seven members of the PHD NSWC technical staff on 25 October 1993.**

**(6) The NAVY MERITORIOUS CIVILIAN SERVICE AWARD was presented to Mr. J. Brewer in February 1994 for outstanding contributions in support of Battle Force Tactical Training.**

**(7) The NAVY SUPERIOR CIVILIAN SERVICE AWARD was presented to Mr. D. Otto on 1 March 1994 for improving SMS operations against sea skimming threats.**

**(8) AEGIS EXCELLENCE AWARDS were presented to twenty-three members of the PHD NSWC technical staff during the period 1 January 1990 to the present. These awards were presented by the AEGIS Program Manager during formal award ceremonies.**

**(9) A CHIEF OF NAVAL INFORMATION AWARD was presented to Robert Grahovac; 1st place - Information Graphics, 2nd place - Internal Publications for a Specific Audience (Magazine Format).**

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i. Patents Awarded

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j. Patents Applied For

**The following patent has been applied for by the PHD NSWC technical staff:**

**(1) TWARSES, Patent Pending, E. Dahl**

k. Members of the National Academy of Engineering - **None.**

l. Members of the National Academy of Science - **None.**

m. Cooperative Research and Development Agreements (CRDAs) signed since 1 January 1990 - **None**

n. Annual Royalty Income from CRDAs and Patents since 1 January 1990 - **None.**

o. List and describe any major end item prototypes, either product or process technology, developed by the activity that are currently in production and/or are currently in use by the U.S. Armed Forces or by industry. Cite a published reference that documents the work.

**The following describes major end item prototypes or processes developed at PHD NSWC that are currently in production or in use by the U.S. Navy. Reference documents are indicated:**

**(1) The Vertical Launching System Tech Assist Expert System (VTAEXS) was developed by PHD to improve maintenance, troubleshooting, and material condition assessment of VLS launchers. VTAEXS utilizes corporate knowledge to lead a technician from problem identification to resolution using a computer with Multimedia capability to incorporate text, graphics and video integration. VTAEXS is presently configured to execute in a small classified network of four to six highly specialized 486 PCs. Over 12 work years of effort have been directly invested to date in the development and implementation of VTAEXS since its inception over three years ago. VTAEXS was documented for presentation at the "Intelligent Ships Symposium" and "The Sixth Annual Innovative Applications of Artificial Intelligence Conference".**

**(2) The Combat System Simulation (CSS) system, a UYK-43 based tool, provides a complete wraparound simulation environment for non-AEGIS combat systems. It is used to simulate and stimulate track generation and maintenance; electronic and acoustic emissions; Link 16, Link 11, and Link 4A transmission; and to provide environmental data to shipboard combat systems. By presenting track data to all combat system sensors simultaneously, it provides the landbased test site the opportunity to perform comprehensive "closed loop" testing. This tool is currently in use at ICSTF, NRAD, PHD NSWC, and as a stimulator aboard USS CONSTELLATION. It is documented by the CSS Program Performance Specification.**

**(3) The Shipboard Multipurpose Analysis and Reduction Tool (SMART) is a system originally developed by PHD NSWC personnel for shipboard use, but has been rehosted from a HP-9020C minicomputer to a PC. It has been modified to address additional data sources available at landbased test sites, including the Interface Data Monitoring System (IDMS),and the Interface Monitoring System (IMS). It provides test personnel with the capability to rapidly filter and analyze data collected from up to 10 combat system interfaces concurrently. This tool is in use at ICSTF, NRAD, and PHD NSWC and is documented by the SMART System Operator's Manual.**

**(4) PHD NSWC technical personnel conceived, designed, and developed the Navy's standard Underway Replenishment (UNREP) system including detailed machinery design. The system is called the Standard Tensioned Replenishment Alongside Method (STREAM). It is the Navy's modern method of transferring fuel, ordnance and supplies at-sea to sustain battle forces anywhere in the world, for as long as necessary. Naval Warfare Publication (NWP-14) illustrates and documents STREAM. The Navy standard underway replenishment design was awarded a Federal Design Achievement Award for Excellence in Federal Design; and The National Endowment for the Arts submitted it for a Presidential Award for Design Excellence.**

(5) The PHD NSWC technical staff also designed a family of highly standardized UNREP machinery to power the STREAM system. Navy standard UNREP machinery are highly reliable, reproducible, and state-of-the-art. Some of the primary system equipments include:

Replenishment-At-Sea (RAS) - Navy standard highline, hauling, and cargo winches; sliding block drives and kingposts; and RAS control stations.

Fueling-At-Sea (FAS) - Navy standard spanwire and saddle winches and fueling at-sea kingposts and FAS control stations.

The standard Navy UNREP machinery is fully described and illustrated in the Navy's textbook on UNREP: "Underway Replenishment of Naval Ships".

(6) Navy standard anti-slack devices for highline, spanwire and hauling winches, gypsy and vang winches, a Navy standard highline wire rope assembly, and a variety of standardized system hardware and components were conceived, designed, and developed by PHD NSWC personnel. These standard Navy UNREP devices are fully described and illustrated in the Navy's textbook on UNREP: "Underway Replenishment of Naval Ships".

(7) A personal computer-based radar environment generator for the Mk23 TAS was developed utilizing existing TAS capabilities in a novel way. Using a simple interface, the PC stimulates the TAS signal processor to generate test video which corresponds to any software and displayed to the radar operator. Target generation and Electronic Counter Measure detection is accomplished and Threat Evaluation and Weapon Assignment subsequently involves the Fire Control System(s) so that complete, realistic, real-time SWY-1/SWY-2 training is possible. The system is available for shipboard (both underway and pier-side) and land-based installations. Shipboard training provides additional experience to combat system personnel when live targets are not available. The land-based system is useful for classroom training and hardware-in-the-loop (and personnel-in-the-loop) simulation of combat system effectiveness. Work is underway to integrate this system with other shipboard trainers.

(8) The Gyro Simulator is a microprocessor based test instrument designed and produced by PHD NSWC, Code 4Y10 for use by US and German Navies. It provides four alterable waveforms for motion simulation and affords full control of simulated Adjacent Mount / Adjacent Equipment. The simulator also provides an internally generated 115V, 400Hz synchro reference required by RAM. Control of the simulator is provided by a single, user friendly touchscreen, and by discrete LED toggle switches. All of the above mentioned features are integrated into a single case that can be handled by one person. The main purpose of the simulator is to perform firing checks of RAM's No Point / No Fire (NPNF) zones. This particular test is run during installation and system certification, and any time mew maps are installed in the system. The simulator is currently being used for contractor testing of new RAM software baseline. Additional uses include analysis of system synchro performance, and to provide ship's parameters for land based test sites and training facilities in the United States and Germany.

(9) The Canister Round Simulator (CRS) is non-shipboard test equipment that contains electronics to allow the RAM GMLS to simulate firings. It is built by installing circuit card assemblies into an expanded GMRP canister that has been environmentally cleaned, painted, and marked with safety warnings. The electronics provide appropriate missile signals, allow faults to be included, and allow the option of identifying the CRS as a tactical, telemetry, or simulator round. A total of 24 will be built. The CRS is used for RAM GMLS development, installation checkout, RAM Certification, CSSQT training, and Flyover Integration Testing.

(10) PHD NSWC designed and installed a Bright Bridge Display console dry air system to eliminate damaging condensation on the USS PRINCETON (CG 59). The system was successful in preventing the extremely expensive damage caused by condensation during a recent CG 59 deployment and will become the standard condensation prevention system on all existing AEGIS ships. PHD NSWC provided the necessary data to Martin Marietta Corp. to design the system.

(11) The Harpoon Guided Missile Simulator (HGMS) was developed to enable ships personnel to distinguish between a failure in the missile and a failure in the Weapon System. Realizing that the HGMS could also be utilized as a trouble shooting tool, an Ordalt has been incorporated to provide test points where HWS signals can be measured and monitored and test jacks provided to allow measuring signal frequency and voltage levels at the launcher.

(12) The HARPOON Dept. has developed an in-house system that has the capability to generate videos from computer displays. HARPOON Capability and Limitations training videos are created and disseminated to the HARPOON Fleet and selected shore stations for viewing on common existing VCRs. The videos provide additional/standardized information on the increased capabilities of the system for each Computer Program Upgrade. The system is connected to a local network, than to the Internet to be able to download files from other activities. The System can also create visual animated computer presentation packages.

(13) The Combat Direction System / Naval Tactical Data System (CDS/NTDS) Interface Unit is a system-based solution to the need for providing the HARPOON Ship Command Launch Control Set (HSCLCS) with simulated target designation information. As a training device, it supplies a practical means of provided HARPOON training in a shore-based environment. As a diagnostic tool, it provides a means of testing HARPOON communication circuits without the need for a ship-based target designation system. The system consists of both hardware and software components designed by PHD NSWC . In-house design has allowed for increased functionally and decreased cost to the navy. The system is portable, easily configured and maintained, and provides a self-test capability. Usability in enhanced by means of a graphical user interface (GUI). The Interface Unit is installed at four different navy training facilities, the HARPOON Engineering Test Facility (HEFT), naval support centers on both coasts, and the Royal Danish Navy. Future sales to other Foreign Military Sales (FMS) clients are possible.

(14) The following special tools have been designed and developed by PHD NSWC. These tools are currently being used by Shipboard Intermediate Maintenance Activities (SIMA)s and Ship Repair Facilities (SRF)s:

Dust Cap Remove Tool - Allows dust cap to be removed from canister in launcher while connecting deluge hose.
Part No. 6608952-9

Tool Relief, Deluge Hose Check Valve - VLS special design pliers to release check valve to drain water from deluge hose in launcher.
Part No. 6695884

Drill Fixtures - Permits removal of lee plugs and to drill and tap valve body to install monel set screws.
Part No. Pending

Deluge Valve Tester - Completely self-contained with water tank and air compressor, measure time required to reach 40APM at 225PSI water pressure.
Part No. Pending

Electronic Timer and Flow meter designed by 4D20 to measure deluge valves to test specifications.
Part No. Pending

(15) PHD NSWC designed, developed, and is currently manufacturing the MK 678 MOD 0 and MOD 1 Telemetric Data Transmitting Set Test Sets (TDTSTS). The MK 678 replaces the MK 557 and also has increased capability to test all telemeters developed since the 557 was designed. Use of State of the art software development tools by PHD NSWC engineers and reliance on commercial-off-the-shelf equipment increases the reliability and maintainability of the system. This system is documented in the equipment operating manual. The MK 678 is documented by a complete technical data package.

(16) PHD NSWC developed the Internal Missile Initializer Power Supply (IMIPS) to conduct missile integration testing on AEGIS platforms. It provides internal power to the STANDARD Missile Inert Operational Missile (IOM) and the missile telemeter when the firing key is pulled permitting the missile to continue operation after the contactor is retracted. The IMIPS is utilized on both the rail and the vertical launch ships for the US and FMS navies and is documented in the System Operations Manual.

(17) To reduce the cost of replacing HARPOON Launcher Relay Assembly input cables that have failed in the Fleet, a repair procedure has been developed which uses two connectors to effect repair as an inline splice. Utilization of this procedure allows ships to replace only 20-25 feet of able vice 450 feet. This procedure and a list of required material has been documented in a PHD NSWC Technical Note and is available for use by any waterfront activity.

(18) The following are representative of combat system integration hardware items developed by PHD personnel .

TEWES - TACTICAL ELECTRONIC WARFARE ENVIRONMENTAL SIMULATOR. A real time system capable of simulating a complex environment to provide the SLQ-32 with a simulated Electronic Warfare Environment.

HSDC - HIGH SPEED DIGITAL CONVERSION AND SWITCHING SYSTEM. The HSDC system allows equipment to be instantly configured by converting parallel I/O data into serial data, transporting the serial data to the desired location , and then reconverting the serial back to into parallel data to interface with the desired equipment. Consists of computer controlled consoles, converters, and electronic switching devices.

RIU - RADAR INTERFACE UNIT the RIU is a radar signal generator. It creates digital and analog signals of the type which would be produced by a radar and Identification Friend-or-Foe (IFF) set. Interfaces with the Radar Distribution System. Converts CDS radar and (IFF) signals to signal characteristics required by the AN/TPX-42 CATCC/DAIR System.

SYNCHRO DATA CONVERTOR EMULATOR. The Signal Data Convertor Emulator (SDCE) is used to stimulate Combat System elements with analog/synchro parameters. The emulator receives ownship motion digital data from CSS and converts this data into analog/synchro information for use by the Tactical Data System equipmemnts. Off-line ownship motion generation can also be originated by operator entry at theterminal keyboard. This system is comprised of a pcwhich controls a rack of 26 digital to synchro converters, a Decoder Address Circuit Card, Angle Indicators, Ownship Functio Simulator and supporting power supplies.

(19) The following combat system simulations have been developed by PHD engineers and scientists:

SATTELITE SIMULATIONS (SATSIMs). Sattelite Simulation programs were developed in direct support of Combat System Integration Testing. The purpose of the SATSIMs are to provide a commmon time coordinated ship environment and tactical track environment to the multitiude of operationa programs that interface with the Advanced Combat Direction System.

MK-92 SATSIM. A simulation of the MK-92 Fire Control System was required to support both the initial FFG 7 Class Combat System Integration Test (CSIT) at and MK-92 software development. These simulations were needed to replicate the MK-92 LCC1 and LCC2 Panels and their processing, as well as the MK-13 Launcher and gun. A software simulation was designed, coded and tested by a combination of PHD NSWC and ICSTF PHD personnel in a period of about eighteen months to meet the time frame of the first FFG 7 Class CSIT, as well as the MK-92 software testing requirements.

(20) To reduce replacement costs brought on by the growing population of deluge valves in the MK 41 VLS fleet, the PHD NSWC technical staff created new procedures and a test stand that allows them to be overhauled and repaired. This effort will reduce costs by $1.85 Million per year and will significantly improve system readiness.

(21) This initiative had two major elements: (1) The design and development of the high pressure Deluge Valve Test Stand ("NAVSEA Drawing #6887413) to provide a safe and complete on-site apparatus for the repair personnel to operate and evaluate overhauled deluge valves, and (2) The creation of the procedure defining the deluge valve overhaul process (IMS

# 4810-5497337-3) which delineates the complete valve overhaul process, including operation of the test stand, to provide safe, reliable valves to the Fleet. The Scenario Development System (SDS), which is a PC-based scenario script development tool used at Navy test sites, employs the Combat System Simulation (CSS) wraparound simulation environment. In addition to rapid script development, it also is capable of producing 7 track CSS scenario magnetic tapes, and features a playback capability which displays the track picture created by the scenario. This tool is currently in use by ICSTF, NRAD, and PHD NSWC. It is documented by the SDS Program Performance Specification.

(22) The COrrelation and DEcorrelation (CODE) program is a test tool that models the SGS (AC) tactical program algorithms in a PC host. The user can enter data relating to local/remote track data pairs and battle group surveillance environment, and CODE will provide a prediction for correlation based upon Automatic Local to Remote Track Correlation (ALRTC). This tool is currently in use at ICSTF, JHU/APL, NSWC Dalhren, and PHD NSWC and is documented by the CODE Systems Operator's Manual.

(23) The DXTOOLS is a tool that is a collection of utilities which collect data extracted from various organic and passive tap sources, and converts it to the Universal Track Data (UTD) format. The test tool then allows rapid data analysis, exercise reconstruction, and isolation of combat system anomalies when multiple data sources are available. This tool is currently in use at ICSTF, NRAD, PHD NSWC, USS WASP, and USS EISENHOWER. It is documented by the DXTOOLS Systems Operator's Manual.

(24) The Integrated Data Management System (IDMS) applies existing desktop technology to integrate and automate three processes; document creation, electronic review and comment, and data base query of multiple information systems. In its initial application, IDMS supports the acquisition process of data requirements definition, management and tracking of data deliverables, and finally document receipt, routing, review and comment. The system can be used to develop contract statements of work and data requirements (using a template or a library of CDRLs); track the contracted requirements through award, development and delivery; receive electronic products; route them to cognizant personnel and conduct electronic reviews and resolution of technical data products. In subsequent Phases, IDMS will access other data bases, such as configuration and technical manual status systems, for query and report compilation. IDMS will provide Wide Area Network access to Program Managers and other field activities; develop electronic application for Forms; develop acquisition packages electronically; Interface with EDMICS/JEDMICS; and test simultaneous review of deliverables with PHD NSWC contractors. Ultimately, IDMS will allow concurrent engineering with logistics product development. In all phases, compatibility with CALS and JCALS standards will be exercised. IDMS is documented by Business Plan dated June 1993.

(25) The Analog Inclination Data System (AIDS) is a very sensitive, specialized, servo-accelerometer and signal conditioning electronics package, capable of detecting very small angular displacements. The AIDS is used for taking inclination (roller path) data between weapon system elements on US Navy ships. The system is also used to level theodolites and other instrumentation used for measuring train and elevation zero, vertical launcher verticality, monitoring sonar dome installation, and roll, pitch, and azimuth or gyrocompass settings. The system is an integral part of Weapon and Combat System Alignments done by PHD and is also integral to alignment procedures in use by numerous

private and public shipyards. The AIDS is documented by OP 762 dated April 1994.

(26) The Tomahawk External Data Extraction System (TEDES) II for Vertical Launch Tomahawk (VLT) is a second generation weapon system data extraction and recording unit. The system utilizes a modular building unit architecture which allows the user to have the data system configured for only the data types required. TEDES II VLT like the ABL variant is "custom" configured for the specific test operation. Only the user specified data interfaces are "tapped" for any given TEDES installation. TEDES was designed explicitly for use with the Tomahawk CWCS and it has the capability to monitor all input-output (I/O) and inter-computer interfaces of a VLT system. The VLT TEDES II was developed as a logical expansion of the ABL TEDES variant which has been extensively utilized for ABL Tomahawk launch and non-launch testing since 1982. Three (3) VLT TEDES II systems currently exist, a super system at the NSWC-Dahlgren Tomahawk Software Development Laboratory; a second system at the PHD NSWC SWEF; and a third system which is used for shipboard non-launch testing.

(27) The Advanced Data Acquisition and Collection System (ADACS) was developed by PHD NSWC as test instrumentation for real-time collection of data passed across Naval Tactical Data System (NTDS) types of shipboard interfaces (MIL-STD-1397) during Test and Evaluation (T&E) programs and Fleet training exercises. ADACS has been customized to support specific ship applications and a ruggedized version is being used as the data collection element for the Enhanced Radar Environmental Simulation System (ERESS) to provide on-board training feedback. A portable version of ADACS known as the Portable Data Acquisition and Collection System (PDACS) was developed for temporary installations involving a small number of channels. The Johns Hopkins University Applied Physics Laboratory (JHU/APL) has already certified the NTU version of ADACS as being fully "passive" to the host interface under all operating conditions in a report issued in July 1991. ADACS has been tested for use aboard AEGIS ships as a data collection device for use in the Large Area Training Range (LATR) and Battle Force Tactical Trainer (BFTT) programs. ADACS is documented by the System Operators Manual.

(28) The Data Acquisition and Distribution System (DADS) is designed to acquire shipboard combat systems data during Fleet Exercises and distribute that data to a remote shore site for reconstruction and analysis. The concept of operations is to record key events in real time; archive, filter, process, compress, encrypt, and transmit the data by way of satellite communications to the shore site. The primary objective of DADS is to provide near real-time feedback of meaningful data products to the Fleet user faster and more efficiently than ever before. The DADS is essentially the result of a marriage between two existing system technologies designed and developed by PHD NSWC which have been used for other Fleet initiatives. These resources include the Advanced Data Acquisition and Collection System (ADACS) and the Shipboard Multipurpose Analysis and Reconstruction Tool (SMART). Both ADACS and SMART were designed and developed at PHD NSWC. The DADS was developed by integrating the data collection and archiving capabilities using the ADACS technology with the data processing and Fleet data products generation capabilities using the SMART technology. By adding data compression, encryption, and communication capabilities, the "Data Acquisition and Distribution System" became a virtual reality. DADS is documented by the System Operators Manual.

(29) The Test and Evaluation Automated Management Information System (TEAMIS) is used for U.S. Navy shipyard Test Program Management of test documentation and related information, for surface ships of the U.S. Navy. The entire data base resides at PHD NSWC but is used by all levels of test managers and technical personnel, from the Ship Acquisition Project Managers (SHAPMs) and Ship Lifecycle Managers (SLMs) to the Local Combat System and Ship System Test Development Directors (LCSTDDs/LSSTDDs) and SUPSHIPs or naval shipyards. The data base does not contain test procedures; however, it does contain information about test procedures, test programs, test schedules, reports, change documentation, and points of contact. TEAMIS is documented by Test Program Management System Users Manual, F9093-AA-GYD-010/ITPMS dated 22 July 1993.

(30) One of the functions performed by PHD NSWC personnel is training ship crews in Anti-Air Warfare in a controlled environment as found on Navy missile firing ranges. While the SPY radar operator has always had a test target generator at his disposal, it is a very time consuming and tedious process to generate targets for training. PHD NSWC has developed a graphical target generator that is now a standard tool for training missile firing teams. The program has transformed a trigonometry-intense target generation process into a simple matter of using a PC and a mouse to click points indicating the target flight path. The program, which is know as GRAPHDTT, has also been provided to operational ships for use in training while deployed. Users of the program have heralded its ease of use and ability to generate complex target profiles. GRAPHDTT is documented by the AEGIS Dynamic Test Target Generator System Users Manual dated 30 November 1993.

(31) The AEGIS Interactive Electronic Technical Manual (TM) Development is a process, being led by PHD NSWC, in coordination with AEGIS contractors and training commands, which converts existing AEGIS legacy TMs into objects of information thereby eliminating redundant data. Eliminating redundant data will enable existing engineering and logistics resources to manage the increase of technical information brought by the growth of AEGIS ships which will be approximately 80% of the surface fleet by the year 2000. In addition to more effective management, the resultant objects of information will be displayed in an Interactive Electronic Technical Manual (IETM). This has been proven to be a more effective way of presenting information to the fleet, allowing for a reduction in mean time to repair, and by supporting on-the-job training by its ability to tailor the display of information to the users level of expertise and experience. The process is documented by the IETM Business Plan of January 1994.

(32) The NAVSEA Modular Specification System (M-SPECS) is an automated system developed at PHD NSWC for producing Technical Manual Contract Requirements (TMCRs) tailored to specific acquisitions by using standardized specification elements (modules). Technical Manual Acquisition Managers simply provide functional and physical requirement inputs to PHD NSWC using a simplified check list. These inputs are then transformed into a well-defined set of requirements resulting in a tailored technical manual specification containing pertinent parts of all applicable specifications and standards. The TMCR eliminates the TM preparer having to interpret more than 6500 pages of existing specifications and standards by providing a document (typically 100 pages) containing only those specific requirements needed to support the specific TM acquisition. M-SPECS is documented by Users Guide NDMS 008.

revised pg.

(34) The PC AEGIS Data Recording Analyzer (PC ADRA) provides a set of tools that allow access to data fields by name with a data dictionary or by a user supplied field definition. The data dictionary gives ADRA a simple, up-to-date, and accurate method of extracting data. The ADRA can also generate text and graphic reports from AEGIS data tapes. A PC based ADRA is currently in use at PHD NSWC and is documented by the AEGIS Data Recording Analyzer (ADRA) Reference Manual.

(35) The Battle Force Tactical Training (BFTT) System when completed will provide an effective inport combat system team training capability from the "deck plates" to Battle Force Commanders across all warfare areas. BFTT will address the projected naval operational environment and the paradigm shift toward training crews where they fight. BFTT must support the development of war fighting proficiency, including procedures to support Navy policy concepts of "From the sea." It must also provide a capability for comprehensive team training in surface ships and submarines with gateways to support joint training exercises. To support a "level playing field" concept and to reduce the communication data rates, BFTT will utilize distributed processing and standard databases and models. As fleet units participate in the BFTT training space, performance data is collected, fused and processed to support post-exercise debrief within fifteen minutes of exercise completion at the ship level and within six hours at the battle force level. The BFTT training model supports the requirements for ships to conduct independent unit training, battle force training, and joint exercise training. BFTT is based on the use of COTS/NDI in a open system environment. It will include a basic control console and a local area network to integrate onboard training systems. The key is system interoperability. To ensure interoperability, BFTT has fully integrated the congressionally mandated DIS standards. The system has successfully completed a laboratory demonstration test (DT-IA) and has entered Phase II of the defense acquisition process. BFTT is projected to reach Initial Operational Capability (IOC) in FY-97 to provide the foundation for Tactical Combat Training. BFTT is documented by the Battle Force Tactical Training Program Management Plan dated 20 September 1993. R

(36) Restructured Naval Tactical Data System architecture and support software environment (including SYSGEN and CCFGEN) is used in the CG/DDG Advanced Combat Direction System currently on board all ships of the CG 16/26/36 and DDG 993 classes as well as the CGN 40 and 41. Documented by FD, Production Control Handbook, etc.

(37) The Advanced Combat Direction System (ACDS) Command Station is a workstation-based computer program that incorporates State-of-the-Art, Off-the-Shelf hardware and software and applies the latest technology in presenting real-time tactical displays to the operators in non-Aegis Cruiser, Guided Missile Destroyer, Aircraft Carrier and Amphibious class combatant ships.

(38) The Multiple Auxiliary Device Emulator (MAUDE) consists of PC software written in the Pascal 5.0 high level computer programming language. MAUDE emulates the OJ-172 and USQ-69 input/output devices and the RD-358 Magnetic Tape Unit.

(39) The 48 MESSAGE AUTOMATED CAMERA SYSTEM was designed and developed by NSWC PHD ECO to automate and improve the process for the production of



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Computer Controlled Action Entry Buttons which are the labels used by operators to control Combat Direction System, Display and Weapons Control functions in non-Aegis Cruisers, Destroyers, Aircraft Carriers, Frigates, etc. of the U. S. Navy and several classes of combatants in foreign navies.

(40) NSWC PHD ECO acts as the Program Development Agent for the Combat Systems Simulation (CSS) program. In this capacity, ECO has the responsibility for the development, integration with the CSS "core" and test of all non-Aegis Cruiser, Guided Missile Destroyer, Guided Missile Frigate and Destroyer unique CSS elements (INTSIMS). The CSS program comprises portions developed by PHD ECO, PHD CSTS and NRaD and is used by these activities for CDS development, test, CSIT and maintenance of the above-listed ship classes as well as the CV/CVN and LHD ship classes including the ACDS Block 1 computer program. ECO provides input to NAVSEA PEO (TAD) K1 on CDS simulation program requirements, is a member of the CSS Local Change Control Board, transfers developed CSS elements to the CSS library and provides Life Cycle Maintenance support for those elements assigned. As a member of the Simulation Technical Working Group, ECO provides technical assistance in the planning, design and future development of the CSS.

(41) As the Software Support Activity (SSA) and Systems Integration Activity (SIA) for the SPQ-9 (V) Radar Displays and Distribution System (RADDS), NSWC PHD ECO acts as an information source for RADDS software and firmware function, nature and uses; maintains RADDS software and firmware libraries at the source code level; produces Erasable Programmable Read Only Memory (EPROMS) for RADDS system microprocessor boards; performs program acceptance tests based on formal requirements; maintains an SPA-25G live radar lab for software development and testing; assists the ISEA (NUWC Det Norfolk) in determining feasibility and cost enhancements; records and tracks software and firmware problem reports; develops documentation in accordance with ISEA requirements; provides technical demonstrations of the RADDS system; releases and provides software and firmware for ISEA distribution. R

(42) Data Gatherer is a computer program that allows the FFG-7 Operational Program (WSP/WAP) to run with the simulation program in support of combat systems training.

(43) ASTAC consists of a modified WAP program which is used to train Anti-Submarine Air Control Station and Air Tactical Control Station operators using an actual operational tactical computer program.

(44) These major software support tools were developed to assist in the building and control of projects assigned to NSWC PHD ECO:

## FOR MODULAR PROGRAMS

BUILD is used to control the build process for all modular programs that reside on the commands' SHARE/43 systems. It has many sub-functions including: compile, load/link, sysmaker, prints, cross references and file maintenance.

BUILD MENU is a program similar in function to BUILD above, except that it

is used to support programs that reside on the commands' VAX/VMS system.

MERGE is used to automate and control the process of merging multiple correction files together to form a single consolidated correction file for use in the compiling and source update functions on both the SHARE and VAX/VMS systems.

CORRECT is used to apply the consolidated correction file output from the MERGE program to the source code file.

LINEUPDATE is used to realign existing correction files after a source update has taken place. It updates the internal correction file line numbers using the consolidated correction files used to control the source update function.

MATRIX is used to control the application of correction files during the compile process and provides the programmer and software configuration management staff with various change request reports.

SYSMAKER is used to generate an output tape image files which can then be dumped to a magnetic tape and loaded in a mock-up or in a ship board environment. It takes all the various modules and constructs tape directories and arranges the modules on the tape in predetermined sequence.

CM DATA BASES are a series of INGRES applications which are used to support the status accounting and change management portion of configuration management. Numerous reports are provided to support programmers and managers.

## FOR RESTRUCTURED NAVAL TACTICAL DATA SYSTEM BLOCK-0 PROGRAMS

ADVISE is a data base application using the commercial INGRES data base management system. This program allows traceability between requirements, code, test specifications and ship capabilities. It serves as a base for other applications which control the actual build process and provide programmer support functions.

CCFGEN is the ADVISE application that builds the configuration control file based on ship capabilities and program information. The output file is then used as input to the SYSGEN program. CCFGEN also controls the application of change requests to the build process.

ASU is the ADVISE application program based on artificial intelligence that supports programmer efforts. It provides the programmer with a global cross source reference and set/used information.

SYSGEN is the program that will actually build the operational program based the output file from the CCFGEN program. It produces a tape image file for later dumping and several reports that are used by programmer for debug

efforts.

COMPILEGEN provides the ability to selectively apply changes based on individual ship or build level and does all source code maintenance functions. It provides configuration reports on applied changes.

RLIBRARIAN was developed to control all files associated with RNTDS BLOCK-0 project. It provides standard librarian functions for source code and stores all other types of files as elements.

LEL generates a file which delineates the location of elements required by the build process.

DEDS is used to process data design elements. It also generates the CMS-2Y code from the formatted data design for the compiler.

SETT is a static test tool used to debug selected functions of the operational program on the SHARE system as opposed to testing in a mock-up environment.

ACDS CM is an INGRES application which functions in a manner similar to the CM DATA BASES above for the RNTDS BLOCK-0 project.

(33) The AEGIS Data Reduction Analyzer (ADRA) is utilized to trouble-shoot, document equipment status, and evaluate performance. Data tapes are provided by ships experiencing some difficulty, ships emerging from yard periods, and ships participating in fleet exercises or test evolutions. Data tapes are also obtained from land-based facility testing. This configuration is part of the APAN network tying NWAD, NSWC DD, PHD NSWC, PMRF, AFWTF, and Martin Marietta together for the quick transfer of data and analysis. ADRA is documented by ADRA Reference Manual dated February 1990.

(34) The PC AEGIS Data Recording Analyzer (PC ADRA) provides a set of tools that allow access to data fields by name with a data dictionary or by a user supplied field definition. The data dictionary gives ADRA a simple, up-to-date, and accurate method of extracting data. The ADRA can also generate text and graphic reports from AEGIS data tapes. A PC based ADRA is currently in use at PHD NSWC and is documented by the AEGIS Data Recording Analyzer (ADRA) Reference Manual.

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## FACILITIES AND EQUIPMENT

6. **Special Facilities/Equipment Resources.** Include a copy of the form provided at Tab B of this data call for each facility and "major" piece of equipment located at this activity. Include information on separate detachments. The following definitions will apply:

Facilities - Will include such things as rocket firing bays, towing tanks, anechoic chambers, hypervelocity gun ranges, hyperbaric chambers, wind tunnels, simulation/emulation laboratories, etc. Include buildings that are integral to the facility/equipment. Do not include major outdoor ranges or land.

Also, describe modeling and simulation capabilities, hardware in-the-loop facilities and analysis or wargaming capabilities.

Equipment - Resources used to support the operation of the site with a replacement value of $500,000 or greater. Do not include land or buildings in this category. In reporting equipment, provide information to indicate the degree of portability of the equipment.
Class 3 Personal Property items ("plant equipment" or "equipment in place") by definition are highly portable and can be moved easily. Some Class 2 Installed Equipment, such as Main-frame computers, test stands and small hyperbaric chambers, require more extensive utilities support and assembly of components, but can be relocated without damage to the facility or equipment, and therefore are considered "moveable" assets. Other Class 2 items are so large and/or integral to the facility that houses them that major demolition and construction would be required to relocate them, and therefore are considered "fixed" assets. Where appropriate, pieces of equipment can be aggregated for the purposes of completing Tab B.

7. **General Facilities.**

a. Is there any cash revenue generated by this activity? Example: Electricity generated at this activity and sold to the local community. If yes, describe.

**NO.**

b. What MILCON projects are currently programmed to be completed by the end of FY1995? For each project provide:

**NONE.**

(1) A description of the proposed facility with title and project number. Be sure to include the trailing alpha designator for BRACs-88, 91 and 93 realignment projects, i.e., P-xxxR, P-xxxS, P-xxxT .

(2) The functional support area(s) that the new facility will support. Refer to Appendix A.

(3) Identify installed equipment to be provided based on the threshold guidance of paragraph 6, page 12, of this data call.

(4) The additional square footage that this project will provide to the functional support area(s).

(5) The current working estimate (CWE) & planned beneficial occupancy date (BOD) of the project.

c. What MILCON projects are currently programmed to be executed/completed after FY1995? For each project provide:

**One.**

(1) A description of the proposed facility with title and project number.

**P-016: Missile Systems Integration Laboratory. Five story building of structural steel and concrete construction, pile foundation, gas fired space and hot water heating, and an elevator. The building will be air-conditioned and have raised floors throughout to support the large amount of computer equipment planned for use in this laboratory.**

(2) The functional support area(s) the new facility will support.

**The functional areas supported are:**
**2.2 Guided Missiles**
**2.9 Fire Control**
**2.10 Weapons Data Links**
**3.3 Combat System Integration, Surface,**
**7.3 $C^3I$ Shipboard.**

(3) The identified installed equipment to be provided based on the threshold guidance of paragraph 6, page 12, of this data call.

**Installed equipment over $500,000: None (No one piece of the $608,000-worth of equipment exceeds the threshold).**

(4) The additional square footage this project will provide to the functional support area(s).

**50,228 square feet will contribute to all of the above functional support areas in an integrated facility very similar to the existing Surface Warfare Engineering Facility.**

(5) CWE & planned BOD.

**CWE: $10,331,000; BOD: 2000 (Assuming it makes the 1998 program).**

d. What is the distance (in miles) to the nearest military airfield and/or pier not located at your site? Describe. Assume all previous BRAC closures have been executed.

**The nearest military pier is at CBC and is less than one mile away. This pier serves as the homeport for the PHD NSWC Self Defense Test Ship and makes PHD accessible to surface combatants operating at the Pacific Missile Test Range. The nearest military airfield is at Point Mugu and is five miles away. This facilitates the arrangement of**

**tracking for the weapons systems installed at the PHD Surface Warfare Engineering Facility.**

e. How many certified magazines, used for the storage of explosives, does this activity own or control? What is the total explosive weight storage capacity?

**NONE.**

## LOCATION

8. **Geographic Location.**

a. Is there an imperative in facility, function or synergy that requires the installation/base/facility to be in its present location? If yes, describe.

**PHD LOCATION.**

**The Port Hueneme Division of the Naval Surface Warfare Center is the only West Coast In-Service Engineering activity for Surface Combatants. Located at the only deep water port between Los Angeles and San Francisco, PHD NSWC is less than 15 miles from the Pacific Missile Test Range and within driving distance of the Naval Station, Long Beach; Naval Weapons Station, Seal Beach; and all of the Naval Activities in the San Diego area. This location makes PHD-NSWC uniquely positioned to provide In-Service Engineering support to the surface fleet for the following reasons.**

- **Because of the availability of a deep water harbor, surface combatants can be berthed at the station thereby making available to the ship the full complement of in-service support personnel resident at PHD. In addition combatants involved in test operations at the Pacific Missile Test Range can use the port to load or unload ordnance and other required equipment.**

- **The location of PHD, facing the Pacific Ocean and Channel Islands on the Port Hueneme shore, and the proximity to the NAWCWPNS, Point Mugu, and ships in Port Hueneme Harbor provides realistic littoral environment, realistic battle force configurations and threat-representative aerial tracking exercises. This ideal location allows weapons systems installed in the division's Surface Weapons Engineering Facility to replicate environmental conditions found in the fleet. Such things as tracking performance evaluation over land and sea with typical amounts of sea clutter, tracking of military aircraft stationed at NAS Point Mugu and tracking of surface craft can be easily accomplished at this location. Also the equipment is subjected to coastal and at sea environmental conditions ideal for corrosion control studies and fixes for the fleet. This combination of geographic location and technical capability is unique within the United States and cannot be replicated.**

- **Because of our proximity the West Coast fleet including the TYCOMs and the waterfront activities that support them, the station is perfectly positioned to provide on-site engineering assistance. In addition, our East Coast Operations Division provides a base of operations to service the East Coast based fleet.**

- **Because of the proximity to the Pacific Missile Test Range PHD can participate directly in test operations being conducted on the range. For example when the Self Defense Test Ship is operating on the PMTR, the ship will be remotely controlled by range personnel at PMTR, and the weapons and sensors will be remotely controlled by PHD personnel from the surface Warfare Engineering Facility at Port Hueneme. In addition, PHD has the ability to transparently acquire data from combatants operating on the PMTR, compress and encrypt these data, and transmit them to a land site for reconstruction analysis and retransmission back to the ship.**

- **The Surface Warfare Engineering Facility is a fixed asset located at the Port Hueneme Site that cannot be economically relocated or replicated. The Surface Warfare Engineering Facility (SWEF) provides the in-service engineering, system integration, test facility, development lab, special test, and computer program maintenance required to support the various weapons and combat systems for the surface fleet (including many foreign navies). This facility has the capability to integrate elements of many different weapons systems using real equipment and to exercise those systems in a realistic environment in order to: investigate engineering solutions, evaluate new development programs including both hardware and software upgrades, validate computer programs, prove-in maintenance procedures, resolve fleet documentation and technical manual problems, trouble shoot systems and hardware, and training**

**PHD EAST COAST OPERATION (ECO).**

**The location of PHD ECO, Code 6000 provides significant synergistic functional benefits, mission and cost benefits to the Warfare Center and the training community and makes this facility an ideal major test site for Theater Air Defense (in the cooperative Engagement Capability project) due to the proximity to the VACAPES OP AREA, possession of shipboard mockups (CG, CGN, CV, LHD, DDG, DD, FFG, etc.), ability to provide live radar coverage (SPS 48E, 48C, 49, IFF), and a link to the Fleet Air control and Surveillance Facility (FACSFAC) radar. FACSFAC controls all military airspace on the east coast from New York City to Charleston, SC and manages the VACAPES OP AREA surface ship activity. The location of this facility also provides the benefit of proximity to and close communication with current and potential customers, i. e., the Atlantic Fleet, Navy Doctrine Command, Atlantic Fleet Tactical Training Center, megacenter for combat system operator training, centers for CONUS operational jointness such as USACOM Headquarters and joint simulation and exercise control center.**

b. What is the importance of the present location relative to customers supported?

**PHD NSWC LOCATION.**

**The Port Hueneme geographic location is ideally suited to providing In-Service engineering support to the fleet customer for the following reasons:**

- **The availability of a deep water harbor facilitates the provision of direct engineering and other technical support to ships by making the entire organization available to ships that dock there.**

- **The availability of the SWEF at Port Hueneme enables PHD engineers to proof engineering changes, procedures, documentation, etc. without having to go aboard an operational ship. This facilitates the introduction of changes and needed improvements to the fleet without tying up fleet assets and therefore significantly impacts fleet readiness.**

- **The central west cost location provides immediate access to west coast ships and the proximity to Los Angeles International Airport provides ready access any worldwide location where on site In-Service Engineering support is required.**

- **The proximity to San Diego provides nearly immediate access to Fleet Commanders, Type Commanders, MOTUs, NAVSEACENs, Fleet Training Command, and other fleet customers.**

- **The proximity to Naval Weapons Station Seal Beach enables PHD engineers to provide "immediate" on-site engineering support for missile processing, depot level repair, and loadout support.**

**PHD EAST COAST OPERATION.**

**The Port Hueneme Division maintains an East Coast presence in the form of an East Coast Operation Division that is physically located at the Fleet Combat Training Center in Damneck Va. This location provides significant synergistic functional benefits, mission and cost benefits to the Warfare Center and the training community and makes this facility an ideal major test site for Theater Air Defense (in the Cooperative Engagement Capability project) due to the proximity to the VACAPES OP AREA, possession of shipboard mockups (CG, CGN, CV, LHD, DDG, DD, FFG, etc.), ability to provide live radar coverage (SPS 48E, 48C, 49, IFF), and a link to the Fleet Air Control and Surveillance Facility (FACSFAC) radar. FACSFAC controls all military airspace on the east coast from New York City to Charleston, SC and manages the VACAPES OP AREA surface ship activity. The location of this facility also provides the benefit of proximity to and close communication with current and potential customers, i. e., the Atlantic Fleet, Navy Doctrine Command, Atlantic Fleet Tactical Training Center, megacenter for combat system operator training, centers for CONUS operational jointness such as USACOM Headquarters and joint simulation and exercise control center.**

## FEATURES AND CAPABILITIES

9. **Computational Facilities.**

a. Describe the general and special computational capabilities at this site. Include super computing, parallel computing, distributed computing and networking. Include high-speed data transfer, fiber optic links, microwave links, network interconnectivity and video teleconferencing capabilities. Do not discuss desktops and laptops except as they relate to networking.

### CENTRAL COMPUTING FACILITY

**The PHD NSWC central computing facility is presently located in Bldg 363. These assets are scheduled to be relocated to the new computer facility within building 1388 during FY 94.**

**The following provides an accounting of these resources and their respective functions:**

| DESCRIPTION | QTY | FUNCTION |
|---|---|---|
| VAX-11/780 | 1 | Engineering data reduction |
| VAX-8600 | 2 | Financial/Material Management |
| VAX-8800 | 1 | General Administration |
| HP9000/870 | 1 | Management Information (MIS) |
| HP9000/867 | 1 | Electronic Mail |
| Integraph-6400 | 4 | Technical Data Storage |
| Disk Drives | 49 | 40GB disk space |
| Tape Units | 11 | 800/1600 BPI reel drives |
| Micro Tape Units | 1 | MicroTape Backup System |
| Printers | 4 | 900 LPM band printers |
| Laser Printers | 4 | 40 PPM laser printers |

### DATA CIRCUITS

**The following data circuits are employed by the PHD NSWC central computing facility and provide for data exchange and communications with other commands as well as remote sites which have been consolidated with PHD NSWC:**

**Current Circuits**

a. **128Kbps from PHD NSWC to PHD-ECO, Virginia Beach, VA (Consolidation Site) - Used to provide point-to-point communication with PHD NSWC computers (financial systems including payroll, E-Mail, command databases).**

b. **56Kbps from PHD NSWC to NMWEA, Yorktown, VA (Consolidation Site) - Used to provide point-to-point communication with PHD NSWC computers (financial systems including payroll, E-Mail, command databases).**

c. **56Kbps from PHD NSWC to PHD-CSTS, Point Loma, CA (Consolidation Site) - Used to**

**provide point-to-point communication with PHD NSWC computers (financial systems including payroll, E-Mail, command databases, engineering programs).**

**d. 56Kbps from PHD NSWC to NCTS Jacksonville, FL - Used to provide point-to-point communication with ESTEPS computers (NCTS Jacksonville is the Database Administrator for this system).**

**e. 56Kbps from PHD NSWC to NAVAL SEA SYSTEMS COMMAND (NAVSEA) Headquarters, Bldg NC2, Washington D.C. - Used to provide point-to-point communication with PHD NSWC computers (command databases, E-Mail, engineering programs).**

**f. 56Kbps from PHD NSWC to CRANE NSWC - Used to provide point-to-point communication with the Standard Business Systems (NOMIS, ILSMIS,...) for remote printing.**

**g. 128Kbps from PHD NSWC to CRANE NSWC - Used to provide point-to-point communication with the Standard Business Systems (NOMIS, ILSMIS,...) for interactive sessions and batch file downloads.**

**h. T1 from PHD NSWC to NAVAL AIR WARFARE CENTER (NAWC) Pt. Mugu, CA - Used to provide NAVNET connection from Port Hueneme Mini-Node 074 to Pt. Mugu Node 071.**

**i. 19.2Kbps from PHD NSWC to Defense Financial Payroll System (DFAS) Denver, CO - Used to provide INTERNET connection to DFAS for payroll.**

**j. 9.6Kbps from PHD NSWC to Long Beach Naval Medical Clinic - Used to provide INTERNET connection.**

**k. 9.6Kbps from PHD NSWC to Naval Hospital, Twenty-nine Palms, Ca - To Provide INTERNET connection.**

**l. 9.6Kbps from PHD NSWC to CBC Naval Clinic - To provide INTERNET connection.**

**In Process Circuits**

**a. 56Kbps from PHD NSWC to JCALS network - To provide connectivity to other JCALS sites.**

**b. 9.6Kbps from PHD NSWC to NCPDS network - To provide connectivity to the Naval Civilian Personnel Data System.**

## DATA COMMUNICATIONS AND NETWORKING INFRASTRUCTURE

**The PHD NSWC local area network infrastructure is comprised of a fiber optic backbone, connecting 18 permanent buildings. The backbone is predominantly Fiber-Optic Distributed Data Interconnect (FDDI), 62.5 micron, grade. There are some legacy 50 micron (non-FDDI grade) fiber runs still in place**

servicing low usage buildings from our initial installation in 1986, that will be upgraded to FDDI grade fiber when usage increases and capacity to the out-lying buildings needs to be increased.

There are an additional five buildings bridged to the backbone using full T1 communication lines.

Individual work groups within buildings are wired using Thinet, Thicknet, and Twisted Pair Wire, as appropriate. The entire local network is Ethernet 802.3, using TCP/IP, DECNET, NETWare, LAN-Manager, and NT protocols/management methodology.

There are three categories of wide area network capabilities at the Center. They are:

a. Leased data lines associated with specific program/project initiatives. The leased lines are installed and managed by the technical groups that use the resources for their projects. The leased lines will be removed from service when the NAVSEA Enterprise Network (NEWNET) is able to provide activity interconnectivity. The estimated on-line date for PHD NSWC is June 1999.

b. A 64-in/out leased circuit modem pool installed within the central computing facility that is available for use Center-wide.

c. DoD networks, NAVNET and ICPNET to SPCC connectivity.

VIDEO TELECONFERENCING

The PHD NSWC Video Teleconferencing Center (VTC) is used to conduct interactive meetings with one or more sites which have similar capabilities. These meetings allow for full duplex video, audio, and graphic transmissions with all sites involved. The VTC can accommodate classified information up to secret level.

The VTC is part of the Defense Commercial Telecommunications Network (DCTN), a secure, digital, video conferencing network. DCTN is comprised of approximately 150 similar DoD video conferencing rooms Nationwide and is continually growing.

The PHD VTC has access to about 150 United States sites via AT&T which has a long term contract with DoD. Additional United States sites are available via Sprint gateway access on an as requested basis.

The VTC is T1 based as opposed to satellite based. A T1 line is a special land line with 1.544 Megabit capacity (as compared to 56 Kilobits capacity for a telephone land line). Satellite transmissions can be accommodated, however, if received at another location and cross-connected to the PHD T1 line. NWAD, Corona usually supports these special cases.

Several operational modes are available:

a. Point-to-point - To conference with ONLY one remote site (secure and non-secure).

b. Three-way continuous presence - To conference with two remote sites with simultaneous incoming video signals (secure and non-secure). (At the present time, there are approximately 15 sites (of the 150 sites) capable of this feature).

c. Multipoint - To conference with three or more locations (up to 25) utilizing the switched video method, allowing for all sites to have one incoming video at a time, but continuous audio (non-secure only).

Other capabilities include the ability to videotape incoming and outgoing signals in three formats: Betacam (broadcast quality), U-Matic (military training tapes are in this format), and standard S-VHS (2-hour format only). Additionally, standard VHS video tapes may be viewed privately or transmitted to another location.

EXPERT SYSTEMS

VLS TECHNICAL ASSIST EXPERT SYSTEM (VTAEXS) - An artificial intelligence computer system. Its purpose is to assist VLS technical personnel in the investigation and resolution of VLS Fleet reported problems. VTAEXS is presently configured to execute in a small classified network of four to six highly specialized 486 PCs. Over 12 work years of effort have been directly invested to date in the development and implementation of VTAEXS since its inception over three years ago.

EXPERT SYSTEM FOR PROVISIONING (ESP) - A laboratory for development of an Expert System for Provisioning (ESP). It includes a Unix Server, three work stations, and a virtual reality control and head set. The system is in the final stages of assembly at this writing. Programming of the ESP system is being accomplished utilizing commercially available software.

OTHER COMPUTATIONAL FACILITIES

JCALS - PHD is the Navy's Joint Computer-Aided Acquisition and Logistics Support (JCALS) prototype activity. JCALS is DoD's response to higher authorities by automating technical and logistic support information; integrating information resident in existing systems; and reducing development, acquisition, and support costs associated with weapon systems. The system is data driven and provides an automated system architecture independent of application. JCALS provides all the requirements of Continuous Acquisition and Life-Cycle support (CALS). Especially important to the Navy and PHD NSWC is multi-level security and wide area network capability through the Defense Information Systems Network (DISN). This Department employs a VAX 6330 computer processor to support logistics data bases and computing for logistics data analysis in support of ship board weapon systems

JEDMICS - Joint Engineering Drawing Management and Information Control System (JEDMICS) was installed at PHD NSWC in May 1994. JEDMICS a computer driven, optical disk based, drawing storage, retrieval, and distribution system for raster scanned digitized images. JEDMICS provides for remote on-line access and viewing of engineering drawings and data via the Local Area Network (LAN)..

Additionally, a High Speed Data Networking Capability (100 Megabit) local area network provides support for the Joint Engineering Data Management Information Control System (JEDMICS) and the Joint Computer-Aided Acquisition and Logistics Support system (JCALS). This allows access to the JEDMICS On-line Engineering Drawing Repository and the JCALS Technical Manual Editing

**Systems.**

**EDN - An Engineering Development Network (EDN) connecting two file servers, four workstations and ten x-terminals has been employed. Equipment is networked via optical data links interconnecting three 10baseT distribution centers. The network also includes approximately 200 additional ethernet devices. Connectivity to the PHD NSWC campus is through a fiber optic distribution system which interconnects 23 buildings. This campus network provides access to the Defense Information System Network (DISN) and the Internet, both utilized in the EDN project. The EDN also utilizes high speed modems and data compression techniques across commercial phone lines for message traffic between EDN sites outside the PHD campus. Also connected to the EDN are NOVELL file servers which serve PC applications, perform electronic mail services within PHD, and provide worldwide connectivity through multiprotocol gateways. The hardware and network are also used for the evaluation of emerging technologies and tools with potential application to support the TOMAHAWK program.**

**IDMS - The Integrated Data Management System (IDMS) applies existing desktop technology to integrate and automate three processes; document creation, electronic review and comment, and data base query of multiple information systems. In its initial application, IDMS supports the acquisition process of data requirements definition, management and tracking of data deliverables, and finally document receipt, routing, review and comment. The system can be used to develop contract statements of work and data requirements (using a template or a library of CDRLs); track the contracted requirements through award, development and delivery; receive electronic products; route them to cognizant personnel and conduct electronic reviews and resolution of technical data products.**

**In subsequent Phases, IDMS will access other data bases, such as configuration and technical manual status systems, for query and report compilation. IDMS will provide Wide Area Network access to Program Managers and other field activities; develop electronic application for Forms; develop acquisition packages electronically; Interface with EDMICS/JEDMICS; and test simultaneous review of deliverables with PHD NSWC contractors. Ultimately, IDMS will allow concurrent engineering with logistics product development. In all phases, compatibility with CALS and JCALS standards will be exercised. IDMS is documented by Business Plan dated June 1993.**

**SALTS - PHD NSWC has Streamlined Automated Logistic Transmission System (SALTS) terminals capable of transmitting information via satellite, landline telephone, cellular technology, or portable satellite field units. These terminals are used primarily to transmit logistics data to ships at-sea or to other shore based activities.**

10. **Mobilization Responsibility and Capability.**

a. Describe any mobilization responsibility officially assigned to this site. Cite the document assigning the responsibility.

**OPNAVNOTE 5450, OPNAVINST S3061.1D (NCMP), and NAVSEA ltr 3060 OPR 0341B ser 03/015B S-664 of 8 NOV 91 (LSMP) assigns the Port Hueneme Division Naval Surface Warfare Center the responsibilities of providing In-Service Engineering and Integrated**

**Logistic Support (ILS) for surface warfare combat systems, weapons systems and related sub-systems and equipment. These responsibilities includes both pre-deployment and in-theater support, including "Tiger Teams" and Battle Damage Repair (BDR) of surface fleet units responding to major Regional Contingencies and Lesser Regional Contingencies. Additionally, the capabilities to provide ISE and ILS for the weapons and combat systems of inactive surface ships in the event reconstitution is required.**

(1) What functional support area(s) does this responsibility support? Refer to Appendix A for the list of functional support areas?

**2. Weapon Systems**
- **2.1 Gun Systems**
- **2.2 Guided Missiles**
- **2.8 Launchers**
- **2.9 Fire Control**
- **2.10 Weapons Data Links**

**3. Combat Systems Integration**
- **3.3 Surface**
- **3.4 Multiplatform**

**5. Sensors & Surveillance Systems**
- **5.2 Radar Systems**

**7. Command, Control, Communications and Intelligence**
- **7.3 Shipboard**

**8. Defense Systems**
- **8.1 Ballistic Missile Defense**
- **8.2 Countermeasures**

(2) What portion of the work years and dollars, as reported in each applicable functional support area reported in Tab A, are spent solely on maintaining your activity's readiness to execute the mobilization responsibilities?

**NONE**

(3) How many additional personnel (military & civilian) would be assigned to your activity as part of the mobilization responsibility? Include separately any contractor assets that would be added.

**339 MILITARY (SELRS)**

b. Does your activity have adequate facilities to support your mobilization responsibilities? (yes/no)

**YES**

(1) If yes, is any space assigned for the sole purpose of maintaining mobilization readiness? (yes/no) If yes, list the square footage assigned.

**NO**

(2) If no, what repairs, renovations and/or additions are required to provide adequate facilities? What is the estimated cost of this work?

**NA**

(3) Are there any restrictions that would prevent work (noted in paragraph 10.b.(2) above) from taking place (i.e., AICUZ, environmental constraints, HERO, etc.)? If yes, describe.

**NO**

c. Describe any production facilities that would be activated in case of a future contingency.

**NONE**

d. Is your activity used as a Reserve Unit mobilization and/or training site?

**YES**

11. **Range Resources.** Include a copy of the form provided at Tab C of this data call for each range located at this activity or operated by this activity. Also, report ranges at detachments and sites not receiving a separate data call. The following definition of a range will apply:

Range - An instrumented or non-instrumented area that utilizes air, land, and/or water space to support test and evaluation, measurements, training and data collection functions, but is not enclosed within a building.

**PHD NSWC has no instrumented or non instrumented ranges however the station is located within fifteen miles of the range at NAWC, Pacific Missile Test Range.**

## QUALITY OF LIFE

12. **Military Housing**

(a) Family Housing:

(1) Do you have mandatory assignment to on-base housing? (circle) yes no

(2) For military family housing in your locale provide the following information:

| Type of Quarters | Number of Bedrooms | Total number of units | Number Adequate | Number Substandard | Number Inadequate |
|---|---|---|---|---|---|
| Officer | 4+ | 23 | 23 | 0 | 0 |
| Officer | 3 | 54 | 54 | 0 | 0 |
| Officer | 1 or 2 | 0 | 0 | 0 | 0 |
| Enlisted | 4+ | 57 | 57 | 0 | 0 |
| Enlisted | 3 | 252 | 252 | 0 | 0 |
| Enlisted | 1 or 2 | 414 | 414 | 0 | 0 |
| Mobile Homes | | 0 | | 0 | 0 |
| Mobile Home lots | | 17 | 17 | 0 | 0 |

**NOTE: PHD NSWC is a tenant command of the Construction Battalion Center - UIC N62583. All of the facilities and services described in the Quality of Life Section belong to the host Command but are available for use by PHD NSWC personnel.**

(3) In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories above where inadequate facilities are identified provide the following information:

Facility type/code:
What makes it inadequate?
What use is being made of the facility?
What is the cost to upgrade the facility to substandard?
What other use could be made of the facility and at what cost?
Current improvement plans and programmed funding:
Has this facility condition resulted in C3 or C4 designation on your BASEREP?

(4) Complete the following table for the military housing waiting list.

| Pay Grade | Number of Bedrooms | Number on List[1] | Average Wait |
|---|---|---|---|
| O-6/7/8/9 | 1 | | |
| | 2 | | |
| | 3 | | |
| | 4+ | | |
| O-4/5 | 1 | | |
| | 2 | | |
| | 3 | 1 | 6-12 Mo |
| | 4+ | 2 | 6-12 Mo |
| O-1/2/3/CWO | 1 | | |
| | 2 | | |
| | 3 | 19 | 6-12 Mo |
| | 4+ | 2 | 6-12 Mo |
| E7-E9 | 1 | | |
| | 2 | | |
| | 3 | 45 | 10-12 Mo |
| | 4+ | 18 | 12-24 Mo |
| E1-E6 | 1 | | |
| | 2 | 141 | 4-8 Mo |
| | 3 | 51 | 10-12 Mo |
| | 4+ | 33 | 12-24 Mo |

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[1]As of 31 March 1994.

(5) What do you consider to be the top five factors driving the demand for base housing? Does it vary by grade category? If so provide details.

| Top Five Factors Driving the Demand for Base Housing |
|---|
| Camaraderie of living in a military family environment |
| Low vacancy rates make landlords very particular |
| Few affordable units in desirable neighborhoods |
| Military members feel more secure on base |
| High rental costs in civilian community |

(6) What percent of your family housing units have all the amenities required by "The Facility Planning & Design Guide" (Military Handbook 1190 & Military Handbook 1035-Family Housing)?

**45%**

(7) Provide the utilization rate for family housing for FY 1993.

| Type of Quarters | Utilization Rate |
|---|---|
| Adequate | 97.33 |
| Substandard | N/A |
| Inadequate | N/A |

(8) As of 31 March 1994, have you experienced much of a change since FY 1993? If so, why? If occupancy is under 98% ( or vacancy over 2%), is there a reason?

**Yes. Increased time required to effect maintenance and repair between occupants. Occupancy rate also due to increased time required to effect maintenance and repair between occupants.**

(b) BEQ:

(1) Provide the utilization rate for BEQs for FY 1993.

| Type of Quarters | Utilization Rate |
|---|---|
| Adequate | 72 |
| Substandard | 78 |
| Inadequate | - |

(2) As of 31 March 1994, have you experienced much of a change since FY 1993? If so, why? If occupancy is under 95% (or vacancy over 5%), is there a reason?

**NO. BASE POPULATION FLUCTUATES DUE TO EXERCISES, DEPLOYMENTS, MOBILIZATIONS, DISASTER RELIEF, AND VARYING CLASS SIZE AT ON BASE SCHOOLS.**

(3) Calculate the Average on Board (AOB) for geographic bachelors as follows:

**AOB = (# Geographic Bachelors x average number of days in barracks)**
**365 = 103**

(4) Indicate in the following chart the percentage of geographic bachelors (GB) by category of reasons for family separation. Provide comments as necessary.

| Reason for Separation from Family | Number of GB | Percent of GB | Comments |
|---|---|---|---|
| Family Commitments (children in school, financial, etc.) | 30 | 28 | |
| Spouse Employment (non-military) | 74 | 72 | |
| Other | | | |
| **TOTAL** | 104 | 100 | |

**NOTE: The numbers in the table above are representative of the entire military population resident at the Construction Battalion Center. The military personnel assigned to PHD NSWC represent a relatively small percentage of the totals identified in this table.**

(5) How many geographic bachelors do not live on base?

**0**

(c) BOQ:

(1) Provide the utilization rate for BOQs for FY 1993.

| Type of Quarters | Utilization Rate |
|---|---|
| Adequate | 75 |
| Substandard | - |
| Inadequate | - |

(2) As of 31 March 1994, have you experienced much of a change since FY 1993? If so, why? If occupancy is under 95% (or vacancy over 5%), is there a reason?

**NO. BASE POPULATION FLUCTUATES DUE TO EXERCISES, DEPLOYMENTS, MOBILIZATIONS, DISASTER RELIEF, AND VARYING CLASS SIZE AT ON BASE SCHOOLS.**

(3) Calculate the Average on Board (AOB) for geographic bachelors as follows:

**AOB = (# Geographic Bachelors x average number of days in barracks)**
**365 = 15**

(4) Indicate in the following chart the percentage of geographic bachelors (GB) by category of reasons for family separation. Provide comments as necessary.

| Reason for Separation from Family | Number of GB | Percent of GB | Comments |
|---|---|---|---|
| Family Commitments (children in school, financial, etc.) | 0 | 0 | |
| Spouse Employment (non-military) | 19 | 100 | |
| Other | | | |
| **TOTAL** | 19 | 100 | |

**NOTE: The numbers in the table above are representative of the entire military population resident at the Construction Battalion Center. The military personnel assigned to PHD NSWC represent a relatively small percentage of the totals identified in this table.**

(5) How many geographic bachelors do not live on base?

**0**

R

(d) BOQ/BEQ Housing and Messing.

(1) Provide data on the BOQs and BEQs assigned to your current plant account. The desired unit of measure for this capacity is people housed. Use CCN to differentiate between pay grades, i.e., E1-E4, E5-E6, E7-E9, CWO-O2, O3 and above.

| Facility Type, Bldg. # & CCN | | Total No. of Beds | Total No. of Rooms | Adequate | | Substandard | | Inadequate | |
|---|---|---|---|---|---|---|---|---|---|
| | BOQ/BEQ | | | Beds | Sq Ft | Beds | Sq Ft | Beds | Sq Ft |
| 51 721-11 | BEQ | 14 | 7 | | | | | 14 | 3944 |
| 721-12 | BEQ | 14 | 7 | | | | | 14 | 3944 |
| 721-13 | BEQ | 28 | 28 | | | 28 | 13,802 | | |
| 52 721-11 | BEQ | 72 | 36 | | | | | 72 | 17746 |
| 721-12 | BEQ | 8 | 8 | | | | | 8 | 3944 |
| 54 721-11 | BEQ | 72 | 36 | | | | | 72 | 17746 |
| 721-12 | BEQ | 8 | 8 | | | | | 8 | 3944 |
| 56 721-11 | BEQ | 72 | 36 | | | | | 72 | 17746 |
| 721-12 | BEQ | 8 | 8 | | | | | 8 | 3944 |
| 58 721-11 | BEQ | 72 | 36 | | | | | 72 | 17746 |
| 721-12 | BEQ | 8 | 8 | | | | | 8 | 3944 |
| 1180 721-11 | BEQ | 78 | 26 | | | | | 78 | 13650 |
| 721-12 | BEQ | 4 | 4 | | | | | 4 | 1517 |
| 1181 721-12 | BEQ | 90 | 45 | | | | | 90 | 22450 |
| 1182 721-11 | BEQ | 96 | 24 | | | | | 96 | 11413 |
| 721-12 | BEQ | 42 | 21 | | | | | 42 | 11037 |
| 1184 721-12 | BEQ | 28 | 14 | 28 | 7000 | | | | |
| 721-14 | BEQ | 378 | 126 | 378 | 63000 | | | | |
| 1435 721-11 | BEQ | 284 | 71 | 284 | 41680 | | | | |
| 721-12 | BEQ | 98 | 49 | 98 | 9820 | | | | |
| 721-13 | BEQ | 34 | 34 | 34 | 15444 | | | | |
| 486* 721-11 | BEQ | 244 | 61 | 244 | 45057 | | | | |
| 486* 721-12 | BEQ | 30 | 15 | 30 | 11079 | | | | |
| 721-13 | BEQ | 12 | 12 | 12 | 8864 | | | | |

(d) BOQ/BEQ Housing and Messing.

(1) Provide data on the BOQs and BEQs assigned to your current plant account. The desired unit of measure for this capacity is people housed. Use CCN to differentiate between pay grades, i.e., E1-E4, E5-E6, E7-E9, CWO-O2, O3 and above.

| Facility Type, Bldg. # & CCN | Total No. of Beds | Total No. of Rooms | Adequate | | Substandard | | Inadequate | |
|---|---|---|---|---|---|---|---|---|
| | | | Beds | Sq Ft | Beds | Sq Ft | Beds | Sq Ft |
| 51 721-11 | 8 | 8 | | | | | 8 | 3,944 |
| 721-12 | 14 | 7 | | | | | 72 | 17,746 |
| 721-13 | 29 | 29 | | | | | 8 | 3,944 |
| 52 721-11 | 72 | 36 | | | | | 72 | 17,746 |
| 721-12 | 8 | 8 | | | | | 8 | 3,944 |
| 54 721-11 | 72 | 36 | | | | | 72 | 17,746 |
| 721-12 | 8 | 8 | | | | | 8 | 3,944 |
| 58 721-11 | 72 | 36 | | | | | 72 | 17,746 |
| 721-12 | 8 | 8 | | | | | 8 | 3,944 |
| 60 721-11 | 72 | 36 | | | | | 72 | 17,746 |
| 721-12 | 8 | 8 | | | | | 8 | 3,944 |
| 1180 721-11 | 78 | 26 | | | | | 78 | 13,650 |
| 721-12 | 4 | 4 | | | | | 4 | 1,517 |
| 1181 721-12 | 90 | 45 | | | | | 90 | 22,460 |
| 1182 721-11 | 96 | 24 | | | | | 96 | 11,413 |
| 721-12 | 42 | 21 | | | | | 42 | 11,037 |
| 1184 721-12 | 42 | 14 | | | 42 | 7,000 | | |
| 721-14 | 504 | 126 | 504 | 63,000 | | | | |
| 1435 721-11 | 284 | 71 | 284 | 41,680 | | | | |
| 721-12 | 98 | 49 | 98 | 9,820 | | | | |
| 721-13 | 34 | 34 | 34 | 15,440 | | | | |
| 39 724-12 | 1 | 1 | 1 | 764 | | | | |

R

| Facility Type, Bldg. # & CCN | | | Total No. of Beds | Total No. of Rooms | Adequate | | Substandard | | Inadequate | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | BOQ/BEQ | | | Beds | Sq Ft | Beds | Sq Ft | Beds | Sq Ft |
| 487* | 721-11 | BEQ | 244 | 61 | 244 | 45057 | | | | |
| | 721-12 | BEQ | 30 | 15 | 30 | 11079 | | | | |
| | 721-13 | BEQ | 12 | 12 | 12 | 8864 | | | | |
| 39 | 724-12 | BOQ | 1 | 1 | 1 | 764 | | | | |
| 1201 | 724-11 | BOQ | 48 | 48 | | | | | 48 | 18242 |
| 1434 | 724-11 | BOQ | 14 | 14 | | | | | 14 | 7812 |
| | 724-12 | BOQ | 34 | 34 | 34 | 23436 | | | | |

*** P-486/7 Under construction; will be occupied in FY 95. P486 and 487 are currently adequate but will become substandard under the new criteria to be issued in FY 96 for minimum standards of occupancy**

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(2) In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories above where inadequate facilities are identified provide the following information:

a. FACILITY TYPE/CODE:
**BEQ/BOQ: 721-11, 721-12, 721-13, 724-11**

b. WHAT MAKES IT INADEQUATE?
**BEQ Buildings 51,52,54,56,58,1180,1181, and 1182 are gang head facilities and cannot be made adequate for their present use through economically justifiable means. BOQ Buildings 1201 and 1434 are inadequate as a result of recent changes in facility requirements and cannot be made adequate through economically justifiable means.**

c. WHAT USE IS BEING MADE OF THE FACILITY?
**These facilities are being used as BEQs/BOQs**

d. WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?
**May not be able to make substandard with upgrades due to the cost to demolish gang heads and construct new bathroom components for less than the MILCON $300K limit. Does not appear feasible at this time.**

e. WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?
**Space could be converted to office space, library space or training facilities. Cost to do so are heavily dependent on what would be proposed. Costs would most probably run between $40 and $70 per square foot.**

R

f. CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:
**MILCON P-488 is programmed for FY96 to remedy inadequate deficiencies for buildings 54,56,58.**

g. HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?
**YES**

| Facility Type, Bldg. # & CCN | Total No. of Beds | Total No. of Rooms | Adequate | | Substandard | | Inadequate | |
|---|---|---|---|---|---|---|---|---|
| | | | Beds | Sq Ft | Beds | Sq Ft | Beds | Sq Ft |
| 1201 724-11 | 48 | 48 | | | 47 | 17,997 | 1 | 245 |
| 1434 724-11 | 14 | 14 | 14 | 7,812 | | | | |

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(2) In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories above where inadequate facilities are identified provide the following information:

a. FACILITY TYPE/CODE

: **BEQ 721-11, 721-12**

b. WHAT MAKES IT INADEQUATE?

**Inadequate due to gang heads**

c. WHAT USE IS BEING MADE OF THE FACILITY?

**Billeting**

d. WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?

**2 Million (FY 89) per building**

e. WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?

**Administrative space or library; 200-500K per building**

f. CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:

**None**

g. HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?

**C4**

R

(3) Provide data on the BOQs and BEQs projected to be assigned to your plant account in FY 1997. The desired unit of measure for this capacity is people housed. Use CCN to differentiate between pay grades, i.e., E1-E4, E5-E6, E7-E9, CWO-O2, O3 and above.

| Facility Type, Bldg. # & CCN | | | Total No. of Beds | Total No. of Rooms | Adequate | | Substandard | | Inadequate | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | BOQ/BEQ | | | Beds | Sq Ft | Beds | Sq Ft | Beds | Sq Ft |
| 51 | 721-11 | BEQ | 14 | 7 | | | | | 14 | 3944 |
| | 721-12 | BEQ | 14 | 7 | | | | | 14 | 3944 |
| | 721-13 | BEQ | 28 | 28 | | | 28 | 13,802 | | |
| 52 | 721-11 | BEQ | 72 | 36 | | | | | 72 | 17746 |
| | 721-12 | BEQ | 8 | 8 | | | | | 8 | 3944 |
| 1180 | 721-11 | BEQ | 78 | 26 | | | | | 78 | 13650 |
| | 721-12 | BEQ | 4 | 4 | | | | | 4 | 1517 |
| 1181 | 721-12 | BEQ | 90 | 45 | | | | | 90 | 22450 |
| 1182 | 721-11 | BEQ | 96 | 24 | | | | | 96 | 11413 |
| | 721-12 | BEQ | 42 | 21 | | | | | 42 | 11037 |
| 1184 | 721-12 | BEQ | 28 | 14 | 28 | 7000 | | | | |
| | 721-14 | BEQ | 378 | 126 | 378 | 63000 | | | | |
| 1435 | 721-11 | BEQ | 284 | 71 | 284 | 41680 | | | | |
| | 721-12 | BEQ | 98 | 49 | 98 | 9820 | | | | |
| | 721-13 | BEQ | 34 | 34 | 34 | 15444 | | | | |
| 486* | 721-11 | BEQ | 244 | 61 | 244 | 45057 | | | | |
| | 721-12 | BEQ | 30 | 15 | 30 | 11079 | | | | |
| | 721-13 | BEQ | 12 | 12 | 12 | 8864 | | | | |
| 487* | 721-11 | BEQ | 244 | 61 | 244 | 45057 | | | | |
| | 721-12 | BEQ | 30 | 15 | 30 | 11079 | | | | |
| | 721-13 | BEQ | 12 | 12 | 12 | 8864 | | | | |
| 39 | 724-12 | BOQ | 1 | 1 | 1 | 764 | | | | |
| 1201 | 724-11 | BOQ | 48 | 48 | | | | | 48 | 18242 |
| 1434 | 724-11 | BOQ | 14 | 14 | | | | | 14 | 7812 |
| | 724-12 | BOQ | 34 | 34 | 34 | 23436 | | | | |

R

| Facility Type, Bldg. # & CCN | | Total No. of Beds | Total No. of Rooms | Adequate | | Substandard | | Inadequate | |
|---|---|---|---|---|---|---|---|---|---|
| | BOQ/BEQ | | | Beds | Sq Ft | Beds | Sq Ft | Beds | Sq Ft |
| P-488 721-11 | BEQ | 244 | 244 | 244 | ** | | | | |
| 721-12 | BEQ | 30 | 30 | 30 | ** | | | | |
| 721-13 | BEQ | 12 | 12 | 12 | ** | | | | |

*** P-486/7 Under construction; will be occupied in FY 95. P486 and 487 are currently adequate but will become substandard under the new criteria to be issued in FY 96 for minimum standards of occupancy**
**** Project being redesigned to accommodate new billeting criteria**

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(4) In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories above where inadequate facilities are identified provide the following information:

a. FACILITY TYPE/CODE:
**BEQ/BOQ: 721-11, 721-12, 721-13, 724-11**

b. WHAT MAKES IT INADEQUATE?
**BEQ Buildings 51,58,1180,1181, and 1182 are gang head facilities and cannot be made adequate for their present use through economically justifiable means. BOQ Buildings 1201 and 1434 are inadequate as a result of recent changes in facility requirements and cannot be made adequate through economically justifiable means.**

c. WHAT USE IS BEING MADE OF THE FACILITY?
**These facilities are being used as BEQs/BOQs**

d. WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?
**May not be able to make substandard with upgrades due to the cost to demolish gang heads and construct new bathroom components for less than the MILCON $300K limit. Does not appear feasible at this time.**

e. WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?
**Space could be converted to office space, library space or training facilities. Cost to do so are heavily dependent on what would be proposed. Costs would most probably run between $40 and $70 per square foot.**

f. CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:
**MILCON P-488 is programmed for FY96 to remedy inadequate deficiencies for buildings 54,56,58.**

g. HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?
**YES**

revised pg.

(3) Provide data on the BOQs and BEQs projected to be assigned to your plant account in FY 1997. The desired unit of measure for this capacity is people housed. Use CCN to differentiate between pay grades, i.e., E1-E4, E5-E6, E7-E9, CWO-O2, O3 and above.

| Facility Type, Bldg. # & CCN | Total No. of Beds | Total No. of Rooms | Adequate | | Substandard | | Inadequate | |
|---|---|---|---|---|---|---|---|---|
| | | | Beds | Sq Ft | Beds | Sq Ft | Beds | Sq Ft |
| P-486 721-11 | 240 | 60 | 240 | 44,318 | | | | |
| 721-12 | 28 | 14 | 28 | 10,341 | | | | |
| 721-13 | 14 | 14 | 14 | 10,341 | | | | |
| P-487 721-12 | 1240 | 60 | 1240 | 44,318 | | | | |
| 721-11 | 28 | 14 | 28 | 10,341 | | | | |
| 721-13 | 14 | 14 | 14 | 10,341 | | | | |

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(4) In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories above where inadequate facilities are identified provide the following information:

a. FACILITY TYPE/CODE:
b. WHAT MAKES IT INADEQUATE?
c. WHAT USE IS BEING MADE OF THE FACILITY?
d. WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?
e. WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?
f. CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:
g. HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?

(3) Provide data on the BOQs and BEQs projected to be assigned to your plant account in FY 1997. The desired unit of measure for this capacity is people housed. Use CCN to differentiate between pay grades, i.e., E1-E4, E5-E6, E7-E9, CWO-O2, O3 and above.

| Facility Type, Bldg. # & CCN | Total No. of Beds | Total No. of Rooms | Adequate | | Substandard | | Inadequate | |
|---|---|---|---|---|---|---|---|---|
| | | | Beds | Sq Ft | Beds | Sq Ft | Beds | Sq Ft |
| P-486 721-11 | 240 | 60 | 240 | 44,318 | | | | |
| 721-12 | 28 | 14 | 28 | 10,341 | | | | |
| 721-13 | 14 | 14 | 14 | 10,341 | | | | |
| P-487 721-12 | 1240 | 60 | 240 | 44,318 | | | | |
| 721-11 | 28 | 14 | 28 | 10,341 | | | | |
| 721-13 | 14 | 14 | 14 | 10,341 | | | | |

(4) In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories above where inadequate facilities are identified provide the following information:

a. FACILITY TYPE/CODE:
b. WHAT MAKES IT INADEQUATE?
c. WHAT USE IS BEING MADE OF THE FACILITY?
d. WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?
e. WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?
f. CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:
g. HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?

(5) Provide data on the messing facilities assigned to your current plant account.

| Facility Type, CCN and Bldg. # | Total Sq. Ft. | Adequate | | Substandard | | Inadequate | | Avg # Noon Meals Served |
|---|---|---|---|---|---|---|---|---|
| | | Seats | Sq Ft | Seats | Sq Ft | Seats | Sq Ft | |
| 722-10;61 | 41,076 | | | 3,400 | 41,076 | | | 600 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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(6) In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories above where inadequate facilities are identified provide the following information:

a. FACILITY TYPE/CODE:
b. WHAT MAKES IT INADEQUATE?
c. WHAT USE IS BEING MADE OF THE FACILITY?
d. WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?
e. WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?
f. CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:
g. HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?

(7) Provide data on the messing facilities projected to be assigned to your plant account in FY 1997.

| Facility Type, CCN and Bldg. # | Total Sq. Ft. | Adequate | | Substandard | | Inadequate | | Avg # Noon Meals Served |
|---|---|---|---|---|---|---|---|---|
| | | Seats | Sq Ft | Seats | Sq Ft | Seats | Sq Ft | |
| NONE | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

(8) In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories above where inadequate facilities are identified provide the following information:

a. FACILITY TYPE/CODE:
b. WHAT MAKES IT INADEQUATE?
c. WHAT USE IS BEING MADE OF THE FACILITY?
d. WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?
e. WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?
f. CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:
g. HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?

13. **MWR Facilities.** For on-base MWR facilities[10] available, complete the following table for each separate location. For off-base government owned or leased recreation facilities indicate distance from base. If there are any facilities not listed, include them at the bottom of the table.

| Facility | Unit of Measure | Total | Profitable (Y,N,N/A) |
|---|---|---|---|
| Auto Hobby | Indoor Bays | 5 | NO |
| | Outdoor Bays | 16 | NO |
| Arts/Crafts | SF | - | - |
| Wood Hobby | SF | - | - |
| Bowling | Lanes | 16 | YES |
| Enlisted Club | SF | 30,000 | YES |
| Officer's Club | SF | 20,058 | YES |
| Library | SF | 3,726 | N/A |
| Library | Books | 38,000 | N/A |
| Theater | Seats | 850 | N/A |
| ITT | SF | 1,000 | YES |
| Museum/Memorial | SF | 32,658 | N/A |
| Pool (indoor) | Lanes | 0 | - |
| Pool (outdoor) | Lanes | 8 | YES |
| Beach | LF | N/A | - |
| Swimming Ponds | Each | N/A | - |
| Tennis CT | Each | 7 | N/A |

[10]Spaces designed for a particular use. A single building might contain several facilities, each of which should be listed separately.

| Facility | Unit of Measure | Total | Profitable (Y,N,N/A) |
|---|---|---|---|
| Volleyball CT (outdoor) | Each | 2 | N/A |
| Basketball CT (outdoor) | Each | 3 | N/A |
| Racquetball CT | Each | 2 | N/A |
| Golf Course | Holes | 18 | YES |
| Driving Range | Tee Boxes | 17-22 | YES |
| Gymnasium | SF | 24,743 | NO |
| Fitness Center | SF | 4,000 | NO |
| Marina | Berths | - | - |
| Stables | Stalls | - | - |
| Softball Fld | Each | 4 | N/A |
| Football Fld | Each | 1 | N/A |
| Soccer Fld | Each | 1 | N/A |
| Youth Center | SF | 12,852 | NO |
| | | | |

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(a) Is your library part of a regional interlibrary loan program?

**YES.**

14. **Base Family Support Facilities and Programs.**

a. Complete the following table on the availability of child care in a child care center on your base.

| Age Category | Capacity (Children) | SF | | | Number on Wait List | Average Wait (Days) |
|---|---|---|---|---|---|---|
| | | Adequate | Substandard | Inadequate | | |
| 0-6 Mos | 10 | 600 | | | 25 | 90 |
| 6-12 Mos | 16 | 960 | | | 17 | 90 |
| 12-24 Mos | 32 | 1120 | | | 14 | 90 |
| 24-36 Mos | 32 | 1120 | | | 23 | 30 |
| 3-5 Yrs | 122 | 4270 | | | 1 | 30 |

**NOTE: PHD NSWC is a tenant command of the Construction Battalion Center - UIC N62583. All of the facilities and services described in the Quality of Life Section belong to the host Command but are available for use by PHD NSWC personnel**

b. In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means." For all the categories above where inadequate facilities are identified provide the following information:

Facility type/code:
What makes it inadequate?
What use is being made of the facility?
What is the cost to upgrade the facility to substandard?
What other use could be made of the facility and at what cost?
Current improvement plans and programmed funding:
Has this facility condition resulted in C3 or C4 designation on your BASEREP?

c. If you have a waiting list, describe what programs or facilities other than those sponsored by your command are available to accommodate those on the list.

**FAMILY CHILDCARE AND CENTER BASED CHILDCARE OF VENTURA COUNTY , CA.**

d. How many "certified home care providers" are registered at your base?

**22, WITH 8 PENDING.**

e. Are there other military child care facilities within 30 minutes of the base? State owner and capacity (i.e., 60 children, 0-5 yrs).

**NAVAL AIR WEAPONS STATION, PT MUGU, CA; 90 children, 0-5 years**

f. Complete the following table for services available on your base. If you have any services not listed, include them at the bottom.

| Service | Unit of Measure | Qty |
|---|---|---|
| Exchange | SF | 41,228 |
| Gas Station | SF | 7,268 |
| Auto Repair | SF | 3,149 |
| Auto Parts Store | SF | 1,820 |
| Commissary | SF | 42,435 |
| Mini-Mart | SF | 14,334 |
| Package Store | SF | - |
| Fast Food Restaurants | Each | 1 |
| Bank/Credit Union | Each | 1 |
| Family Service Center | SF | 5,406 |
| Laundromat | SF | 2,574 |
| Dry Cleaners | Each | 1 |
| ARC | PN | 2 |
| Chapel | PN | 249 |
| FSC Classrm/Auditorium | PN | 75 |
| | | |

15. **Proximity of Closest Major Metropolitan Areas** (provide at least three):

| City | Distance (Miles) |
|---|---|
| SANTA BARBARA | 35 |
| SAN FERNANDO VALLEY | 35 |
| METROPOLITAN LOS ANGELES | 45 |

16. **Standard Rate VHA Data for Cost of Living:**

| Paygrade | With Dependents | Without Dependents |
|---|---|---|
| E1 | $326.94 | $182.93 |
| E2 | $326.94 | $205.60 |
| E3 | $331.34 | $229.41 |
| E4 | $342.06 | $242.92 |
| E5 | $380.91 | $265.95 |
| E6 | $394.77 | $268.73 |
| E7 | $447.34 | $310.75 |
| E8 | $481.69 | $364.16 |
| E9 | $479.65 | $364.11 |
| W1 | $450.32 | $342.00 |
| W2 | $435.19 | $341.34 |
| W3 | $468.51 | $380.86 |
| W4 | $497.23 | $440.86 |
| O1E | $415.46 | $308.17 |
| O2E | $425.45 | $324.05 |
| O3E | $439.39 | $371.73 |
| O1 | $391.55 | $288.53 |
| O2 | $411.56 | $321.68 |
| O3 | $432.74 | $364.34 |
| O4 | $454.36 | $395.11 |
| O5 | $489.85 | $405.10 |
| O6 | $460.45 | $381.12 |
| O7 | $394.27 | $320.82 |

17. **Off-base Housing Rental and Purchase**

(a) Fill in the following table for average rental costs in the area for the period 1 April 1993 through 31 March 1994.

| Type Rental | Average Monthly Rent | | Average Monthly Utilities Cost |
|---|---|---|---|
| | Annual High | Annual Low | |
| Efficiency | 595 | 350 | 50 |
| Apartment (1-2 Bedroom) | 675/925 | 475/625 | 60 |
| Apartment (3+ Bedroom) | 975 | 850 | 60 |
| Single Family Home (3 Bedroom) | 1200 | 850 | 110 |
| Single Family Home (4+ Bedroom) | 1400 | 950 | 110 |
| Town House (2 Bedroom) | 1100 | 875 | 60 |
| Town House (3+ Bedroom) | 1200 | 900 | 80 |
| Condominium (2 Bedroom) | 925 | 875 | 60 |
| Condominium (3+ Bedroom) | 1200 | 900 | 80 |

(b) What was the rental occupancy rate in the community as of 31 March 1994?

| Type Rental | Percent Occupancy Rate |
|---|---|
| Efficiency | 90 |
| Apartment (1-2 Bedroom) | 90 |
| Apartment (3+ Bedroom) | 98 |
| Single Family Home (3 Bedroom) | 95 |
| Single Family Home (4+ Bedroom) | 95 |
| Town House (2 Bedroom) | 90 |
| Town House (3+ Bedroom) | 95 |
| Condominium (2 Bedroom) | 90 |
| Condominium (3+ Bedroom) | 95 |

(c) What are the median costs for homes in the area?

| Type of Home | Median Cost |
|---|---|
| Single Family Home (3 Bedroom) | 158,811 |
| Single Family Home (4+ Bedroom) | 176,393 |
| Town House (2 Bedroom) | 140,000 |
| Town House (3+ Bedroom) | 165,000 |
| Condominium (2 Bedroom) | 104,630 |
| Condominium (3+ Bedroom) | 131,075 |

(d) For calendar year 1993, from the local MLS listings provide the number of 2, 3, and 4 bedroom homes available for purchase. Use only homes for which monthly payments would be within 90 to 110 percent of the E5 BAQ and VHA for your area.

| Month | Number of Bedrooms | | |
|---|---|---|---|
| | 2 | 3 | 4+ |
| January | 7 | 6 | 1 |
| February | 3 | 11 | 4 |
| March | 5 | 12 | 2 |
| April | 3 | 16 | 4 |
| May | 3 | 18 | 6 |
| June | 3 | 18 | 4 |
| July | 6 | 12 | 8 |
| August | 0 | 20 | 10 |
| September | 6 | 19 | 4 |
| October | 3 | 20 | 6 |
| November | 3 | 19 | 4 |
| December | 5 | 20 | 5 |

(e) Describe the principle housing cost drivers in your local area.

**INSUFFICIENT AVAILABILITY OF SMALL, ECONOMICALLY CONSTRUCTED HOUSING UNITS.**

18. **For the top five sea intensive ratings in the principle warfare community your base supports, provide the following:**

| Rating | Number Sea Billets in the Local Area | Number of Shore billets in the Local Area |
|---|---|---|
| FC | 0 | 55 |
| GMM | 0 | 24 |
| MM | 3 | 1 |
| BM | 4 | 0 |
| EM | 3 | 0 |

19. **Complete the following table for the average one-way commute for the five largest concentrations of military and civilian personnel living off-base.**

| Location | % Employees | Distance (mi) | Time(min) |
|---|---|---|---|
| Oxnard, CA 93030 | 20 | 5 | 20 |
| Oxnard, CA 93035 | 14 | 2 1/2 | 10 |
| Ventura, CA 93003 | 10 | 10 | 20 |
| Camarillo, CA 93010 | 9 | 12 | 24 |
| Port Hueneme, CA 93041 | 8 | 2 1/2 | 10 |

**20. Complete the tables below to indicate the civilian educational opportunities available to service members stationed at the installation (to include any outlying sites) and their dependents:**

(a) List the local educational institutions which offer programs available to dependent children. Indicate the school type (e.g. DODDS, private, public, parochial, etc.), grade level (e.g. pre-school, primary, secondary, etc.), what students with special needs the institution is equipped to handle, cost of enrollment, and for high schools only, the average SAT score of the class that graduated in 1993, and the number of students in that class who enrolled in college in the fall of 1994.

SCHOOL DISTRICTS

| Institution | Type | Grade Level(s) | Special Education Available[2] | Annual Enrollment Cost per Student | Source of Info[1] |
|---|---|---|---|---|---|
| PUBLIC | | | | | |
| Mesa Union | PUB | K-8 | SLD | $0.00 | |
| Pleasant Valley | PUB | K-8 | MR/HH/SI/VH/SED/OI/OHI/SLD | $0.00 | |
| Somis Union | PUB | K-8 | SLD | $0.00 | |
| Hueneme | PUB | K-8 | MR/HH/VH/SED/OI/OHI/SLD | $0.00 | |
| Ocean View | PUB | K-8 | MR/SI/OI/OHI/SLD | $0.00 | |
| Oxnard | PUB | K-8 | MR/HH/SI/VH/SED/OI/OHI/SLD/ MH/AUT/TBI/NC | $0.00 | |
| RIO | PUB | K-8 | MR/HH/SI/SED/OHI/SLD | $0.00 | |
| Ventura Unified | PUB | K-12 | MR/HH/DEAF/SI/VH/SED/OI/OH I/SLD/MH/AUT/NC | $0.00 | |
| Oxnard Union | PUB | 9-12 | MR/HH/DEAF/SI/VH/SED/OI/OH I/SLD/DB/MH/AUT | $0.00 | |
| Briggs | PUB | K-8 | SLD | $0.00 | |
| MUPU | PUB | K-8 | SI/SLD | $0.00 | |
| Santa Clara | PUB | K-8 | SLD | $0.00 | |
| Santa Paula | PUB | K-8 | MR/HH/SI/VH/SED/OHI/SLD | $0.00 | |
| Santa Paula Union | PUB | 9-12 | MR/SI/SED/OI/OHI/SLD | $0.00 | |
| Conejo Valley Unified | PUB | K-12 | MR/HH/DEAF/SI/VH/SED/OI/OH I/SLD/MH/AUT/TBI | $0.00 | |
| Oak Park Unified | PUB | K-12 | MH/HH/SI/VH/SED/OI/SLD | $0.00 | |
| Simi Valley Unified | PUB | K-12 | MR/HH/DEAF/SI/VH/SED/OI/OH I/SLD/MH/AUT/NC | $0.00 | |

| Institution | Type | Grade Level(s) | Special Education Available[2] | Annual Enrollment Cost per Student | Source of Info[1] |
|---|---|---|---|---|---|
| Moorpark Unified | PUB | K-12 | MR/HH/SI/VH/SED/OI/ OHI/SLD/MH/AUT/NC | $0.00 | |
| Ojai Unified | PUB | K-12 | MR/SI/SED/OI/OHI/SLD/TBI | $0.00 | |
| Fillmore Unified | PUB | K-12 | MR/HH/SI/OHI/SLD | $0.00 | |
| INDEPENDENT/ PRIVATE | | | | | |
| Happy valley | PRI | 9-12 | NONE | $8,150.00 | |
| Thatcher | PRI | 9-12 | NONE | $10,200.00 | |
| Villanova Prep | PRI | 9-12 | NONE | $3,400.00 | |
| Ojai Valley | PRI | 1-12 | NONE | $7,000.00 | |

NOTES:

1. SOURCES:

   Department of Education, SELPA and District Code List, Ventura County Special Education Local Plan Area (SELPA), 1993-94.

   Ventura County School Districts 1991-92 Selected Pupil Enrollment and Financial Data Report, April 1993.

   Department of Education CBEDS data collection, October 1993

2. CODES DEFINED:

SLD = Specific Learning Disabled
HH = Hard of Hearing
SI = Speech Impaired
SED = Seriously Emotionally Disturbed
OHI = Orthopedically/ Neurologically Handicapped Impaired
AUT = Autism

MR = Mentally Retarded
DEAF = Deaf
VH = Visually Handicapped
OI = Orthopedically Impaired
MH = Multihandicapped
NC = Non-Categorical (optional, 0-2 yrs only)
TBI = Traumatic Brain Injury

## HIGH SCHOOLS

| Institution | Type | Grade Level(s) | Special Education Available[1] | Annual Enrollment Cost per Student | 1993 Avg SAT/ACT Score[2] | % HS Grad to Higher Educ[3] | Source of Info[4] |
|---|---|---|---|---|---|---|---|
| Fillmore Sr.High | PUB | 12 | | $0.00 | 796 | 36.1 | |
| Nordhoff High | PUB | 12 | | $0.00 | 940 | 55 | |
| Camarillo(Adolfo) High | PUB | 12 | | $0.00 | 996 | 49.4 | |
| Channel Island High | PUB | 12 | | $0.00 | 817 | 53 | |
| Hueneme High | PUB | 12 | | $0.00 | 797 | 37.6 | |
| Oxnard High | PUB | 12 | | $0.00 | 901 | 38.4 | |
| Rio Mesa High | PUB | 12 | | $0.00 | 897 | 46.5 | |
| Santa Paul Union High | PUB | 12 | | $0.00 | 869 | 23 | |
| Royal High | PUB | 12 | | $0.00 | 918 | 56.6 | |
| Simi Valley High | PUB | 12 | | $0.00 | 954 | 58.9 | |
| Buena High | PUB | 12 | | $0.00 | 968 | 35.6 | |
| Ventura High | PUB | 12 | | $0.00 | 885 | 33.2 | |
| Newbury Park High | PUB | 12 | | $0.00 | 960 | 61.5 | |
| Thousand Oaks High | PUB | 12 | | $0.00 | 1025 | 69.7 | |
| Westlake High | PUB | 12 | | $0.00 | 984 | 68 | |
| Oak Park High | PUB | 12 | | $0.00 | 995 | 76.2 | |
| Moorpark High | PUB | 12 | | $0.00 | 957 | 42 | |
| Happy Valley | PRI | 9-12 | | $8,150.00 | 939 | 88 | 0 |
| Thatcher | PRI | 9-12 | | $1,020.00 | 1180 | 94 | 0 |
| Villanova Prep | PRI | 9-12 | | $3,400.00 | 1105 | 100 | 0 |
| Ojai Valley | PRI | 1-12 | | $7,000.00 | 960 | 91 | 0 |

**1. See table above**
**2. SAT scores are from 1993**
**3. % HS Grad to Higher Educ data are from 1990 due to errors in data from earlier years as reported to the California State Department of Education. Data represents students attending public colleges in the state of California only. Does not include students attending private colleges or out of state colleges.**

**4. Source of Information:**
- **a. Department of Education, CBEDS Data Collection, October 1993.**
- **b. Department of Education, University Commission on Post Secondary Education Report 1992.**

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(b) List the educational institutions within 30 miles which offer programs off-base available to service members and their adult dependents. Indicate the extent of their programs by placing a "Yes" or "No" in all boxes as applies.

| Institution | Type Classes | Program Type(s) | | | | |
|---|---|---|---|---|---|---|
| | | Adult High School | Vocational/ Technical | Undergraduate | | Graduate |
| | | | | Courses only | Degree Program | |
| ACADEMY OF TRAVEL & CRUISES | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| ANTHONY SCHOOLS FOR REAL ESTATE | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| H&R BLOCK TAX PREPARATION | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| COMPUTER APPLICA-TIONS TRAINING ASS | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| COMPUTER-FOCUS | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| GOLDEN STATE SCHOOL | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| INTERNA-TIONAL BARTENDING | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |

R

c. **Peterson's Guide to Independent Secondary Schools, 1990-91.**

(b) List the educational institutions within 30 miles which offer programs off-base available to service members and their adult dependents. Indicate the extent of their programs by placing a "Yes" or "No" in all boxes as applies.

| Institution | Type Classes | Program Type(s) | | | | |
|---|---|---|---|---|---|---|
| | | Adult High School | Vocational/ Technical | Undergraduate | | Graduate |
| | | | | Courses only | Degree Program | |
| ACADEMY OF TRAVEL & CRUISES | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| ANTHONY SCHOOLS FOR REAL ESTATE | Day YES | NO | YES | YES | NO | NO |
| | Night YES | NO | YES | YES | NO | NO |
| H&R BLOCK TAX PREPARATION | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| COMPUTER APPLICA-TIONS TRAINING ASS | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| COMPUTER-FOCUS | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| GOLDEN STATE SCHOOL | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| INTERNA-TIONAL BARTENDING | Day YES | NO | YES | NO | NO | NO |

| Institution | Type Classes | Program Type(s) | | | | |
|---|---|---|---|---|---|---|
| | | Adult High School | Vocational/ Technical | Undergraduate | | Graduate |
| | | | | Courses only | Degree Program | |
| | Night YES | NO | YES | NO | NO | NO |

| Institution | Type Classes | Program Type(s) | | | | |
|---|---|---|---|---|---|---|
| | | Adult High School | Vocational/ Technical | Undergraduate | | Graduate |
| | | | | Courses only | Degree Program | |
| IADE AM-ERICAN SCHOOLS | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| K-9 EMPORIUM | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| OXNARD BEAUTY COLLEGE | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| SAWYER COLLEGE | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| SIMI VALLEY ADULT SCHOOL | Day YES | YES | YES | NO | NO | NO |
| | Night YES | YES | YES | NO | NO | NO |
| WATERSON COLLEGE PACIFIC | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| WESTLAKE INSTITUTE OF TECH | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| FAMILY COMPUTER LEARNING CENTER | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |

| Institution | Type Classes | Program Type(s) | | | | |
|---|---|---|---|---|---|---|
| | | Adult High School | Vocational/ Technical | Undergraduate | | Graduate |
| | | | | Courses only | Degree Program | |
| GRAPHIC TRAFFIC | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| EXECUTRAIN | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| SEA BUSS. SERVICES | Day YES | NO | YES | NO | NO | NO |
| | Night YES | NO | YES | NO | NO | NO |
| CALIF. ST. UNIV, NORTHRIDGE | Day YES | NO | NO | YES | YES | YES |
| | Night YES | NO | NO | YES | YES | YES |
| CALIFORNIA LUTHERAN UNIV | Day YES | NO | NO | YES | YES | YES |
| | Night YES | NO | NO | YES | YES | YES |
| UNIV OF PHOENIX, SOUTHERN CALIF CAMPUS | Day YES | NO | NO | YES | YES | YES |
| | Night YES | NO | NO | YES | YES | YES |
| CALIFORNIA STATE NORTHRIDGE, VENTURA CAMPUS | Day YES | NO | NO | YES | YES | YES |
| | Night YES | NO | NO | YES | YES | YES |
| UNIVERSITY OF LAVERNE | Day YES | NO | NO | YES | YES | YES |

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| Institution | Type Classes | Program Type(s) | | | | |
|---|---|---|---|---|---|---|
| | | Adult High School | Vocational/ Technical | Undergraduate | | Graduate |
| | | | | Courses only | Degree Program | |
| MOORPARK COLLEGE | Day YES | YES | YES | YES | YES | NO |
| | Night YES | YES | YES | YES | YES | NO |
| VENTURA COLLEGE OF LAW | Day YES | NO | YES | YES | YES | YES |
| | Night YES | NO | YES | YES | YES | YES |
| CALIF POLYTECHNIC STATE UNIV, SAN LUIS OBISPO | Day YES | YES | YES | YES | YES | YES |
| | Night YES | YES | YES | YES | YES | YES |
| ST. JOHN'S COLLEGE | Day YES | YES | YES | YES | YES | NO |
| | Night YES | YES | YES | YES | YES | NO |
| THOMAS AQUINAS COLLEGE | Day YES | YES | YES | YES | YES | NO |
| | Night YES | YES | YES | YES | YES | NO |
| OXNARD UNION HIGH | Day YES | YES | YES | NO | NO | NO |
| | Night YES | YES | YES | NO | NO | NO |

R

| Institution | Type Classes | Program Type(s) | | | | |
|---|---|---|---|---|---|---|
| | | Adult High School | Vocational/ Technical | Undergraduate | | Graduate |
| | | | | Courses only | Degree Program | |
| | Night YES | NO | NO | YES | YES | YES |
| UNIVERSITY OF CALIFORNIA SANTA BARBARA | Day YES | NO | NO | YES | YES | YES |
| | Night YES | NO | NO | YES | YES | YES |
| UNIVERSITY OF SOUTHERN CALIFORNIA | Day YES | NO | NO | YES | YES | YES |
| | Night YES | NO | NO | YES | YES | YES |
| WEST COAST UNIVERSITY | Day YES | NO | YES | YES | YES | YES |
| | Night YES | NO | YES | YES | YES | YES |
| PEPPERDINE UNIVERSITY | Day YES | NO | NO | YES | YES | YES |
| | Night YES | NO | NO | YES | YES | YES |
| NATIONAL UNIVERSITY | Day YES | NO | YES | YES | YES | YES |
| | Night YES | NO | YES | YES | YES | YES |
| OXNARD COLLEGE | Day YES | YES | YES | YES | YES | NO |
| | Night YES | YES | YES | YES | YES | NO |
| VENTURA COLLEGE | Day YES | YES | YES | YES | YES | NO |
| | Night YES | YES | YES | YES | YES | NO |

| Institution | Type Classes | Program Type(s) | | | | |
|---|---|---|---|---|---|---|
| | | Adult High School | Vocational/ Technical | Undergraduate | | Graduate |
| | | | | Courses only | Degree Program | |
| MOORPARK COLLEGE | Day YES | YES | YES | YES | YES | NO |
| | Night YES | YES | YES | YES | YES | NO |
| VENTURA COLLEGE OF LAW | Day YES | NO | YES | YES | YES | YES |
| | Night YES | NO | YES | YES | YES | YES |
| CALIF POLYTECHNIC STATE UNIV, SAN LUIS OBISPO | Day YES | YES | YES | YES | YES | YES |
| | Night YES | YES | YES | YES | YES | YES |
| ST. JOHN'S COLLEGE | Day YES | YES | YES | YES | YES | NO |
| | Night YES | YES | YES | YES | YES | NO |
| THOMAS AQUINAS COLLEGE | Day YES | YES | YES | YES | YES | NO |
| | Night YES | YES | YES | YES | YES | NO |
| OXNARD UNION HIGH | Day YES | YES | YES | NO | NO | NO |
| | Night YES | YES | YES | NO | NO | |

(c) List the educational institutions which offer programs on-base available to service members and their adult dependents. Indicate the extent of their programs by placing a "Yes" or "No" in all boxes as applies.

| Institution | Type Classes | Program Type(s) | | | | |
|---|---|---|---|---|---|---|
| | | Adult High School | Vocational/ Technical | Undergraduate | | Graduate |
| | | | | Courses only | Degree Program | |
| UNIVERSITY OF CALIFORNIA, SANTA BARBARA | Day YES | NO | NO | YES | NO | NO |
| | Night NO | NO | NO | YES | NO | NO |
| | Corres-pondence NO | NO | NO | YES | NO | NO |
| UNIVERSITY OF CALIFORNIA, LOS ANGELES | Day YES | NO | NO | YES | NO | NO |
| | Night NO | NO | NO | YES | NO | NO |
| | Corres-pondence NO | NO | NO | YES | NO | NO |
| UNIVERSITY OF SOUTHERN CALIFORNIA | Day YES | NO | NO | NO | NO | YES |
| | Night YES | NO | NO | NO | NO | YES |
| | Corres-pondence NO | NO | NO | NO | NO | YES |
| UNIVERSITY OF LAVERNE | Day NO | NO | NO | YES | YES | YES |
| | Night YES | NO | NO | YES | YES | YES |
| | Corres-pondence YES | NO | NO | YES | YES | YES |

21. **Spousal Employment Opportunities.**

Provide the following data on spousal employment opportunities.

| Skill Level | Number of Military Spouses Serviced by Family Service Center Spouse Employment Assistance[2] | | | Local Community Unemployment Rate |
|---|---|---|---|---|
| | 1991 | 1992 | 1993 | |
| Professional | | | | |
| Manufacturing | | | | |
| Clerical | | | | |
| Service | | | | |
| Other | | | | |
| TOTAL[3] | **920** | **1559** | **1269** | **8.5%[1]** |

[1] **Local Unemployment figure provided by State of California Unemployment Development Department; current as of April, 1994. Data is not available by categories requested.**

[2] **FSC does not track by the categories specified (Professional, Manufacturing, etc.).**

[3] **Totals reflect NCBC, not PHD NSWC alone. Specific data for PHD NSWC is not available, however, PHD NSWC believes the spousal employment support provided by NCBC FSC is fully satisfactory.**

22. **Medical/Dental.**

a. Do your active duty personnel have any difficulty with access to medical or dental care, in either the military or civilian health care system? Develop the why of your response.

b. Do your military dependents have any difficulty with access to medical or dental care, in either the military or civilian health care system? Develop the why of your response.

**Local host-provided medical and dental clinics provide excellent support of routine medical and dental needs; however, active duty personnel and their dependents have significant difficulty gaining access to non-routine care from specialty clinics. Specialty care was previously provided at significant cost (i.e., travel, and lost work days) through Naval Hospital Long Beach (NHLB), approximately 90 minutes away; the recent closure of NHLB has exacerbated the situation by requiring the use of specialty clinic services at Naval Medical Center San Diego, a three to four hour drive. The host medical clinic has taken aggressive, innovative action to develop a Tri Care Health Management Program that centers on utilization of local non-DOD hospitals and medical specialists, and Veterans Administration medical facilities; if funded and approved, this program will significantly improve the local military population's access to medical care.**

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**PHD NSWC UIC: N63394**
**VENTURA COUNTY CRIME STATISTICS FOR CALENDAR YEAR 1993**

| CRIME | TOTAL # | RATE PER 100K |
|---|---|---|
| MURDER & NON NEGLIGENT MANSLAUGHTER | 42 | |
| FORCIBLE RAPE | 185 | |
| ROBBERY | 921 | |
| AGGRAVATED ASSAULT | 2323 | |
| **TOTAL VIOLENT CRIME** | **3471** | **490.25** |
| | | |
| BURGLARY | 6110 | |
| LARCENY | 14580 | |
| MOTOR VEHICLE THEFT | 2776 | |
| **TOTAL PROPERTY CRIME** | **23466** | **3314.41** |
| | | |
| **FELONY DRUG ARRESTS** | | |
| NARCOTICS | 749 | |
| DANGEROUS DRUGS | 590 | |
| MARIJUANA | 158 | |
| OTHER | 27 | |
| **TOTAL FELONY DRUG ARRESTS** | **1524** | **215.25** |
| | | |
| **MISDEMEANOR DRUG ARRESTS** | | |
| MARIJUANA | 647 | |
| OTHER | 2816 | |
| **TOTAL MISDEMEANOR DRUG ARRESTS** | **3463** | **489.12** |
| | | |
| **TOTAL FELONY & MISDEMEANOR DRUG ARRESTS** | **4987** | **704.38** |

23 **Crime Rate**. Complete the table below to indicate the crime rate for your air station for the last three fiscal years. The source for case category definitions to be used in responding to this question are found in NCIS - Manual dated 23 February 1989, at Appendix A, entitled "Case Category Definitions." Note: the crimes reported in this table should include 1) all reported criminal activity which occurred on base regardless of whether the subject or the victim of that activity was assigned to or worked at the base; and 2) all reported criminal activity off base.

**NOTE: The following crime statistics are held by NCIS Headquarters in Washington D. C. who will provide them, in response to one centralized request from the appropriate headqquarters level command, but will not provide them to local commands.**

| Crime Definitions | FY 1991 | FY 1992 | FY 1993 |
|---|---|---|---|
| 1. Arson (6A) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 2. Blackmarket (6C) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 3. Counterfeiting (6G) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 4. Postal (6L) | | | |
| Base Personnel - military | | | |

| | | | |
|---|---|---|---|
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |

| Crime Definitions | FY 1991 | FY 1992 | FY 1993 |
|---|---|---|---|
| 5. Customs (6M) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 6. Burglary (6N) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 7. Larceny - Ordnance (6R) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 8. Larceny - Government (6S) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |

| Crime Definitions | FY 1991 | FY 1992 | FY 1993 |
|---|---|---|---|
| 9. Larceny - Personal (6T) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 10. Wrongful Destruction (6U) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 11. Larceny - Vehicle (6V) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 12. Bomb Threat (7B) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |

| Crime Definitions | FY 1991 | FY 1992 | FY 1993 |
|---|---|---|---|
| 13. Extortion (7E) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 14. Assault (7G) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 15. Death (7H) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 16. Kidnapping (7K) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |

| Crime Definitions | FY 1991 | FY 1992 | FY 1993 |
|---|---|---|---|
| 18. Narcotics (7N) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 19. Perjury (7P) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 20. Robbery (7R) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 21. Traffic Accident (7T) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |

| Crime Definitions | FY 1991 | FY 1992 | FY 1993 |
|---|---|---|---|
| 22. Sex Abuse - Child (8B) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 23. Indecent Assault (8D) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 24. Rape (8F) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |
| 25. Sodomy (8G) | | | |
| Base Personnel - military | | | |
| Base Personnel - civilian | | | |
| Off Base Personnel - military | | | |
| Off Base Personnel - civilian | | | |

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TAB A

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TAB A

TECHNICAL FUNCTIONS

FUNCTIONAL SUPPORT AREAS/LIFE CYCLE WORK AREAS*

*** DIRECT FUND CITE FIGURES ARE REPRESENTATIVE OF FUNDING RECEIVED. EXPENDITURES ON DIRECT FUND CITE DOLLARS ARE NOT TRACKED BY PHD NSWC, AS IT IS NOT AN INDUSTRIAL FUND EXPENSE.**

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 1.PLATFORMS 1.3 SURFACE SHIP |
| Life Cycle Work Area | 4. RDT&E ENGINEERING AND MANUFACTURING DEVELOPMENT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**11 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**1,196K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$405K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.1 GUN SYSTEMS |
| Life Cycle Work Area | 4. RDT&E ENGINEERING AND MANUFACTURING DEVELOPMENT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**18 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area
**$1,708K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$ 1,368K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.2 GUIDED MISSILES |
| Life Cycle Work Area | 4. RDT&E ENGINEERING AND MANUFACTURING DEVELOPMENT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$128K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$26K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.8 LAUNCHERS |
| Life Cycle Work Area | 4. RDT&E ENGINEERING AND MANUFACTURING DEVELOPMENT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional supp ort area - life cycle work area.
**$63K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$77K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.9 FIRE CONTROL |
| Life Cycle Work Area | 4. RDT&E ENGINEERING AND MANUFACTURING DEVELOPMENT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**8 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$766K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$538K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$994K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.10 WEAPONS DATA LINKS |
| Life Cycle Work Area | 4. RDT&E ENGINEERING AND MANUFACTURING DEVELOPMENT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**4 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$351K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$411K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.

**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.3 SURFACE |
| Life Cycle Work Area | 4. RDT&E ENGINEERING AND MANUFACTURING DEVELOPMENT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**22 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$2,256K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$2,344K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.4 MULTIPLATFORM |
| Life Cycle Work Area | 4. RDT&E ENGINEERING AND MANUFACTURING DEVELOPMENT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**12 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$1,534K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$3,326K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 1. PLATFORMS 1.3 SURFACE SHIP |
| Life Cycle Work Area | 7. ACQUISITION PRODUCTION |

Note: An example of a functional support area - life cycle work area is "1. Platform, 1.1 Undersea, - 10. Program Support".

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$89K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$70K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.1 GUN SYSTEMS |
| Life Cycle Work Area | 7. ACQUISITION PRODUCTION |

Note: An example of a functional support area - life cycle work area is "1. Platform, 1.1 Undersea, - 10. Program Support".

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**7 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$726K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$781K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.2 GUIDED MISSILES |
| Life Cycle Work Area | 7. ACQUISITION PRODUCTION |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget
**12 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$1,410K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$531K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$4K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.8 LAUNCHERS |
| Life Cycle Work Area | 7. ACQUISITION PRODUCTION |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**16 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$1,632K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$285K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$1,524K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.9 FIRE CONTROL |
| Life Cycle Work Area | 7. ACQUISITION PRODUCTION |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**20 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$2,016K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$288K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$1,215K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.3 SURFACE |
| Life Cycle Work Area | 7. ACQUISITION PRODUCTION |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**14 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$1,431K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$498K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.4 MULTIPLATFORM |
| Life Cycle Work Area | 7. ACQUISITION PRODUCTION |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**7 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$888K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$1,593K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$392K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 1. PLATFORMS 1.3 SURFACE SHIP |
| Life Cycle Work Area | 8. ACQUISITION ACCEPTANCE TESTING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$116K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$128K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
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Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.1 GUN SYSTEMS |
| Life Cycle Work Area | 8. ACQUISITION ACCEPTANCE TESTING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**9 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$957K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$907K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.2 GUIDED MISSILES |
| Life Cycle Work Area | 8. ACQUISITION ACCEPTANCE TESTING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**16 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$1,758K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$658K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.8 LAUNCHERS |
| Life Cycle Work Area | 8. ACQUISITION ACCEPTANCE TESTING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**6 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$645K**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$143K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.9 FIRE CONTROL |
| Life Cycle Work Area | 8. ACQUISITION ACCEPTANCE TESTING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**25 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$2,369K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$453K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.10 WEAPONS DATA LINKS |
| Life Cycle Work Area | 8. ACQUISITION ACCEPTANCE TESTING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$97K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$13K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.3 SURFACE |
| Life Cycle Work Area | 8. ACQUISITION ACCEPTANCE TESTING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**29 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$3,160K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$1,943K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$89K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COBMAT SYSTEM INTEGRATION 3.4 MULTIPLATFORM |
| Life Cycle Work Area | 8. ACQUISITION ACCEPTANCE TESTING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$121K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$82K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.1 GUN SYSTEMS |
| Life Cycle Work Area | 9. ACQUISITION MODERNIZATION |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**36 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$3,632K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$3,904K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.2 GUIDED MISSILES |
| Life Cycle Work Area | 9. ACQUISITION MODERIZATION |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**15 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$1,777K**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$691K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.8 LAUNCHERS |
| Life Cycle Work Area | 9. ACQUISITION MODERNIZATION |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**42 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$3,615K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$3,510K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$1225K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.9 FIRE CONTROL |
| Life Cycle Work Area | 9. ACQUISITION MODERNIZATION |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**116 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$9,954K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$11,837K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$-4,501K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.10 WEAPONS DATA LINKS |
| Life Cycle Work Area | 9. ACQUISITION MODERNIZATION |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$53K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$61K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.3 SURFACE |
| Life Cycle Work Area | 9. ACQUISITION MODERNIZATION |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**49 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$5,117K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$1,779K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$10K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.4 MULTIPLATFORM |
| Life Cycle Work Area | 9. ACQUISITION MODERIZATION |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$153K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$114K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 1. PLATFORMS 1.3 SURFACE SHIP |
| Life Cycle Work Area | 10. ACQUISITION PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**12 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$1,268K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$1,275K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.1 GUN SYSTEMS |
| Life Cycle Work Area | 10. ACQUISITION PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**4 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$418K**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$164K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.2 GUIDED MISSILES |
| Life Cycle Work Area | 10. ACQUISITION PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**45 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$5,111K**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$1,896K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$10K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.5 MINES |
| Life Cycle Work Area | 10. ACQUISITION PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**12 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$1,414K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$217K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$23K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.8 LAUNCHERS |
| Life Cycle Work Area | 10. ACQUISITION PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**45 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$4,133K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$1,236K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.9 FIRE CONTROL |
| Life Cycle Work Area | 10. ACQUISITION PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**55 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.

**$5,442K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$1,416K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.

**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.10 WEAPONS DATA LINKS |
| Life Cycle Work Area | 10. ACQUISITION PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$117K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$40K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.3 SURFACE |
| Life Cycle Work Area | 10. ACQUISITION PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**98 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$9,022K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$4,373K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$-13.2K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.4 MULTIPLATFORM |
| Life Cycle Work Area | 10. ACQUISITION PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$81**K

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$60**K

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 1. PLATFORMS 1.3 SURFACE SHIP |
| Life Cycle Work Area | 11. LIFE-TIME SUPPORT MAINTENANCE |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$116K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$40K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.4 MULTIPLATFORM |
| Life Cycle Work Area | 11. LIFE-TIME SUPPORT MAINTENANCE |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**7 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$557K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$110K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 1. PLATFORMS 1.3 SURFACE SHIP |
| Life Cycle Work Area | 13. LIFE-TIME SUPPORT TESTING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**2 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$174K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$185K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.8 LAUNCHERS |
| Life Cycle Work Area | 13. LIFE-TIME SUPPORT TESTING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**21 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$2,028K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$716K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.9 FIRE CONTROL |
| Life Cycle Work Area | 13. LIFE-TIME SUPPORT TESTING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**33 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$3,353K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$768K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.10 WEAPONS DATA LINKS |
| Life Cycle Work Area | 13. LIFE-TIME SUPPORT TESTING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$128K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$26K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.3 SURFACE |
| Life Cycle Work Area | 13. LIFE-TIME SUPPORT TESTING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**59 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$5,524K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$4,431K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$1196K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.4 MULTIPLATFORM |
| Life Cycle Work Area | 13. LIFE-TIME SUPPORT TESTING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**4 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$279K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$102K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 1. PLATFORMS 1.3 SURFACE SHIP |
| Life Cycle Work Area | 14. LIFE-TIME SUPPORT IN-SERVICE ENGINEERING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**6 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$791K**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$197K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2..1 GUN SYSTEMS |
| Life Cycle Work Area | 14. LIFE-TIME SUPPORT IN-SERVICE ENGINEERING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**32 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$3,268K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$3,473K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.2 GUIDED MISSILES |
| Life Cycle Work Area | 14. LIFE-TIME SUPPORT IN-SERVICE ENGINEERING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**45 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$4,081K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$2,625K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$8694K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.5 MINES |
| Life Cycle Work Area | 14. LIFE-TIME SUPPORT IN-SERIVE ENGINEERING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**59 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$6,970K**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$1,068K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$114K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.8 LAUNCHERS |
| Life Cycle Work Area | 14. LIFE-TIME SUPPORT IN-SERVICE ENGINEERING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**174 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$15,287K**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$6,607K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$81K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.9 FIRE CONTROL |
| Life Cycle Work Area | 14. LIFE-TIME SUPPORT IN-SERVICE ENGINEERING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**323 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$30,873K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$18,770K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$639K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.10 WEAPONS DATA LINKS |
| Life Cycle Work Area | 14. LIFE-TIME SUPPORT IN-SERVICE ENGINEERING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**5 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$465K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$203K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.3 SURFACE |
| Life Cycle Work Area | 14. LIFE-TIME SUPPORT IN-SERVICE ENGINEERING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**333 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$27,877K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$12,285K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$3,106K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.4 MULTIPLATFORM |
| Life Cycle Work Area | 14. LIFE-TIME SUPPORT IN-SERVICE ENGINEERING |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**5 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$539K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$498K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 1. PLATFORMS 1.3 SURFACE SHIP |
| Life Cycle Work Area | 15. LIFE-TIME SUPPORT PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**8 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$694K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$439K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.1 GUN SYSTEMS |
| Life Cycle Work Area | 15. LIFE-TIME SUPPORT PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**6 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$679K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$228K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

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# TECHNICAL FUNCTIONS
# FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.2 GUIDED MISSILES |
| Life Cycle Work Area | 15. LIFE-TIME SUPPORT PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government er yee n and military) work years for FY1993 that were performed in this functional sup are cycle work area. Workyears are to be consistent with those used in the preparati f in ne President's budget.
**6 WYs**

K

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY19 for t nctional support area - life cycle work area.
**$629K**

R

b. **Out-of-House Expenditures**. Provide the total funds expended during FY for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$159K**

R

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$1,311K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.2 GUIDED MISSILES |
| Life Cycle Work Area | 15. LIFE-TIME SUPPORT PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**4 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$501K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$134K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$1,311K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.5 MINES |
| Life Cycle Work Area | 15. LIFE-TIME SUPPORT PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**3 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$386K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$54K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$8K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.8 LAUNCHERS |
| Life Cycle Work Area | 15. LIFE-TIME SUPPORT PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**32 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$3,268K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$1,147K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$1,996K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.9 FIRE CONTROL |
| Life Cycle Work Area | 15. LIFE-TIME SUPPORT PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**44 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$4,650K**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$1,388K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$2,435K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.10 WEAPONS DATA LINKS |
| Life Cycle Work Area | 15. LIFE-TIME SUPPORT PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**2 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$177K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$51K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.3 SURFACE |
| Life Cycle Work Area | 15. LIFE-TIME SUPPORT PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**44 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$4,161K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$2,798K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$389K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

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# TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.4 MULTIPLATFORM |
| Life Cycle Work Area | 15. LIFE-TIME SUPPORT PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. R
**2 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. R
**$152K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$136K** R

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.4 MULTIPLATFORM |
| Life Cycle Work Area | 15. LIFE-TIME SUPPORT PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$134K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$124K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.8 LAUNCHERS |
| Life Cycle Work Area | 16. LIFE-TIME SUPPORT RETIREMENT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**5 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$244K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$113K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.9 FIRE CONTROL |
| Life Cycle Work Area | 16. LIFE-TIME SUPPORT RETIREMENT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**32 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$1130K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$589K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$-491K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 2. WEAPONS SYSTEMS 2.10 WEAPONS DATA LINKS |
| Life Cycle Work Area | 16. LIFE-TIME SUPPORT RETIREMENT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$18K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$10K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.3 SURFACE |
| Life Cycle Work Area | 16. LIFE-TIME SUPPORT PROGRAM SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**3 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$369K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$99K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.3 SURFACE |
| Life Cycle Work Area | 17. GENERAL TRAINING/OPERATIONAL SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$53K**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$87K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.4 MULTIPLATFORM |
| Life Cycle Work Area | 17. GENERAL TRAINING/OPERATIONAL SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**7 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$606K**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$172K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 4. SPECIAL OPERATIONS SUPPORT 4.1 LANDING FORCE EQUIPMENT AND SYSTEMS |
| Life Cycle Work Area | 17. GENERAL TRAINING/OPERATIONAL SUPPORT |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$67K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$29K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$0K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 3. COMBAT SYSTEM INTEGRATION 3.3 SURFACE |
| Life Cycle Work Area | 18. GENERAL SIMULATION, MODELING ANALYSIS |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**9 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$872K**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$1,428K**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$1,253K**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and

private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 5.2 Sensors & Surveillance Systems/ Radar Systems |
| Life Cycle Work Area | 4. RDT&E Engineering & Manufacturing Development |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**_1_WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K)_100_**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$(K)_34_**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K)_0_**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 5.3 Sensors & Surveillance Systems, Special Sensors |
| Life Cycle Work Area | 4. RDT&E Engineering & Manufacturing Development |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**_2_WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K)_223_**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$(K)_273_**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K)_0_**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 7.3 Command, Control, Communications & Intelligence (C3I), Shipboard |
| Life Cycle Work Area | 4. RDT&E Engineering & Manufacturing Development |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**_23_ WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K)_2,319_**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$(K)_3,915_**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K)_0_**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 8.1 Defense Systems, Ballistic Missile Defense |
| Life Cycle Work Area | 4. RDT&E Engineering & Manufacturing Development |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**18 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K) 1,885**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$(K) 206**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K) 0**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 5.2 Sensors & Surveillance Systems, Radar Systems |
| Life Cycle Work Area | 7. Acquisition Production |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K) 55**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$(K) 9**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K) 0**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 5.3 Sensors & Surveillance Systems, Special Sensors |
| Life Cycle Work Area | 7. Acquisition Production |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**_1_WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K)_56__**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$(K)_68__**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K)_0__**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 5.2 Sensors & Surveillance Systems, Radar Systems |
| Life Cycle Work Area | 8. Acceptance Testing |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**_2_ WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K)_219_**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$(K)_57_**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K)_0_**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 5.2 Sensors & Surveillance Systems, Radar Systems |
| Life Cycle Work Area | 9. Acquisition Modernization |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**33 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K) 3,610**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$(K) 1,713**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K) 88**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 5.2 Sensors & Surveillance Systems, Radar Systems |
| Life Cycle Work Area | 10 Acquisition Program Support |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**_6_ WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K)_603_**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$(K)_163_**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K)_0_**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 7. 3 Command, Control, Communication & Intelligence (C3I) Shipboard |
| Life Cycle Work Area | 10. Acquisition Program Support |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**__8__WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K)__475__**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$(K)__402__**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K)_580_**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 8.2 Defense Systems, Counter measures |
| Life Cycle Work Area | 10. Acquisition Program Support |

Note: An example of a functional support area - life cycle work area is "1. Platform, 1.1 Undersea, - 10. Program Support".

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**16 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K) 2,380**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$(K) 302**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K) 1**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 10.1.3 General Mission Support, Surface Ship-Related Systems |
| Life Cycle Work Area | 10. Acquisition Program Support |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**_1_WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K)_73_**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$(K)_27_**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K)_0_**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 4.2 Special Operations Support, Coastal/Special Warfare Support |
| Life Cycle Work Area | 13. Testing |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**_1_WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K)_76_**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$(K)_28_**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K)_0_**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 5.2 Sensors & Surveillance Systems, Radar Systems |
| Life Cycle Work Area | 13. Testing |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**_3_ WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K)_304_**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$(K)_290_**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K)_0__**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 5.3 Sensors & Surveillance Systems, Special Sensors |
| Life Cycle Work Area | 13. Testing |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**_1_WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K)_84_**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$(K)_102_**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K)_4_**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 7.3 Command, Control, Communication & Intelligence (C3I) Shipboard |
| Life Cycle Work Area | 13. Testing |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.

**__1__WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.

**$(K)__53__**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$(K)__87__**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.

**$(K)__0__**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 8.2 Defense Systems/ Countermeasures |
| Life Cycle Work Area | 13. Testing |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**1 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K) 263**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$(K) 45**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K) 0**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 5.2 Sensors & Surveillance Systems, Radar Systems |
| Life Cycle Work Area | 14. In-Service Engineering |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**47 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K) 4,881**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$(K) 1,954**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K) 833**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

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## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 5.3 Sensors & Surveillance Systems, Special Sensors |
| Life Cycle Work Area | 14. In-Service Engineering |

Note: An example of a functional support area - life cycle work area is "1. Platform, 1.1 Undersea, - 10. Program Support".

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.

**__0__WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.

**$(K)__28__**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$(K)__34__**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.

**$(K)__0__**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 7.3 Command, Control, Communication & Intelligence (C3I), Shipboard |
| Life Cycle Work Area | 14. In-Service Engineering |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.

**32 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.

**$(K) 1,902**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$(K) 1,609**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.

**$(K) 1,890**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 8.2 Defense Systems, Countermeasures |
| Life Cycle Work Area | 14. In-Service Engineering |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.

**76 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.

**$(K) 10,731**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$(K) 1,323**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.

**$(K) 2**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 10.1.3 General Mission Support, Surface Ship-Related Systems |
| Life Cycle Work Area | 14. In-Service Engineering |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.

**_4_WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.

**$(K)_405_**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$(K)_197_**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.

**$(K)_0__**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 5.2 Sensors & Surveillance Systems, Radar Systems |
| Life Cycle Work Area | 15. Life-Time Support Program Support |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**8 WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K) 732**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$(K) 478**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K) 1,652**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 7.3 Command, Control, Communication & Intelligence (C3I)/Shipboard |
| Life Cycle Work Area | 15. Life-Time Support Program Support |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.

**__1__WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.

**$(K)__53__**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$(K)__87__**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.

**$(K)__64__**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 8.2 Defense Systems, Countermeasures |
| Life Cycle Work Area | 15. Life-Time Support Program Support |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**_5_ WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K)_518_**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$(K)_49_**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K)_0_**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 10.1.3 General Mission Support, Surface Ship-Related Systems |
| Life Cycle Work Area | 15. Life-Time Support Program Support |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**_2_ WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K)_200_**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$(K)_38_**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K)_0_**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

## TECHNICAL FUNCTIONS
## FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 7.3 Command, Control, Communication & Intelligence (C3I), Shipboard |
| Life Cycle Work Area | 18. Simulation, Modeling & Analysis |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.

**__2__WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.

**$(K)__155__**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

**$(K)__255__**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.

**$(K)__121__**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

**TECHNICAL FUNCTIONS**
**FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM**

| | |
|---|---|
| Technical Center Site | PORT HUENEME DIVISION NAVAL SURFACE WARFARE CENTER |
| Functional Support Area | 10.1.3 General Mission Support, Surface Ship-Related Systems |
| Life Cycle Work Area | 18. Simulation, Modeling & Analysis |

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget.
**_2_ WYs**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area.
**$(K)_205_**

b. **Out-of-House Expenditures**. Provide the total funds expended during FY1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.
**$(K)_335_**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area.
**$(K)_0_**

Note:
In-House Expenditures - Is comprised of the total obligation authority for direct labor, direct material, direct travel,direct equipment, direct computer support, other direct support services and all overhead.

Out-of-House Expenditures - Is comprised of total obligational authority for direct work (customer funded, mission oriented) performed or to be performed by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals.

# TAB B

## SPECIAL FACILITIES AND EQUIPMENT

## FACILITIES/EQUIPMENT CAPABILITY FORM

## SPECIAL FACILITIES AND EQUIPMENT
## FACILITIES/EQUIPMENT CAPABILITY FORM

| Technical Center Site | PHD NSWC |
|---|---|
| Facility/Equipment Nomenclature or Title | Surface Warfare Engineering Facility |

1. State the primary purpose(s) of the facility/equipment.

Surface ship weapons systems are central to providing the U.S. and foreign fleets the capability for defense in all warfare areas and for completing their mission of providing ordnance on target. These weapons systems must operate immediately and without fault when called upon and both their hardware and software must be operational under adverse conditions. PHD plays a key role in the operational readiness and safety of the surface fleet by providing the bridge between the weapons system developer and the weapon end user - the operational fleet. We develop specifications and procedures, certify the safety of weapons systems and ordnance as well as the ability of the crew to safely operate and handle them. Division personnel analyze fleet problems and failures to generate engineering and logistic solutions as well evaluate proposals to extend the capabilities of current systems to meet new threats. PHD NSWC personnel are able to perform in the thorough and efficient manner demanded by a modern "right sized" Naval Surface force structure because of their ready access to land based, tactically configured, operational weapons systems resident in the Surface Warfare Engineering Facility (SWEF) at Port Hueneme.

The Surface Warfare Engineering Facility (SWEF) which houses fully operational and tactically configured weapon suites, provides the in-service engineering, system integration, test and evaluation research and development, special training, and computer program maintnance required to support the weapons and combat systems of the surface fleet. Because of this access to the SWEF, PHD engineers are in a unique position to ensure the safe effective and tactically sound operation of the weapons systems on board U.S. Surface Combatants as well as foreign navies. This facility has the capability to integrate elements of many different weapons systems and to exercise those systems in a realistic environment in order to investigate engineering solutions, evaluate new development programs including both hardware and software upgrades, validate computer programs, prove-in maintenance procedures, resolve fleet documentation and technical manual problems, trouble shoot systems and hardware, and train fleet personnel, in-service engineers and contractor field service representatives. The facility is also used to isolate, identify and correct fleet problems, proof-in alterations, check out software changes prior to fleet issue, and verify and validate formal fleet maintenance documentation.

The location of SWEF, facing the Pacific Ocean and Channel Islands on the Port Hueneme shore, and the proximity to the NAWCWPNS, Point Mugu, and ships in Port Hueneme Harbor provide a realistic littoral environment, realistic battle force configurations and threat-representative aerial tracking environments. As the Navy's mission evolves toward an increasing role in Littoral and Expeditionary Warfare, increased emphasis must be placed on characterizing weapon system performance in the brown water environment, with its shallow depths and land mass clutter. The discontinuities in sensor performance in this environment must be fully understood and modeled, in order to hone the performance of weapon systems for expeditionary and littoral warfare. Exercises such as tracking performance evaluation over land and sea with typical amounts of sea clutter, tracking of military aircraft stationed at NAS Point Mugu and tracking of surface craft is easily accomplished at this location. Also, the equipment is subjected to coastal and at sea environmental conditions ideal for corrosion control studies and fixes for the fleet. The local SATCOM capability provides linkage to both East and West coast ships and the Indian Ocean. A unique ship's parameter SIM provides WSN 5 data in both digital and analog form and provides wind velocity and direction as well. 60 and 400 hz power, liquid cooling, and dry air as well as dry nitrogen are available in all required spaces. A classified LAN is available in those spaces that require it. A base wide LAN extends throughout the bays. The combination of geographic location mixture and configuration of installed equipment, and technical capability is unique and cannot be replicated. In addition to providing engineering support, most of the equipment located in SWEF serves as battle spare should a catastrophic emergent requirement arise.

The SWEF provides the tactical hardware and the environment to enable study and experimentation with new concepts and joint use programs. SWEF has supported the multi-force Theater Ballistic Missile Defense (TBMD) System through the Light weight Exo-Atmospheric Projectile Program. The MK 86 SPQ-9B Radar Upgrade (a Non Development Item Program) is under research at the SWEF. This will compliment the AEGIS SPY Radar coverage to allow the Navy enhanced performance in the TBMD role. The MK 92 and MK 86 installations enable working meetings between Navy and Army personnel participating in the Gun Interaction Working Group. Commercial off-the-shelf hardware and software are tested for possible integration with militarized hardware systems.

The following is a list of the weapons systems that are currently installed in the SWEF. These systems can be interconnected to replicate a variety of combat system configurations.

SELF DEFENSE SYSTEM - A complete Self Defense system consisting of the NATO SeaSparrow Surface Missile System Mk 57 Mod 2, Target Acquisition System (TAS) Mk 23, Rolling Airframe Missile system MK 49, AN/SLQ-32(V)2 and AN/SAR-8 Infrared

Search and Target Detection System (IRSTD) is installed. The major systems are described as follows:

A. NATO SEASPARROW SURFACE MISSILE SYSTEM MK 57 MOD 2 - consists of both director radar system and a complete missile launching system for short range self defense.

B. TARGET ACQUISITION SYSTEM (TAS) MK 23 - is a 2D Search Radar for acquisition, tracking, and detection of low flying threats.

C. ROLLING AIRFRAME SYSTEM MK 49 - this facility is the only land-based test site in the U.S. It consists of a complete launcher and weapon system.

D. AN/SAR-8 INFRARED SEARCH AND TARGET DETECTION SYSTEM (IRSTD) consisting of topside I R detection Assembly, data converter, special cooling devices, operation console, computer, and test and support equipment.

MISSILE TEST LABORATORY - The MK 612 Mod 4, which is made up of 16 interlinked test consoles, is permanently installed in an environmentally controlled secure area. The test set is supported by a variety of ancilliary equipment as well asspecial and general purpose test equipment required for repair and calibration.

TOMAHAWK SOFTWARE PRODUCTION FACILITY - This facility is unique in the entire Department of the Navy. The TOMAHAWK Software products produced at this facility are the Track Control Group, Launch Control Group, Operational Test Launch, Training Missions, Test Missions, and TOMAHAWK Engagement Planning and Exercise Evaluation (TEPEE). Equipment consists of data transport devices used for the launch and tracking software; Data Storage Control Center (DSCC) for data transport devices.

VERTICAL LAUNCHING SYSTEM - A fully operational MK 41 Vertical Launching System and a handling and Strikedown System is permanently installed in the SWEF. this system consists of two full module launchers with eight cells. Computer equipment consists of: two AN/UYK-20, four AN/UYK-44s; the Weapon Simulator consists of five AN/UYK-44; Launcher Simulator consists of four AN/UYK-44s; the Tape Production system is on one AN/UYK-20; and the Development System is three Micro VAX Computers.

TOMAHAWK WEAPON SYSTEMS - A complete TOMAHAWK Weapon System including Armored Box Launcher, TOMAHAWK Weapon Control System AN/SWG-2 and AN/SWG-3 and a switchboard system enables operation of two Vertical Launched TOMAHAWK (VLT) systems and Armored Box Launching TOMAHAWK (ABL) system simultaneously. An EDM for Advanced TOMAHAWK Weapon System is also

resident at this facility.

MK 74 FIRE CONTROL SYSTEM (FCS) - A TARTAR New Threat Upgrade MK 74 Mod 14 FCS, including: Weapons Direction System (WDS) MK 14 Mod 5, Radar Environmental Simulation System (RESS), and MK 74 Mod 13 FCS is installed.

MK 86 GUN FIRE CONTROL SYSTEM (GFCS) - A complete, fully functioning MK 86 GFCS consisting of: A MK-67 Control Officer Console; two MK-113 MOD 2 Weapon control consoles; AN/UYK-7 computer; Radar Transmitters; three Radar Antennas, Radome, receivers and amplifier controls; Signal Data Converter, CWI Radar Transmitter, Power Controller and Input/Output Console.

MK 92 FIRE CONTROL SYSTEM (FCS) - A complete fully functioning MK 92 FCS as well as a mockup are installed. Three antennas make up the Combined Antenna System that support this FCS: STIR Antenna, Search Antenna and a smaller version of the STIR. Other equipment includes two transmitters, a Continuous Wave Illuminator for missile guidance, radar processors for each system, UIA 194 tracking console, two AN/UYK-7 computers with DEAC interface as well as a three section switchboard.

MK 13 MOD 4 GUIDED MISSILE LAUNCHING SYSTEM - This system shares a building at the SWEF with the MK 41 Vertical Launching System. This fully operational system is comprised of a 40 missile magazine, launcher, control system, associated electro-hydraulic power drives and three Electronic Panels that control the launcher. This system has been integrated into the MK 92 Fire Control System and is currently in the process of being tested.

GUIDED MISSILE LAUNCHING SYSTEM MK 10 SOLID STATE CONTROL SYSTEM FIRMWARE TEST FACILITY - This installation simulates the mechanical hardware as well as the electrical controls and interfaces of the GMLS MK 10. Changes to control system firmware can be developed and tested without risk to personnel and equipment. The SSCS Firmware Test Facility is used in conjunction with another test facility which commands the dedicated use of a two story building which would be extremely difficult to move.

HARPOON ENGINEERING TEST FACILITY (HETF) - This system provides in-service engineering support to all configurations of the HARPOON Ship Command Launch Control Set (HSCLCS), AN/SWG-1(V), and AN/SWG-1A for use with the Block 1A, 1B, 1C, and 1D HARPOON missiles. The HETF provides the capability for simulating operation of the various surface ship versions of the HWS installation, representing ASROC, TARTAR, and Canister launcher configurations. Simulators provide target designation information, launcher functions and own ship motion data.

COMPUTER PROGRAM MAINTENANCE FACILITIES (CPMF) - The SWEF houses a variety of computer program maintenance facilities that are operated in conjunction with the installed hardware to validate and maintain computer programs. these facilities include: TARTAR CPMF, TOMAHAWK Software Production Facility, MK 86 CPMF, and VLS CPMF. The CPMF supports US and Foreign Military Sales (FMS) tactical and non-tactical computer programs for which PHD NSWC is ISEA. The CPMF, consists of military computers (UYK-7, UYK-43, UYK-44, UYK-20), load devices (RD-358, RD-358A, commercial tape drives), display consoles (OJ-192, OJ-194, USQ-69) and program development equipment (MICROVAX).

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

   The SWEF is a fixed facility.

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

   Replacement value is $308.9M with at least $7.5M being out of production equipment which would lead to significantly higher costs to restart production .

4. Provide the gross weight and cube of the facility/equipment.

   280 tons - 143,000 $ft^3$

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

   Deionized water
   400 Hz power 440V and 120V, type 3
   Low pressure, clean dry air
   Live communications ability (satellite, etc.)
   Fire protection (water and non-water)
   Lab grounding grid
   Chilled water
   60 Hz 440V, 3 phase
   Personnel access control for simultaneous NOFORN and FORN OPS
   Alarmed security
   Areas with physical controls for two man control requirements
   Tempest requirements for U.S. Navy projects
   Access to live radiation (microwave) area over saltwater with land mass background and a controlled instrumented air space

Low pressure dry nitrogen
Secure and unclassified LAN support
Electrical voltage surge and spike protection

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

Tempest requirements
Special foundations for massive equipment with precise positioning requirements
Raised computer flooring
Special towers for various radar antenna systems
All areas physically securable for classified projects

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

Most equipment requires air conditioning and/or chilled water.
Estimated requirement - 250 tons
Exterior of building must be in a salt air environment

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department of the Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

The SWEF would be extremely difficult to replicate or relocate since most of the equipments are integrated and some key elements are fixed; the facility could not be relocated without major demolition of the present facility and construction of a new facility at the new location. Replication is difficult/impossible for the same reasons plus the fact that many equipments are no longer in production and replacement would be very expensive. It should be noted that some of the equipment exists at other sites, however, none of the sites has more than a small fraction (less than 15%) of the equipments and none of them has the necessary facilities to accommodate all of the equipments or that duplicates the operational synergy that currently exists.

As indicated in paragraph 1 above, the location is ideal to carry out the operation and maintenance support provided to the in-service systems and equipments of the fleet. The ability to utilize the system in tactical-like littoral environment enhances the results of the various technical projects performed at the SWEF. The deep water port at Port Hueneme and the nearby Pacific Missile Test Range enable the systems and equipment at SWEF to participate in exercises involving the Self Defense Test Ship and other surface combatants during exercises on the range or in port.

In addition, other land-based sites have severe operating frequency restrictions that would limit such things as the Target Acquisition System (TAS) and Nato SeaSparrow Systems support for AN/SWY-1 and AN/SWY-2. TAS operating frequencies are close to Air Traffic Control frequencies.

If this facility were lost, the Navy would have no facility capable of shore based integrated testing of the combat and weapons systems on many classes of ships. As a result the ISEA functions of investigating engineering solutions, evaluating new development programs including both hardware and software upgrades, validating computer programs, proofing maintenance procedures, resolving fleet documentation and technical manual problems, trouble shooting systems, and training would be seriously impacted. In many cases problems could not be resolved, procedures and documentation could not be developed, and needed changes could not be implemented until and unless an operational ship was available for testing and validation. This would ultimately make the delivery of In-Service Engineering support less timely and less effective which would seriously degrade fleet readiness.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

Transportation - The heavy equipment was shipped by motor freight and rail. The remainder of the equipment was shipped by a combination of motor freight and other ground transportation.

Construction - The large and heavy equipments were assembled and installed on-site with special foundations being fabricated locally or on-site as required.

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. Refer to Appendix A for the list of functional support areas.

1.3 Surface Ships
2.1 Weapon Systems/Gun Systems
2.2 Weapons Systems Guided Missiles
2.8 Weapons Systems Launches
2.9 Fire Control
2.10 Weapon Data Links
3.2 Surface Ship Combat Systems Integration
3.3 Surface
4.2 Special Operations Support - Coastal/Special Warfare Support
5.2 Sensor and Surveillance Systems/Radar Systems
5.3 Special Sensors
6.3 Surface Ship Navigation Systems

6.5 Satellite Navigation Systems
7.3 Shipboard
7.3 Shipboard Command, Control, Communications and Intelligence
8.2 Countermeasures
8.3 Electronic Warfare (EW) Systems
9.1 Navy Strategic Systems
10.1 Personnel and Training
10.1.4 General Mission Support/Personnel and Training/Weapons Intelligence Training Systems
11.2 Software

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

The SWEF operates two working shifts and one maintenance shift five (5) days a week. Extra time can be made available on weekends. 100% utilization would be full use of the two working 40 hour shifts or 80 hours per week. For the period from FY 89 to FY 93, usage on average ran 63% with periods of several months that ran as high as 100% usage with occasional hours of 25%.

12. Provide the projected utilization data out to FY 1997.

100% utilization of the SWEF is defined as: 8 hours a day, 5 days a week.

For the period from FY 89 to FY 93 the average utilization was 120%. The projected usage for FY 94 through FY 97 are as follows:

FY 94 142%
FY 95 160%
FY 96 180%
FY 97 190%

13. What is the approximate number of personnel used to operate the facility/equipment?

Approximately fifty highly skilled engineering and support personnel occupy the SWEF at a given time. This number varies somewhat depending on projects that are in process. However, for ever technician or engineer working at the SWEF there are 40 to fifty other engineers and scientists whose efforts are supported by the work that goes on there. Based on the number of functional areas supported by the SWEF, it is estimated that this facility supports the work of over two thousand scientists and engineers from both government and the private sector.

The full-spectrum of surface ship weapon systems supported by this facility requires highly trained personnel with extensive knowledge of hardware design and maintenance, computer program design and maintenance, test engineering, maintenance planning, provisioning, technical documentation and fleet operations. The skills mix includes but is not limited to the following:

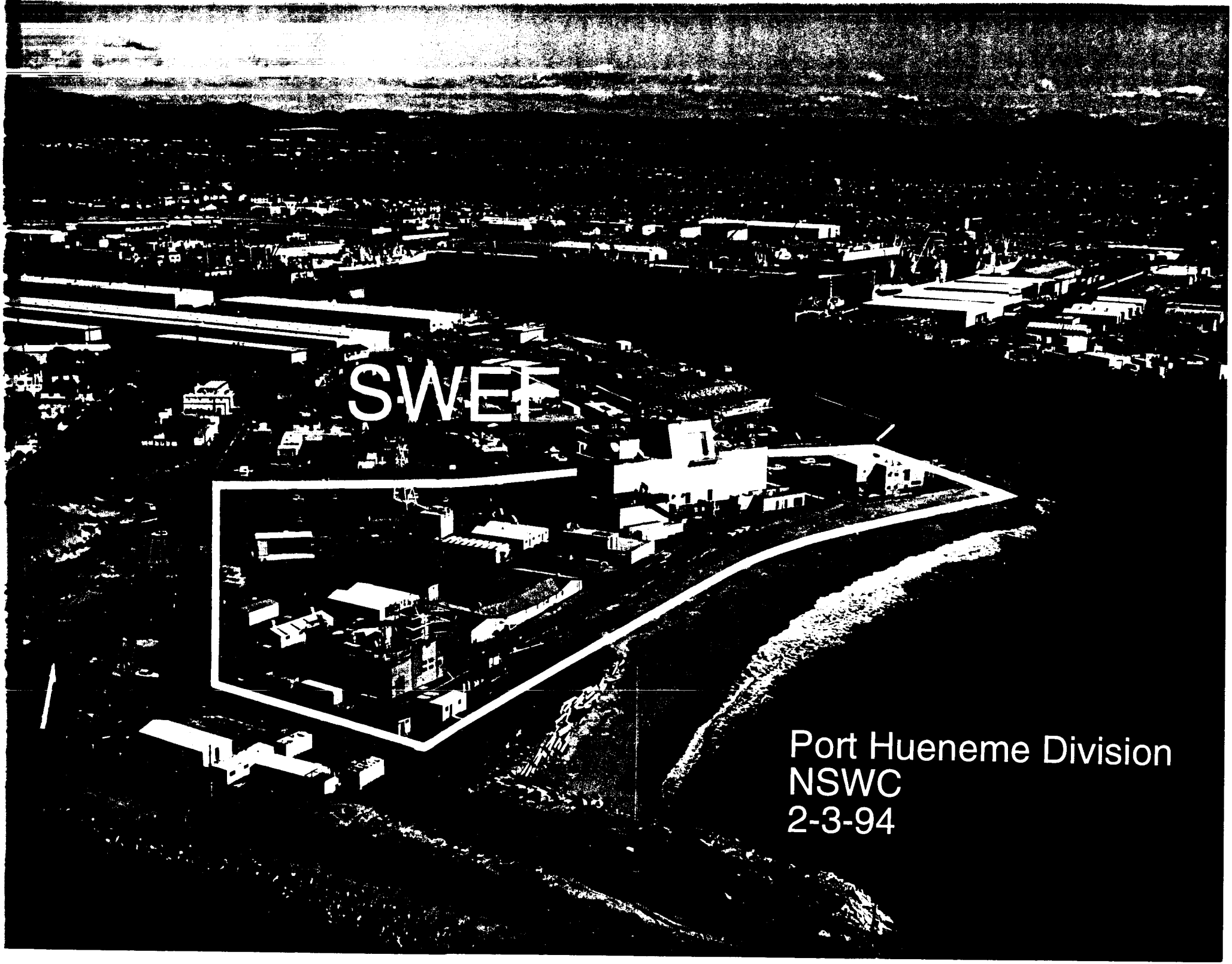
Mechanical engineers and technicians with specific experience in materials science, corrosion control, hazardous materials, structural design, shock mitigation and survivability in a warfare environment. Certain personnel are also trained and certified to instruct and further certify ship and shore activities as Tomahawk and Harpoon missile handling teams.

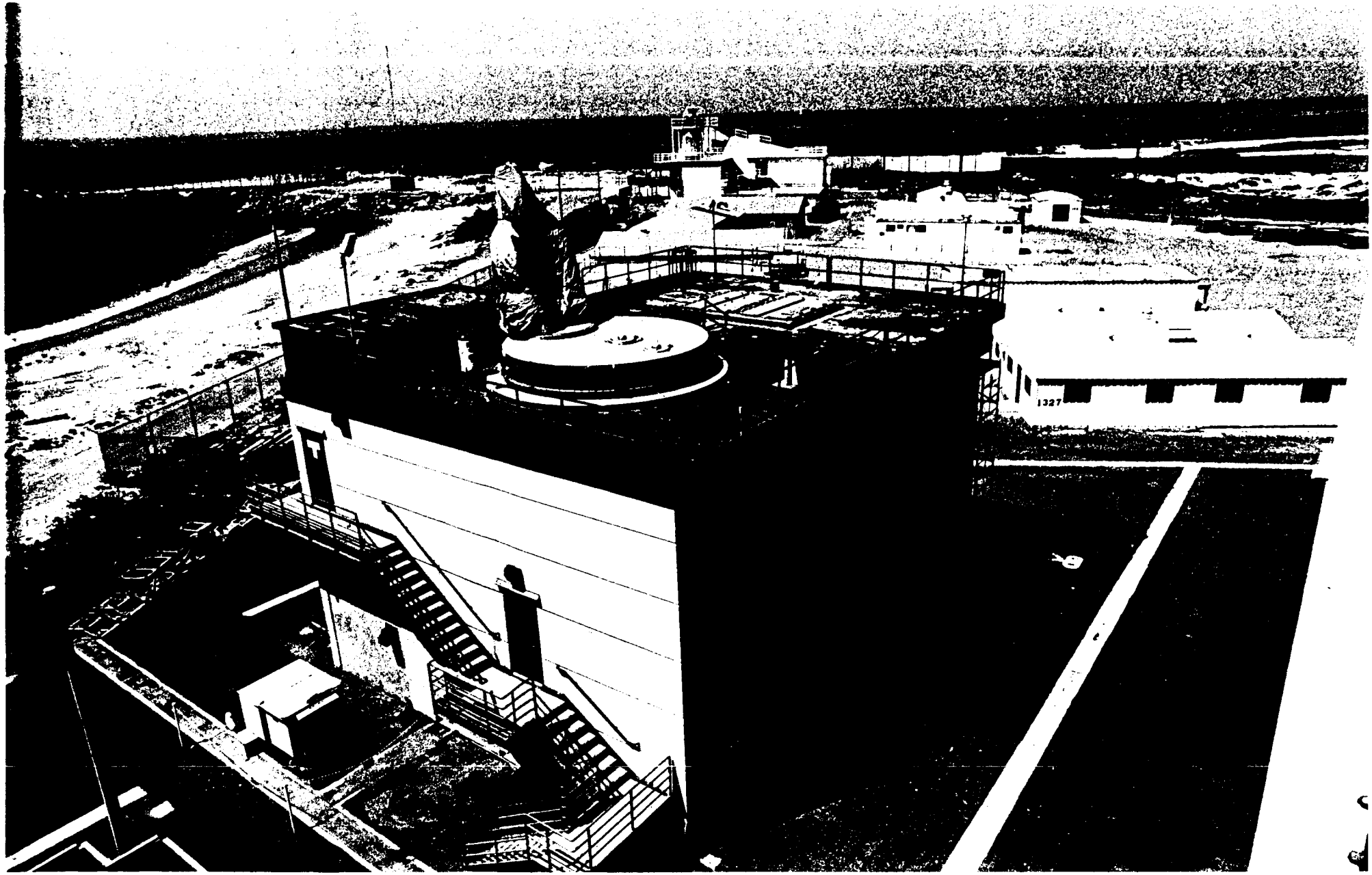
Computer scientists/engineers with specific experience in assembly languages, tactical program design, interface protocols, simulations and networks. They are also proficient in the operation and maintenance of a wide variety of computer systems, both Military Specifications (MIL-SPEC) and Commercial off the Shelf (COTS)/Non-Developmental Items (NDI). Some of these individuals are part of the Personnel Reliability Program (PRP) certified to build Tomahawk Land Attack Missile (Nuclear Version) software which is a unique PHD capability..

14. What is the approximate number of personnel needed to maintain the equipment?
Approximately forty skilled technicians are employed to perform preventative and corrective maintenance on the equipment.

These technicians must be familiar with the specific weapon system, having been thoroughly trained in the complex maintenance requirements of the system. Some of the maintenance schools that train technicians to fault isolate and repair failures require a year of full time class and lab work. Often technicians with previous fleet training and experience are employed for this purpose. Technical maintenance personnel must be familiar with the equipment in addition to having the basic specialty skills.

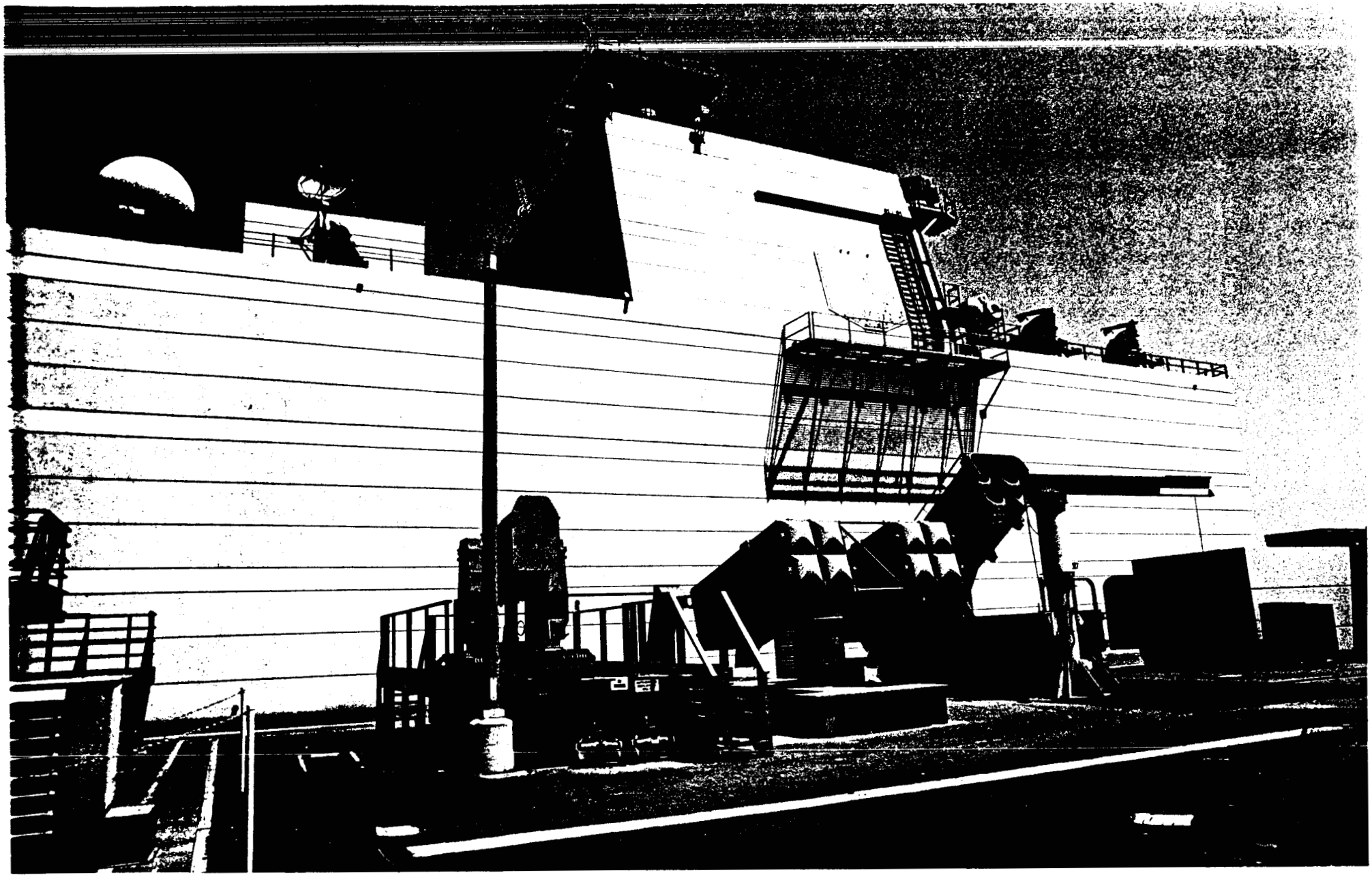
15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.


SWEF
Port Hueneme Division
NSWC
2-3-94



# MK 13 and MK 41 VLS Launchers

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994

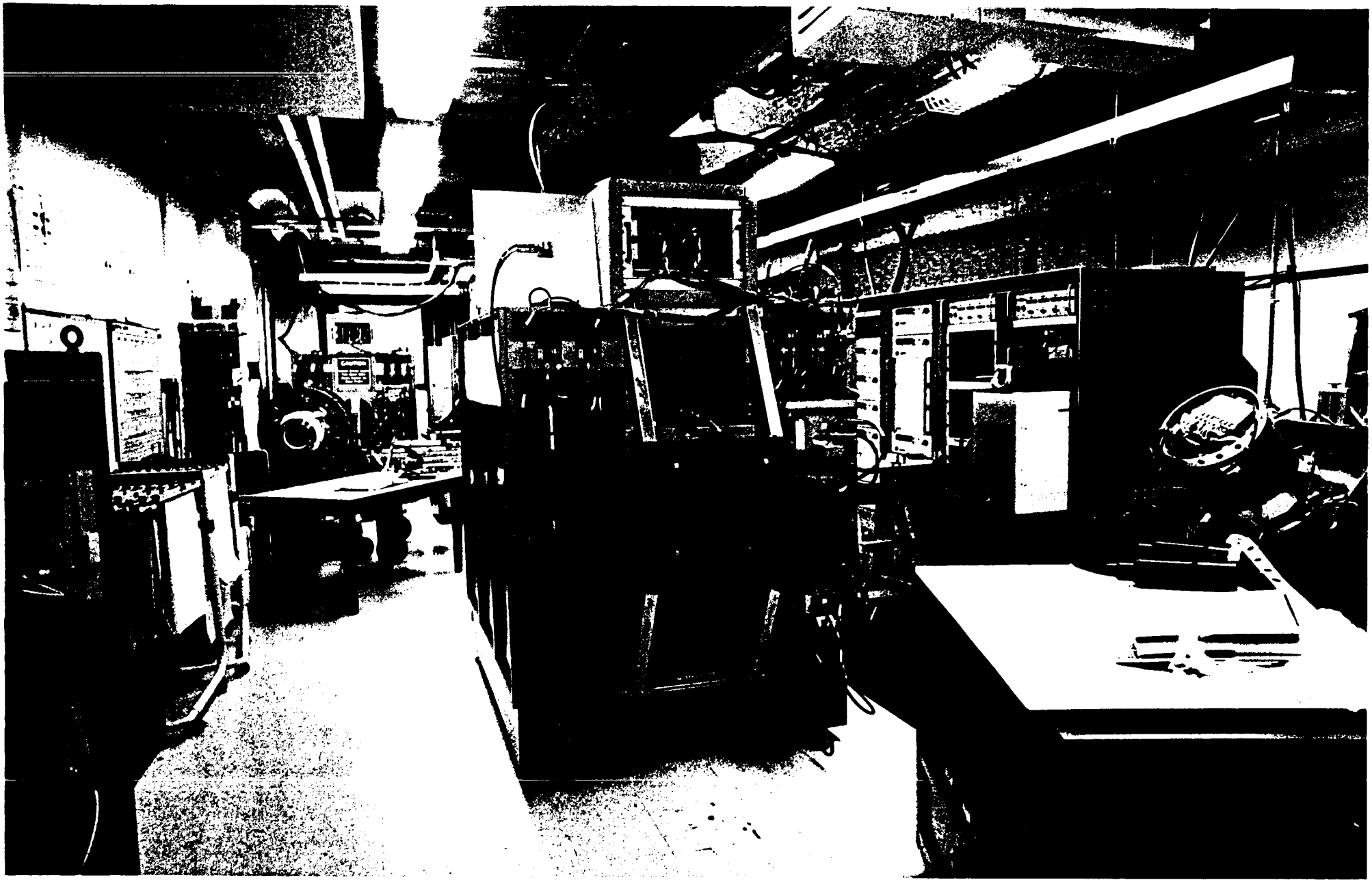


# SWEF Launchers and Antennas

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994

# Launchers: Tomahawk ABL, Nato Sea Sparrow and RAM

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994



# Missile Test Set

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994

# Tomahawk

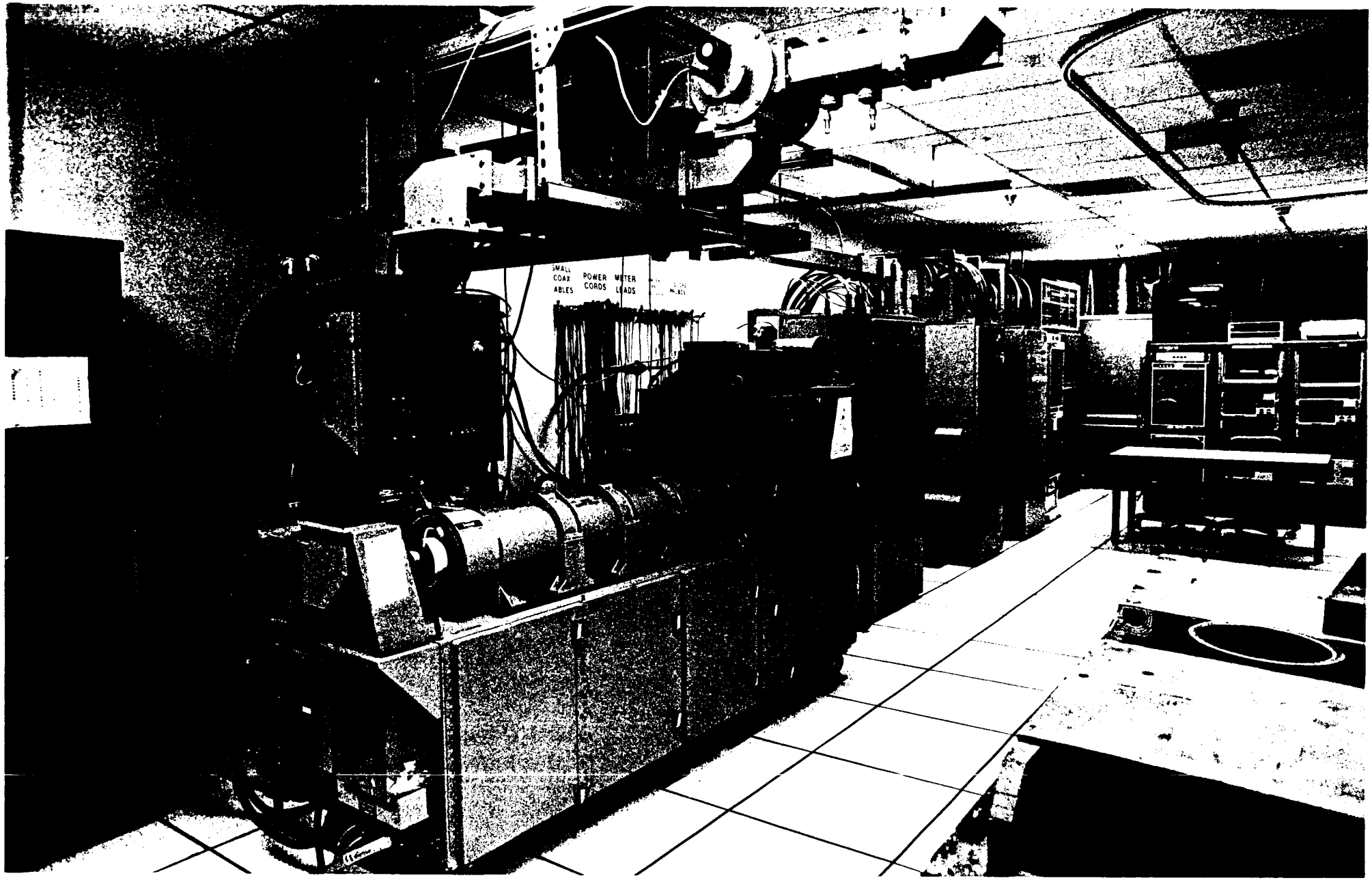
Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994

# Harpoon Engineering Test Facility

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994

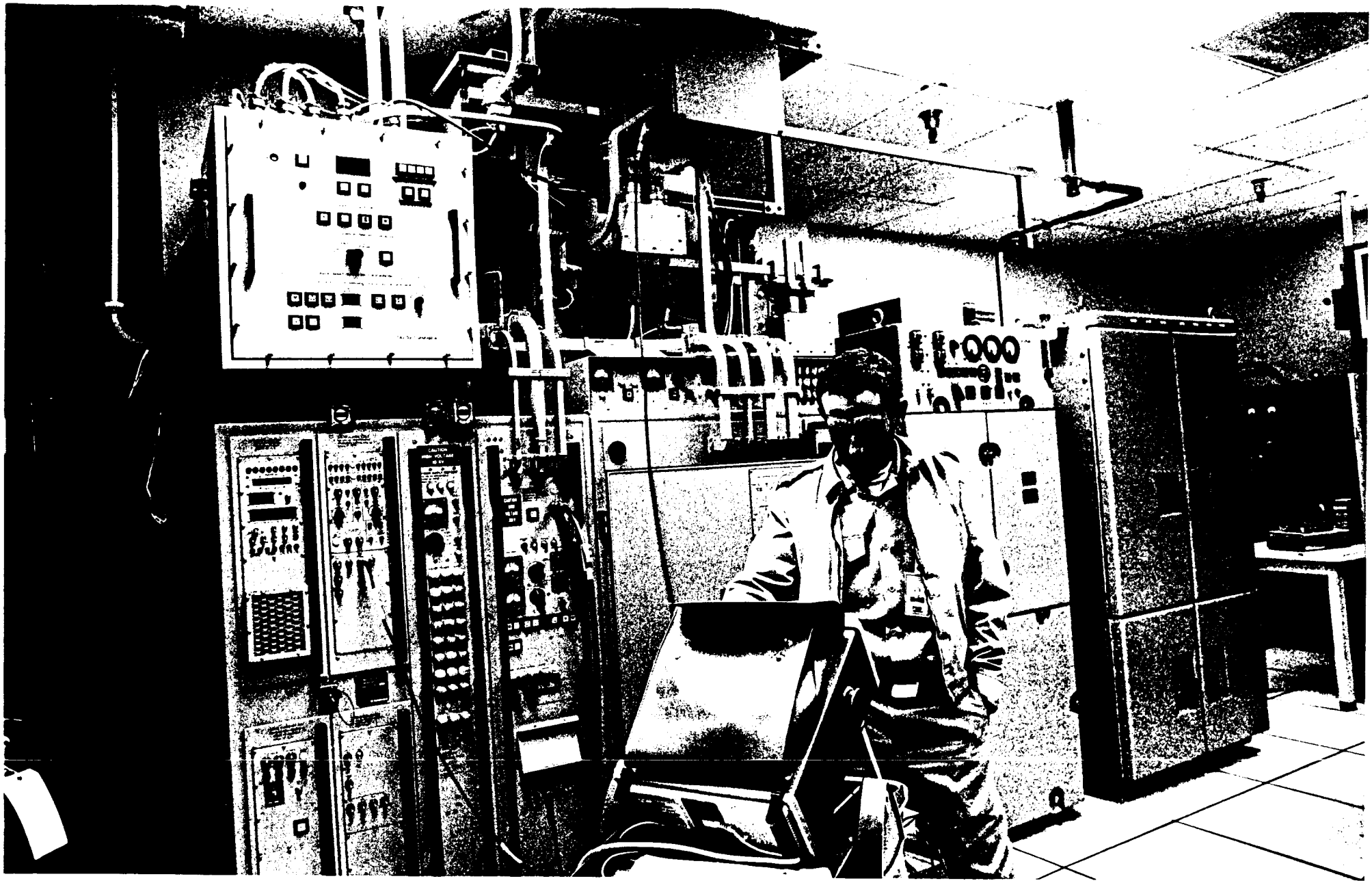
# MK 86 Gun FCS

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994




# TAS MK23

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994

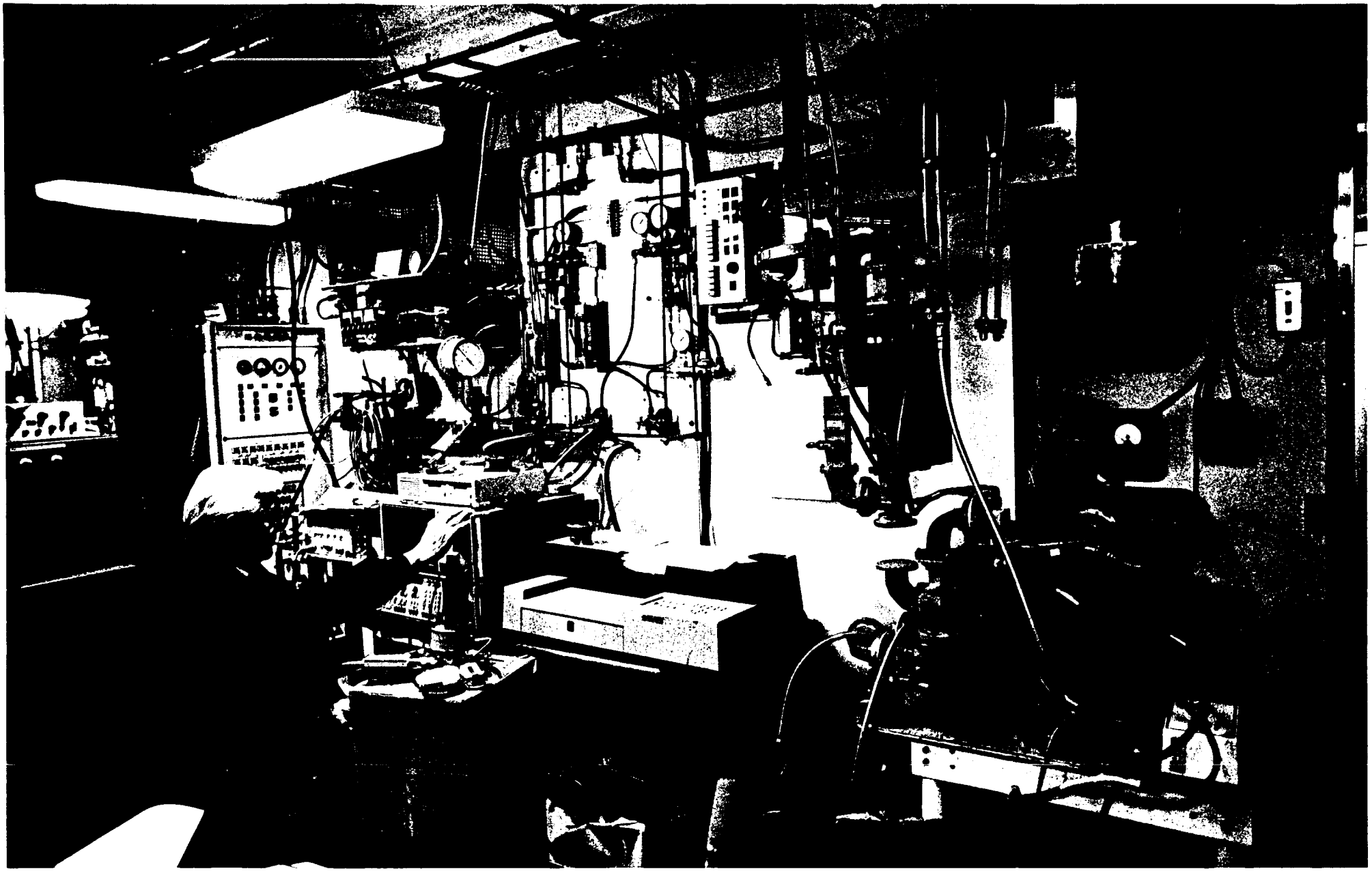


# MK 92 FCS

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994

# Computer Program Maintenance Facility

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994



# MK 10 Launcher Simulator

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994

## SPECIAL FACILITIES AND EQUIPMENT
## FACILITIES/EQUIPMENT CAPABILITY FORM

| Technical Center Site | PHD NSWC |
|---|---|
| Facility/Equipment Nomenclature or Title | Self Defense Test Ship |

1. State the primary purpose(s) of the facility/equipment.

The test and evaluation of new and modified systems is a key process in the maintenance of the highest degree of capability in Naval surface ship force regardless of its size. PHD provides a comprehensive and unique capability to plan, conduct and evaluate development testing of all surface ship combat systems and their AAW, ASUW, Surface Electronic Warfare, Joint Strike, and $C^4I$ warfighting capability. A key element in the PHD test and evaluation capability is the Self Defense Test Ship (SDTS). This ship, former USS DECATUR (DDG-31) is completely remote controlled, permitting at-sea evaluation of weapon and sensor.

SDTS, the former USS DECATUR (DDG-31), is a completely remote-controlled ship designed to allow at-sea evaluation of weapon and sensor systems against very stringent targets and threats in a variety of realistic scenarios without the undue burden or safety constraints of manned ships. The SDTS is designed to operate either remotely or manned by a crew on the Pacific Missile Test Range, which is controlled by the Naval Air Warfare Center, Weapons Division, Point Mugu, CA. Like the SDTS, the weapons and sensors are controlled remotely from PHD NSWC's Surface Weapons Engineering Facility (SWEF) via a combination of fiber optic and RF links. There is currently no other platform from which similar tests can provide a realistic method of evaluating combat system performance in a stressing environment. It is also the only source known for obtaining realistic shipboard test data for weapon system capabilities and limitations under littoral warfare conditions. The systems currently installed are the Mk 23 Target Acquisition System, NATO Seasparrow Surface Missile System and the AN/SLQ-32(V)3 Electronic Support Measures system.

As an adjunct to remote testing, the SDTS is capable of maintaining a crew of 50 personnel for 30 days during manned operations. This will greatly mitigate the necessity for obtaining scarce fleet resources for extended periods of time during developmental testing. If an active fleet test ship is lost due to deployment or extended test time requirements, a test program would have to fund installation in one or more new test platforms. This results in scheduling delays and significant increases in funding requirements. SDTS, during manned operations,

would circumvent this problem.

SDTS has been designed and equipped to take advantage of the system installations at SWEF. Shipboard equipment can be exercised using SWEF systems via a remote RF link while the ship is pierside. This will reduce the risk of at-sea operations. In addition, the ability to use the SDTS pierside will allow installation and assessment of software and hardware modifications in installed systems in a true shipboard environment.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

The SDTS is moveable at a speed of about 4 - 5 knots. Moving the ship extended distances would require assistance of a sea-going tug boat.

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

The cost to convert the ship from in-active status is approximately: $ 5.0M

The replacement cost of the weapon and sensor systems currently installed is approximately:

| | |
|---|---|
| Mk 23 Target Acquisition System | $ 5.4M |
| AN/SLQ-32(V)3 Electronic Support Measures System | $ 5.5M |
| NATO Seasparrow System | $15.274M |
| | Total $31.174M |

4. Provide the gross weight and cube of the facility/equipment.

The SDTS has a displacement of approximately 4000 tons. It is 418 feet long, has a 44 foot beam and a mean draft of 20 feet.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

The ship requires location in a harbor with a water depth of at least 25 feet, pier space suitable for a 418 foot ship and, highly desirable, very close proximity to a "hot" pier, i.e., a pier which is suitable for loadout of missiles and gun ammunition. Support requirements include water, telephones and sewer hookup and access to cranes and tug and support boats to support sea trials. Security is required during certain periods.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations,

non-ferrous materials, shielding, hardening, etc.).

Provisions must be made for annual maintenance and upkeep of the vessel as well as operations during periods of testing. This requires a crew of approximately 8 - 16 people, depending on the ship's activity level.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

Environmental controls for the users are installed within the vessel.

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the department of the Navy if this facility/equipment were lost. Consider existing government-wide and commercial capabilities as the replication and impact statements are formulated.

PHD's ability to competently execute its assigned SDTS Programs is made possible by its seaside location and the nearby facilities of Naval Air Warfare Center, Weapons Division and the Port Hueneme Deep Water Harbor. The limited mobility of the SDTS and the need to be towed prevent location of this ship very far from the range where it will be used. The location of PHD on the shore and facing the ocean, the Channel Islands, and NAWC provides a realistic littoral environment such as land mass background and sea and land clutter, in addition to providing operating areas for threat representative surface and sea skimming aerial tracking targets. Proximity of the NAWC within 3 miles of the ship provides unique test facilities that allow for synergism between the two. Port Hueneme's deep water harbor permits the SDTS to be homeported here as well as allowing joint operations with the nearby Surface Weapons Engineering Facility.

There is currently no way to assess whether a self defense or softkill system is truly effective against the real threat. That is only possible if there is no risk to test personnel. The SDTS is the alternative chosen to achieve that end. It requires close proximity to a fully instrumented and full service test range location in a harbor with a water depth of at least 25 feet, pier space suitable for a 418 foot ship and, close proximity to a pier that is suitable for loadout of missiles and gun ammunition. Because of the ship's speed (only 4 - 5 knots), it should be in close proximity to a fully instrumented test range that can control and track the vessel during unmanned operations and which can provide the target and threat launching services, data collection, and target tracking required to support the ship and systems during test operations. The alternative of a land based test site is much less desirable for the following reasons:

- SDTS supplies a realistic ship speed, motion, vibration, noise and temperature

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environment.

- Overall marine environment is representative of real world requirements, e.g., RF multipath and ducting, IR background and glint, salt spray, sun angles over the water, and infrared extinction coefficient.
- Mitigation of safety concerns because of a controlled, wide area range.
- Ability of the threats/targets to fly representative profiles from a variety of ship relative bearings, i.e., true threat representative scenarios.

Systems are currently tested on active fleet Navy ships which are inadequate to evaluate self defense systems against stringent threats and targets because of safety limitations. Furthermore, active fleet assets are increasingly scarce because of the shrinking size of the Fleet. Systems undergoing test and evaluation frequently require several months of dedicated time and ship deployment schedules often do not mesh with test requirements without impacting the Program under test which results in costly schedule delays. R

The Navy's ability to deter would-be aggressors and prevail in combat if deterrence fails, requires the development, acquisition, field support and periodic update of state-of-the-art sophisticated weapons systems. Without the SDTS technical capability, the Navy's surface warfare capability will be impacted. Readiness of operational systems could suffer due to the lack of realistic testing of new systems. Private industry cannot supply this capability.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

The USS DECATUR was approved by CNO for conversion to SDTS in April 1988. Conversion was initiated at the Naval Inactive Ship Maintenance Facility in FY 90 and continued at Puget Sound Naval Shipyard. The ship was towed to the Port Hueneme harbor, arriving on 09 June 1993, where the conversion is being completed. Initial Operational Capability is scheduled for October 1994.

10. List the functional support areas (previously provided in TAB A) that this facility/equipment support. Refer to Appendix A for the list of functional support areas.

2.2 Guided Missiles
2.8 Launchers
2.9 Fire Control
2.10 Weapons Data Links
3.3 Combat System Integration
5.2 Radar Systems
5.3 Special Sensors
8.2 Counter Measures
8.3 Electronic Warfare (EW) Systems



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10.1.3 Surface Ship Related Training Systems
10.1.4 Weapons Related Training Systems
10.9 Activity Mission and Function Support

Systems planned for installation will support the following additional areas.

2.1 Gun Systems
7.3 Shipboard Command, Control, Communications and Intelligence
11.1 Computers
11.2 Software
11.3 Communications Networking

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

A similar vessel (ex-STODDARD), which had only one user and is no longer in service, was used for approximately 18 months from 1984 through 1990. The SDTS will accommodate many more users so utilization rates are expected to be much higher.

12. Provide the projected utilization data out to FY 1997.

It is projected that the SDTS will be used by a project, whether in port or at sea, 260 days per year. At-sea usage will be variable based on the project's requirements, but is expected to average 20 days per quarter.

13. What is the approximate number of personnel used to operate the facility/equipment?

Approximately 18 people are required to man the vessel during at-sea operations. This does not include project personnel.

An average of 25 Project personnel who are highly trained with extensive knowledge of Research and Development, Test and Evaluation, acquisition methodology, hardware design and maintenance, computer program design and maintenance, test engineering, maintenance planning, provisioning, technical documentation and fleet operations are needed to support at-sea operations. PHD NSWC personnel include technical experts able to provide a highly responsive team for SDTS. In-port operations require an average of 10 personnel of the same caliber. R

In additon to the personnel who are directly involved in the operation of the ship and manning the test operations that are supported by SDTS there are a large number of technical

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personnel bot in government and industry whose work depends to some degree on the projects conducted on the SDTS. Based on the number of functioal areas supported it is estimated that this number is in excess of thirteen hundred personnel.

The skills mix includes but is not limited to the following:

Electronic engineers and technicians with specific experience in installed Weapons Systems, high power transmitters, radars, computers, signal processors, control systems, antennas, communications systems, display consoles, and electro-optical systems.

Mechanical engineers and technicians with specific experience in material science, corrosion control, hazardous materials, structural design, shock mitigation and survivability in a warfare environment.

Computer scientists/engineers with specific experience in assembly languages, tactical program design, interface protocols, simulations and networks. They are also proficient in the operation and maintenance of a wide variety of computer systems, both Military Specifications (MIL-SPEC) and Commercial off the Shelf (COTS)/Non-Developmental Items (NDI).

Project engineers, with specific experience in management of T&E Projects and knowledge regarding weapon systems capabilities and of the DOD Acquisition Process including T&E, team, leadership, technical disciplines (electrical/mechanical/computer), DoD policies and overall weapon system operation.

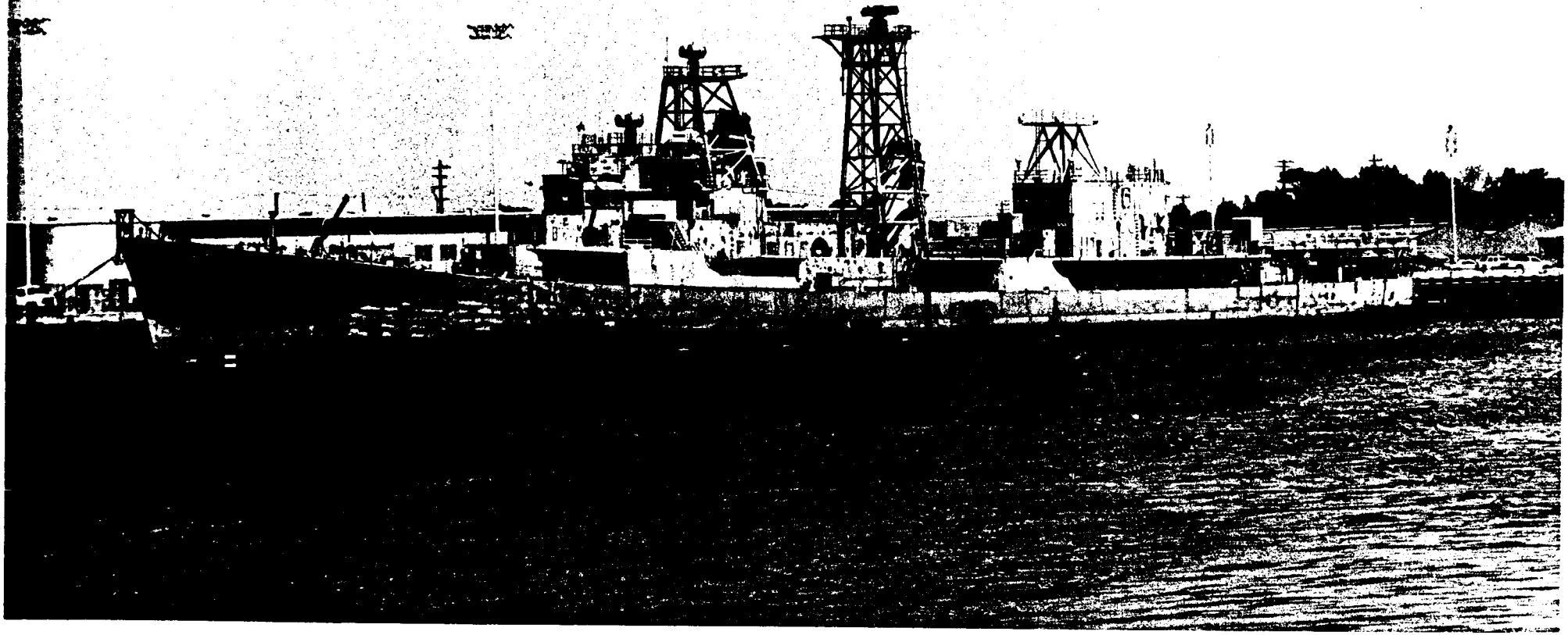
The PHD NSWC technical staff provides for software development, modifications, test and debug, validations, verification, fleet data analysis, software compilations, and software configuration management in conjunction with the Surface Warfare Engineering Facility (SWEF), the Vice Admiral Robert Walters Lab, the Computer Program Maintenance Facility (CPMF), and the Integrated Combat System Test Facility (ICSTF) in support of the SDTS.

14. What is the approximate number of personnel needed to maintain the equipment?

In-port operations will require approximately 11 personnel for ship upkeep and maintenance and an average of five members of the PHD NSWC technical staff.

In-port operations require skilled journeyman trade personnel (hull technicians, plumbers, painters, mechanics, etc.) with naval vessel experience and knowledge.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.



# Self Defense Test Ship

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994

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**SPECIAL FACILITIES AND EQUIPMENT**
**FACILITIES/EQUIPMENT CAPABILITY FORM**

| | |
|---|---|
| Technical Center Site | PHD NSWC, VA Beach |
| Facility/Equipment Nomenclature or Title | PHD NSWC EAST COAST OPERATIONS TEST FACILITY |

1. State the primary purpose(s) of the facility/equipment.

PHD NSWC East Coast Operations (ECO) in Virginia Beach, Va. has two main facilities: The Combat System Mock-up Test Facility and the Computer Program Generation Center (PGC). R

The Combat System Mock-up Test Facility interfaces combat system computer programs with live search and fire control radars and the emerging hardware associated with Cooperative Engagement Capability (CEC). The facility also tests Contractor Off The Shelf/Non-Developmental systems and evaluates both emulation capability and user program interface(s).

The Combat System Fleet Support Facility jointly located/shared with FCTCL consists of fully operational Combat Direction System (CDS) mockups which replicate operational fleet equipment configurations. These facilities provide fleet training, software development, test and evaluation of integrated combat systems, e. g., CV, LHD, DDG 993 class ship programs and capitalizes on the opportunity for NSWC PHD ECO and FCTCL to co-share and mutually support each other with available resources. Combined with the ongoing base Wide Area Network (WAN) expansion, this facility is capable of integrating with deployed fleet systems, e. g., NTCS-A, SATCOM, OTCIXS, CEC, etc. and possesses an expanding joint service combat support capability. Live integration of deployed weapons systems, e. g., MK 92, MK 86 FCS, and the future systems installations and integration into the WAN will enhance the already significant role of this facility as the Center for Combat System Excellence. See figure 1 for a depiction of the full range of live and simulated radars, data links, communications, weapons, computer, navigation and display systems available at this facility.

The Computer Program Generation Center hosts systems for interactive computer program development and debugging of CDS computer programs for shipboard tactical

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The Computer Program Generation Center hosts systems for interactive computer program development and debugging of CDS computer programs for shipboard tactical use, simulation, and training. Over 1000 secure interactive data ports are available to support computer program development, Joint Tactical Integrated Distribution System software support and CEC test site data reduction and exercises.

Surface ship combat direction (control) systems are central to providing the U.S. and foreign allied navies the capability for defense in all warfare areas and for completing their mission of providing the engagement control function to put the weapon on target. These combat direction (control) systems must operate immediately and without fault when called upon which means that the computer programs must be completely operational.

The PHD ECO facility supports a number of multi-service and joint service initiatives, including:

Joint Tactical Data Communication (JTIDS). JTIDS is used to ensure Navy tactical computer programs are compatible with Army, Air Force and Marine Corps programs, thereby ensuring the Navy's ability to participate in joint warfare operations. This compatibility includes the Army Air Defense Communication and Control System, the Air

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Force Tactical Air Control System, the Marine Corps Air Communication and Control System and the Naval Tactical Display and Air Tactical Display Systems. JTIDS also ensures compatibility with the international Multi-Function Information Distribution System and the Mobile Universal Link 11 Translator System.

Jointness/Project Reliance. The CDS computer programs and tactical data communications systems (Tadil A, Joint Tactical Information Distribution System) for which PHD has full life cycle responsibilities support Project Reliance capabilities. These mature, proven systems facilitate standardized data transfer and operating procedures. For example, using these data links in conjunction with CDS capabilities, Navy air controllers can transfer control of combat aircraft back and forth with the Marine Corps, Army and Air Force air controllers in support of joint military operations.

Dual Use/Technology Transfer. PHD ECO has recently begun working with local city government to establish a joint project involving use of PHD expertise in relational data base management, Local Area Network operation and Management Information Systems. This effort is expected to initiate a broad range of cooperative efforts involving dual use and technology sharing with the local and state governments.

PHD ECO Core Technical Functions include:

a. Providing life cycle support for surface combat direction (control) systems, navigation and other assigned software;

b. Specifying requirements for, designs and code modifications to computer programs;

c. Testing program modifications at all levels including subprogram/module, functional level, Program Acceptance Testing and Systems Integration Testing;

d. Providing documentation for these program changes at the requirements, design, code, test and operational stages and measuring core memory usage, computer timing and costs of all program changes;

e. Developing configuration management plans and procedures to establish priorities for and control of the process of making improvements to the operational programs in an orderly manner;

f. Developing and maintaining data bases and application software in support of operational program change processes;

g. Validating and ensuring proper performance of support software;

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The Multi-Unit Information Distribution System (MIDS) Program is a multinational collaborative effort to develop a pre-planned product improvement ($P^3I$) to the Joint Tactical Information Distribution System (JTIDS) Link-16 data terminal. As the next generation Link-16 terminal for the U. S. and its allies, MIDS will be the system for data link communications among multiple NATO platforms, including those already equipped with JTIDS Class 1 and 2. The program is designed to reduce each nation's development costs to acquire common and interoperable equipment. Participating nations are France, Germany, Italy, Spain and the United States. The multinational efforts are governed by a Program Memorandum of Understanding (PMOU) between the participants. R

NSWC PHD acts as the NAVSEA Technical Design Agent for the Navy Close Quarters Combat Range (CQCR) which is to be installed at the Navy Special Warfare Development Group (NSWDG), Dam Neck. In this role, ECO performs software development on this project started under a contract for the U. S. Army. ECO provides input to the software requirements specification, software design document and the users manual for the human/machine interface. ECO is involved in planning, reporting, coordination and liaison with NSWC, Crane; NSWDG, Dam Neck; NAVSEA 61Z and various U. S. Army special operations detachments. ECO will perform system level testing at designated sites. R

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e. Developing configuration management plans and procedures to establish priorities for and control of the process of making improvements to the operational programs in an orderly manner;

f. Developing and maintaining data bases and application software in support of operational program change processes;

g. Validating and ensuring proper performance of support software;

h. Maintaining production (Common Reusable Library) and test libraries required to produce changes to the operational program; and

i. Maintaining the hardware necessary to support all other program maintenance functions.

The integrated systems approach to combat direction (control) system software support ensures that lessons learned from deployed assets are brought to bear on the design process for new tactical software systems modifications. In providing the bridge between deployed fleet assets and the shorebased lab and contractor communities, PHD has developed a unique expertise in researching, analyzing and applying the knowledge gained from fleet experience to future Navy tactical software efforts, especially in those areas requiring human-machine interface. Through this bridge between development or maintenance laboratories and fleet users, PHD provides the Navy a "smart buyer" by assuring that software and services efficiently fulfill current and future operational requirements.

PHD has been designated a Center of Excellence by the Software Engineering Institute at Carnegie Mellon University and, as such, is using the Capability Maturity Model to measure and improve the software management process. PHD has implemented the Software Technology for Adaptable and Reliable Systems mego-programming concepts of technology/tools, process and reuse, and is working with the Advanced Research Projects Agency (ARPA) in support of the SEI Software Process Improvement program.

PHD ECO is funded by and supports program offices (NAVAIR, NAVSEA, SPAWAR, Coast Guard) throughout the development of real-time tactical computer programs by producing, reviewing and providing advice on documentation, computer program code, test procedures and results, system interfaces and operational requirements. PHD ECO advises higher echelon commands on technical computer program production standards, use of metrics to assess project status, program acceptance criteria, interface design specifications and configuration management procedures. PHD ECO regularly provides independent validation and verification, financial and technical evaluations, configuration management services, and schedule, financial and level-of-effort estimates in support of all phases of program management.

Fleet readiness is the highest priority for this facility. Tactical computer programs are regularly updated in response to fleet user inputs, test results and changing program requirements. Technical experts are available to travel to any ship or aircraft requiring engineering assistance to respond to crisis situations, such as experienced during the Gulf War.

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The facility includes the following equipment:

Centralized in the Program Generation Center (PGC) are six AN/UYK-43 military mainframe computers and nine Digital Equipment Corp. (DEC) VAX mini-computers used for tactical software development (i.e. Combat and Navigation Systems primarily for Cruisers and Destroyers). The PGC VAX systems also host Configuration Management, software development tools, CASE tools, and data bases. These computers are accessed via terminals through a Gandalf PAX-2000 and Starmaster Intelligent Switch. Also located in the PGC and two high-speed Xerox laser printers and a CDROM development system.

Connected via Ethernet and FDDI are currently 35 RISC-based Unix workstations and 21 single board computers in a VME chassis. These are used for developing Advanced Combat Systems computer programs primarily for Cruisers and Destroyers. Additionally, connected via ethernet are 27 VAX workstations used for a wide variety of programs such as JTIDS Software development and Configuration Management. Four VAX workstations are to be connected remotely to allow the JTIDS Link Project Office, ISEA, NAVSEA, and NRAD San Diego to access the MIS. R

Compilers and software applications on the Military computers include CMS2-Y, CMS2-Q, CS1, ULTRA-32, and MTASS. The UNIX systems host "C", Ada, Requirements and Traceability Manager (RTM), Software Through Pictures (STP), HP Softbench, Product Configuration Management System (PCMS), Oracle Database, McCabe tools, and Interleaf Documentation system. Available on the VAX systems is 'C', Fortran, BASIC, Pascal, DEC Ada, ALSN/Ada, MTASS, DECwrite, VAX Document, DECdecision, Ingress database development, Oracle database development, Dbase IV, DECset software development tools, McCabe Tools, PCMS, RTM, and Interleaf documentation system.

The BFTT laboratory comprises resources for the accomplishment of three major BFTT activities: First the laboratory is equipped to provide a dynamic workstation-based hardware configuration capability for the development of system software. Second, the laboratory serves for the research and development of various Commercial Off-the-Shelf (COTS) and Government Off-the-Shelf (GOTS) resources in a VME local area network configuration. Third, the laboratory serves as the system integration site for the construction of the total BFTT system consisting of multiple vendor hardware and software. This laboratory is electronically connected to the Distributed Interactive Simulation (DIS) system to permit multi-service tactical training. The laboratory is currently planned for use during all major joint exercises, beginning with Synthetic Theater of War - Europe (STOW-E), beginning in Nov 94.

The Command Station laboratory is used primarily for the development and production of the Command Station workstation-based system software for CV, LHD, LHA, and CGN and DDG 993 class combat systems. The laboratory is electronically connected with the BFTT laboratory to allow interchange of software tools, source code reuse and the cosharing of hardware and software licenses.

The CEC laboratory is primarily a test and integration laboratory utilizing the vast resources of three major activities, NSWC PHD, FCTCLANT Dam Neck, and the Guided Missile School, Dam Neck. CEC is a major R&D project for the multi-service integration and coordination of the AAW tactical picture. The CEC control site laboratory is utilized for the live control and verification of operations of ship and air platforms located in the Virginia Capes operating area. The CEC laboratory utilizes three live air search radars, four combat system mockups, land and sea communication nets, satellite communications with Wallops Island(AEGIS), PATRIOT battery, AWACS, P3C and telecommunications with the National Test Facility. The CEC laboratory is a leading edge weapons communication control and test center for all CEC project milestones.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

The equipment included is portable, however there are several supporting requirements annotated in paragraph 5 & 6 which are required and are fixed assets within the building structure.

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Combat Fleet Support Facility - $445M (Estimated) Replacement value does not reflect replacement of out-of-production equipment that would be required to relocate the capabilities of this facility.

PGC - $25M

The facility includes the following equipment:

Centralized in the Program Generation Center (PGC) are six AN/UYK-43 military mainframe computers and nine Digital Equipment Corp. (DEC) VAX mini-computers used for tactical software development (i.e. Combat and Navigation Systems primarily for Cruisers and Destroyers). The PGC VAX systems also host Configuration Management, software development tools, CASE tools, and data bases. These computers are accessed via terminals through a Gandalf PAX-2000 and Starmaster Intelligent Switch. Also located in the PGC and two high-speed Xerox laser printers and a CDROM development system.

Connected via Ethernet and FDDI are currently 35 RISC-based Unix workstations and 21 single board computers in a VME chassis. These are used for developing Advanced Combat Systems computer programs primarily for Cruisers and Destroyers. Additionally, connected via ethernet are 27 VAX workstations used for a wide variety of programs such as JTIDS Software development and Configuration Management. Four VAX workstations are to be connected remotely to the JTIDS Link Project Office, ISEA, NAVSEA, and NRAD San Diego to access the MIS.

Compilers and software applications on the Military computers include CMS2-Y, CMS2-Q, CS1, ULTRA-32, and MTASS. The UNIX systems host "C", Ada, Requirements and Traceability Manager (RTM), Software Through Pictures (STP), HP Softbench, Product Configuration Management System (PCMS), Oracle Database, McCabe tools, and Interleaf Documentation system. Available on the VAX systems is 'C', Fortran, BASIC, Pascal, DEC Ada, ALSN/Ada, MTASS, DECwrite, VAX Document, DECdecision, Ingress database development, Oracle database development, Dbase IV, DECset software development tools, McCabe Tools, PCMS, RTM, and Interleaf documentation system.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

The equipment included is portable, however there are several supporting requirements annotated in paragraph 5 & 6 which are required and are fixed assets within the building structure.

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Mock-ups - $445M

PGC - $25M

4. Provide the gross weight and cube of the facility/equipment. revised pg

Mock-ups - approximately 698,000 lbs and 18,750 $ft^3$

PGC - approximately 151,485 lbs and 10,404 $ft^3$

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

Several special requirements are required to support this equipment: Four hundred hertz electrical power, chilled and distilled water system and plumbing for UYK 7 and UYK 43 cooling, Uninterrupted Power System (UPS) to prevent computer system malfunctions, Live communications ability (satellite, etc.), Tempest requirements for U.S. Navy projects, Low pressure dry nitrogen, and Secure LAN support. R

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

Physical security, video cameras, motion & moisture detection, intrusion detection, key pad entry systems and alarms, Tempest requirements, Special foundations for massive equipment with precise positioning requirements, Raised computer flooring, and Special towers for various radar antenna systems. R

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

Heating, cooling and dehumidification to maintain a constant 72 degrees temperature and 60% humidity.

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the department of the Navy if this facility/equipment were lost. Consider existing government-wide and commercial capabilities as the replication and impact statements are formulated.

This facility would be difficult and prohibitively expensive to move or replicate due to the extensive Combat Direction System suites of equipment owned by the Fleet Combat Training Center, Atlantic (FCTCL) which includes complete shipboard mockups for CG, CGN, CV, LHD, DDG, DD, and FFG class ships; and associated live radars, communication systems and other peripheral hardware. Any move would require acquisition and installation of all this equipment. Additionally, the consolidation of the Guided Missile School and the transfer of the Mare Island Training Center equipment to the FCTCL which was directed by BRAC 93 gives PHD ECO access to all that combat system hardware and will make this facility the premier non-Aegis ship CDS test site in the entire Navy. There are no existing government or commercial facilities which the Battle Group and shipboard Combat Information Center mockups, live radar coverage, shipboard weapons systems (live, simulated and emulated) and internal/external communications capabilities with proximity to the fleet units, training facilities and fleet operations areas. R



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4. Provide the gross weight and cube of the facility/equipment.

Mock-ups - approximately 698,000 lbs and 18,750 $ft^3$

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revised pg

The co-location of the NSWC PHD Combat Systems Engineering Station Surface Surveillance Radar Branch and CDS In-Service Engineering Branch at the PHD ECo site also enhances the ECO's growing hardware and non-Aegis software In-Service Engineering Agent roles. R

Dual facility utilization of combat system hardware for in-service engineering and fleet training results in significant cost benefit to the Warfare Center and the training community. The extensive combat system hardware suites installed at the Dam Neck facility provide valuable cost and technical benefits for the development of a mega-center with all the capability necessary to allow a single point for all:

- In-Service Engineering
- Software Support Activity
- Test and Evaluation
- Training
- Future Development

The facility location at the Fleet Combat Training Command, Atlantic (FCTCL), provided a close liaison with fleet trainers and eventual users of the software programs. PHD ECO relies on feedback from this liaison with FCTCL to gather data on tactical computer program effectiveness, and provide access to combat systems software and capabilities to FCTCL that the students in training would otherwise not be exposed to prior to their first deployments. PHD ECO has the only facility for the projection and maintenance of combat direction (control) systems computer programs for combatant platforms (e.g., CGN 36, CGN 38, DD 963, DDG 993, FFG 7, and LAMPS Helicopter); the Cooperative Engagement Capability (CEC) development and test platforms and facilities; and the Battle Force Tactical Training (BFTT) development and test facilities. This facilitiy's capabilities are enhanced by eight high-speed digital switches (HSDS) capable of multiple independent or integrated combat system configurations. These HSDSs provide flexibility for users to operate in a simulated mode while transitioning to live operations with fleet units in the Virginia Capes Operating Area. R

Great value is also gained from its proximity to Virginia Capes Operating Area (VACAPES OPAREA), FACS/FAC air traffic control center, and the Atlantic Fleet. The site is located on the Atlantic shore, directly adjacent to a live gunfire range and the VACAPES OPAREA. This arrangement facilitates tests of tactical computer programs with live shore-based radars and communication equipment with ships and aircraft operating at sea. The actual operational environment provides extremely valuable test data that is used to upgrade the tactical computer programs to meet fleet needs. Additionally, PHD employs a direct microwave link to the FACS/FAC air search radars to provide live radar displays for training and testing. Live radars act as backup in the event of problems with the FACS/FAC radars. PHD ECO was selected as the CEC test site due to its existing hardware resources and physical location. Proximity to the Atlantic Fleet also allows great latitude in test and demonstration events with live platforms and current fleet assets, as well as permitting the fleet closer access to computer program support.



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The co-location of the NAVSEA Combat Systems Engineering Station Radar & CDS In-Service Engineering detachment at the PHD ECO site, as recommended by BRAC 93, also enhances this activities growing In-Service Engineering Agent role taking advantage of the non-AEGIS combat system hardware suite.

Dual facility utilization of combat system hardware for in-service engineering and fleet training results in significant cost benefit to the Warfare Center and the training community. The extensive combat system hardware suites installed at the Dam Neck facility provide valuable cost and technical benefits for the development of a mega-center with all the capability necessary to allow a single point for all:

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revised pg

PHD is the Navy's expert in tactical software support. Loss or reduction of this technical capability would seriously impact the quality and maintainability of the cruiser, destroyer and frigate combat direction (control) system operational programs in the fleet. PHD also performs unique functions as SSA/ISSA for JTIDS, LAMPS MK III, MIDS, CQCR, CSS and ACDS Command Station. Loss of this capability would severely impact the progress the Navy is making in moving from standard Navy hardware and closed system architecture to state-of-the-art, open systems, object-oriented, reusable, off-the-shelf software. R

PHD is rapidly becoming a center of excellence for the Software Engineering Institute's Software Improvement program. Loss of the PHD ECO capability would retard the Navy's improvement in software production methodology.

PHD has been cited several times for the outstanding configuration management process that impacts not only PHD developed programs, but all other interfacing programs produced by other activities. Many program sponsors depend on PHD to convene and chair configuration control boards for their projects. This expertise is irreplaceable; no other activity performs software configuration control to this extent or with such success. Loss of this expertise would create a high potential for degradation of software configuration control in many Navy computer programs. Without this control, the Navy can not be sure what software--and hence what capabilities--are deployed on any given platform at any given time.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

The original equipment was installed in the early sixties. Over the past thirty years, PGC has been upgraded incrementally with state-of-the-art military and commercial hardware and software as it became available. The most recent major move, expansion and upgrade was completed in FY 85.

The Mockup equipment was installed in the early sixties as the first NTDS computer programs were being installed in ships. The mockups have also been periodically upgraded as state-of-the-art equipment became available, ship equipment suites are upgraded as new ship classes and the associated CDS programs are developed. All mockups are maintained for emergent fleet usage in case of a major catastrophe. R

10. List the functional support areas (previously provided in TAB A) that this facility/equipment support. Refer to Appendix A for the list of functional support areas.

1.3 Surface Ships
2.1 Weapon Systems/Gun Systems R



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2.2 Weapons Systems Guided Missiles
2.8 Weapons Systems Launches
2.9 Fire Control
2.10 Weapon Data Links
3. Combat System Integration
3.2 Air
3.3 Surface
3.4 Multi-Platform
4.2 Special Operations Support - Coastal/Special Warfare Support
5.2 Sensor and Surveillance Systems/Radar Systems
5.3 Special Sensors
6.3 Surface Ship Navigation Systems
6.5 Satellite Navigation Systems
7.3 Shipboard Command, Control, Communications and Intelligence
8.2 Countermeasures
8.3 Electronic Warfare (EW) Systems
9.1 Navy Strategic Systems
10.1 Personnel and Training
10.1.4 General Mission Support/Personnel and Training/Weapons Intelligence Training Systems
11.2 Software

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7.3 Shipboard
8.3 Electronic Warfare Systems

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

    a. All mock-ups, test facilities, and laboratories are available 7 days a week 24 hours a day, 8760 hours a year:

    b. System maintenance and down time averages 5% or 438 hours per system per year.

    c. Of the 8322 hours time available (8760 - 438) the mock-ups, test facilities, and laboratories average 85% usage per year or 7074 hours per year.

    d. Of the 8322 hours available for PGC resources, CPU time averages 60% total CPU time per system or 4993 hours per system year. Note, many jobs run in batch or defer mode.

    e. It should be noted, where older systems are less utilized and the demand has decreased they are removed or replaced with newer systems. Therefore the utilization figures have remained relatively constant throughout the years.

12. Provide the projected utilization data out to FY 1997.

    Projected utilization for outyears to FY 97 is estimated to be the same as for the last five years. Older ship class CDS programs will eventually be phased out, but current levels of maintenance are expected for the next decade. New workstation-based projects requirements will continue to increase, resulting in steady utilization levels. Increasing use of workstation-based programs on combatant ships will extend the current usage levels well into the next century.

13. What is the approximate number of personnel used to operate the facility/equipment?

| | | |
|---|---|---|
| Testing | | |
| | civilians | 41 |
| | military | 22 |
| Code & debug | | |
| | civilians | 29 |
| | military | 1 |
| Total | | 93 |

The PHD ECO Test Facility supports the efforts of over 800 technical personnel engaged in the development of tactical computer computer programs for surface ships, not just at PHD NSWC but also the many customers from other Naval engineering activities and

from the private sector. It is estimated that within PHD alone, the work of over five hundred engineers and scientists depend in some way on the testing done at this facility. If the customer base outside PHD is considered this number could easily double.

The full spectrum of tactical computer program maintenance and upgrade requires highly trained personnel with extensive computer program requirements analysis, design, programming and testing expertise across more than 35 software baselines on over 100 U.S. and Foreign Military Sales weapons platforms.

The PHD ECO team comprises technical experts from the functions required to produce, deliver, update maintain and manage the configuration of combat direction (control) system computer programs. Significant synergistic effect is achieved through the daily interaction of these experts at all levels, including computer program code module, CDS and combat systems made up of several independent, integrated systems. The colocation of the technical experts for the various platforms supported provides a unique synergistic effect in identifying and solving common problems using standardized methods.

Existing corporate knowledge is based on over thirty years in the production, revision, and maintenance of tactical computer programs, in an atmosphere of rapidly changing tactical environments, operational requirements and technical direction. This in-house expertise utilizes active duty and former fleet tactical program operators, as well as civilian engineers and technicians, for program development. The permanent civilian technical staff ensures that PHD ECO retains and continually expands its unique corporate technical memory and current fleet usage expertise.

14. What is the approximate number of personnel needed to maintain the equipment?

Nine civilian personnel and 60 military personnel from FCTCL

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

from the private sector. It is estimated that within PHD alone, the work of over five hundred engineers and scientists depend in some way on the testing done at this facility. I the customer base outside PHD is considered this number could easily double.

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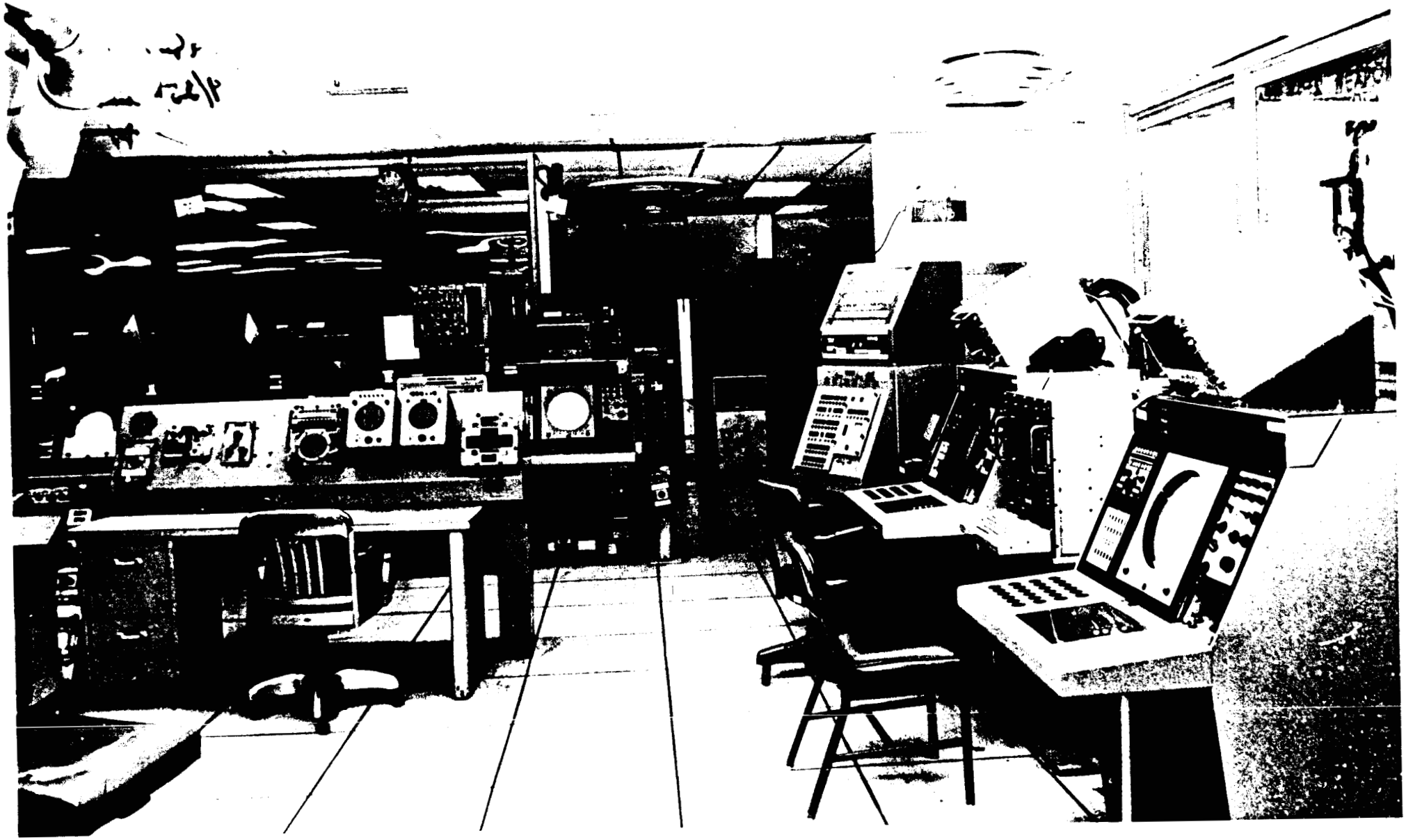
14. What is the approximate number of personnel needed to maintain the equipment?

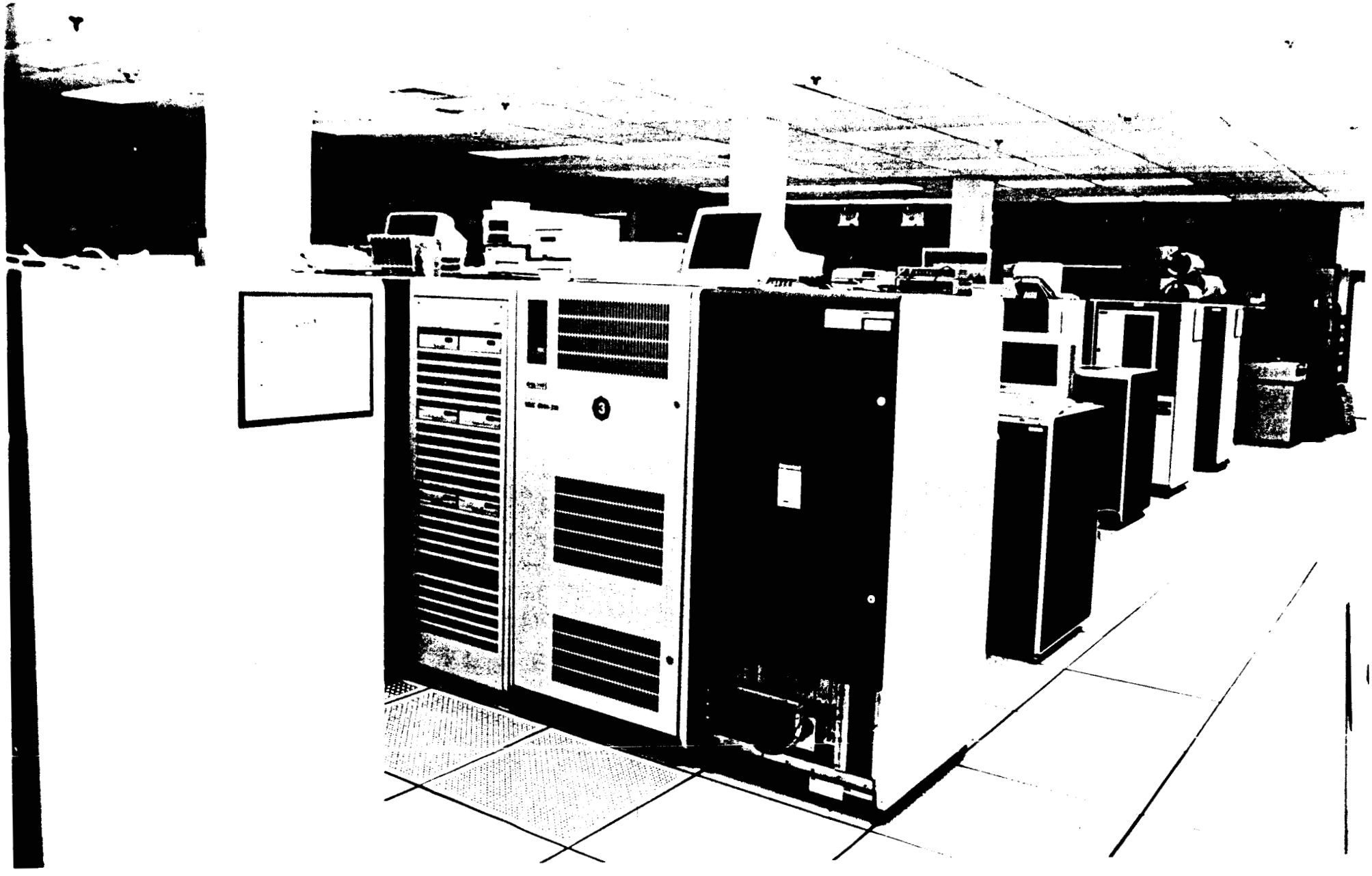
    Zero civilian personnel (The equipment is maintained by 60 military personnel from FCTCL)

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.



# Mock-up

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994



# Program Generation Center

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994

**SPECIAL FACILITIES AND EQUIPMENT**
**FACILITIES/EQUIPMENT CAPABILITY FORM**

| | |
|---|---|
| Technical Center Site | PHD NSWC, San Diego |
| Facility/Equipment Nomenclature or Title | Combat System Test Site |

1. State the primary purpose(s) of the facility/equipment.

PHD NSWC brings together all the weapon system computer programs that are elements of a networked Combat System and performs an exhaustive series of tests to ensure proper operation. This capability supports Navy surface combatants and, with CEC incorporated, will be expanding to include Marine Corps, Army and Air Force. A systematic approach to Combat System software testing enables PHD to validate structured software designs as well as Rapid Prototype or "Spiral" designs. PHD is also an active member of NAVSEA's Combat System Software Management Group that manages evolving architecture and testing approaches for combat system software.

PHD NSWC facilities include the Combat System Test Site, which is used to perform Combat System software integration, test, and evaluation to provide the fleet with Operational Programs.

The Integrated Combat System Test Facility is a state-of-the-art computer program evaluation center which provides for integration testing of non-Aegis combat system programs on fleet configured hardware prior to fleet installation. PHD Combat Systems Test Site also oversees the development and testing of combat system simulation programs, which are used for training and operational testing purposes. Major applications include:

1. Conduct of Combat System Integration Testing for the CV, LHD, LX, CG, FFG and DD-963 ship classes.

2. Battle Force Tactical Training (BFTT) Training Data Link development and testing.

3. Direct support for the development and acceptance testing of the Advanced Combat Direction System.

This facility also provides engineering and technical support for the development and testing of command and control system software. It conducts land based reliability

testing and integration and certification of combat system computer program networks. Simulation systems are installed for life cycle support of specific weapon and combat systems.

Surface ship combat systems are central to providing the US and foreign fleets the capability for defense in all warfare areas and for completing their mission of delivering ordnance on target. These combat systems must operate immediately and without fault when called upon and both their hardware and software must be operational under adverse conditions.

Computer programs are upgraded, corrected, tested, verified, validated, systems integrated, produced, and delivered by PHD. Software upgrades are accomplished through a comprehensive and rigorous program of requirements identification and documentation, computer program design, software coding, verification and validation, configuration management, and through quality assurance procedures. Computer program modifications are subjected to rigorous Combat System Integration Tests at the PHD Combat Systems Test Site, and a PHD recommendation is required by the appropriate NAVSEA Combat Systems Engineer prior to computer program deliver. PHD also maintains shipboard computer programs for numerous foreign weapon systems.

The test and evaluation of new and modified systems is a key process in the maintenance of the best capability in the Naval surface ship force regardless of its size. The threat continues to change, the missions of surface ships continue to incorporate major and incremental improvements from emerging technology in 50% of the active fleet and all new construction ships. Combat system test and evaluation is a required element of the process of adapting the surface ship combat systems to the flexibility inherent in the "From the Sea" vision. Combat System test and evaluation is also a fundamental enabler of the technology transfer process both to and from the Navy. Systematic, structured technical test and evaluation is required for success when the Navy purchases Commercial Off The Shelf (COTS) or Non-Developmental Items (NDI) for use within ship combat systems. Technical test and evaluation is critical to continued improvement of USN/USMC systems integration and joint/interoperable capability with the Army and Air Force.

PHD has a key T&E role in several programs that are heavily "Joint". These include the Theater Ballistic Missile Defense testing of the interoperability of Army Theater Anti-Air Defense (THAAD), Patriot C, USAF BPI/API, and Navy

Lightweight Exo-Atmospheric Projectile (LEAP) Program. We are also supporting several T&E projects with the JTIDS for USAF/Navy aircraft control and many other aspects of tactical data linking between all the services Command and Control systems. PHD is heavily involved with the tri-service Distributed Interactive Simulation initiative as part of our T&E of the Battle Force Interactive Training system and the Tactical Combat Training System. Combat System test and evaluation is a key element of the technology transfer process both to and from the Navy. Our evaluations provide the specific detailed performance reports on Navy developed technology products. Technical test and evaluation are also required when the Navy purchases COTS or NDI for use within ship combat systems.

The breadth and depth of PHD test and evaluation projects includes all surface ships and all warfare areas. The PHD expertise covers the performance evaluation of 23 major systems and combat system integration evaluation capability for 12 ship classes. This capability provides the fundamental data and evaluation required to establish validated technical requirements and certify these systems ready for Operational Testing by Commander, Operational Test and Evaluation Force. This technical capability has provided the key evaluation basis used by the Systems Commands to seek release for production of 17 major system upgrades and 7 Combat System baselines in the last five years. PHD uses experience gained from prior efforts to bring lessons learned to new systems as part of our T&E tasks. Performing the careful test planning and evaluation of results is the essence of the "smart buyer" role PHD fulfills. PHD supports Project Reliance in the T&E panel for Targets. T&E team colocation with the other PHD systems engineers and logistics planners at equipment, system and combat system levels facilitates synergism during the various T&E phases so we achieve the most comprehensive evaluations with minimized funding and time invested.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

The facility consists of 800 items including military computers, displays, peripherals, a 3072 x 3072 High Speed Digital Switching and Conversion System, shipboard military systems (TOMAHAWK, Auto ID, TPX-42A, ASWCS/LAMPS III (no helo), ASWM, ACDS) and simulators and emulators. The simulations consist of a Master Simulator (Combat System Simulator) which provides the environment and stimuli to the ship class combat system under test, and Satellite

revised pg

Simulations which simulate the missing equipment of individual subsystems (i.e. Guns, Radars, Fire Control, Missiles, etc.). Planning is in place for incorporating the facility into the Surface Warfare Engineering Facility (SWEF) at Port Hueneme.

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

   Replacement value for the equipment installed at the facility is approximately $100 million. This does not include building or utility costs.

4. Provide the gross weight and cube of the facility/equipment.

   Total weight is 886 K pounds
   Total cube is 2685 K $FT^3$

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

   400 KVA of 400 Hz regulated and filtered power.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

   a. Computer false flooring.
   b. Grounding IAW MIL 419A or RF shielding.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

   a. Temperature 73 Deg ± 3 Deg F.
   b. Humidity 60%
   c. Liquid coolant system

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the department of the Navy if this facility/equipment were lost. Consider existing government-wide and commercial capabilities as the replication and impact statements are formulated. R

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   This facility is the only laboratory capable of functionally replicating the combat system operational programs for DD 963, CV/CVN, LHD, LHA, DDG 993, CGN 36/38 and FFG ship

revised pg

PHD's ability to competently perform this function is enhanced by its seaside location and the nearby facilities of Naval Air Warfare Center, Weapons Division and the Port Hueneme Deep Water Harbor. The location of PHD on the shore and facing the ocean, the Channel Islands, and NAWC provides a realistic littoral environment such as land mass background and sea and land clutter, in addition to providing operating areas for threat representative surface and sea skimming aerial tracking targets. A special use airspace is currently being processed by the Federal Aviation Administration (FAA) for conducting safe aircraft flight tests in support of ship weapon systems at the SWEF. Proximity of the NAWC within 3 miles of SWEF provides unique test facilities that allows for synergism between the two activities. Port Hueneme's deep water harbor permits the Self Defense Test ship to be homeported here as well as allowing ship visits by both U.S. and allied combatants. Utilization of all these factors in harmony enables training, fault isolation, testing and technical assistance in the immediate proximity to the Division's engineering resources. R

The incredible complexity of developing Combat Systems in the 1990s and beyond defies description. If the PHD Combat Systems Test Site capability to conduct integrated Combat System Operational Computer Programs T&E were lost, uncounted software problems would find their way, undetected, to operational forces of the U.S. Navy. Some of these problems might not appear in peacetime operations, and would only manifest themselves during times of political and military crisis, when surface combatants place themselves in harm's way. Recent military successes in the Middle East attest to the benefit of comprehensive, integrated testing such as that conducted at PHD Combat Systems Test Site. Loss of this capability would produce a degeneration of combat system integrity. It is very evident that we cannot tolerate defective mission critical computer programs in modern software intensive combat systems. If this facility were lost, testing would have to be done at NSWC PHD ECO, causing disruption of the delivery schedule due to FCTCL computer requirements in support of fleet training and R

classes and is required to test new or upgraded operational computer programs prior to delivery to the fleet. Planning is in place to move this facility to Port Hueneme to be incorporated into the Surface Warfare Engineering Facility (SWEF) where it would serve as an integrated part of the Computer Program Maintenance Facilities that operate in conjunction with SWEF installed hardware to validate and maintain computer programs for fleet deployed hardware.

PHD's ability to competently perform this function is enhanced by its seaside location and the nearby facilities of Naval Air Warfare Center, Weapons Division and the Port Hueneme Deep Water Harbor. The location of PHD on the shore and facing the ocean, the Channel Islands, and NAWC provides a realistic littoral environment such as land mass background and sea and land clutter, in addition to providing operating areas for threat representative surface and sea skimming aerial tracking targets. A special use airspace is currently being processed by the Federal Aviation Administration (FAA) for conducting safe aircraft flight tests in support of ship weapon systems at the SWEF. Proximity of the NAWC within 3 miles of SWEF provides unique test facilities that allows for synergism between the two activities. Port Hueneme's deep water harbor permits the Self Defense Test ship to be homeported here as well as allowing ship visits by both U.S. and allied combatants. Utilization of all these factors in harmony enables training, fault isolation, testing and technical assistance in the immediate proximity to the Division's engineering resources.

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revised pg

potential for logistics problems related to coast-coast management of testing.

Unique core capabilities that would be lost to the U.S. Navy and twenty Allied Navies if this facility is lost are:

Technical ability to address full-spectrum testing requirements of dozens of developing Combat Systems and CS elements quickly, inexpensively, and in a coordinated fashion across all ship classes and all warfare areas for the entire life cycle,

An integrated, corporate body of specialized facilities, test tools, individual excellence, and personal technical networks which would take decades to recreate. The technical ability to objectively adjudicate combat system operational computer program problems among up to 30 combat system elements provided by more than 100 contractors, as well as operational computer program problems between a single ship's combat system and those of the battle force, R

The experience and corporate memory gained from decades of interaction with the fleet, coupled with the integration of multi-disciplinary teams and an in depth knowledge of combat systems and their employment,

The technical competence to develop integrated combat system test, training, maintenance, and readiness materials for the safe and effective deployment of operational forces,

The ability to upgrade, maintain, and correct problems with real-time operational combat system computer programs and utility/support programs; particularly when Original Equipment Manufacturer (OEM) support is no longer available (as occurs in the mid phase of a system life cycle),

Competent and unbiased technical and logistics expertise for weapon system working groups to help the CINCs assess ship class combat system performance, determine the root cause of readiness problems, and develop solutions.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

The basic building to house equipment was constructed in 1977. The test bed development has been an evolutionary process, with several installations, removals, and new installations occurring to accommodate various ship class combat system developments.



6/14/94
MLP
NSWC 033

verification. Private industry cannot perform this function cost-effectively.

Unique core capabilities that would be lost to the U.S. Navy and twenty Allied Navies if this facility is lost are:

Technical ability to address full-spectrum testing requirements of dozens of developing Combat Systems and CS elements quickly, inexpensively, and in a coordinated fashion across all ship classes and all warfare areas for the entire life cycle,

An integrated, corporate body of specialized facilities, test tools, individual excellence, and personal technical networks which would take decades to recreate. The technical ability to objectively adjudicate combat system operational computer program problems among up to 30 combat system elements provided by more than 100 contractors, as well as operational computer program problems between a single ship's combat system and those of the battle force,

The experience and corporate memory gained from decades of interaction with the fleet, coupled with the integration of multi-disciplinary teams and an in depth knowledge of combat systems and their employment,

The technical competence to develop integrated combat system test, training, maintenance, and readiness materials for the safe and effective deployment of operational forces,

The ability to upgrade, maintain, and correct problems with real-time operational combat system computer programs and utility/support programs; particularly when Original Equipment Manufacturer (OEM) support is no longer available (as occurs in the mid phase of a system life cycle),

Competent and unbiased technical and logistics expertise for weapon system working groups to help the CINCs assess ship class combat system performance, determine the root cause of readiness problems, and develop solutions.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

The basic building to house equipment was constructed in 1977. The test bed development has been an evolutionary process, with several installations, removals, and new installations occurring to accommodate various ship class combat system developments.

10. List the functional support areas (previously provided in TAB A) that this facility/equipment supports. Refer to Appendix A for the list of functional support areas.

3.3 Combat System Integration
7.3 Command, Control, Communication shipboard
10.1.3 Surface Ship-Related Training Systems

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

The facility has been utilized for 6 days per week, 22 hours per day to support simultaneous, multi-platform integration testing.

12. Provide the projected utilization data out to FY 1997.

In addition to 6 days per week, 22 hours per day utilization, we expect to expand test times by adding the 7th day of operation, for 8 to 16 hours.

13. What is the approximate number of personnel used to operate the facility/equipment?

Fourteen personnel with a broad range of expertise are required to operate the facility. However the testing that is performed at PHD Combat Systems Test Facility in Point Loma impacts the decisions made by a wide range of technical personnel providing support for Combat Systems, and $C^3I$. The number of personnel whose work is supported by this facility is estimated to be in excess of 800.

This support requires highly trained personnel with extensive knowledge of Research and Development, Test and Evaluation, acquisition methodology, hardware design and maintenance, computer program design and maintenance, test engineering, maintenance planning, provisioning, technical documentation and fleet operations. The skills mix includes but is not limited to the following:

Engineers and technicians with a thorough understanding of test design techniques, evaluation methodologies, system integration, system safety and logistics supportability issues. There are special considerations posed by T&E of emerging technology or new applications of mature technologies being incorporated in systems over a 30+ year life span. Combat system integration test and evaluation required knowledge in design of coordinated changes made to

sets of tactical-embedded-computer-programs. A typical warship has a set of five to ten major systems, with their embedded computer programs highly interactive and interdependent, which must be approached for evaluation as a single large complex system. Full performance level for technical personnel requires at least five years of experience over several projects. Senior personnel have an average of 15 years experience.

Test and Evaluation Engineers with 5-25 years experience and with skill in "open air" design methods or "laboratory environment" design of software evaluation methods; principles and practices of electrical engineering, broad experience in selecting and equipping ships to support test projects, test ranges to support tracking and live fire events, analysis of tracking and telemetry data to arrive at the facts of test results and evaluations which are fully proven; broad experience in equipping the integrated Combat System Test Facility to support Combat System Integration test projects, simulations used to extend the performance estimates into regions not supportable by "open air" test range capabilities; leadership of multi-agency test teams.

System engineers and technicians with skills in advanced concepts of software and hardware engineering as applied to combat system development, test and validation. This includes expertise in prototype design, rapid prototype development and transition to production and maintenance.

Computer scientists/engineers with specific experience in assembly languages, tactical program design, interface protocols, simulations and networks. They must be proficient in the operation and maintenance of a wide variety of computer systems, both Military Specifications (MIL-SPEC) and Commercial off the Shelf (COTS)/Non-Developmental Items (NDI).

Project engineers, with specific experience in project management, team, leadership, technical disciplines (electrical/mechanical/computer), DoD policies and overall combat system operation.

Senior computer systems specialist with expertise in use of Computer Aided Design (CAD)/Computer Aided Software Engineering (CASE) with open architecture systems; intimate working knowledge of shipboard and laboratory systems environments and trouble shooting techniques, some expertise in the configuration management, validation and control of developed items through the various stages of their life cycle.

14. What is the approximate number of personnel needed to maintain the equipment?

    Twenty-eight personnel (Includes 14 for removals and new installations)

    The skills mix required is very similar to that required for question 13.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

    (attached).

# Integrated Combat Test Facility

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994

**SPECIAL FACILITIES AND EQUIPMENT**
**FACILITIES/EQUIPMENT CAPABILITY FORM**

| | |
|---|---|
| Technical Center Site | PHD NSWC |
| Facility/Equipment Nomenclature or Title | Underway Replenishment Test Site |

1. State the primary purpose(s) of the facility/equipment.

Underway Replenishment (UNREP) is the force multiplier that sustains battle groups with the fuel, ordnance and stores needed to patrol or conduct combat operations anywhere for as long as required. Sustaining the Naval forces is accomplished by transferring cargo from the combat logistics ships using the PHD standard underway replenishment system. Combatant ships will take station alongside the combat logistics ships at a speed of 12 knots and at a ship separation of 150 feet.

The Port Hueneme Division (PHD) of NSWC conceived and developed the Navy's standard underway replenishment system including both the operational procedures and the detailed design of all its machinery. PHD continues to provide life cycle engineering and logistics support for the standard UNREP system.

The DOD "Defense Planning Guidance for FY 94 through FY 99" requires the United States to sustain forward deployed naval forces in support of regional defense. The naval forces will be accompanied by combat logistics ships carrying fuel, ordnance and stores. The combat logistics requirements for littoral warfare means UNREP will also be vital in sustaining amphibious forces, mine warfare forces, and special warfare systems that may be sea-based for extended periods.

PHD has developed concepts for underway replenishment of large deck amphibious ships (LHAs and LHDs) to support possible future tactical air support ashore missions using Marine Corps Harrier-type aircraft. PHD's intensive in-service UNREP system support; from on-site overhaul assistance, to correcting Casualty Report (CASREPs), to system training; demonstrates our ability to maintain a high level of fleet UNREP readiness which is essential if naval forces are to be replenished in the minimum time, day or night, in up to sea state 5 conditions.

The key to this technical capability is the integration of developmental engineering design and logistics, thus ensuring the most effective and efficient support of operationally-ready

UNREP platforms. This integrated, systems approach is made possile by the existence of the UNREP Test Site at Port Hueneme.

The UNREP Test Site located in Port Hueneme, is the only Navy UNREP system facility providing the capability to design, test, demonstrate, analyze and fault isolate the total UNREP transfer system in a controlled environment. The UNREP Test Site Annex allows for maintenance and storage of ready for installation UNREP Modular Cargo and Fuel Delivery Systems to be installed on Ready Reserve Force merchant ships during mobilization. The Vertical Launch Rearming Facility provides an engineering and test facility housing the conceptual VLS handling and strikedown system, and allows demonstrations and testing of UNREP system concepts and improvements to be used in conjunction with rearming surface ships configured with the Vertical Launching System.

Every type of Navy standard UNREP machinery is installed and operational at the test site. This equipment is used to validate performance and reliability data, proof in engineering changes, develop system improvements, simulate and resolve fleet reported failures, system demonstration and training.

PHD investigates every casualty to the standard UNREP system to determine whether engineering, logistics or operational procedural alterations are required. Also the introduction to the fleet of new weapons or stores requires UNREP systems alterations. PHD is responsible for developing these needed alterations; starting with formulating concepts and then proceeding through to fleet implementation, including crew training.

PHD conducts full scale equipment and system testing of all modifications and new equipment at the Navy's only Underway Replenishment Test Site. The test site consists of the following unique facilities:

| FACILITY | QUANTITY | REPLACEMENT VALUE |
|---|---|---|
| Combat Logistics Force Ship Fueling At-sea Delivery Station | (1) | $ 7,500 K |
| Combat Logistics Force Ship Cargo Delivery Station | (1) | $10,000 K |
| Combatant Ship Fueling At-sea Receiving Station | (1) | $ 500 K |
| Combatant Ship Missile Unrep Receiving Station | (2) | $ 2,500 K |
| Combatant Ship Vertical Launch Rearming Facility | (1) | $ 2,000 K |
| Wire Rope Testing Facility | (1) | $ 500 K |
| Winch Testing Facility | (3) | $ 1,500 K |
| Ram Tensioner Stowage | (35) | $ 750 K |
| Modular Unrep Station Stowage | (8) | $ 500 K |
| TOTAL | | $25,750 K |

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

   The UNREP Test Site equipment is "fixed", as opposed to "portable" or "moveable". It is so integral to the facility that major demolition and re-construction would be required to relocate the equipment.

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

   Replacement value of the facility is estimated at $25,750,000. The table listing the facilities make-up provides an estimated cost break-down.

4. Provide the gross weight and cube of the facility/equipment.

   Gross weight of facility components is 175 tons of Navy standard UNREP machinery, kingposts, and deck structure. These are set in concrete foundations as much as fifteen feet deep. The test site facility encompasses 50,000 square feet (1-1/4 acres) with an additional 50,000 square feet utilized for storage of unique UNREP assets.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

   Special utility support consists of three-phase 440 volt AC electrical power to operate electric motors totalling 1,000 horsepower.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

   Special budget requirements: N/A

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

   Environmental control requirements: None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the department of the Navy if this facility/equipment were lost. Consider existing government-wide and commercial capabilities as the replication and impact statements are formulated.

The UNREP Test Site would be extremely difficult to relocate or replicate. It is a $25+ million facility on 50,000 square feet (1-1/4 acres) of level land. The test site annex is an additional 50,000 square feet used for storage. Indoor storage of 8,000 square feet is available for protection of weather sensitive equipment with an additional 3,800 square feet of covered office and shop area. A minimum of three years of downtime is estimated if attempting to relocate this vital resource. The UNREP Test Site is a unique facility. There is no similar government or commercial facility anywhere.

Port Hueneme, in Southern California, has proven to be an effective location for centralizing the Navy's underway replenishment technical capability. The close proximity to LAX allows quick response to any spot in the world needing UNREP assistance. The available real estate at the Naval Construction Battalion Center in Port Hueneme has permitted PHD to develop an extensive full scale UNREP Test Site that includes every type of UNREP equipment. The Navy's underway replenishment depot facility is also located nearby in Long Beach, which simplifies PHD technical management.

Even temporary loss of these facilities would have severe detrimental impact. Unique, inherently governmental and enabling core capabilities for the vital underway replenishment system that will be lost to the U.S. Navy and all of our allied navies who have also incorporated the Navy standard UNREP system are:

a. The ability to ensure that forward deployed forces can continue to be sustained with the UNREP or fuel, ordnance and stores while patrolling or fighting for as long as necessary.

b. The ability to rapidly and efficiently meet new UNREP operational requirements as combatant ship configurations change or changes are made in weapons that affect size, weight or handling sensitivity.

c. An operationally oriented engineering and logistics organization which can develop, enhance, and rapidly modify the Navy's UNREP system to meet the operational forces' rapid fleet sustainment.

d. An objective and competent activity that can evaluate and recommend UNREP system changes to fully meet the operational forces' needs while maintaining a systems perspective of the overall joint force requirements.

e. An impartial expert technical and logistics capability to perform UNREP system integration, training and problem diagnosis.

f. The ability to evaluate and apply dual use S&T to UNREP systems in fulfilling

the overall system requirements of the operational forces.

g. An internationally recognized UNREP technical design and maintenance team eventually resulting in the Fleet CINCs inability to operate and maintain these vital force sustainment systems.

h. An unique expert team of engineers, technicians, and logisticians capable of developing concepts, evaluating approaches, and developing operator training that includes both CLF ships and the combatant forces.

i. The ability to independently evaluate and judge the technical merit of a new technology and T&E programs to assure that the UNREP operational performance and life cycle affordability needs are met.

j. The availability of a government UNREP test and engineering facility to proof new UNREP concepts, diagnosis Fleet CINC reported problems, and to train U.S. Navy crews.

k. Rapid UNREP crisis response teams to support coalition and joint operational forces in times of unanticipated regional conflicts.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

The UNREP Test Site was built on site over a ten year period from 1976 to 1986. It is constantly being upgraded and improved to reflect the latest UNREP system configurations.

10. List the functional support areas (previously provided in TAB A) that this facility/equipment support. Refer to Appendix A for the list of functional support areas.

The UNREP Test Site facilities support the following functional support areas:

1. Platforms
   1.3 Surface ships

2. Weapons Systems
   2.2 Guided Missiles
   2.8 Launchers
   2.13 Other Ordnance

3. Combat System Integration
   3.3 Surface
   3.4 Multi-platform

4. Special Operations Support
   4.1 Landing Force Equipment and Supplies
   4.2 Coastal/Special Warfare Support

10. General Mission Support
    10.1 Personnel and Training
        10.1.3 Surface Ship-Related Training Systems
        10.1.4 Weapons Related Training Systems
    10.2 Logistics Planning and Implementation

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

The facility has been utilized for 5 days/week, 9.5 hours/day.

12. Provide the projected utilization data out to FY 1997.

Projected utilization is expected to continue at the same level of 5 days/week, 9.5 hours/day.

13. What is the approximate number of personnel used to operate the facility/equipment?

The number of personnel used to operate the test site facilities varies up to twenty depending on type and scope of testing. The norm is four. However the work that goes on at the UNREP Test Site is cruucial to the work of the entire UNREP department as well as to the Surface Navy.

UNREP test site operation requires highly trained specialists that are the product of long years of working in a challenging environment. UNREP engineers, technicians and logisticians are cross-trained in a wide variety of technical fields which must also be coupled with acquiring an in-depth knowledge of seamanship practices essential to the conduct of underway replenishment.

These specialists have the following mix of skills:

UNREP Systems Engineers: Extensive knowledge of ship design, marine engineering, deck seamanship, ship handling, weapons stowage and handling, mechanical and electrical engineering, and machinery condition assessment

techniques. UNREP systems engineers demonstrate an unusually high degree of leadership and communication skills.

UNREP Design Engineers: Extensive design knowledge of hydraulics, mechanics, electrical and pneumatic machinery. They are well versed in marine engineering and corrosion control. They also have learned the capabilities and limitations of military and civilian sailors who operate and maintain the machinery.

UNREP Systems Technicians: Multi-discipline skills, in-depth troubleshooting, grooming and repair knowledge of hydraulics, mechanical, electrical and pneumatic UNREP machinery. This machinery knowledge is integrated with deck seamanship skills to produce all-around UNREP systems technician.

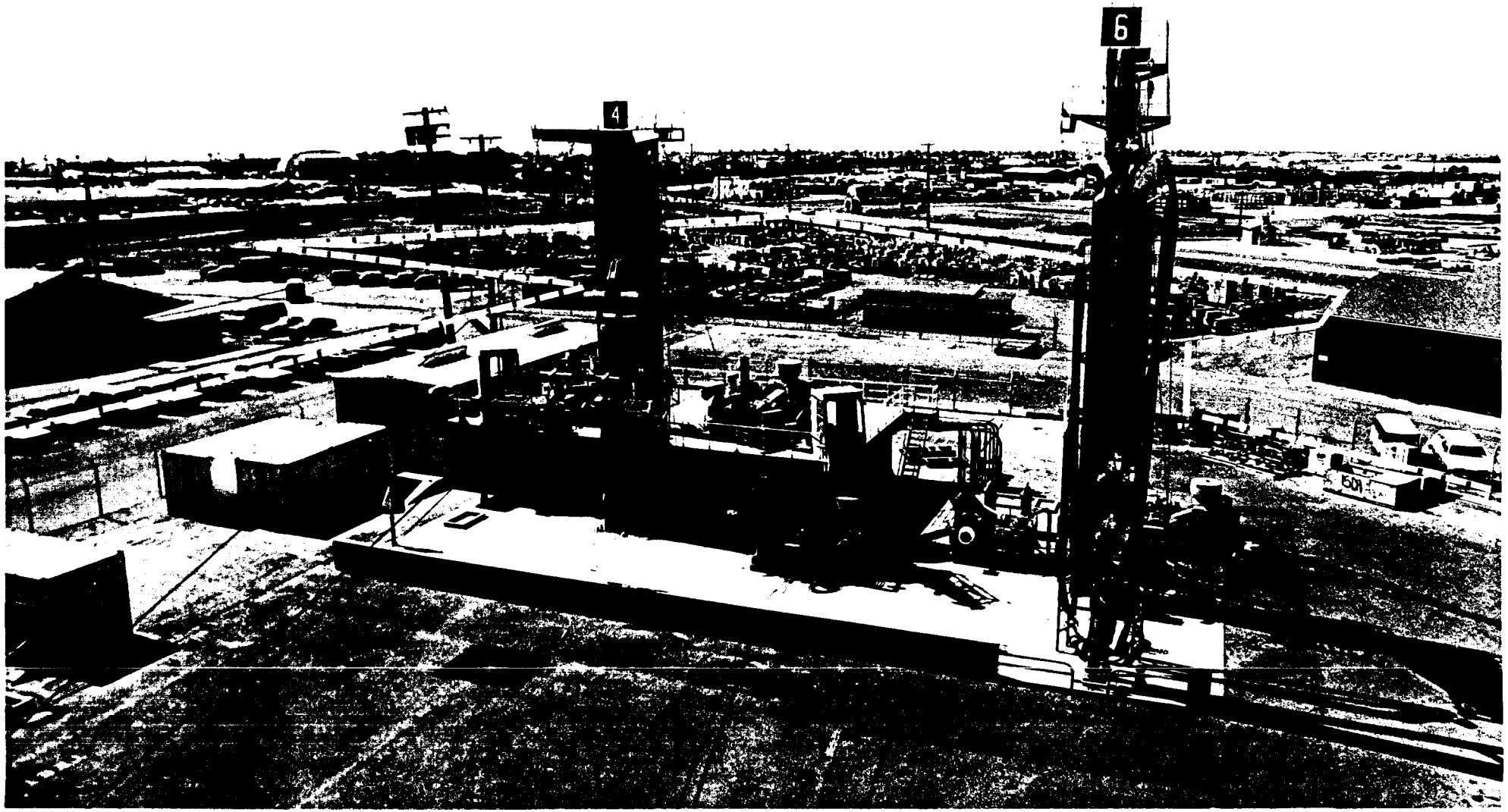
UNREP Logisticians: Broad knowledge of the UNREP system and equipment. Experience in provisioning, training, technical documentation, inventory management, maintenance planning, and configuration management.

14. What is the approximate number of personnel needed to maintain the equipment?

One of the four operations personnel is responsible for maintenance. Additional maintenance support is provided by CBC (rigging and cranes) equivalent to an additional manyear per year.

This person has multi-discipline skills, in-depth troubleshooting, grooming and repair knowledge of hydraulics, mechanical, electrical and pneumatic UNREP machinery. This machinery knowledge is integrated with deck seamanship skills to provide a thorough understanding of maintaining this equipment.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.




# Underway Repenishment Test Site

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994

TAB C
Range Resources

No response will be provided for the questions in this TAB

NSWC PORT HUENEME DIVISION
DATA CALL #5

JL
SEA 09X
5/12/94

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (Sel) D. P. Sargent
NAME (Please type or print)

Signature

Commander
Title

5/11/94
Date

Naval Surface Warfare Center
Activity

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

~~NAME (Please type or print)~~

~~Signature~~

~~Title~~

~~Date~~

~~Activity~~

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

G. R. STERNER
NAME (Please type or print)

Signature

Title

5-13-94
Date

Commander
Naval Sea Systems Command
Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

J. B. GREENE JR.
NAME (Please type or print)

Signature

ACTING
Title

23 MAY 1994
Date

BRAC-95 CERTIFICATION

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

Robert A. Bland
NAME (Please type or print)

Signature

BRAC Coordinator
Title

5-8-94
Date

Division

Missile Systems Department
Department

Port Hueneme Division, Naval Surface Warfare Center
Activity

Enclosure (1)

# BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

Each individual in your activity generating information for the BRAC-95 process must certify that information. Enclosure (1) is provided for individual certifications and may be duplicated as necessary. You are directed to maintain those certifications at your activity for audit purposes. For purposes of this certification sheet, the commander of the activity will begin the certification process and each reporting senior in the Chain of Command reviewing the information will also sign this certification sheet. This sheet must remain attached to this package and be forwarded up the Chain of Command. Copies must be retained by each level in the Chain of Command for audit purposes.

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

Capt. John Scott Beachy
NAME (Please type or print)

Signature

Commanding Officer
Title

7 MAY 1994
Date

PHD NSWC
Activity

"REVISION"
DATA CALL #5
PORT HUENEME

Port Hueneme Division, Naval Surface Surface Warfare Center
Data Call 5

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

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I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

| | |
|---|---|
| CAPT John Scott Beachy | Beachy |
| NAME (Please type or print) | Signature |
| Commanding Officer | 3 JUNE 1994 |
| Title | Date |
| Port Hueneme Division | |
| Activity | |

The information to which this certification pertains is described as follows:

Revision to the Port Hueneme Division BRAC-95 Data Call #5, pages 1, 4, 5, 6, 7, 9, 13, 22, 42, 56, 60, Tab A pages 3, 59, 65, 93, Tab B pages 13, 14, 16, 17, 19, 20, 21, 22, 24, 28, 29

Additional details of changes described on attached 3 sheets

206

"REVISION"
DATA CALL #5
PORT HUENEME

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (sel) D. P. Sargent Jr.
NAME (Please type or print)

Signature

Commander
Title

6/3/94
Date

Naval Surface Warfare Center
Activity

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

~~NAME (Please type or print)~~ ~~Signature~~

~~Title~~ ~~Date~~

~~Activity~~

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

G. R. STEMER
NAME (Please type or print)

Signature

Title
Naval Sea Systems Command

7-1-94
Date

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

J. B. GREENE, JR.
NAME (Please type or print)

Signature

ACTING
Title

12 JUL 1994
Date

Revisions to BRAC 95 Data Call #5

1. The following paragraphs summarize changes to Data Call #5 ,the rationale for changes, and the page and paragraph numbers affected. Replacement sheets, and required certification are provided.

a. Page 1, Mission Statement #4 Footnote inadvertently omitted, should read "Per BRAC 93 requirements, NSWC Dahlgren Division assumed administrative responsibility for NMWEA, 1 Oct 93, and is including NMWEA data in the Dahlgren division Data Call 5 response".

b. Page 4, work Breakdown Structure, Question b. Site description for PHD Combat System Test Site rewritten to more accurately describe the current status of the remote site facility.

c. Page 5, Table 4.1 General Support Resources for PHD NSWC. Footnotes erroneously assigned and omitted in original response. Should read: 1) Technical Operations Totals includes site data for Table 4.2 Renumber footnotes 1, 2, 3 and 4 respectively to 2, 3, 4, and 5.

d. Page 6, Table 4.2, General support Resources for all Sites. References to footnotes 1 and 2 erroneously omitted form the table title. Reference to footnote 3 on Military Personnel onboard Officer count for Technical Operations erroneously omitted.

Correct spelling of "Dahlgren" in footnote 2.

e. Page 7, Table 4.3 - Previous BRAC Impact to general support Resources for PHD NSWC. Add third footnote (3) which was erroneously omitted in original response. It should read, "Figures in table represent space, workyears and onboard count <u>reductions</u>".

f. Page 9, Table 5.3 should reflect division totals including data from Table 5.4

1. Engineering should be 54
2. Other Science should be 6
3. Non-Science should be 52
4. Total Should be 128
5. Footnote added to show 5.3 includes numbers for Table 5.4

f. Page 13, paragraph h - Governmental Awards, Add sub-paragraphs (8), (12), and (13) which described awards that were inadvertently omitted in the original submission.

g. Page 22, paragraph o, Add description of end item prototypes that were inadvertently omitted in the original submission.

h. Page 42, Table 12(3) - Change number of Adequate beds from 240 to 1240. Typographical error.

i. Page 56 - Change "YES" to "NO" for Anthony School for Real Estate under

Undergraduate Courses Only column. Typographical error.

j. Page 60 - Add "NO" to empty cell for OXNARD UNION HIGH under GRADUATE column. Inadvertent omission.

k. TAB A, Page 3 - Delete page, Move WKYRS IN-HOUSE and OUT-HOUSE EXP to Page 59.

l. TAB A, Page 59 - Change 4WYS to 6 WKYRS, Change $501K to $629K, Change $134K to $159K,. Typographical error.

m. TAB A, Page 65 - Change 1 WKYR to 2 WKYRS, Chnage $134K to $152K, Change $124K to $136K. Typographical error.

n. TAB A, Page 93 - Delete page. In-house and out-house expenditures incorrectly applied to this FSA/LCWA intersection effort moved to a different FSA/LCWA intersection.

o. TAB B, Page 13 first complete paragraph, delete "they"

p. TAB B, Page 14, Next to the last paragraph, fix typographically error. Change "wo" to "who".

q. TAB B, Page 16, paragraph 1, Add additional information that was inadvertently omitted in the original submission.

r. TAB B, Page 17, Add MIDS and CQCR to the list of multi-service and joint service initiatives.

s. TAB B, Page 19, Add additional laboratories erroneously omitted in the original response.

In the last sentence of the second full subparagraph on this page: after "connected remotely to " insert "allow". Typographical error in original data submission.

Paragraph 3 - Add clarifying information on replacement value of facility/equipment. Original submission was unclear and required clarification.

t. TAB B, Page 20, paragraph 5 - List of special utility support requirements expanded to include requirements inadvertently omitted in the original submission.

Paragraph 6 - List of special budget requirements expanded to include requirements inadvertently omitted in the original submission.

Paragraph 8 - Expand the lost impact statement to provide rationale. This change add clarifying information to the original data submission.

u. TAB B, Page 21, First paragraph - Rewrite to clarify the benefits of co-location of the Radar and CDS In-Service Engineering Branch at the PHD ECO site. This change add clarifying information to the original data submission.

Third paragraph - Add clarifying information regarding the enhancement provided by high speed digital switches (HSDS). Inadvertently omitted from the original submission.

v. TAB B, Page 22, First paragraph - Include MIDS, CQCR, and CSS in programs for which ECP performs SSA/ISSA functions. Inadvertently omitted from the original submission.

Paragraph 9, last sub paragraph - Add clarifying information.

Paragraph 10 - Change to add additional Functional Support Areas. Inadvertently omitted from initial response.

Paragraph 8, last sub paragraph insert "in" between "control" and "many" in 7th line. Typographical error.

w. TAB B, Page 24, first paragraph - Change "I" to "If". Typographical error.

Paragraph 14 change response to more accurately reflect the personnel requirements to maintain the equipment.

x. TAB B, Page 28 and 29, delete last paragraph on page 28 and remainder of paragragh at top of page 29.

y. TAB B, Page 29, last paragraph - Wording changed to clarify lost impact statement.

R pg 40, 41, 42, 42A

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

~~NAME (Please type or print)~~ ~~Signature~~

~~Title~~ ~~Date~~

~~Activity~~

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

Dr. Ira M. Blatstein — Ira M Blatt

NAME (Please type or print) — Signature

Technical Director — 10/4/94

Title — Date

Naval Surface Warfare Center

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

G. R. Sterner

NAME (Please type or print) — Signature

G. R. STERNER — 10-4-94

Commander — Date

Title

Naval Sea Systems Command

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

P.W. DRENNON

NAME (Please type or print) — Signature

Acting — 12 OCT 1994

Title — Date

DATA CALL #5
PORT HUENEME SITE

Port Hueneme Division, Naval Surface Warfare Center
Data Call 5

## BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

Each individual in your activity generating information for the BRAC-95 process must certify that information. Enclosure (1) is provided for individual certifications and may be duplicated as necessary. You are directed to maintain those certifications at your activity for audit purposes. For purposes of this certification sheet, the commander of the activity will begin the certification process and each reporting senior in the Chain of Command reviewing the information will also sign this certification sheet. This sheet must remain attached to this package and be forwarded up the Chain of Command. Copies must be retained by each level in the Chain of Command for audit purposes.

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

Capt. John Scott Beachy
NAME (Please type or print)

Signature

Commanding Officer
Title

30 SEPT 1994
Date

PHD NSWC
Activity

The information to which this certification pertains is described as follows:

Revision to the Port Hueneme BRAC-95 Data Call #5, pages 40R, 41R, 41A, 42R and 42A.

Additional details of this change described on the attached sheet.

206 R crime data DATA CALL #5 PORT HUENEME

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (Sel) D. P. Sargent, Jr.
NAME (Please type or print)

Signature

Commander
Title

9/14/94
Date

Naval Surface Warfare Center
Activity

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

NAME (Please type or print)

Signature

Title

Date

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

NAME (Please type or print)
G. R. STERNER

Signature

Title Commander
Naval Sea Systems Command

9/19/94
Date

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

NAME (Please type or print)

Signature

Title

10/1/94
Date

**Port Hueneme Division, Naval Surface Warfare Center**
**BSAT Request for Clarification - Control # 001**

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

Capt. John Scott Beachy
NAME (Please type or print)

Signature

Commanding Officer
Title

12 Sept 1994
Date

PHD NSWC
Activity

206

# DATA CALL 66
# INSTALLATION RESOURCES

**Activity Information:**

| | |
|---|---|
| Activity Name: | Port Hueneme Division, Naval Surface Warfare Center |
| UIC: | N63394 |
| Host Activity Name (if response is for a tenant activity): | Naval Construction Battalion Center<br>Port Hueneme, California |
| Host Activity UIC: | N62583 |

**General Instructions/Background.** A separate response to this data call must be completed for each Department of the Navy (DON) host, independent and tenant activity which separately budgets BOS costs (regardless of appropriation), and, is located in the United States, its territories or possessions.

**1. Base Operating Support (BOS) Cost Data.** Data is required which captures the total annual cost of operating and maintaining Department of the Navy (DON) shore installations. Information must reflect FY 1996 budget data supporting the FY 1996 NAVCOMPT Budget Submit. Two tables are provided. Table 1A identifies "Other than DBOF Overhead" BOS costs and Table 1B identifies "DBOF Overhead" BOS costs. These tables must be completed, as appropriate, for all DON host, independent or tenant activities which separately budget BOS costs (regardless of appropriation), and, are located in the United States, its territories or possessions. Responses for DBOF activities may need to include both Table 1A and 1B to ensure that all BOS costs, including those incurred by the activity in support of tenants, are identified. If both table 1A and 1B are submitted for a single DON activity, please ensure that no data is double counted (that is, included on both Table 1A and 1B). The following tables are designed to collect all BOS costs currently budgeted, regardless of appropriation, e.g., Operations and Maintenance, Research and Development, Military Personnel, etc. Data must reflect FY 1996 and should be reported in thousands of dollars.

**a. Table 1A - Base Operating Support Costs (Other Than DBOF Overhead).** This Table should be completed to identify "Other Than DBOF Overhead" Costs. Display, in the format shown on the table, the O&M, R&D and MPN resources currently budgeted for BOS services. O&M cost data must be consistent with data provided on the BS-1 exhibit. Report only direct funding for the activity. Host activities should not include reimbursable support provided to tenants, since tenants will be separately reporting these costs. Military personnel costs should be included on the appropriate lines of the table. Please ensure that individual lines of the table do not include duplicate costs. Add additional lines to the table (following line 2j., as necessary, to identify any additional cost elements not currently shown). **Leave shaded areas of table blank.**

**DATA CALL 66**
**INSTALLATION RESOURCES**

| **Table 1A - Base Operating Support Costs (Other Than DBOF Overhead)** | | | |
|---|---|---|---|
| **Activity Name:** Port Hueneme Division, NSWC | | **UIC:** N63394 | |
| **Category** | **FY 1996 BOS Costs ($000)** | | |
| | **Non-Labor** | **Labor** | **Total** |
| **1. Real Property Maintenance Costs:** | | | |
| 1a. Maintenance and Repair | $0 | $0 | $0 |
| 1b. Minor Construction | $0 | $0 | $0 |
| **1c. Sub-total 1a. and 1b.** | $0 | $0 | $0 |
| **2. Other Base Operating Support Costs:** | | | |
| 2a. Utilities | $0 | $0 | $0 |
| 2b. Transportation | $0 | $0 | $0 |
| 2c. Environmental | $0 | $0 | $0 |
| 2d. Facility Leases | $0 | $0 | $0 |
| 2e. Morale, Welfare & Recreation | $100.0 | $18.0 | $118.0 |
| 2f. Bachelor Quarters | $0 | $0 | $0 |
| 2g. Child Care Centers | $0 | $0 | $0 |
| 2h. Family Service Centers | $0 | $0 | $0 |
| 2i. Administration | $3.0 | $0 | $3.0 |
| 2j. Other (Specify) | $0 | $0 | $0 |
| **2k. Sub-total 2a. through 2j:** | $103.0 | $18.0 | $121.0 |
| **3. Grand Total (sum of 1c. and 2k.):** | $103.0 | $18.0 | $121.0 |

## DATA CALL 66
## INSTALLATION RESOURCES

**b. Funding Source.** If data shown on Table 1A reflects more than one appropriation, then please provide a break out of the total shown for the "3. Grand-Total" line, by appropriation:

| Appropriation | Amount ($000) |
|---|---|

**c. Table 1B - Base Operating Support Costs (DBOF Overhead).** This Table should be submitted for all current DBOF activities. Costs reported should reflect BOS costs supporting the DBOF activity itself (usually included in the G&A cost of the activity). For DBOF activities which are tenants on another installation, total cost of BOS incurred by the tenant activity for itself should be shown on this table. It is recognized that differences exist among DBOF activity groups regarding the costing of base operating support: some groups reflect all such costs only in general and administrative (G&A), while others spread them between G&A and production overhead. Regardless of the costing process, all such costs should be included on Table 1B. The Minor Construction portion of the FY 1996 capital budget should be included on the appropriate line. Military personnel costs (at civilian equivalency rates) should also be included on the appropriate lines of the table. Please ensure that individual lines of the table do not include duplicate costs. Also ensure that there is no duplication between data provided on Table 1A. and 1B. These two tables must be mutually exclusive, since in those cases where both tables are submitted for an activity, the two tables will be added together to estimate total BOS costs at the activity. Add additional lines to the table (following line 21., as necessary, to identify any additional cost elements not currently shown). **Leave shaded areas of table blank.**

Other Notes: All costs of operating the five Major Range Test Facility Bases at DBOF activities (even if direct RDT&E funded) should be included on Table 1B. Weapon Stations should include underutilized plant capacity costs as a DBOF overhead "BOS expense" on Table 1B.

**DATA CALL 66**
**INSTALLATION RESOURCES**

| Table 1B - Base Operating Support Costs (DBOF Overhead) | | | |
|---|---|---|---|
| **Activity Name:** Port Hueneme Division, NSWC | | **UIC:** N63394 | |
| **Category** | **FY 1996 Net Cost From UC/FUND-4 ($000)** | | |
| | **Non-Labor** | **Labor** | **Total** |
| **1. Real Property Maintenance Costs:** | | | |
| 1a. Real Property Maintenance (>$15K) | $1,253.0 | $0.0 | $1,253.0 |
| 1b. Real Property Maintenance (<$15K) | $2,787.0 | $0.0 | $2,787.0 |
| 1c. Minor Construction (Expensed) | $65.0 | $0.0 | $65.0 |
| 1d. Minor Construction (Capital Budget) | $210.0 | $0.0 | $210.0 |
| **1c. Sub-total 1a. through 1d.** | $4,315.0 | $0.0 | $4,315.0 |
| **2. Other Base Operating Support Costs:** | | | |
| 2a. Command Office | $257.4 | $1,943.3 | $2,200.7 |
| 2b. ADP Support | $3,562.5 | $257.2 | $3,819.7 |
| 2c. Equipment Maintenance | $190.0 | $0.0 | $190.0 |
| 2d. Civilian Personnel Services | $333.1 | $1,122.0 | $1,455.1 |
| 2e. Accounting/Finance | $2,716.8 | $2,043.0 | $4,759.8 |
| 2f. Utilities | $2,025.0 | $0.0 | $2,025.0 |
| 2g. Environmental Compliance | $81.9 | $100.0 | $181.9 |
| 2h. Police and Fire | $429.0 | $0.0 | $429.0 |
| 2i. Safety | $56.9 | $636.5 | $693.4 |
| 2j. Supply and Storage Operations | $646.7 | $1,113.4 | $1,760.1 |
| 2k. Major Range Test Facility Base Costs | $0.0 | $0.0 | $0.0 |
| 2l. Base Communications | $3,420.4 | $52.0 | $3,472.4 |
| 2m. FECA Costs | $978.0 | $0.0 | $978.0 |
| 2n. Contracts / Procurement | $730.4 | $3,821.2 | $4,551.6 |

| | | | |
|---|---|---|---|
| 2o. Printing Support | $1,839.2 | $543.4 | $2,382.6 |
| 2p. Other Engineering Support | $743.1 | $57.4 | $800.5 |
| 2q. Facilities | $2,678.7 | $1,644.5 | $4,323.2 |
| **2r. Sub-total 2a. through 2q:** | $20,946.3 | $13,076.7 | $34,023.0 |
| **3. Depreciation** | $531.0 | $0.0 | $531.0 |
| **4. Grand Total (sum of 1c., 2m., and 3.) :** | $25,792.3 | $13,076.7 | $38,869.0 |

**2. Services/Supplies Cost Data.** The purpose of Table 2 is to provide information about projected **FY 1996** costs for the purchase of services and supplies by the activity. **(Note: Unlike Question 1 and Tables 1A and 1B, above, this question is not limited to overhead costs.)** The source for this information, where possible, should be either the NAVCOMPT OP-32 Budget Exhibit for O&M activities or the NAVCOMPT UC/FUND-1/IF-4 exhibit for DBOF activities. Information must reflect FY 1996 budget data supporting the FY 1996 NAVCOMPT Budget Submit. Break out cost data by the major sub-headings identified on the OP-32 or UC/FUND-1/IF-4 exhibit, disregarding the sub-headings on the exhibit which apply to civilian and military salary costs and depreciation. Please note that while the OP-32 exhibit aggregates information by budget activity, this data call requests OP-32 data for the activity responding to the data call. Refer to NAVCOMPTINST 7102.2B of 23 April 1990, Subj: Guidance for the Preparation, Submission and Review of the Department of the Navy (DON) Budget Estimates (DON Budget Guidance Manual) with Changes 1 and 2 for more information on categories of costs identified. Any rows that do not apply to your activity may be left blank. However, totals reported should reflect all costs, exclusive of salary and depreciation.

| **Table 2 - Services/Supplies Cost Data** | |
|---|---|
| **Activity Name:** Port Hueneme Division, NSWC | **UIC:** N63394 |
| **Cost Category** | **FY 1996 Projected Costs ($000)** |
| **Travel:** | $20,015 |
| **Material and Supplies (including equipment):** | $16,753 |
| **Industrial Fund Purchases (other DBOF purchases):** | $11,936 |
| **Transportation:** | $465 |

| | |
|---|---|
| **Other Purchases (Contract support, etc.):** | $137,857 |
| **Total:** | $187,026 |

**3. Contractor Workyears.**

**a. On-Base Contract Workyear Table.** Provide a projected estimate of the number of contract workyears expected to be **performed "on base"** in support of the installation during FY 1996. Information should represent an annual estimate on a full-time equivalency basis. Several categories of contract support have been identified in the table below. While some of the categories are self-explanatory, please note that the category "mission support" entails management support, labor service and other mission support contracting efforts, e.g., aircraft maintenance, RDT&E support, technical services in support of aircraft and ships, etc.

| **Table 3 - Contract Workyears** | |
|---|---|
| **Activity Name:** Port Hueneme Division, NSWC | **UIC:** N63394 |
| **Contract Type** | **FY 1996 Estimated Number of Workyears On-Base** |
| Construction: | 0.0 |
| Facilities Support: | 7.8 |
| Mission Support: | 290.2 |
| Procurement: | 0.0 |
| Other:* | 0.0 |
| **Total Workyears:** | 298.0 |

*** Note:** Provide a brief narrative description of the type(s) of contracts, if any, included under the "Other" category.

**DATA CALL 66**
**INSTALLATION RESOURCES**

**b. Potential Disposition of On-Base Contract Workyears.** If the mission/functions of your activity were relocated to another site, what would be the anticipated disposition of the **on-base contract workyears** identified in Table 3.?

1) Estimated number of contract workyears which would be transferred to the receiving site (This number should reflect the number of jobs which would in the future be contracted for at the receiving site, not an estimate of the number of people who would move or an indication that work would necessarily be done by the same contractor(s)):

PHD would need to transfer 290.2 on-base contractor workyears if the Division was relocated.

2) Estimated number of workyears which would be eliminated:

PHD would eliminate 7.8 workyears of on-base contractor work due to a relocation of the Division.

3) Estimated number of contract workyears which would remain in place (i.e., contract would remain in place in current location even if activity were relocated outside of the local area):

No workyears would remain in place after a relocation of the Division.

**DATA CALL 66**
**INSTALLATION RESOURCES**

**c. "Off-Base" Contract Workyear Data.** Are there any contract workyears located in the local community, but not on-base, which would either be eliminated or relocated if your activity were to be closed or relocated? If so, then provide the following information **(ensure that numbers reported below do not double count numbers included in 3.a. and 3.b., above)**:

| No. of Additional Contract Workyears Which Would Be Eliminated | General Type of Work Performed on Contract (e.g., engineering support, technical services, etc.) |
|---|---|
| 0.0 | No elimination of workyears |

| No. of Additional Contract Workyears Which Would Be Relocated | General Type of Work Performed on Contract (e.g., engineering support, technical services, etc.) |
|---|---|
| 837.0 | Work to be performed would include engineering support, technical, management, and facilities services. |

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

~~NAME (Please type or print~~ ~~Signature~~

~~Title~~ ~~Date~~

~~Activity~~

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (Sel) D. P. Sargent, Jr.
NAME (Please type of print

Signature

Commander
Title

18 Jul 94
Date

Naval Surface Warfare Center
Activity

In certify that the information herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

G. R. STERNER
NAME (Please type or print

Signature

Commander
Title Naval Sea Systems Command

8-4-94
Date

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

J. B. GREENE, JR.
NAME (Please type of print

Signature

ACTING
Title

16 AUG 1994
Date

DATA CALL #66
PORT HUENEME DIV

# BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

Capt. John Scott Beachy
NAME (Please type or print)

Signature

Commanding Officer
Title

11 JULY 1994
Date

PHD NSWC
Activity

DATA CALL #66
PORT HUENEME SITE

revised pg

UIC 63394

## DATA CALL 1: GENERAL INSTALLATION INFORMATION

1. ACTIVITY: Follow example as provided in the table below (*delete the examples when providing your input*). If any of the questions have multiple responses, please provide all. If any of the information requested is subject to change between now and the end of Fiscal Year (FY) 1995 due to known redesignations, realignments/closures or other action, provide current and projected data and so annotate.

- Name Port Hueneme Division Naval Surface Warfare Center

| | |
|---|---|
| Official Name | Port Hueneme Division Naval Surface Warfare Center |
| Acronym(s) used in correspondence | PHD NSWC |
| Commonly accepted short title(s) | PHD |

- Complete Mailing Address

Commander
Port Hueneme Division, Naval Surface Warfare Center
4363 Missile Way
Port Hueneme, CA 93043-4307

- PLAD NAVSURFWARCENDIV PT HUENEME CA

- PRIMARY UIC: 63394 (Plant Account UIC for Plant Account Holders)

Enter this number as the Activity identifier at the top of each Data Call response page.

- ALL OTHER UIC(s): 63273 PURPOSE: PHD ECO: Mailing Purposes Only R
  39353 PHD CSTS: Mailing Purposes Only
  42298 MILPERS Only (Stream Det)
  47610 MILPERS Only (Base Op Support)

2. PLANT ACCOUNT HOLDER:

- Yes X No ____ (check one)

1R 6/14/94
MLP
NSWC 033

## DATA CALL 1: GENERAL INSTALLATION INFORMATION

1. ACTIVITY: Follow example as provided in the table below (*delete the examples when providing your input*). If any of the questions have multiple responses, please provide all. If any of the information requested is subject to change between now and the end of Fiscal Year (FY) 1995 due to known redesignations, realignments/closures or other action, provide current and projected data and so annotate.

- Name Port Hueneme Division Naval Surface Warfare Center

| | |
|---|---|
| Official Name | Port Hueneme Division Naval Surface Warfare Center |
| Acronym(s) used in correspondence | PHD NSWC |
| Commonly accepted short title(s) | PHD |

- Complete Mailing Address

Commander
Port Hueneme Division, Naval Surface Warfare Center
4363 Missile Way
Port Hueneme, CA 93043-4307

- PLAD NAVSURFWARCENDIV PT HUENEME CA

- PRIMARY UIC: 63394 (Plant Account UIC for Plant Account Holders)

Enter this number as the Activity identifier at the top of each Data Call response page.

- ALL OTHER UIC(s): 63273 PURPOSE: FCDSSA: Mailing Purposes Only
  39353 ICSTF: Mailing Purposes Only
  42298 MILPERS Only (Stream Det)
  47610 MILPERS Only (Base Op Support)

2. PLANT ACCOUNT HOLDER:

- Yes X No ____ (check one)

3. ACTIVITY TYPE: Choose most appropriate type that describes your activity and completely answer all questions.

- HOST COMMAND: A host command is an activity that provides facilities for its own functions and the functions of other (tenant) activities. A host has accountability for Class 1 (land), and/or Class 2 (buildings, structures, and utilities) property, regardless of occupancy. It can also be a tenant at other host activities.

  - Yes ___ No _X_ (check one)

- TENANT COMMAND: A tenant command is an activity or unit that occupies facilities for which another activity (i.e., the host) has accountability. A tenant may have several hosts, although one is usually designated its primary host. If answer is "Yes," provide best known information for your primary host only.

  - Yes _X_ No ___ (check one)
  - Primary Host (current) UIC: 62583
  - Primary Host (as of 01 Oct 1995) UIC: 62583
  - Primary Host (as of 01 Oct 2001) UIC: 62583

- INDEPENDENT ACTIVITY: For the purposes of this Data Call, this is the "catch-all" designator, and is defined as any activity not previously identified as a host or a tenant. The activity may occupy owned or leased space. Government Owned/Contractor Operated facilities should be included in this designation if not covered elsewhere.

  - Yes ___ No _X_ (check one)

4. SPECIAL AREAS: List all Special Areas. Special Areas are defined as Class 1/Class 2 property for which your command has responsibility that is not located on or contiguous to main complex.

| Name | Location | UIC |
|---|---|---|
| Self Defense Test Ship (SDTS) | Port Hueneme Harbor | N/A |
| Defense Systems Engineering Annex 1 | 301 W. Hueneme Rd., Pt. Hueneme | 63394 |
| Corporate Operation Department Annex 5 | 531 W. Hueneme Rd., Pt. Hueneme | 63394 |
| Combat Systems Engineering Annex 6 | 5280 Valentine Rd., Ventura | 63394 |

revised pg.

UIC 63394

5. DETACHMENTS: If your activity has detachments at other locations, please list them in the table below. R

Port Hueneme Division has no official detachments. However, there are two operating sites, one located in Virginia Beach, VA and the other in Point Loma, CA

| Name | UIC | Location | Host name | Host UIC |
|---|---|---|---|---|
| NONE | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

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5. DETACHMENTS: If your activity has detachments at other locations, please list them in the table below.

| Name | UIC | Location | Host name | Host UIC |
|---|---|---|---|---|
| PHD NSWC | 63394 | Dahlgren, VA | Naval Surface Warfare Center Dahlgren Division | 00178 |
| PHD NSWC | 63394 | Pascagoula, MS | Supervisor of Shipbuilding Conversion and Repair | 62795 |
| PHD NSWC | 63394 | San Diego, CA | Supervisor of Shipbuilding Conversion and Repair | 62791 |
| PHD NSWC | 63394 | Washington, DC | Naval Sea Systems Command | 00024 |
| PHD NSWC | 63394 | San Diego, CA | Naval Sea Support Center Pacific | 65913 |
| PHD NSWC | 63394 | San Diego, CA | Naval Surface Force US Pacific Fleet | 53824 |
| PHD NSWC | 63394 | San Diego, CA | Naval Station San Diego | 00245 |
| Fleet Combat Direction System Support Activity | 63273 | Virginia Beach, VA | Fleet Combat Training Center, Dam Neck, VA | 00281 |
| Integrated Combat Systems Test Facility | 39353 | Point Loma, CA | Naval Command Control and Ocean Surveillance Center, Point Loma, CA | 66001 |

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UIC 63394

6. BRAC IMPACT: Were you affected by previous Base Closure and Realignment decisions (BRAC-88, -91, and/or -93)? If so, please provide a brief narrative.

BRAC-88. PHD NSWC was not affected by BRAC-88.

BRAC-91. Naval Ship Weapon Systems Engineering Station was consolidated under the Naval Surface Warfare Center and renamed Port Hueneme Division Naval Surface Warfare Center. It also established the Fleet Combat Direction Systems Support Activity, (FCDSSA) Virginia Beach, VA, (UIC: 63273) as a PHD NSWC site and directed the closure and relocation of the functions of Naval Mine Warfare Engineering Activity, (NMWEA) Yorktown, VA (UIC: 0708A) to the PHD NSWC site at FCDSSA. R

Also directed was the transfer of all functions, equipment and personnel of the Integrated Combat Systems Test Facility (ICSTF), San Diego CA (UIC: 39353) to PHD NSWC. This transfer is underway and is currently scheduled for FY 94 through FY 97 in accordance with BRAC 91 requirements. R

In addition all functions, equipment, and personnel associated with surveillance radars were transferred from Naval Sea Combat Systems Engineering Station, (NSCSES) Norfolk, VA to PHD NSWC Dam Neck, VA.

BRAC-93. The disestablishment was recommended of the Virginia Beach site of the Naval Surface Warfare Center, Port Hueneme Division and the relocation of its functions, personnel, equipment and support to the Fleet Combat Training Center, Dam Neck, VA was directed. This is scheduled to transition in FY 99.

Effective 1 October 1993, Naval Mine Warfare Engineering Activity (Naval Surface Warfare Center-Port Hueneme, Yorktown site) has been aligned with the Naval Surface Warfare Center-Dahlgren, Coastal Systems Station, Panama City, Florida. R

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6. BRAC IMPACT: Were you affected by previous Base Closure and Realignment decisions (BRAC-88, -91, and/or -93)? If so, please provide a brief narrative.

BRAC-88. PHD NSWC was not affected by BRAC-88.

BRAC-91. Naval Ship Weapon Systems Engineering Station was consolidated under the Naval Surface Warfare Center and renamed Port Hueneme Division Naval Surface Warfare Center. It also established the Fleet Combat Direction Systems Support Activity, (FCDSSA) Dam Neck VA, (UIC: 63273) as a PHD NSWC Detachment and recommended the closure and relocation of the functions of Naval Mine Warfare Engineering Activity, (NMWEA) Yorktown, VA (UIC: 0708A) to the PHD NSWC detachment, FCDSSA.

Also recommended was the transfer of all functions, equipment and personnel of the Integrated Combat Systems Test Facility (ICSTF), San Diego CA (UIC: 39353) to PHD NSWC. This action has not been completed pending resolution of facility issues.

In addition all functions, equipment, and personnel associated with surveillance radars were transferred from Naval Sea Combat Systems Engineering Station, (NSCSES) Norfolk, VA to PHD NSWC Dam Neck, VA.

BRAC-93. The disestablishment was recommended of the Virginia Beach Detachment of the Naval Surface Warfare Center, Port Hueneme Division and the relocation of its functions, personnel, equipment and support to the Fleet Combat Training Center, Dam Neck, VA. This is scheduled to transition in FY 99.

Effective 1 October 1993, Naval Mine Warfare Engineering Activity (Naval Surface Warfare Center-Port Hueneme, Yorktown Detachment) has been relocated to the Naval Surface Warfare Center-Dahlgren, Coastal Systems Station, Panama City, Florida.

7. MISSION: Do not simply report the standard mission statement. Instead, describe important functions in a bulletized format. Include anticipated mission changes and brief narrative explanation of change; also indicate if any current/projected mission changes are a result of previous BRAC-88, -91,-93 action(s).

Current Missions

1. SURFACE SHIP COMBAT SYSTEMS PROGRAM MANAGEMENT AND SUPPORT, RESEARCH AND DEVELOPMENT, ACQUISITION SUPPORT AND IN-SERVICE ENGINEERING, INCLUDING FULL SPECTRUM INTEGRATED LOGISTICS SUPPORT - PHD NSWC provides engineering, and logistics support and planning during the production, industrial and operational cycles of the ships life cycle to ensure that combat systems can be operated safely and maintained operationally ready. The engineering support focuses on finding and resolving the integration and interoperability problems that only emerge when the ship is nearing operational use or after a ship is deployed. PHD engineers also provide lessons learned from active fleet combat system experience to development teams creating conceptual combat systems for new ship classes, and major changes to existing ship classes. In addition the surface Navy logistics system frequently develops process disfunctions which require sophisticated intervention to get to and solve root causes. PHD provides logistics process designers and planners who develop process updates and new automation concepts for configuration control, training effectiveness improvement, supply streamlining, better provisioning and maintenance strategies for the combat system as a whole.

2. SURFACE SHIP WEAPON SYSTEMS PROGRAM MANAGEMENT AND SUPPORT, RESEARCH AND DEVELOPMENT, ACQUISITION SUPPORT AND IN-SERVICE ENGINEERING, INCLUDING FULL SPECTRUM INTEGRATED LOGISTICS SUPPORT - PHD NSWC provides the bridge between the weapon systems developer and the weapon systems end user - the operational fleet. Using technology and direct fleet experience we are in a unique position to ensure the safe, effective, and tactically sound operation of weapon systems. We develop specifications and procedures, certify weapon systems and crews as to their ability to operate safely, analyze fleet problems and failures, and produce engineering and logistic solutions. PHD engineers also provide lessons learned from active fleet combat system experience to the development of new weapons systems or major upgrades to existing systems. Logistics and quality planning are developed and implemented to ensure availability of appropriate logistics elements concurrent with hardware deliveries to support system installations and immediate fleet operations.

3. MISSILE AND MISSILE SUPPORT SYSTEMS RESEARCH AND DEVELOPMENT, AND IN-SERVICE ENGINEERING, INCLUDING FULL SPECTRUM INTEGRATED LOGISTICS SUPPORT - This technical capability provides the engineering expertise and logistic support required to:

(1) Ensure that surface combatants are provided with missiles that are reliable, maintainable and have the capability of countering the full range of anticipated threats.

(2) Ensure that the missiles can be assembled, tested, handled and operated safely from

stockpile to target.

(3) Provide acquisition managers with lessons learned from the production, assembly, test and operational use of current missile variants.

(3) Provide cost effective solutions to fleet reliability and maintenance problems.

Functions performed include the following: Design Engineering, Test Equipment Engineering, Software Development and Support, Missile Flight Analysis, Technical Training, Production Planning and Support, Missile Processing Procedure Development, Ordnance Safety, Maintenance Planning, Configuration Management, Provisioning, Industrial Planning and Design, Inventory Management, Workload Planning, Depot Maintenance Management, Technical Documentation Development and other related functions.

4. UNDERWAY REPLENISHMENT (UNREP) SYSTEMS AND EQUIPMENT - Underway Replenishment (UNREP) is the force multiplier that sustains naval battle groups with the fuel, ordnance and stores needed to remain on forward deployment and conduct combat operations anywhere for as long as required. Sustaining the naval forces is accomplished by transferring cargo from the combat logistics ships using the PHD standard underway replenishment system. As a part of this capability, PHD investigates every casualty to the standard UNREP system to determine whether engineering, logistics or operational procedural alterations are required. Fleet introduction of new weapons or stores often also requires alterations to UNREP systems. PHD is responsible for the development of these alterations beginning with concept formulation and proceeding through to fleet implementation, including crew training.

5. SURFACE SHIP COMBAT AND WEAPON SYSTEM TEST/ASSESSMENT/EVALUATION FOR TECHNICAL AND OPERATIONAL SUITABILITY (DT), AND PLATFORM INTEGRATION TESTING - PHD provides a comprehensive capability to plan, conduct, and report the results of developmental testing of all surface ship Combat Systems, and their AAW, ASUW, SEW, Joint Strike, Littoral, and C4I warfighting capabilities; including their inter-operability with joint and coalition task forces. PHD also provides sophisticated evaluation of test results to determine service life characteristics of reliability, operability, maintainability, supportability of the tested system in the operating surface ship environment. These evaluations are used to directly influence the engineering and logistics support concepts for that system and to prepare the engineers and logisticians for their tasks in the operations phase.

6. LIFE CYCLE DEVELOPMENT, ACQUISITION SUPPORT, MAINTENANCE AND MANAGEMENT FOR NAVSEA AND SPAWAR SURFACE AND UNDERSEA TECHNICAL MANUALS - Functions performed include the following: Outfitting US and foreign ships with initial technical manual load outs, technical manual acquisition requirements development, training to fleet and shore activities on technical manual acquisition/maintenance, inventory management, technical manual library resource management, technical manual distribution support, management of technical manual raster scanning program, and other technical manual related functions.

7. COMPUTER PROGRAM DESIGN, DEVELOPMENT, GENERATION, CERTIFICATION, SUPPORT, MAINTENANCE AND DISTRIBUTION FOR COMBAT DIRECTION (CONTROL) SYSTEMS - PHD plans, designs, creates, updates, tests and delivers Combat Direction System

(CDS) operational programs and workstation-based tactical command display programs for cruiser, destroyer, frigate and helicopter combatants, communications programs for integrated systems, and updates to these computer programs to meet evolving fleet requirements.

8. RESEARCH AND DEVELOPMENT IN SUPPORT OF LOGISTICS - PHD NSWC is the recognized leader in combat weapon systems in-service logistics support. PHD engineers and logisticians have attained this position of leadership because of their experience in direct fleet support coupled with a knowledge of information system technology. This technical capability blending of computer technology and practical field experience enables the innovative application of technology to reengineer logistics processes and develop integrated systems of logistics support.

## Projected Missions for FY 2001

The PHD mission for the year FY 2001 is projected to be the same as the current mission.

8. UNIQUE MISSIONS: Describe any missions which are unique or relatively unique to the activity. Include information on projected changes. Indicate if your command has any National Command Authority or classified mission responsibilities.

## Current Unique Missions

The Naval Surface Warfare Center has fourteen unique missions which are as follows:

1. Surface Warfare Modeling and Analysis
2. Surface Ship Combat and Combat Control Systems
3. Surface Ship Electronic Warfare
4. Surface ship Electromagnetic and Electro-optic Reconnaissance, Search and Track Systems
5. Surface Ship Weapon Systems (including Shipboard Missile Integration)
6. Ship Vulnerability and Survivability (includes Submarine HM&E)
7. Ship Active and Passive Signatures (includes Submarine HM&E)
8. Surface and Undersea Vehicle and Hull, Machinery, Propulsors and Equipment
9. Platform Systems Integration
10. Strategic Targeting Support (including Fire Control, Targeting, and Re-entry Systems)
11. Amphibious Warfare Systems
12. Special Warfare Systems
13. Warheads (Explosives and Energetic Materials)
14. Mine, Mine Countermeasures and Mine Clearance Systems

PHD supports these unique mission areas as described below:

SURFACE SHIP COMBAT AND COMBAT CONTROL SYSTEMS - PHD provides full spectrum engineering and logistics support for combat systems and components which display the battle tactical picture, make or assist in making combat decisions, and direct control of the weapons and missile systems. These systems include ownship systems such as Combat Direction System (CDS) and battleforce systems such as Cooperative Engagement Capability. In addition PHD plans, conducts, and reports the results of developmental testing of all surface ship Combat Systems, and their AAW, ASUW, SEW, Joint Strike, Littoral, and C4I warfighting capabilities; including their inter-operability with joint and coalition task forces. PHD also provides sophisticated evaluation of test results to determine service life characteristics of reliability, operability, maintainability, supportability of the tested system in the operating surface ship environment. PHD also manages the development, maintenance and distribution for all NAVSEA and SPAWARS technical manuals required to support the above listed systems.

SURFACE SHIP ELECTROMAGNETIC AND ELECTRO-OPTIC RECONNAISSANCE, SEARCH AND TRACK SYSTEMS - PHD NSWC provides full spectrum life-cycle engineering and logistics support to detection systems on board all classes of surface ships, including search radars, IR/EO search systems, surface search radars, navigation radars and two- and three-dimensional radars. PHD also provides engineering and logistics support to the interface of these detection systems with the control components of combat/weapon systems through systems such as SYS 2 IADT. This capability includes test and evaluation of radar systems at the Surveillance Radar Lab located at the PHD East Coast Detachment at Dam Neck Va.

SURFACE SHIP WEAPON SYSTEMS (Including Shipboard Missile Integration) - PHD provides full spectrum engineering and logistic support for most of the weapons and programmable ordnance systems comprising all surface combat systems, including the interfaces between these systems. Weapon systems encompass all warfare areas, including AAW, ASUW, ASW, NSFS and Strike. AEGIS MK 7, Mk 86 Gun Weapon Control System, Tomahawk and Harpoon weapon systems are examples of PHD-supported weapon systems. Programmable ordnance includes the Standard Missiles family, Tomahawk All-Up-Round, Rolling Airframe Missile, and Vertical Launch Anti-Submarine missile (ASROC). Theater Air Defense missile systems, include: NATO SEASPARROW, Rolling Airframe Missile, STANDARD Missile, RAIDS, QRCC, IRST/TISS/EO/AN-SAR-8, SDSMS Integration, Cooperative Engagement Capability (CEC), and Lightweight Exo-Atmospheric Projectile. In addition PHD plans, conducts, and reports the results of developmental testing of surface ship weapon systems, providing sophisticated evaluation of test results to determine service life characteristics of reliability, operability, maintainability, supportability of the tested systems in the operating surface ship environment. PHD also manages the development, maintenance and distribution for all NAVSEA and SPAWARS technical manuals required to support these weapon systems.

SHIP ACTIVE AND PASSIVE SIGNATURES - PHD provides life cycle in-service engineering and logistics support to shipboard Passive Countermeasures System, and includes signature reduction considerations in its radar and infrared electromagnetic components life cycle support. Specific applications include low- and controlled-signature exterior-deck equipment, development and optimization of signature reducing materials, identification and recommendation for correction of ship

signature/silencing deficiencies, and development of operational concepts intended to meet improved stealth requirements. Additionally, PHD manages the development, maintenance and distribution for all NAVSEA and SPAWARS technical manuals required to support signature and silencing systems.

SURFACE AND UNDERSEA VEHICLE AND HULL, MACHINERY, PROPULSORS AND EQUIPMENT - PHD provides full spectrum life-cycle management of Underway Replenishment systems and components. As part of PHD's full spectrum engineering and logistics support of combat, weapon, missile and UNREP systems, PHD also provides R&D, acquisition support, test and evaluation and in-service engineering for the interfaces between these systems and the ship's air, electrical and water support systems. Additionally, PHD manages the development, maintenance and distribution for all NAVSEA technical manuals required to support these machinery systems and components; and develops logistics methodologies to make system support more responsive and cost-effective.

PLATFORM SYSTEMS INTEGRATION - PHD NSWC maintains a capability in systems engineering and software engineering to support the NAVSEA Combat System Software Testing Program for all non-Aegis ships. PHD NSWC brings together **ALL** the subsystem computer programs that are elements of a networked Combat System and performs a series of tests to ensure proper operation. This technical capability supports Navy surface combatants and, with CEC incorporated, is projected to include Marine Corps, Army and Air Force.

AMPHIBIOUS WARFARE SYSTEMS - PHD performs combat system in-service engineering for Amphibious Class ships and also provides system level in-service engineering support for the detect, control and engagement systems on these ships, such as the radars, self defense missile, and gun weapon systems used in over-the-beach assault support. PHD also manages the development, maintenance and distribution of amphibious warfare technical manuals.

SPECIAL WARFARE SYSTEMS - PHD is tasked to provide full spectrum life-cycle engineering and logistics support to Stabilized Weapons Platform System consisting of a 25 mm gun subsystem, Hellfire Missiles, Stinger Missiles, FLIR, TV and laser sensors. Full spectrum support includes research and development, acquisition support, test and evaluation, fleet fielding and in-service engineering; logistics support is provided during all life cycle phases. Additionally, PHD manages the development, maintenance and distribution for all NAVSEA and SPAWARS technical manuals required to support the SWPS; and develops logistics methodologies to make systems support more responsive and cost-effective.

## Projected Unique Missions for FY 2001

The PHD unique mission for the year FY 2001 is projected to be the same as the current unique mission.

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9. IMMEDIATE SUPERIOR IN COMMAND (ISIC): Identify your ISIC. If your ISIC is not your funding source, please identify that source in addition to the operational ISIC.

| • Operational name | UIC |
|---|---|
| Naval Surface Warfare Center Washington | 68933 |

| • Funding Source | UIC |
|---|---|
| DBOF | Multiple |

10. PERSONNEL NUMBERS: Host activities are responsible for totalling the personnel numbers for all of their tenant commands, even if the tenant command has been asked to separately report the data. The tenant totals here should match the total tally for the tenant listing provided subsequently in this Data Call (see Tenant Activity list). (Civilian count shall include Appropriated Fund personnel only.)

On Board Count as of 01 January 1994

| | Officers | Enlisted | Civilian* (Appropriated) |
|---|---|---|---|
| • Reporting Command** | 56 | 182 | 2498 |
| • Selected Reserve (RC) | 42 | 120 | N/A |
| • Tenants (total) | N/A | N/A | N/A |
| • Selected Reserve (Ten.) | N/A | N/A | N/A |

R

Authorized Positions as of 30 September 1994

| | Officers | Enlisted | Civilian* (Appropriated) |
|---|---|---|---|
| • Reporting Command** | 39 | 133 | 2124 |
| • Selected Reserve (RC) | 64 | 115 | N/A |
| • Tenants (total) | N/A | N/A | N/A |
| • Selected Reserve (Ten.) | N/A | N/A | N/A |

R

* Does not include 121 workyears supporting Foreign Military Sales
** Although they are included in the OSD Budget, NMWEA personnel not included in these figures

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NSWC 033

9. IMMEDIATE SUPERIOR IN COMMAND (ISIC): Identify your ISIC. If your ISIC is not your funding source, please identify that source in addition to the operational ISIC.

| • Operational name | UIC |
|---|---|
| Naval Surface Warfare Center Washington | 68933 |

| • Funding Source | UIC |
|---|---|
| DBOF | Multiple |

10. PERSONNEL NUMBERS: Host activities are responsible for totalling the personnel numbers for all of their tenant commands, even if the tenant command has been asked to separately report the data. The tenant totals here should match the total tally for the tenant listing provided subsequently in this Data Call (see Tenant Activity list). (Civilian count shall include Appropriated Fund personnel only.)

On Board Count as of 01 January 1994

| | Officers | Enlisted | Civilian* (Appropriated) |
|---|---|---|---|
| • Reporting Command** | 56 | 182 | 2682 |
| • Selected Reserve (RC) | 42 | 120 | N/A |
| • Tenants (total) | N/A | N/A | N/A |
| • Selected Reserve (Ten.) | N/A | N/A | N/A |

Authorized Positions as of 30 September 1994

| | Officers | Enlisted | Civilian* (Appropriated) |
|---|---|---|---|
| • Reporting Command** | 39 | 133 | 2245 |
| • Selected Reserve (RC) | 64 | 115 | N/A |
| • Tenants (total) | N/A | N/A | N/A |
| • Selected Reserve (Ten.) | N/A | N/A | N/A |

* Does not include 121 workyears supporting Foreign Military Sales
** Although they are included in the OSD Budget, NMWEA personnel not included in these figures

revised pg.

UIC 63394

11. KEY POINTS OF CONTACT (POC): Provide the work, FAX, and home telephone numbers for the Commanding Officer or OIC, and the Duty Officer. Include area code(s). You may provide other key POCs if so desired in addition to those above.

| Title/Name | Office | Fax | Home |
|---|---|---|---|
| • Commander | | | |
| Capt. John Scott Beachy | (805) 982-8238, DSN 551 | (805) 985-7284 | (805) 382-1743 |
| • 24 Hour Duty Office | (805) 982-0566, DSN 551 | | |
| • Division BRAC Coordinator | | | |
| Robert A. Bland | (805) 982-7749, DSN 551 | (805) 985-9529 | (805) 498-5682 |

12. TENANT ACTIVITY LIST: This list must be all-inclusive. Tenant activities are to ensure that their host is aware of their existence and any "subleasing" of space. This list should include the name and UIC(s) of all organizations, shore commands and homeported units, active or reserve, DOD or non-DOD (include commercial entities). The tenant listing should be reported in the format provide below, listed in numerical order by UIC, separated into the categories listed below. Host activities are responsible for including authorized personnel numbers, on board as of **30 September 1994**, for all tenants, even if those tenants have also been asked to provide this information on a separate Data Call. (Civilian count shall include Appropriated Fund personnel only.)

• Tenants residing on main complex (shore commands)

| Tenant Command Name | UIC | Officer | Enlisted | Civilian |
|---|---|---|---|---|
| NONE | | | | |

R

• Tenants residing on main complex (homeported units.)

| Tenant Command Name | UIC | Officer | Enlisted | Civilian |
|---|---|---|---|---|
| NONE | | | | |

R

• Tenants residing in Special Areas (Special Areas are defined as real estate owned by host command

11. KEY POINTS OF CONTACT (POC): Provide the work, FAX, and home telephone numbers for the Commanding Officer or OIC, and the Duty Officer. Include area code(s). You may provide other key POCs if so desired in addition to those above.

| Title/Name | Office | Fax | Home |
|---|---|---|---|
| • Commander | | | |
| Capt. John Scott Beachy | (805) 982-8238, DSN 551 | (805) 985-7284 | (805) 382-1743 |
| • 24 Hour Duty Office | (805) 982-0566, DSN 551 | | |
| • Division BRAC Coordinator | | | |
| Robert A. Bland | (805) 982-7749, DSN 551 | (805) 985-9529 | (805) 498-5682 |

12. TENANT ACTIVITY LIST: This list must be all-inclusive. Tenant activities are to ensure that their host is aware of their existence and any "subleasing" of space. This list should include the name and UIC(s) of all organizations, shore commands and homeported units, active or reserve, DOD or non-DOD (include commercial entities). The tenant listing should be reported in the format provide below, listed in numerical order by UIC, separated into the categories listed below. Host activities are responsible for including authorized personnel numbers, on board as of **30 September 1994**, for all tenants, even if those tenants have also been asked to provide this information on a separate Data Call. (Civilian count shall include Appropriated Fund personnel only.)

• Tenants residing on main complex (shore commands)

| Tenant Command Name | UIC | Officer | Enlisted | Civilian |
|---|---|---|---|---|
| N/A | | | | |

• Tenants residing on main complex (homeported units.)

| Tenant Command Name | UIC | Officer | Enlisted | Civilian |
|---|---|---|---|---|
| N/A | | | | |

revised pg.



not contiguous with main complex; e.g. outlying fields).

| Tenant Command Name | UIC | Location | Officer | Enlisted | Civilian |
|---|---|---|---|---|---|
| NONE | | | | | |

R

- Tenants (Other than those identified previously)

| Tenant Command Name | UIC | Location | Officer | Enlisted | Civilian |
|---|---|---|---|---|---|
| NONE | | | | | |

R

13. REGIONAL SUPPORT: Identify your relationship with other activities, not reported as a host/tenant, for which you provide support. Again, this list should be all-inclusive. The intent of this question is capture the full breadth of the mission of your command and your customer/supplier relationships. Include in your answer any Government Owned/Contractor Operated facilities for which you provide administrative oversight and control.

| Activity Name | Location | Support function (include mechanism such as ISSA, MOU, etc.) |
|---|---|---|
| Life Cycle Support Facility (LCFS) | Ventura, CA | Overhaul for VLS and Support Activity for MK41 0 Cog Material; Government Leased, Contractor Operated; NAVSEA Contract, MOU. PHD NSWC provides Technical Management |

R

- Tenants residing in Special Areas (Special Areas are defined as real estate owned by host command not contiguous with main complex; e.g. outlying fields).

| Tenant Command Name | UIC | Location | Officer | Enlisted | Civilian |
|---|---|---|---|---|---|
| N/A | | | | | |

- Tenants (Other than those identified previously)

| Tenant Command Name | UIC | Location | Officer | Enlisted | Civilian |
|---|---|---|---|---|---|
| N/A | | | | | |

13. REGIONAL SUPPORT: Identify your relationship with other activities, not reported as a host/tenant, for which you provide support. Again, this list should be all-inclusive. The intent of this question is capture the full breadth of the mission of your command and your customer/supplier relationships. Include in your answer any Government Owned/Contractor Operated facilities for which you provide administrative oversight and control.

| Activity Name | Location | Support function (include mechanism such as ISSA, MOU, etc.) |
|---|---|---|
| Life Cycle Support Facility (LCSF) | Ventura, CA | Overhaul for VLS and Support Activity for MK 41 0 Cog Material; Government Leased, Contractor Operated; NAVSEA Contract, MOU |

14. FACILITY MAPS: This is a primary responsibility of the plant account holders/host commands. Tenant activities are not required to comply with submission if it is known that your host activity has complied with the request. Maps and photos should not be dated earlier than 01 January 1991, unless annotated that no changes have taken place. Any recent changes should be annotated on the appropriate map or photo. Date and label all copies.

- Local Area Map. This map should encompass, at a minimum, a 50 mile radius of your activity. Indicate the name and location of all DoD activities within this area, whether or not you support that activity. Map should also provide the geographical relationship to the major civilian communities within this radius. (Provide 12 copies.)

- Installation Map / Activity Map / Base Map / General Development Map / Site Map. Provide the most current map of your activity, clearly showing all the land under ownership/control of your activity, whether owned or leased. Include all outlying areas, special areas, and housing. Indicate date of last update. Map should show all structures (numbered with a legend, if available) and all significant restrictive use areas/zones that encumber further development such as HERO, HERP, HERF, ESQD arcs, agricultural/forestry programs, environmental restrictions (e.g., endangered species). (Provide in two sizes: 36"x 42" (2 copies, if available); and 11"x 17" (12 copies).)

- Aerial photo(s). Aerial shots should show all base use areas (both land and water) as well as any local encroachment sites/issues. You should ensure that these photos provide a good look at the areas identified on your Base Map as areas of concern/interest - remember, a picture tells a thousand words. Again, date and label all copies. (Provide 12 copies of each, 8½"x 11".)

- Air Installations Compatible Use Zones (AICUZ) Map. (Provide 12 copies.)

BRAC-95
DATA CALL #1
PORT HUENEME DIV

UIC 63394

JL
SD7 09X
2/16/94

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

E.S. McGINLEY II
NAME (Please type or print)

Signature

COMMANDER
Title

2/9/94
Date

NAVAL SURFACE WARFARE CENTER
Activity

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

~~NAME (Please type or print)~~ ~~Signature~~

~~Title~~ ~~Date~~

~~Activity~~

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

K.P. Malley
NAME (Please type or print)

Signature

Commander
Title

2/16/94
Date

Naval Sea Systems Command
Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

S. F. Loftus
Vice Admiral, U.S. Navy
NAME (Please type or print)

Signature

Deputy
Operat: .stics)
Title

23 FEB 1994
Date

UIC 63394

JL
SEA 09X
2/16/94

# BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

Each individual in your activity generating information for the BRAC-95 process must certify that information. Enclosure (1) is provided for individual certifications and may be duplicated as necessary. You are directed to maintain those certifications at your activity for audit purposes. For purposes of this certification sheet, the commander of the activity will begin the certification process and each reporting senior in the Chain of Command reviewing the information will also sign this certification sheet. This sheet must remain attached to this package and be forwarded up the Chain of Command. Copies must be retained by each level in the Chain of Command for audit purposes.

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

CAPT John Scott Beachy
NAME (Please type or print)

Signature

Commander
Title

8 Feb 94
Date

PHD NSWC
Activity

Revisions to BRAC 95 Data Call 1

1. The following changes, rationale for change, page and paragraph numbers affected, respective replacement sheets, and required certification are provided.

a. Page 1, ALL OTHER UICS, remote sites erroneously labeled , changed FCDSSA to PHD ECO and ISCSF to PHD CSTS.

b. Page 3, DETACHMENTS - Eliminate all detachments reported in the original response.

Port Hueneme Division has no official detachments. However, there are two operating sites, one located in Virginia Beach, VA and the other in Point Loma, CA

c. Page 4, BRAC IMPACT - Change references from "Detachments" to "sites". Use of the term detachment incorrect as PHD has no official detachments. Revise paragraph 3 to provide the projected status of the PHD CSTS site move to Port Hueneme. The transfer of equipment and functions is planned and budgeted for FY94-FY97.

Change "recommended" to "directed" in second and third subparagraphs, add "was directed" at he end of the first sentence of the fifth subparagraph. These changes are to clarify the nature of BRAC decisions in 91 and 93.

In last subparagraph change "relocated" to "align with". This change was made to more accurately describe the nature of the Naval Mine Warfare Engineering Activity realignment.

d. Page 10 - The number of civilians in the "On Board Count as of 1 January 1994" should be 2498 vice 2682. The original number reported included Naval Mine Warfare Engineering Activity personnel. The number of civilians in the "Authorized Positions as of 30 September 1994" should be 2124 vice 2245. The Original number reported included personnel supporting Foriegn Military Sales.

e. Page 11 and 12 Tenant Command bullets, change N/A to NONE for clarification.

f. Page 12, paragraph 13, REGIONAL SUPPORT - Add the following sentence in the Support function column: "PHD NSWC provides Technical Management". Required to clarify PHD support role.

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"REVISION"
DATA CALL #1
PORT HUENEME

Pgs. 1, 3, 4, 10, 11, 12, 13

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (sel) D. P. Sargent Jr.
NAME (Please type or print)

Signature

Commander
Title

6/3/94
Date

Naval Surface Warfare Center
Activity

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

~~NAME (Please type or print)~~

~~Signature~~

~~Title~~

~~Date~~

~~Activity~~

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

G. R. STERNER
NAME (Please type or print)

Signature

7-1-94
Date

Title
Naval Sea Systems Command

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

J. B. GREENE, JR.
NAME (Please type or print)

Signature

ACTING
Title

12 JUL 1994
Date

Revision to the NSWC-PORT HUENEME DIVISION portion of the BRAC-95 Data Call 1.

"REVISION"
DATA CALL #1
PORT HUENEME
pg: 1, 3, 4, 10, 11
12, 13

Port Hueneme Division, Naval Surface Warfare Center
Data Call 1

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

Each individual in your activity generating information for the BRAC-95 process must certify that information. Enclosure (1) is provided for individual certifications and may be duplicated as necessary. You are directed to maintain those certifications at your activity for audit purposes. For purposes of this certification sheet, the commander of the activity will begin the certification process and each reporting senior in the Chain of Command reviewing the information will also sign this certification sheet. This sheet must remain attached to this package and be forwarded up the Chain of Command. Copies must be retained by each level in the Chain of Command for audit purposes.

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

CAPT John Scott Beachy
NAME (Please type or print)

Signature

Commanding Officer
Title

2 JUNE 1994
Date

Port Hueneme Division
Activity

The information to which this certification pertains is described as follows:

Revision to the Port Hueneme Division BRAC-95 Data Call #1, pages 1, 3, 4, 5, 10, 12

Additional details of changes described on attached sheet.

**CAPACITY ANALYSIS:**
**DATA CALL #4 WORK SHEET FOR**
**TECHNICAL CENTER or LABORATORY:** **Port Hueneme Division**
**Naval Surface Warfare Center**

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**TAB A**: Ship Berthing Capacity
**TAB B**: Operational Airfield Capacity
**TAB C**: Depot Level Maintenance Capacity
**TAB D**: Ordnance Storage Capacity


**********If any responses are classified, attach a separate classified annex. **********

7 April 1994

**1. Historical and Projected Workload.** Use Tables 1.1, 1.2, 1.3 & 1.4 below to provide historical and currently projected workload data for your activity in terms of funding and workyears. Assume previous BRAC closures and realignments are implemented on schedule. Dollar amounts should be in then-year dollars. Workyears should be separated for in-house government efforts and on-site contractor work.

a. Use Table 1.1 to provide data on your site.

b. Use Table 1.2 to provide data on your Detachments that did not receive this Data Call directly. Compile the information from all of these Detachments into one table. Attach a list of the titles & UIC's of the Detachments included in the table.

**NOTE:**

**The Port Hueneme Division of the Naval Surface Warfare Center (PHD NSWC) consists of a main site located at Port Hueneme, and two principal remote sites: the PHD East Coast Operations Site (PHD ECO) located at Virginia Beach, Va. and a PHD Combat Systems Test Site ( PHD CSTS) located at Point Loma, Ca. The Port Hueneme division has no official detachments, consequently, for purposes of this data call, the Port Hueneme Divivion responses include the remote sites. Data from remote sites is not reported separately unless the question being answered specifically requests that data from remote sites be provided.**

c. For FY's 1993 thru 1997 provide a breakout of the "Total Funds Budgeted" line showing the appropriation and amounts of funding budgeted from your major customers. Major resource Sponsors are defined as, but not limited to, all systems commands, ONR, SSPO, CNO, FLT CINCs, Other DON, Other DOD by Department, Other Federal Government, All other. Use Table 1.3 to report this breakout for your site. Use Table 1.4 to report this breakout for your compiled Detachments that did not receive this Data Call directly. Provide separate tables for FY's 1993 thru 1997.

Use the following definitions when providing data for the tables below:

Workyears: Consistent with those used in the preparation of inputs to the President's budget.

In-House government efforts or In-House workyears: Includes both military and civil servant employees

On-Site Contractor workyears: Actual or estimated workyears performed by support contractors with workyears defined consistent with the definition used in the President's budget.

On-site Contractors: Those contractors that occupy space directly on the site on nearly a full time basis.

Total Funds Budgeted: The funds used as inputs to the President's Budget.

Civilian Personnel On-Board: Full Time Permanent employees (FTP).

revision

**Table 1.1 Historical and Projected Workload for PHD NSWC (UIC N63394)**

| Fiscal Year | Total Funds Budgeted ($K) | Total Funds Received w/o Direct Cite ($K) | Direct Cite Funds Received ($K) | Budgeted Wkyrs | Actual In-House Wkyrs | Actual Onsite Contract Wkyrs |
|---|---|---|---|---|---|---|
| **86** | 271,643 | 277,856 | 54,322 | 2,753 | 2,764 | 41 |
| **87** | 205,996 | 217,710 | 80,574 | 2,621 | 2,632 | 41 |
| **88** | 256,725 | 240,580 | 96,301 | 2,673 | 2,712 | 39 |
| **89** | 264,645 | 259,692 | 50,827 | 2,664 | 2,890 | 48 |
| **90** | 294,561 | 289,520 | 41,678 | 3,113 | 3,103 | 112 |
| **91** | 296,399 | 353,684 | 52,317 | 3,346 | 3,160 | 175 |
| **92** | 282,701 | 362,845 | 46,425 | 3,121 | 3,248 | 185 |
| **93** | 293,677 | 413,121 | 29,413 | 2,979 | 3,180 | 232 |
| **94** | 267,406 | | | 2,715 | | |
| **95** | 260,306 | | | 2,462 | | |
| **96** | 313,904 | | | 2,292 | | |
| **97** | 311,270 | | | 2,168 | | |

R

NOTE: Per BRAC 93, NSWC Dahlgren Division will assume financial responsibility for NMWEA in FY95. The above table includes NMWEA data for FY86 - FY94; see NSWC Dahlgren Division submittal for FY95 - FY97 data.



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**Table 1.1 Historical and Projected Workload for PHD NSWC (UIC N63394)**

| Fiscal Year | Total Funds Budgeted ($K) | Total Funds Received w/o Direct Cite ($K) | Direct Cite Funds Received ($K) | Budgeted Wkyrs | Actual In-House Wkyrs | Actual Onsite Contract Wkyrs |
|---|---|---|---|---|---|---|
| 86 | 271,643 | 277,856 | 54,322 | 2,495 | 2,509 | 41 |
| 87 | 205,996 | 217,710 | 80,574 | 2,350 | 2,376 | 41 |
| 88 | 256,725 | 240,580 | 96,301 | 2,404 | 2,464 | 39 |
| 89 | 264,645 | 259,692 | 50,827 | 2,394 | 2,630 | 48 |
| 90 | 294,561 | 289,520 | 41,678 | 2,842 | 2,861 | 112 |
| 91 | 296,399 | 353,684 | 52,317 | 3,075 | 2,907 | 175 |
| 92 | 282,701 | 362,845 | 46,425 | 2,850 | 2,990 | 185 |
| 93 | 293,677 | 413,121 | 29,413 | 2,738 | 2,939 | 232 |
| 94 | 267,406 | | | 2,536 | | |
| 95 | 260,306 | | | 2,277 | | |
| 96 | 313,904 | | | 2,104 | | |
| 97 | 311,270 | | | 1,984 | | |

NOTE: Per BRAC 93, NSWC Dahlgren Division will assume financial responsiblity for NMWEA in FY95. The above table includes NMWEA data for FY86 - FY94; see NSWC Dahlgren Division submittal for FY95 - FY97 data.

**TABLE 1.3 FY 1993*** **BREAKOUT OF BUDGETED FUNDS (K$) for PHD NSWC****** **(UIC N63394)**

| SPONSOR | RDT&E(N) | | | | | | | Other RDT&E | Other Appropriation | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6.1 | 6.2 | 6.3a | 6.3b | 6.4 | 6.5 | 6.6 | | OMN | APN | OPN | WPN | SCN | Other Navy | All Other |
| NAVSEA** | 0 | 0 | 0 | 1,235 | 5,713 | 2,658 | 0 | 0 | 87,490 | 0 | 38,887 | 12,540 | 27,013 | 8,729 | 10,349 |
| DRPM AEGIS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17,552 | 0 | 0 | 0 | 22,865 | 1,981 | 5,019 |
| PEOSD*** | 0 | 0 | 0 | 5,483 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 |
| PEOCU | 0 | 0 | 0 | 0 | 520 | 0 | 0 | 0 | 8,587 | 0 | 3,509 | 943 | 8,223 | 0 | 0 |
| NAVAIR | 0 | 0 | 0 | 97 | 0 | 0 | 0 | 0 | 517 | 0 | 0 | 204 | 0 | 1,259 | 0 |
| PEO MINES | 0 | 0 | 0 | 1,255 | 261 | 0 | 0 | 0 | 9,004 | 0 | 2,653 | 0 | 3,974 | 864 | 0 |
| OTHER NAVY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,046 | 0 | 0 | 0 | 0 | 224 | 0 |
| | | | | | | | | | | | | | | | |
| TOTAL | 0 | 0 | 0 | 8,070 | 6,494 | 2,658 | 0 | 0 | 127,219 | 0 | 45,049 | 13,687 | 62,075 | 13,057 | 15,368 |

*Figures include NMWEA

** NAVSEA includes budgeted funds which are part of PEOTAD in FY94-97
(SSD programs, SDTS, RAM, SDSMS Integration, TAS, NATO, etc.)

*** PEOSD includes only EO/IR, Ship Self Defense Systems and Raids
Had PEOSD included all Self Defense programs, the funding would have been approximately $43,848K thereby reducing NAVSEA line to

$156,272K

**** Total FY 93 President's Budget = $293,677,000; Total FY 93 Actual Receipts = $413,121,000; Percent Receipts Exceed Budget = 141% R

**TABLE 1.3 FY 1993*** **BREAKOUT OF BUDGETED FUNDS (K$) for PHD NSWC (UIC N63394)**

| SPONSOR | RDT&E(N) | | | | | | | Other RDT&E | Other Appropriation | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6.1 | 6.2 | 6.3a | 6.3b | 6.4 | 6.5 | 6.6 | | OMN | APN | OPN | WPN | SCN | Other Navy | All Other |
| NAVSEA** | 0 | 0 | 0 | 1,235 | 5,713 | 2,658 | 0 | 0 | 87,490 | 0 | 38,887 | 12,540 | 27,013 | 8,729 | 10,349 |
| DRPM AEGIS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17,552 | 0 | 0 | 0 | 22,865 | 1,981 | 5,019 |
| PEOSD*** | 0 | 0 | 0 | 5,483 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 |
| PEOCU | 0 | 0 | 0 | 0 | 520 | 0 | 0 | 0 | 8,587 | 0 | 3,509 | 943 | 8,223 | 0 | 0 |
| NAVAIR | 0 | 0 | 0 | 97 | 0 | 0 | 0 | 0 | 517 | 0 | 0 | 204 | 0 | 1,259 | 0 |
| PEO MINES | 0 | 0 | 0 | 1,255 | 261 | 0 | 0 | 0 | 9,004 | 0 | 2,653 | 0 | 3,974 | 864 | 0 |
| OTHER NAVY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,046 | 0 | 0 | 0 | 0 | 224 | 0 |
| | | | | | | | | | | | | | | | |
| TOTAL | 0 | 0 | 0 | 8,070 | 6,494 | 2,658 | 0 | 0 | 127,219 | 0 | 45,049 | 13,687 | 62,075 | 13,057 | 15,368 |

*Figures include NMWEA

** NAVSEA includes budgeted funds which are part of PEOTAD in FY94-97
(SSD programs, SDTS, RAM, SDSMS Integration, TAS, NATO, etc.)

*** PEOSD includes only EO/IR, Ship Self Defense Systems and Raids
Had PEOSD included all Self Defense programs, the funding would have been approximately $43,848K thereby reducing NAVSEA line to

$156,272K

**TABLE 1.3 FY94***

**BREAKOUT OF FUNDS BUDGETED for PHD NSWC[1]****
**(UIC N63394)**

| SPONSOR | RDT&E(N) | | | | | | | Other RDT&E | Other Appropriation | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6.1 | 6.2 | 6.3a | 6.3b | 6.4 | 6.5 | 6.6 | | OMN | APN | OPN | WPN | SCN | Other Navy | All Other | |
| NAVSEA | 0 | 0 | 0 | 6,270 | 8,627 | 4,860 | 0 | 0 | 34,835 | 0 | 31,416 | 9,117 | 19,594 | 1,158 | 12,532 | R |
| DRPM AEGIS | 0 | 0 | 0 | 148 | 0 | 0 | 0 | 0 | 14,481 | 0 | 0 | 0 | 22,735 | 1,495 | 5,959 | |
| PEOTAD | 0 | 0 | 0 | 13,463 | 6,108 | 2,035 | 0 | 0 | 15,462 | 0 | 8,451 | 417 | 542 | 1,799 | 232 | |
| PEOCU | 0 | 0 | 0 | 0 | 1,670 | 0 | 0 | 0 | 5,794 | 0 | 4,331 | 997 | 5,143 | 0 | 0 | |
| NAVAIR | 0 | 0 | 0 | 0 | 71 | 0 | 0 | 0 | 2,877 | 0 | 2,423 | 207 | 790 | 554 | 778 | R |
| PEO MINES | 0 | 0 | 0 | 901 | 366 | 0 | 0 | 0 | 6,806 | 0 | 2,525 | 0 | 3,604 | 655 | 0 | |
| OTHER NAVY | 0 | 0 | 0 | 149 | 0 | 0 | 0 | 0 | 3,448 | 0 | 0 | 0 | 0 | 1,577 | 0 | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| TOTAL | 0 | 0 | 0 | 20,931 | 16,843 | 6,895 | 0 | 0 | 83,702 | 0 | 49,147 | 10,738 | 52,409 | 7,239 | 19,501 | |

*Figures include NMWEA

[1]Figures include plan, less Congressional marks for PHD NSWC

** Total FY 94 President's Budget = $267,406,000; Total FY 94 Actual Receipts as of 31 March 94 = $260,961,000; Total actual receipts are expected to exceed President's Budget. R



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**TABLE 1.3 FY94** **BREAKOUT OF FUNDS BUDGETED for PHD NSWC[1]**
**(UIC N63394)**

| SPONSOR | RDT&E(N) | | | | | | | Other RDT&E | Other Appropriation | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6.1 | 6.2 | 6.3a | 6.3b | 6.4 | 6.5 | 6.6 | | OMN | APN | OPN | WPN | SCN | Other Navy | All Other |
| NAVSEA | 0 | 0 | 0 | 6,270 | 8,627 | 4,860 | 0 | 0 | 34,835 | 0 | 31,416 | 9,177 | 19,594 | 1,158 | 12,532 |
| DRPM AEGIS | 0 | 0 | 0 | 148 | 0 | 0 | 0 | 0 | 14,481 | 0 | 0 | 0 | 22,735 | 1,495 | 5,959 |
| PEOTAD | 0 | 0 | 0 | 13,463 | 6,108 | 2,035 | 0 | 0 | 15,462 | 0 | 8,451 | 417 | 542 | 1,799 | 232 |
| PEOCU | 0 | 0 | 0 | 0 | 1,670 | 0 | 0 | 0 | 5,794 | 0 | 4,331 | 997 | 5,143 | 0 | 0 |
| NAVAIR | 0 | 0 | 0 | 8 | 71 | 0 | 0 | 0 | 2,877 | 0 | 2,423 | 207 | 790 | 554 | 778 |
| PEO MINES | 0 | 0 | 0 | 901 | 366 | 0 | 0 | 0 | 6,806 | 0 | 2,525 | 0 | 3,604 | 655 | 0 |
| OTHER NAVY | 0 | 0 | 0 | 149 | 0 | 0 | 0 | 0 | 3,448 | 0 | 0 | 0 | 0 | 1,577 | 0 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| TOTAL | 0 | 0 | 0 | 20,932 | 16,843 | 6,895 | 0 | 0 | 83,702 | 0 | 49,147 | 10,738 | 52,409 | 7,239 | 19,501 |

*Figures include NMWEA
[1]Figures include plan, less Congressional marks for PHD NSWC

**TABLE 1.3 FY 1995**

## BREAKOUT OF FUNDS BUDGETED for PHD NSWC[1]
## (UIC N63394)

| SPONSOR | RDT&E(N) | | | | | | | Other RDT&E | Other Appropriation | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6.1 | 6.2 | 6.3a | 6.3b | 6.4 | 6.5 | 6.6 | | OMN | APN | OPN | WPN | SCN | Other Navy | All Other |
| NAVSEA | 0 | 0 | 0 | 5,513 | 5,670 | 5,551 | 0 | 0 | 35,951 | 0 | 28,616 | 8,982 | 19,332 | 1,903 | 14,859 |
| DRPM AEGIS | 0 | 0 | 0 | 724 | 0 | 0 | 0 | 0 | 16,043 | 0 | 14 | 0 | 19,930 | 1,691 | 7,427 |
| PEOTAD | 0 | 0 | 0 | 9,717 | 7,947 | 1,690 | 0 | 0 | 21,861 | 0 | 9,519 | 440 | 4,301 | 1,598 | 260 |
| PEOCU | 0 | 0 | 0 | 0 | 1,836 | 0 | 0 | 0 | 6,398 | 0 | 3,175 | 913 | 4,973 | 0 | 0 |
| NAVAIR | 0 | 0 | 0 | 76 | 250 | 0 | 0 | 0 | 2,856 | 0 | 1,909 | 190 | 812 | 587 | 889 |
| PEO MINES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OTHER NAVY | 0 | 0 | 0 | 143 | 0 | 0 | 0 | 0 | 3,055 | 0 | 0 | 0 | 0 | 2,745 | 0 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| TOTAL | 0 | 0 | 0 | 16,173 | 15,703 | 7,201 | 0 | 0 | 86,163 | 0 | 43,234 | 10,525 | 49,348 | 8,524 | 23,435 |

[1]Figures include plan, less Congressional marks for PHD NSWC

**TABLE 1.3 FY 1995**

## BREAKOUT OF FUNDS BUDGETED for PHD NSWC[1]
## (UIC N63394)

| SPONSOR | RDT&E(N) | | | | | | | Other RDT&E | Other Appropriation | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6.1 | 6.2 | 6.3a | 6.3b | 6.4 | 6.5 | 6.6 | | OMN | APN | OPN | WPN | SCN | Other Navy | All Other |
| NAVSEA | 0 | 0 | 0 | 5,513 | 5,670 | 5,551 | 0 | 0 | 35,951 | 0 | 28,616 | 8,982 | 19,332 | 1,903 | 14,859 |
| DRPM AEGIS | 0 | 0 | 0 | 724 | 0 | 0 | 0 | 0 | 16,043 | 0 | 14 | 0 | 19,930 | 1,691 | 7,427 |
| PEOTAD | 0 | 0 | 0 | 97,173 | 7,947 | 1,690 | 0 | 0 | 21,861 | 0 | 9,519 | 440 | 4,301 | 1,598 | 260 |
| PEOCU | 0 | 0 | 0 | 0 | 1,836 | 0 | 0 | 0 | 6,398 | 0 | 3,175 | 913 | 4,973 | 0 | 0 |
| NAVAIR | 0 | 0 | 0 | 76 | 250 | 0 | 0 | 0 | 2,856 | 0 | 1,909 | 190 | 812 | 587 | 889 |
| PEO MINES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OTHER NAVY | 0 | 0 | 0 | 143 | 0 | 0 | 0 | 0 | 3,055 | 0 | 0 | 0 | 0 | 2,745 | 0 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| TOTAL | 0 | 0 | 0 | 16,173 | 15,703 | 7,201 | 0 | 0 | 86,163 | 0 | 43,234 | 10,525 | 49,348 | 8,524 | 23,435 |

[1]Figures include plan, less Congressional marks for PHD NSWC

**TABLE 1.3 FY 1996** **BREAKOUT OF FUNDS BUDGETED for PHD NSWC (UIC N63394)**

| SPONSOR | RDT&E(N) | | | | | | | Other RDT&E | Other Appropriation | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6.1 | 6.2 | 6.3a | 6.3b | 6.4 | 6.5 | 6.6 | | OMN | APN | OPN | WPN | SCN | Other Navy | All Other |
| NAVSEA | 0 | 0 | 0 | 5,798 | 7,876 | 6,290 | 0 | 0 | 45,514 | 0 | 40,177 | 9,448 | 22,278 | 1,480 | 14,911 |
| DRPM AEGIS | 0 | 0 | 0 | 867 | 0 | 0 | 0 | 0 | 22,581 | 0 | 19 | 0 | 25,064 | 2,016 | 6,648 |
| PEOTAD | 0 | 0 | 0 | 8,590 | 8,551 | 1,900 | 0 | 0 | 30,820 | 0 | 10,171 | 420 | 3,572 | 1,885 | 233 |
| PEOCU | 0 | 0 | 0 | 0 | 1,927 | 0 | 0 | 0 | 8,124 | 0 | 4,135 | 933 | 5,785 | 0 | 0 |
| NAVAIR | 0 | 0 | 0 | 91 | 180 | 0 | 0 | 0 | 3,443 | 532 | 2,285 | 204 | 916 | 637 | 794 |
| PEO MINES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OTHER NAVY | 0 | 0 | 0 | 172 | 0 | 0 | 0 | 0 | 3,667 | 0 | 0 | 0 | 0 | 2,870 | 0 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| TOTAL | 0 | 0 | 0 | 15,518 | 18,534 | 8,190 | 0 | 0 | 114,149 | 532 | 56,887 | 11,005 | 57,615 | 8,888 | 22,586 |

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**TABLE 1.3 FY 1996**

## BREAKOUT OF FUNDS BUDGETED for PHD NSWC (UIC N63394)

| SPONSOR | RDT&E(N) | | | | | | | Other RDT&E | Other Appropriation | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6 | 6 | 6 | 6 | 6 | 7 | 7 | | OMN | APN | OPN | WPN | SCN | Other Navy | All Other |
| NAVSEA | 0 | 0 | 0 | 5,798 | 7,876 | 6,290 | 0 | 0 | 45,514 | 0 | 40,177 | 9,448 | 22,278 | 1,480 | 14,911 |
| DRPM AEGIS | 0 | 0 | 0 | 867 | 0 | 0 | 0 | 0 | 22,581 | 0 | 19 | 0 | 25,064 | 2,016 | 6,648 |
| PEOTAD | 0 | 0 | 0 | 85,903 | 8,551 | 1,900 | 0 | 0 | 30,820 | 0 | 10,171 | 420 | 3,572 | 1,885 | 233 |
| PEOCU | 0 | 0 | 0 | 0 | 1,927 | 0 | 0 | 0 | 8,124 | 0 | 4,135 | 933 | 5,785 | 0 | 0 |
| NAVAIR | 0 | 0 | 0 | 91 | 180 | 0 | 0 | 0 | 3,443 | 532 | 2,285 | 204 | 916 | 637 | 794 |
| PEO MINES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OTHER NAVY | 0 | 0 | 0 | 172 | 0 | 0 | 0 | 0 | 3,667 | 0 | 0 | 0 | 0 | 2,870 | 0 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| TOTAL | 0 | 0 | 0 | 15,518 | 18,534 | 8,190 | 0 | 0 | 114,149 | 532 | 56,887 | 11,005 | 57,615 | 8,888 | 22,586 |

**TABLE 1.3 FY 1997** **BREAKOUT OF FUNDS BUDGETED for PHD NSWC (UIC N63394)**

| SPONSOR | RDT&E(N) | | | | | | | Other RDT&E | Other Appropriation | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6.1 | 6.2 | 6.3a | 6.3b | 6.4 | 6.5 | 6.6 | | OMN | APN | OPN | WPN | SCN | Other Navy | All Other |
| NAVSEA | 0 | 0 | 0 | 4,289 | 8,858 | 6,355 | 0 | 0 | 44,795 | 0 | 41,532 | 9,316 | 21,804 | 1,879 | 14,122 |
| DRPM AEGIS | 0 | 0 | 0 | 912 | 0 | 0 | 0 | 0 | 23,214 | 0 | 20 | 0 | 25,114 | 2,077 | 6,630 |
| PEOTAD | 0 | 0 | 0 | 9,849 | 6,959 | 1,911 | 0 | 0 | 31,509 | 0 | 8,965 | 351 | 3,444 | 1,087 | 237 |
| PEOCU | 0 | 0 | 0 | 0 | 1,866 | 0 | 0 | 0 | 8,070 | 0 | 4,017 | 934 | 5,593 | 0 | 0 |
| NAVAIR | 0 | 0 | 0 | 89 | 197 | 0 | 0 | 0 | 3,510 | 564 | 2,330 | 202 | 905 | 620 | 754 |
| PEO MINES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OTHER NAVY | 0 | 0 | 0 | 169 | 0 | 0 | 0 | 0 | 3,722 | 0 | 0 | 0 | 0 | 2,499 | 0 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| TOTAL | 0 | 0 | 0 | 15,308 | 17,880 | 8,266 | 0 | 0 | 114,820 | 564 | 56,864 | 10,803 | 56,860 | 8,162 | 21,743 |

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**TABLE 1.3 FY 1997**

## BREAKOUT OF FUNDS BUDGETED for PHD NSWC (UIC N63394)

| SPONSOR | RDT&E(N) | | | | | | | Other RDT&E | Other Appropriation | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6.1 | 6.2 | 6.3a | 6.3b | 6.4 | 6.5 | 6.6 | | OMN | APN | OPN | WPN | SCN | Other Navy | All Other |
| NAVSEA | 0 | 0 | 0 | 4,289 | 8,858 | 6,355 | 0 | 0 | 44,795 | 0 | 41,532 | 9,316 | 21,804 | 1,879 | 14,122 |
| DRPM AEGIS | 0 | 0 | 0 | 912 | 0 | 0 | 0 | 0 | 23,214 | 0 | 20 | 0 | 25,114 | 2,077 | 6,630 |
| PEOTAD | 0 | 0 | 0 | 98,493 | 6,959 | 1,911 | 0 | 0 | 31,509 | 0 | 8,965 | 351 | 3,444 | 1,087 | 237 |
| PEOCU | 0 | 0 | 0 | 0 | 1,866 | 0 | 0 | 0 | 8,070 | 0 | 4,017 | 934 | 5,593 | 0 | 0 |
| NAVAIR | 0 | 0 | 0 | 89 | 197 | 0 | 0 | 0 | 3,510 | 564 | 2,330 | 202 | 905 | 620 | 754 |
| PEO MINES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OTHER NAVY | 0 | 0 | 0 | 169 | 0 | 0 | 0 | 0 | 3,722 | 0 | 0 | 0 | 0 | 2,499 | 0 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| TOTAL | 0 | 0 | 0 | 15,308 | 17,880 | 8,266 | 0 | 0 | 114,820 | 564 | 56,864 | 10,803 | 56,860 | 8,162 | 21,743 |

**2. Current Class 2 Assets.** Complete Tables 2.1 thru 2.6 below as directed. Tables 2.1, 2.2 & 2.3 will define the Class 2 property owned or leased by your activity (less Detachments). Tables 2.4, 2.5 & 2.6 will define the combined Class 2 assets owned or occupied at your Detachment sites which did not receive this Data Call directly. Report space holdings and assignments as of 31 March 1994. Provide numbered notes to explain imminent changes, additions & deletions such as previous BRAC realignments, MILCON (including BRAC related MILCON) & Special Projects that are currently programmed in the FYDP. Give the project number & title, cost, short description, quantity of additional square footage, award date, estimated/actual construction start date and estimated BOD. Square footage of space is to be reported in "Gross Floor/Building Area" (GF/BA) as defined in NAVFAC P-80. Many of the P-80 Category Code Numbers (CCN's) have assets that are reported in units of measure other than square feet (SF). The only unit of measure desired for this Data Call is SF. Only report the assets in each CCN that are normally reported in SF.

For your Site:

a. Use Table 2.1 below to indicate the total amount of Class 2 space at your site for which you are the plant account holder as of 31 March 1994.

b. Use Table 2.2 below to indicate the total amount of your Class 2 space reported in Table 2.1 that is assigned to your tenant commands and/or independent activities at your site as of 31 March 1994.

c. Use Table 2.3 below to indicate the total amount of Class 2 space, for which you are not the plant account holder, but which is utilized/leased by you (less Detachments). Provide numbered notes to identify the title and UIC of the plant account holder/lessor, quantity of leased space and the associated lease cost.

**Table 2.1 Main Site Class 2 Assets of PHD NSWC (UIC N63394)**

| Building type | NAVFAC (P-80) category code | Gross Floor/Building Area (KSF) | | | |
|---|---|---|---|---|---|
| | | Adequate | Sub-S[1] | In-Adq[2] | Total |
| Operational & Training | 100 | 31.1 | 77.9 | | 109.0 |
| Maintenance & Production | 200 | .6 | | | 0.6 |
| Science labs | 310 | | | | |
| Aircraft labs | 311 | | | | |
| Missile and Space labs | 312 | 125.6 | 11.3 | | 136.9 |
| Ship and Marine labs | 313 | 10.1 | | | 10.1 |
| Ground Transportation labs | 314 | | | | |
| Weapon and Weapon Systems labs | 315 | 241.1 | 44.3 | | 285.4 |
| Ammunition, Explosives, & Toxics labs | 316 | | | | |
| Electrical Equip. labs | 317 | | | | |
| Propulsion labs | 318 | | | | |
| Miscellaneous labs | 319 | 37.9 | 2.9 | | 40.8 |
| Underwater Equip. labs | 320 | | | | |
| Technical Services labs | 321 | 4.9 | | | 4.9 |
| Supply Facilities | 400 | | | | |
| Hospital & other Medical | 500 | | | | |
| Administrative Facilities | 600 | 128.9 | 79.4 | 4.2 | 212.5 |
| Housing & Community | 700 | 5.7 | 3.7 | | 9.4 |
| Utilities & Grounds | 800 | 2.7 | | | 2.7 |
| Other | | | | | |
| | **Totals** | 588.6 | 219.5 | 4.2 | 812.3 |

NOTES: 1. Substandard space requires efficiency improvements only, and is wholely adequate for mission accomplishment
2. Inadequate space is scheduled for demolition

**Table 2.2 Main Site Class 2 Space of PHD NSWC (UIC N63394) Assigned to Tenants**

| TENANT | | NAVFAC (P-80) Category Code | GF/BA Assigned (KSF) |
|---|---|---|---|
| Name | UIC | | |
| NO TENANTS | | | |
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| | | Total: | |

## Table 2.3 Class 2 Space Utilized/Leased by PHD NSWC (UIC N63394)

| Building type | NAVFAC (P-80) category code | GF/BA (KSF) | | | |
|---|---|---|---|---|---|
| | | Adequate | Sub-std | In-Adeq | Total |
| Operational & Training | 100 | 20.4 | | | 20.4 [1] |
| Maintenance & Production | 200 | | | | |
| Science labs | 310 | | | | |
| Aircraft labs | 311 | | | | |
| Missile and Space labs | 312 | 26.8 | | | 26.8 [1] |
| Ship and Marine labs | 313 | | | | |
| Ground Transportation labs | 314 | | | | |
| Weapon and Weapon Systems labs | 315 | 141.1 | .5 | | 141.6[2,3] |
| Ammunition, Explosives, and Toxics labs | 316 | | | | |
| Electrical Equip. labs | 317 | | | | |
| Propulsion labs | 318 | | | | |
| Miscellaneous labs | 319 | .5 | | | .5 |
| Underwater Equip. labs | 320 | | | | |
| Technical Services labs | 321 | | | | |
| Supply Facilities | 400 | | 1.2 | | 1.2 |
| Hospital & other Medical | 500 | | | | |
| Administrative Facilities | 600 | 19.3 | 8.5 | | 27.8 [4] |
| Housing & Community | 700 | | | | |
| Utilities & Grounds | 800 | | | | |
| Other | | | | | |
| | **Totals** | 208.1 | 10.2 | | 218.3 |

NOTES: 1. NCBC, Port Hueneme - N62583 - 50,900 SQ FT
2. FCTCLANT, Virginia Beach - N00281 - 117,900 SQ FT
3. NCCOSC, San Diego - N66001 - 41,000 SQ FT
4. Commerical Lessor, Los Angeles - 8,500 relocatable SQ FT - $61,200/YR

**3. Class 2 Space Available for Expansion.** An activity's expansion capability is a function of it's ability to reconfigure and/or expand existing facilities to accept new or increased roles. Such a reconfiguration may require rehabilitation or buildout of a space to support the new or expanded role. A space expansion could include converting an underutilized storage space into laboratory spaces, or buildout of a high bay area into a multifloor office/laboratory space. All questions refer to Class 2 property for which you are the plant account holder as of 31 March 1994. Do not report any currently programmed changes or additions previously reported in question #2 above. Expansion opportunities must follow the guidance of NAVFAC P-80 for the appropriate facility category code, as well as applicable fire and safety codes. Personnel loading density should not exceed those specified in the P-80. Space is only available if it is currently unoccupied or the current occupants are officially designated for relocation. Report space as Net Floor Area (NFA) as defined in the P-80. Do not include opportunities that are being reported by your Detachments who received this Data Call directly. Reported expansion opportunities must be able to accommodate the necessary ancillary facilities and equipment, such as adequate parking space, required to support the amount of people projected.

a. What is the maximum quantity of space that could be made available for expansion to accommodate other functions and/or increased efforts? Report in terms of the "Current NFA" as shown in Tables 3.1 & 3.2. **67,800** SQFT.

b. How much of the space reported in question 3.a. above is currently available with minimal or no reconfiguration costs? Report in terms of the "Current NFA" as shown in Tables 3.1 & 3.2. **67,800** SQFT.

c. Use Table 3.1 below to indicate the constrained growth opportunities for accepting expanded or new roles. Constrained growth is defined as growth limited to buildings and structures currently on your Class 2 plant account. Add numbered notes to highlight and explain opportunities that require remediation or waiver of a restriction or encumbrance as part of the expansion. Provide lettered notes to clearly identify each opportunity with the title & UIC of the site it refers to. The "Current NFA (KSF)" column total should match the quantity provided in question #3.a. above. Annotate those opportunities that were used to obtain the answer to question #3.b. above. Report space once, do not use the same space for different expansion opportunities. Include in this table space that will become available once planned downsizing (separate from BRAC realignments) has been completed, provide the estimated completion date of the downsizing effort.

d. Use Table 3.2 below to indicate additional unconstrained growth opportunities for accepting expanded or new roles. Unconstrained growth allows for construction of new facilities on existing buildable Class 1 property. The only constraint being that the land must currently be on your plant account holdings as of 31 March 1994 and free of existing land use constraints. Limit new buildings to three stories. Add numbered notes to highlight and explain additional opportunities that would require remediation or waiver of a land use constraint as part of the expansion. Provide lettered notes to clearly identify each opportunity with the title & UIC of the site it refers to. Do not include space that has been reported in Table 3.1.

**Table 3.1 Constrained Class 2 Space Available for Expansion at PHD NSWC (UIC N63394)**

| Building # / Category Code (3 digit) | Current NFA (KSF) | Additional Capacity Provided By Expansion | | Height of High Bay (FT) | Estimated Cost of Rehab ($K's) |
|---|---|---|---|---|---|
| | | NFA (KSF) | # of Personnel | | |
| 5/610 | 13.0 | 13.0 | 95 | N/A | 0 |
| 7/315 | 7.0 | 7.0 | 61 | N/A | 0 |
| 444/610 | 8.9 | 8.9 | 77 | N/A | 0 |
| 363/610 | 3.2 | 3.2 | 26 | N/A | 20 |
| 363-1/610 | 1.9 | 1.9 | 20 | N/A | 0 |
| 1229/610 | 1.0 | 1.0 | 10 | N/A | 0 |
| 1215/312 | 4.3 | 4.3 | 61 | N/A | 0 |
| 1215/610 | 4.0 | 4.0 | 24 | N/A | 0 |
| 1214/315 | 1.8 | 1.8 | 24 | N/A | 0 |
| 1214/610 | 6.7 | 6.7 | 54 | N/A | 0 |
| 1387/610 | 3.5 | 3.5 | 14 | N/A | 0 |
| 1387/315 | 12.5 | 12.5 | 75 | N/A | 0 |
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| Totals | 67.8 | 67.8 | 541 | | 20 |

NOTE: The Additional Capacity Provided by Expansion is the result of relocating personnel into a new MILCON scheduled for occupancy in June of 1994. The listed buildings will be available for expansion or alternatively will be used to terminate off base leases.

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**Table 3.1 Constrained Class 2 Space Available for Expansion at PHD NSWC (UIC N63394)**

| Building # / Category Code (3 digit) | Current NFA (KSF) | Additional Capacity Provided By Expansion | | Height of High Bay (FT) | Estimated Cost of Rehab ($K's) |
|---|---|---|---|---|---|
| | | NFA (KSF) | # of Personnel | | |
| 5/610 | 13.0 | 13.0 | 95 | N/A | 0 |
| 7/315 | 7.0 | 7.0 | 61 | N/A | 0 |
| 444/610 | 8.9 | 8.9 | 77 | N/A | 0 |
| 363/610 | 3.2 | 3.2 | 26 | N/A | 20 |
| 363-1/610 | 1.9 | 1.9 | 20 | N/A | 0 |
| 1229/610 | 1.0 | 1.0 | 10 | N/A | 0 |
| 1215/312 | 4.3 | 4.3 | 61 | N/A | 0 |
| 1215/610 | 4.0 | 4.0 | 24 | N/A | 0 |
| 1214/315 | 1.8 | 1.8 | 24 | N/A | 0 |
| 1214/610 | 6.7 | 6.7 | 54 | N/A | 0 |
| 1387/610 | 3.5 | 3.5 | 14 | N/A | 0 |
| 1387/315 | 12.5 | 12.5 | 75 | N/A | 0 |
| | | | | | |
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| | | | | | |
| | | | | | |
| Totals | 67.8 | 67.8 | 541 | | 20 |

NOTE: The Additional Capacity Provided by Expansion is the result of relocating personnel into a new MILCON scheduled for occupancy in June of 1994. The listed buildings will be vacant when personnel are moved.

**Table 3.2 Unconstrained Class 2 Space Available for Expansion at main site PHD NSWC***
**(UIC N63394 )**

| Building # / Category Code (3 digit) | Current NFA (KSF) | Additional Capacity Provided By Expansion | | Height of High Bay (FT) | Estimated Cost of Rehab ($K's) |
|---|---|---|---|---|---|
| | | NFA (KSF) | # of Personnel | | |
| N/A | | | | | |
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| Totals | | | | | |

* Not plant account holder for any buildable Class 1 Property

**4. Class 1 Space Available for Expansion.**

a. Identify in Table 4.1 below the real estate resources which have the potential to facilitate future development, and for which you are the plant account holder as of 31 March 1994, or into which, though a tenant, your activity could reasonably expect to expand. Complete a separate table for each individual site ( i.e., main base, outlying airfields, special off-site areas, etc.) and Detachment that did not receive this Data Call directly. The unit of measure is acres. Developed area is defined as land currently with buildings, roads, and utilities where further development is not possible without demolition of existing improvements. Include in "Restricted" acreage that is restricted for future development due to environmental constraints (e.g. wetlands, landfills, archaeological sites), operational restrictions (e.g. ESQD arcs, HERO, HERP, HERF, AICUZ, ranges) or cultural resources restrictions. Identify the reason for the restriction when providing the acreage in the table. Specify any entry in "Other" (e.g. submerged lands).

b. Are there any constraints such as parking, utilities, legal restrictions that limit the potential for using Undeveloped land for expansion?

**NO**

c. Explain the radio frequency constraints/opportunities within your Class 1 holdings.

**Coordinate frequency usage with the area coordinator, NAWC Weapons Division, Point Mugu, CA, so as not to interfere with other DOD operations. No interference with air traffic control frequencies and we operate so as not to cause interference with local commercial television and radio. No known problems or restrictions beyond normal safety considerations regarding the surrounding community.**

Table 4.1 **Class 1 Resources of PORT HUENEME NAVAL COMPLEX (UIC: N62583)**
**Site Location: PHD NSWC N63394**

| Land Use | Total [1] Acres | Developed Acreage | Available for Development | |
|---|---|---|---|---|
| | | | Restricted | Unrestricted |
| Maintenance | 5 | 5 | 0 | 0 |
| Operational | 0 | 0 | 0 | 0 |
| Training | 3 | 3 | 0 | 0 |
| R & D | 81 | 54 | 0 | 27 |
| Supply & Storage | 15 | 5 | 0 | 10 |
| Admin | 20 | 20 | 0 | 0 |
| Housing | 0 | 0 | 0 | 0 |
| Recreational | 0 | 0 | 0 | 0 |
| Navy Forestry Program | 0 | 0 | 0 | 0 |
| Navy Agricultural Outlease Program | 0 | 0 | 0 | 0 |
| Hunting/Fishing Programs | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 |
| Total: | 124 | 87 | 0 | 37 |

d. Of the total Unrestricted Acres reported above, how much of it has existing roads and/or utilities that could support expansion efforts? ___37___ Acres. Explain.

The supply and storage acres consist of two five-acre parcels. The R&D acreage includes a 10-acre and a 17-acre parcel. The latter parcel includes a petroleum tank farm already scheduled for demolition. Additional environmental dollars would speed up the remediation process. All four parcels are contiguous to land we currently control. Utility capacity is generally not a problem, though the cost of utility connections must always be a design siting consideration.

NOTE: 1. Total acres we define (since we are a tenant) as land we control or could reasonably expect to expand upon.

**5. Base Infrastructure Capacity.** Provide base infrastructure data as of 31 March 1994. Provide numbered notes to explain imminent changes, additions & deletions driven by previous BRAC realignments, MILCON (including BRAC related MILCON) & Special Projects that are currently programmed in the FYDP. Give the project number & title, cost, short description, quantity of additional square footage, award date, estimated/actual construction start date and estimated BOD.

a. Utilize Table 5.1 below to provide information on your activity's base infrastructure capacity and load. Do not report this information if you are a tenant activity.

**Table 5.1 NOT APPLICABLE - TENANT ACTIVITY**

b. Maintenance, Repair & Equipment Expenditure Data: Use Table 5.2 below to provide data on facilities and equipment expenditures at your activity. Project expenditures to FY 1997. Do not include data on Detachments who have received this Data Call directly. Do not report this information if you are a tenant activity. The following definitions apply:

Maintenance of Real Property (MRP) Dollars: MRP is a budgetary term used to gather the expenses or budget requirements for facility work including recurring maintenance, major repairs & minor construction (non-MILCON) inclusive of all Major Claimant funded Special Projects. It is the amount of funds spent on or budgeted for maintenance and repair of real property assets to maintain the facility in satisfactory operating condition. For purposes of this Data Call MRP includes all M1/R1 and M2/R2 expenditures.

Current Plant Value (CPV) of Class 2 Real Property: The hypothetical dollar amount to replace a Class 2 facility in kind with today's dollars. Example: the cost today to replace a wood frame barracks with a wood frame barracks.

Acquisition Cost of Equipment (ACE): The total cumulative acquisition cost of all "personal property" equipment maintained at your activity which includes the cost of installed equipment directly related to mission execution, such as lab test equipment. Class 2 installed capital equipment that is an integral part of the facility will not be reported as ACE.

**Table 5.2 NOT APPLICABLE - TENANT ACTIVITY**

c. Training Facilities:

(1) By facility Category Code Number (CCN), provide the usage requirements for each course of instruction required for all formal schools on your installation. A formal school is a programmed course of instruction for military and/or civilian personnel that has been formally approved by an authorized authority (ie: Service Schools Command, Weapons Training Battalion, Human Resources Office). Do not include requirements for maintaining unit readiness, GMT, sexual harassment, etc. Include all applicable 171-*xx*, 179-*xx* CCN's.

**SEE TABLE NEXT PAGE**

**TRAINING COURSES OFFERED AT PHD NSWC REPRESENT CURRICULUM NOT AVAILABLE AT THE SCHOOL COMMANDS BECAUSE OF LOW DEMAND. IN ADDITION, THESE COURSES ARE CONDUCTED AS AN ADJUNCT OF ON-GOING IN-SERVICE ENGINEERING WORK PERFORMED AT THE SAME FACILITIES.**

| Type of Training Facility/CCN | School | Type of Training | FY 1993 Requirements | | | FY 2001 Requirements | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | A | B | C | A | B | C | |
| Academic Instruction Classroom/171-10 Applied Instruction Classroom/171-20 | SM-2 Assembly | Intermediate Level Maintenance | 46 | 80 | 3680 | 36 | 80 | 2880 | |
| Academic Instruction Classroom/171-10 Applied Instruction Classroom/171-20 | TOMAHAWK ENCAN/DECAN | Intermediate Level Maintenance | 19 | 40 | 760 | 0 | 0 | 0 | |
| Academic Instruction Classroom/ 171-10 Applied Instruction Classroom/171-20 | SM-2 BLK II ENCAN/DECAN | Intermediate Level Maintenance | 12 | 40 | 480 | 0 | 0 | 0 | |
| Academic Instruction Classroom/ 171-10 Applied Instruction Classroom/171-20 | VLA ENCAN/DECAN | Intermediate Level Maintenance | 5 | 40 | 200 | 6 | 40 | 240 | |
| Missile Launch Facility/149-45 | VLS DOCKSIDE HANDLING | Intermediate Level Handling Maintenance | 10 | 16 | 160 | 10 | 16 | 160 | |
| Academic Instruction Classroom / 171-10 Applied Instruction Classroom/171-20 | CMTS MAINT. | Intermediate Level Handling Maintenance | 8 | 40 | 320 | 8 | 40 | 320 | |
| Academic Instruction Classroom / 171-10 Applied Instruction Classroom/171-20 | SM-2 BLK III ENCAN/ DECAN | Intermediate Level Maintenance | N/A | | | 48 | 80 | 3840 | R |
| Academic Instruction Classroom / 171-10 Applied Instruction Classroom/171-20 | SM-2 BLK IV ENCAN/ DECAN | Intermediate Level Maintenance | N/A | | | 48 | 80 | 3840 | R |
| Academic Instruction Classroom / 171-10 Applied Instruction Classroom/171-20 | VLA ASSEMBLY AND TEST | Intermediate Level Maintenance | N/A | | | 6 | 280 | 1680 | |
| Academic Instruction Classroom / 171-10 Applied Instruction Classroom/171-20 | SEASPARROW ENCAN/ DECAN | Intermediate Level Maintenance | N/A | | | 24 | 40 | 960 | |

| Type of Training Facility/CCN | School | Type of Training | FY 1993 Requirements | | | FY 2001 Requirements | | |
|---|---|---|---|---|---|---|---|---|
| | | | A | B | C | A | B | C |
| Academic Instruction Classroom/171-10 Applied Instruction Classroom/171-20 | SM-2 Assembly | Intermediate Level Maintenance | 46 | 80 | 3680 | 36 | 80 | 2880 |
| Academic Instruction Classroom/171-10 Applied Instruction Classroom/171-20 | TOMAHAWK ENCAN/DECAN | Intermediate Level Maintenance | 19 | 40 | 760 | 0 | 0 | 0 |
| Academic Instruction Classroom/ 171-10 Applied Instruction Classroom/171-20 | SM-2 BLK II ENCAN/DECAN | Intermediate Level Maintenance | 12 | 40 | 480 | 0 | 0 | 0 |
| Academic Instruction Classroom/ 171-10 Applied Instruction Classroom/171-20 | VLA ENCAN/DECAN | Intermediate Level Maintenance | 5 | 40 | 200 | 6 | 40 | 240 |
| Missile Launch Facility/149-45 | VLS DOCKSIDE HANDLING | Intermediate Level Handling Maintenance | 10 | 16 | 160 | 10 | 16 | 160 |
| Academic Instruction Classroom / 171-10 Applied Instruction Classroom/171-20 | CMTS MAINT. | Intermediate Level Handling Maintenance | 8 | 40 | 320 | 8 | 40 | 320 |
| Academic Instruction Classroom / 171-10 Applied Instruction Classroom/171-20 | SM-2 BLK III ENCAN/ DECAN | Intermediate Level Maintenance | N/A | | | 48 | 80 | 1920 |
| Academic Instruction Classroom / 171-10 Applied Instruction Classroom/171-20 | SM-2 BLK IV ENCAN/ DECAN | Intermediate Level Maintenance | N/A | | | 48 | 80 | 1920 |
| Academic Instruction Classroom / 171-10 Applied Instruction Classroom/171-20 | VLA ASSEMBLY AND TEST | Intermediate Level Maintenance | N/A | | | 6 | 280 | 1680 |
| Academic Instruction Classroom / 171-10 Applied Instruction Classroom/171-20 | SEASPARROW ENCAN/ DECAN | Intermediate Level Maintenance | N/A | | | 24 | 40 | 960 |

| Type of Training Facility/CCN | School | Type of Training | FY 1993 Requirements | | | FY 2001 Requirements | | |
|---|---|---|---|---|---|---|---|---|
| | | | A | B | C | A | B | C |
| Academic Instruction Classroom / 171-10 | VLS | Technical | 36 | 560 | 20160 | 36 | 560 | 20160 |
| Academic Instruction Classroom / 171-10 | RAM | Technical | 72 | 160 | 11520 | 72 | 160 | 11520 |
| Academic Instruction Classroom / 171-10 | MK-612 | Technical | 150 | 120 | 18000 | 150 | 120 | 18000 |
| Academic Instruction Classroom / 171-10 | Combat Systems | Technical | 320 | 80 | 25600 | 320 | 80 | 25600 |
| Academic Instruction Classroom / 171-20 | Business Management Program for Technical Personnel | Business Management | 90 | 36 | 3240 | 90 | 36 | 3240 |

R

A = Students per year
B = Number of hours each student spends in this training facility for the type of training received
C = A x B



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| Type of Training Facility/CCN | School | Type of Training | FY 1993 Requirements | | | FY 2001 Requirements | | |
|---|---|---|---|---|---|---|---|---|
| | | | A | B | C | A | B | C |
| Academic Instruction Classroom / 171-10 | VLS | Technical | 36 | 560 | 20160 | 36 | 560 | 20160 |
| Academic Instruction Classroom / 171-10 | RAM | Technical | 72 | 160 | 11520 | 72 | 160 | 11520 |
| Academic Instruction Classroom / 171-10 | MK-612 | Technical | 150 | 120 | 18000 | 150 | 120 | 18000 |
| Academic Instruction Classroom / 171-10 | Combat Systems | Technical | 320 | 80 | 25600 | 320 | 80 | 25600 |
| Academic Instruction Classroom / 171-20 | Business Management Program for Technical Personnel | Business Management | 90 | 36 | 3242 | 90 | 36 | 3242 |

A = Students per year
B = Number of hours each student spends in this training facility for the type of training received
C = A x B

(2) By Category Code Number (CCN), complete the following table for all training facilities aboard the installation. Include all 171-*xx* and 179-*xx* CCN's.

**For example:** in the category 171-10, a type of training facility is academic instruction classroom. If you have 10 classrooms with a capacity of 25 students per room, the design capacity would be 250. If these classrooms are available 8 hours a day for 300 days a year, the capacity in student hours per year would be 600,000.

| Type Training Facility/CCN | Total Number | Design Capacity (PN)[1] | Capacity (Student HRS/YR) |
|---|---|---|---|
| Academic Instruction Classroom/171-10 | 18 | 281 | 564,248 |
| Applied Instruction Classroom/171/20 | 6 | 66 | 132,528 |
| Auditorium/175-25 | 2 | 437 | 875,488 |

**(3) Describe how the Student HRS/YR value in the preceding table was derived.**

**Classroom/laboratory/auditorium availability equals 8 hours/day**

**365 days/year minus 10 holidays/year minus 104 weekend days/year equals 251 days/year availability**

**251 days/year times design capacity times availability per day equals student hours/year**

[1] Design Capacity (PN) is the total number of seats available for students in spaces used for academic instruction; applied instruction; and seats or positions for operational trainer spaces and training facilities other than buildings, i.e., ranges. Design Capacity (PN) must reflect current use of the facilities.

(2) By Category Code Number (CCN), complete the following table for all training facilities aboard the installation. Include all 171-*xx* and 179-*xx* CCN's.

**For example:** in the category 171-10, a type of training facility is academic instruction classroom. If you have 10 classrooms with a capacity of 25 students per room, the design capacity would be 250. If these classrooms are available 8 hours a day for 300 days a year, the capacity in student hours per year would be 600,000.

| Type Training Facility/CCN | Total Number | Design Capacity (PN)[1] | Capacity (Student HRS/YR) |
|---|---|---|---|
| Academic Instruction Classroom/171-10 | 18 | 281 | 564,248 |
| Applied Instruction Classroom/171/20 | 6 | 66 | 132,528 |
| Auditorium/175-25 | 1 | 136 | 273,088 |

**(3) Describe how the Student HRS/YR value in the preceding table was derived.**

**Classroom/laboratory/auditorium availability equals 8 hours/day**

**365 days/year minus 10 holidays/year minus 104 weekend days/year equals 251 days/year availability**

**251 days/year times design capacity times availability per day equals student hours/year**

[1] Design Capacity (PN) is the total number of seats available for students in spaces used for academic instruction; applied instruction; and seats or positions for operational trainer spaces and training facilities other than buildings, i.e., ranges. Design Capacity (PN) must reflect current use of the facilities.

**6. Ship Berthing Capacity.** If your activity has the capacity to berth ships fill out the data sheets provided at TAB A.

SEE RESPONSE PROVIDED IN ATTACHED TAB A.

**7. Operational Airfield Capacity.** If your activity owns and operates an operational airfield fill out the data sheets provided at TAB B.

PHD NSWC DOES NOT OWN OR OPERATE AN OPERATIONAL AIRFILED. NO RESPONSE IS PROVIDED.

**8. Depot Level Maintenance Capacity.** Fill out the data sheets provided at TAB C if you or your subordinate activities perform depot level maintenance on a piece of equipment or system.

PHD NSWC DOES NOT PERFORM DEPOT LEVEL MAINTENANCE. NO RESPONSE IS PROVIDED.

**9. Ordnance Storage Capacity.** If your activity has the capability to store or maintain weapons and ordnance fill out the data sheets provided at TAB D.

PHD NSWC DOES NOT HAVE ORDNANCE STORAGE CAPACITY. NO RESPONSE IS PROVIDED.

## TAB A

## SHIP BERTHING CAPACITY

**Note:** Question numbers in **[ ]'s** are for internal BSAT purposes.

## SHIP BERTHING CAPACITY+

**1. [11.]** For each Pier/Wharf at your facility list the following structural characteristics. Indicate the additional controls required if the pier is inside a Controlled Industrial Area or High Security Area. Provide the average number of days per year over the last eight years that the pier was out of service (OOS) because of maintenance, including dredging of the associated slip:

**+NOTE:**

**The ship berthing facilities identified in this section are the property of the host command, the Construction Battalion Center. However, they are available for use by PHD NSWC, and in fact are used frequently to provide in-service engineering support to the fleet and as the homeport for the Self Defense Test Ship.**

Table 11.1

| Pier/ Wharf & Age[1] | CCN[2] | Moor Length (ft) | Design Dredge Depth[3] (ft) (MLLW) | Slip Width[4] (ft) | Pier Width (ft)[5] | CIA/ Security Area?(Y/N)[6] | ESQD Limit[7] | # Days OOS for maint. |
|---|---|---|---|---|---|---|---|---|
| 1/22*** | | 1800 | 35 | N/A | RORO | * | 0 | 0 |
| 2/38*** Rebuilt in 1984 | | 1400 | 35 | N/A | RORO | * | 0 | 0 |
| 3/38 | 152-20 | 1050 | 35 | N/A | RORO | * | 0 | 0 |
| 4/36 | 152-20 | 1200 | 35 | N/A | RORO | * | 0 | 0 |
| 5/22 | 152-20 | 590 | 35 | N/A | RORO | * | 500** | 15 |
| 6/29 | 152-20 | 783 | 35 | N/A | RORO | * | 500** | 20 |
| B/50 | 155-20 | 272 | 35 | N/A | - | * | 0 | 0 |
| C/50 | 155-20 | 247 | 35 | 60' | - | * | 0 | 0 |
| Small Craft/1 | 155-20 | 248 | 12 | N/A | - | NO | 0 | N/A |

* Entire wharf area fenced and can be secured.
** CNO Waiver No. NCBC PorHue 1E-76; 31 Mar 95.
*** Added on 4 May 1994, mobilization capacity for times of national emergency

**2. [12.]** For each Pier/Wharf at your facility list the following ship support characteristics:

Table 12.1

| Pier/ Wharf | OPNAV 3000.8 (Y/N) | Shore Pwr (KVA) & 4160V (KVA) | Comp. Air Press. & Capacity[1] | Potable Water (GPD) | CHT (GPD) | Oily Waste[1] (gpd) | Steam (lbm/hr & PSI)[2] | Fendering limits[3] |
|---|---|---|---|---|---|---|---|---|
| 1 | | NONE | NONE | YES | NONE | NONE | NONE | NONE |
| 2 | | NONE | NONE | YES | NONE | NONE | NONE | NONE |
| 3 | | 150 @120/208 0 @ 4160 | NONE | 648K | 576K | NONE | NONE | NONE |
| 4 | | 150 120/208 1500 480 1500 4160 5000 12KV | NONE | 648K | 576K | NONE | NONE | NONE |
| 5 | | 112 120/208 2500 480 | NONE | 792K | 576K | NONE | NONE | NONE |
| 6 | | 150 120/ | NONE | 864K | 576K | NONE | NONE | NONE |
| B | | NONE | NONE | HOSE BIBBS | NONE | NONE | NONE | NONE |
| C | | 1500 @ 480 | NONE | HOSE BIBBS | NONE | NONE | NONE | NONE |
| SMALL CRAFT | | 112 @ 480 | NONE | HOSE BIBBS | NONE | NONE | NONE | NONE |

[1]List only permanently installed facilities.
[2]indicate if the steam is certified steam.
[3]Describe any permanent fendering arrangement limits on ship berthing.

**3. [13.]** For each pier/wharf listed above state today's normal loading, the maximum capacity for berthing, maximum capacity for weapons handling evolutions, and maximum capacity to conduct intermediate maintenance.

Table 13.1

| Pier/Wharf | Typical Steady State Loading[1] | Ship Berthing Capacity | Ordnance Handling Pier Capacity[2] | IMA Maintenance Pier Capacity[3] |
|---|---|---|---|---|
| 1 | Commercial Cargo | 3 | 0 | 3 |
| 2 | Commercial Cargo | 2 | 0 | 2 |
| 3 | AEGIS Class Destroyer | 1 | 0 | 1 |
| 4 | AEGIS Class Destroyer | 2 | 0 | 2 |
| 5 | FFG | 1 | 1 | 1 |
| 6 | AEGIS Class Destroyer | 1 | 1 | 1 |
| B | T-AGOS RESEARCH TIDE | 1 | 0 | 1 |
| C | T-AGOS RESEARCH TIDE | 1 | 0 | 1 |
| | | | | |
| | | | | |
| | | | | |

1 Typical pier loading by ship class with current facility ship loading.

2 List the maximum number of ships that can be moored to conduct ordnance handling evolutions at each pier/berth without berth shifts. Consider safety, ESQD and access limitations.

3 List the maximum number of ships that can be serviced in maintenance availabilities at each pier without berth shifts because of crane, laydown or access limitations.

**4. [14.]** For each pier/wharf listed above, based on Presidential Budget 1995 budgeted infrastructure improvements in the Presidential Budget 1995 through FY 1997 and the BRAC-91 and BRAC-93 realignments, state the expected normal loading, the maximum capacity for berthing, maximum capacity for weapons handling evolutions, and maximum capacity to conduct intermediate maintenance.

Table 14.1

| Pier/ Wharf | Typical Steady State Loading[1] | Ship Berthing Capacity | Ordnance Handling Pier Capacity[2] | IMA Maintenance Pier Capacity[3] |
|---|---|---|---|---|
| 1 | Commercial Cargo | 3 | 0 | 3 |
| 2 | Commercial Cargo | 2 | 0 | 2 |
| 3 | AEGIS Class Destroyer | 1 | 0 | 1 |
| 4 | AEGIS Class Destroyer | 2 | 0 | 2 |
| 5 | FFG | 1 | 1 | 1 |
| 6 | AEGIS Class Destroyer | 1 | 1 | 1 |
| B | T-AGOS RESEARCH TIDE | 1 | 0 | 1 |
| C | T-AGOS RESEARCH TIDE | 1 | 0 | 1 |
| | | | | |

1 Typical pier loading by ship class with current facility ship loading.

2 List the maximum number of ships that can be moored to conduct ordnance handling evolutions at each pier/berth without berth shifts. Consider safety, ESQD and access limitations.

3 List the maximum number of ships that can be serviced in maintenance availabilities at each pier without berth shifts because of crane, laydown, or access limitations.

**5. [15.a.]** How much pier space is required to berth and support ancillary craft (tugs, barges, floating cranes, etc.) currently at your facility? Indicate if certain piers are uniquely suited to support these craft.

**500 linear feet of berthing ancillary craft. Wharf 4 south is the primary berthing for the craft. The floating crane, 175/long, requires shore power and must stay on either wharf 4 or 5.**

**6. [15.b.]** What is the average pier loading in ships per day due to visiting ships at your base. Indicate if it varies significantly by season.

**There is an average of 16 ships per day (loading across all wharfs/berths. These vessels average approximately 500 feet in length.**

**7. [15.c.]** Given no funding or manning limits, what modifications or improvements would you make to the waterfront infrastructure to increase the cold iron ship berthing capacity of your installation? Provide a description , cost estimates, and additional capacity gained.

**Permanent power and steam on all wharfs and improved fendering system cost: 4-6 Million.**

**8. [15.d.]** Describe any unique limits or enhancements on the berthing of ships at specific piers at your base.

**Harbor entrance is narrow. Ships over 875 cannot be accommodated. Thirty-five depth restricts size and load of ships. There are limited hotel services to some wharfs.**

**TAB B**

OPERATIONAL AIRFILED CAPACITY

No response provided as PHD NSWC does not own or operate an airfiled

## TAB C

## DEPOT LEVEL MAINTENANCE CAPACITY

**No response provided as PHD NSWC does not perform depot level maintenance**

## TAB D

## ORDNANCE STORAGE CAPACITY

**No response is provided as PHD NSWC does not have the capability to store or maintain weapons and ordnance.**

BRAC-95 CERTIFICATION

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

Robert A. Bland
NAME (Please type or print)

Signature

BRAC Coordinator
Title

5-7-94
Date

Division

Missile Systems Department
Department

Port Hueneme Division, Naval Surface Warfare Center
Activity

Enclosure (1)

# BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

Each individual in your activity generating information for the BRAC-95 process must certify that information. Enclosure (1) is provided for individual certifications and may be duplicated as necessary. You are directed to maintain those certifications at your activity for audit purposes. For purposes of this certification sheet, the commander of the activity will begin the certification process and each reporting senior in the Chain of Command reviewing the information will also sign this certification sheet. This sheet must remain attached to this package and be forwarded up the Chain of Command. Copies must be retained by each level in the Chain of Command for audit purposes.

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

Capt. John Scott Beachy
NAME (Please type or print)

Signature

Commanding Officer
Title

7 MAY 1994
Date

PHD NSWC
Activity

NSWC PORT HUENEME DIV

DATA CALL #4

JL
SEA 09X
5/12/94

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (Sel) D. P. Sargent
NAME (Please type or print)

Signature

Commander
Title

5/12/94
Date

Naval Surface Warfare Center
Activity

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

~~NAME (Please type or print)~~

~~Signature~~

~~Title~~

~~Date~~

~~Activity~~

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

G. R. STERNER
NAME (Please type or print)

Signature

Commander
Title Naval Sea Systems Command

5-13-94
Date

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

J. B. GREENE, JR
NAME (Please type or print)

Signature

ACTING
Title

2 JUN 94
Date

REVISION
DATA CALL #4
PORT HUENEME

Port Hueneme Division, Naval Surface Surface Warfare Center
Data Call 4

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

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I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

CAPT John Scott Beachy
NAME (Please type or print)

Signature

Commanding Officer
Title

2 JUNE 1994
Date

Port Hueneme Division
Activity

The information to which this certification pertains is described as follows:

Revision to the Port Hueneme Division BRAC-95 Data Call #4, pages 2, 3, 4, 5, 6, 7, 13, 19, 20, 21

Additional details of changes described on attached sheet

DATA CALL #4
PORT HUENEME

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

~~NAME (Please type or print~~ ~~Signature~~

~~Title~~ ~~Date~~

~~Activity~~

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (Sel) D. P. Sargent, Jr.
NAME (Please type of print

Signature

Commander
Title

6/3/94
Date

Naval Surface Warfare Center
Activity

In certify that the information herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

G. R. STERNER
NAME (Please type or print

Signature

Title

7-1-94
Date

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

J. B. GREENE, JR.
NAME (Please type of print

Signature

ACTING
Title

08 JUL 1994
Date

206

Revisions to BRAC 95 Data Call #4

1. The following paragraphs summarize changes to Data Call #4 ,the rationale for changes, and the page and paragraph numbers affected. Replacement sheets, and required certification are provided.

a. Page 2, Table 1.1, Military workyears inadvertently omitted from Budget Wkyrs and Actual In-House Wkyrs columns.

b. Page 3, Table 1.3, Breakout of Budgeted Funds for PHD NSWC FY 93- Fourth footnote added to clarify fiscal position. Footnote reads:
Total FY93 President's Budget = $293,677,000
Total FY93 Actual Receipts = $413,121,000
Percent Receipts Exceed Budget = 141%

c. Page 4, Table 1.3, Breakout of Budgeted Funds for PHD NSWC FY 1994
Third footnote added to clarify fiscal position. Footnote reads:
Total FY94 President's Budget = $267,406,000
Total FY94 Actual Receipts as of 31 March 94 = $260,961,000
Percent Receipts To Date = 98%
Total actual receipts are expected to exceed President's Budget

Dollars for NAVSEA, WPN should be $9,117 vice $9,177. Dollars for NAVAIR, RDT&E(N) 6.3b should be $0 vice $8. Totals are accurate. Typographical errors in original response.

d. Page 5, Table 1.3 Breakout of Funds Budgeted for PHD NSWC FY 1995. Dollars for PEOTAD, RDT&E(N) 6.3b should be $9,717 vice $97,173. Totals are accurate. Typographical error in original response.

e. Page 6, Breakout of Funds Budgeted for PHD NSWC FY 1996. Dollars for PEOTAD, RDT&E(N) 6.3b should be $8,590 vice $85,903. RDT&E(N) headers corrected; totals are accurate. Typographical error in original response.

Correct Table Column Headings for RDT&E(N).

f. Page 7, Breakout of Funds Budgeted for PHD NSWC FY 1997. Dollars for PEOTAD, RDT&E(N) 6.3b should be $9,849 vice $98,493. Totals are accurate. Typographical error in original response.

g. Page 13, Table 3.1 Constrained Class 2 Space. Available for Expansion at PHD NSWC. Second sentence of NOTE reworded: "The listed buildings will be available for expansion or alternatively will be used to terminate off-base leases".
Clarification erroneously omitted in original response.

h. Page 19, Training Facilities, FY2001 Requirements column C for SM-2 BLK III ENCAN/DECAN and SM-2 BLK IV ENCAN/DECAN schools should be 3840 hrs vice 1920 hrs. Calculation error in original response.

i. Page 20, Training Facilities FY1993 and FY2001 Requirements, column C for Business Management Program for Technical Personnel should be 3240 vice 3242, Calculation error in original response.

j. Page 21, Training Facilities Capacity, Row for Auditorium/175-25 should read:

Total Number = 2
Design Capacity = 437
Capacity (Student Hrs/Yr) = 875,488
Second auditorium erroneously omitted in original response.

# "LAB" JOINT CROSS-SERVICE GROUP GUIDANCE PACKAGE

**Section I: Taskings**
**1.1 Guidelines**
**1.2 Standards**
**1.3 Assumptions**
**1.4 Measures of Merit**
**1.5 Activities**
**1.6 Common Support Functions**

**Section II: Capacity of DOD Components**
**2.1 Workload**
**2.2 Excess Capacity**

**Section III: Capability of Activities to Perform Common Support Functions**
**3.0 Mission**
**3.1 Location**
**3.2 Personnel**
**3.3 Workload**
**3.4 Facilities & Equipment**
**3.5 Expansion Potential**

**Section IV: Appendices**
**A. Macro Process/Schedule**
**B. List of Activities**
**C. Common Support Functions**

Complete Data Call Revision

PLUS REVISIONS DATED:
16 AUG 94
19 AUG 94
12 SEP 94

## SECTION I: TASKING

**In accordance with the Deputy Secretary of Defense memorandum dated 7 Jan 94, the Laboratory Joint Cross-Service Group (LJCSG) with DOD components should, where operationally and cost effective, strive to: retain in only one Service militarily unique capabilities used by two or more Services; consolidate workload across the Service to reduce capacity; and assign operational units from more than one Service to a single base. Specifically, the purpose of the LJCSG is:**

- **Determine common support functions and bases to be addressed by LJCSG**
- **Establish guidelines, standards, assumptions, measures of merit, data elements and milestone schedules for DOD Component conduct of cross-service analysis of common support functions**
- **Review excess capacity analysis**
- **Develop closure or realignment alternatives**
- **Analyze cross-service trade-offs**

**The following information identifies to the Services common support functions and data element requirements necessary to support the cross-service analysis of these common support functions.**

### 1.1 Guidelines

**Because the DOD components are organized differently, "Lab" activities are considered to be those involved in the following life cycle efforts: Science and technology, and/or engineering development, and/or in-service engineering.**

**Service missions and force structure will be as stipulated in the FY 1995-2000 Defense Planning Guidance and Interim Force Structure Plan.**

**The Military Departments will use the projected funding in the FY 95 President's Budget Submission (Future Years Defense Plan -- FYDP) and an estimate of funds that will be received from outside the military department for execution.**

**If "lab" excess capacity exists, the Military Departments will start to reduce it where operationally and cost effective through a combination of downsizing in place within the departments, internal service consolidation, and cross service alternatives.**

**The Military Departments will gather, exchange, and analyze data collected per this guidance call for Common Support Functions (Appendix C) at "lab" activities (Appendix B) in accordance with the milestones and schedule dates identified in Appendix A.**

**Cross-service alternatives will result in an aggregate reduction in the overall "lab" infrastructure across the Military Departments -- personnel/funding/facilities and equipment.**

**Common cross-service Measures of Merit will be consistently applied for all cross-service alternatives.**

**Integration of weapon systems/components into operational forces will remain with the individual Military Departments responsible for those forces.**

**1.2 Standards**

**Evaluation of cross-service alternatives will be consistent with PL 101-510 (as amended) and the eight BRAC criteria. Only certified data will be used.**

**The COBRA cost model will be used to calculate estimated costs, estimated savings, and Return on Investment (ROI) of alternatives leading to proposed closures and realignments. Common inputs will be used for Military COBRA runs incorporating cross-service alternatives.**

**Military value analysis will be conducted by the Military Departments IAW Title 10, USC responsibilities.**

**1.3 Assumptions**

**"Lab" Common Support Functions and activities identified herein represent the major opportunities for developing cross-service alternatives. The Military Departments are not precluded from proposing other cross-service alternatives to reduce excess capacity as they assess the full complement of "lab" functions.**

**Previous BRAC decisions will be factored into cross-service alternatives.**

**"Lab" capacity will be based on budgeted workyears. A workyear is considered to be 2080 hours adjusted for time not on the job (e.g. sick leave, annual leave, etc.)**

**1.4 Measures of Merit**

**The following Measures of Merit represent the outcome from the DOD component final realignment and closure recommendations that are supported by the capabilities data which will be gathered by activity and common support function in Section III of this guidance.**

- Reduction of "lab" infrastructure
- Return on investment (COBRA)
- Military value (BRAC criteria 1-4) -- the composite assessment of the quality of the remaining "lab" infrastructure.

## 1.5 Activities

The Military Departments will collect capacity data for each "lab" activity identified in Appendix B. The "lab" activities were selected by considering all individual aggregates of personnel and facilities located at one base, under the same commander, performing predominantly science and technology (S&T), engineering development, and/or in-service engineering work. Small sub-elements of these "lab" activities were included with the activity. Larger sub-elements were broken out and defined as separate activities. The list of activities was then narrowed down to the list in Appendix B based on a joint Military Department assessment of common support functions with cross-service potential.

## 1.6 Common Support Functions

The common support functions (CSFs) were selected as shown in Appendix C based on a joint Military Department assessment of commonalty and cross-servicing potential. Common support functions which were already consolidated and being cross serviced were not included.

Common Support Functions are divided into two categories: product and pervasive. Product functions include all S&T, engineering development, and in-service engineering efforts associated with a product from all funding sources. Pervasive functions only include those efforts that are S&T funded, i.e. Technology Base (6.1)/Exploratory Development (6.2)/Advanced Development (6.3).

R



## SECTION II: CAPACITY OF DOD COMPONENTS

**2.1 Workload**. Use the following table to describe historic and projected workload at each activity in terms of funding and workyears. Assume previous BRAC closures and realignments are implemented on schedule. Projected funding will be derived from FY 95 President's Budget Submission (Then year dollars). Past fiscal year data shall begin with FY 86 or at the inception of the activity as it existed on 1 Oct 93. (BRAC Criteria I & IV)

| Information Required | Fiscal Years | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | |
| Total Funds Programmed ($M) | 271.6 | 206.0 | 256.7 | 264.6 | 294.6 | 296.4 | 282.7 | 293.7 | 267.4 | 260.3 | 313.9 | 311.3 | R |
| Total Actual Funds ($M) | 277.9 | 217.7 | 240.6 | 259.7 | 289.5 | 353.7 | 362.8 | 413.1 | 341.1* | | | | R |
| Programmed Workyears | 2,753 | 2,621 | 2,673 | 2,664 | 3,113 | 3,346 | 3,121 | 2,979 | 2,715.0 | 2,462 | 2,292 | 2,168 | R |
| Actual Workyears | 2,764 | 2,632 | 2,712 | 2,890 | 3,103 | 3,160 | 3,248 | 3,180 | 2,817** | | | | R |

* Reimbursable funds received as of 31 July 1994. R

**Equivalent year end workyears based on workyears executed through 31 July 1994. R

NOTE: The above table includes NMWEA data for FY 86 - FY 94. Per BRAC 93, NSWC Dahlgren Division will assume financial responsibility for NMWEA in FY 95. This table also includes data for the PHD remote site in Point Loma, CA. and the PHD East Coast Operations in Virginia Beach VA. for FY 86 - FY 97. R

- Budgeted workyears are the selected indicator of the "lab" infrastructure's capacity at an aggregate level for each Military Department. They include both workyears funded directly by the Military Department and the workyears funded from organizations outside the Military Department.

Workyears = government personnel and on-site FFRDCs and SETAs

**2.2 Excess "Lab" Capacity -- Measured at the DOD Component Level**

- Excess "Lab" Capacity = Sum of the Peak Workyears - Sum of the Projected Workyears
  -- Peak at each activity = Highest value between FY 86 (or since inception of organization) and FY93
  -- Projected at each activity = Estimated at FY97

To be measured at the DOD Component Level

## SECTION II: CAPACITY OF DOD COMPONENTS

**2.1 Workload. Use the following table to describe historic and projected workload at each activity in terms of funding and workyears. Assume previous BRAC closures and realignments are implemented on schedule. Projected funding will be derived from FY 95 President's Budget Submission (Then year dollars). Past fiscal year data shall begin with FY 86 or at the inception of the activity as it existed on 1 Oct 93. (BRAC Criteria I & IV)**

| Information Required | Fiscal Years | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 |
| Total Funds Programmed ($M) | 38.7 | 29.0 | 52.3 | 31.7 | 32.2 | 32.4 | 30.3 | 26.6 | 32.7 | 30.0 | 29.8 | 30.0 |
| Total Actual Funds ($M) | 31.7 | 29.1 | 36.0 | 38.0 | 36.5 | 38.6 | 32.7 | 33.7 | | | | |
| Programmed Workyears | 75.6 | 126.6 | 113.5 | 111.1 | 155.0 | 158.3 | 145.4 | 156.7 | 156.3 | 146.2 | 141.5 | 136.7 |
| Actual Workyears | 82.8 | 92.2 | 115.1 | 135.5 | 162.4 | 156.4 | 147.5 | 146.0 | | | | |

**- Budgeted workyears are the selected indicator of the "lab" infrastructure's capacity at an aggregate level for each Military Department. They include both workyears funded directly by the Military Department and the workyears funded from organizations outside the Military Department.**

**Workyears = government personnel and on-site FFRDCs and SETAs**

**2.2 Excess "Lab" Capacity -- Measured at the DOD Component Level**

**- Excess "Lab" Capacity = Sum of the Peak Workyears - Sum of the Projected Workyears**
**-- Peak at each activity = Highest value between FY 86 (or since inception of organization) and FY93**
**-- Projected at each activity = Estimated at FY97**

**To be measured at the DOD Component Level**

**SECTION III: CAPABILITY OF ACTIVITIES TO PERFORM COMMON SUPPORT FUNCTIONS (CSFs): Provide the information described for each common support function listed in Appendix C in which you are actively engaged.**

**3.0 Mission: Describe the major capabilities at your activity contributing to the common support function in bulletized format. Describe any relationship and interconnectivity with other functions (common or otherwise) in support of the overall activity mission.**

CSF 2 WEAPONS, CONVENTIONAL MISSILES/ROCKETS

**Key to the Navy's new direction of providing Naval Expeditionary forces operating forward from the sea is the ability to provide defense for own ship as well as for the battle group or joint operating forces. Missile Systems are the primary means of air defense for surface naval forces. Given the increased sophistication of emerging threats and the limited reaction time that a surface combatant has to respond to these threats, it is imperative that the missiles provided to these combatants be reliable and available. As the missile In-Service Engineer, PHD, is the principal government agent responsible for the operational readiness of the missiles provided to the fleet. PHD ensures that missiles are assembled, tested and processed in such a way that reliability design goals are achieved in actual fleet use.**

**In order to fulfill their Expeditionary Mission, Naval forces must be capable of sustaining support for long-term operations. This means that the Missiles supplied to Surface combatants must be sustainable and replenishable over extended periods of time. The integrated logistics support provided by PHD ensures that goal can be met. This capability was demonstrated on numerous occasions during operation Desert Shield and Desert Storm.**

**In-Service Engineering capability was established at NSWC/PHD to support Navy ship-launched missiles after early performance, reliability, and operational deficiencies clearly indicated that generic, separate technical support for the missiles and ship systems was ineffective. One reason missile ISE must be performed in close coordination with the rest of the system is that Navy surface missiles have evolved in complexity along with the threat. Performance requirements and the unique Navy mission have produced systems where only a portion of the essential operational functions are contained within the missile airframe; the missile relies on both sensor information and processed data from the ship, and interactively supplies its data to the ship. The very close technical and interoperational facets of missiles and ship equipment, combined with the complexity of the overall system preclude effective missile system operational capability unless the technical work was closely coordinated among the elements of the system. These elements include: the missile itself, search radars, fire control radars, control computers, weapon direction systems, and launching systems.**

**Specific capabilities at PHD NSWC that contribute to the guided missile common support function are:**

- establishment of performance and production requirements and specifications, particularly as relates to the weapon system;
- definition and management of interface requirements, including physical as well as functional compatibility, and allocation among system elements;
- establishment and assessment of missile production processes, testing, yields, and reliability;
- analysis and assessment of produced and deployed configurations, and maintenance of the configuration data;
- conduct of engineering investigation of reported fleet problems and failures, recommending solutions, and implementing corrective action as appropriate;
- development of maintenance plans and procedures, including both periodic and non-routine activities;
- development and acquisition of intermediate maintenance test systems, including hardware and software;
- training and certification of missile assembly and test personnel, including operation and maintenance training on specific special-purpose equipment;
- development and maintenance of safety plans and documents;
- development and analysis of missile tactical doctrines for surface warfare;
- analysis and assessment of on-going performance trends;
- technical assessment of the fleet inventory of missiles, including planning and tracking the deployment of various missile configurations and capabilities in accordance with tactical requirements;
- transition to production and introduction to the fleet, including both planning and implementation functions;
- test and evaluation support for performance enhancements and other missile upgrades.

In addition to the functions, the ISE work performed by PHD NSWC is critical to fleet defense because:

- PHD is the only direct link between the many elements of the technical community (agencies and contractors) and the fleet user;
- PHD provides a continuous technical base for support of ship missile systems, including those which are not longer produced.
- With decreasing missile procurement budgets, the fleet inventory is aging, and effective support can only be provided by personnel who have the benefit of "lessons learned" in direct fleet missile system support.
- Consolidation of contractors and resulting realignments have already significantly eroded both the ability and willingness to support all deployed missile configurations.

In each of these functions, the missile ISE task, though intensive and specialized, is part of the interactive chain that includes the other elements of the weapon system. In fact, the integrated missile system support provided by PHD NSWC can be viewed as an early consolidation which was found necessary to maintain a high degree of effectiveness and reliability. Section 3.1.5,

**provides further discussion of this.**

## 3.1 LOCATION

**The work of this In-Service Engineering function is primarily performed at Port Hueneme Division located on the Naval Construction Battalion Center Base. There are also a small number of technical representatives resident at specific missile maintenance and processing facilities, and test ranges for safety and operation support.**

**3.1.1 Geographic/Climatological Features: Describe any geographic/climatological features in and around your activity that are relevant to each CSF. Indicate and justify those that are required versus those that just serve to enhance accomplishing the mission of the activity. For example, clear air at high altitude that increases quality of atmospheric, ground-based laser experiments in support of the weapons CSF. (BRAC Criteria I)**

**PHD NSWC is located in a unique area that enables optimum use of personnel and resources. The port allows both combatants and targets to be fielded directly on the Pacific Missile Test Range. In addition, the waterfront laboratories have access to both the open ocean and to the Channel Islands, which provide a land background for sensor testing in accordance with the current Navy mission. Indeed, recent test experience has demonstrated that open ocean characteristics as they relate to missile performance are imperfectly understood, hence poorly modeled. Actual test data was required to optimize the design of modifications to enhance missile performance in particular missions. Thus the availability and use of Navy port facilities located on the same base, and the adjacent location of the Pacific Missile Test Range are significant assets in enabling PHD to properly support the fleet.**

**These unique facilities are extensively used for a variety of testing of tactical missiles in the context of the in-service engineering functions. These tests typically include fleet surveillance assessments and evaluation of modifications or enhancements in response to changed mission requirements or observed operational deficiencies.**

**3.1.2 Licenses & permits: Describe and list the licenses or permits (e.g., environmental, safety, etc.) that your activity currently holds and justify why they are required to allow tests, experiments, or other special capabilities at your location for each CSF. For example, permit to store and use high explosives. (BRAC Criteria I)**

**Most of the functions performed in this CSF are normal office and laboratory functions; however, there is authorization for ordnance handling as may intermittently occur for loading missiles on ships at the adjacent (on base) port facilities.**

**3.1.3 Environmental constraints: Describe and list the environmental or land use constraints**

**present at your activity which limit or restrict your current scope for each CSF, i.e., would not allow increased "volume" or "spectrum" for the CSF. Example -- Volume: frequency of a type of experiment. Example -- Spectrum: Current permit to detonate high explosives will not allow detonation or storage of increased quantity of explosives without legal waiver (state law) or relocation of surrounding (non-govt) buildings. (BRAC Criteria II)**

**There are no environmental constraints on present or planned activities.**

**3.1.4 Special Support Infrastructure: List and describe the importance of any mission related special support infrastructure (e.g. utilities) present at your location for your activity. (BRAC Criteria I)**

**Two facilities exist which specifically support the CSF:**

- **a waterfront laboratory with installed launchers, radar systems, and test bays used for special evaluations and integration testing;**
- **a training facility which simulates the actual industrial environment (including installed equipment) used for training and certification of missile and ordnance handling personnel, and for development of safety and handling procedures.**

**These are described in section 3.4.1.**

**3.1.5 Proximity to Mission-Related organizations: List and describe the importance and impact of not having nearby organizations which facilitate accomplishing or performing your mission -- e.g. operational units, FFRDCs, universities/colleges, other government organizations, and commercial activities. Restrict your response to the top five. Complete the following: (BRAC Criteria I)**

**One of the critical factors contributing to the impressive performance record of supported missiles is the thorough and integrated approach to performing the ISE function. Due to the highly complex relationships, both physical and functional, between the missile and the other parts of the weapon system, an integrated approach is necessary. At Port Hueneme, the weapon system and combat system personnel are jointly located, contributing not only to the interface coordination, but also a high degree of synergism. Geographic separation would greatly exacerbate the difficulty of timely and accurate exchange of data and information among responsible technical personnel. Frequent consultations not only assure accuracy, but also provide a degree of technical awareness that results in improvements perhaps not evident when considered in isolation. If separated, such ready access and engineering cooperation could not be maintained, even with dramatically higher travel expenditures.**

**The missiles for which ISE support is provided occur in 12 major configurations (with many more variants) and are used on 14 classes of ships with 8 major types of weapon**

**systems. Clearly, close coordination is mandatory in order to assure that a proposed change or enhancement that looks promising in one ship-missile combination, will likewise perform properly in the others.**

**This is particularly true since there is a high degree of integration of sensors and data processing in both the missile and ship system to achieve necessary performance. All elements of the system must share digital data via data channels and command links, and each has some role in interpreting data from elsewhere in the system. Thus the development and modification of system and missile architecture, interfaces, and software must be done with due consideration for the whole system.**

**Furthermore, there are also critical mechanical considerations as regards launching systems, fit in magazines, clearances, safety, and the like. All of these contribute directly to whether the missile will be able to perform its role, yet large portions are outside the specific tasking of the missile CSF.**

**Areas at Port Hueneme which are outside the missile CSF, but which are integral to its success include the following:**

- **Combat Systems Engineering Dept**
- **Aegis Combat Systems Dept**
- **Vertical Launching Systems Dept**
- **Combat Systems Test & Analysis Dept**
- **Area Defense Systems Dept**

**All of these organizations are located at Port Hueneme, and have direct interface with the missile ISE functions in the routine course of technical support. Workyears at each of them is typically larger than the direct missile ISE workyear levels.**

**Additional Navy facilities important to missile technical support are also nearby, or sufficiently close to permit ready access without overnight travel. These include the complex at Pt. Mugu, the Weapon Station at Seal Beach, the Construction Battalion Center, and the Naval Warfare Assessment Division at Corona. Utilization is as follows:**

**- Pt. Mugu, as the principal west coast missile test range, is an important venue for support of development as well as in-service evaluation missile test firings. In addition to direct range support and services, engineering organizations at Pt. Mugu provide important capability to the in-service work, including telemetry engineering, special ground test facilities, antenna and RF test support, countermeasures, and the like.**

**- Seal Beach is the west coast location for tactical missile processing, assembly, test and issue. Proximity is frequently important for both routine proofing of revised and updated**

support procedures and equipment, and for direct PHD technical leadership on non-routine and emergency operations.

- The Construction Battalion Center maintains and operates the deep water port, which permits direct ship technical support and test operations, as described elsewhere in this paper.

- The Naval Warfare Assessment Division (NWAD) provides specialized analysis and evaluation of fleet missile firings and exercises, data used directly by the ISEA at PHD in determining fleet missile performance characteristics. In addition, the NWAD supports PHD tasking related to field test equipment, by providing analysis and certification of testers used in acceptance of Navy tactical missiles.

| Common Support Functions | Name | Type of Organization | Distance | Workyears Performed by Your Activity | Workyears Funded by Your Activity |
|---|---|---|---|---|---|
| 2: WEAPONS: CONVENTIONAL MISSILES/ROCKETS | PHD NSWC Combat and Weapon Systems Depts | ISE | 0 miles | 146 | (SEE NOTE) |
| 2: WEAPONS: CONVENTIONAL MISSILES/ROCKETS | Pacific Missile Test Range, Point Mugu, CA | Test Range | 6 miles | 146 | (SEE NOTE) |
| 2: WEAPONS: CONVENTIONAL MISSILES/ROCKETS | Construction Battalion Center, Port Hueneme, CA | Deep Water Port | 0 miles | 146 | (SEE NOTE) |
| 2: WEAPONS: CONVENTIONAL MISSILES/ROCKETS | Naval Weapons Station, Seal Beach, CA | Weapons Station | 83 miles | 146 | (SEE NOTE) |
| 2: WEAPONS: CONVENTIONAL MISSILES/ROCKETS | Naval Warfare Assessment Division | Naval Laboratory | 110 miles | 146 | (SEE NOTE) |

NOTE: Each of these activities receive direct funding by their sponsors to support Missile/Weapon/Combat Systems for surface combatants.

**3.2 Personnel:**

**3.2.1 Total Personnel: What is the total number of government (military and civilian), on-site federally funded research and development center (FFRDC), and on-site system engineering technical assistance (SETA) personnel engaged in science and technology (S&T), engineering development and in-service engineering activities as of end FY93? For individuals that predominantly work in CSFs, involved in more than one CSF, account for those individuals in the CSF that represents the preponderance of their effort. (BRAC Criteria I)**

**CSF 2: Weapons: Conventional Missiles/Rockets**

| Types of Personnel | Number of Personnel | | | |
|---|---|---|---|---|
| | Government | | On-Site FFRDC | On-Site SETA |
| | Civilian | Military | | |
| Technical | 120 | 1 | 0 | 0 |
| Management (Supv) | 23 | 0 | 0 | 0 |
| Other | 15 | 0 | 0 | 0 |

**As seen from the table, the workforce at this in-service engineering activity is primarily civilian due to the highly specialized technical nature of the work performed and the impracticality of continually training newly assigned rotating personnel, as occurs with military. It will be noted in paragraph 3.2.3 that 95% of the personnel have more than 3 years experience. Such in-house expertise is directly reflected in the accurate and timely response to fleet technical needs, provides a baseline from which real improvements can be planned and implemented, and also gives access to the many "unwritten" facts, procedures, and processes which are necessary to the maintenance of readiness on any very complex system.**

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**3.2.2 Education:** What is the number of government personnel actively engaged in S&T, engineering development and in-service engineering activities by highest degree and type of position? Provide the data in the following table: (BRAC Criteria I)

| Type of Degree/ Diploma | Number of Government Personnel by Type of Position | | | |
|---|---|---|---|---|
| | Technical | Management (Supv) | Other | |
| High School or Less | 28 | 0 | 12 | R |
| **Associates** | 5 | 2 | 1 | R |
| **Bachelor** | 80 | 13 | 1 | R |
| **Masters** | 8 | 7 | 1 | R |
| **Doctorate (include Med/Vet/etc.)** | 0 | 1 | 0 | R |

**NOTE: As expected, the technical and management personnel are well educated (commensurate with the tasking). Furthermore, note that there technical personnel without college degrees. These are personnel who have some college, but whose real value to ISE is that they have developed skills in technical disciplines appropriate to the very specialized nature of the ISE task for Navy tactical missiles. In many cases, the career was started in the Navy, and continued in civilian ISE. Such technical work is required in many facets of missile in-service engineering; these positions are filled by electronics technicians, industrial specialists and equipment specialists.**

**3.2.3 Experience:** What is the experience level of government personnel? Fill in the number of government personnel in the appropriate boxes of the following table. (BRAC Criteria I)

| **Type of Position** | **Years of Government and/or Military Service** | | | | | |
|---|---|---|---|---|---|---|
| | **Less than 3 years** | **3-10 years** | **11-15 years** | **16-20 years** | **More than 20 years** | |
| **Technical** | 5 | 75 | 13 | 11 | 17 | R |
| **Management (Supv)** | 0 | 6 | 2 | 2 | 13 | R |
| **Total** | 5 | 81 | 15 | 13 | 30 | R |

**3.2.2 Education: What is the number of government personnel actively engaged in S&T, engineering development and in-service engineering activities by highest degree and type of position? Provide the data in the following table: (BRAC Criteria I)**

| Type of Degree/ Diploma | Number of Government Personnel by Type of Position | | |
|---|---|---|---|
| | Technical | Management (Supv) | Other |
| High School or Less | 31 | 0 | 9 |
| Associates | 4 | 1 | 3 |
| Bachelor | 79 | 14 | 1 |
| Masters | 7 | 7 | 2 |
| Doctorate (include Med/Vet/etc.) | 0 | 1 | 0 |

**NOTE: As expected, the technical and management personnel are well educated (commensurate with the tasking). Furthermore, note that there technical personnel without college degrees. These are personnel who have some college, but whose real value to ISE is that they have developed skills in technical disciplines appropriate to the very specialized nature of the ISE task for Navy tactical missiles. In many cases, the career was started in the Navy, and continued in civilian ISE. Such technical work is required in many facets of missile in-service engineering; these positions are filled by electronics technicians, industrial specialists and equipment specialists.**

**3.2.3 Experience: What is the experience level of government personnel? Fill in the number of government personnel in the appropriate boxes of the following table. (BRAC Criteria I)**

| Type of Position | Years of Government and/or Military Service | | | | |
|---|---|---|---|---|---|
| | Less than 3 years | 3-10 years | 11-15 years | 16-20 years | More than 20 years |
| Technical | 7 | 73 | 13 | 10 | 18 |
| Management (Supv) | 0 | 6 | 2 | 3 | 12 |
| Total | 7 | 79 | 15 | 13 | 30 |

**3.2.4 Accomplishments During FY91-93: For government personnel answer the following questions.**

**3.2.4.1 How many patents were awarded and patent disclosures (only count disclosures with issued disclosure numbers) were made? (BRAC Criteria I)**

| CSF | Disclosures | Awarded | Patent Titles (List) |
|---|---|---|---|
| 2. WEAPONS CONVENTIONAL MISSILES/ROCKETS | 0 | 0 | NONE |
| Total | | | |

**3.2.4.2 How many papers were published in peer reviewed journals? (BRAC Criteria I)**

| CSF | Number Published | Paper Titles (List) |
|---|---|---|
| 2. WEAPONS: CONVENTIONAL MISSILES/ROCKETS | (SEE NOTE) | (SEE NOTE) |
| TOTAL | | |

**NOTE: As defined in the tables for this section, accomplishments result in publication in peer-reviewed journals. Such is reasonably the case for work oriented toward research and development with general application. However, in-service engineering as performed on tactical missile systems by NSWC/PHD is highly specialized and thus applicable primarily to the specific systems being supported. ISE technical publications are not widely distributed outside the community that is responsible for the operation or effectiveness of the particular missile system. A great deal of technical work is documented and published in the form of missile technical and mission performance analysis memoranda and reports, safety and operational plans, test procedures, training texts and support materials, and formal missile technical specifications, requirements and other elements of the missile technical data package.**

**A listing of documents, reports, studies, and the like could be prepared, but would not be useful or comparable to any other such listing. Unlike peer-reviewed open publication, ISE technical publications would have little meaning outside the intended audience or those associated with a particular missile system.**

## 3.3 Workload

### 3.3.1 FY93 Workload

**3.3.1.1 Work Year and Lifecycle: Identify the number of actual workyears executed for each applicable CSF in FY93 for each of the following: government civilian; military; on-site FFRDCs; and on-site SETAs. (BRAC Criteria I)**

**CSF 2: Weapons: Conventional Missiles/Rockets**

| "LAB" | Fiscal Year 1993 Actual | | | |
|---|---|---|---|---|
| | Civilian | Military | FFRDC | SETA |
| Science & Technology | 0 | 0 | 0 | 0 |
| Engineering Development | 12.5 | 1 | 0 | 0 |
| In-Service Engineering | 132.5 | 0 | 0 | 0 |

**3.3.1.2 Engineering Development By ACAT: For each Common Support Function (e.g. airborne C4I) at each activity engaged in engineering development, provide:**

- **For each ACAT IC, ID, and II program (as defined in DODI 5000.2):**
  - **The name of the program**
  - **A brief program description**
- **For each ACAT III and IV programs:**
  - **The number of such programs**
  - **A list of program names**
- **For each program not an ACAT I, II, III, IV:**
  - **The number of such programs**
  - **A list of program names**
- **For the purpose of this question, any program between Milestone I and IV and containing demonstration and validation (Dem/Val 6.4)/Engineering and Manufacturing Development (EMD 6.5) funds in the FY95 PBS is considered to be engaged in engineering development (BRAC Criteria I).**

**There is a fraction of ISE tasking which is provided for by RDT&E funds and thus shown in the "engineering development" line here. However, this effort is not for functions which comprise engineering development *per se*, but which are provided in order that NSWC PHD may fully and specifically represent the ISE perspective and requirements during develop-**

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ment of missile modifications and performance enhancements. Such tasking is related to assessment of performance as relates to in-service considerations, development of in-service test requirements and maintenance philosophy, planning and providing for the in-service infrastructure that may require modification or enhancement, and planning for logistics support.

Because the PHD emphasis during development is on the eventual in-service missile, the development functions performed using the RDT&E funds are integral with the overall ISE function, requiring not merely close coordination with ISE personnel, but actual ISE involvement. There is a significant difference between work performed by other laboratories and development contractors, who provide detailed design and produce hardware. Advanced missile characteristics have become very difficult, perhaps impossible, to adequately specify in detail. Combined with current factors such as contractor restructuring (with concomitant loss of historical perspective and "lessons learned"), and the reality that contractor business decisions take precedence over the Navy mission, the details of ISE perspective, even if generally known, are frequently lost. It has been repeatedly demonstrated that performance in a laboratory or test environment during development does not assure a missile that will perform in fleet use for the specified life.

| Engineering Development | Name or Number | Workyears (FY93 Actual) | FY93 Funds Received (Obligation Authority) | Narrative | |
|---|---|---|---|---|---|
| ACAT IC | Standard Missile II Blk IIIA | 1.1 | $99.2K | SEE NOTE | R |
| ACAT ID | Standard Missile II Blk IV/IVA | 5.7 | $523.4K | SEE NOTE | R |
| ACAT II | Standard Missile II Blk IIIB | 6.8 | $623.3K | SEE NOTE | R |
| ACAT III/IV | None | 0 | $0K | NONE | |
| Other | None | 0 | $0K | NONE | |

NOTE: Engineering development identified in this table includes various modifications to the fielded Standard Missile which provide performance enhancements as well as reliability improvements. As cited previously these programs fit the In-Service definition but are funded by R&D dollars for the timely and appropriate phase in of In-Service Engineering. For that reason this effort is reflected in this table as well as the following table. R

ment of missile modifications and performance enhancements. Such tasking is related to assessment of performance as relates to in-service considerations, development of in-service test requirements and maintenance philosophy, planning and providing for the in-service infrastructure that may require modification or enhancement, and planning for logistics support.

Because the PHD emphasis during development is on the eventual in-service missile, the development functions performed using the RDT&E funds are integral with the overall ISE function, requiring not merely close coordination with ISE personnel, but actual ISE involvement. There is a significant difference between work performed by other laboratories and development contractors, who provide detailed design and produce hardware. Advanced missile characteristics have become very difficult, perhaps impossible, to adequately specify in detail. Combined with current factors such as contractor restructuring (with concomitant loss of historical perspective and "lessons learned"), and the reality that contractor business decisions take precedence over the Navy mission, the details of ISE perspective, even if generally known, are frequently lost. It has been repeatedly demonstrated that performance in a laboratory or test environment during development does not assure a missile that will perform in fleet use for the specified life.

| Engineering Development | Name or Number | Workyears (FY93 Actual) | FY93 Funds Received (Obligation Authority) | Narrative |
|---|---|---|---|---|
| ACAT IC | Standard Missile | 13.5 | $1,246K | SEE NOTE |
| ACAT ID | None | 0 | $0K | NONE |
| ACAT II | None | 0 | $0K | NONE |
| ACAT III/IV | None | 0 | $0K | NONE |
| Other | None | 0 | $0K | NONE |

NOTE: Engineering development identified in this table includes various modifications to the fielded Standard Missile which provide performance enhancements as well as reliability improvements. Included in this category are : SM II Blk IIIA, Blk IIIB, and Blk IV. As cited previously these programs fit the In-Service definition but are funded by R&D dollars for the timely and appropriate phase in of In-Service Engineering. For that reason this effort is reflected in this table as well as the following table.

**3.3.1.3 In-Service Engineering: For each Common Support Function at each activity engaged in-service engineering, list the in-service engineering efforts, the FY93 funds (from all sources) obligated for these efforts, the FY93 workyears for these efforts, and the weapon system(s) supported by these efforts. In-service engineering consists of all engineering support of fielded and/or out of production systems and includes efforts to improve cost, throughput, and schedule to support customer requirements as well as mods and upgrades for reliability, maintainability, and performance enhancements. (BRAC Criteria I).**

**CSF 2: Weapons: Conventional Missiles/Rockets**

| Common Support Functions | In-Service Engineering Efforts (List) | FY93 Actual Funds Received (Obligation Authority) | FY93 Actual Workyears | Weapon System(s) Supported |
|---|---|---|---|---|
| 2. WEAPONS CONVENTIONAL MISSILES/ROCKETS | Life-Cycle Support | $ 1,668K | 7 | VERTICAL LAUNCH ASROC |
| 2. WEAPONS CONVENTIONAL MISSILES/ROCKETS | Life-Cycle Support | $30,446K | 127 | STANDARD MISSILE |
| 2. WEAPONS CONVENTIONAL MISSILES/ROCKETS | Life-Cycle Support | $ 806K | 5.5 | TOMAHAWK |
| 2. WEAPONS CONVENTIONAL MISSILES/ROCKETS | Life-Cycle Support | $ 658K | 5 | RAM |
| 2. WEAPONS CONVENTIONAL MISSILES/ROCKETS | Life-Cycle Support | $ 131K | 1.5 | STINGER |

**NOTE: The funding and workyears in this table for Standard Missile include the Engineering and Development funding and workyears which are in fact a part of our In-Service Engineering effort (refer to note following previous table).**

### 3.3.2 Projected Funding

**The level of funding is expected to be approximately constant; on-going support for Navy tactical missiles is clearly essential to the continued effectiveness as deployed in the fleet. While some missile configuration (and related ship classes) are being retired, many new configurations being introduced. Furthermore, the newer configurations are more complex in both operation and support than the predecessors due to the evolving mission of the Navy. Thus, increasing specialization and more intensive technical knowledge is required to properly assure full performance is achieved in fleet use.**

**3.3.2.1 Direct Funding: For each applicable CSF, identify direct mission funding by appropriation from FY94 to FY97. Use FY95 PBS for FY95-FY97. (BRAC Criteria I)**

**CSF 2: Weapons: Conventional Missiles/Rockets**

| CSF | FY94 (K$)[1] | FY95 (K$)[1] | FY96 (K$)[1] | FY97 (K$) |
|---|---|---|---|---|
| WPN | 12,300 | 11,200 | 11,200 | 10,800 |
| R,D,T&E | 2,500 | 1,700 | 1,700 | 1,700 |
| O&M,N | 4,500 | 4,800 | 4,800 | 5,200 |
| FMS | 1,700 | 1,400 | 1,400 | 1,300 |
| PRIVP | 200 | 200 | 200 | 200 |
| GRAND TOTAL | 21,200 | 19,300 | 19,300 | 19,200 |

**NOTE (1): COST REIMBURSABLE ONLY**

**3.3.2.2 Other Obligation Authority: For each applicable CSF, identify reimbursable and direct-cite funding (other obligation authority expected) from FY94 to FY97. Funding allocation must be traceable to FY95 PBS. (BRAC Criteria I)**

| CSF | FY94 (K$) | FY95 (K$) | FY96 (K$) | FY97 (K$) |
|---|---|---|---|---|
| 2. WEAPONS CONVENTIONAL MISSILE/ROCKETS | 32,700 | 30,000 | 29,800 | 30,000 |

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**3.4 Facilities and Equipment**

**The missile in-service engineering CSF is performed in portions of two office/laboratory buildings, and two specialized facilities. Data in the tables are pro-rata according to the portion of the facility dedicated to the CSF.**

| Common Support Function | Major Facility or Equipment Description | Unique to | | | Replacement Cost ($K) |
|---|---|---|---|---|---|
| | | DOD | Federal Gov't | U. S. | |
| 2: Weapons: Conventional Missiles/Rockets | Surface Warfare Engineering Facility (SWEF) | X | | | 18,900 |
| 2: Weapons: Conventional Missiles/Rockets | Intermediate Level Maintenance and Training Facility | X | | | 9,900 |
| 2: Weapons: Conventional Missiles/Rockets | Secret* Compartmentalized Information Facility (SCIF) | X | | | 1,131 |

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*** Total of three SCIF areas: Two in use and one under construction**

**3.4.1 Major Equipment and Facilities: Describe major facilities and equipment necessary to support each Common Support Function (include SCIFs). If the facilities and equipment are shared with other functions, identify those functions and the percentage of total time used by each of the functions. Provide labeled photographs that picture the breadth and scope of the equipment and facilities described. If it is unique to DOD, to the Federal Government, or to the US, describe why it is unique. Insert the replacement cost. For this exercise, Replacement cost = (Initial cost + capital investment) multiplied by the inflation factor for the original year of construction. (BRAC Criteria II)**

**Building 1384 is the Surface Warfare Engineering Facility. This incorporates both equipment identical to that installed aboard ship, as well as special purpose missile ground support equipment. In the context of the missile ISE function, the Guided Missile Test Set MK 612 is installed there for the purpose of supporting special tests and for development and proofing of Navy field support and test equipment and procedures. As can be seen from the table, the amount of equipment involved in the ISE activities here is significant. The specific activity related to missile ISE uses approximately 10% of the facility, on a square footage basis. The other portions of the building contain the radars, computers, and other ship equipment used by the organizations listed in section 3.1.5. It is thoroughly documented in other papers that this facility is the only one of its kind in the Navy for support of the surface fleet.**

**3.4 Facilities and Equipment**

**The missile in-service engineering CSF is performed in portions of two office/laboratory buildings, and two specialized facilities. Data in the tables are pro-rata according to the portion of the facility dedicated to the CSF.**

| Common Support Function | Major Facility or Equipment Description | Unique To | | | Replacement Cost ($K) |
|---|---|---|---|---|---|
| | | DOD | Federal Gov't | U. S. | |
| 2: Weapons: Conventional Missiles/Rockets | Surface Warfare Engineering Facility (SWEF) | X | | | 18,900 |
| 2: Weapons: Conventional Missiles/Rockets | Intermediate Level Maintenance and Training Facility | X | | | 9,900 |
| 2: Weapons: Conventional Missiles/Rockets | Secret* Compartmentalized Information Facility (SCIF) | X | | | 1,200 |

*** Total of three SCIF areas: Two in use and one under construction**

**3.4.1 Major Equipment and Facilities: Describe major facilities and equipment necessary to support each Common Support Function (include SCIFs). If the facilities and equipment are shared with other functions, identify those functions and the percentage of total time used by each of the functions. Provide labeled photographs that picture the breadth and scope of the equipment and facilities described. If it is unique to DOD, to the Federal Government, or to the US, describe why it is unique. Insert the replacement cost. For this exercise, Replacement cost = (Initial cost + capital investment) multiplied by the inflation factor for the original year of construction. (BRAC Criteria II)**

**Building 1384 is the Surface Warfare Engineering Facility. This incorporates both equipment identical to that installed aboard ship, as well as special purpose missile ground support equipment. In the context of the missile ISE function, the Guided Missile Test Set Mk 612 is installed there for the purpose of supporting special tests and for development and proofing of Navy field support and test equipment and procedures. As can be seen from the table, the amount of equipment involved in the ISE activities here is significant. The specific activity related to missile ISE uses approximately 10% of the facility, on a square footage basis. The other portions of the building contain the radars, computers, and other ship equipment used by the organizations listed in section 3.1.5. It is thoroughly documented in other papers that this facility is the only one of its kind in the Navy for support of the surface fleet.**

R

Building 1392 houses the Intermediate Level Maintenance Training Facility. This missile facility is used for development of field procedures related to handling and assembly of the missile, including certification of the field personnel from other activities and contractors for work on live ordnance. The training is specific to supported missile configurations, and uses inert versions of actual missile hardware as well as duplicate field handling and assembly tools and fixtures.

The Secret Compartmentalized Information Facility (SCIF) areas provide the required degree of isolation and limited access, along with the infrastructure appropriate to the program use.

## 3.5 Expansion Potential

Because of the close relationship with the other technical functions comprising the overall weapon system, the figures shown are actual only. Facilities and buildings are generally shared with these other functions. The exact amount of potential for expansion is thus linked to the requirements of the other users of the facilities.

3.5.1 Laboratory Facilities: Use facilities records as of fourth-quarter FY93 in answering the following (in sq. ft) for each CSF: (BRAC Criteria II)

| Common Support Function | Facility or Equipment Description | Type of Space* | Space Capacity (KSF) | | | |
|---|---|---|---|---|---|---|
| | | | Current | Used | Excess | |
| 2: Weapons: Conventional Missiles/Rockets | BLDG 5 | Admin/Technical | 13.0 | 0.0 | 13.0 | |
| " | BLDG 7 | Admin/Technical | 22.5 | 15.5 | 7.0 | R |
| " | BLDG 444 | Admin/Technical | 14.0 | 5.1 | 8.9 | |
| " | BLDG 363 | Admin/Technical | 4.1 | 0.9 | 3.2 | R |
| " | BLDG 363-1 | Admin/Technical | 2.2 | 0.3 | 1.9 | |
| " | BLDG 1229 | Admin/Technical | 1.5 | 0.5 | 1.0 | |
| " | BLDG 1215 | Admin/Technical | 8.3 | 0.0 | 8.3 | |
| " | BLDG 1214 | Admin/Technical | 8.5 | 0.0 | 8.5 | |
| " | BLDG 1387 | Admin/Technical | 88.9 | 72.9 | 16.0 | |
| TOTALS | - | - | 163.0 | 95.2 | 67.8 | R |

* Administrative, Technical, Storage, Utility

NOTE: The buildings listed above are the Port Hueneme Site buildings that currently have excess capacity. Collectively they represent but a fraction of the 812.3K SQ FT of class 2 assets occupied by PHD.

Building 1392 houses the Intermediate Level Maintenance Training Facility. This missile facility is used for development of field procedures related to handling and assembly of the missile, including certification of the field personnel from other activities and contractors for work on live ordnance. The training is specific to supported missile configurations, and uses inert versions of actual missile hardware as well as duplicate field handling and assembly tools and fixtures.

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| Common Support Function | Facility or Equipment Description | Type of Space* | Space Capacity (KSF) | | |
|---|---|---|---|---|---|
| | | | Current | Used | Excess |
| 2: Weapons: Conventional Missiles/Rockets | BLDG 5 | Admin/Technical | 13 | 0 | 13 |
| " | BLDG 7 | Admin/Technical | 14.0 | 7 | 7.0 |
| " | BLDG 444 | Admin/Technical | 14.0 | 5.1 | 8.9 |
| " | BLDG 363 | Admin/Technical | 4.2 | 1 | 3.2 |
| " | BLDG 363-1 | Admin/Technical | 2.2 | 0.3 | 1.9 |
| " | BLDG 1229 | Admin/Technical | 1.5 | 0.5 | 1.0 |
| " | BLDG 1215 | Admin/Technical | 8.3 | 0 | 8.3 |
| " | BLDG 1214 | Admin/Technical | 8.5 | 0 | 8.5 |
| " | BLDG 1387 | Admin/Technical | 88.9 | 72.9 | 16.0 |
| TOTALS | - | - | 154.6 | 86.8 | 67.8 |

* Administrative, Technical, Storage, Utility

NOTE: The buildings listed above are the Port Hueneme Site buildings that currently have excess capacity. Collectively they represent but a fraction of the 812.3K SQ FT of class 2 assets occupied by PHD.

**3.5.1.1 Describe the capacity of your activity to absorb additional similar workyears categorized in the same common support function with minor facility modification. If major modification is required, describe to what extent the facilities would have to be modified. (Use FY97 workyears as your requirement) (BRAC Criteria III)**

**There are competing demands for the 67.8K sq ft of excess capacity available at the PHD site. However, were that entire space to be made available for an office/laboratory complex suitable for missile support it is reasonable to expect that the station could accommodate an expansion with minor facility modifications.**

**3.5.1.2 If there is capacity to absorb additional workyears, how many additional workyears can be supported? (BRAC Criteria III)**

**452 workyears**

**3.5.1.3 For 3.5.1.1 and 3.5.1.2 (above) describe the impact of military construction programs or other alteration projects programmed in the FY95 PBS. (BRAC Criteria II)**

**None**

**3.5.2 Land Use: Provide number of buildable acres for additional laboratory/administrative support construction at your installation. (BRAC Criteria II)**

**Number of buildable acres for additional laboratory/administrative support construction at this installation is 37, with 27 identified for R&D and 10 for supply and storage. The supply and storage acreage consists of two five acre parcels. The R&D acreage includes a 10 and a 17 acre parcel. The latter parcel includes a petroleum tank farm already scheduled for demolition. Additional environmental dollars would speed up the remediation process. All four parcels are contiguous to land we currently control.**

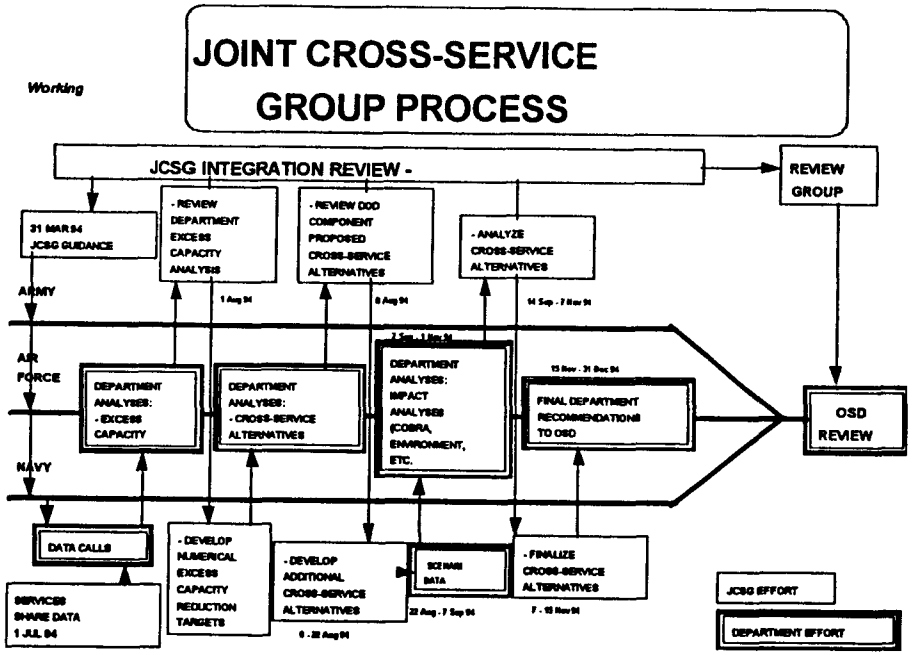
**3.5.3 Utilities: Provide an estimate of your installation's capability to expand or procure additional utility services (electric, gas, water). Estimates should be provided in appropriate units -- e.g. KWH of electricity. (BRAC Criteria II)**

**Additional utility capacity is not a problem and would be obtained from the host complex or commercial sources as necessary**

## SECTION IV: APPENDICES

**A. Macro Process/Schedule**
**B. List of Activities**
**C. Common Support Functions**

# APPENDIX A


JOINT CROSS-SERVICE
GROUP PROCESS
Working
JCSG INTEGRATION REVIEW -
REVIEW GROUP
31 MAR 94 JCSG GUIDANCE
- REVIEW DEPARTMENT EXCESS CAPACITY ANALYSIS
- REVIEW DOD COMPONENT PROPOSED CROSS-SERVICE ALTERNATIVES
- ANALYZE CROSS-SERVICE ALTERNATIVES
ARMY
AIR FORCE
NAVY
DEPARTMENT ANALYSES: - EXCESS CAPACITY
DEPARTMENT ANALYSES: - CROSS-SERVICE ALTERNATIVES
DEPARTMENT ANALYSES: IMPACT ANALYSES (COBRA, ENVIRONMENT, ETC.
FINAL DEPARTMENT RECOMMENDATIONS TO OSD
OSD REVIEW
DATA CALLS
SERVICES SHARE DATA 1 JUL 94
- DEVELOP NUMERICAL EXCESS CAPACITY REDUCTION TARGETS
- DEVELOP ADDITIONAL CROSS-SERVICE ALTERNATIVES
SCENARI DATA
- FINALIZE CROSS-SERVICE ALTERNATIVES
JCSG EFFORT
DEPARTMENT EFFORT

# APPENDIX B

## LIST OF ACTIVITIES

### AIR FORCE

1. Armstrong Lab, Brooks AFB
2. Armstrong Lab, Tyndall AFB
3. Armstrong Lab, Wright-Patterson AFB
4. Armstrong Lab, Williams AFB
5. Human Systems Center, Brooks AFB
6. Wright Lab, Wright-Patterson AFB
7. Wright Lab, Eglin AFB
8. Aeronautical Systems Center, Wright-Patterson AFB
9. Aeronautical Systems Center, Eglin AFB
10. Oklahoma City Air Logistics Center, Tinker AFB (In-service engineering)
11. Ogden Air Logistics Center, Hill AFB (In-service engineering)
12. San Antonio Air Logistics Center, Kelly AFB (In-service engineering)
13. Sacramento Air Logistics Center, McClellan AFB (In-service engineering)
14. Warner-Robins Air Logistics Center, Robins AFB (In-service engineering)
15. Phillips Lab, Kirtland AFB
16. Phillips Lab, Hanscom AFB
17. Phillips Lab, Edwards AFB
18. Space & Missile Center, Los Angeles AFB
19. Space & Missile Center, Norton AFB
20. Sacramento Air Logistics Center, Peterson AFB
21. Rome Lab, Griffiss AFB
22. Rome Lab, Hanscom AFB
23. Electronic Systems Center, Hanscom AFB
24. Sacramento Air Logistics Center, Peterson AFB (In-service engineering)

### ARMY

1. Army Research Lab (ARL), Adelphi, MD
2. ARL, Aberdeen Proving Grounds (APG), MD
3. ARL, White Sands Missile Range, NM
4. ARL, NASA Langley, VA
5. ARL, NASA Lewis, OH
6. Natick Research, Development and Engineering Center, Natick, MA
7. Aviation Research, Development and Engineering Center, St Louis, MO
8. Aviation Troop Command, Aeroflight Dynamics Directorate, Moffitt Field, CA
9. Aviation Troop Command, Aviation Applied Technology Directorate, Fort Eustis, VA

10. Edgewood Research, Development and Engineering Center, Aberdeen Proving Ground, MD
11. Communications Electronics Command Research, Development and Engineering Center, Ft Mammoth, NJ
12. Communication Electronics Command Research, Development and Engineering Center - Night Vision EO Directorate, Ft Belvoir, VA
13. Missile Research, Development and Engineering Center, Redstone Arsenal, AL
14. Armaments Research, Development and Engineering Center, Picatinny Arsenal, NJ
15. Armaments Research, Development and Engineering Center, Benet Labs, Watervliet Arsenal, NY
16. Tank-Automotive Command Research, Development and Engineering Center, Warren, MI
17. USA Research Institute of Infectious Diseases, Ft Detrick, MD
18. Walter Reed Army Institute of Research, Washington D.C.
19. USA Institute of Surgical Research, Ft Sam Houston, TX
20. USA Aeromedical Research Lab, Ft Rucker, AL
21. Medical Research Institute of Chemical Defense Aberdeen Proving Grounds, MD
22. USA Research Institute of Environmental Medicine, Natick, MA
23. Construction Engineering Research Laboratory, Champaign, IL
24. Cold Regions Research and Engineering Lab, Hanover, NH
25. Topographic Engineering Center, Alexandria, VA
26. Waterways Experiment Station, Vicksburg, MS
27. USA Research Institute for Behavioral & Social Sciences, Alexandria, VA
28. Simulation, Training and Instrumentation Command (STRICOM), Orlando, FL

## NAVY

1. Naval Air Warfare Center, Weapons Division, China Lake
2. Naval Air Warfare Center, Weapons Division, Point Mugu
3. Naval Air Warfare Center, Aircraft Division, Patuxent River
4. Naval Air Warfare Center, Aircraft Division, Indianapolis
5. Naval Air Warfare Center, Aircraft Division, Lakehurst
6. Naval Research Lab, Washington D.C.
7. Naval Research Lab Detachment, Bay St Louis
8. Naval Surface Warfare Center, Carderock Division, Bethesda
9. Naval Surface Warfare Center, Carderock Detachment, Annapolis
10. Naval Surface Warfare Center, Crane Division
11. Naval Surface Warfare Center, Crane Detachment, Louisville
12. Naval Surface Warfare Center, Dahlgren Division
13. Naval Surface Warfare Center, Dahlgren Detachment, Panama City
14. Naval Surface Warfare Center, Indian Head Division
15. Naval Surface Warfare Center, Port Hueneme Division

16. Naval Command, Control, and Ocean Surveillance Center, RDT&E Division, San Diego
17. Naval Command, Control, and Ocean Surveillance Center, In-Service Engineering, West Coast Division, San Diego
18. Naval Command, Control, and Ocean Surveillance Center, In-Service Engineering Division, Charleston
19. Naval Aerospace Medical Research Center, Pensacola
20. Naval Biodynamics Lab, New Orleans
21. Naval Dental Research Lab, Great Lakes
22. Naval Health Research Center, San Diego
23. Naval Medical Research Institute, Bethesda
24. Naval Undersea Warfare Center, Keyport Division, WA
25. Naval Surface Warfare Center, Carderock, Philadelphia Detachment
26. Naval Undersea Warfare Center, Newport, RI
27. Naval Undersea Warfare Center (Newport), New London, CT
28. Naval Personnel Research and Development Center, San Diego, CA

## DEPARTMENT OF DEFENSE

1. Armed Forces Radiobiology Research Institute (AFRRI), Bethesda, MD

# APPENDIX C

## COMMON SUPPORT FUNCTIONS
## (DEFINITIONS LISTED FOLLOWING PAGES)

**Product Functions**

1. Air Vehicles
   - Fixed
     - Structure
     - Propulsion
     - Avionics
     - Flight Subsystems
   - Rotary
     - Structure
     - Propulsion
     - Avionics
     - Flight Subsystems

2. Weapons
   - ICBMs/SLBMs
   - Conventional Missiles/Rockets
   - Cruise Missiles
   - Guided Projectiles
   - Bombs
   - Guns and Ammunition
   - Directed Energy
   - Chemical/Biological

3. Space Systems
   - Launch Vehicles
   - Satellites
   - Ground Control Systems

4. C4I Systems
   - Airborne C4I
   - Fixed Ground-Based C4I
   - Ground Mobile C4I

**Pervasive Functions**

1. **Electronic Devices**
2. **Environmental Sciences**
3. **Infectious Diseases**
4. **Human Systems**
5. **Manpower and Personnel**
6. **Training Systems**
7. **Environmental Quality**
8. **Advanced Materials**

## DEFINITIONS

## COMMON SUPPORT FUNCTIONS

### Product Functions

1. Air Vehicles. Air vehicles are broken out into common support functions for fixed wing and rotary wing. Includes but not limited to all science and technology, demonstration and validation, engineering development, and production activities which support employment and in-service engineering of air vehicles. Included are all air vehicles including their application as UAV's and targets.

- Structures. Includes but not limited to all air vehicles structure technology, engineering and production efforts. Include technology and engineering practices which advance structural design and analysis; advanced structural concepts and fabrication techniques; and structural integrity.

- Propulsion. Includes but not limited to all technology, engineering and production efforts associated with air vehicle propulsion such as turbine engine, rotorcraft power drive, and hypersonic propulsion components. Such components include compressors, inlets and nozzles, turbines, mechanical systems and control, gears, bearings, shafts, and clutches. In addition, include associated subsystems activities such as turborocket, turboramjet and rotorcraft transmissions; and supporting technical and engineering disciplines.

- Avionics. Includes but not limited to all technology, engineering and production efforts associated with the air platform's integrated avionics system. The avionics suite includes but is not limited to weapon delivery systems, electronic warfare, navigation, communications, radar, electro-optic sensors, signal/data processing and associated software system and support. Includes efforts associated with developing the integrated avionics system (i.e. optimizing functional partitioning, distribution and integration of avionics/related functions).

- Flight Subsystems. Includes but not limited to all technology, engineering and production efforts for air vehicle support systems such as landing gear; transparent crew enclosures; egress systems; mechanical equipment integrity; electrical component integrity; subsystem integration; and aircraft power, pressurization, and temperature control systems.

2. Weapons. Includes but not limited to all science and technology, demonstration and validation, engineering development, and production activities which support employment and in-service engineering of ICBMs/SLBMs, conventional missiles and rockets, cruise

missiles, guided projectiles, bombs, guns and ammunition, directed energy and chemical/biological munitions. Include with each weapon as appropriate, all related technology, engineering and production activities such as fusing/safe and arm, missile propulsion, warheads and explosives, and guidance and control.

3. Space. Includes but not limited to all science and technology, demonstration and validation, engineering development, and production activities which support employment and in-service engineering of launch vehicles, satellites and associated ground control systems (satellite control only; ground systems for telemetry of data included in C4I). Include under satellites, all technology, engineering and production activities associated with space communications and space-based surveillance (and associated sensors) and space-based C4I.

4. C4I. Includes but not limited to all science and technology, demonstration and validation, engineering development, and production activities which support employment and in-service engineering of airborne, fixed ground-based and mobile ground based C4I systems. Include all technology, engineering and production activities associated with communications networks, radios and links, distributed information systems, data fusion, decision aids, and associated computer architectures.

Pervasive Functions (6.1, 6.2, and 6.3)

1. Electronic Devices. Includes but not limited to all science and technology activities supporting development of semiconductor and superconductor materials for optoelectronic, acoustic and microwave devices. Include all associated electronic materials/device fabrication and processing.

2. Environmental Sciences. Includes but not limited to all science and technology activities to improve measurement, characterization and modeling of the earth atmosphere and space environment. Examples include global prediction systems, space effects, and celestial backgrounds/astronomical reference sources.

3. Infectious Diseases. Includes but not limited to all science and technology activities which preserve manpower and performance by the prevention and treatment of militarily important infectious diseases that occur naturally worldwide.

4. Human Systems. Includes but not limited to all science and technology activities to enable, protect, sustain and enhance human effectiveness in DOD operations. The focus of this pervasive, multi-disciplinary area is the human and therefore impacts all DOD systems and operations. This area includes: (1) human performance definition, assessment, and aiding; (2) physiologic bioeffects of toxic hazards, ionizing and non-ionizing radiation, biodynamic (bio-mechanical) stress, and extreme environments; (3) military operational

**medicine; and (4) generic, human-centered design standards/methodologies for crew station subsystems, information management and display, and life support.**

**5. Manpower and Personnel. Includes but not limited to all science and technology activities which support four broad areas: (1) selection and classification of DOD personnel (including pilots); (2) identification of operational tasks performed and requirements for skills, knowledge, and aptitudes; (3) matching the right people with the jobs they are best suited for according to the needs of DOD, (4) and developing techniques for measuring and enhancing the productivity of the operational force.**

**6. Training Systems. Includes but not limited to all science and technology which support training of personnel, including training strategies, devices and simulators, and computer aided intelligent tutoring systems.**

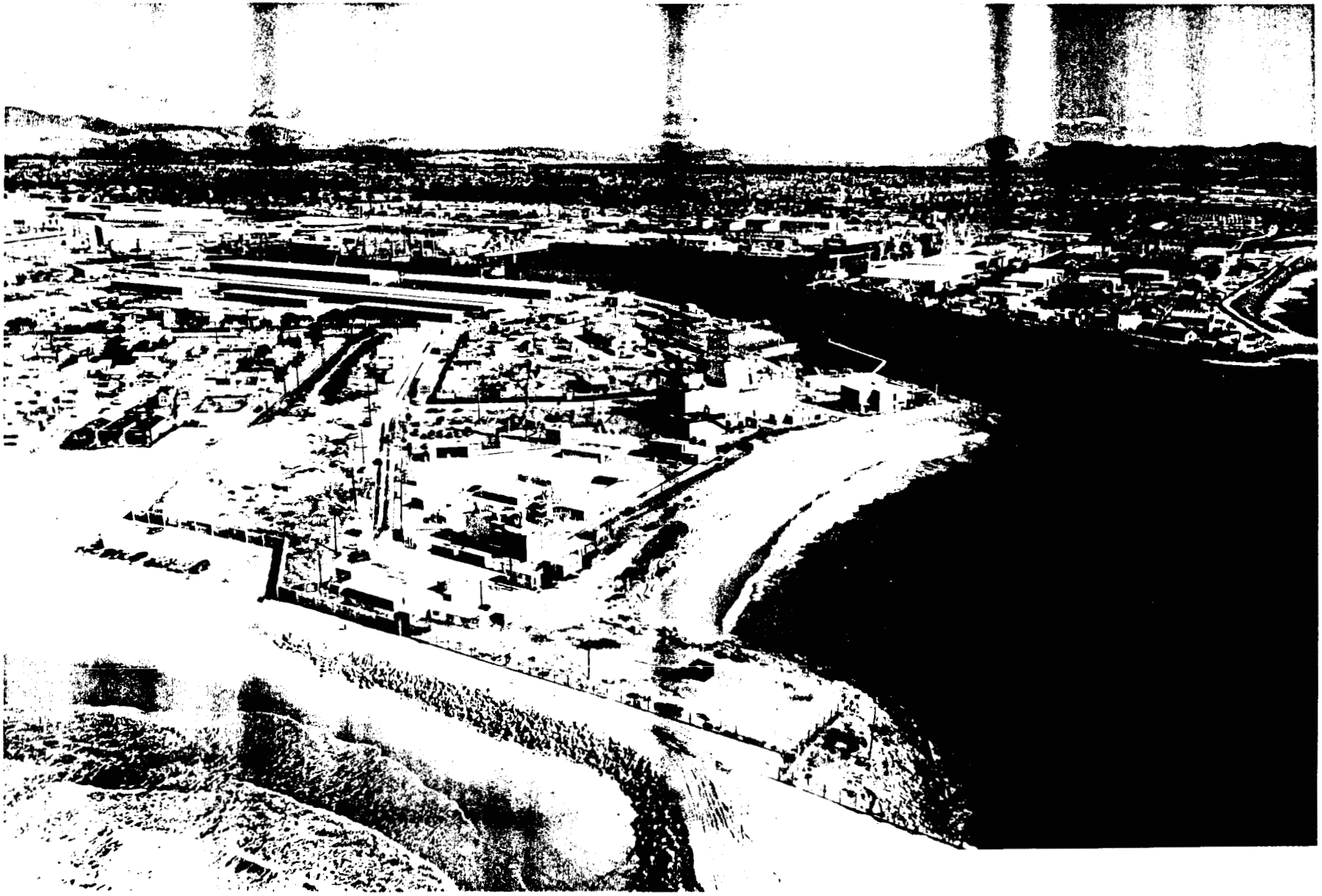
**7. Environmental Quality. Includes but not limited to all science and technology activities which support the development of technologies to reduce the environmental costs of DOD operations while ensuring mission accomplishment is not jeopardized by adverse environmental impacts. Specifically, this area encompasses technologies to: (1) identify and cleanup sites contaminated with hazardous materials as a result of DOD operations (cleanup); (2) ensure DOD compliance with current and anticipated local, national, and international environmental laws and treaties (compliance); (3) minimize DOD use of hazardous materials and reduce DOD hazardous waste generation (pollution prevention); and (4) provide for protection of natural resources under DOD stewardship (conservation).**

**8. Advanced Materials. Includes but not limited to all science and technology activities related to structural, high temperature, electromagnetic protection, electronic, magnetic, optical, and biomolecular materials. Note: excludes materials areas which were included in DDR&E decision of 18 Mar 94 related to the Army's Materials Research Facility at Aberdeen Proving Ground and the Navy's Materials Facility at Carderock.**

SURFACE WARFARE

ENGINEERING FACILITY

(copies)

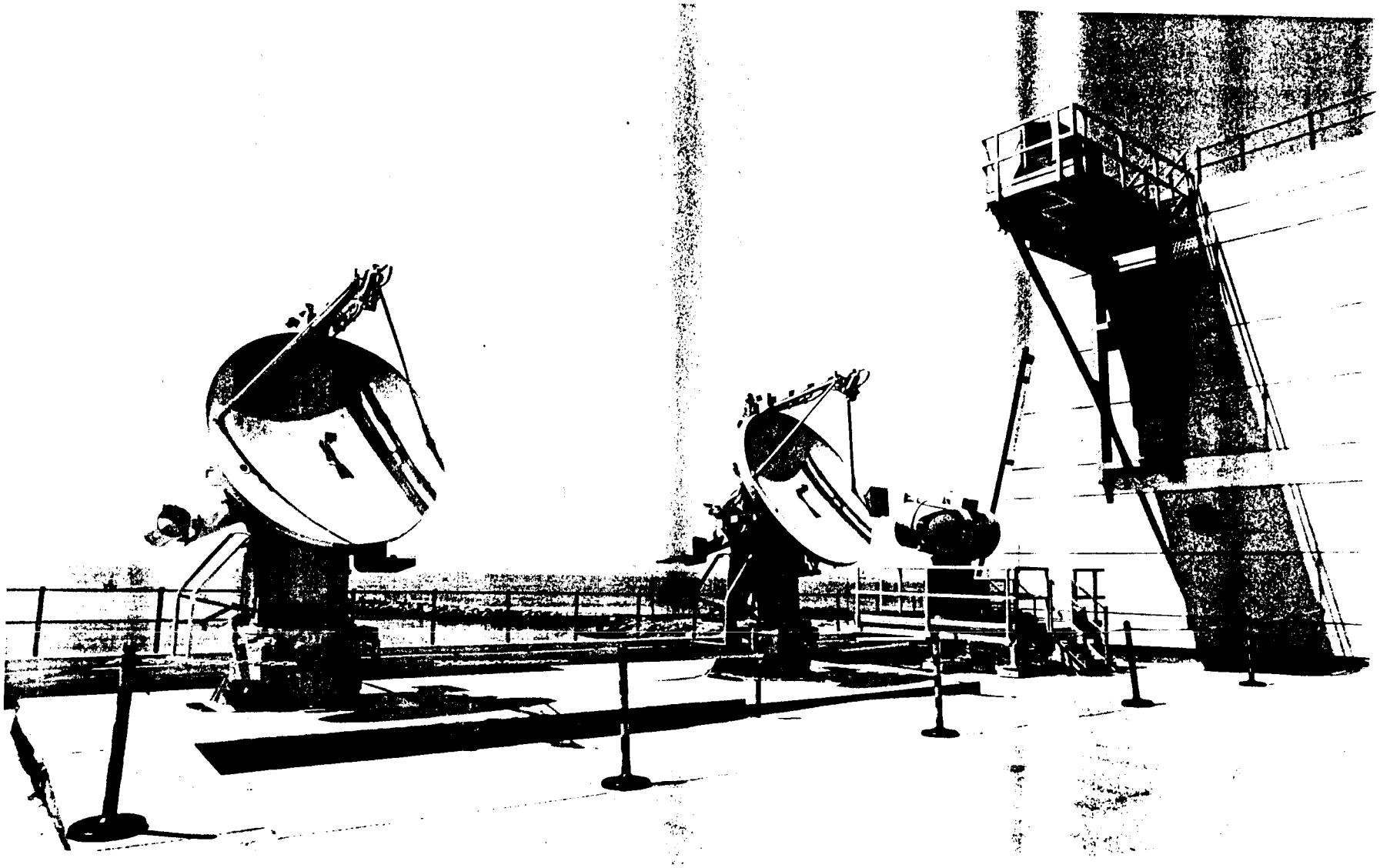


SURFACE WARFARE

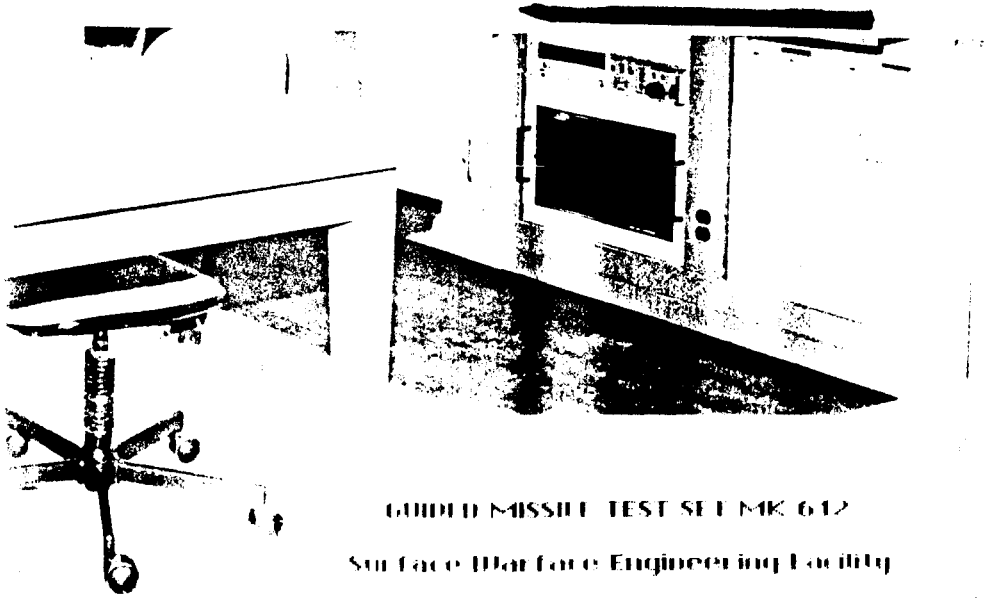
ENGINEERING FACILITY

SURFACE WARFARE

ENGINEERING FACILITY

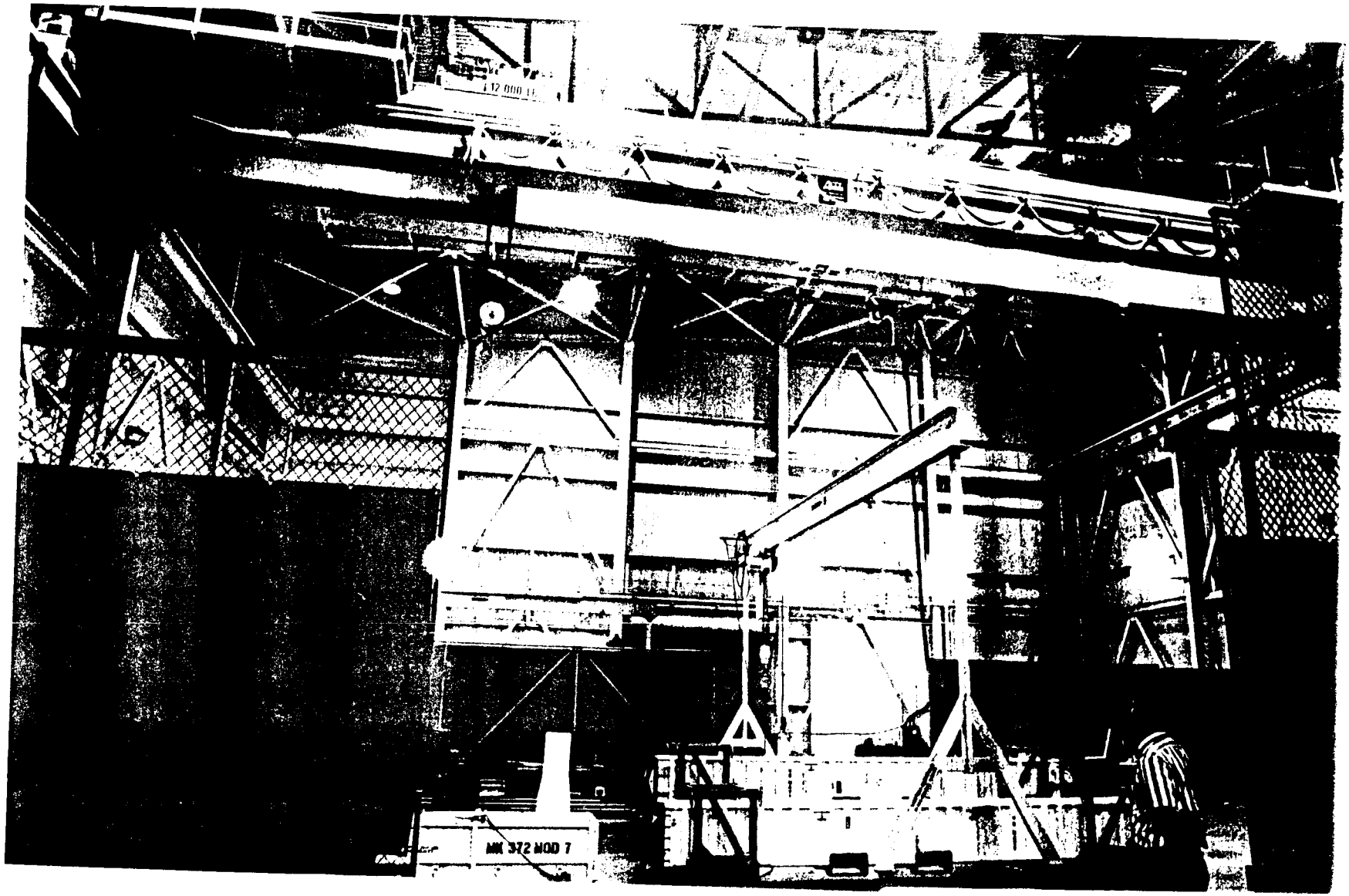


SURFACE UNDERWRI

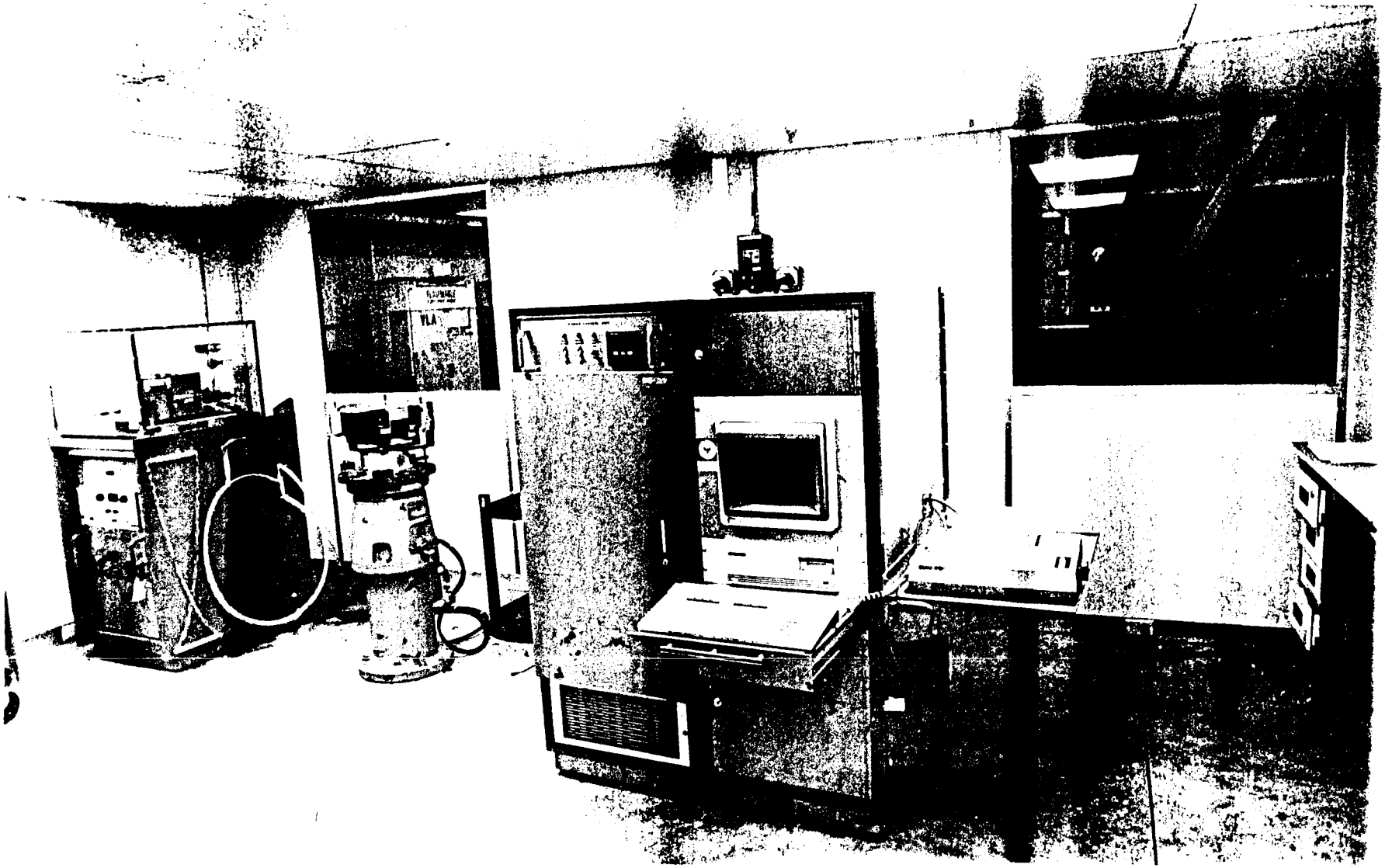


GUIDED MISSILE TEST SET MK 612

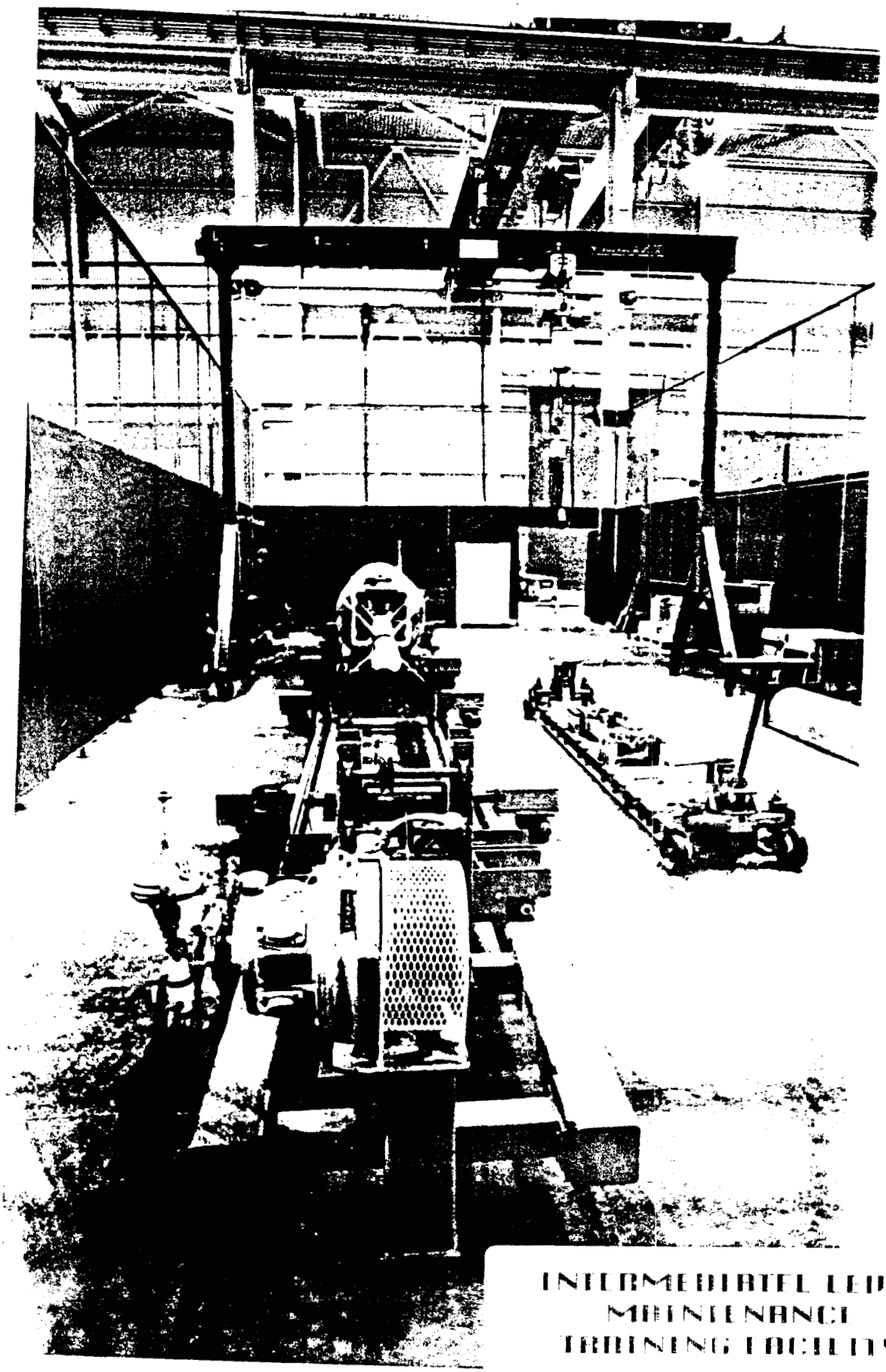
Surface Warfare Engineering Facility




INTERMEDIATE LEVEL
MAINTENANCE



INTERMEDIATE LEVEL
MAINTENANCE
TRAINING FACILITY



INTERMEDIATE LEVEL
MAINTENANCE
TRAINING FACILITY

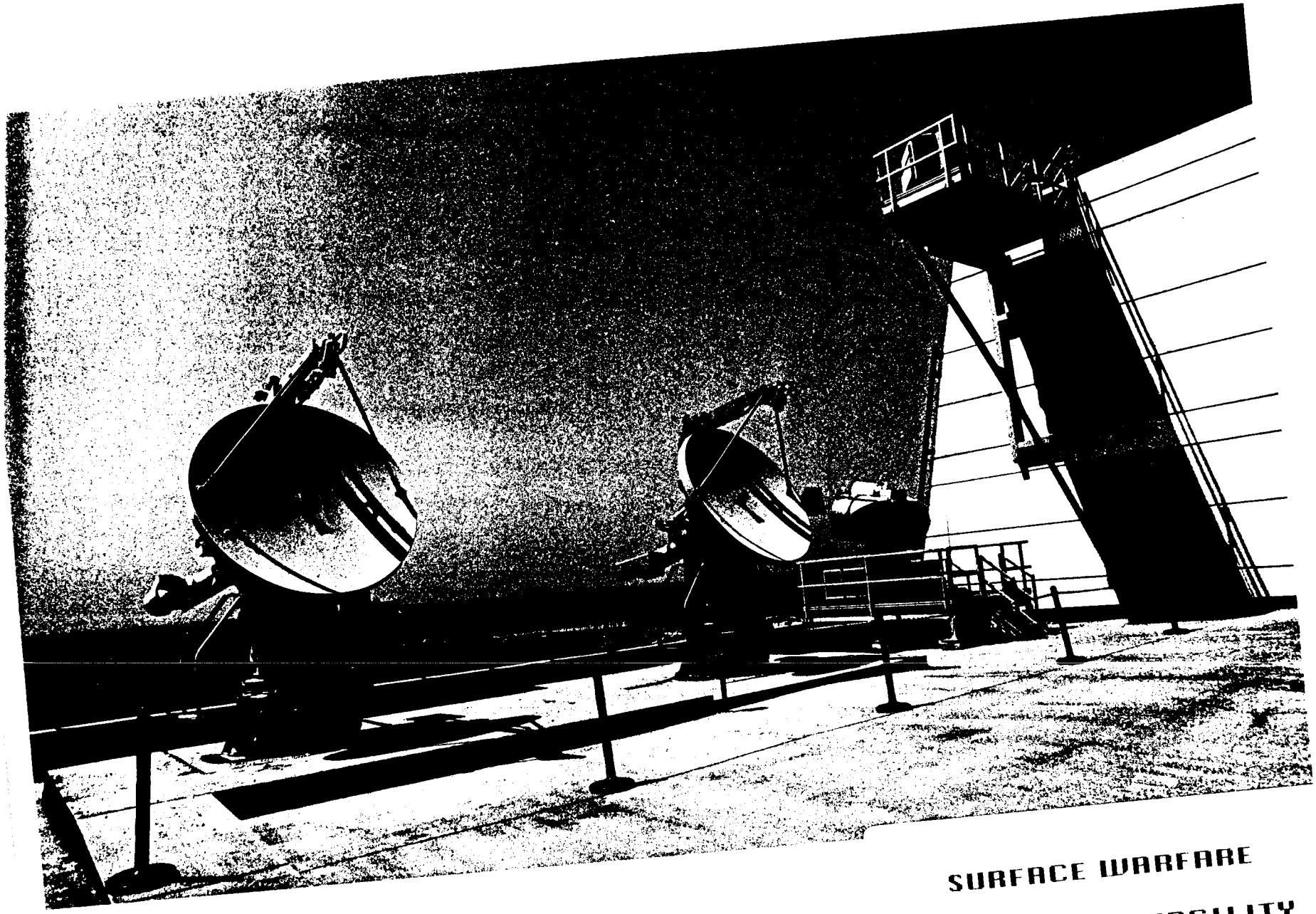
# JOINT CROSS SERVICE GROU

# LABORATORIES DATA CALL

# PHD

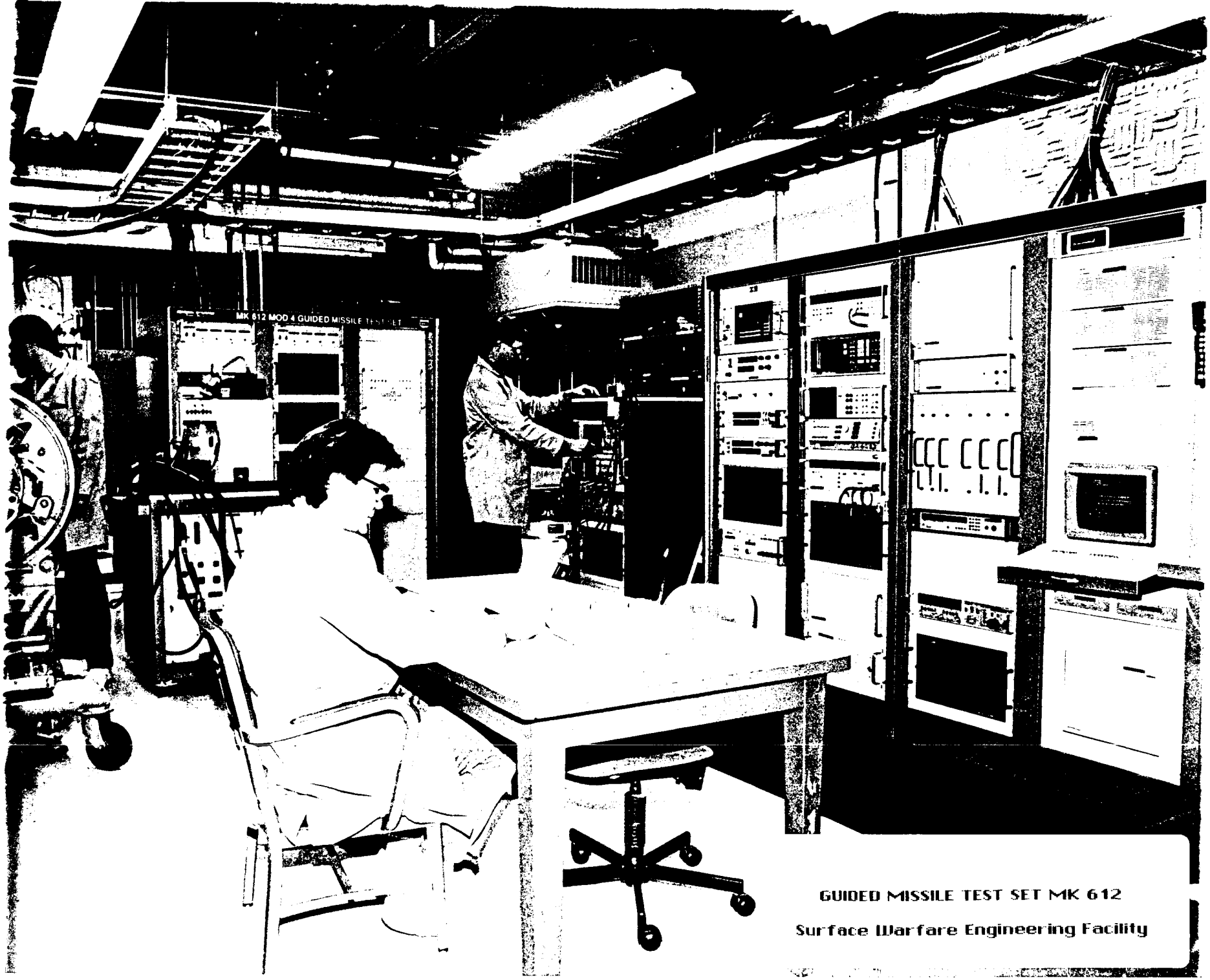
# NSWC

# BRAC DATA CALL TWELVE



SURFACE WARFARE

ENGINEERING FACILITY

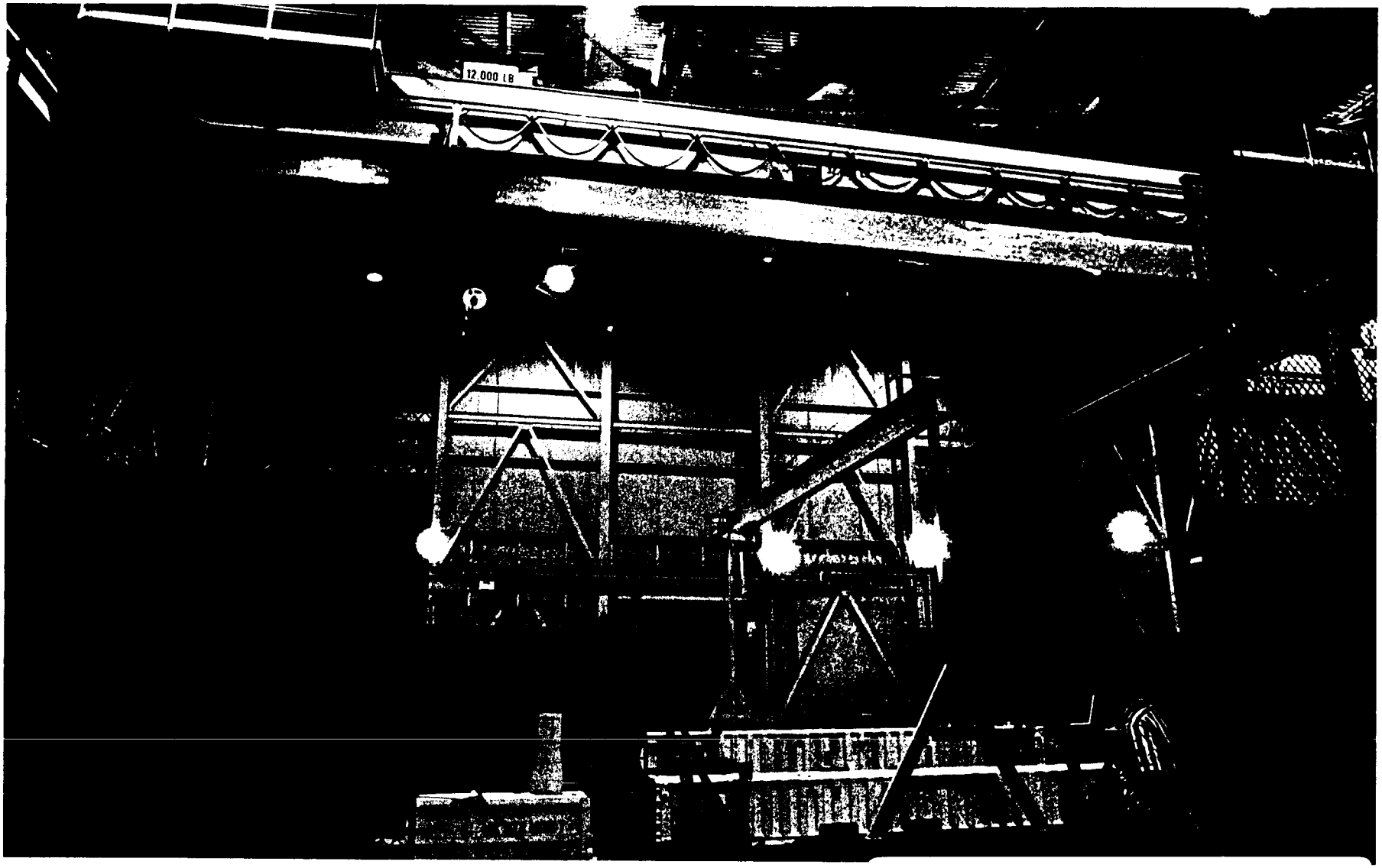



GUIDED MISSILE TEST SET MK 612

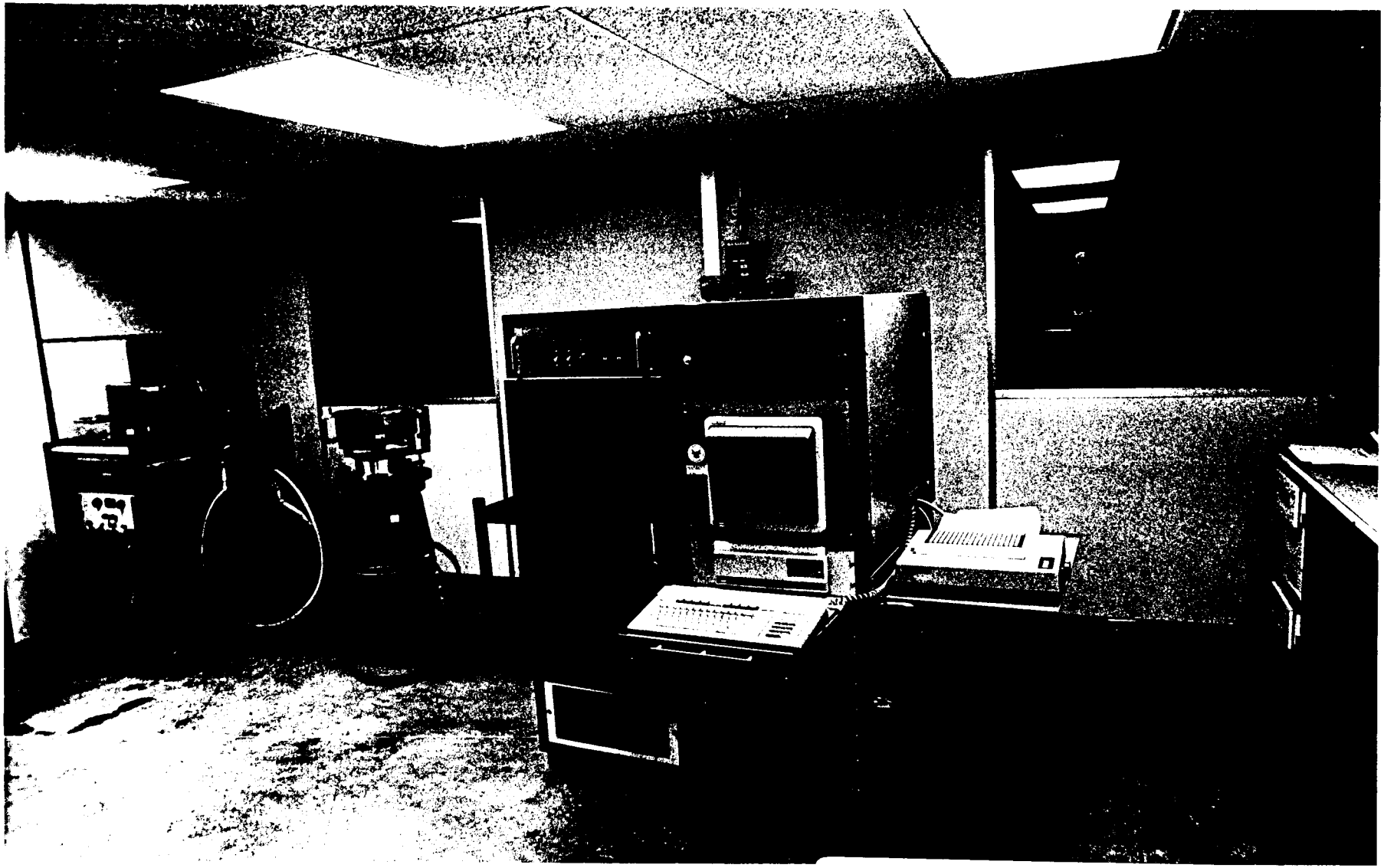
Surface Warfare Engineering Facility

SURFACE WARFARE

ENGINEERING FACILITY




INTERMEDIATEL LEVEL
MAINTENANCE
TRAINING FACILITY



INTERMEDIATEL LEVEL
MAINTENANCE
TRAINING FACILITY

INTERMEDIATEL LEVEL
MAINTENANCE
TRAINING FACILITY

PORT HUENEME DATA CALL #12

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (Sel) D. P. Sargent, Jr.
NAME (Please type or print)

Signature

Commander
Title

6/14/94
Date

Naval Surface Warfare Center
Activity

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

~~NAME (Please type or print)~~

~~Signature~~

~~Title~~

~~Date~~

~~Activity~~

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

G. R. STORNER
NAME (Please type or print)

Signature

Commander
Title Naval Sea Systems Command

7-1-94
Date

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

W. A. EARNER
NAME (Please type or print)

Signature

Title

9/26/94
Date

PORT HUENEME DATA CALL # 12.

# BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

Each individual in your activity generating information for the BRAC-95 process must certify that information. Enclosure (1) is provided for individual certifications and may be duplicated as necessary. You are directed to maintain those certifications at your activity for audit purposes. For purposes of this certification sheet, the commander of the activity will begin the certification process and each reporting senior in the Chain of Command reviewing the information will also sign this certification sheet. This sheet must remain attached to this package and be forwarded up the Chain of Command. Copies must be retained by each level in the Chain of Command for audit purposes.

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

Capt. John Scott Beachy
NAME (Please type or print)

Signature

Commanding Officer
Title

11 June 94
Date

PHD NSWC
Activity

REVISION TO BRAC 95 DATA CALL #12
16 AUG 1994

1. Revise Table 2.1 on page 5 to reflect data for the total activity vice data for that portion of the activity that supports the applicable Common Support Function.

16 AUG 94 REVISION

Port Hueneme Division, Naval Surface Warfare Center
Data Call 12

## BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

Each individual in your activity generating information for the BRAC-95 process must certify that information. Enclosure (1) is provided for individual certifications and may be duplicated as necessary. You are directed to maintain those certifications at your activity for audit purposes. For purposes of this certification sheet, the commander of the activity will begin the certification process and each reporting senior in the Chain of Command reviewing the information will also sign this certification sheet. This sheet must remain attached to this package and be forwarded up the Chain of Command. Copies must be retained by each level in the Chain of Command for audit purposes.

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

Capt. John Scott Beachy
NAME (Please type or print)

Signature

Commanding Officer
Title

17 AUGUST 1994
Date

PHD NSWC
Activity

The information to which this certification pertains is described as follows:

Revision to the Port Hueneme Division BRAC-95 Data Call 12, page 5.

Details of the change described on the attached sheet.

16 AUG 94 REVISION
206

DATA CALL #12
BSAT REVISION
PORT HUENEME

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

NAME (Please type or print

Signature

Title

Date

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (Sel) D. P. Sargent, Jr.
NAME (Please type of print

Signature

Commander
Title

8/19/94
Date

Naval Surface Warfare Center
Activity

In certify that the information herein is accurate and complete to the best of my knowledge and belief.

E. S. McGINLEY, II
Rear Admiral, U.S. Navy

MAJOR CLAIMANT LEVEL

NAME (Please type or print

Signature

ACTING
Title

8/21/94
Date

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

W. A. EARNER
NAME (Please type of print

Signature

Title

8/25/94
Date

206

Revisions to BRAC 95 Data Call #12
19 August 1994

a. Page 13, Table 3.2.2 - Adjust numbers in each cell of Table 3.2.2 by 0 to 3 personnel due to a revision in the determination of which job series were classified as: "Technical", "Management", and "Other".

b. Page 13, Table 3.2.3 - Change entries in each cell of Table 3.2.2 by 0 to 2 personnel due to a revision in the determination of which job series were classified as: "Technical", "Management", and "Other".

c. Page 19, Table 3.4 - Change entry in "Replacement Cost" column, "Secret Compartmentalized Information Facility (SCIF) row from $1,200K to $1,131K. Non durable costs erroneously included in calculation of facility replacement cost.

d. Page 20, Table 3.5.1 - In the "Space Capacity, Current" column, "Building 444" row, change 14.0 to 22.5 and "Building 363" row change 4.2 to 4.1. In the "Space Capacity, Used " column, "Building 363" row change 1.0 to 0.9. In the "Space Capacity, Current" column, "TOTALS" row, change 154.6 to 163.1 In the "space Capacity, Used" column "Totals" row change 95.3 to 95.2. Typographical errors and rounding errors.

19 AUG 94 REVISIONS

Port Hueneme Division, Naval Surface Warfare Center
Data Call 12

## BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

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I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

Capt. John Scott Beachy
NAME (Please type or print)

Signature

Commanding Officer
Title

19 AUG 1994
Date

PHD NSWC
Activity

The information to which this certification pertains is described as follows:

Revision to the Port Hueneme Division BRAC-95 Data Call 12, pages 13, 19, and 20.

Details of the change described on the attached sheet.

19 AUG 94 REVISIONS

DATA CALL # 12
PORT HUENEME SITE

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (Sel) D. P. Sargent, Jr.
NAME (Please type or print)

Signature

Commander
Title

8/23/94
Date

Naval Surface Warfare Center
Activity

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

NAME (Please type or print)

Signature

Title

Date

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

NAME (Please type or print)

Signature

~~G. R. STERNER~~
Title Commander
Naval Sea Systems Command

8/27/94
Date

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

W. A. EARNER

NAME (Please type or print)

Signature

Title

9/1/94
Date

REVISION TO BRAC 95 DATA CALL #12
12 September 1994

a. Page 16, Table 3.3.1.2 - This revision breaks down the Standard Missile work by missile variant in order to reflect the ACAT listing in the Acquisition Program Data Base.

12 SEP 94 REVISION

Port Hueneme Division, Naval Surface Warfare Center
Data Call 65

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

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I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

Capt. John Scott Beachy
NAME (Please type or print)

Signature

Commanding Officer
Title

14 SEPT 1992
Date

PHD NSWC
Activity

The information to which this certification pertains is described as follows:

Revision to the Port Hueneme BRAC-95 Data Call #12, page 16

Additional details of this change described on the attached sheet.

12 SEP 94 REVISION

DATA CALL #12
PORT HUENEME

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (Sel) D. P. Sargent, Jr.
NAME (Please type or print)

Signature

Commander
Title

9/15/94
Date

Naval Surface Warfare Center
Activity

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

~~NAME (Please type or print)~~

~~Signature~~

~~Title~~

~~Date~~

~~Activity~~

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

NAME (Please type or print)
G. R. STERNER

Signature

Commander
Title Naval Sea Systems Command

9/19/94
Date

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

W. A. EARNER
NAME (Please type or print)

Signature

Title

9/19/94
Date

NSWC PTH



# "LAB" JOINT CROSS-SERVICE GROUP GUIDANCE PACKAGE

See Revised Data Call

**Section I: Taskings**
**1.1 Guidelines**
**1.2 Standards**
**1.3 Assumptions**
**1.4 Measures of Merit**
**1.5 Activities**
**1.6 Common Support Functions**

**Section II: Capacity of DOD Components**
**2.1 Workload**
**2.2 Excess Capacity**

**Section III: Capability of Activities to Perform Common Support Functions**
**3.0 Mission**
**3.1 Location**
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**Section IV: Appendices**
**A. Macro Process/Schedule**
**B. List of Activities**
**C. Common Support Functions**

## SECTION I: TASKING

**In accordance with the Deputy Secretary of Defense memorandum dated 7 Jan 94, the Laboratory Joint Cross-Service Group (LJCSG) with DOD components should, where operationally and cost effective, strive to: retain in only one Service militarily unique capabilities used by two or more Services; consolidate workload across the Service to reduce capacity; and assign operational units from more than one Service to a single base. Specifically, the purpose of the LJCSG is:**

- **Determine common support functions and bases to be addressed by LJCSG**
- **Establish guidelines, standards, assumptions, measures of merit, data elements and milestone schedules for DOD Component conduct of cross-service analysis of common support functions**
- **Review excess capacity analysis**
- **Develop closure or realignment alternatives**
- **Analyze cross-service trade-offs**

**The following information identifies to the Services common support functions and data element requirements necessary to support the cross-service analysis of these common support functions.**

### 1.1 Guidelines

**Because the DOD components are organized differently, "Lab" activities are considered to be those involved in the following life cycle efforts: Science and technology, and/or engineering development, and/or in-service engineering.**

**Service missions and force structure will be as stipulated in the FY 1995-2000 Defense Planning Guidance and Interim Force Structure Plan.**

**The Military Departments will use the projected funding in the FY 95 President's Budget Submission (Future Years Defense Plan -- FYDP) and an estimate of funds that will be received from outside the military department for execution.**

**If "lab" excess capacity exists, the Military Departments will start to reduce it where operationally and cost effective through a combination of downsizing in place within the departments, internal service consolidation, and cross service alternatives.**

**The Military Departments will gather, exchange, and analyze data collected per this guidance call for Common Support Functions (Appendix C) at "lab" activities (Appendix B) in accordance with the milestones and schedule dates identified in Appendix A.**

**Cross-service alternatives will result in an aggregate reduction in the overall "lab" infrastructure across the Military Departments -- personnel/funding/facilities and equipment.**

**Common cross-service Measures of Merit will be consistently applied for all cross-service alternatives.**

**Integration of weapon systems/components into operational forces will remain with the individual Military Departments responsible for those forces.**

**1.2 Standards**

**Evaluation of cross-service alternatives will be consistent with PL 101-510 (as amended) and the eight BRAC criteria. Only certified data will be used.**

**The COBRA cost model will be used to calculate estimated costs, estimated savings, and Return on Investment (ROI) of alternatives leading to proposed closures and realignments. Common inputs will be used for Military COBRA runs incorporating cross-service alternatives.**

**Military value analysis will be conducted by the Military Departments IAW Title 10, USC responsibilities.**

**1.3 Assumptions**

**"Lab" Common Support Functions and activities identified herein represent the major opportunities for developing cross-service alternatives. The Military Departments are not precluded from proposing other cross-service alternatives to reduce excess capacity as they assess the full complement of "lab" functions.**

**Previous BRAC decisions will be factored into cross-service alternatives.**

**"Lab" capacity will be based on budgeted workyears. A workyear is considered to be 2080 hours adjusted for time not on the job (e.g. sick leave, annual leave, etc.)**

**1.4 Measures of Merit**

**The following Measures of Merit represent the outcome from the DOD component final realignment and closure recommendations that are supported by the capabilities data which will be gathered by activity and common support function in Section III of this guidance.**

- Reduction of "lab" infrastructure
- Return on investment (COBRA)
- Military value (BRAC criteria 1-4) -- the composite assessment of the quality of the remaining "lab" infrastructure.

## 1.5 Activities

The Military Departments will collect capacity data for each "lab" activity identified in Appendix B. The "lab" activities were selected by considering all individual aggregates of personnel and facilities located at one base, under the same commander, performing predominantly science and technology (S&T), engineering development, and/or in-service engineering work. Small sub-elements of these "lab" activities were included with the activity. Larger sub-elements were broken out and defined as separate activities. The list of activities was then narrowed down to the list in Appendix B based on a joint Military Department assessment of common support functions with cross-service potential.

## 1.6 Common Support Functions

The common support functions (CSFs) were selected as shown in Appendix C based on a joint Military Department assessment of commonalty and cross-servicing potential. Common support functions which were already consolidated and being cross serviced were not included.

Common Support Functions are divided into two categories: product and pervasive. Product functions include all S&T, engineering development, and in-service engineering efforts associated with a product from all funding sources. Pervasive functions <u>only include</u> those efforts that are S&T funded, i.e. Technology Base (6.1)/Exploratory Development (6.2)/Advanced Development (6.3).

## SECTION II: CAPACITY OF DOD COMPONENTS

**2.1 Workload. Use the following table to describe historic and projected workload at each activity in terms of funding and workyears. Assume previous BRAC closures and realignments are implemented on schedule. Projected funding will be derived from FY 95 President's Budget Submission (Then year dollars). Past fiscal year data shall begin with FY 86 or at the inception of the activity as it existed on 1 Oct 93. (BRAC Criteria I & IV)**

| Information Required | Fiscal Years | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 |
| Total Funds Programmed ($M) | 35.9 | 39 | 48 | 36 | 35 | 39 | 33 | 34 | 34 | 32 | 31.1 | 31 |
| Total Actual Funds ($M) | 31.7 | 29 | 36 | 38 | 37 | 39 | 33 | 34 | | | | |
| Programmed Workyears | 82.1 | 86 | 101 | 102 | 153 | 157 | 156 | 143 | 148 | 143 | 136.9 | 132 |
| Actual Workyears | 82.8 | 92 | 115 | 136 | 162 | 156 | 148 | 146 | | | | |

**- Budgeted workyears are the selected indicator of the "lab" infrastructure's capacity at an aggregate level for each Military Department. They include both workyears funded directly by the Military Department and the workyears funded from organizations outside the Military Department.**

**Workyears = government personnel and on-site FFRDCs and SETAs**

**2.2 Excess "Lab" Capacity -- Measured at the DOD Component Level**

**- Excess "Lab" Capacity = Sum of the Peak Workyears - Sum of the Projected Workyears**
**-- Peak at each activity = Highest value between FY 86 (or since inception of organization) and FY93**
**-- Projected at each activity = Estimated at FY97**

**NA**

**SECTION III: CAPABILITY OF ACTIVITIES TO PERFORM COMMON SUPPORT FUNCTIONS (CSFs): Provide the information described for each common support function listed in Appendix C in which you are actively engaged.**

**3.0 Mission: Describe the major capabilities at your activity contributing to the common support function in bulletized format. Describe any relationship and interconnectivity with other functions (common or otherwise) in support of the overall activity mission.**

CSF 2 WEAPONS, CONVENTIONAL MISSILES/ROCKETS

**Key to the Navy's new direction of providing Naval Expeditionary forces operating forward from the sea is the ability to provide defense for own ship as well as for the battle group or joint operating forces. Missile Systems are the primary means of air defense for surface naval forces. Given the increased sophistication of emerging threats and the limited reaction time that a surface combatant has to respond to these threats, it is imperative that the missiles provided to these combatants be reliable and available. As the missile In-Service Engineer, PHD, is the principal government agent responsible for the operational readiness of the missiles provided to the fleet. PHD ensures that missiles are assembled, tested and processed in such a way that reliability design goals are achieved in actual fleet use.**

**In order to fulfill their Expeditionary Mission, Naval forces must be capable of sustaining support for long-term operations. This means that the Missiles supplied to Surface combatants must be sustainable and replenishable over extended periods of time. The integrated logistics support provided by PHD ensures that goal can be met. This capability was demonstrated on numerous occasions during operation Desert Shield and Desert Storm.**

**In-Service Engineering capability was established at NSWC/PHD to support Navy ship-launched missiles after early performance, reliability, and operational deficiencies clearly indicated that generic, separate technical support for the missiles and ship systems was ineffective. One reason missile ISE must be performed in close coordination with that for the rest of the system is that Navy surface missiles have evolved in complexity along with the threat. Performance requirements and the unique Navy mission have produced systems where only a portion of the essential operational functions are contained within the missile airframe; the missile relies on both sensor information and processed data from the ship, and interactively supplies its data to the ship. The very close technical and interoperational facets of missiles and ship equipment, combined with the complexity of the overall system preclude effective missile system operational capability unless the technical work was closely coordinated among the elements of the system. These elements include: the missile itself, search radars, fire control radars, control computers, weapon direction**

**systems, and launching systems.**

**Specific capabilities at PHD NSWC that contribute to the guided missile common support function are:**

- **establishment of performance and production requirements and specifications, particularly as relates to the weapon system;**
- **definition and management of interface requirements, including physical as well as functional compatibility, and allocation among system elements;**
- **establishment and assessment of missile production processes, testing, yields, and reliability;**
- **analysis and assessment of produced and deployed configurations, and maintenance of the configuration data;**
- **conduct of engineering investigation of reported fleet problems and failures, recommending solutions, and implementing corrective action as appropriate;**
- **development of maintenance plans and procedures, including both periodic and non-routine activities;**
- **development and acquisition of intermediate maintenance test systems, including hardware and software;**
- **training and certification of missile assembly and test personnel, including operation and maintenance training on specific special-purpose equipment;**
- **development and maintenance of safety plans and documents;**
- **development and analysis of missile tactical doctrines for surface warfare;**
- **analysis and assessment of on-going performance trends;**
- **technical assessment of the fleet inventory of missiles, including planning and tracking the deployment of various missile configurations and capabilities in accordance with tactical requirements;**
- **transition to production and introduction to the fleet, including both planning and implementation functions;**
- **test and evaluation support for performance enhancements and other missile upgrades.**

**In addition to the functions, the ISE work performed by PHD NSWC is critical to fleet defense because:**

- **PHD is the only direct link between the many elements of the technical community (agencies and contractors) and the fleet user;**
- **PHD provides a continuous technical base for support of ship missile systems, including those which are not longer produced.**
- **With decreasing missile procurement budgets, the fleet inventory is aging, and effective support can only be provided by personnel who have the benefit of "lessons learned" in direct fleet missile system support.**

▪ Consolidation of contractors and resulting realignments have already significantly eroded both the ability and willingness to support all deployed missile configurations.

In each of these functions, the missile ISE task, though intensive and specialized, is part of the interactive chain that includes the other elements of the weapon system. In fact, the integrated missile system support provided by PHD NSWC can be viewed as an early consolidation which was found necessary to maintain a high degree of effectiveness and reliability. Section 3.1.5, provides further discussion of this.

## 3.1 LOCATION

The work of this In-Service Engineering function is primarily performed at Port Hueneme CA in facilities located on the Construction Battalion Center. There are also a small number of technical representatives resident at specific missile maintenance and processing facilities, and test ranges for safety and operation support.

3.1.1 Geographic/Climatological Features: Describe any geographic/climatological features in and around your activity that are relevant to each CSF. Indicate and justify those that are required versus those that just serve to enhance accomplishing the mission of the activity. For example, clear air at high altitude that increases quality of atmospheric, ground-based laser experiments in support of the weapons CSF. (BRAC Criteria I)

PHD NSWC is located in a unique area that enables optimum use of personnel and resources. The port allows both combatants and targets to be fielded directly on the Pacific Missile Range. In addition, the waterfront laboratories have access to both the open ocean and to the Channel Islands, which provide a land background for sensor testing in accordance with the current Navy mission. Indeed, recent test experience has demonstrated that open ocean characteristics as relate to missile performance are imperfectly understood, hence poorly modeled. Actual test data was reburied to optimize the design of modifications to enhance missile performance in particular missions. Thus the availability and use of Navy port facilities located on the same base, and the adjacent location of the Pacific Missile Range are significant assets in enabling PHD to properly support the fleet.

These unique facilities are extensively used for a variety of testing of tactical missiles in the context of the in-service engineering functions. These tests typically include fleet surveillance assessments and evaluation of modifications or enhancements in response to changed mission requirements or observed operational deficiencies.

3.1.2 Licenses & permits: Describe and list the licenses or permits (e.g., environmental, safety, etc.) that your activity currently holds and justify why they are required to allow

**tests, experiments, or other special capabilities at your location for each CSF. For example, permit to store and use high explosives. (BRAC Criteria I)**

**Most of the functions performed in this CSF are normal office and laboratory functions; however, there is authorization for ordnance handling as may intermittently occur for loading missiles on ships at the adjacent (on base) port facilities.**

**3.1.3 Environmental constraints: Describe and list the environmental or land use constraints present at your activity which limit or restrict your current scope for each CSF, i.e., would not allow increased "volume" or "spectrum" for the CSF. Example -- Volume: frequency of a type of experiment. Example -- Spectrum: Current permit to detonate high explosives will not allow detonation or storage of increased quantity of explosives without legal waiver (state law) or relocation of surrounding (non-govt) buildings. (BRAC Criteria II)**

**There are no extraordinary environmental constraints on present or planned activities.**

**3.1.4 Special Support Infrastructure: List and describe the importance of any mission related special support infrastructure (e.g. utilities) present at your location for your activity. (BRAC Criteria I)**

**Two facilities exist which specifically support the CSF:**

**- a waterfront laboratory with installed launchers, radar systems, and test bays used for special evaluations and integration testing;**
**- a training facility which simulates the actual industrial environment (including installed equipment) used for training and certification of missile and ordnance handling personnel, and for development of safety and handling procedures.**

**These are described in section 3.4.1.**

**3.1.5 Proximity to Mission-Related organizations: List and describe the importance and impact of not having nearby organizations which facilitate accomplishing or performing your mission -- e.g. operational units, FFRDCs, universities/colleges, other government organizations, and commercial activities. Restrict your response to the top five. Complete the following: (BRAC Criteria I)**

**One of the critical factors contributing to the impressive performance record of supported missiles is the thorough and integrated approach to performing the**

**ISE function. Due to the highly complex relationships, both physical and functional, between the missile and the other parts of the weapon system, an integrated approach is necessary. At Port Hueneme, the weapon system and combat system personnel are jointly located, contributing not only to the interface coordination, but also a high degree of synergism. Geographic separation would greatly exacerbate the difficulty of timely and accurate exchange of data and information among responsible technical personnel. Frequent consultations not only assure accuracy, but also provide a degree of technical awareness that results in improvements perhaps not evident when considered in isolation. If separated, such ready access and engineering cooperation could not be maintained, even with dramatically higher travel expenditures.**

**The missiles for which ISE support is provided occur in 12 major configurations (with many more variants) and are used on 14 classes of ships with 8 major types of weapon systems. Clearly, close coordination is mandatory in order to assure that a proposed change or enhancement that looks promising in one ship-missile combination, will likewise perform properly in the others.**

**This is particularly true since there is a high degree of integration of sensors and data processing in both the missile and ship system to achieve necessary performance. All elements of the system must share digital data via data channels and command links, and each has some role in interpreting data from elsewhere in the system. Thus the development and modification of system and missile architecture, interfaces, and software must be done with due consideration for the whole system.**

**Furthermore, there are also critical mechanical considerations as regards launching systems, fit in magazines, clearances, safety, and the like. All of these contribute directly to whether the missile will be able to perform its role, yet large portions are outside the specific tasking of the missile CSF.**

**Areas at Port Hueneme which are outside the missile CSF, but which are integral to its success include the following:**

- **Combat Systems Engineering Dept**
- **Aegis Combat Systems Dept**

- Vertical Launching Systems Dept
- Combat Systems Test & Analysis Dept
- Area Defense Systems Dept

All of these organizations are located at Port Hueneme, and have direct interface with the missile ISE functions in the routine course of technical support. Workyears at each of them is typically larger than the direct missile ISE workyear levels.

| Common Support Functions | Name | Type of Organization | Distance | Workyears Performed by Your Activity | Workyears Funded by Your Activity |
|---|---|---|---|---|---|
| 2: WEAPONS: CONVENTIONAL MISSILES/ROCKETS | Combat Systems Engineering Dept | ISE | 6 miles | 146 | (SEE NOTE) |
| 2: WEAPONS: CONVENTIONAL MISSILES/ROCKETS | Aegis Combat Systems Dept | ISE | 100 ft. | 146 | (SEE NOTE) |
| 2: WEAPONS: CONVENTIONAL MISSILES/ROCKETS | Vertical Launching Systems Dept | ISE | .2 miles | 146 | (SEE NOTE) |
| 2: WEAPONS: CONVENTIONAL MISSILES/ROCKETS | Combat Systems Test and Analysis Dept | ISE | .25 miles | 146 | (SEE NOTE) |
| 2: WEAPONS: CONVENTIONAL MISSILES/ROCKETS | Area Defense Systems Dept | ISE | .1 miles | 146 | (SEE NOTE) |

NOTE: Each of these Departments receive direct funding by their sponsors to support Missile/Weapon/Combat System support for surface combatants.

**3.2 Personnel:**

**3.2.1 Total Personnel: What is the total number of government (military and civilian), on-site federally funded research and development center (FFRDC), and on-site system engineering technical assistance (SETA) personnel engaged in science and technology (S&T), engineering development and in-service engineering activities as of end FY93? For individuals that predominantly work in CSFs, involved in more than one CSF, account for those individuals in the CSF that represents the preponderance of their effort. (BRAC Criteria I)**

**CSF 2: Weapons: Conventional Missiles/Rockets**

| Types of Personnel | Number of Personnel | | | |
|---|---|---|---|---|
| | Government | | On-Site FFRDC | On-Site SETA |
| | Civilian | Military | | |
| Technical | 123 | 1 | 0 | 0 |
| Management (Supv) | 23 | 0 | 0 | 0 |
| Other | 22 | 0 | 0 | 0 |

**As seen from the table, the workforce at this in-service engineering activity is primarily civilian due to the highly specialized technical nature of the work performed and the impracticality of continually training newly assigned rotating personnel, as occurs with military. It will be noted in paragraph 3.2.3 that 95% of the personnel have more than 3 years experience. Such in-house expertise is directly reflected in the accurate and timely response to fleet technical needs, provides a baseline from which real improvements can be planned and implemented, and, not least, gives access to the many "unwritten" facts, procedures, and processes which are necessary to the maintenance of readiness on any very complex system.**

**3.2.2 Education: What is the number of government personnel actively engaged in S&T, engineering development and in-service engineering activities by highest degree and type of position? Provide the data in the following table: (BRAC Criteria I)**

| Type of Degree/ Diploma | Number of Government Personnel by Type of Position | | |
|---|---|---|---|
| | Technical | Management (Supv) | Other |
| High School or Less | 33 | 0 | 16 |
| Associates | 4 | 1 | 1 |
| Bachelor | 80 | 14 | 2 |
| Masters | 7 | 7 | 2 |
| Doctorate (include Med/Vet/etc.) | 0 | 1 | 0 |

**NOTE: As expected, the technical and management personnel are well educated (commensurate with the tasking). Furthermore, note that there technical personnel without college degrees. These are personnel who have some college, but whose real value to ISE is that they have developed skills in technical disciplines appropriate to the very specialized nature of the ISE task for Navy tactical missiles. In many cases, the career was started in the Navy, and continued in civilian ISE. Such technical work is required in many facets of missile in-service engineering; these positions are filled by electronics technicians, industrial specialists and equipment specialists.**

**3.2.3 Experience: What is the experience level of government personnel? Fill in the number of government personnel in the appropriate boxes of the following table. (BRAC Criteria I)**

| Type of Position | Years of Government and/or Military Service | | | | |
|---|---|---|---|---|---|
| | Less than 3 years | 3-10 years | 11-15 years | 16-20 years | More than 20 years |
| Technical | 7 | 74 | 14 | 11 | 18 |
| Management (Supv) | 0 | 6 | 2 | 3 | 12 |
| Total | 7 | 80 | 16 | 14 | 30 |

**3.2.4 Accomplishments During FY91-93: For government personnel answer the following questions.**

**3.2.4.1 How many patents were awarded and patent disclosures (only count disclosures with issued disclosure numbers) were made? (BRAC Criteria I)**

| CSF | Disclosures | Awarded | Patent Titles (List) |
|---|---|---|---|
| 2. WEAPONS CONVENTIONAL MISSILES/ROCKETS | NONE | NONE | N/A |
| Total | | | |

**3.2.4.2 How many papers were published in peer reviewed journals? (BRAC Criteria I)**

| CSF | Number Published | Paper Titles (List) |
|---|---|---|
| 2. WEAPONS: CONVENTIONAL MISSILES/ROCKETS | (SEE NOTE) | (SEE NOTE) |
| TOTAL | | |

**NOTE: As defined in the tables for this section, accomplishments result in publication in peer-reviewed journals. Such is reasonably the case for work oriented toward research and development with general application. However, in-service engineering as performed on tactical missile systems by NSWC/PHD is highly specialized and thus applicable primarily to the specific systems being supported. ISE technical publications are not widely distributed outside the community that is responsible for the operation or effectiveness of the particular missile system. A great deal of technical work is documented and published in the form of missile technical and mission performance analysis memoranda and reports, safety and operational plans, test procedures, training texts and support materials, and formal missile technical specifications, requirements and other elements of the missile technical data package.**

**A listing of documents, reports, studies, and the like could be prepared, but would not be useful or comparable to any other such listing. Unlike peer-reviewed open publication, ISE technical publications would have little meaning outside the intended audience or those associated with a particular missile system.**

## 3.3 Workload

### 3.3.1 FY93 Workload

**3.3.1.1 Work Year and Lifecycle: Identify the number of actual workyears executed for each applicable CSF in FY93 for each of the following: government civilian; military; on-site FFRDCs; and on-site SETAs. (BRAC Criteria I)**

**CSF 2: Weapons: Conventional Missiles/Rockets**

| "LAB" | Fiscal Year 1993 Actual | | | |
|---|---|---|---|---|
| | Civilian | Military | FFRDC | SETA |
| Science & Technology | 0 | 0 | N/A | N/A |
| Engineering Development | 0 | 0 | N/A | N/A |
| In-Service Engineering | 146 | 1 | N/A | N/A |

**3.3.1.2 Engineering Development By ACAT: For each Common Support Function (e.g. airborne C4I) at each activity engaged in engineering development, provide:**

- **For each ACAT IC, ID, and II program (as defined in DODI 5000.2):**
  - **The name of the program**
  - **A brief program description**
- **For each ACAT III and IV programs:**
  - **The number of such programs**
  - **A list of program names**
- **For each program not an ACAT I, II, III, IV:**
  - **The number of such programs**
  - **A list of program names**
- **For the purpose of this question, any program between Milestone I and IV and containing demonstration and validation (Dem/Val 6.4)/Engineering and Manufacturing Development (EMD 6.5) funds in the FY95 PBS is considered to be engaged in engineering development (BRAC Criteria I).**

| Engineering Development | Name or Number | Workyears (FY93 Actual) | FY93 Funds Received (Obligation Authority) | Narrative |
|---|---|---|---|---|
| ACAT IC | Standard Missile<br>Vertical Launch<br>ASROC<br>RAM<br>TOMAHAWK<br>STINGER | 146 | $33,839K | Missile In-Service Engineering and Life Cycle Support |
| ACAT ID | N/A | | | N/A |
| ACAT II | N/A | | | N/A |
| ACAT III/IV | N/A | | | N/A |
| Other | N/A | | | N/A |

**3.3.1.3 In-Service Engineering: For each Common Support Function at each activity engaged in-service engineering, list the in-service engineering efforts, the FY93 funds (from all sources) obligated for these efforts, the FY93 workyears for these efforts, and the weapon system(s) supported by these efforts. In-service engineering consists of all engineering support of fielded and/or out of production systems and includes efforts to improve cost, throughput, and schedule to support customer requirements as well as mods and upgrades for reliability, maintainability, and performance enhancements. (BRAC Criteria I).**

**CSF 2: Weapons: Conventional Missiles/Rockets**

| Common Support Functions | In-Service Engineering Efforts (List) | FY93 Actual | | Weapon System(s) Supported |
|---|---|---|---|---|
| | | Funds Received (Obligation Authority) | Workyears | |
| 2. WEAPONS CONVENTIONAL MISSILES/ROCKETS | Life-Cycle Support | $ 2,258K | 9 | VERTICAL LAUNCH ASROC |
| 2. WEAPONS CONVENTIONAL MISSILES/ROCKETS | Life-Cycle Support | $29,826K | 124 | STANDARD MISSILE |
| 2. WEAPONS CONVENTIONAL MISSILES/ROCKETS | Life-Cycle Support | $ 883K | 6 | TOMAHAWK |
| 2. WEAPONS CONVENTIONAL MISSILES/ROCKETS | Life-Cycle Support | $ 712K | 5.5 | RAM |
| 2. WEAPONS CONVENTIONAL MISSILES/ROCKETS | Life-Cycle Support | $ 160K | 1.5 | STINGER |

**3.3.2 Projected Funding**

**The level of funding is expected to be approximately constant; on-going support for Navy tactical missiles is clearly essential to the continued effectiveness as deployed in the fleet. While some missile configuration (and related ship classes) are being retired, many new configurations being introduced. Furthermore, the newer configurations are more complex in both operation and support than the predecessors due to the evolving mission of the Navy. Thus, increasing specialization and more intensive technical knowledge is required to properly assure full performance is achieved in fleet use.**

**3.3.2.1 Direct Funding: For each applicable CSF, identify direct mission funding by appropriation from FY94 to FY97. Use FY95 PBS for FY95-FY97. (BRAC Criteria I)**

CSF 2: Weapons: Conventional Missiles/Rockets

| CSF | FY94 (K$) | FY95 (K$) | FY96 (K$) | FY97 (K$) |
|---|---|---|---|---|
| WPN | 11.3 | 9.0 | 9.7 | 9.3 |
| RDT&E | 4.1 | 1.7 | 1.7 | 1.6 |
| OMN | 4.7 | 6.0 | 4.9 | 5.2 |
| FMS | 1.0 | 2.9 | 3.2 | 3.4 |
| PRIVP | 0.2 | 0.3 | 0.2 | 0.3 |
| GRAND TOTAL | 21.3 | 19.9 | 19.7 | 19.8 |

3.3.2.2 Other Obligation Authority: For each applicable CSF, identify reimbursable and direct-cite funding (other obligation authority expected) from FY94 to FY97. Funding allocation must be traceable to FY95 PBS. (BRAC Criteria I)

| CSF | FY94 (K$) | FY95 (K$) | FY96 (K$) | FY97 (K$) |
|---|---|---|---|---|
| 2. WEAPONS CONVENTIONAL MISSILE/ROCKETS | 33.8 | 31.8 | 31.1 | 31.0 |

3.4 Facilities and Equipment

The missile in-service engineering CSF is performed in portions of two office/laboratory buildings, and two specialized facilities. Data in the tables are pro-rata according to the portion of the facility dedicated to the CSF.

| Common Support Function | Major Facility or Equipment Description | Unique To | | | Replacement Cost ($K) |
|---|---|---|---|---|---|
| | | DOD | Federal Gov't | U. S. | |
| 2: Weapons: Conventional Missiles/Rockets | Surface Warfare Engineering Facility (SWEF) | X | | | 18,900 |
| 2: Weapons: Conventional Missiles/Rockets | Intermediate Level Maintenance and Training Facility | X | | | 9,900 |
| 2: Weapons: Conventional Missiles/Rockets | Secret* Compartmentalized Information Facility (SCIF) | X | | | 1,200 |

* Total of three SCIF areas: Two in use and one under construction

Revised pg



**3.4 Facilities and Equipment**

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*** Total of three SCIF areas: Two in use and one under construction**

**3.4.1 Major Equipment and Facilities: Describe major facilities and equipment necessary to support each Common Support Function (include SCIFs). If the facilities and equipment are shared with other functions, identify those functions and the percentage of total time used by each of the functions. Provide labeled photographs that picture the breadth and scope of the equipment and facilities described. If it is unique to DOD, to the Federal Government, or to the US, describe why it is unique. Insert the replacement cost. For this exercise, Replacement cost = (Initial cost + capital investment) multiplied by the inflation factor for the original year of construction. (BRAC Criteria II)**

**Building 1384 is the Surface Warfare Engineering Facility (SWEF). The SWEF houses fully operational and tactically configured weapon suites used to provide the in-service engineering, system integration, test and evaluation, research and development, special training, and computer program maintenance required to support the missiles, weapons and combat systems of the surface fleet. Installed systems at the SWEF include: a complete Self Defense system consisting of the NATO SeaSparrow Surface Missile System Mk 57 Mod 2, Target Acquisition System Mk 23, AN/SLQ-32(V)2 Electronic Support Measures System, AN/SAR-8 Infrared Search and Target Detection System, MK 86 Gun Fire Control System , MK 92 Gun/Missile Fire Control System, Tomahawk Weapon System, Harpoon Weapon System, Tartar New Threat Upgrade Weapon System, RAM Guided Missile Weapon System, and the associated radars and launching systems, a MK 41 Vertical Launch System (VLS), a Mk 13 Guided** R R

Revised pg



Missile Launching System and a Standard Missile Test Lab. This facility has the capability to integrate elements of many different weapons systems and to exercise those systems in a realistic environment in order to investigate engineering solutions, evaluate new development programs including both hardware and software upgrades, validate computer programs, prove-in maintenance procedures, resolve fleet documentation and technical manual problems, trouble shoot systems and hardware, and train fleet personnel, in-service engineers and contractor field service representatives. R

The SWEF is a shared use facility where systems are employed in a variety of configurations that accommodate any level of in-service support from equipment level to combat system level. The portion of this facility that supports the Missiles Common Support Function, are the Missile Test Lab, and the installed Missile Fire Control Systems and Sub Systems. The Missile Test Lab houses the MK 612 Mod 4 Guided Missile Test Set, which is made up of 16 interlinked test consoles, and is permanently installed in an environmentally controlled secure area. The test set is supported by a variety of ancillary equipment as well as special and general purpose test equipment required for repair and calibration. The Missile Test Lab is used to support special tests and for development and proofing of Navy field support and test equipment procedures. This lab is used exclusively to support the Missiles Common Support Function and is not shared with other functions.

The Missile Systems and Sub Systems installed in the SWEF that support the Missile Common Support Function include: NATO SeaSparrow Surface Missile System Mk 57 Mod 2, Target Acquisition System Mk 23, MK 92 Gun/Missile Fire Control System , Tartar New Threat Upgrade Weapon System, RAM Guided Missile Weapon System, MK 41 Vertical Launch System (VLS), and Mk 13 Guided Missile Launching Systems. Although available for shared use in missile tests and investigations, these systems are primarily used to support Weapon System In-Service Engineering. An estimate of the percentage of total time that these systems are used to support missile systems and the percentages that they are used to support other functions is provided below:

| | |
|---|---|
| 10% | Missile In-Service Engineering |
| 5% | Surface Ship Combat System In-Service Engineering |
| 70% | Surface Ship Weapon System In-Service Engineering |
| 5% | Combat and Weapon System Test and Evaluation |
| 10% | Combat and Weapon System Operational and Maintenance Training |

Building 1392 houses the Intermediate Level Maintenance Training Facility. This missile facility is used for development of field procedures related to handling and assembly of the missile, including certification of the field personnel from other activities and contractors for work on live ordnance. The training is specific to supported missile configurations, and uses inert versions of actual missile hardware as well as duplicate field handling and assembly tools and fixtures. The Intermediate Level Maintenance Training Facility is used exclusively to R

**3.4.1 Major Equipment and Facilities: Describe major facilities and equipment necessary to support each Common Support Function (include SCIFs). If the facilities and equipment are shared with other functions, identify those functions and the percentage of total time used by each of the functions. Provide labeled photographs that picture the breadth and scope of the equipment and facilities described. If it is unique to DOD, to the Federal Government, or to the US, describe why it is unique. Insert the replacement cost. For this exercise, Replacement cost = (Initial cost + capital investment) multiplied by the inflation factor for the original year of construction. (BRAC Criteria II)**

**Building 1384 is the Surface Warfare Engineering Facility. This incorporates both equipment identical to that installed aboard ship, as well as special purpose missile ground support equipment. In the context of the missile ISE function, the Guided Missile Test Set Mk 612 is installed there for the purpose of supporting special tests and for development and proofing of Navy field support and test equipment and procedures. As can be seen from the table, the amount of equipment involved in the ISE activities here is significant. The specific activity related to missile ISE uses approximately 10% of the facility, on a square footage basis. The other portions of the building contain the radars, computers, and other ship equipment used by the organizations listed in section 3.1.5. It is thoroughly documented in other papers that this facility is the only one of its kind in the Navy for support of the surface fleet.**

**Building 1392 houses the Intermediate Level Maintenance Training Facility. This missile facility is used for development of field procedures related to handling and assembly of the missile, including certification of the field personnel from other activities and contractors for work on live ordnance. The training is specific to supported missile configurations, and uses inert versions of actual missile hardware as well as duplicate field handling and assembly tools and fixtures.**

**The Secret Compartmentalized Information Facility (SCIF) areas provide the required degree of isolation and limited access, along with the infrastructure appropriate to the program use.**

## 3.5 Expansion Potential

**Because of the close relationship with the other technical functions comprising the overall weapon system, the figures shown are actual only. Facilities and buildings are generally shared with these other functions. The exact amount of potential for expansion is thus linked to the requirements of the other users of the facilities. It is reasonable to assume that expansion on the order to 20% could be accommodated with tasking as forecast.**

Revised pg



support the Missile Common Support Function and is not shared with any other functions. R

The Secret Compartmentalized Information Facility (SCIF) areas provide the required degree of isolation and limited access, along with the infrastructure appropriate to the program use. The SCIF is used to support several technical functions. It is estimated that the percentage of time the SCIF is used to support each function is as shown below:

5% Sensors and Surveillance Systems
55% Surface Ship Weapon System
33% Surface Ship Combat Systems
7% Weapons: Conventional Missiles/Rockets R

## 3.5 Expansion Potential

Because of the close relationship with the other technical functions comprising the overall weapon system, the figures shown are actual only. Facilities and buildings are generally shared with these other functions. The exact amount of potential for expansion is thus linked to the requirements of the other users of the facilities.

### 3.5.1 Laboratory Facilities: Use facilities records as of fourth-quarter FY93 in answering the following (in sq. ft) for each CSF: (BRAC Criteria II)

| Common Support Function | Facility or Equipment Description | Type of Space* | Space Capacity (KSF) | | |
|---|---|---|---|---|---|
| | | | Current | Used | Excess |
| 2: Weapons: Conventional Missiles/Rockets | BLDG 5 | Admin/Technical | 13 | 0 | 13 |
| " | BLDG 7 | Admin/Technical | 14.0 | 7 | 7.0 |
| " | BLDG 444 | Admin/Technical | 14.0 | 5.1 | 8.9 |
| " | BLDG 363 | Admin/Technical | 4.2 | 1 | 3.2 |
| " | BLDG 363-1 | Admin/Technical | 2.2 | 0.3 | 1.9 |
| " | BLDG 1229 | Admin/Technical | 1.5 | 0.5 | 1.0 |
| " | BLDG 1215 | Admin/Technical | 8.3 | 0 | 8.3 |
| " | BLDG 1214 | Admin/Technical | 8.5 | 0 | 8.5 |
| " | BLDG 1387 | Admin/Technical | 88.9 | 72.9 | 16.0 |
| TOTALS | - | - | 154.6 | 86.8 | 67.8 |

* Administrative, Technical, Storage, Utility

NOTE: The buildings listed above are the Port Hueneme Site buildings that currently have excess capacity. Collectively they represent but a fraction of the 812.3K SQ FT of class 2 assets occupied by PHD.

**3.5.1 Laboratory Facilities: Use facilities records as of fourth-quarter FY93 in answering the following (in sq. ft) for each CSF: (BRAC Criteria II)**

| Common Support Function | Facility or Equipment Description | Type of Space* | Space Capacity (KSF) | | |
|---|---|---|---|---|---|
| | | | Current | Used | Excess |
| 2: Weapons: Conventional Missiles/Rockets | BLDG 5 | Admin/Technical | 13 | 7.0 | 13 |
| " | BLDG 7 | Admin/Technical | 14.0 | 5.1 | 7.0 |
| " | BLDG 444 | Admin/Technical | 14.0 | 1 | 8.9 |
| " | BLDG 363 | Admin/Technical | 4.2 | 0.3 | 3.2 |
| " | BLDG 363-1 | Admin/Technical | 2.2 | 0.5 | 1.9 |
| " | BLDG 1229 | Admin/Technical | 1.5 | 0 | 1.0 |
| " | BLDG 1215 | Admin/Technical | 8.3 | 0 | 8.3 |
| " | BLDG 1214 | Admin/Technical | 8.5 | 0 | 8.5 |
| " | BLDG 1387 | Admin/Technical | 88.9 | 72.9 | 16.0 |
| TOTALS | - | - | 154.6 | 86.8 | 67.8 |

*** Administrative, Technical, Storage, Utility**

**NOTE: The buildings listed above are the Port Hueneme Site buildings that currently have excess capacity. Collectively they represent but a fraction of the 812.3K SQ FT of class 2 assets occupied by PHD.**

**3.5.1.1 Describe the capacity of your activity to absorb additional similar workyears categorized in the same common support function with minor facility modification. If major modification is required, describe to what extent the facilities would have to be modified. (Use FY97 workyears as your requirement) (BRAC Criteria III)**

**There are competing demands for the 67.8K sq ft of excess capacity available at the PHD site. However were that entire space to be made available for an office/laboratory complex suitable for missile support it is reasonable to expect that the station could accommodate an expansion of up to 452 missile engineering personnel with minor facility modifications.**

**3.5.1.2 If there is capacity to absorb additional workyears, how many additional workyears can be supported? (BRAC Criteria III)**

**N/A**

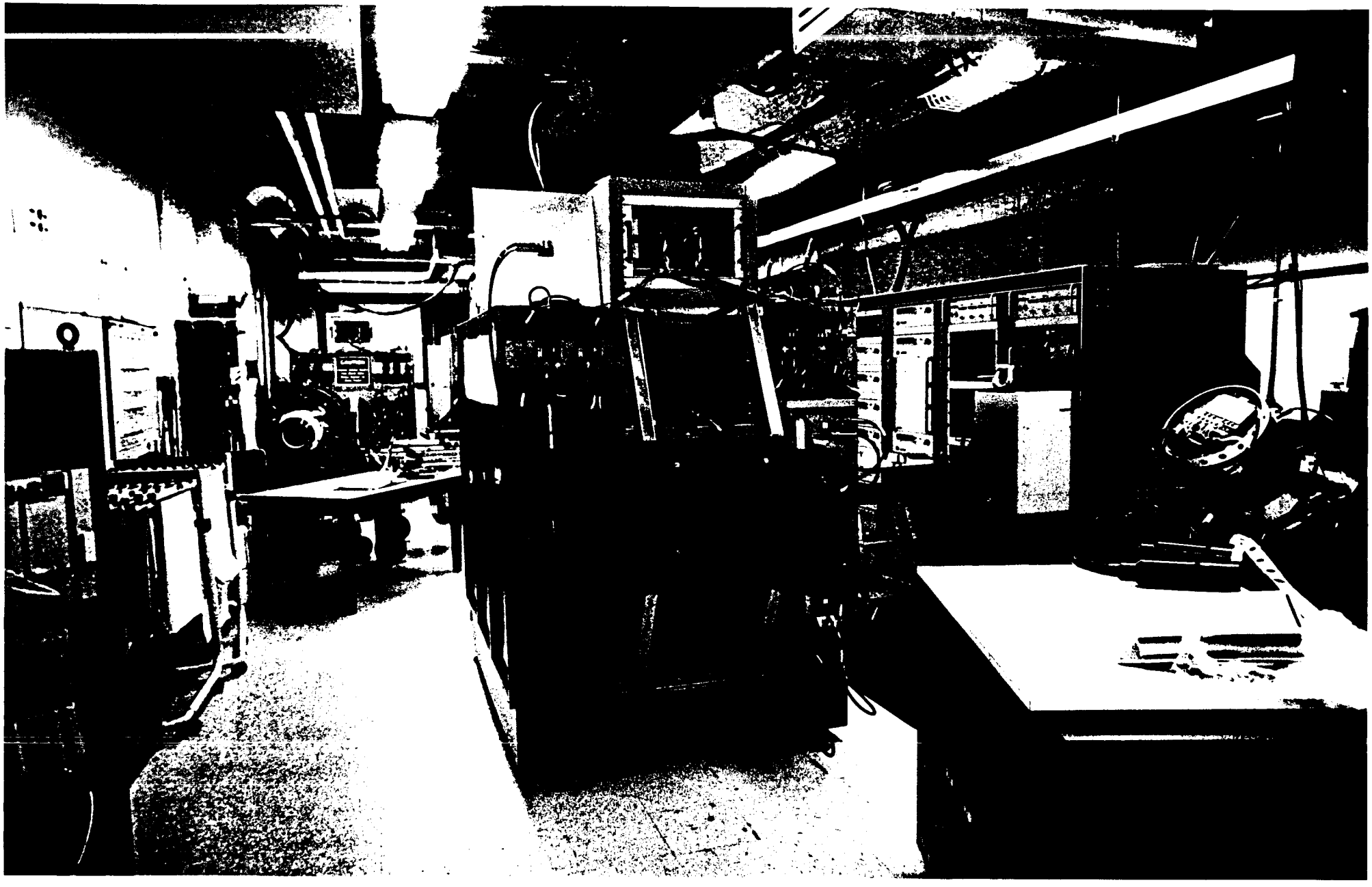
**3.5.1.3 For 3.5.1.1 and 3.5.1.2 (above) describe the impact of military construction programs or other alteration projects programmed in the FY95 PBS. (BRAC Criteria II)**
**None**

**3.5.2 Land Use: Provide number of buildable acres for additional laboratory/administrative support construction at your installation. (BRAC Criteria II)**

**Number of buildable acres for additional laboratory/administrative support construction at this installation is 37, with 27 identified for R&D and 10 for supply and storage. The supply and storage acreage consists of two five acre parcels. The R&D acreage includes a 10 and a 17 acre parcel. The latter parcel includes a petroleum tank farm already scheduled for demolition. Additional environmental dollars would speed up the remediation process. All four parcels are contiguous to land we currently control.**

**3.5.3 Utilities: Provide an estimate of your installation's capability to expand or procure additional utility services (electric, gas, water). Estimates should be provided in appropriate units -- e.g. KWH of electricity. (BRAC Criteria II)**

**Additional utility capacity is not a problem and would be obtained from the host complex or commercial sources as necessary**

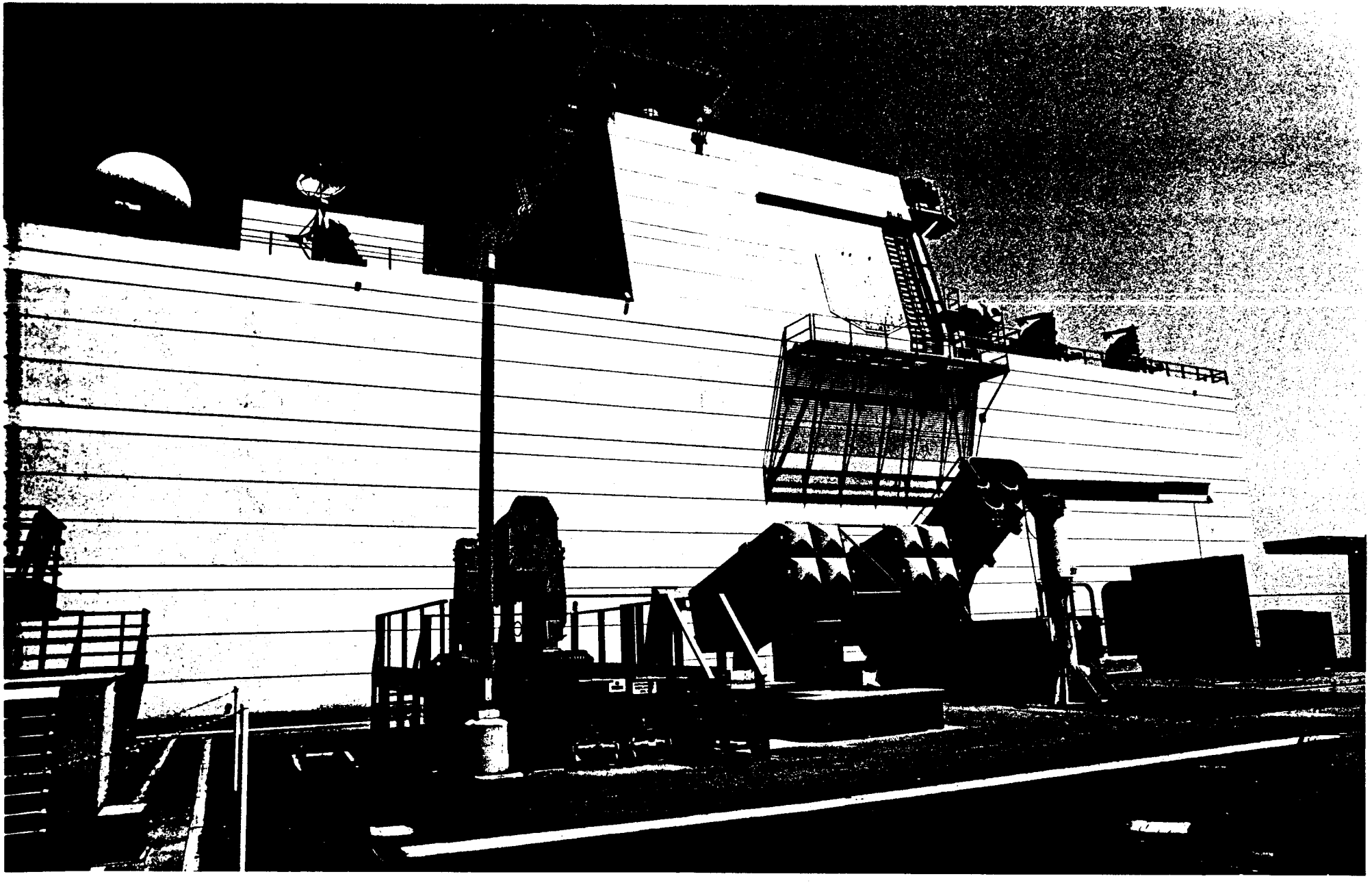


# Missile Test Set

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994

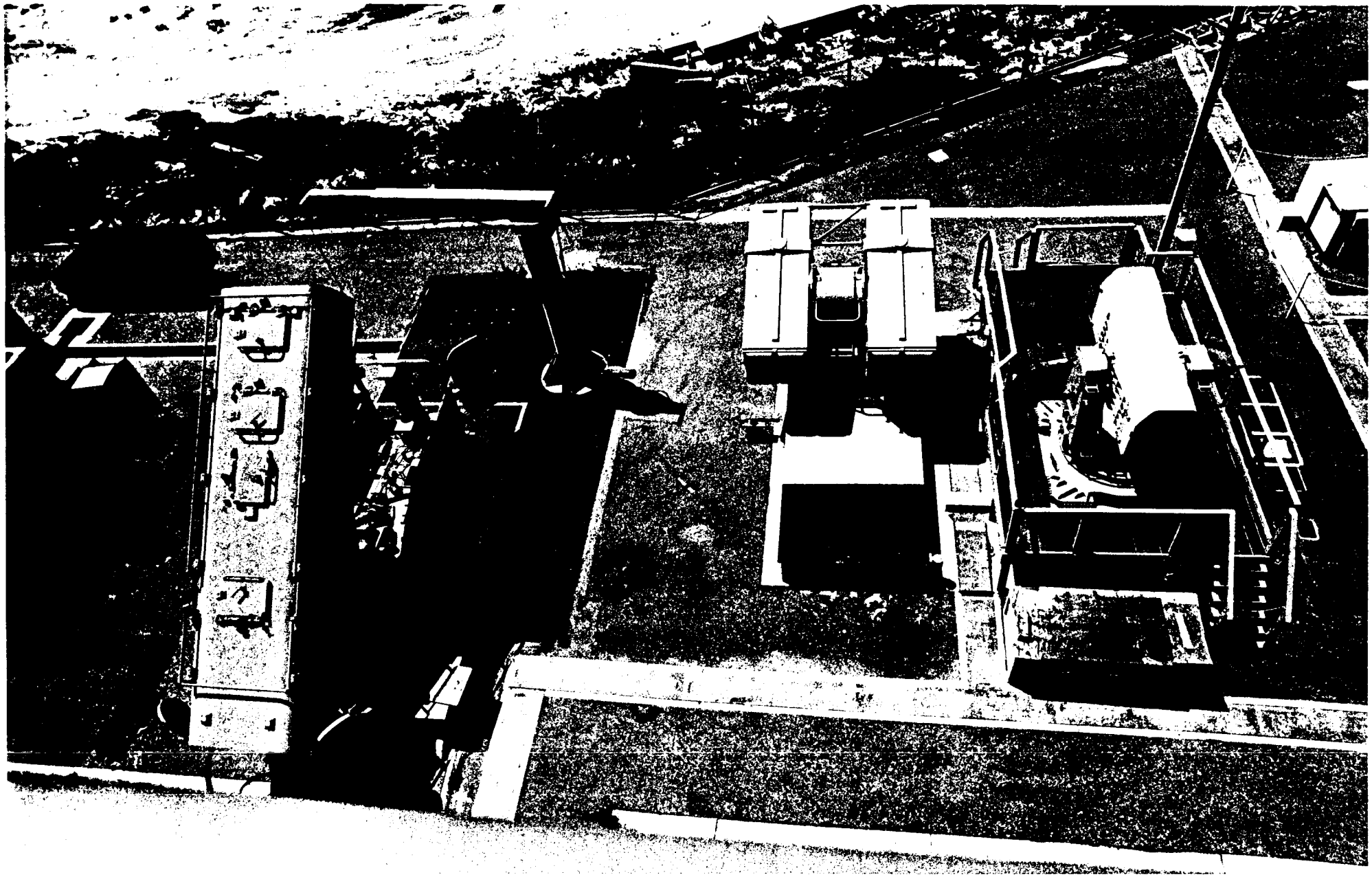
# Surface Warfare Engineering Facility

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994



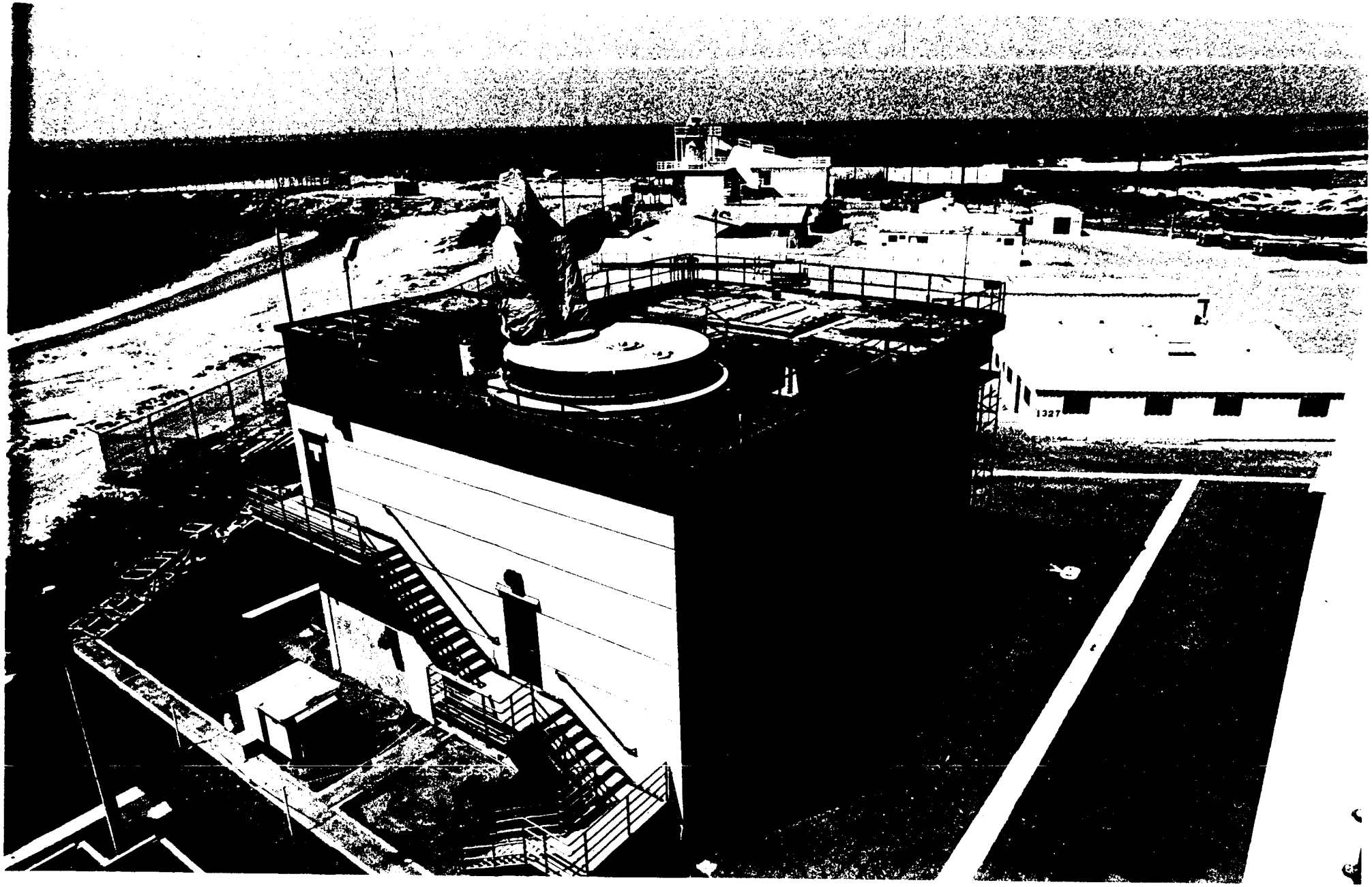
# SWEF Launchers and Antennas

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994



# Launchers: Tomahawk ABL, Nato Sea Sparrow and RAM

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994



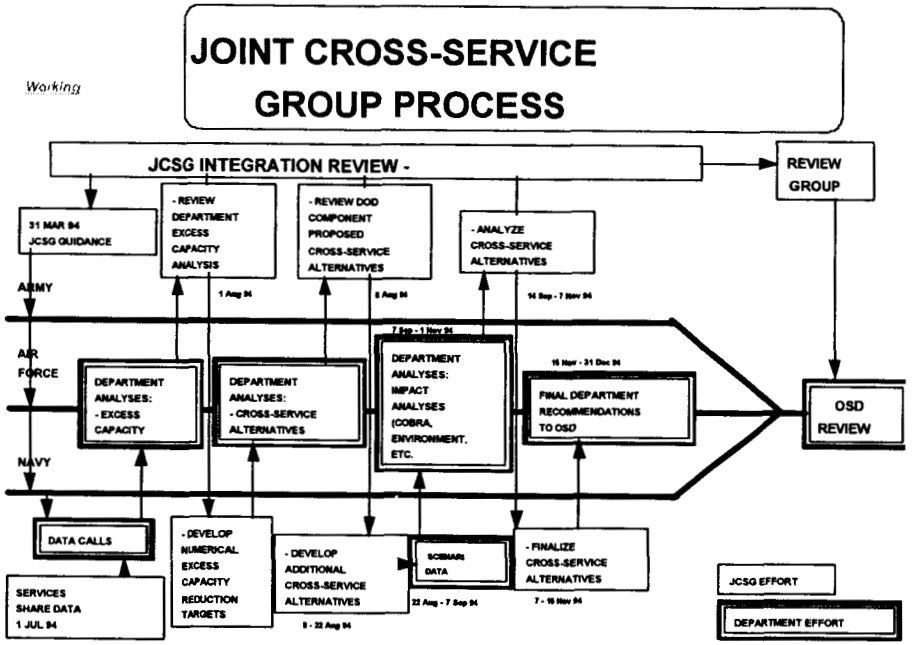
# MK 13 and MK 41 VLS Launchers

Port Hueneme Division
Naval Surface Warfare
Center 4 May 1994

## SECTION IV: APPENDICES

**A. Macro Process/Schedule**
**B. List of Activities**
**C. Common Support Functions**

# APPENDIX A


JOINT CROSS-SERVICE
GROUP PROCESS
Working
JCSG INTEGRATION REVIEW -
REVIEW GROUP
31 MAR 94 JCSG GUIDANCE
- REVIEW DEPARTMENT EXCESS CAPACITY ANALYSIS
- REVIEW DOD COMPONENT PROPOSED CROSS-SERVICE ALTERNATIVES
- ANALYZE CROSS-SERVICE ALTERNATIVES
ARMY
AIR FORCE
NAVY
DEPARTMENT ANALYSES: - EXCESS CAPACITY
DEPARTMENT ANALYSES: - CROSS-SERVICE ALTERNATIVES
DEPARTMENT ANALYSES: IMPACT ANALYSES (COBRA, ENVIRONMENT, ETC.
FINAL DEPARTMENT RECOMMENDATIONS TO OSD
OSD REVIEW
DATA CALLS
SERVICES SHARE DATA 1 JUL 94
- DEVELOP NUMERICAL EXCESS CAPACITY REDUCTION TARGETS
- DEVELOP ADDITIONAL CROSS-SERVICE ALTERNATIVES
SCENARI DATA
- FINALIZE CROSS-SERVICE ALTERNATIVES
JCSG EFFORT
DEPARTMENT EFFORT

## APPENDIX B

## LIST OF ACTIVITIES

### AIR FORCE

1. Armstrong Lab, Brooks AFB
2. Armstrong Lab, Tyndall AFB
3. Armstrong Lab, Wright-Patterson AFB
4. Armstrong Lab, Williams AFB
5. Human Systems Center, Brooks AFB
6. Wright Lab, Wright-Patterson AFB
7. Wright Lab, Eglin AFB
8. Aeronautical Systems Center, Wright-Patterson AFB
9. Aeronautical Systems Center, Eglin AFB
10. Oklahoma City Air Logistics Center, Tinker AFB (In-service engineering)
11. Ogden Air Logistics Center, Hill AFB (In-service engineering)
12. San Antonio Air Logistics Center, Kelly AFB (In-service engineering)
13. Sacramento Air Logistics Center, McClellan AFB (In-service engineering)
14. Warner-Robins Air Logistics Center, Robins AFB (In-service engineering)
15. Phillips Lab, Kirtland AFB
16. Phillips Lab, Hanscom AFB
17. Phillips Lab, Edwards AFB
18. Space & Missile Center, Los Angeles AFB
19. Space & Missile Center, Norton AFB
20. Sacramento Air Logistics Center, Peterson AFB
21. Rome Lab, Griffiss AFB
22. Rome Lab, Hanscom AFB
23. Electronic Systems Center, Hanscom AFB
24. Sacramento Air Logistics Center, Peterson AFB (In-service engineering)

### ARMY

1. Army Research Lab (ARL), Adelphi, MD
2. ARL, Aberdeen Proving Grounds (APG), MD
3. ARL, White Sands Missile Range, NM
4. ARL, NASA Langley, VA
5. ARL, NASA Lewis, OH
6. Natick Research, Development and Engineering Center, Natick, MA
7. Aviation Research, Development and Engineering Center, St Louis, MO
8. Aviation Troop Command, Aeroflight Dynamics Directorate, Moffitt Field, CA

9. Aviation Troop Command, Aviation Applied Technology Directorate, Fort Eustis, VA
10. Edgewood Research, Development and Engineering Center, Aberdeen Proving Ground, MD
11. Communications Electronics Command Research, Development and Engineering Center, Ft Mammoth, NJ
12. Communication Electronics Command Research, Development and Engineering Center - Night Vision EO Directorate, Ft Belvoir, VA
13. Missile Research, Development and Engineering Center, Redstone Arsenal, AL
14. Armaments Research, Development and Engineering Center, Picatinny Arsenal, NJ
15. Armaments Research, Development and Engineering Center, Benet Labs, Watervliet Arsenal, NY
16. Tank-Automotive Command Research, Development and Engineering Center, Warren, MI
17. USA Research Institute of Infectious Diseases, Ft Detrick, MD
18. Walter Reed Army Institute of Research, Washington D.C.
19. USA Institute of Surgical Research, Ft Sam Houston, TX
20. USA Aeromedical Research Lab, Ft Rucker, AL
21. Medical Research Institute of Chemical Defense Aberdeen Proving Grounds, MD
22. USA Research Institute of Environmental Medicine, Natick, MA
23. Construction Engineering Research Laboratory, Champaign, IL
24. Cold Regions Research and Engineering Lab, Hanover, NH
25. Topographic Engineering Center, Alexandria, VA
26. Waterways Experiment Station, Vicksburg, MS
27. USA Research Institute for Behavioral & Social Sciences, Alexandria, VA
28. Simulation, Training and Instrumentation Command (STRICOM), Orlando, FL

## NAVY

1. Naval Air Warfare Center, Weapons Division, China Lake
2. Naval Air Warfare Center, Weapons Division, Point Mugu
3. Naval Air Warfare Center, Aircraft Division, Patuxent River
4. Naval Air Warfare Center, Aircraft Division, Indianapolis
5. Naval Air Warfare Center, Aircraft Division, Lakehurst
6. Naval Research Lab, Washington D.C.
7. Naval Research Lab Detachment, Bay St Louis
8. Naval Surface Warfare Center, Carderock Division, Bethesda
9. Naval Surface Warfare Center, Carderock Detachment, Annapolis
10. Naval Surface Warfare Center, Crane Division
11. Naval Surface Warfare Center, Crane Detachment, Louisville
12. Naval Surface Warfare Center, Dahlgren Division
13. Naval Surface Warfare Center, Dahlgren Detachment, Panama City

14. Naval Surface Warfare Center, Indian Head Division
15. Naval Surface Warfare Center, Port Hueneme Division
16. Naval Command, Control, and Ocean Surveillance Center, RDT&E Division, San Diego
17. Naval Command, Control, and Ocean Surveillance Center, In-Service Engineering, West Coast Division, San Diego
18. Naval Command, Control, and Ocean Surveillance Center, In-Service Engineering Division, Charleston
19. Naval Aerospace Medical Research Center, Pensacola
20. Naval Biodynamics Lab, New Orleans
21. Naval Dental Research Lab, Great Lakes
22. Naval Health Research Center, San Diego
23. Naval Medical Research Institute, Bethesda
24. Naval Undersea Warfare Center, Keyport Division, WA
25. Naval Surface Warfare Center, Carderock, Philadelphia Detachment
26. Naval Undersea Warfare Center, Newport, RI
27. Naval Undersea Warfare Center (Newport), New London, CT
28. Naval Personnel Research and Development Center, San Diego, CA

## DEPARTMENT OF DEFENSE

1. Armed Forces Radiobiology Research Institute (AFRRI), Bethesda, MD

## APPENDIX C

## COMMON SUPPORT FUNCTIONS
## (DEFINITIONS LISTED FOLLOWING PAGES)

**Product Functions**

1. **Air Vehicles**
   - **Fixed**
     - -- **Structure**
     - -- **Propulsion**
     - -- **Avionics**
     - -- **Flight Subsystems**
   - **Rotary**
     - -- **Structure**
     - -- **Propulsion**
     - -- **Avionics**
     - -- **Flight Subsystems**

2. **Weapons**
   - **ICBMs/SLBMs**
   - **Conventional Missiles/Rockets**
   - **Cruise Missiles**
   - **Guided Projectiles**
   - **Bombs**
   - **Guns and Ammunition**
   - **Directed Energy**
   - **Chemical/Biological**

3. **Space Systems**
   - **Launch Vehicles**
   - **Satellites**
   - **Ground Control Systems**

4. **C4I Systems**
   - **Airborne C4I**
   - **Fixed Ground-Based C4I**
   - **Ground Mobile C4I**

**Pervasive Functions**

1. **Electronic Devices**
2. **Environmental Sciences**
3. **Infectious Diseases**
4. **Human Systems**
5. **Manpower and Personnel**
6. **Training Systems**
7. **Environmental Quality**
8. **Advanced Materials**

## DEFINITIONS

## COMMON SUPPORT FUNCTIONS

### Product Functions

1. Air Vehicles. Air vehicles are broken out into common support functions for fixed wing and rotary wing. Includes but not limited to all science and technology, demonstration and validation, engineering development, and production activities which support employment and in-service engineering of air vehicles. Included are all air vehicles including their application as UAV's and targets.

- Structures. Includes but not limited to all air vehicles structure technology, engineering and production efforts. Include technology and engineering practices which advance structural design and analysis; advanced structural concepts and fabrication techniques; and structural integrity.

- Propulsion. Includes but not limited to all technology, engineering and production efforts associated with air vehicle propulsion such as turbine engine, rotorcraft power drive, and hypersonic propulsion components. Such components include compressors, inlets and nozzles, turbines, mechanical systems and control, gears, bearings, shafts, and clutches. In addition, include associated subsystems activities such as turborocket, turboramjet and rotorcraft transmissions; and supporting technical and engineering disciplines.

- Avionics. Includes but not limited to all technology, engineering and production efforts associated with the air platform's integrated avionics system. The avionics suite includes but is not limited to weapon delivery systems, electronic warfare, navigation, communications, radar, electro-optic sensors, signal/data processing and associated software system and support. Includes efforts associated with developing the integrated avionics system (i.e. optimizing functional partitioning, distribution and integration of avionics/related functions).

- Flight Subsystems. Includes but not limited to all technology, engineering and production efforts for air vehicle support systems such as landing gear; transparent crew enclosures; egress systems; mechanical equipment integrity; electrical component integrity; subsystem integration; and aircraft power, pressurization, and temperature control systems.

2. Weapons. Includes but not limited to all science and technology, demonstration and validation, engineering development, and production activities which support employment

**and in-service engineering of ICBMs/SLBMs, conventional missiles and rockets, cruise missiles, guided projectiles, bombs, guns and ammunition, directed energy and chemical/biological munitions. Include with each weapon as appropriate, all related technology, engineering and production activities such as fusing/safe and arm, missile propulsion, warheads and explosives, and guidance and control.**

**3. Space. Includes but not limited to all science and technology, demonstration and validation, engineering development, and production activities which support employment and in-service engineering of launch vehicles, satellites and associated ground control systems (satellite control only; ground systems for telemetry of data included in C4I). Include under satellites, all technology, engineering and production activities associated with space communications and space-based surveillance (and associated sensors) and space-based C4I.**

**4. C4I. Includes but not limited to all science and technology, demonstration and validation, engineering development, and production activities which support employment and in-service engineering of airborne, fixed ground-based and mobile ground based C4I systems. Include all technology, engineering and production activities associated with communications networks, radios and links, distributed information systems, data fusion, decision aids, and associated computer architectures.**

**<u>Pervasive Functions (6.1, 6.2, and 6.3)</u>**

**1. Electronic Devices. Includes but not limited to all science and technology activities supporting development of semiconductor and superconductor materials for optoelectronic, acoustic and microwave devices. Include all associated electronic materials/device fabrication and processing.**

**2. Environmental Sciences. Includes but not limited to all science and technology activities to improve measurement, characterization and modeling of the earth atmosphere and space environment. Examples include global prediction systems, space effects, and celestial backgrounds/astronomical reference sources.**

**3. Infectious Diseases. Includes but not limited to all science and technology activities which preserve manpower and performance by the prevention and treatment of militarily important infectious diseases that occur naturally worldwide.**

**4. Human Systems. Includes but not limited to all science and technology activities to enable, protect, sustain and enhance human effectiveness in DOD operations. The focus of this pervasive, multi-disciplinary area is the human and therefore impacts all DOD systems and operations. This area includes: (1) human performance definition, assessment, and**

**aiding; (2) physiologic bioeffects of toxic hazards, ionizing and non-ionizing radiation, biodynamic (bio-mechanical) stress, and extreme environments; (3) military operational medicine; and (4) generic, human-centered design standards/methodologies for crew station subsystems, information management and display, and life support.**

**5. Manpower and Personnel. Includes but not limited to all science and technology activities which support four broad areas: (1) selection and classification of DOD personnel (including pilots); (2) identification of operational tasks performed and requirements for skills, knowledge, and aptitudes; (3) matching the right people with the jobs they are best suited for according to the needs of DOD, (4) and developing techniques for measuring and enhancing the productivity of the operational force.**

**6. Training Systems. Includes but not limited to all science and technology which support training of personnel, including training strategies, devices and simulators, and computer aided intelligent tutoring systems.**

**7. Environmental Quality. Includes but not limited to all science and technology activities which support the development of technologies to reduce the environmental costs of DOD operations while ensuring mission accomplishment is not jeopardized by adverse environmental impacts. Specifically, this area encompasses technologies to: (1) identify and cleanup sites contaminated with hazardous materials as a result of DOD operations (cleanup); (2) ensure DOD compliance with current and anticipated local, national, and international environmental laws and treaties (compliance); (3) minimize DOD use of hazardous materials and reduce DOD hazardous waste generation (pollution prevention); and (4) provide for protection of natural resources under DOD stewardship (conservation).**

**8. Advanced Materials. Includes but not limited to all science and technology activities related to structural, high temperature, electromagnetic protection, electronic, magnetic, optical, and biomolecular materials. Note: excludes materials areas which were included in DDR&E decision of 18 Mar 94 related to the Army's Materials Research Facility at Aberdeen Proving Ground and the Navy's Materials Facility at Carderock.**

NSWC PORT HUENEME
DATA CALL # 12

JL
SEA 09X
5/12/94

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (Sel) D. P. Sargent
NAME (Please type or print)

Signature

Commander
Title

5/11/94
Date

Naval Surface Warfare Center
Activity

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

~~NAME (Please type or print)~~

~~Signature~~

~~Title~~

~~Date~~

~~Activity~~

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

G. R. STERNER
NAME (Please type or print)

Signature

Commander
Naval Sea Systems Command
Title

-13-94
Date

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

J. B. GREENE JR
NAME (Please type or print)

Signature

ACTING
Title

23 MAY 1994
Date

BRAC-95 CERTIFICATION

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

Robert A. Bland
NAME (Please type or print)

Signature

BRAC Coordinator
Title

5-7-94
Date

Division

Missile Systems Department
Department

Port Hueneme Division, Naval Surface Warfare Center
Activity

Enclosure (1)

# BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

Each individual in your activity generating information for the BRAC-95 process must certify that information. Enclosure (1) is provided for individual certifications and may be duplicated as necessary. You are directed to maintain those certifications at your activity for audit purposes. For purposes of this certification sheet, the commander of the activity will begin the certification process and each reporting senior in the Chain of Command reviewing the information will also sign this certification sheet. This sheet must remain attached to this package and be forwarded up the Chain of Command. Copies must be retained by each level in the Chain of Command for audit purposes.

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

Capt. John Scott Beachy
NAME (Please type or print)

Signature

Commanding Officer
Title

7 MAY 1994
Date

PHD NSWC
Activity

pg 19 + 20

DATA CALL #12
PORT HUENEME SITE

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

~~NAME (Please type or print~~ ~~Signature~~

~~Title~~ ~~Date~~

~~Activity~~

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (Sel) D. P. Sargent, Jr.
NAME (Please type of print

Signature

Commander
Title

7/28/94
Date

Naval Surface Warfare Center
Activity

In certify that the information herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

G. R. STERNER
NAME (Please type or print

Signature

Title

8/5/94
Date

Commander
Naval Sea Systems Command
Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

W. A. EARNER
NAME (Please type of print

Signature

Title

8/8/94
Date

DATA CALL #12
PORT HUENEME SITE

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Reference: SECNAVNOTE 11000 of 08 December 1993

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I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

## ACTIVITY COMMANDER

Capt. John Scott Beachy
NAME (Please type or print)

Signature

Commanding Officer
Title

21 JUL 1994
Date

PHD NSWC
Activity

PTH



# Department of Defense

# 1995 Base Realignment and Closure T&E Joint Cross-Service Group Data Guidance

**March 31, 1994**

# T&E JOINT CROSS-SERVICE GROUP DATA GUIDANCE

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# SECTION 1: GUIDANCE, STANDARDS, AND ASSUMPTIONS

The Military Departments will use the following information for data collection on each facility that has performed T&E and is still capable of performing T&E within the three functional areas of air vehicles, electronic combat, and armaments/weapons for any component (hardware or software), subsystem, system, or platform. Guidance is provided on conducting a cross-service analysis.

## 1.1 GUIDANCE

### 1.1.A Guidance for Identification of Test and Evaluation (T&E) Facilities / Capabilities

#### 1.1.A.1 Scope

All DoD installations will be examined to identify facilities that have and are still capable of performing T&E within the three functional areas of air vehicles, electronic combat, and armaments/weapons.

All facilities (tenant and host on the installation) owned by DoD are within scope of this examination.

The Military Departments and Defense Agencies are responsible for submitting the data.

The scope of this examination will include T&E facilities that are funded from any funding source and appropriation (RDT&E, procurement, O&M, training, etc.).

### 1.1.A.2 T&E Facilities / Capabilities

The definition of a T&E facility/capability to be used for purposes of data collection will be a set of DoD-owned or controlled property (air/land/sea space) or any collection of equipment, platforms, ADPE or instrumentation that can conduct a T&E operation and provide a deliverable T&E product.

The T&E facility can support T&E of components through systems platforms or missions in the following functional areas: air, land, sea, space, C4I, armaments/weapons, electronic combat, nuclear effects, chem/bio, propulsion, environmental effects, guidance, and materials.

The T&E facilities will be grouped under one of the following test facility categories: modeling and simulation, measurement, integration laboratory, hardware-in-the-loop, installed systems, or open air (See Appendix A for definitions). It will typically consist of all of the following components: data collection sensors and instrumentation, data reception and storage, data processing, and data display and reporting.

The scope will include T&E operations from all funding sources (RDT&E, procurement, O&M, training, etc.).

### 1.1.B Guidance for Military Department Data Collection

The Military Departments will use the T&E facility/capability definitions included within this data call package. In your descriptions of facility technical capabilities include programmed investments/upgrades in Military Department or Defense Agency 1995 Future Years Defense Plan (FY95 FYDP) in support of the President's Budget (PB95). When calculating capacity data, use the guidelines/definitions included in this package.

Data will be collected on all facilities/capabilities that are within the scope defined in section 1.1.A. Data will be collected using Appendix A, Data Forms and Instructions

### 1.1.C Guidance for Military Department Data Analysis

The Military Departments will use the 95 FYDP as the baseline to calculate costs and savings. Address closure/realignment opportunities at the functional T&E and facility levels. Retain essential technical capabilities for core competencies and technologies. Consider consolidation of subfunctions such as centralized maintenance of common platforms, instrumentation, data processing. Consider retention of difficult-to-replace essential geographic assets (e.g. airspace, ground/terrain, climates, seaports) without regard to "ownership". Recognize adaptability to future technologies. Do not consider environmental cleanup costs/difficulties for closure or downsizing a facility/capability.

## 1.2 ASSUMPTIONS

Cross-service analyses will use the following assumptions:

**1.2.A** T&E workload is not a direct function of force structure, but is related to the RDT&E budget and acquisition funding.

**1.2.B** The FYDP is considered certified data. Information from non-DoD activities will not be used as a basis for analyses.

**1.2.C** At least one test facility/capability will be required to address any technology in use or nearing maturation. Geographic assets (airspace, ground space, sea space, terrain, climate, physical security) must be adequate. Closure or realignments of laboratories, maintenance depots, and training activities could necessitate consolidation with T&E facilities/capabilities.

**1.2.D** Evaluation of developing technologies and systems will follow a process that involves a progression of test facilities/capabilities ranging from modeling and simulation, measurements, through hardware-in-the-loop, system integration laboratories, installed-systems, to open air/range testing.

**1.2.E** Potential for internetting facilities/capabilities can be considered in workload projections if investments to provide internetting capability are programmed.

**1.2.F** With regard to outsourcing, it will be assumed that work currently performed in-house will remain in-house and that work currently outsourced will remain outsourced.

**1.2.G** With regard to foreign military sales (FMS), it will be assumed that the FMS workload will continue at FY93 levels into the future (straight-lined).

## 1.3 FUNCTIONAL AREAS

Three functional areas of T&E facilities/capabilities were selected for specific emphasis during cross-service analyses following analysis of the T&E Reliance study areas. These three areas -- air vehicles, electronic combat, and armament/weapons -- show the greatest potential for cross-service consolidation opportunities; others are predominately or nearly Military Department unique.

Over-arching measures of merit have been developed that are applicable to many T&E facilities/capabilities across the three functional areas. These measures generally relate to the overall demographics of the facility/capability at an installation and are important to evaluating a facility/capability for: overall condition; potential to support current or future contingency, mobilization and future missions; additional workload; and overall Mission Essentiality. Additional data specific to the three functional areas will also be collected. For

the purpose of this data collection, the three functional areas are defined as follows:

### 1.3.A Air Vehicles

This functional area includes facilities involved in the testing of all air vehicles/subsystems/components whether fixed wing or rotary wing and test of major sub-systems (e.g., avionics, engines, and sensors). This includes flight testing and the testing involving pre- and post-flight preparation and processing of the air vehicle. Unmanned air vehicles and cruise missiles are included.

### 1.3.B Electronic Combat (EC) Systems

This functional area includes facilities involved in the testing of stand-alone electronic combat systems and electronic combat subsystems that are normally integrated into other weapon systems. It includes the testing of systems or subsystems that have as their primary mission threat warning, testing of systems that provide countermeasures in the RF (radio frequency) spectrum against radars and other RF sensors, systems that provide countermeasures that are used against sensors in the electro-optical or infrared spectrum as well as testing of electronic and C3 countermeasures.

### 1.3.C Armaments / Weapons

This functional area includes facilities involved in the testing of the weapons portion of a weapon system. In those cases where the weapon system is composed almost exclusively of the weapon, it may include system-level and platform integration testing. In other cases, it addresses just the weapon subsystem (e.g., guidance and control, propulsion, warheads, and airframe), while the testing of the weapon system's vehicle is in another functional area.

## 2.0 CAPACITY AND TECHNICAL RESOURCES

We have reviewed the T&E facilities that exist at the Port Hueneme Division of the Naval Surface Warfare Center and determined that the only two facilities that fall within the scope of this data call are our Integrated Combat System Test Facility at Point Loma, CA and the Self Defense Test Ship in Port Hueneme CA.

The Integrated Combat Systems Test Facility falls into the "Integration Laboratory" facility type and is strongly Navy unique. This facility performs no testing of "Air Vehicles" or of the "Weapons portion of a weapons system". Approximately 4% of the work of this facility falls within the definition of the "Electronic Combat" functional area. In addition it should be pointed out that this facility is being moved from Point Loma to Port Hueneme, CA. The move will be completed prior to FY 97 in compliance with BRAC 91 direction.

The Self Defense Test Ship is currently being outfitted and will not become operational until October of 1994. The Test Ship does not fit precisely into any of the facility types defined in this data call but comes closest to the definition of an "Installed Systems Test Facility". This ship will be involved in the testing of "Armaments / Weapons" when it becomes operational.

A complete set of data is provided for the Integrated Combat Systems Test Facility and the Self Defense Test Ship in Tabs A and B respectively.

# TAB A

# INTEGRATED COMBAT SYSTEMS TEST FACILITY

## 2.1 WORKLOAD

Annual workload will be reported in units as follows: for open air ranges involving flight testing, report test hours and missions. For all other T&E facilities direct labor hours and test hours must be reported; if available, missions must be reported. If an estimation of test hours based on direct labor hours is necessary, refer to the instructions for Determination of Unconstrained Capacity on page 28.

### 2.1.A Historical Workload

**-2.1.A.1** What amount of workload have you performed each year from FY86-93? Use the Historical Workload Form provided in Appendix A of this package.

### 2.1.B Forecasted Workload

**-2.1.B.1** Identify all appropriations (by program element) that generated a requirement for testing or test support, or are expected to generate a requirement for testing/test support in your Military Department (by functional areas of air vehicles, electronic combat (EC), armament/ weapons, and other test) for FY92, FY93, and each year in the FY95 FYDP. The Military Departments will provide total funding amounts appropriated for all PEs identified in each functional area shown above.

**EC - PE 63582N (FY 92 -FY 00)**
**Other - PE 63582N, PE 78012 (FY 92 -FY 00)**

**-2.1.B.2** What amount of test work was performed at your facility (in workyears by functional areas of air vehicles, electronic combat, armament/weapons, other tests, and other) in FY92 & FY93?

**EC (FY 92) 2WY, (FY 93) 2 WY**
**Other (FY 92) 48 WY, (FY 93) 48 WY**

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## 2.2 UNCONSTRAINED CAPACITY

**-2.2.A** Unconstrained capacity is the maximum capacity of this facility, assuming manpower and consumable supplies (excluding utilities) are unlimited, but allowing for expected downtime (maintenance, weather, darkness (daylight), holidays, etc.). Provide your response by filling out the Determination of Unconstrained Capacity Form in accordance with the instructions in Appendix A.

**-2.2.B** Is this capacity limited by the physical characteristics of the facility itself, safety or health considerations, commercial utility availability, etc?

**NO**

## 2.3 TECHNICAL RESOURCES

**-2.3.A** Does this facility have a specified war-time or contingency role established in approved war plans? Yes/no.

**NO**

**-2.3.B** Does the facility provide a T&E product or service, without which irreparable harm would be imposed on the test mission of the host installation?

R

**NO**

**-2.3.B.1** On the test mission of any other activity?

**YES. PHD NSWC's ability to deliver certified operational programs to the Fleet.**

**-2.3.B.2** On any other mission deemed critical to the operational effectiveness of the armed forces of the United States?

## 2.2 UNCONSTRAINED CAPACITY

**-2.2.A** Unconstrained capacity is the maximum capacity of this facility, assuming manpower and consumable supplies (excluding utilities) are unlimited, but allowing for expected downtime (maintenance, weather, darkness (daylight), holidays, etc.). Provide your response by filling out the Determination of Unconstrained Capacity Form in accordance with the instructions in Appendix A.

**-2.2.B** Is this capacity limited by the physical characteristics of the facility itself, safety or health considerations, commercial utility availability, etc?

**NO**

## 2.3 TECHNICAL RESOURCES

**-2.3.A** Does the facility have a specified war-time or contingency role established in approved war plans? Yes/no.

**NO**

**-2.3.B** Does the facility provide a T&E product or service, without which irreparable harm would be imposed on the test mission of the host installation?

NO. ~~**YES.**~~ **Naval Research and Development (NRaD) for ACDS Blk 0, 1 development.**

**-2.3.B.1** On the test mission of any other activity?

**YES. PHD NSWC's ability to deliver certified operational programs to the Fleet.**

**-2.3.B.2** On any other mission deemed critical to the operational effectiveness of the armed forces of the United States?

**YES. The Fleet's ability to carry out their mission would be adversely impacted if operational computer programs were not independently verified and validated and problems corrected.**

## SECTION 3: MEASURES OF MERIT

This section relates the measures of merit and the required data to the four criteria that have been established for Military Value. The four military value (MV) criteria are:

CRITERION 1: The current and future mission requirements and the impact on operational readiness of the Department of Defense's total force.

CRITERION 2: The availability and condition of land, facilities and associated airspace at both the existing and potential receiving locations.

CRITERION 3: The ability to accommodate contingency, mobilization, and future total force requirements at both the existing and potential receiving locations.

CRITERION 4: The cost and manpower implications.

### 3.1 OVER-ARCHING MEASURES OF MERIT

The over-arching measures of merit are listed with accompanying questions (or data requirements) intended to elicit standard information upon which the cross-service analyses can be based, and on which the Joint Cross-Service Groups can base their reviews of the Military Department analyses. Additional specific measures of merit are shown under individual functional areas. The numbers in parentheses () before each measure of merit indicate the

BRAC selection criteria for military value.

**3.1.A. Interconnectivity (MV I)** - Measure of Merit: *Extent of linkage of this facility with other facilities and assessment of single-node failure potential.*

**-3.1.A.1** What percentage of total test workload in FY93 involved the real-time or near real time exchange of data or control with another facility? List the facilities you interconnect to for test and identify how many are simultaneous activities. Identify these as to whether they are internal and external to the site.

**Five percent. Internal connection to NRaD and external data links via NRaD to the fleet.**

**-3.1.A.2** If your facility were to be closed, would there be an impact on other facilities to which you are connected? Yes/no. If yes, explain.

**YES. NRaD in development support for Advanced Combat Direction System (ACDS)/C$^4$I systems.**

**3.1.B Facility Condition (MV II)** - Measure of merit: *Current and planned status of the T&E facilities for supporting assigned test missions.*
Fill out the Facility Condition Form in Appendix A in accordance with the instructions.

**3.1.C Environmental and Encroachment Carrying Capacity (MV II)** - Measure of Merit: *Extent of current and future potential environmental and encroachment impacts on air, land, and sea space for testing.*
**Not Applicable**

**- 3.1.C.1** Do you have limiting (current or future) environmental and/or encroachment characteristics associated with the installation/facility? Yes/no. If yes, explain.

**- 3.1.C.2** How much could workload be increased before this limit would be

reached? Express your answer as a percentage of your current workload.

**- 3.1.C.3** Do you currently operate under temporary permits of an environmental nature, or voluntary agreements (including treaties) of any sort that deal with the environment? If so, when do they expire? Please describe.

**- 3.1.C.4** What is the total population within a 50 mile radius? 100 mile radius? 150 mile radius? 200 mile radius?

**- 3.1.C.5** Identify the commercial air/land/sea traffic routes, public use of air/land/sea space, and frequency of use for each that affects or could affect mission accomplishment in your air, land, or sea space.

> **- 3.1.C.5.A** How many test missions per year are canceled due to commercial or public use?

**- 3.1.C.6** What is the number of test missions that have been canceled due to encroachment in each of the last two years?

**3.1.D Specialized Test Support Facilities and Targets (MV I)** - Measure of Merit: *Extent to which specialized test support facilities and targets are available.*

**Not Applicable**

**-3.1.D.1** Do you have specialized facilities are required to support you in conducting your test operations at your facility (e.g. Aerial delivery load build-up facilities; parachute drying towers/packing facilities; paratroop support facilities; specialized fuel storage and delivery systems; mission planning facilities; corrosion control, painting, washing facilities; and specialized maintenance facilities such as avionics intermediate shops)? Yes/no. If yes, please describe.

**-3.1.D.2** Are specialized targets required to support this facility? Yes/no. If yes, explain.

revised page

**-3.1.D.2.A.** Have the specialized targets been validated? Yes/no. If yes, by whom?

**3.1.E Expandability (MV III) -** *Measure of Merit: Extent to which an installation/facility is able to expand to accommodate additional workload or new missions.*

**-3.1.E.1** Other than the expandability inherent in unconstrained capacity, discussed earlier, are there any special aspects of this facility that enhance its ability to expand output within each T&E functional area? Yes/no. If yes, explain.

**NO, the Integrated Combat System Test Facility is being moved from Point Loma, CA to Port Hueneme, CA. The move will be completed prior to FY97 in compliance with BRAC 91 direction.** R

**-3.1.E.1.A** Can you accept new T&E workload different from what you are currently performing? Yes/no. If yes, identify by T&E functional area and test type. R

**NO**

**-3.1.E.2** Are airspace, land, and water areas--adjacent to areas under DoD control--available and/or suited for physical expansion to support new missions or increased footprints? Yes/no. If yes, please explain.

**NO, see answer in paragraph -3.1.E.1**

**-3.1.E.3** Is the facility equipped to support secure operations? Yes/no. If yes, to what level of classification (Confidential, Secret, Top Secret, Special Access Required)?

**-3.1.D.2.A** Have the specialized targets been validated? Yes/no. If yes, by whom?

**3.1.E Expandability (MV III)** - Measure of Merit: *Extent to which an installation/facility is able to expand to accommodate additional workload or new missions.*

**-3.1.E.1** Other than the expandability inherent in unconstrained capacity, discussed earlier, are there any special aspects of this facility that enhance its ability to expand output within each T&E functional area? Yes/no. If yes, explain. ~~**YES**~~ NO

1. **Co-location with NRaD C4I development laboratories (ACDS, NTCS-A, LINK 11, LINK 16).**
2. **Access to SATCOM, Internet, SECURE Wide Area Network.**

**-3.1.E.1.A** Can you accept new T&E workload different from what you are currently performing? Yes/no. If yes, identify by T&E functional area and test type.

**YES. Additional developmental engineering, training, and S&T in both EC and other functional areas.**

**-3.1.E.2** Are airspace, land, and water areas--adjacent to areas under DoD control--available and/or suited for physical expansion to support new missions or increased footprints? Yes/no. If yes, please explain.

**YES. Proximity to open ocean and military op areas. Access to radar site with 180 degree unobstructed coverage of Pacific Ocean.**

**-3.1.E.3** Is the facility equipped to support secure operations? Yes/no. If yes, to what level of classification (Confidential, Secret, Top Secret, Special Access Required)?

revised page

**YES. Special Access Required.**

**-3.1.E.4** Are there any capital improvements underway or programmed in the 95 FYDP, that would change your capacity / capability? Yes/no. If yes, explain.

**YES. The Cooperative Engagement Capability upgrade which will include a three ship CEC equipment suite with simulations.**

**3.1.F Uniqueness (MV I)** - *Measure of Merit: Extent to which the facility is one-of-a-kind.*

**-3.1.F.1** Is this a one-of-a-kind facility within the DoD? Yes/no. If yes, describe

**YES. Only Navy facility that is currently conducting Combat System Integration Testing for the following ship classes:** R

1. **CG/CGN/DDG**
2. **DD**
3. **FFG**
4. **LHD/LHA/LPD**
5. **CV/CVN**

**-3.1.F.1.A** Within the US Government? Yes/no. If yes, describe.

**YES. See 3.1.F.1**

**-3.1.F.1.B** Within the US? Yes/no. If yes, describe

**YES. See 3.1.F.1**

**-3.1.F.2** Are you currently providing support to DoD users outside your Military Department? Yes/no. If yes, indicate percentage of total workload in FY92 and FY93 by Military Department.

**YES. Special Access Required.**

**-3.1.E.4** Are there any capital improvements underway or programmed in the 95 FYDP, that would change your capacity/capability? Yes/no. If yes, explain.

**YES. Asynchronous Transfer Mode (ATM) switches, fiber optic LANs, Advanced Display Systems.**

**3.1.F Uniqueness (MV I)** - Measure of Merit: *Extent to which the facility is one-of-a kind.*

**-3.1.F.1** Is this a one-of-a-kind facility within the DoD? Yes/no. If yes, describe.

**YES. Only Navy facility that ~~can~~ is currently conduct Combat System Integration Testing for the following ship classes:**

1. **CG/CGN/DDG**
2. **DD**
3. **FFG**
4. **LHD/LHA/LPD**
5. **CV/CVN**

**-3.1.F.1.A** Within the US Government? Yes/no. If yes, describe.

**YES. See 3.1.F.1**

**-3.1.F.1.B** Within the US? Yes/no. If yes, describe.

**YES. See 3.1.F.1**

**-3.1.F.2** Are you currently providing support to DoD users outside your Military Department? Yes/no. If yes, indicate percentage of total workload in FY92 and FY93 by Military Department.

**NO.**

**3.1.G Available Air, Land, and Sea Space (MV II)** - Measure of Merit: *Extent to which controlled test ranges satisfy weapon system test requirements.*

**Not Applicable**

**-3.1.G.1** How many square miles of air, land, and sea space are available to support test operations?

**-3.1.G.2** Who owns and or controls the land under the restricted airspace you use?

**-3.1.G.3** How much of this is Restricted Airspace, and what altitude limits are associated with the restricted areas?

**-3.1.G.4** Do you have special use airspace other than supersonic airspace? Yes/no. If yes, for what types of test (e.g. terrain following radar)? Dimensions? Will it support simultaneous users? Yes/no.

**-3.1.G.5** Is the airspace over land or water? List the number of square miles over each.

**-3.1.G.6** Identify known or projected airspace problems that may prevent accomplishing your mission.

**-3.1.G.7** What is the maximum straight line segment in your airspace in nautical miles?

**-3.1.G.8** What public airspace have you used for overflight of weapons systems in the past? What was the nature of those tests? Do you anticipate being able to use that same public airspace for similar tests in the future? Yes/no.

**3.1.H Geographic/Climatological Features (MV II)** - Measure of Merit:

*Extent to which types of climatic/geographic conditions represent world-wide operational conditions.*

**Not Applicable**

-3.1.H.1 Describe the topography and ground cover/vegetation within your test airspace (include nap-of-the-earth capability). Identify all of the following that apply: mountains, forest/jungle, cultivated lowland, swamp/riverine, desert, and sea. State the area of each in square miles.

**-3.1.H.2** Are there features of the local geology or soil conditions that enhance or inhibit any types of test?

**-3.1.H.3** Did you have to go to other geographical locations to satisfy test requirements? Yes/no and explain. If yes, provide as a percent of overall workload per year for the past 8 years.

**-3.1.H.4** What is the number of days per year the average temperature is below 32 degrees F? Between 32 and 95 degrees? Above 95 degrees?

**-3.1.H.5** What is the number of days per year the average relative humidity is below 30%? Between 30 and 80%? Above 80%?

**-3.1.H.6** What is the number of test missions per year (1985 - 1993) canceled due to weather?

**-3.1.H.7** What is the number of test days per year (1985 - 1993) canceled due to weather?

**-3.1.H.8** What is the number of days per year the visibility is less than 1 mile? Between 1 and 3 miles? Greater than 3 miles?

**-3.1.H.9** What is the average number of flying days available per year for flight test? Provide historical average from the past eight years.

**-3.1.H.10** What percentage of the time are your test operations restricted due to weather?

## 3.2 AIR VEHICLES

This functional area includes facilities involved in the testing of all air vehicles/subsystems/components whether fixed wing or rotary wing and test of major subsystems (e.g., avionics, engines, and sensors). This includes flight testing and the testing involving pre- and post-flight preparation and processing of the air vehicle. Unmanned air vehicles and cruise missiles are included.

**Not Applicable**

**3.2.A Supersonic Airspace (MV II) - Measure of Merit:** *Extent of range size to support weapon system requirements.*

**-3.2.A.1** Do supersonic corridors or areas exist? Yes/no.

**-3.2.A.2** Where are they located relative to your airfield?

**-3.2.A.3** At what altitude (upper and lower altitude)?

**-3.2.A.4** Over land or water? What size and shape (length and width)?

**-3.2.A.5** Are there restrictions you must observe to use this space? Yes/no. If yes, explain.

**-3.2.A.6** What is the maximum number of simultaneous users?

**-3.2.B Airfield and Facility Characteristics (MV II) -** Measure of Merit: *Extent of air vehicle infrastructure to support T&E operations.*

**-3.2.B.1** Provide a brief description of your airfield and support facilities, to include the following: number and azimuth of runways, elevation, runway length (excluding overrun), overrun length, terminal and/or landing aids, arresting cable (yes/no, type), ramp area (in square feet), construction material (runway and ramps), load capability, and hangar space.

**-3.2.B.2** How close and how many emergency runways or airfields are in your area of operation?

**-3.2.B.3** Where is your airfield situated relative to working areas (airspace) for supporting test operations?

**-3.2.B.4** What makes your airfield unique or at least suited for supporting test operations?

**-3.2.B.5** Is there a size, weight, maintenance or mission limitation that would affect test operations? If so, describe the limitation(s).

**-3.2.B.6** Including hangers and ramp space, how many fighter size aircraft could you support? Large multi-engine aircraft? Rotary wing? UAV? Cruise missiles?

**-3.2.C Test Operations (MV II)** - Measure of Merit: *Extent of T&E operations that the airspace can accommodate.*

**-3.2.C.1** What types of air vehicle testing (fixed wing, rotary wing, unmanned vehicles, and cruise missiles) can be supported? (e.g. performance, handling qualities, fatigue life, static, wheels and brakes, physical integration with external stores or avionics)

**-3.2.C.2** Do ground support facilities exist for pre-flight checkout or rehearsal of test missions?

**-3.2.C.3** What kinds, numbers of aircraft and mix can be supported (manned and

unmanned)?

**-3.2.C.4** Does UAV and or rotary wing operations pose any limitation on other types of missions? If yes, explain.

**-3.2.C.5** What sorts of missions (e.g. air-to-air, air-to-ground and refueling) can be flown within local airspace?

**-3.2.C.6** What is the maximum number of simultaneous missions you can support that require telemetry?

**-3.2.C.7** What is the largest number of simultaneous test missions you have supported in your airspace?

**-3.2.C.8** Identify the number, types, and owners of aircraft at your installation.

## 3.3 ELECTRONIC COMBAT

This functional area includes facilities involved in the testing of stand-alone electronic combat systems and electronic combat subsystems that are normally integrated into other weapon systems. It includes the testing of systems or subsystems that have as their primary mission threat warning, testing of systems that provide countermeasures in the RF (radio frequency) spectrum against radars and other RF sensors, systems that provide countermeasures that are used against sensors in the electro-optical or infrared spectrum as well as testing of electronic and C3 countermeasures.

**3.3.A Threat Environment (MV I)** - Measure of Merit: *Extent to which the capability satisfies weapon system requirements.*

**-3.3.A.1** What is the number of threats simulated?

**1024 threats.**

**-3.3.A.2** How many simultaneous threats can be simulated? What type (e.g. AI, AAA, SAM)? What is maximum signal density? Average density? What power level? What band? Radiated or injected?

**1024 threats. All facets of threats (type, max. signal density, average density, power levels, and bands) are selectable within known threat parameters. All threats injected.**

**-3.3.A.3** Are the threat software models and simulators (software/hardware) validated? Yes/no. If yes, by whom?

**YES. Product acceptance test by NSWC.**

**-3.3.A.4** Do you conduct open loop testing? Reactive? Closed loop? Yes/no for each.

1. **Open loop - NO**
2. **Reactive - NO**
3. **Closed loop - YES**

**-3.3.A.5** What is the threat representation (fidelity) and density?

**Threat parameters are simulated and user selectable. Libraries can be customized to represent any known real world threat, including threat fidelity and density.**

**-3.3.A.6** Are you capable of simulating land threats? Sea threats? Combined land/sea threats? Yes/no. If yes, describe.

**YES. See 3.3.A.2**

**-3.3.A.7** What geographic dispersion can be simulated?

**Capable of providing EW simulation/stimulation from any part on earth.**

**-3.3.A.7.A** Threat lay down?

**Constrained only by limits of threat receiver capabilities/design.**

**-3.3.A.7.B** Representative distance?

**-3.3.A.8** Are the threats moveable (i.e.dynamic) within a test scenario? relocatable to new scenarios? yes/no

**YES. Dynamic/relocatable.**

**-3.3.A.9** Is the facility interlinked with off-site threats? Yes/no. If yes, how are you linked?

**YES. Via live link capabilities on-site through LINK 11/LINK 16.**

**-3.3.A.10** Is there a limit on simultaneous users? Yes/no. If no, explain.

**YES.**

**3.3.B Test Article Support (MV II)** - Measure of Merit: *Extent to which test support satisfies weapon system test requirements.*

**Not Applicable**

**-3.3.B.1** Is there a size, weight, or other limitation on test operations the facility can support? Yes/no. If so, identify the limits and measures to remove them.

**-3.3.B.2** What is the number of simultaneous countermeasures that can be evaluated?

**-3.3.B.3** What range of spectra can be tested and evaluated?

**-3.3.B.4** What are the available spectra?

**-3.3.B.5** Do you have a scene generation capability? Yes/no. If yes, describe.

## 3.4 ARMAMENTS / WEAPONS

This functional area includes facilities involved in the testing of the weapons portion of a weapon system. In those cases where the weapon system is composed almost exclusively of the weapon, it may include system-level and platform integration testing. In other cases, it addresses just the weapon subsystem (e.g., guidance and control, propulsion, warheads, and airframe), while the testing of the weapon system's vehicle is in another functional area.

**Not Applicable**

**3.4.A Directed Energy (MV II)** - Measure of Merit: *Extent to which the facility satisfies directed energy weapon system test requirements.*

This includes testing of all types of directed energy weapons.

**-3.4.A.1** Do you currently test directed energy weapon systems? Yes/no.

If yes, explain. Describe the power source(s) you have available. What is your maximum downrange distance?

**3.4.B Rocket / Missile / Bomb Systems (MV II)** - Measure of Merit: *Extent capability satisfies weapon system test requirements.*

This includes the testing of all types of rocket, missile, and bomb systems at the system/subsystem/component level, both stand alone and integrated into the launch platform. This includes testing of air-to-air, air-to-surface, and surface-to-air missiles.

### -3.4.B.1 Ground Space

**-3.4.B.1.A** What is the area in square miles of the land and water space which you can use to conduct tests of live rocket, missile, or bomb systems?

**-3.4.B.1.B** How many separate and distinct land and water test areas are available to conduct tests of live weapons? List them and the size of each in acres.

**-3.4.B.1.C** What are the maximum ranges (nautical miles) you can test, by type weapon?

### 3.4.B.2 Test Operations

**-3.4.B.2.A** For each of your land and water ranges, how many test missions were scheduled in FY92 and FY93 that were required to use safety footprints comparable to those required for the following types of weapons:

--Unguided 2000 pound-class ballistic weapon
---live?
---inert?
--Guided weapon (e.g., GBU-24 class)
---live?
---inert?
--Stand-off weapon (e.g., AGM-130 class)
---live?
---inert?
--Short-range missile (e.g., AIM-9)
---below 5000 feet MSL
---between 5000 and 20,000 feet MSL
---above 20,000 feet MSL
--Long-range missile (e.g., AIM-120)
---below 5000 feet MSL
---between 5000 and 20,000 feet MSL
---above 20,000 feet MSL

**-3.4.B.2.B** Were flight termination systems required? Yes/no.

**-3.4.B.2.C** If no missions were scheduled in a category, give the reason(s).

**-3.4.B.2.D** Were any scheduled missions canceled before the mission, or terminated/aborted during the mission because of encroachments into the safety footprint? Yes/no. If yes, how many per year.

# APPENDIX A - DATA FORMS AND INSTRUCTIONS

## 1. Form, General Information

**Facility/Capability:** Enter the descriptive title for the facility/capability. Avoid using acronyms and abbreviations unless the title defines the acronym. Example: Guided Weapons Evaluation Facility (GWEF).

**Origin date:** Enter today's date in the format MM/DD/YY.

**Military Department:** Allowable entries include "N" for Navy, "A" for Army, and "AF" for Air Force. If the facility/capability is managed by an "Other Government Agency" (e.g. ARPA, DNA, ACC) enter the appropriate Agency name.

**Organization/Activity:** Enter the name (with acronym) for the field activity. Example: White Sands Missile Range (WSMR).

**Location:** Enter the location where the facility/capability is physically located (installation, city or other common name).

**Unit Identification Code (UIC):** Enter the UIC.

**T&E Functional Area:** Enter the single area this facility/capability primarily supports: Air Vehicles, Armament/Weapons, Electronic Combat, or Other.

**T&E Test Facility Category:** Enter the facility category based on the following definitions:

**Integration Laboratory**

(1) Digital Models and Computer Simulations (DMS)- Those models and

simulations which either provide a simulated test environment or representations of systems, components, and platforms. DMSs are used throughout the development and test process, as analytical tools, as well as tools to drive or control electronic and other environmental stimuli provided, the test articles on Open Air Ranges (OARs), Installed Systems Test Facilities (ISTFs), Hardware in the Loop Test Facilities (HITLs), Integration Laboratories (ILs), and Measurement Facilities (MFs).

(2) Measurement Facilities (MF)- Those facilities used to provide a specialized test environment and/or data collection capability. MFs may be ground based laboratories or open air facilities (often located at or part of OARs).

(3) Integration Laboratories (IL)- Those facilities designed to support the integration and test of various systems and components that will be installed in a host platform. ILs are generally platform specific or unique. However, the simulated stimuli and data collection capabilities required by ILs are often common with those required by HITLS and ISTFs.

(4) Hardware-In-The-Loop (HITL)- Those facilities which provide capabilities to test systems or their components at various stages of development (e.g., brassboard, breadboard, prototype, preproduction, production). HITLs provide stimuli and data collection capabilities to permit test and evaluation of a system/component independent of the host platform.

(5) Installed Systems Test Facilities (ISTF)- Ground based test facilities (usually chambers) that allow test of systems and weapons as installed in the combat platform. ISTFs provide simulated test environments and stimuli and data collection capabilities for the test article(s).

(6) Open Air Ranges (OAR)- Those facilities which consist of controlled or restricted areas to support the test of platforms/systems in a real world, dynamic environment. They are instrumented with data collection, time-space-position information, positive control of test participants, and real or simulated targets and

threats as appropriate.

**Percentage Use:** Enter percentage of time, based on hours, the facility is used to support each of the following (total must sum to 100%):

(1) Test and Evaluation (T&E)- Any facility that is accountable to Military Department and/or OSD T&E management oversight. Operation and sustainment of these facilities are typically funded from 6.5 or procurement program elements. Facilities in this category were developed to support developmental and/or operational test and evaluation and focus on the evaluation of system safety, technical performance, environmental (climatic, electromagnetic, etc.) effects, sustainability and operational suitability, maturity of production processes, and compliance with system specifications and quality standards.

(2) Science & Technology (S&T)- Any facility that is accountable to Military Department and/or OSD S&T management oversight. Operation and sustainment of these facilities are typically funded from 6.1, 6.2, and 6.3a program elements. Facilities in this category were developed to support experimental studies leading to enhanced understanding of new phenomena for new military applications as well as efforts directed toward the solution of problems in the physical, behavioral, and social sciences.

(3) Developmental Engineering (DE)- Any facility that is accountable to Military Department and/or OSD Research, Development and Engineering or acquisition management oversight. Operation and sustainment of these facilities are typically funded from 6.3b through 6.4 or procurement program elements. Facilities in this category were developed to support proof-of-principle and engineering development of systems.

(4) In-Service Engineering (IE)- Any facility that is accountable to Military Department and/or OSD logistics management oversight. Operation and sustainment of these facilities are typically funded from 6.7 or Operations and Maintenance (O&M) program elements. Facilities in this category were developed to support the maintenance facilities. These facilities tend to be system

peculiar capabilities to conduct checkouts of the system/subsystems after they have undergone a modification, upgrade or improvement.

(5) Training and Doctrine (T&D)- Any facility that is accountable to Military Department and/or OSD training and doctrine management oversight. Operation and sustainment of these facilities are typically funded from O&M program elements. Facilities in this category were developed to support the training and proficiency of operational forces and/or the development of new tactics, doctrine or force structure concepts.

(6) Other - Any work outside the above.

**Breakout by T&E Functional Area:** For each of the above categories (T&E, S&T, DE, IE, T&D, Other) enter percentage of time facility is used to support Air Vehicles, Armament/Weapons, Electronic Combat, or Other. Total of breakout areas must sum to top line percentage.

**2. Form, Technical Information**

**Facility Description:** Enter a brief description of the facility, including the mission statement.

**Interconnectivity/Multi-Use of Facility:** Describe any linking/interconnectivity with other T&E facilities. Include physical and/or data linkages (bandwidth, data rate, etc.). Describe any unique characteristics or multiple use of the resource (e.g., operating by rotating crew, availability of resource dependent on ..., equipment will be obsolete by ..., etc.)

**Type Tests Supported:** Enter specific types of tests accomplished by the Facility (e.g., electromagnetic compatibility, radar cross section, missile miss distance, air-to-air radar simulation, etc).

**Summary of Technical Capabilities**: Describe technical capabilities at your

facility to include:

**Instrumentation/Assets:** Enter instrumentation and other assets (e.g., jammers, target generators, recording equipment, computer support equipment) associated with the resource.

Provide fact sheets, not to exceed two pages.

**Keywords:** Enter any keywords (spelled-out with acronyms) associated with functions and capabilities of the facility (e.g., electromagnetic interference/electromagnetic compatibility (EMI/EMC), anechoic chamber, radar cross section (RCS)).

### 3. Form, Additional Information

Additional Information Form. Enter facility name. Provide personnel numbers for FY93, FY94, and each year in the FY95 FYDP broken out according to officers, enlisted, civilians and contractors. Enter total area square footage of indoor space, test area square footage of indoor space used for T&E purposes, and list office space square footage separately. Tonnage of equipment is the weight of all equipment associated with this facility. Volume of equipment is the volume of all equipment associated with this facility. Annual maintenance cost is self explanatory. Moving costs are estimates for packing equipment at the losing site and reassembly, calibration, etc at the receiving site, not including transportation costs. Capital equipment investments are the current improvement and modernization funds as well as any programs funds earmarked for equipment purchase.

### 4. Form, Facility Condition

**Facility/Capability:** Enter the descriptive title for the facility/capability.

**Age:** Indicate the age of the facility/capability as of the date on the General

Information Form.

**Replacement Value:** Enter the replacement value for the facility/capability. Indicate whether this includes the replacement cost for the equipment.

**Maintenance and Repair Backlog:** Enter the total dollar amount of the backlog for maintenance and repair items.

**Date of Last Upgrade:** Date of the last major upgrade to the facility.

**Nature of Last Upgrade:** Describe the purpose and capability increase from the last major upgrade. Indicate the date this upgrade became available for use.

**Major Upgrades Programmed:** Enter information on each of the major upgrades that are programmed. Indicate the total programmed amount and provide a summary description of the upgrade.

## 5. Form, Historical Workload

Use this form to report the workload performed at this facility each year from FY86-93.

**Facility/Capability Title:** Enter the descriptive title for the facility/capability. Avoid using acronyms and abbreviations unless the title defines the acronym. Example: Guided Weapons Evaluation Facility (GWEF).

**T&E Functional Area:** For each of these functional areas (Air Vehicles, Armament/Weapons, Electronic Combat, Other Test, and Other), enter direct labor hours, test hours, and/or missions for FY86 through FY93. For open air ranges involving flight testing, report test hours and missions. For all other T&E facilities direct labor hours and test hours must be reported; if available, missions must be reported. If an estimation of test hours based on direct labor hours is necessary, refer to the instructions for Determination of Unconstrained Capacity

on page 28.

## 6. Form, Determination of Unconstrained Capacity

**Annual Hours of Downtime, 1:** If the facility were required to operate continuously for 24 hours a day, seven days a week, 52 weeks a year, determine the number of hours per day the facility can reasonably operate if it is not constrained by personnel strength? Consider your facilities, equipment, and instrumentation fixed at current levels.

1. Add up the total hours of downtime per year for maintenance, weather, darkness (daylight), holidays, etc. Enter in line 1.

**Average Downtime Per Day, 2:** Divide line 1 by 365 to get the average downtime per day. Fill in at line 2.

**Average Hours Available Per Day, 3:** Subtract line 2 from 24 hours to get the average number of hours per day the facility is available for test. Fill in at line 3.

Analyze your historic workload mix to determine the average number and type of tests that have been run simultaneously at your facility. Determine the maximum number of tests that can be run simultaneously if there is no limit to personnel authorizations. Enter the following data from your analysis

**Test Types, 4:** Enter in column 4 the name of the type of test.

**Tests at One Time, 5:** List the number of each type of test that can be conducted simultaneously in column 5.

**Workload Per Test**
**Per Facility Hour, 6:** List the workload (reported in units as follows: For open air range flight testing, report workload in flight hours and numbers of missions.

For all other test facility categories, including open air range other than flight testing, report workload in direct labor hours) represented by each hour the test is run. Do this at line 6.

From the historic workload analysis, determine the average workload per facility hour represented by the average or "typical" test. In the row titled "TYPICAL", in column 5, enter the number of these "typical" tests that can be run in addition to those already listed above. Enter the workload per "typical" test per facility hour in column 6. To estimate test hours from direct labor hours for the Historic Workload Form, divide the facility workload by this number (the number of direct labor hours per "typical" test per facility hour) and enter in the test hour block on the Historic Workload Form.

**Workload Per Facility Hour, 7:** Multiply column 5 by column 6. Enter in column 7. Total column 7.

**Unconstrained Capacity Per Day, 8:** Multiply the total from column 7 by line 3 to get the unconstrained capacity per average day. Enter in line 8.

**Annual Unconstrained Capacity, 9:** Multiply line 8 by 365 to get the unconstrained capacity per year for the facility. Enter on line 9.

# GENERAL INFORMATION

Facility/Capability Title: Integrated Combat Systems Test Facility, Port Hueneme Division Origin Date: 042694

Service: Navy Organization/Activity: NSWC PHD CODE 4L00 Location: Pt. Loma CA

T&E Functional Area: Other UIC = 63394

T&E Test Facility Category Integration Laboratory

| | T&E | S&T | D&E | IE | T&D | OTHER |
|---|---|---|---|---|---|---|
| PERCENTAGE USE: | 65 | — | — | 35 | — | — |
| BREAKOUT BY T&E FUNCTIONAL AREA (%) | | | | | | |
| Air Vehicles | — | — | — | — | — | |
| Armament/Weapons | — | — | — | — | — | — |
| EC | 3 | — | — | 1 | — | — |
| Other | 62 | — | — | 34 | — | — |

Total in Breakout Must Equal "Percentage Use" On First Line

# TECHNICAL INFORMATION

Facility/Capability Title: Integrated Combat Systems Test Facility, Port Hueneme CA

| |
|---|
| Facility Description; Including mission statement: The facility consists of a 16K square foot TEMPEST enclosed lab that contains 800 pieces of military computers, displays, peripherals, special equipment and simulators/emulators. Mission - Provide engineering/technical support for test and development of command and control systems; land based reliability testing, integration and certification of surface ship combat systems computer program networks prior to initial operation and for in-service systems. |
| Interconnectivity/Mulit-Use of T&E Facility:<br><br>Physically located in the NRaD C4I building, Pt. Loma, CA. Connected to NRaD C4I systems by Fiber Optic Data Link, High Speed Digital Switch and LANs. Users of our facility include Naval Research and Development(NRaD),Naval Electronic Systems Engineering Activity (NESEA), Naval Tactical Systems Interoperability Center(NTSIC), Naval Air Development Center (NADC), the Fleet and other PHD NSWC departments. |
| Type of Test Supported:<br><br>Combat System Integration Test, Developmental Engineering Test, Product Acceptance Test, and Operator Training Test. |
| Summary of Technical Capabilities: See attached paper |
| Keywords: See attached paper |

## TECHNICAL CAPABILITIES AND KEYWORDS

PHD NSWC maintains a capability in systems engineering and software engineering to support the NAVSEA Combat System Software Testing Program for all non-Aegis ships. PHD NSWC brings together **ALL** the subsystem computer programs that are elements of a networked Combat System and performs a series of tests to ensure proper operation. The software testing approach has evolved into a methodology that enables PHD to validate structured software designs as well as Rapid-Prototype or "Spiral" designs. PHD is an active member of NAVSEA's Combat System Software Management Group that manages the evolving architecture and testing approaches for combat system software. PHD NSWC averages four/five major Combat System Integration Tests (CSITs) per year. Ship classes supported include CV/CVN, CG 16/26, CGN 36/38, DDG 993, DD 963, FFG-7, and LHD-1. The scope and length of the CSIT depend on: individual subsystem program maturity, whether it has previously been subjected to a CSIT, and combat system complexity.

PHD NSWC Test and Analysis Department maintains, at its Point Loma site, the capability to functionally replicate the following systems.

**ACDS - Advanced Combat Direction System**

Provides a capability to monitor the air, surface, and subsurface environment, including ownship sensor and weapon control and remote weapon control.

**TPX-42 - Carrier/Amphibious Air Traffic Control Center/Direct Altitude Indicating Readout**

Provides air traffic control information to the combat system. In addition to aircraft launch, handover, and recovery, provides radar and IFF information via interface with ACDS.

**IADT - Integrated Automatic Detection and Tracking System (AN/SYS-2)**

Provides integrated multi-sensor, i.e., AN/SPS-48E and AN/SPS-49, track reports and updates, and radar status information to ACDS. It also provides a radar alignment capability.

**ASWM - Anti-Submarine Warfare Module**

Provides ASW tactical personnel with the capability to monitor air, surface, and subsurface acoustic environment. It also provides ASW aircraft mission replay using magnetic media.

**TAS - Target Acquisition System**

Provides track data to ACDS and to NSSMS. It also controls the NSSMS via the TAS/NSSMS interface, and forwards ACDS initiated engagements to NSSMS.

**NSSMS - NATO Sea Sparrow Missile System**

Provides missile engageability data, missile selection, firing data, and fire control system (FCS) modes to TAS.

**AutoID - Automatic Identification System**

Provides the combat system with an automatic track identification capability using track kinematic data, operator defined doctrine, and track Identification Friend or Foe (IFF) replies.

**LAMPS - Light Airborne Multi-Purpose System**

Provides an acoustic and electronic surveillance capability to the combat system at extended ranges. It also provides engagement capability against surface and subsurface threats.

**VLS - Vertical Launching System**

Provides an anti-surface and anti-subsurface missile launching capability to the combat system. It processes engagements from the ASWCS or the Tomahawk Weapon Control System (TWCS).

**ASWCS - Anti-Submarine Warfare Control System**

Provides the control of ASW sensors and weapons, including ACDS initiated orders.

**UPX - Interrogator System**

The InterrogatorSystem is a centralized AIMS Mk XII IFF system that provides a capability to distinguish friendly platforms in a multi-target environment.

**GFCS - Gun Fire Control System**

Provides air and surface targeting data to ACDS and controls the gun mount during gun engagements.

**NTCS-A - Navy Tactical Combat System - Afloat**

Provides Over The Horizon (OTH) non-real time track information, Tactical Decision Aids (TDAs) and landmass/political maps to the combat system via interface to ACDS.

**WDS - Weapon Direction System**

Provides control of the TERRIER/TARTAR fire control radars and launchers. It also provides the combat system with missile engageability data, engagement scheduling, and evaluation of engagement success.

**TIPS - Tactical Information Processing System**

Provides support for tactical (e.g., targeting data) and administrative (e.g., accounting data) functions via a general purpose data storage, processing, and retrieval system.

**HSDS - High Speed Digital Switching and Conversion System**

The HSDS interconnects equipment by converting the MILSPEC parallel data channel to serial, switching the serial data to the correct destination and reconverting the serial data to parallel, Multiple configuations are connected/disconnected rapidly to establish/modify test configurations.

**CEESIM - Combat Electromagnetic Environment Simulator**

Comprised of hardware and software to provide multiple threat emitters for detection by the SLQ-32 EW System.

**SLQ-32 - Electronic Support Measures System**

A computer controlled suite of EW equipment for the detection of radar emitters.

**RVS - Radar Video Simulator**

Receives video generation commands from the CSS and provides video, azimuth and trigger data output in simulation of radar and IFF video.

**ATWCS/TWCS - Advanced/Tomahawk Weapon Control System**

Comprises two functional groups, Track and Launch. Track provides for data and receipt processing, target evaluation and engagement planning. Launch Control provides for implementation of engagement plans and monitoring of missile launches.

**CSS - Combat System Simulation**

Provides a centrally controlled, integrated simulation environment for land based testing of non-AEGIS surface ship combat systems. With its simulation components, Interface Simulations **(INTSIMs)** and Satellite Simulations **(SATSIMs)** it provides the specific stimulus for elements of a combat system not available at a land based test site. **SATSIMs** are normally derivatives of existing simulations originally developed to support a very high fidelity, total wrap around interface enviromment for operational subsystems, and include:

**SYS-2**
**LAMPS MK III**

**Anti Submarine Warfare Combat System (ASWCS)**
**Underwater Fire Control System (UFCS) MK 116**
**Vertical Launch System (VLS)**
**WSN-5**
**MK 86 Gun Fire Control System (GFCS)**
**MK 23 TAS**
**NATO Aircraft Carrier Satelite Simulation (NCVSS)**
**WDS MK 14**
**NATO SEASPARROW**
**SLQ-32 Tactial Electronic Warfare Evaluation System (TEWES)**

In additon PHD NSWC has the following tools available to facilitate the integration and testing of Combat system software.

**MTASS - Machine Transferrable Support System**

The Program Generation Software program currently used by ICSTF PHD for the development, Life Cycle Maintenance and Configuration Management of the ICSTF PHD simulation software (CSS).

**IMS - Interface Monitoring System**

Data Extraction/Reduction tool which allows passive collection of up to 10 combat system interface channels concurrently.

**SMART - Shipboard Multipurpose Analysis and Reduction Tool**

Collection of data reduction/data analysis tools originally written for the HP-9020C minicomputer and now hosted in a PC. Supports data filtering and rapid data analysis

**SDS - Scenario Development System**

PC-based scenario development and playback tool for Combat System Simulation (CSS). Enables user to build large scripts quickly and accurately. Builds 7 track scenario mag tapes.

**$I^2T^2$ - Interface Injection Test Tool**

UYK-44 hosted tool which allows tester to inject and monitor interface errors between two combat system computers. Allows evaluation of interface error recovery procedures.

# ADDITIONAL INFORMATION

Facility/Capability Title: Integrated Combat Systems Test Faciity, Port Hueneme Division

Note: The Integrated Combat System Test Facility is being moved from Point Loma, CA to Port Hueneme, CA. The move will be completed prior to FY97 in compliance with BRAC 91 direction.

PERSONNEL

| | FY 93 | FY 94 | FY 95 | FY 96 | FY 97 | FY 98 | FY 99 | |
|---|---|---|---|---|---|---|---|---|
| Officer | 2 | 2 | 3 | 3 | 3 | 3 | 3 | R |
| Enlisted | 11 | 9 | 6 | 6 | 6 | 6 | 6 | R |
| Civilian | 49 | 57 | 55 | 55 | 55 | 55 | 55 | R |
| Contractor | 100 | 76 | 80 | 80 | 77 | 76 | 74 | R |
| TOTAL | 162 | 144 | 144 | 144 | 141 | 140 | 138 | R |

Total Square Footage: 33,244
Test Area Square Footage: 16,544
Tonnage of Equipment: 86.1
Annual Maintenance Cost: $1,900,000

Office Space Square Footage: 16,700
Volume of Equipment: 10,172 Ft.$^3$ R
Estimated Moving Cost: $4,021,000

CAPITAL EQUIPMENT INVESTMENT

| FY 93 | FY 94 | FY 95 | FY 96 | FY 97 | FY 98 | FY 99 | |
|---|---|---|---|---|---|---|---|
| $3,432 | $713.5K | $998.4K | $716.0K | $1018.4K | $1128.7K | $737.4K | R |

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# ADDITIONAL INFORMATION

Facility/Capability Title: Integrated Combat Systems Test Facility, Port Hueneme Division

**Note: The Integrated Combat System Test Facility is being moved from Point Loma, CA to Port Hueneme, CA. The move will be completed prior to FY97 in compliance with BRAC 91 direction.**

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PERSONNEL

| | FY 93 | FY 94 | FY 95 | FY 96 | FY 97 | FY 98 | FY 99 |
|---|---|---|---|---|---|---|---|
| Officer | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| Enlisted | 15 | 9 | 6 | 6 | 6 | 6 | 6 |
| Civilian | 50 | 57 | 55 | 55 | 55 | 55 | 55 |
| Contractor | 100 | 73 | 70 | 68 | 68 | 68 | 68 |
| TOTAL | 167 | 141 | 134 | 132 | 132 | 132 | 132 |

Total Square Footage: 33,244
Test Area Square Footage: 16,544
Office Space Square Footage: 16,700
Tonnage of Equipment: 80
Volume of Equipment: 360,000 Ft.$^3$
Annual Maintenance Cost: $1,900,000
Estimated Moving Cost: $4,021,000

CAPITAL EQUIPMENT INVESTMENT

| FY 93 | FY 94 | FY 95 | FY 96 | FY 97 | FY 98 | FY 99 |
|---|---|---|---|---|---|---|
| 3432K | 4513K | 1900K | 5200K | 4200K | 2500K | 3000K |

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# ADDITIONAL INFORMATION

Facility/Capability Title: Integrated Combat Systems Test Facility, Port Hueneme Division

PERSONNEL

| | FY 93 | FY 94 | FY 95 | FY 96 | FY 97 | FY 98 | FY 99 |
|---|---|---|---|---|---|---|---|
| Officer | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Enlisted | 15 | 9 | 6 | 6 | 6 | 6 | 6 |
| Civilian | 50 | 57 | 55 | 55 | 55 | 55 | 55 |
| Contractor | 100 | 73 | 70 | 68 | 68 | 68 | 68 |
| TOTAL | 167 | 141 | 133 | 131 | 131 | 131 | 131 |

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Office Space Square Footage: 16,700
Volume of Equipment: 360,000 Ft.$^3$
Estimated Moving Cost: $4,021,000

"The Integrated Combat System Test Facility is being moved from Pt. Loma, CA to ~~Poort Harbor~~ Pt. Hueneme, CA The move will be completed prior to FY97 in compliance with BRAC 91 direction."

CAPITAL EQUIPMENT INVESTMENT

| FY 93 | FY 94 | FY 95 | FY 96 | FY 97 | FY 98 | FY 99 |
|---|---|---|---|---|---|---|
| 3432K | 4513K | 1900K | 5200K | 4200K | 2500K | 3000K |

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# FACILITY CONDITION

FACILITY/CAPABILITY TITLE: Integrated Combat Systems Test Facility, Port Hueneme Division

AGE: 17 years REPLACEMENT VALUE: $12,000K for MILCON and $100,000K for equipment

MAINTENANCE AND REPAIR BACKLOG: None

DATE OF LAST UPGRADE: FY 77 for building and FY 88 for equipment

NATURE OF LAST UPGRADE: Installation of military computers (AN/UYK-43/44s) and displays (AN/UYK-21) to support the Advanced Combat Direction System Block 0 development and integration tests.

MAJOR UPGRADES PROGRAMMED

1. UPGRADE TITLE: Co-operative Engagement Capability (CEC)

TOTAL PROGRAMMED AMOUNT: $1,100K equipment

SUMMARY DESCRIPTION: Three ship CEC equipment suite with simulations

2. UPGRADE TITLE:
TOTAL PROGRAMMED AMOUNT:
SUMMARY DESCRIPTION:

**Note: The Integrated Combat System Test Facility is being moved from Point Loma, CA to Port Hueneme, CA. The move will be completed prior to FY97 in compliance with BRAC 91 direction.**

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# FACILITY CONDITION

FACILITY/CAPABILITY TITLE: Integrated Combat Systems Test Facility, Port Hueneme Division

AGE: 17 years REPLACEMENT VALUE: $12,000K for MILCON and $100,000K for equipment

MAINTENANCE AND REPAIR BACKLOG: None

DATE OF LAST UPGRADE: FY 77 for building and FY 88 for equipment

NATURE OF LAST UPGRADE: Installation of military computers (AN/UYK-43/44s) and displays (AN/UYK-21) to support the Advanced Combat Direction System Block 0 development and integration tests.

MAJOR UPGRADES PROGRAMMED

1. UPGRADE TITLE: Co-operative Engagement Capability (CEC)

TOTAL PROGRAMMED AMOUNT: $1,100K equipment

SUMMARY DESCRIPTION: Three ship CEC equipment suite with simulations

2. UPGRADE TITLE: ~~CVN-76 and LPD-17 Total Ship Integration Test (TSIT)~~

TOTAL PROGRAMMED AMOUNT: $6,000K

SUMMARY DESCRIPTION: Procure/install Fiber Optic LANs/Backbone, T-3 line from Pt. Loma, Ca. to Wallops Island, Va., Asynchronous Transfer Switches, Advance Display Systems, VME based systems and instrumentation. Develop necessary simulation.

"the Integrated Combat System Test Facility is being moved from Pt Loma, CA to Pt. Hueneme, CA. The move will be completed prior to FY97 in compliance with BRAC 91 direction."

# HISTORICAL WORKLOAD

FACILITY/CAPABILITY TITLE: Integrated Combat Systems Test Facility, Port Hueneme Division

| | | FISCAL YEAR | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| T&E FUNCTIONAL AREA | | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 |
| AIR VEHICLES | DIRECT LABOR | | | | | | | | |
| | TEST HOURS | | | | | | | | |
| | MISSIONS | | | | | | | | |
| EC | DIRECT LABOR | 3,060 | 3,060 | 3,060 | 3,204 | 3,204 | 3,560 | 3,560 | 3,560 |
| | TEST HOURS | 173 | 173 | 173 | 228 | 228 | 255 | 255 | 255 |
| | MISSIONS | | | | | | | | |
| ARMAMENT/ WEAPONS | DIRECT LABOR | | | | | | | | |
| | TEST HOURS | | | | | | | | |
| | MISSIONS | | | | | | | | |
| OTHER T&E | DIRECT LABOR | | | | | | | | |
| | TEST HOURS | | | | | | | | |
| | MISSIONS | | | | | | | | |
| OTHER | DIRECT LABOR | 73,480 | 73,480 | 73,480 | 76,890 | 76,890 | 85,440 | 85,440 | 85,440 |
| | TEST HOURS | 8,477 | 8,477 | 8,477 | 11,172 | 11,172 | 12,520 | 12,520 | 12,520 |
| | MISSIONS | | | | | | | | |

# DETERMINATION OF UNCONSTRAINED CAPACITY

FACILITY/CAPABILITY TITLE: Integrated Combat Systems Test Facility, Port Hueneme Division

| | | |
|---|---|---|
| ANNUAL HOURS OF DOWNTIME | 1 | 1822 |
| AVERAGE DOWNTIME PER DAY (LINE 1÷ 365) | 2 | 5 |
| AVERAGE HOURS AVAILABLE PER DAY (24 - LINE 2) | 3 | 19 |

| TEST TYPES | TESTS AT ONE TIME | WORKLOAD PER TEST PER FACILITY HOUR | WORKLOAD PER FACILITY HOUR | UNCONSTRAINED CAPACITY PER DAY (LINE 3 X TOTAL ∑) |
|---|---|---|---|---|
| 4 | 5 | 6 | 7 | |
| | | | | 8 387.6 |
| CSIT | 2 | 6.8 | 13.6 | |
| DEV | 1 | 6.8 | 6.8 | ANNUAL UNCONSTRAINED CAPACITY |
| | | | | |
| | | | | 9 141,474 |
| | | | | |
| "TYPICAL" | 3 | 13.6 | | |
| | | | TOTAL ∑ 20.4 | |

# TAB B

# SELF DEFENSE TEST SHIP

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## SECTION 2: CAPACITY & TECHNICAL RESOURCES

### 2.1 WORKLOAD

Annual workload will be reported in units as follows: for open air ranges involving flight testing, report test hours and missions. For all other T&E facilities direct labor hours and test hours must be reported; if available, missions must be reported. If an estimation of test hours based on direct labor hours is necessary, refer to the instructions for Determination of Unconstrained Capacity on page 28.

### 2.1.A Historical Workload

**-2.1.A.1** What amount of workload have you performed each year from FY86-93? Use the Historical Workload Form provided in Appendix A of this package.

### 2.1.B Forecasted Workload

**-2.1.B.1** Identify all appropriations (by program element) that generated a requirement for testing or test support, or are expected to generate a requirement for testing/test support in your Military Department (by functional areas of air vehicles, electronic combat (EC), armament/ weapons, and other test) for FY92, FY93, and each year in the FY95 FYDP. The Military Departments will provide total funding amounts appropriated for all PEs identified in each functional area shown above.

**The following programs are expected to generate a requirement for testing during the FY 95 to FY 02 time frame:**

| | | | |
|---|---|---|---|
| **SSDS** | **FY 96-99** | **PE 0604755N & PE 0603755N** | |
| **RAM** | **FY 95-97** | **PE 0604755N** | |
| **CIWS** | **FY 95-97** | **PE 0604755N** | |
| **ESSM** | **FY 98-02** | **PE 0604755N** | **R** |
| **SPQ 9B** | **FY 95-96** | **PE 0604755N** | |
| **ETC GUN** | **FY 97-99** | **PE 0603795N** | |
| **SDTS** | **FY 94-02** | **PE 65863N** | |

-2.1.B.2 What amount of test work was performed at your facility (in workyears by functional areas of air vehicles, electronic combat, armament/weapons, other tests, and other) in FY92 & FY93?

# SECTION 2: CAPACITY & TECHNICAL RESOURCES

## 2.1 WORKLOAD

Annual workload will be reported in units as follows: for open air ranges involving flight testing, report test hours and missions. For all other T&E facilities direct labor hours and test hours must be reported; if available, missions must be reported. If an estimation of test hours based on direct labor hours is necessary, refer to the instructions for Determination of Unconstrained Capacity on page 28.

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**-2.1.B.1** Identify all appropriations (by program element) that generated a requirement for testing or test support, or are expected to generate a requirement for testing/test support in your Military Department (by functional areas of air vehicles, electronic combat (EC), armament/ weapons, and other test) for FY92, FY93, and each year in the FY95 FYDP. The Military Departments will provide total funding amounts appropriated for all PEs identified in each functional area shown above.

**The following programs are expected to generate a requirement for testing during the FY 95 to FY 02 time frame:**

| | | |
|---|---|---|
| **SSDS** | **FY 96-99** | **PE 0604755N & PE 0603755N** |
| **RAM** | **FY 95-97** | **PE 0604755N** |
| **CIWS** | **FY 95-97** | **PE 0604755N** |
| **ESSM** | **FY 98-02** | **PE 0604755N & PE 0603755N** |
| **SPQ 9B** | **FY 95-96** | **PE 0604755N** |
| **ETC GUN** | **FY 97-99** | **PE 0603795N** |
| **SDTS** | **FY 94-02** | **PE 65863N** |

-2.1.B.2 What amount of test work was performed at your facility (in workyears by functional areas of air vehicles, electronic combat, armament/weapons, other tests, and other) in FY92 & FY93?

**No test work was performed in FY 92 or FY 93. The Self Defense Test Ship will not be operational until October 1994.**

## 2.2 UNCONSTRAINED CAPACITY

**-2.2.A** Unconstrained capacity is the maximum capacity of this facility, assuming manpower and consumable supplies (excluding utilities) are unlimited, but allowing for expected downtime (maintenance, weather, darkness (daylight), holidays, etc.). Provide your response by filling out the Determination of Unconstrained Capacity Form in accordance with the instructions in Appendix A.

**-2.2.B** Is this capacity limited by the physical characteristics of the facility itself, safety or health considerations, commercial utility availability, etc?

**NO**

## 2.3 TECHNICAL RESOURCES

**-2.3.A** Does the facility have a specified war-time or contingency role established in approved war plans? Yes/no.

**NO**

**-2.3.B** Does the facility provide a T&E product or service, without which irreparable harm would be imposed on the test mission of the host installation?

**-2.3.B.1** On the test mission of any other activity?

**NO**

**-2.3.B.2** On any other mission deemed critical to the operational effectiveness of the armed forces of the United States?

**Without this facility, there is no way to determine the effectiveness of anti-ship cruise missile defense.**

## SECTION 3: MEASURES OF MERIT

This section relates the measures of merit and the required data to the four criteria that have been established for Military Value. The four military value (MV) criteria are:

CRITERION 1: The current and future mission requirements and the impact on operational readiness of the Department of Defense's total force.

CRITERION 2: The availability and condition of land, facilities and associated airspace at both the existing and potential receiving locations.

CRITERION 3: The ability to accommodate contingency, mobilization, and future total force requirements at both the existing and potential receiving locations.

CRITERION 4: The cost and manpower implications.

### 3.1 OVER-ARCHING MEASURES OF MERIT

The over-arching measures of merit are listed with accompanying questions (or data requirements) intended to elicit standard information upon which the cross-service analyses can be based, and on which the Joint Cross-Service Groups can base their reviews of the Military Department analyses. Additional specific measures of merit are shown under individual functional areas. The numbers in parentheses () before each measure of merit indicate the BRAC selection criteria for military value.

**3.1.A. Interconnectivity (MV I)** - Measure of Merit: *Extent of linkage of this facility with other facilities and assessment of single-node failure potential.*

**-3.1.A.1** What percentage of total test workload in FY93 involved the real-time or near

real time exchange of data or control with another facility? List the facilities you interconnect to for test and identify how many are simultaneous activities. Identify these as to whether they are internal and external to the site.

**There was no test workload in FY 1993. The Self Defense Test ship will not be in operational service until October 1994. The ship interconnects with Naval Air Warfare Center, Weapons Division, Point Mugu, CA for navigation control, and with nearby Naval Surface Warfare Center Port Hueneme (CA) Division for weapons and sensor control via combination fiber optic and microwave link.**

**-3.1.A.2** If your facility were to be closed, would there be an impact on other facilities to which you are connected? Yes/no. If yes, explain.

**NO**

**3.1.B Facility Condition (MV II)** - Measure of merit: *Current and planned status of the T&E facilities for supporting assigned test missions.*
Fill out the Facility Condition Form in Appendix A in accordance with the instructions.

**3.1.C Environmental and Encroachment Carrying Capacity (MV II)** - Measure of Merit: *Extent of current and future potential environmental and encroachment impacts on air, land, and sea space for testing.*

**PHD DOES NOT OWN OR OPERATE A TEST RANGE BUT RATHER USES THE PACIFIC MISSILE TEST RANGE. CONSEQUENTLY QUESTIONS 3.1.C.1 THROUGH 3.1.C.6 ARE NOT APPLICABLE.**

**- 3.1.C.1** Do you have limiting (current or future) environmental and/or encroachment characteristics associated with the installation/facility?
Yes/no. If yes, explain.

**- 3.1.C.2** How much could workload be increased before this limit would be reached? Express your answer as a percentage of your current workload.

**- 3.1.C.3** Do you currently operate under temporary permits of an environmental

nature, or voluntary agreements (including treaties) of any sort that deal with the environment? If so, when do they expire? Please describe.

**- 3.1.C.4** What is the total population within a 50 mile radius? 100 mile radius? 150 mile radius? 200 mile radius?

**- 3.1.C.5** Identify the commercial air/land/sea traffic routes, public use of air/land/sea space, and frequency of use for each that affects or could affect mission accomplishment in your air, land, or sea space.

**- 3.1.C.5.A** How many test missions per year are canceled due to commercial or public use?

**- 3.1.C.6** What is the number of test missions that have been canceled due to encroachment in each of the last two years?

**3.1.D Specialized Test Support Facilities and Targets (MV I)** - Measure of Merit: *Extent to which specialized test support facilities and targets are available.*

**-3.1.D.1** Do you have specialized facilities are required to support you in conducting your test operations at your facility (e.g. Aerial delivery load build-up facilities; parachute drying towers/packing facilities; paratroop support facilities; specialized fuel storage and delivery systems; mission planning facilities; corrosion control, painting, washing facilities; and specialized maintenance facilities such as avionics intermediate shops)? Yes/no. If yes, please describe.

**For all remote controlled operations, Self Defense Test Ship navigation control is performed by Naval Air Warfare Center, Weapons Division (NAWCWPNDIV) Point Mugu, California Range Operations Center; weapon and sensor control is performed from nearby Naval Surface Warfare Center Surface (CA) Division's Surface Weapon Engineering Facility. All manned and unmanned operations at sea will be conducted on NAWCWPNDIV Point Mugu sea range. In addition the deep water port located at the Construction Battalion Center (CBC) is required for berthing of the SDTS.**

**-3.1.D.2** Are specialized targets required to support this facility? Yes/no. If yes, explain.

**No specialized targets are required, however, the Self Defense Test Ship is the only T & E platform that can engage real or simulated anti-ship cruise missiles in realistic firing scenarios at sea.**

**-3.1.D.2.A** Have the specialized targets been validated? Yes/no. If yes, by whom?

**When anti-ship cruise missiles were to be used as targets, they will be validated by NAWCWPNDIV, Point Mugu, CA.**

**3.1.E Expandability (MV III)** - Measure of Merit: *Extent to which an installation/facility is able to expand to accommodate additional workload or new missions.*

**-3.1.E.1** Other than the expandability inherent in unconstrained capacity, discussed earlier, are there any special aspects of this facility that enhance its ability to expand output within each T&E functional area? Yes/no. If yes, explain.

**YES. The Self Defense Test Ship has the capability for temporary installation of armament/weapons systems and sensors such as the AN/SPQ-9B Gun Fire Control Radar and other advanced guns and gun weapons systems.**

**-3.1.E.1.A** Can you accept new T&E workload different from what you are currently performing? Yes/no. If yes, identify by T&E functional area and test type.

**Yes. Electronic Combat test and evaluation, developmental engineering, and in-service engineering.**

**-3.1.E.2** Are airspace, land, and water areas--adjacent to areas under DoD control--available and/or suited for physical expansion to support new missions or increased footprints? Yes/no. If yes, please explain.

**N/A**

**-3.1.E.3** Is the facility equipped to support secure operations? Yes/no. If yes, to what level of classification (Confidential, Secret, Top Secret, Special Access Required)?

**Yes. SDTS is currently capable of performing tests to the level of Secret. Through special arrangements the ship can be made capable of accomodating Top Secrect classification for special projects.**

-3.1.E.4 Are there any capital improvements underway or programmed in the 95 FYDP, that would change your capacity/capability? Yes/no. If yes, explain.

**NO**

**3.1.F Uniqueness (MV I)** - Measure of Merit: *Extent to which the facility is one-of-a kind.*

**-3.1.F.1** Is this a one-of-a-kind facility within the DoD? Yes/no. If yes, describe.

**Yes. This is the only facility within DOD, U. S. Government, and the United States capable of assessing the performance of in-service or developmental weapon and sensor systems against real-world targets and threats, including anti-ship cruise missiles and electronic emitters at sea. There is currently no other way to assess whether a self defense hardkill or softkill system is truly effective against a given threat. The systems currently installed in the ship allow support of guided missiles, launchers, fire control systems, weapon data links, combat system integration of active and passive sensors, electronic warfare systems, and countermeasures.**

**Land based test sites cannot achieve this assessment for the following reasons:**

**-no representative ship's motion to influence algorithm computations**
**-land based operations do not accurately represent the marine environment for RF multipath, RF ducting, IR background, salt spray, sun angles over water, infrared extinction coefficient**
**-safety concerns for local population, employees prevents flying targets/threats in realistic scenarios from a variety of relative bearings**

**Weapon and sensor systems are currently tested on active fleet Navy ships. They are unable to evaluate the self defense systems against stringent or real world targets and threats because of safety limitations. Fleet assets for T and E projects are becoming increasingly harder to obtain because of the down-sizing of the U. S.**

**Navy. Systems undergoing test and evaluation often need months of dedicated time which rarely meshes with fleet deployment schedules.**

**-3.1.F.1.A** Within the US Government? Yes/no. If yes, describe.

**SEE -3.1.F.1**

**-3.1.F.1.B** Within the US? Yes/no. If yes, describe.

**SEE -3.1.F.1**

**-3.1.F.2** Are you currently providing support to DoD users outside your Military Department? Yes/no. If yes, indicate percentage of total workload in FY92 and FY93 by Military Department.

**No. The Self Defense Test Ship will not be in operational service until October 94.**

**3.1.G Available Air, Land, and Sea Space (MV II)** - Measure of Merit: *Extent to which controlled test ranges satisfy weapon system test requirements.*

**-3.1.G.1** How many square miles of air, land, and sea space are available to support test operations?

**The NAWCWPNDIV Point Mugu sea-range will support all SDTS test operations. The range covers approximately 2000 square miles of ocean.**

**-3.1.G.2** Who owns and or controls the land under the restricted airspace you use?

**NAWCWPNDIV Point Mugu**

**-3.1.G.3** How much of this is Restricted Airspace, and what altitude limits are associated with the restricted areas?

**N/A**

**-3.1.G.4** Do you have special use airspace other than supersonic airspace? Yes/no. If yes, for what types of test (e.g. terrain following radar)? Dimensions? Will it support simultaneous users? Yes/no.

**N/A**

**-3.1.G.5** Is the airspace over land or water? List the number of square miles over each.

**N/A**

**-3.1.G.6** Identify known or projected airspace problems that may prevent accomplishing your mission.

**N/A**

**-3.1.G.7** What is the maximum straight line segment in your airspace in nautical miles?

**N/A**

**-3.1.G.8** What public airspace have you used for overflight of weapons systems in the past? What was the nature of those tests? Do you anticipate being able to use that same public airspace for similar tests in the future? Yes/no.

**N/A**

**3.1.H Geographic/Climatological Features (MV II)** - Measure of Merit: *Extent to which types of climatic/geographic conditions represent world-wide operational conditions.*

**-3.1.H.1** Describe the topography and ground cover/vegetation within your test airspace (include nap-of-the-earth capability). Identify all of the following that apply: mountains, forest/jungle, cultivated lowland, swamp/riverine, desert, and sea. State the area of each in square miles.

**N/A**

**-3.1.H.2** Are there features of the local geology or soil conditions that enhance or

inhibit any types of test?

**The geography of the NAWCWPNDIV Point Mugu sea range near San Nicholas Island provides a unique environment, capable of satisfying all test requirements including land mass background, multi-interval clutter, and both littoral and open ocean warfare environments.**

**-3.1.H.3** Did you have to go to other geographical locations to satisfy test requirements? Yes/no and explain. If yes, provide as a percent of overall workload per year for the past 8 years.

**NO**

**-3.1.H.4** What is the number of days per year the average temperature is below 32 degrees F? Between 32 and 95 degrees? Above 95 degrees?

**Average number of days/year below 32 degrees: 2; between 32 and 95 degrees: 358; above 95 degrees: 5**

**-3.1.H.5** What is the number of days per year the average relative humidity is below 30%? Between 30 and 80%? Above 80%?

**Average number of days/year with relative humidity below 30%: 188; between 30 and 80%: 156 ; above 80%: 21**

**-3.1.H.6** What is the number of test missions per year (1985 - 1993) canceled due to weather?

**N/A**

**-3.1.H.7** What is the number of test days per year (1985 - 1993) canceled due to weather?

**N/A**

**-3.1.H.8** What is the number of days per year the visibility is less than 1 mile? Between 1 and 3 miles? Greater than 3 miles?

**Average number of days with visibility less than 1 mile: 6; between 1 and 3 miles: 11; over 3 miles: 349**

**-3.1.H.9** What is the average number of flying days available per year for flight test? Provide historical average from the past eight years.

**N/A**

**-3.1.H.10** What percentage of the time are your test operations restricted due to weather?

**The Self Defense Test Ship will not be in operational service until October 94. Anticipate less than 2%.**

## 3.2 AIR VEHICLES

This functional area includes facilities involved in the testing of all air vehicles/subsystems/components whether fixed wing or rotary wing and test of major subsystems (e.g., avionics, engines, and sensors). This includes flight testing and the testing involving pre- and post-flight preparation and processing of the air vehicle. Unmanned air vehicles and cruise missiles are included.

**THE SELF DEFENSE TEST SHIP IS NOT INVOLVED IN THE TESTING OF AIR VEHICLES. CONSEQUENTLY QUESTIONS 3.2.A THROUGH 3.2.C.8 ARE NOT APPLICABLE.**

**3.2.A Supersonic Airspace (MV II)** - Measure of Merit: *Extent of range size to support weapon system requirements.*

**-3.2.A.1** Do supersonic corridors or areas exist? Yes/no.

**-3.2.A.2** Where are they located relative to your airfield?

**-3.2.A.3** At what altitude (upper and lower altitude)?

**-3.2.A.4** Over land or water? What size and shape (length and width)?

**-3.2.A.5** Are there restrictions you must observe to use this space? Yes/no. If yes, explain.

**-3.2.A.6** What is the maximum number of simultaneous users?

**-3.2.B Airfield and Facility Characteristics (MV II)** - Measure of Merit: *Extent of air vehicle infrastructure to support T&E operations.*

**-3.2.B.1** Provide a brief description of your airfield and support facilities, to include the following: number and azimuth of runways, elevation, runway length (excluding overrun), overrun length, terminal and/or landing aids, arresting cable (yes/no, type), ramp area (in square feet), construction material (runway and ramps), load capability, and hangar space.

**-3.2.B.2** How close and how many emergency runways or airfields are in your area of operation?

**-3.2.B.3** Where is your airfield situated relative to working areas (airspace) for supporting test operations?

**-3.2.B.4** What makes your airfield unique or at least suited for supporting test operations?

**-3.2.B.5** Is there a size, weight, maintenance or mission limitation that would affect test operations? If so, describe the limitation(s). **N/A**

**-3.2.B.6** Including hangers and ramp space, how many fighter size aircraft could you support? Large multi-engine aircraft? Rotary wing? UAV? Cruise missiles?

**-3.2.C Test Operations (MV II)** - Measure of Merit: *Extent of T&E operations that the airspace can accommodate.*

**-3.2.C.1** What types of air vehicle testing (fixed wing, rotary wing, unmanned vehicles, and cruise missiles) can be supported? (e.g. performance, handling qualities, fatigue life, static, wheels and brakes, physical integration with external stores or avionics)

**-3.2.C.2** Do ground support facilities exist for pre-flight checkout or rehearsal of test missions?

**-3.2.C.3** What kinds, numbers of aircraft and mix can be supported (manned and unmanned)?

**-3.2.C.4** Does UAV and or rotary wing operations pose any limitation on other types of missions? If yes, explain.

**-3.2.C.5** What sorts of missions (e.g. air-to-air, air-to-ground and refueling) can be flown within local airspace?

**-3.2.C.6** What is the maximum number of simultaneous missions you can support that require telemetry?

**-3.2.C.7** What is the largest number of simultaneous test missions you have supported in your airspace?

**-3.2.C.8** Identify the number, types, and owners of aircraft at your installation.

## 3.3 ELECTRONIC COMBAT

This functional area includes facilities involved in the testing of stand-alone electronic combat systems and electronic combat subsystems that are normally integrated into other weapon systems. It includes the testing of systems or subsystems that have as their primary mission threat warning, testing of systems that provide countermeasures in the RF (radio frequency) spectrum against radars and other RF sensors, systems that provide countermeasures that are used against sensors in the electro-optical or infrared spectrum as well as testing of electronic and C3 countermeasures.

**THE SELF DEFENSE TEST SHIP IS NOT CURRENTLY PROJECTED TO BE INVOLVED IN THE TESTING OF ELECTRONIC COMBAT SYSTEMS. CONSEQUENTLY QUESTIONS 3.3.A THROUGH 3.3.B.5 ARE NOT APPLICABLE.**

**3.3.A Threat Environment (MV I)** - Measure of Merit: *Extent to which the capability satisfies weapon system requirements.*

**-3.3.A.1** What is the number of threats simulated?

**-3.3.A.2** How many simultaneous threats can be simulated? What type (e.g. AI, AAA, SAM)? What is maximum signal density? Average density? What power level? What band? Radiated or injected?

**-3.3.A.3** Are the threat software models and simulators (software/hardware) validated? Yes/no. If yes, by whom? **N/A**

**-3.3.A.4** Do you conduct open loop testing? Reactive? Closed loop? Yes/no for each.

**-3.3.A.5** What is the threat representation (fidelity) and density?

**-3.3.A.6** Are you capable of simulating land threats? Sea threats? Combined land/sea

threats? Yes/no. If yes, describe.

**-3.3.A.7** What geographic dispersion can be simulated?

**-3.3.A.7.A** Threat lay down?

**-3.3.A.7.B** Representative distance?

**-3.3.A.8** Are the threats moveable (i.e.dynamic) within a test scenario? relocatable to new scenarios? yes/no

**-3.3.A.9** Is the facility interlinked with off-site threats? Yes/no. If yes, how are you linked?

**-3.3.A.10** Is there a limit on simultaneous users? Yes/no. If no, explain.

**3.3.B Test Article Support (MV II)** - Measure of Merit: *Extent to which test support satisfies weapon system test requirements.*

**-3.3.B.1** Is there a size, weight, or other limitation on test operations the facility can support? Yes/no. If so, identify the limits and measures to remove them.

**-3.3.B.2** What is the number of simultaneous countermeasures that can be evaluated?

**-3.3.B.3** What range of spectra can be tested and evaluated?

**-3.3.B.4** What are the available spectra?

**-3.3.B.5** Do you have a scene generation capability? Yes/no. If yes, describe.

## 3.4 ARMAMENTS / WEAPONS

This functional area includes facilities involved in the testing of the weapons portion of a weapon system. In those cases where the weapon system is composed almost exclusively of the weapon, it may include system-level and platform integration testing. In other cases, it addresses just the weapon subsystem (e.g., guidance and control, propulsion, warheads, and airframe), while the testing of the weapon system's vehicle is in another functional area.

**3.4.A Directed Energy (MV II)** - Measure of Merit: *Extent to which the facility satisfies directed energy weapon system test requirements.*

This includes testing of all types of directed energy weapons.

**-3.4.A.1** Do you currently test directed energy weapon systems? Yes/no.

**NO**

If yes, explain. Describe the power source(s) you have available. What is your maximum downrange distance?

**3.4.B Rocket / Missile / Bomb Systems (MV II)** - Measure of Merit: *Extent capability satisfies weapon system test requirements.*

This includes the testing of all types of rocket, missile, and bomb systems at the system/subsystem/component level, both stand alone and integrated into the launch platform. This includes testing of air-to-air, air-to-surface, and surface-to-air missiles.

### -3.4.B.1 Ground Space

**-3.4.B.1.A** What is the area in square miles of the land and water space which you can use to conduct tests of live rocket, missile, or bomb systems?

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**36,000 square miles of ocean at NAWCWPNDIV Point Mugu sea range. R**

**-3.4.B.1.B** How many separate and distinct land and water test areas are available to conduct tests of live weapons? List them and the size of each in acres.

**The NAWCWPNDIV Point Mugu sea range, 36,000 square miles of ocean. R**

**-3.4.B.1.C** What are the maximum ranges (nautical miles) you can test, by type weapon?

| | | |
|---|---|---|
| **NATO SeaSparrow Missile System** | **10 NM** | **R** |
| **Rolling Airframe Missile System** | **11 NM** | **R** |
| **Phalanx Close-in-Weapon System** | **7 NM** | **R** |

**3.4.B.2 Test Operations**

**The self defense test ship will not be operational until October 94. Consequently questions 3.4.b.2.a through 3.4.b.2.d are not applicable.**

**-3.4.B.2.A** For each of your land and water ranges, how many test missions were scheduled in FY92 and FY93 that were required to use safety footprints comparable to those required for the following types of weapons:

--Unguided 2000 pound-class ballistic weapon
---live?
---inert?
--Guided weapon (e.g., GBU-24 class)
---live?
---inert?
--Stand-off weapon (e.g., AGM-130 class)
---live?
---inert?
--Short-range missile (e.g., AIM-9)
---below 5000 feet MSL
---between 5000 and 20,000 feet MSL
---above 20,000 feet MSL
--Long-range missile (e.g., AIM-120)

**2000 square miles of ocean at NAWCWPNDIV Point Mugu sea range.**

**-3.4.B.1.B** How many separate and distinct land and water test areas are available to conduct tests of live weapons? List them and the size of each in acres.

**The NAWCWPNDIV Point Mugu sea range, 2000 square miles of ocean.**

**-3.4.B.1.C** What are the maximum ranges (nautical miles) you can test, by type weapon?

| | |
|---|---|
| **NATO SeaSparrow Missile System** | **15 NM** |
| **Rolling Airframe Missile System** | **5 NM** |
| **Phalanx Close-in-Weapon System** | **1 NM** |

**3.4.B.2 Test Operations**

**The self defense test ship will not be operational until October 94. Consequently questions 3.4.b.2.a through 3.4.b.2.d are not applicable.**

**-3.4.B.2.A** For each of your land and water ranges, how many test missions were scheduled in FY92 and FY93 that were required to use safety footprints comparable to those required for the following types of weapons:

--Unguided 2000 pound-class ballistic weapon
---live?
---inert?
--Guided weapon (e.g., GBU-24 class)
---live?
---inert?
--Stand-off weapon (e.g., AGM-130 class)
---live?
---inert?
--Short-range missile (e.g., AIM-9)
---below 5000 feet MSL
---between 5000 and 20,000 feet MSL
---above 20,000 feet MSL
--Long-range missile (e.g., AIM-120)

---below 5000 feet MSL
---between 5000 and 20,000 feet MSL
---above 20,000 feet MSL

**-3.4.B.2.B** Were flight termination systems required? Yes/no.

**-3.4.B.2.C** If no missions were scheduled in a category, give the reason(s).

**-3.4.B.2.D** Were any scheduled missions canceled before the mission, or terminated/aborted during the mission because of encroachments into the safety footprint? Yes/no. If yes, how many per year.

# APPENDIX A - DATA FORMS AND INSTRUCTIONS

## 1. Form, General Information

**Facility/Capability:** Enter the descriptive title for the facility/capability. Avoid using acronyms and abbreviations unless the title defines the acronym. Example: Guided Weapons Evaluation Facility (GWEF).

**Origin date:** Enter today's date in the format MM/DD/YY.

**Military Department:** Allowable entries include "N" for Navy, "A" for Army, and "AF" for Air Force. If the facility/capability is managed by an "Other Government Agency" (e.g. ARPA, DNA, ACC) enter the appropriate Agency name.

**Organization/Activity:** Enter the name (with acronym) for the field activity. Example: White Sands Missile Range (WSMR).

**Location:** Enter the location where the facility/capability is physically located (installation, city or other common name).

**Unit Identification Code (UIC):** Enter the UIC.

**T&E Functional Area:** Enter the single area this facility/capability primarily supports: Air Vehicles, Armament/Weapons, Electronic Combat, or Other.

**T&E Test Facility Category:** Enter the facility category based on the following definitions:

(1) Digital Models and Computer Simulations (DMS)- Those models and simulations which either provide a simulated test environment or representations of

systems, components, and platforms. DMSs are used throughout the development and test process, as analytical tools, as well as tools to drive or control electronic and other environmental stimuli provided, the test articles on Open Air Ranges (OARs), Installed Systems Test Facilities (ISTFs), Hardware in the Loop Test Facilities (HITLs), Integration Laboratories (ILs), and Measurement Facilities (MFs).

(2) Measurement Facilities (MF)- Those facilities used to provide a specialized test environment and/or data collection capability. MFs may be ground based laboratories or open air facilities (often located at or part of OARs).

(3) Integration Laboratories (IL)- Those facilities designed to support the integration and test of various systems and components that will be installed in a host platform. ILs are generally platform specific or unique. However, the simulated stimuli and data collection capabilities required by ILs are often common with those required by HITLS and ISTFs.

(4) Hardware-In-The-Loop (HITL)- Those facilities which provide capabilities to test systems or their components at various stages of development (e.g., brassboard, breadboard, prototype, preproduction, production). HITLs provide stimuli and data collection capabilities to permit test and evaluation of a system/component independent of the host platform.

(5) Installed Systems Test Facilities (ISTF)- Ground based test facilities (usually chambers) that allow test of systems and weapons as installed in the combat platform. ISTFs provide simulated test environments and stimuli and data collection capabilities for the test article(s).

(6) Open Air Ranges (OAR)- Those facilities which consist of controlled or restricted areas to support the test of platforms/systems in a real world, dynamic environment. They are instrumented with data collection, time-space-position information, positive control of test participants, and real or simulated targets and threats as appropriate.

**Percentage Use:** Enter percentage of time, based on hours, the facility is used to

support each of the following (total must sum to 100%):

(1) Test and Evaluation (T&E)- Any facility that is accountable to Military Department and/or OSD T&E management oversight. Operation and sustainment of these facilities are typically funded from 6.5 or procurement program elements. Facilities in this category were developed to support developmental and/or operational test and evaluation and focus on the evaluation of system safety, technical performance, environmental (climatic, electromagnetic, etc.) effects, sustainability and operational suitability, maturity of production processes, and compliance with system specifications and quality standards.

(2) Science & Technology (S&T)- Any facility that is accountable to Military Department and/or OSD S&T management oversight. Operation and sustainment of these facilities are typically funded from 6.1, 6.2, and 6.3a program elements. Facilities in this category were developed to support experimental studies leading to enhanced understanding of new phenomena for new military applications as well as efforts directed toward the solution of problems in the physical, behavioral, and social sciences.

(3) Developmental Engineering (DE)- Any facility that is accountable to Military Department and/or OSD Research, Development and Engineering or acquisition management oversight. Operation and sustainment of these facilities are typically funded from 6.3b through 6.4 or procurement program elements. Facilities in this category were developed to support proof-of-principle and engineering development of systems.

(4) In-Service Engineering (IE)- Any facility that is accountable to Military Department and/or OSD logistics management oversight. Operation and sustainment of these facilities are typically funded from 6.7 or Operations and Maintenance (O&M) program elements. Facilities in this category were developed to support the maintenance facilities. These facilities tend to be system peculiar capabilities to conduct checkouts of the system/subsystems after they have undergone a modification, upgrade or improvement.

(5) Training and Doctrine (T&D)- Any facility that is accountable to Military Department and/or OSD training and doctrine management oversight. Operation and

sustainment of these facilities are typically funded from O&M program elements. Facilities in this category were developed to support the training and proficiency of operational forces and/or the development of new tactics, doctrine or force structure concepts.

(6) Other - Any work outside the above.

**Breakout by T&E Functional Area:** For each of the above categories (T&E, S&T, DE, IE, T&D, Other) enter percentage of time facility is used to support Air Vehicles, Armament/Weapons, Electronic Combat, or Other. Total of breakout areas must sum to top line percentage.

## 2. Form, Technical Information

**Facility Description:** Enter a brief description of the facility, including the mission statement.

**Interconnectivity/Multi-Use of Facility:** Describe any linking/interconnectivity with other T&E facilities. Include physical and/or data linkages (bandwidth, data rate, etc.). Describe any unique characteristics or multiple use of the resource (e.g., operating by rotating crew, availability of resource dependent on ..., equipment will be obsolete by ..., etc.)

**Type Tests Supported:** Enter specific types of tests accomplished by the Facility (e.g., electromagnetic compatibility, radar cross section, missile miss distance, air-to-air radar simulation, etc).

**Summary of Technical Capabilities**: Describe technical capabilities at your facility to include:

**Instrumentation/Assets:** Enter instrumentation and other assets (e.g., jammers, target generators, recording equipment, computer support equipment) associated with the resource.

Provide fact sheets, not to exceed two pages.

**Keywords:** Enter any keywords (spelled-out with acronyms) associated with functions and capabilities of the facility (e.g., electromagnetic interference/electromagnetic compatibility (EMI/EMC), anechoic chamber, radar cross section (RCS)).

## 3. Form, Additional Information

Additional Information Form. Enter facility name. Provide personnel numbers for FY93, FY94, and each year in the FY95 FYDP broken out according to officers, enlisted, civilians and contractors. Enter total area square footage of indoor space, test area square footage of indoor space used for T&E purposes, and list office space square footage separately. Tonnage of equipment is the weight of all equipment associated with this facility. Volume of equipment is the volume of all equipment associated with this facility. Annual maintenance cost is self explanatory. Moving costs are estimates for packing equipment at the losing site and reassembly, calibration, etc at the receiving site, not including transportation costs. Capital equipment investments are the current improvement and modernization funds as well as any programs funds earmarked for equipment purchase.

## 4. Form, Facility Condition

**Facility/Capability:** Enter the descriptive title for the facility/capability.

**Age:** Indicate the age of the facility/capability as of the date on the General Information Form.

**Replacement Value:** Enter the replacement value for the facility/capability. Indicate whether this includes the replacement cost for the equipment.

**Maintenance and Repair Backlog:** Enter the total dollar amount of the backlog for maintenance and repair items.

**Date of Last Upgrade:** Date of the last major upgrade to the facility.

**Nature of Last Upgrade:** Describe the purpose and capability increase from the last major upgrade. Indicate the date this upgrade became available for use.

**Major Upgrades Programmed:** Enter information on each of the major upgrades that are programmed. Indicate the total programmed amount and provide a summary description of the upgrade.

## 5. Form, Historical Workload

Use this form to report the workload performed at this facility each year from FY86-93.

**Facility/Capability Title:** Enter the descriptive title for the facility/capability. Avoid using acronyms and abbreviations unless the title defines the acronym. Example: Guided Weapons Evaluation Facility (GWEF).

**T&E Functional Area:** For each of these functional areas (Air Vehicles, Armament/Weapons, Electronic Combat, Other Test, and Other), enter direct labor hours, test hours, and/or missions for FY86 through FY93. For open air ranges involving flight testing, report test hours and missions. For all other T&E facilities direct labor hours and test hours must be reported; if available, missions must be reported. If an estimation of test hours based on direct labor hours is necessary, refer to the instructions for Determination of Unconstrained Capacity on page 28.

## 6. Form, Determination of Unconstrained Capacity

**Annual Hours of Downtime, 1:** If the facility were required to operate continuously for 24 hours a day, seven days a week, 52 weeks a year, determine the number of hours per day the facility can reasonably operate if it is not constrained by personnel strength? Consider your facilities, equipment, and instrumentation fixed at current levels.

1. Add up the total hours of downtime per year for maintenance, weather, darkness

(daylight), holidays, etc. Enter in line 1.

**Average Downtime Per Day, 2:** Divide line 1 by 365 to get the average downtime per day. Fill in at line 2.

**Average Hours Available Per Day, 3:** Subtract line 2 from 24 hours to get the average number of hours per day the facility is available for test. Fill in at line 3.

Analyze your historic workload mix to determine the average number and type of tests that have been run simultaneously at your facility. Determine the maximum number of tests that can be run simultaneously if there is no limit to personnel authorizations. Enter the following data from your analysis

**Test Types, 4:** Enter in column 4 the name of the type of test.

**Tests at One Time, 5:** List the number of each type of test that can be conducted simultaneously in column 5.

**Workload Per Test**
**Per Facility Hour, 6:** List the workload (reported in units as follows: For open air range flight testing, report workload in flight hours and numbers of missions. For all other test facility categories, including open air range other than flight testing, report workload in direct labor hours) represented by each hour the test is run. Do this at line 6.

From the historic workload analysis, determine the average workload per facility hour represented by the average or "typical" test. In the row titled "TYPICAL", in column 5, enter the number of these "typical" tests that can be run in addition to those already listed above. Enter the workload per "typical" test per facility hour in column 6. To estimate test hours from direct labor hours for the Historic Workload Form, divide the facility workload by this number (the number of direct labor hours per "typical" test per facility hour) and enter in the test hour block on the Historic Workload Form.

**Workload Per**

**Facility Hour, 7:** Multiply column 5 by column 6. Enter in column 7. Total column 7.

**Unconstrained Capacity Per Day, 8:** Multiply the total from column 7 by line 3 to get the unconstrained capacity per average day. Enter in line 8.

**Annual Unconstrained Capacity, 9:** Multiply line 8 by 365 to get the unconstrained capacity per year for the facility. Enter on line 9.

# GENERAL INFORMATION

Facility/Capability Title: Self Defense Test Ship (SDTS) Origin Date: 05/13/94

Service: N Organization/Activity: Port Hueneme Division, Naval Surface Warfare Center Location: Port Hueneme, CA

T&E Functional Area: Armament/Weapons UIC = 63394

T&E Test Facility Category Installed Systems Test Facility (ISTF)

| | T&E | S&T | D&E | IE | T&D | OTHER |
|---|---|---|---|---|---|---|
| PERCENTAGE USE: | — | — | 50% | 50% | — | |
| BREAKOUT BY T&E FUNCTIONAL AREA (%) | | | | | | |
| Air Vehicles | — | — | — | — | — | — |
| Armament/Weapons | — | — | 50% | 50% | — | — |
| EC | — | — | — | — | — | — |
| Other | — | — | — | — | — | — |

Total in Breakout Must Equal "Percentage Use" On First Line

# TECHNICAL INFORMATION

Facility/Capability Title: Self Defense Test Ship (SDTS)

| |
|---|
| Facility Description; Including mission statement: The mission of the SDTS(former USS DECATUR DDG-31) is to provide a fully remote controlled platform for at-sea evaluation of weapon and sensor systems against a wide variety of stringent targets and threats in realistic scenarios without the safety constraints required for manned ships. Targets and threats include combat aircraft, anti-ship cruise missiles, and surface craft. The SDTS can be operated remotely or manned on the Pacific Missile Test Range; ship control(navigation) will be from Naval Air Warfare Center, Weapons Division, Pt. Mugu, CA; Weapons and sensors will be controlled from nearby Naval Surface Warfare Center, Port Hueneme (CA) Division's Surface Weapons Engineering Facility. The Combat Systems suite includes MK 23 Target Acquisition System (TAS), NATO Seasparrow Missile System, (NSSMS)and the AN/SLQ-32 Electronic Support Measures System. Permanent installation of the Phalanx Close-in Weapon System (CIWS) and Rolling Airframe Missile (RAM) System are planned for FY 95. Other systems, such as the AN/SPQ-9B Gun Fire Control Radar may be temporarily installed for specific tests, then removed. |
| Interconnectivity/Multi-Use of T&E Facility: Weapons systems can be operated remotely from the Surface Warfare Engineering Facility at Naval Surface Warfare Center, Port Hueneme California via a combination fiber optic and RF Link, pierside or at sea. |
| Type of Test Supported: At-sea evaluation of weapon and sensor system performance against real-world threats and targets in realistic scenarios without the safety constraints required for manned ships or shore-based test site; real world threats include anti-ship cruise missiles (ASCM), combat aircraft, electronic jamming equipment, and surface craft; installation and assessment of software and hardware modifications in installed shipboard systems in an at-sea environment. |
| Summary of Technical Capabilities: The Self Defense Test ship is capable of detecting, acquiring, and engaging real world threats and controlled targets employing in-service U.S. Navy weapon and sensors. It also has the capability for temporary installation of developmental systems for at sea test and evaluation. |
| Keywords: Self Defense Test Ship (SDTS), NATO SEASPARROW Missile System (NSSMS), Rolling Airframe Missile (RAM), Close-In Weapons System (CIWS), Electronic Support Measures System (AN/SLQ-32), Surface Warfare Engineering Facility (SWEF), Target Acquisition System (TAS), Anti-Ship Cruise Missile (ASCM) |

# ADDITIONAL INFORMATION

Facility/Capability Title: Self Defense Test Ship

| PERSONNEL | FY 93 | FY 94 | FY 95 | FY 96 | FY 97 | FY 98 | FY 99 |
|---|---|---|---|---|---|---|---|
| Officer( Note 1) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enlisted | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Civilian | 0 | 3 | 4 | 4 | 3.5 | 4 | 4 |
| Contractor | 0 | 9 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| | | | | | | | |
| TOTAL | 0 | 12 | 10.5 | 10.5 | 10 | 10.5 | 10.5 |

Total Square Footage: N/A (NOTE 2) Office Space Square Footage: 10%
Test Area Square Footage: 25% Volume of Equipment: 80,000 Cubic FT
Tonnage of Equipment: 4000 Estimated Moving Cost:
Annual Maintenance Cost: $2.7M Self propelled - $140.00/mile; Under tow, unmanned - $43.00/mile;
Under tow, manned - $183.00/mile (NOTE 3)

NOTES:

(1) The military officer assignment is a collateral duty to the Naval Surface Warfare Center, Port Hueneme Divison Code 4LOO Department Officer Billet.

(2) The SDTS is a converted DECATUR class Destroyer, 418 feet long, 44 feet of beam, displacing 4000 tons, with a draft of 20 feet. (3) Requires deep water port.

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# ADDITIONAL INFORMATION

Facility/Capability Title: Self Defense Test Ship

| PERSONNEL | FY 93 | FY 94 | FY 95 | FY 96 | FY 97 | FY 98 | FY 99 |
|---|---|---|---|---|---|---|---|
| Officer( Note 1) | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Enlisted | 2 | 3 | 3 | 3 | 3 | 3 | 3 |
| Civilian | 1 | 2 | 3 | 3 | 3 | 3 | 3 |
| Contractor | 12 | 15 | 15 | 15 | 15 | 15 | 15 |
| | | | | | | | |
| TOTAL | 16 | 21 | 22 | 22 | 22 | 22 | 22 |

Total Square Footage: N/A (NOTE 2)
Test Area Square Footage: 25%
Tonnage of Equipment: 4000
Annual Maintenance Cost: $2.7M

Office Space Square Footage: 10%
Volume of Equipment: 80,000 Cubic FT
Estimated Moving Cost:
Self propelled - $140.00/mile; Under tow, unmanned - $43.00/mile;
Under tow, manned - $183.00/mile (NOTE 3)

**NOTES:**

**(1) The military officer assignment is a collateral duty to the Naval Surface Warfare Center, Port Hueneme Divison Code 4LOO Department Officer Billet.**

**(2) The SDTS is a converted DECATUR class Destroyer, 418 feet long, 44 feet of beam, displacing 4000 tons, with a draft of 20 feet.**

**(3) Requires deep water port.**

# ADDITIONAL INFORMATION (Continued)

CAPITAL EQUIPMENT INVESTMENT

| FY 93 | FY 94 | FY 95 | FY 96 | FY 97 | FY 98 | FY 99 |
|---|---|---|---|---|---|---|
| $0 | $0 | $0 | $0 | $0 | $0 | $0 |

R

Revised pg

# ADDITIONAL INFORMATION (Continued)

CAPITAL EQUIPMENT INVESTMENT

| FY 93 | FY 94 | FY 95 | FY 96 | FY 97 | FY 98 | FY 99 |
|---|---|---|---|---|---|---|
| $8.0M | $24M | $580K | $0 | $0 | $0 | $0 |

# FACILITY CONDITION

FACILITY/CAPABILITY TITLE: Self Defense Test Ship

AGE: 1 year REPLACEMENT VALUE: $32M

**Note: The Self Defense Test Ship is a converted DECATUR Class Destroyer. The Hull was completed in 1956, mothballed in 1981, reactivated in 1993. Replacement value reflects cost of ship conversion and installed weapon and sensor systems only.**

MAINTENANCE AND REPAIR BACKLOG: NONE

DATE OF LAST UPGRADE: Currently undergoing reactivation for T and E operations.

NATURE OF LAST UPGRADE: Replace ship's propulsion system and add new remote control navigation system. Install basic combat systems suite consisting of NATO Seasparrow Missile System (NSSMS), AN/SLQ-32 Electronic Support Measures System, and Tracking and Acquisition System (TAS)MK 23 installed. The ship will be in operational service in October 94

MAJOR UPGRADES PROGRAMMED

**Note: Temporary installation of various weapon and sensor systems for at-sea evaluation is planned beginning in FY 95. These temporary installations will be funded by individual system programs.**

1. UPGRADE TITLE: Rolling Airframe Missile (RAM) Installation

   TOTAL PROGRAMMED AMOUNT: $200K

   SUMMARY DESCRIPTION: Modifies ship to prepare for installation of RAM system to permanent weapon system configuration.

# FACILITY CONDITION (Continued)

FACILITY/CAPABILITY TITLE: Self Defense Test Ship

MAJOR UPGRADES PROGRAMMED

2. UPGRADE TITLE: Close In Weapons System (CIWS) Installation

   TOTAL PROGRAMMED AMOUNT: $300K

   SUMMARY DESCRIPTION: Modifies ship toprepare for installation of Phalanx Close in Weapon System (CIWS)

3. UPGRADE TITLE: Ship Self Defense System (SSDS) Installation

   TOTAL PROGRAMMED AMOUNT: $2.4M R

   SUMMARY DESCRIPTION: Modifies ship toprepare for installation of Ship Self Defense System (SSDS) Mk 1

Revised pg

# FACILITY CONDITION (Continued)

FACILITY/CAPABILITY TITLE: Self Defense Test Ship

MAJOR UPGRADES PROGRAMMED

2. UPGRADE TITLE: Close In Weapons System (CIWS) Installation

   TOTAL PROGRAMMED AMOUNT: $300K

   SUMMARY DESCRIPTION: Modifies ship toprepare for installation of Phalanx Close in Weapon System (CIWS)

3. UPGRADE TITLE: Ship Self Defense System (SSDS) Installation

   TOTAL PROGRAMMED AMOUNT: $80K

   SUMMARY DESCRIPTION: Modifies ship toprepare for installation of Ship Self Defense System (SSDS) Mk 1

# HISTORICAL WORKLOAD

FACILITY/CAPABILITY TITLE: Self Defense Test Ship (SDTS)

| | | FISCAL YEAR | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| T&E FUNCTIONAL AREA | | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 |
| AIR VEHICLES | DIRECT LABOR | | | | | | | | |
| | TEST HOURS | | | | | | | | |
| | MISSIONS | | | | | | | | |
| EC | DIRECT LABOR | | | | | | | | |
| | TEST HOURS | | | | | | | | |
| | MISSIONS | | | | | | | | |
| ARMAMENT/ WEAPONS | DIRECT LABOR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 500* |
| | TEST HOURS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | MISSIONS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OTHER T& E | DIRECT LABOR | | | | | | | | |
| | TEST HOURS | | | | | | | | |
| | MISSIONS | | | | | | | | |
| OTHER | DIRECT LABOR | | | | | | | | |
| | TEST HOURS | | | | | | | | |
| | MISSIONS | | | | | | | | |

*represents direct in-house labor hours required to complete ship conversion and reactivation.

# DETERMINATION OF UNCONSTRAINED CAPACITY

FACILITY/CAPABILITY TITLE: Self Defense Test Ship (SDTS)

**Note: Since the ship will not be in operational service until October 94, there is no historical basis for determining unconstrained capacity as specified in this table. However, it is projected that the ship will have the capability of operating 24 hours a day, 365 days a year less 20 days a year for maintenance downtime. Current projected usage is 260 days a year, with 20 days a quarter at sea.**

| | |
|---|---|
| ANNUAL HOURS OF DOWNTIME | 1 ___ |
| AVERAGE DOWNTIME PER DAY (LINE 1÷ 365) | 2 ___ |
| AVERAGE HOURS AVAILABLE PER DAY (24 - LINE 2) | 3 ___ |

| TEST TYPES | TESTS AT ONE TIME | WORKLOAD PER TEST PER FACILITY HOUR | WORKLOAD PER FACILITY HOUR | UNCONSTRAINED CAPACITY PER DAY (LINE 3 X TOTAL ∑) |
|---|---|---|---|---|
| 4 | 5 | 6 | 7 | 8_____ |
| _____ | _____ | _____ | _____ | |
| _____ | _____ | _____ | _____ | ANNUAL UNCONSTRAINED CAPACITY |
| _____ | _____ | _____ | _____ | |
| _____ | _____ | _____ | _____ | 9_____ |
| _____ | _____ | _____ | _____ | |
| "TYPICAL" | _____ | _____ | _____ | |
| | | | TOTAL ∑ ___ | |

**T&E JCSG CLARIFICATION - FORM #2**
**Armament/Weapons (HITL & ISTF)**

Activity Title: Port Hueneme Division of Naval Surface Warfare Center UIC: N63394

Facility/Capability Title: Self Defense Test Ship

T&E Test Facility Category: ISTF

Utilize the following table to indicate which of the indicated spectra are available to test against with this Facility /Capability.

| Spectra | Yes | No |
|---|---|---|
| Radio Frequency (RF) | X | |
| Electro-Optical (EO) | | X |
| Infrared (IR) | | X |
| Millimeter Wave (MMW) | | X |
| Ultra Violet (UV) | | X |
| Laser | | X |
| Midcourse Inertial/GPS (HITL only) | NA | NA |

Is this Facility/Capability equipped to support Top Secret or Special Access required work? Yes _X_ No ___.

SDTS is currently capable of performing tests to the level of Secret. Through special arrangements the ship can be made capable of accomodating Top Secrect classification for special projects.

# REQUESTS FOR CLARIFICATION

From the Base Structure Analysis Team (BSAT)

Control #: EC-02A

Date sent: 8 September 1994

To: MR. Bill Cocimano

Voice: (703) 602-0632
Fax: (703) 602-8474

Service: Navy
Site: Naval Surface Warfare Centers
Facility/Capability: Various
Page: Various

**CLARIFICATION/CORRECTION REQUESTED for Data Call #13. Various Questions**

Further clarification is required on reported facilities/capabilities for Electronic Combat (Measurement Facilities, Hardware-In-The-Loop, Installed-Systems-Test-Facilities, and Open Air Ranges) and for Armament/Weapons (Measurement Facilities, Hardware-In-The-Loop, and installed-Systems-Test-Facilities). Please direct each of your subordinate activities to fill out and submit the attached forms (Forms #1, #2 and/or #3) for each facility/capability that they reported in their response to Data Call #13 (e.g. a separate Form #1 should be completed for each Measurement Facility reported that performed work in the Electronic Combat functional area, a separate Form #2 should be completed for each Hardware-In-The-Loop facility that performed work in the Armament/Weapons functional area, etc.) Provide a YES or NO response for each question on each form.

CDR Mark B. Samuels, CEC, USN
(703) 681-0481, or (703) 578-5750

NOTE: This information is needed urgently. Request you respond with clarification comments (below) or corrected page(s) by 12 September 1994. FAX a preliminary response directly to the T&B Joint Cross-Service Working Group @ (703) 578-6592. Then, send your official response, properly certified, through your chain of command for certification and further forwarding to the BSAT.

Reply: SEE ATTACHED SHEET

| Name | Code | Commercial Phone # | Date |
|---|---|---|---|
| Dr. Robert A. Bland | 4R01 | (805) 982-7749 | 9-9-94 |



SEP-09-1994 08:41AM NSWC P.3/6

R

Port Hueneme Division of Naval Surface Warfare Center UIC: N63394

Reply: The Port Hueneme Division of the Naval Surface Warfare Center identified two facilities in response to Data Call 13: The Integrated Combat System Test Facility (ICSTF) at Point Loma, CA and the Self Defense Test Ship (SDTS) in Port Hueneme CA. ICSTF is classified as an Integration Laboratory and SDTS is classified as an Installed Systems Test Facility for Armament/Ordnance. Since no data was requested for Integration Laboratories ICSTF has not been addressed in this clarification. Data for SDTS has been provided in Form #2, Forms #1 and #3 do not apply.

# BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

Each individual in your activity generating information for the BRAC-95 process must certify that information. Enclosure (1) is provided for individual certifications and may be duplicated as necessary. You are directed to maintain those certifications at your activity for audit purposes. For purposes of this certification sheet, the commander of the activity will begin the certification process and each reporting senior in the Chain of Command reviewing the information will also sign this certification sheet. This sheet must remain attached to this package and be forwarded up the Chain of Command. Copies must be retained by each level in the Chain of Command for audit purposes.

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

Capt. John Scott Beachy
NAME (Please type or print)

Signature

Commanding Officer
Title

23 MAY 94
Date

PHD NSWC
Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (Sel) D. P. Sargent, Jr.
NAME (Please type or print)

Signature

Commander
Title

23 May 94
Date

Naval Surface Warfare Center
Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

NAME (Please type or print)

Signature

Title

Date

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

G. R. STERNER
NAME (Please type or print)

Signature

5-24-94
Date

Title
Commander
Naval Sea Systems Command

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

J. B. GREENE
NAME (Please type or print)

Signature

ACTING
Title

2 JAN 94
Date

Revisions to BRAC 95 Data Call #13

a. Page 10 - Paragraph 2.3.B - Change response from "YES" to "NO". Original response based on incorrect interpretation of the question.

b. Page 14, Paragraphs 3.1.E.1 and 3.1.E.2 - Changed response from "YES" to "NO", in light of the near-term transfer of equipment and functions to Port Hueneme. Both questions footnoted with "The Integrated Combat System Test Facility is being moved from Point Loma, CA to Port Hueneme, CA. The move will be completed prior to FY97 in compliance with BRAC 91 direction.

c. Page 15, Paragraph 3.1.F.1 - Reword sentence to read, "Only Navy facility that is currently conducting Combat System Integration Testing..." Wording in original response required clarification.

d. Page 40, ADDITIONAL INFORMATION form - Add footnote clarifying status of test facility equipment and function transfer. "The Integrated Combat System Test Facility is being moved from Point Loma, CA to Port Hueneme, CA. The move will be completed prior to FY97 in compliance with BRAC 91 direction"

e. Page 41, FACILITY CONDITION form - Add footnote clarifying status of test facility equipment and function transfer. "The Integrated Combat System Test Facility is being moved from Point Loma, CA to Port Hueneme, CA. The move will be completed prior to FY97 in compliance with BRAC 91 direction"

Same page - FACILITY CONDITION form - Delete UPGRADE TITLE #2, CVN-76 and LPD-17 Total Ship Integration Test (TSIT). This does not satisfy the definition of a major upgrade and will be replaced when the Integrated Combat System Test Facility is moved to Port Hueneme.

revision pgs. 14, 15, 40, 41 "REVISION"
DATA CALL #13
PORT HUENEME

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (sel) D. P. Sargent Jr.
NAME (Please type or print)

Signature

Commander
Title

6/3/94
Date

Naval Surface Warfare Center
Activity

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

~~NAME (Please type or print)~~

~~Signature~~

~~Title~~

~~Date~~

~~Activity~~

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

[illegible] GREENER
NAME (Please type or print)

Signature

Title

7-1-94
Date

[illegible] Command
Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

J. B. GREENE, JR.
NAME (Please type or print)

Signature

ACTING
Title

08 JUL 1994
Date

pg 14, 15, 40, 41 "REVISION" DATA CALL #13 PORT HUENEME

Port Hueneme Division, Naval Surface Surface Warfare Center
Data Call 13

## BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

CAPT John Scott Beachy
NAME (Please type or print)

Signature

Commanding Officer
Title

2 JUNE 1994
Date

Port Hueneme Division
Activity

The information to which this certification pertains is described as follows:

Revision to the Port Hueneme Division BRAC-95 Data Call #13, page 10, 14 15, 40, 41

Additional details of changes described on attached sheet

DATA CALL #13
PORT HUENEME SITE

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (Sel) D. P. Sargent, Jr.
NAME (Please type or print)

Signature

Commander
Title

8/23/94
Date

Naval Surface Warfare Center
Activity

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

~~NAME (Please type or print)~~

~~Signature~~

~~Title~~

~~Date~~

~~Activity~~

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

NAME (Please type or print)

Signature

G. R. STERNER
Title Commander
Naval Sea Systems Command

8/19/94
Date

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

W. A. EARNER
NAME (Please type or print)

Signature

Title

9/1/94
Date

Port Hueneme Division, Naval Surface Warfare Center
Data Call 13

## BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

Capt. John Scott Beachy
NAME (Please type or print)

Signature

Commanding Officer
Title

19 AUG 1994
Date

PHD NSWC
Activity

The information to which this certification pertains is described as follows:

Revision to the Port Hueneme Division BRAC-95 Data Call 13, pages: 40R, 45, 61, 73, 74, and 76.

Details of the change described on the attached sheet.

206

Revisions to BRAC 95 Data Call #13
19 August 1994

a. Page 40R - Change the FY 93 Personnel entries for Officer, Enlisted, Civilian, Contractor, and Total to: 2, 11, 49, 100 and 162 respectively. Inaccurate source used for this data.

b. Page 40R - Change Equipment Tonage from 80.0 to 86.1 tons. Previous tonage figures erroneously omitted some equipment.

c. Page 40R - Change Equipment Volume from 360,000 cu ft to 10,172 cu ft. Previously reported volume was volume of lab space where equipment resided vice volume of equipment itself.

d. Page 40R - Change the FY 94 through FY 99 entries for Contractor Personnel to 76, 80, 80, 77, 76, and 74 respectively. Totals for FY94 through FY 99 changed in accordance with this correction to 144, 144, 144, 141, 140, and 138 respectively. Inaccurate source used for this data.

e. Page 40R - Change the FY 94 through FY 99 entries for Capital Equipment Investment to $713.5K, $998.4K, $716.0K, $1018.4K, $1128.7K, $737.4K respectively. Previous figures were cumulative rather than yearly expenditures and also included some non capital expenditures.

f. Page 45, Par 2.1.B.1 - For ESSM eliminate PE 0603755N. Test requirement generated by PE 0604755N.

g. Page 61 Par 3.4.B.1.B - Change size of Range from 2,000 sq mi to 36,000 sq mi. Latter figure is total size of range vice that area used by Self Defense Test Ship.

h. Page 61 Par 3.4.B.1.C - Change maximum test ranges for NATO SeaSparrow Missile System, Rolling Airframe Missile System, and Phalanx Close-In-Weapon System from 15, 5, & 1 to 10, 11, & 7 respectively. Ranges given were range of weapon vice maximum test range.

i. Page 73 - Change entries in personnel table for FY 93 to zero for all categories of personnel. PHD NSWC did not take responsibility for Self Defense Test Ship until October of 1993. Change entries in personnel table for FY 94 through FY 99 to the following:

| PERSONNEL | FY 94 | FY 95 | FY 96 | FY 97 | FY 98 | FY 99 |
|---|---|---|---|---|---|---|
| Officer | 0 | 0 | 0 | 0 | 0 | 0 |
| Enlisted | 0 | 0 | 0 | 0 | 0 | 0 |
| Civilian | 3 | 4 | 4 | 3.5 | 4 | 4 |
| Contractor | 9 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| Total | 12.0 | 10.5 | 10.5 | 10.0 | 10.5 | 10.5 |

j. Page 74, Capital Equipment Investment Table - Change the entries for each year to $0. Future improvements and modifications tothe Self Defense Test Ship will be direct sponsor funded and not accomplished through a capital investment program.

k. Page 76 Change Total Programmed Amount for Ship Self Defense System from $80K to $2.4M. Typographical error.

DATA CALL #13
PORT HUENEME SITE

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (Sel) D. P. Sargent, Jr.
NAME (Please type or print)

Signature

Commander
Title

9/14/94
Date

Naval Surface Warfare Center
Activity

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

~~NAME (Please type or print)~~

~~Signature~~

~~Title~~

~~Date~~

~~Activity~~

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

NAME (Please type or print)
G. R. STERNER

Signature

Commander
Title

9-22-94
Date

Naval Sea Systems Command

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

W. A. EARNER
NAME (Please type or print)

Signature

Title

9/29/94
Date

DATA CALL #13

**Port Hueneme Division, Naval Surface Warfare Center**
**BSAT Request for Clarification - Control # EC-024**

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

Capt. John Scott Beachy
NAME (Please type or print)

Signature

Commanding Officer
Title

12 SEPT 1994
Date

PHD NSWC
Activity

**DATA CALL 63**
**FAMILY HOUSING DATA**

206

Information on Family Housing is required for use in BRAC-95 return on investment calculations.

| | |
|---|---|
| **Installation Name:** | NSWC PT HUENEME CA |
| **Unit Identification Code (UIC):** | N63394 |
| **Major Claimant:** | NAVSEA |

| | |
|---|---|
| **Percentage of Military Families Living On-Base:** | ~~38~~ 38.4% CW |
| **Number of Vacant Officer Housing Units:** | 0 |
| **Number of Vacant Enlisted Housing Units:** | 0 |
| **FY 1996 Family Housing Budget ($000):** | ~~109.5~~ 113.2 CW |
| **Total Number of Officer Housing Units:** | ~~5.5~~ 6 CW |
| **Total Number of Enlisted Housing Units:** | ~~16.4~~ 16 CW |

Line 4, Percentage of Military Families Living on Base, is taken from DD Form 1377.
Lines 7-9, represents the activitys' "fair share" of the complex total of the family housing budget and inventory of officer and enlisted units. This data was provided by COMNAVFACENGCOM.
This UIC contains 69 personnel entitled to BAQ W/Dependents out of a complex total of 2219 personnel entitled to BAQ W/Dependents.

There are 53 activities identified within this complex.

**Note:** All data should reflect figures as of the beginning of FY 1996. If major DON installations share a family housing complex, figures should reflect an estimate of the installation's prorated share of the family housing complex.

Enclosure (1)

CW 7/13
Chris Ward
July 13, 1994
NAVPAC 52JCW

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

J. E. BUFFINGTON, RADM, CEC, USN
NAME (Please type or print)

Signature

COMMANDER
Title

7/20/94
Date

NAVAL FACILITIES ENGINEERING COMMAND
Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

W. A. EARNER
NAME (Please type or print)

Signature

Title

7/25/94
Date

# BRAC-95 CERTIFICATION

Reference: SECNAV NOTE 11000 of 8 Dec 93

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

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I certify the information contained herein is accurate and complete to the best of my knowledge and belief.

SOUTHWESTNAVFACENGCOM

THOMAS E. GUNN
Name (Please type or print)

Signature

COMMANDING OFFICER
Title

7/13/94
Date

## DATA CALL 64

## CONSTRUCTION COST AVOIDANCES

**Table 1: Military Construction (MILCON) Projects (Excluding Family Housing Construction Projects)**

| | |
|---|---|
| **Installation Name:** | **PORT HUENEME CA NSWCDIV** |
| **Unit Identification Code (UIC):** | **N63394** #206 |
| **Major Claimant:** | **NAVSEA** |

| Project FY | Project No. | Description | Appn | Project Cost Avoid ($000) |
|---|---|---|---|---|
| 1999 | 016 | MSL SYS INTEGR LAB | MCON | 11,730 |
| | | **Sub-Total - 1999** | | **11,730** |
| | | | | |
| | | **Grand Total** | | **11,730** |
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I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

**J. E. BUFFINGTON, RADM, CEC, USN**
NAME (Please type or print)

Signature

**COMMANDER**
Title

7/13/94
Date

**NAVAL FACILITIES ENGINEERING COMMAND**
Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

**W. A. EARNER**
NAME (Please type or print)

Signature

Title

7/18/94
Date

BRAC-95 CERTIFICATION

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MARK E. DONALDSON
NAME (Please type or print)

Signature

CDR, CEC, USN
Title

12 July 1994
Date

MILCON PROGRAMMING DIVISION
Division

FACILITIES PROGRAMMING AND CONSTRUCTION DIRECTORATE
Department

NAVAL FACILITIES ENGINEERING COMMAND
Activity

Enclosure (1)

BRAC DATA CALL NUMBER 64
CONSTRUCTION COST AVOIDANCE

Information on cost avoidance which could be realized as the result of cancellation of on-going or programmed construction projects is provided in Tables 1 (MILCON) and 2 (FAMILY HOUSING). These tables list MILCON/FAMILY HOUSING projects which fall within the following categories:

1. all programmed construction projects included in the FY1996 - 2001 MILCON/FAMILY HOUSING Project List,

2. all programmed projects from FY1995 or earlier for which cost avoidance could still be obtained if the project were to be canceled by 1 OCT 1995, and,

3. all programmed BRAC MILCON/FAMILY HOUSING projects for which cost avoidance could still be obtained if the project were to be canceled by 1 OCT 1995.

Projects listed in Tables 1 and 2 with potential cost avoidance were determined as meeting any one of the following criteria:

Projects with projected Work in Place (WIP) less than 75% of the Current Working Estimate (CWE) as of 1 OCT 1995 .

Projects with projected completion dates or Beneficial Occupancy Dates subsequent to 31 March 1996.

Projects with projected CWE amount greater than $15M.

The estimated cost avoidance for projects terminated after construction award would be approximately one-half of the CWE for the remaining work. Close-out, claims and other termination costs can consume the other half.

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# DATA CALL 65
# ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

**Activity Identification:** Please complete the following table, identifying the activity for which this response is being submitted.

| | |
|---|---|
| **Activity Name:** | Naval Surface Warfare Center, Port Hueneme Division |
| **UIC:** | N63394 |
| **Major Claimant:** | NAVSEA |

**General Instructions/Background:**

Information requested in this data call is required for use by the Base Structure Evaluation Committee (BSEC), in concert with information from other data calls, to analyze both the impact that potential closure or realignment actions would have on a local community and the impact that relocations of personnel would have on communities surrounding receiving activities. In addition to Cost of Base Realignment Actions (COBRA) analyses which incorporate standard Department of the Navy (DON) average cost factors, the BSEC will also be conducting more sophisticated economic and community infrastructure analyses requiring more precise, activity-specific data. For example, activity-specific salary rates are required to reflect differences in salary costs for activities with large concentrations of scientists and engineers and to address geographic differences in wage grade salary rates.
Questions relating to "Community Infrastructure" are required to assist the BSEC in evaluating the ability of a community to absorb additional employees and functions as the result of relocation from a closing or realigning DON activity.

**Due to the varied nature of potential sources which could be used to respond to the questions contained in this data call, a block appears after each question, requesting the identification of the source of data used to respond to the question. To complete this block, identify the source of the data provided, including the appropriate references for source documents, names and organizational titles of individuals providing information, etc. Completion of this "Source of Data" block is critical since some of the information requested may be available from a non-DoD source such as a published document from the local chamber of commerce, school board, etc. Certification of data obtained from a non-DoD source is then limited to certifying that the information contained in the data call response is an accurate and complete representation of the information obtained from the source. Records must be retained by the certifying official to clearly document the source of any non-DoD information submitted for this data call.**

Revised pg

# DATA CALL 65
# ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

**General Instructions/Background (Continued):**

**The following notes are provided to further define terms and methodologies used in this data call. Please ensure that responses consistently follow this guidance:**

Note 1: Throughout this data call, the term **"activity"** is used to refer to the DON installation that is the addressee for the data call.

Note 2: Periodically throughout this data call, questions will include the statement that the response should refer to the **"area defined in response to question 1.b., (page 3)"**. Recognizing that in some large metropolitan areas employee residences may be scattered among many counties or states, **the scope of the "area defined" may be limited to the sum of:**

- **those counties that contain government (DoD) housing units (as identified in 1.b.2)), and,**
- **those counties closest to the activity which, in the aggregate, include the residences of 80% or more of the activity's employees.**

Note 3: Responses to questions referring to **"civilians"** in this data call should reflect **federal civil service appropriated fund employees**.

## 1. Workforce Data

**a. Average Federal Civilian Salary Rate.** Provide the projected FY 1996 average gross annual appropriated fund civil service salary rate for the activity identified as the addressee in this data call. This rate should include all cash payments to employees, and exclude non-cash personnel benefits such as employer retirement contributions, payments to former employees, etc.

| | |
|---|---|
| **Average Appropriated Fund Civilian Salary Rate:** | **50,084** |

R

NOTE: Required source of this data, Exhibit 2 of the FY94 NAVCOMPT Submit, includes data on PHD NSWC remote operating sites. Consequently, the salary rate above reflects the average of the entire division.

| |
|---|
| **Source of Data (1.a. Salary Rate): Civilian Personnel Exhibit 2, FY94 NAVCOMPT Submit** |

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

**General Instructions/Background (Continued):**

**The following notes are provided to further define terms and methodologies used in this data call. Please ensure that responses consistently follow this guidance:**

Note 1: Throughout this data call, the term **"activity"** is used to refer to the DON installation that is the addressee for the data call.

Note 2: Periodically throughout this data call, questions will include the statement that the response should refer to the **"area defined in response to question 1.b., (page 3)"**. Recognizing that in some large metropolitan areas employee residences may be scattered among many counties or states, **the scope of the "area defined" may be limited to the sum of:**

- **those counties that contain government (DoD) housing units (as identified in 1.b.2)), and,**
- **those counties closest to the activity which, in the aggregate, include the residences of 80% or more of the activity's employees.**

Note 3: Responses to questions referring to **"civilians"** in this data call should reflect **federal civil service appropriated fund employees**.

### 1. Workforce Data

**a. Average Federal Civilian Salary Rate.** Provide the projected FY 1996 average gross annual appropriated fund civil service salary rate for the activity identified as the addressee in this data call. This rate should include all cash payments to employees, and exclude non-cash personnel benefits such as employer retirement contributions, payments to former employees, etc.

| | |
|---|---|
| **Average Appropriated Fund Civilian Salary Rate:** | $60,515 |

NOTE: Required source of this data, Exhibit 2 of the FY94 NAVCOMPT Submit, includes data on PHD NSWC remote operating sites. Consequently, the salary rate above reflects the average of the entire division.

| |
|---|
| **Source of Data (1.a. Salary Rate): Civilian Personnel Exhibit 2, FY94 NAVCOMPT Submit** |

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

**b. Location of Residence.** Complete the following table to identify where employees live. Data should reflect current workforce.

**1) Residency Table.** Identify residency data, by county, for both military and civilian (civil service) employees working at the installation (including, for example, operational units that are homeported or stationed at the installation). For each county listed, also provide the estimated average distance from the activity, in miles, of employee residences and the estimated average length of time to commute one-way to work. For the purposes of displaying data in the table, any county(s) in which 1% or fewer of the activity's employees reside may be consolidated as a single line entry in the table, titled "Other".

| County of Residence | State | No. of Employees Residing in County | | Percentage of Total Employees | Average Distance From Base (Miles) | Average Duration of Commute (Minutes) |
|---|---|---|---|---|---|---|
| | | Military | Civilian | | | |
| Ventura | CA | 111 | 2053 | 86.91 | 11 | 20 |
| San Diego* | CA | 15 | 53 | 2.73 | 15 | 40 |
| Los Angeles | CA | 3 | 94 | 3.90 | 28 | 60 |
| Other | CA | 4 | 157 | 6.47 | N/A | N/A |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| TOTAL | | 133 | 2357 | 100.00 | | |

* In accordance with BRAC 91 requirements, San Diego County residents will be relocated to Port Hueneme by July 1997. This remote operating site of PHD NSWC is currently located on the NCCOSC/NRaD command; therefore, San Diego County residents are not included in the remainder of the PHD NSWC data call #65 response.

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

As discussed in Note 2 on Page 2, subsequent questions in the data call refer to the "area defined in response to question 1.b., (page 3)". In responding to these questions, the scope of the "area defined" may be limited to the sum of: a) those counties that contain government (DoD) housing units (as identified below), and, b) those counties closest to the activity which, in the aggregate, include the residences of 80% or more of the activity's employees.

**2) Location of Government (DoD) Housing.** If some employees of the base live in government housing, identify the county(s) where government housing is located:

VENTURA, CA

**Source of Data (1.b. 1) & 2) Residence Data): NCPDS, Military Recall List; personal experience in commuting by several PHD employees living in various cities in Ventura County.**

**c. Nearest Metropolitan Area(s).** Identify all major metropolitan area(s) (i.e., population concentrations of 100,000 or more people) which are within 50 miles of the installation. If no major metropolitan area is within 50 miles of the base, then identify the nearest major metropolitan area(s) (100,000 or more people) and its distance(s) from the base.

| City | County | Distance from base (miles) |
|---|---|---|
| Oxnard | Ventura | 2 |
| Thousand Oaks | Ventura | 20 |
| Simi Valley | Ventura | 22 |
| Santa Barbara | Santa Barbara | 35 |
| San Fernando* | Los Angeles | 35 |
| West Los Angeles** | Los Angeles | 45 |

* San Fernando metropolitan area includes several San Fernando Valley cities, including San Fernando, Reseda, Balboa and Encino.

** West Los Angeles metropolitan area includes several major cities, including Beverly Hills, Santa Monica, Hollywood, and the western portion of Los Angeles.

DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

| Source of Data (1.c. Metro Areas): ARCO "The Californias" Map |
|---|

**d. Age of Civilian Workforce.** Complete the following table, identifying the age of the activity's civil service workforce.

| Age Category | Number of Employees | Percentage of Employees |
|---|---|---|
| 16 - 19 Years | 4 | 0.17 |
| 20 - 24 Years | 66 | 2.86 |
| 25 - 34 Years | 699 | 30.34 |
| 35 - 44 Years | 584 | 25.35 |
| 45 - 54 Years | 624 | 27.08 |
| 55 - 64 Years | 285 | 12.37 |
| 65 or Older | 42 | 1.82 |
| TOTAL | 2304 | 100 % |

| Source of Data (1.d.) Age Data): NCPDS dated 31 MAY 94 |
|---|

**e. Education Level of Civilian Workforce**

**1) Education Level Table.** Complete the following table, identifying the education level of the activity's civil service workforce.

| Last School Year Completed | Number of Employees | Percentage of Employees |
|---|---|---|
| 8th Grade or less | 0 | 0 |
| 9th through 11th Grade | 7 | 0.3 |
| 12th Grade or High School Equivalency | 446 | 19.36 |
| 1-3 Years of College | 625 | 27.13 |

| Last School Year Completed | Number of Employees | Percentage of Employees |
|---|---|---|
| 4 Years of College (Bachelors Degree) | 1035 | 44.92 |
| 5 or More Years of College (Graduate Work) | 191 | 8.29 |
| TOTAL | 2304 | 100 % |

**2) Degrees Achieved.** Complete the following table for the activity's **civil service** workforce. Identify the number of employees with each of the following degrees, etc. To avoid double counting, only identify the highest degree obtained by a worker (e.g., if an employee has both a Master's Degree and a Doctorate, only include the employee under the category "Doctorate").

| Degree | Number of Civilian Employees |
|---|---|
| Terminal Occupation Program - Certificate of Completion, Diploma or Equivalent (for areas such as technicians, craftsmen, artisans, skilled operators, etc.) | 13 |
| Associate Degree | 242 |
| Bachelor Degree | 1077 |
| Masters Degree | 143 |
| Doctorate | 6 |

**Source of Data (1.e.1) and 2) Education Level Data): NCPDS dated 31 MAY 94**

**f. Civilian Employment By Industry.** Complete the following table to identify by "industry" the type of work performed by **civil service** employees at the activity. The intent of this table is to attempt to stratify the activity civilian workforce using the same categories of industries used to identify private sector employment. Employees should be categorized based on their primary duties. Additional information on categorization of private sector employment by industry can be found in the Office of Management and Budget Standard

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

Industrial Classification (SIC) Manual. However, you do not need to obtain a copy of this publication to provide the data requested in this table.

Note the following specific guidance regarding the "Industry Type" codes in the first column of the table: Even though categories listed may not perfectly match the type of work performed by civilian employees, please attempt to assign each civilian employee to one of the "Industry Types" identified in the table. However, only use the Category 6, "Public Administration" sub-categories when none of the other categories apply. Retain supporting data used to construct this table at the activity-level, in case questions arise or additional information is required at some future time. **Leave shaded areas blank.**

| Industry | SIC Codes | No. of Civilians | % of Civilians |
|---|---|---|---|
| **1. Agriculture, Forestry & Fishing** | 01-09 | | |
| **2. Construction** (includes facility maintenance and repair) | 15-17 | | |
| **3. Manufacturing** (includes Intermediate and Depot level maintenance) | 20-39 | | |
| 3a. Fabricated Metal Products (include ordnance, ammo, etc.) | 34 | | |
| 3b. Aircraft (includes engines and missiles) | 3721 et al | | |
| 3c. Ships | 3731 | | |
| 3d. Other Transportation (includes ground vehicles) | various | | |
| 3e. Other Manufacturing not included in 3a. through 3d. | various | | |
| **Sub-Total 3a. through 3e.** | 20-39 | | |
| **4. Transportation/Communications/Utilities** | 40-49 | | |
| 4a. Railroad Transportation | 40 | | |
| 4b. Motor Freight Transportation & Warehousing (includes supply services) | 42 | 35 | 1.52 |

**DATA CALL 65**
**ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

| Industry | SIC Codes | No. of Civilians | % of Civilians |
|---|---|---|---|
| 4c. Water Transportation (includes organizational level maintenance) | 44 | | |
| 4d. Air Transportation (includes organizational level maintenance) | 45 | | |
| 4e. Other Transportation Services (includes organizational level maintenance) | 47 | 6 | 0.26 |
| 4f. Communications | 48 | 1 | 0.04 |
| 4g. Utilities | 49 | | |
| **Sub-Total 4a. through 4g.** | 40-49 | 42 | 1.82 |
| **5. Services** | 70-89 | | |
| 5a. Lodging Services | 70 | | |
| 5b. Personal Services (includes laundry and funeral services) | 72 | | |
| 5c. Business Services (includes mail, security guards, pest control, photography, janitorial and ADP services) | 73 | 43 | 1.87 |
| 5d. Automotive Repair and Services | 75 | | |
| 5e. Other Misc. Repair Services | 76 | | |
| 5f. Motion Pictures | 78 | | |
| 5g. Amusement and Recreation Services | 79 | | |
| 5h. Health Services | 80 | | |
| 5i. Legal Services | 81 | 2 | 0.09 |
| 5j. Educational Services | 82 | 16 | 0.69 |
| 5k. Social Services | 83 | | |
| 5l. Museums | 84 | | |

**DATA CALL 65**
**ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

| Industry | SIC Codes | No. of Civilians | % of Civilians |
|---|---|---|---|
| 5m. Engineering, Accounting, Research & Related Services (includes RDT&E, ISE, etc.) | 87 | 2104 | 91.32 |
| 5n. Other Misc. Services | 89 | | |
| **Sub-Total 5a. through 5n.:** | 70-89 | 2165 | 93.97 |
| **6. Public Administration** | 91-97 | | |
| 6a. Executive and General Government, Except Finance | 91 | 90 | 3.91 |
| 6b. Justice, Public Order & Safety (includes police, firefighting and emergency management) | 92 | | |
| 6c. Public Finance | 93 | | |
| 6d. Environmental Quality and Housing Programs | 95 | 7 | 0.3 |
| **Sub-Total 6a. through 6d.** | | 97 | 4.21 |
| **TOTAL** | | 2304 | 100 % |

**Source of Data (1.f.) Classification By Industry Data): Manage-To-Payroll Report dated 28 May 1994, and DONEAS Report dated 31 May 1994**

**g. Civilian Employment by Occupation.** Complete the following table to identify the types of "occupations" performed by civil service employees at the activity. Employees should be categorized based on their primary duties. Additional information on categorization of employment by occupation can be found in the Department of Labor Occupational Outlook Handbook. However, you do not need to obtain a copy of this publication to provide the data requested in this table.

Note the following specific guidance regarding the "Occupation Type" codes in the first column of the table: Even though categories listed may not perfectly match the type of work performed by civilian employees, please attempt to assign each civilian employee to one of the "Occupation Types" identified in the table. Refer to the descriptions immediately following

this table for more information on the various occupational categories. Retain supporting data used to construct this table at the activity-level, in case questions arise or additional information is required at some future time. **Leave shaded areas blank.**

| Occupation | Number of Civilian Employees | Percent of Civilian Employees |
|---|---|---|
| **1. Executive, Administrative and Management** | 156 | 6.8 |
| **2. Professional Specialty** | | |
| 2a. Engineers | 904 | 39.24 |
| 2b. Architects and Surveyors | 1 | 0.04 |
| 2c. Computer, Mathematical & Operations Research | 54 | 2.65 |
| 2d. Life Scientists | 0 | 0 |
| 2e. Physical Scientists | 1 | 0.04 |
| 2f. Lawyers and Judges | 1 | 0.04 |
| 2g. Social Scientists & Urban Planners | 0 | 0 |
| 2h. Social & Recreation Workers | 0 | 0 |
| 2i. Religious Workers | 0 | 0 |
| 2j. Teachers, Librarians & Counselors | 0 | 0 |
| 2k. Health Diagnosing Practitioners (Doctors) | 0 | 0 |
| 2l. Health Assessment & Treating(Nurses, Therapists, Pharmacists, Nutritionists, etc.) | 0 | 0 |
| 2m. Communications | 64 | 2.78 |
| 2n. Visual Arts | 1 | 0.04 |
| **Sub-Total 2a. through 2n.:** | 1026 | 44.53 |
| **3. Technicians and Related Support** | | |
| 3a. Health Technologists and Technicians | 0 | 0 |
| 3b. Other Technologists | 519 | 22.53 |
| **Sub-Total 3a. and 3b.:** | 519 | 22.53 |

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

| Occupation | Number of Civilian Employees | Percent of Civilian Employees |
|---|---|---|
| **4. Administrative Support & Clerical** | 573 | 24.87 |
| **5. Services** | | |
| 5a. Protective Services (includes guards, firefighters, police) | 0 | 0 |
| 5b. Food Preparation & Service | 9 | 0.39 |
| 5c. Dental/Medical Assistants/Aides | 0 | 0 |
| 5d. Personal Service & Building & Grounds Services (includes janitorial, grounds maintenance, child care workers) | 2 | 0.09 |
| **Sub-Total 5a. through 5d.** | 11 | 0.48 |
| **6. Agricultural, Forestry & Fishing** | | |
| **7. Mechanics, Installers and Repairers** | 3 | 0.13 |
| **8. Construction Trades** | 1 | 0.04 |
| **9. Production Occupations** | 15 | 0.65 |
| **10. Transportation & Material Moving** | 0 | 0 |
| **11. Handlers, Equipment Cleaners, Helpers and Laborers** (not included elsewhere) | 0 | 0 |
| **TOTAL** | 2304 | 100% |

**Source of Data (1.g.) Classification By Occupation Data): NCPDS dated 31 MAY 94**

**Description of Occupational Categories used in Table 1.g.** The following list identifies public and private sector occupations included in each of the major occupational categories used in the table. Refer to these examples as a guide in determining where to allocate **appropriated fund civil service jobs** at the activity.

1. **Executive, Administrative and Management.** Accountants and auditors; administrative services managers; budget analysts; construction and building inspectors; construction contractors and managers; cost estimators; education administrators; employment interviewers; engineering, science and data processing managers; financial managers; general managers and top executives; chief executives and legislators; health services managers; hotel managers and assistants; industrial production managers; inspectors and compliance officers,

except construction; management analysts and consultants; marketing, advertising and public relations managers; personnel, training and labor relations specialists and managers; property and real estate managers; purchasing agents and managers; restaurant and food service managers; underwriters; wholesale and retail buyers and merchandise managers.

2. **Professional Specialty.** Use sub-headings provided.
3. **Technicians and Related Support.** Health Technologists and Technicians sub-category - self-explanatory. Other Technologists sub-category includes aircraft pilots; air traffic controllers; broadcast technicians; computer programmers; drafters; engineering technicians; library technicians; paralegals; science technicians; numerical control tool programmers.
4. **Administrative Support & Clerical.** Adjusters, investigators and collectors; bank tellers; clerical supervisors and managers; computer and peripheral equipment operators; credit clerks and authorizers; general office clerks; information clerks; mail clerks and messengers; material recording, scheduling, dispatching and distributing; postal clerks and mail carriers; records clerks; secretaries; stenographers and court reporters; teacher aides; telephone, telegraph and teletype operators; typists, word processors and data entry keyers.
5. **Services.** Use sub-headings provided.
6. **Agricultural, Forestry & Fishing.** Self explanatory.
7. **Mechanics, Installers and Repairers.** Aircraft mechanics and engine specialists; automotive body repairers; automotive mechanics; diesel mechanics; electronic equipment repairers; elevator installers and repairers; farm equipment mechanics; general maintenance mechanics; heating, air conditioning and refrigeration technicians; home appliance and power tool repairers, industrial machinery repairers; line installers and cable splicers; millwrights; mobile heavy equipment mechanics; motorcycle, boat and small engine mechanics; musical instrument repairers and tuners; vending machine servicers and repairers.
8. **Construction Trades.** Bricklayers and stonemasons; carpenters; carpet installers; concrete masons and terrazzo workers; drywall workers and lathers; electricians; glaziers; highway maintenance; insulation workers; painters and paperhangers; plasterers; plumbers and pipefitters; roofers; sheet metal workers; structural and reinforcing ironworkers; tilesetters.
9. **Production Occupations.** Assemblers; food processing occupations; inspectors, testers and graders; metalworking and plastics-working occupations; plant and systems operators, printing occupations; textile, apparel and furnishings occupations; woodworking occupations; miscellaneous production operations.
10. **Transportation & Material Moving.** Busdrivers; material moving equipment operators; rail transportation occupations; truckdrivers; water transportation occupations.
11. **Handlers, Equipment Cleaners, Helpers and Laborers** (not included elsewhere). Entry level jobs not requiring significant training.

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

**h. Employment of Military Spouses.** Complete the following table to provide estimated information concerning **military spouses** who are also employed in the area defined in response to question 1.b., above. **Do not fill in shaded area.**

| | |
|---|---|
| **1.** Percentage of Military Employees Who Are Married: | 78 |
| **2.** Percentage of Military Spouses Who Work Outside of the Home: | 77 |
| **3.** Break out of Spouses' Location of Employment (Total of rows 3a. through 3d. should equal 100% and reflect the number of spouses used in the calculation of the "Percentage of Spouses Who Work Outside of the Home". | |
| 3a. Employed "On-Base" - Appropriated Fund: | 8.3 |
| 3b. Employed "On-Base" - Non-Appropriated Fund: | 12.5 |
| 3c. Employed "Off-Base" - Federal Employment: | 16.7 |
| 3d. Employed "Off-Base" - Other Than Federal Employment | 62.5 |

**Source of Data (1.h.) Spouse Employment Data): Survey of On Board Military Personnel**

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

**2. Infrastructure Data.** For each element of community infrastructure identified in the two tables below, rate the community's ability to accommodate the relocation of additional functions and personnel to your activity. Please complete each of the three columns listed in the table, reflecting the impact of various levels of increase (20%, 50% and 100%) in the number of personnel working at the activity (and their associated families). In ranking each category, use one of the following three ratings:

**A** - Growth can be accommodated with little or no adverse impact to existing community infrastructure and at little or no additional expense.

**B** - Growth can be accommodated, but will require some investment to improve and/or expand existing community infrastructure.

**C** - Growth either cannot be accommodated due to physical/environmental limitations or would require substantial investment in community infrastructure improvements.

**Table 2.a., "Local Communities":** This first table refers to the local community (i.e., the community in which the base is located) and its ability to meet the increased requirements of the installation.

**Table 2.b., "Economic Region":** This second table asks for an assessment of the infrastructure of the economic region (those counties identified in response to question 1.b., (page 3) - taken in the aggregate) and its ability to meet the needs of additional employees and their families moving into the area.

**For both tables, annotate with an asterisk (*) any categories which are wholly supported on-base, i.e., are not provided by the local community. These categories should also receive an A-B-C rating. Answers for these "wholly supported on-base" categories should refer to base infrastructure rather than community infrastructure.**

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

**a. Table A: Ability of the local community to meet the expanded needs of the base.**

1) Using the **A - B - C** rating system described above, complete the table below.

| Category | 20% Increase | 50% Increase | 100% Increase |
|---|---|---|---|
| Off-Base Housing | A | A | A |
| Schools - Public | A | A | A |
| Schools - Private | A | A | A |
| Public Transportation - Roadways | A | A | A |
| Public Transportation - Buses/Subways | A | A | A |
| Public Transportation - Rail | A | A | A |
| Fire Protection | A | A | A |
| Police | A | A | A |
| Health Care Facilities | A | A | A |
| Utilities: | | | |
| Water Supply | A | A | A |
| Water Distribution | A | A | A |
| Energy Supply | A | A | A |
| Energy Distribution | A | A | A |
| Wastewater Collection | A | A | A |
| Wastewater Treatment | A | A | A |
| Storm Water Collection | A | A | A |
| Solid Waste Collection and Disposal | A | A | A |
| Hazardous/Toxic Waste Disposal | A | A | A |
| Recreational Activities | A | A | A |

Remember to mark with an asterisk any categories which are wholly supported on-base.

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

2) For each rating of "C" identified in the table on the preceding page, attach a brief narrative explanation of the types and magnitude of improvements required and/or the nature of any barriers that preclude expansion.

**Source of Data (2.a. 1) & 2) - Local Community Table):** Ventura County Planning Division; 1994 Ventura County Economic Outlook, published by University of California Santa Barbara Economic Forecast Project

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

**b. Table B: Ability of the region described in the response to question 1.b. (page 3) (taken in the aggregate) to meet the needs of additional employees and their families relocating into the area.**

1) Using the **A - B - C** rating system described above, complete the table below.

| Category | 20% Increase | 50% Increase | 100% Increase |
|---|---|---|---|
| Off-Base Housing | A | A | A |
| Schools - Public | A | A | A |
| Schools - Private | A | A | A |
| Public Transportation - Roadways | A | A | A |
| Public Transportation - Buses/Subways | A | A | A |
| Public Transportation - Rail | A | A | A |
| Fire Protection | A | A | A |
| Police | A | A | A |
| Health Care Facilities | A | A | A |
| Utilities: | | | |
| Water Supply | A | A | A |
| Water Distribution | A | A | A |
| Energy Supply | A | A | A |
| Energy Distribution | A | A | A |
| Wastewater Collection | A | A | A |
| Wastewater Treatment | A | A | A |
| Storm Water Collection | A | A | A |
| Solid Waste Collection and Disposal | A | A | A |
| Hazardous/Toxic Waste Disposal | A | A | A |
| Recreation Facilities | A | A | A |

Remember to mark with an asterisk any categories which are wholly supported on-base.

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

2) For each rating of "C" identified in the table on the preceding page, attach a brief narrative explanation of the types and magnitude of improvements required and/or the nature of any barriers that preclude expansion.

**Source of Data (2.b. 1) & 2) - Regional Table):** Ventura County Planning Division; 1994 Ventura County Economic Outlook, published by University of California Santa Barbara Economic Forecast Project

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

**3. Public Facilities Data:**

a. **Off-Base Housing Availability.** For the counties identified in the response to question 1.b. (page 3), in the aggregate, estimate the current average vacancy rate for community housing. Use current data or information identified on the latest family housing market analysis. For each of the categories listed (rental units and units for sale), combine single family homes, condominiums, townhouses, mobile homes, etc., into a single rate:

Rental Units: **4.83%**

Units for Sale: **3.5%**

**Source of Data (3.a. Off-Base Housing):** Housing Division , CBC, Ventura County Population and Housing Estimates of 1 January 1993

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

b. **Education.**

1) Information is required on the current capacity and enrollment levels of school systems serving employees of the activity. Information should be keyed to the counties identified in the response to question 1.b. (page 3).

| School District | County | Number of Schools | | | Enrollment | | Pupil-to-Teacher Ratio | | Does School District Serve Gov't Housing Units? * |
|---|---|---|---|---|---|---|---|---|---|
| | | Elementary | Middle | High | Current | Max. Capacity | Current | Max. Ratio | |
| **CAMARILLO AREA** | | | | | | | | | |
| Mesa Union | Ventura | 1 | 1 | 0 | 353 | See Note 1 | 26.6 | See Note 2 | No |
| Pleasant Valley | Ventura | 12 | 2 | 0 | 6,879 | See Note 1 | 23.7 | See Note 2 | Yes |
| Somis Union | Ventura | 1 | 0 | 1 | 290 | See Note 1 | 26.4 | See Note 2 | No |
| **OXNARD, HUENEME, VENTURA** | | | | | | | | | |
| Hueneme | Ventura | 9 | 2 | 0 | 7,608 | See Note 1 | 25.3 | See Note 2 | Yes |
| Ocean View | Ventura | 3 | 1 | 0 | 2,374 | See Note 1 | 25.0 | See Note 2 | Yes |
| Oxnard | Ventura | 13 | 3 | 0 | 12,949 | See Note 1 | 26.9 | See Note 2 | Yes |
| Rio | Ventura | 5 | 0 | 0 | 2,836 | See Note 1 | 25.7 | See Note 2 | No |
| Ventura Unified | Ventura | 17 | 4 | 5 | 15,409 | See Note 1 | 25.1 | See Note 2 | Yes |
| Oxnard Union | Ventura | 0 | 0 | 6 | 12,259 | See Note 1 | 26.6 | See Note 2 | Yes |
| **SANTA PAULA** | | | | | | | | | |
| Briggs | Ventura | 2 | 0 | 0 | 378 | See Note 1 | 25.2 | See Note 2 | No |
| Mupu | Ventura | 1 | 0 | 0 | 114 | See Note 1 | 24.0 | See Note 2 | No |
| Santa Clara | Ventura | 1 | 0 | 0 | 35 | See Note 1 | 17.5 | See Note 2 | No |
| Santa Paula | Ventura | 6 | 1 | 0 | 3,234 | See Note 1 | 25.5 | See Note 2 | No |
| Santa Paula Union | Ventura | 0 | 0 | 2 | 1,296 | See Note 1 | 24.9 | See Note 2 | No |
| **CONEJO VALLEY** | | | | | | | | | |
| Conejo Valley Unified | Ventura | 18 | 4 | 4 | 17,587 | See Note 1 | 26.4 | See Note 2 | No |
| Oak Park Unified | Ventura | 3 | 1 | 2 | 2,498 | See Note 1 | 23.6 | See Note 2 | No |
| **SINGLE DISTRICTS** | | | | | | | | | |
| Simi Valley Unified | Ventura | 19 | 4 | 3 | 18,565 | See Note 1 | 25.2 | See Note 2 | No |

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

| School District | County | Number of Schools | | | Enrollment | | Pupil-to-Teacher Ratio | | Does School District Serve Gov't Housing Units? * |
|---|---|---|---|---|---|---|---|---|---|
| | | Elementary | Middle | High | Current | Max. Capacity | Current | Max. Ratio | |
| Moorpark Unified | Ventura | 5 | 1 | 2 | 5,960 | See Note 1 | 24.7 | See Note 2 | No |
| Ojai Unified | Ventura | 5 | 1 | 2 | 3,884 | See Note 1 | 24.5 | See Note 2 | No |
| Fillmore Unified | Ventura | 3 | 1 | 2 | 3,504 | See Note 1 | 23.5 | See Note 2 | No |

* Answer "Yes" in this column if the school district in question enrolls students who reside in government housing.

**NOTE 1: There is no "Maximum Enrollment" mandated by state or local regulations that would limit the enrollment of an individual school district. On the contrary, public law demands that space be made available for any and all students residing within that district. Consequently it is incumbent upon the district to use leased facilities or other temporary measures to accommodate enrollment numbers that exceed the capacity of present facilities.**

**NOTE 2: The California Education Code, Sections 41376 and 41378, provide maximums for individual class size and district-wide class size averages. These class sizes and averages are grouped by grade level and are established as follows:**

**Kindergarten - Individual Class Size average cannot exceed 33**
**District-wide averages cannot exceed 31**

**Grades 1-3 - Individual Class Size average cannot exceed 32**
**District-wide averages cannot exceed 30**

**Grades 4-6 - There is no individual class size maximum**
**District-wide averages cannot exceed 29.9**

**Grades 7-12 - See below**

**Special Education classes and necessary small schools with less than 101 units of average daily attendance are excluded from class size calculations. The Santa Clara School District falls in this category. Grades 7 and 8 in a junior high school established and organized as a secondary school by a high school or unified district are also exempt. In addition, the limits specified above do not apply to non-academic classes such as P.E., Home Economics, and Industrial Arts.**

**There is no provision in the California Education Code for maximum class size or pupil-to-teacher ratios for high schools.**

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## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

**In addition to the California Education Code, school districts may establish maximums via bargained agreements or other policies established with teachers and/or school boards. Maximum ratios identified in these agreements may exceed the state mandates; however, class size waivers can be obtained under the general waiver provisions of Education Code Section 33050.**

**The following table shows the "Maximum Pupil-to-Teacher Ratios" for each district listed in the Education Table for question 3.b**

| School District | GRADE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9-12 |
| **CAMARILLO AREA** | | | | | | | | | | |
| Mesa Union | 31 | 30 | 30 | 30 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | NA |
| Pleasant Valley | 31 | 30 | 30 | 30 | 30.6 | 30.6 | 30.6 | 28 | 28 | NA |
| Somis Union | 31 | 30 | 30 | 30 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | None |
| **OXNARD, HUENEME, VENTURA** | | | | | | | | | | |
| Hueneme | 31 | 30 | 30 | 30 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | NA |
| Ocean View | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | NA |
| Oxnard | 30 | 30 | 30 | 30 | 35 | 35 | 35 | 35 | 35 | NA |
| Rio | 31 | 31 | 31 | 31 | 32 | 32 | 32 | 32 | 32 | NA |
| Ventura Unified | 30 | 30 | 30 | 30 | 30 | 30 | 33 | 33 | 33 | 33 |
| Oxnard Union | NA | NA | NA | NA | NA | NA | NA | NA | NA | 38 |
| **SANTA PAULA** | | | | | | | | | | |
| Briggs | 31 | 30 | 30 | 30 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | NA |
| Mupu | 31 | 30 | 30 | 30 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | NA |
| Santa Clara | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

**DATA CALL 65**
**ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

| School District | GRADE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9-12 |
| Santa Paula | 30 | 30 | 30 | 30 | 31 | 31 | 31 | 31 | 31 | NA |
| Santa Paula Union | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| **CONEJO VALLEY** | | | | | | | | | | |
| Conejo Valley Unified | 29 | 29 | 29 | 29 | 31 | 31 | 31 | 28.5 | 28.5 | 28.5 |
| Oak Park Unified | 28 | 28 | 28 | 28 | 28 | 28 | 30 | 30 | 30 | 28 |
| **SINGLE DISTRICTS** | | | | | | | | | | |
| Simi Valley Unified | 29 | 29 | 29 | 29 | 31 | 31 | 31 | 31 | 31 | 30.5 |
| Moorpark Unified | 31 | 30 | 30 | 30 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 30 |
| Ojai Unified | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 26 | 26 | 26 |
| Fillmore Unified | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 |

**Source of Data (3.b.1) Education Table):** Ventura County School Districts 1991-92 Selected Pupil Enrollment and Financial Data Report, April 1993; California Department of Education, Demographics Department/California Basic Educational Data System (CBEDS) October 1993; 1993 Ventura County Statistical Abstract; Ventura County Public School Directory 1993-1994, and telephone conversations with the Business Financial Managers and or Superintendents for each school district.

2) Are there any on-base "Section 6" Schools? If so, identify number of schools and current enrollment.

**NO**

**Source of Data (3.b.2) On-Base Schools): Naval Construction Battalion Center (Host Command) Military Affairs Department**

**DATA CALL 65**
**ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

3) For the counties identified in the response to question 1.b. (page 3), in the aggregate, list the names of undergraduate and graduate colleges and universities which offer certificates, Associate, Bachelor or Graduate degrees :

| COLLEGES/UNIVERSITIES | Certificate | Associate | Bachelor | Graduate |
|---|---|---|---|---|
| California State University, Northridge | Yes | No | Yes | Yes |
| California Lutheran University | Yes | No | Yes | Yes |
| University of Phoenix, Southern California Campus | Yes | No | Yes | Yes |
| University of Laverne | Yes | No | Yes | Yes |
| University of California, Santa Barbara | Yes | No | Yes | Yes |
| University of California, Los Angeles | Yes | No | Yes | Yes |
| University of Southern California | Yes | No | Yes | Yes |
| West Coast University | Yes | No | Yes | Yes |
| Pepperdine University | Yes | No | Yes | Yes |
| National University | Yes | No | Yes | Yes |
| St. John's College | Yes | No | Yes | No |
| Thomas Aquinas College | Yes | No | Yes | No |
| Art Center College of Design | Yes | No | Yes | Yes |
| Azusa Pacific University | Yes | Yes | Yes | Yes |
| Biola University | Yes | No | Yes | Yes |
| California Institute of the Arts | Yes | No | Yes | Yes |
| California Institute of Technology | Yes | No | Yes | Yes |
| California State Polytechnic University, Pomona | Yes | No | Yes | Yes |
| California State University, Dominguez Hills | Yes | No | Yes | Yes |
| California State University, Long Beach | Yes | No | Yes | Yes |

**DATA CALL 65**
**ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

| COLLEGES/UNIVERSITIES | Certificate | Associate | Bachelor | Graduate |
|---|---|---|---|---|
| California State University, Los Angeles | Yes | No | Yes | Yes |
| Claremont McKenna College | Yes | No | Yes | Yes |
| DeVry Institute of Technology | Yes | Yes | Yes | No |
| Harvey Mudd College | Yes | No | Yes | Yes |
| Loyola Marymount University | Yes | No | Yes | Yes |
| The Master's College | Yes | Yes | Yes | Yes |
| Mount St. Mary's College | Yes | Yes | Yes | Yes |
| Northrop University | Yes | Yes | Yes | Yes |
| Occidental College | Yes | No | Yes | Yes |
| Otis Art Institute of Parsons School of Design | Yes | No | Yes | Yes |
| Pitzer College | Yes | No | Yes | No |
| Pomona College | Yes | No | Yes | No |
| Scripps College | Yes | No | Yes | No |
| Westmont College | Yes | No | Yes | No |
| Whittier College | Yes | No | Yes | Yes |
| Woodbury University | Yes | Yes | Yes | Yes |
| Ventura College of Law | No | No | No | Yes |
| Brooks Institute of Photography | Yes | No | Yes | Yes |
| University of West Los Angeles | Yes | No | Yes | Yes |
| Oxnard College | Yes | Yes | No | No |
| Ventura College | Yes | Yes | No | No |
| Moorpark College | Yes | Yes | No | No |
| Cerritos College | Yes | Yes | No | No |
| Compton Community College | Yes | Yes | No | No |

**DATA CALL 65**
**ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

| COLLEGES/UNIVERSITIES | Certificate | Associate | Bachelor | Graduate |
|---|---|---|---|---|
| East Los Angeles College | Yes | Yes | No | No |
| El Camino College | Yes | Yes | No | No |
| Glendale Community College | Yes | Yes | No | No |
| Golden West College | Yes | Yes | No | No |
| Long Beach City Colleege | Yes | Yes | No | No |
| Los Angeles City College | Yes | Yes | No | No |
| Los Angeles Harbor College | Yes | Yes | No | No |
| Los Angeles Mission College | Yes | Yes | No | No |
| Los Angeles Pierce College | Yes | Yes | No | No |
| Los Angeles Southwest College | Yes | Yes | No | No |
| Los Angeles Trade-Technical College | Yes | Yes | No | No |
| Los Angeles Valley College | Yes | Yes | No | No |
| Pasadena City College | Yes | Yes | No | No |
| Rio Hondo College | Yes | Yes | No | No |
| West Los Angeles College | Yes | Yes | No | No |

**Source of Data (3.b3) Colleges: "The Right College 1992" Published by: College Research Group of Concord Massachusetts; College Counsel, Natick MA, 1993, and Chancellor's Office California Community Colleges 1994**

4) For the counties identified in the response to question 1.b. (page 3), in the aggregate, list the names and major curriculums of vocational/technical training schools:

| SCHOOL NAME | MAJOR CURRICULUM |
|---|---|
| **BUSINESS GENERAL** | |
| Sawyer College* | Business and Computers |
| Learning Tree University | Business, Computers, and Trades |

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**ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

| SCHOOL NAME | MAJOR CURRICULUM |
|---|---|
| Watterson College Pacific* | Business, Computers, Technical |
| California Business Institute | Business/Computer/Medical Assistants |
| Long Beach College of Business | Accounting/Bookkeeping/Word Processing |
| Pacific States University | Business/Engineering/Logistics/ Accounting |
| East Los Angeles Youth Training Institute | Clerical/Bookkeeping/Teller/ Welding |
| Santa Barbara Business College | Business/Marketing/Management |
| | |
| **BUSINESS SPECIFIC** | |
| H & R Block Tax Preparation* | Income Tax/Financial Planning |
| International Bartending* | Bartending |
| McIntyre Birkner & Associates, Inc. | Health and Safety Professions |
| W. L. Stephenson Institute of Business and Law | Law/Insurance |
| AD Banker & Company* | Insurance |
| Premiere Career College | Electronics Technician/Office Administration |
| Excel America Training Schools | Paralegal |
| **COMPUTER TRAINING** | |
| Computer Applications Training Association | Computer Science |
| Computerfocus | Computer Science |
| IADE American Schools* | Business/Computers |
| Family Computer Learning Center | Computers |
| Executrain | Computers |

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**ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

| SCHOOL NAME | MAJOR CURRICULUM |
|---|---|
| SEA Business Services | Business/Computers |
| United Education Institute | Automated Office |
| Systems & Program Development Institute, Inc. | Word Processing/Computer Programming |
| Avant Institute | Computer Programming/Design and Analysis |
| CDI Career Development Institute | Computer Programming/Technology |
| Universal Computing Institute | Office Automation/Programming |
| Computer Learning Center of Los Angeles | Computer Systems/Operations |
| L.A. Computer College, Inc. | Computer Programming/Aided Drafting and Manufacturing |
| **NURSING** | |
| Four-D Success Academy | Certified Nurse Assistant |
| National Nursing Review | Review for State Board Exam |
| RN Review for Nurses | RN Review for Nurses |
| | |
| **TRADE SCHOOLS** | |
| Golden State School | Business and Trades |
| Center for Employment Training | Business and Trades |
| Consolidated Welding Schools, Inc. | Welding |
| Avtech Institute | Welding |
| | |
| **TRUCK DRIVING/AUTOMOTIVE** | |
| Western Truck School | Truck Driving |
| Dootson School of Trucking | Truck Driving |

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**ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

| SCHOOL NAME | MAJOR CURRICULUM |
|---|---|
| Dial Driving School | Commercial Truck Driving |
| American Auto Institute | Automotive Repairs |
| Aztlan Trucking School | Truck Driving |
| Nor-Tech Training Center | Automotive Repair/Rebuild |
| | |
| **REAL ESTATE/ BUILDING CONTRACTOR** | |
| Anthony Schools Corporation* | Real Estate |
| Century 21 Real Estate School* | Real Estate Sales |
| University Programs, Inc. | Real Estate/Appraiser Licensing |
| Gustavesen Learning Centers, Inc. | Real Estate/Insurance |
| Wilrick Engineering | Inspection |
| License Instruction Schools | Insurance/Real Estate/Contracting |
| | |
| **BEAUTY/MODELING** | |
| Oxnard Beauty College | Cosmetology |
| Alhambra Beauty College | Cosmetology |
| John Robert Powers of Beverly Hills | Modeling/Acting |
| Newberry School of Beauty* | Cosmetology |
| Professional Institute of Beauty | Cosmetology |
| Barbizon School of Modeling* | Modeling/Acting |
| Paramount School of Beauty | Cosmetology/Teacher Trainee |
| Santa Barbara Beauty College | Cosmetology |
| **ADULT SCHOOLS** | |
| Simi Valley Adult School | General Education/Trades |

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**ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

| SCHOOL NAME | MAJOR CURRICULUM |
|---|---|
| Oxnard Union High Adult School | General Education/Trades |
| | |
| **MEDICAL** | |
| St. Johns Hospital School of Radiologic Technology | Radiology |
| American School of Xray, Inc. | X-ray Technician |
| North-West College of Medical and Dental Assistants* | Medical/Dental Assistants |
| Daniel Freeman Hospital Paramedic School | Paramedic Training |
| Daniel Freeman Hospital School of Radiologic Technology | Radiology |
| California Paramedical and Technical College | Surgical/Respiratory/Medical/ Pharmacy |
| American College of Optechs, Inc. | Optical/Contact Lens Dispensing |
| Association for Advanced Training in the Behavioral Sciences | Preparation for Licenses in Psychology/Social Work/Family Counseling |
| Southern California Health Care Educational Center | Continuing Education for Nurses/Health Care Administrators. Long Term Health Care Administration |
| Nova Institute of Health Technology | Health Technicians (Medical/X-Ray/Sonography/Emergency) |
| | |
| **TECHNOLOGY** | |
| ITT Technical Institute | Electronics Engineering/CAD |
| BNS Technical Institute | Computer Electronics/ Electrical-Mechanical Drafting/Business Technology |

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**ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

| SCHOOL NAME | MAJOR CURRICULUM |
|---|---|
| | |
| **ART** | |
| Platt College | Graphic Design/Commercial Art |
| Hollywood Art Center School | Cartooning/Commercial Art |
| California Design College | Fashion/Interior |
| Academy of Jewelry Arts | Jewelry Model Making/Repair |
| | |
| **COMMUNICATIONS** | |
| Los Angeles Broadcasters, Inc. | Radio/TV Broadcasting and Sales |
| | |
| **MISCELLANEOUS** | |
| Evans Security Training Academy & Range | Security Officer Training |
| Biofeedback Institute of Angeles | Biofeedback Therapist |
| American College of Travel | Travel Agent/Tourism |
| American College of Hotel & Restaurant Management | Hotel/Restaurant Management |
| Virginia Sewing Machine and School Center | Sewing/Sample Making/Machine Repair |
| Christopher Columbus College | Airline Computer Operator, Ticketing/Touring |
| Bryan College of Court Reporting | Court Reporting/Stenotype |
| Montessori Institute of Los Angeles, Inc. | Montessori AMI Teacher Training |
| National Institute School for Professional Dog Trainers | Animal Training |
| Living Word Bible College | Christian Education/Missionary/Pastoral |

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**ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

| SCHOOL NAME | MAJOR CURRICULUM |
|---|---|
| ATE of California/American Flyers | Flight Instruction/Commercial/Airline |
| Paul-Munroe School of Fluid Power | Hydraulics/Pneumatics |
| Academy of Travel and Cruises | Travel Agent/Financial Planning |
| Channel Islands Aviation, Inc. | Flight Instruction |

* More than one campus for each geographical region

**Source of Data (3.b.4) Vo-tech Training):** Directory of California Private Post-Secondary and Vocational Education Institutions, published by Council for Private Post-Secondary and Vocational Education, December 1992.

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## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

c. **Transportation.**

1) Is the activity served by public transportation?

| | Yes | No |
|---|---|---|
| Bus: | X | |
| Rail: | X | |
| Subway: | | X |
| Ferry: | | X |

**Source of Data (3.c.1) Transportation): GTE Community Access Magazine**

2) Identify the location of the nearest passenger railroad station (long distance rail service, not commuter service within a city) and the distance from the activity to the station.

Oxnard AMTRACK Station, Oxnard Transportation Center, 200 E. 4th St., Oxnard, CA 93030. LOCATION: 4.7 miles from PHD NSWC

**Source of Data (3.c.2) Transportation): PHD NSWC Employee Transportation Coordinator**

3) Identify the name and location of the nearest commercial airport (with public carriers, e.g., USAIR, United, etc.) and the distance from the activity to the airport.

Oxnard, Ventura County, Airport, 2889 W. 5th St., Oxnard, CA 93030. LOCATION: 3.2 miles from PHD NSWC

**Source of Data (3.c.3) Transportation): PHD NSWC Employee Transportation Coordinator**

4) How many carriers are available at this airport?

Two. American Eagle and United

**Source of Data (3.c.4) Transportation): PHD NSWC Employee Transportation Coordinator**

5) What is the Interstate route number and distance, in miles, from the activity to the nearest Interstate highway?

Interstate 10 is 38 miles from PHD NSWC.
Interstate 405 is 41 miles from PHD NSWC.
US 101 is 8 miles from PHD NSWC.

**Source of Data (3.c.5) Transportation): AAA Map of California, 1992**

6) Access to Base:

a) Describe the quality and capacity of the road systems providing access to the base, specifically during peak periods. (Include both information on the area surrounding the base and information on access to the base, e.g., numbers of gates, congestion problems, etc.)

Roads providing access to this base are in good condition and of sufficient capacity to keep traffic flowing smoothly even during peak periods. Victoria Road is a 4 lane divided road; Ventura Road is a 4 lane divided road that expands to 5 lanes at the base; Pleasant Valley Road is a 4 lane divided road; and Channel Islands Road is a 4 lane divided road. There are five (5) vehicle gates providing access to the Naval Construction Battalion Center (CBC) host command, and two (2) vehicle and one (1) pedestrian/bicycle gate providing access to PHD NSWC during commute hours. Flexitime work scheduling spreads out traffic demands.

b) Do access roads transit residential neighborhoods?

Yes

c) Are there any easements that preclude expansion of the access road system?

No

d) Are there any man-made barriers that inhibit traffic flow (e.g., draw bridges, etc.)?

No

**Source of Data (3.c.6) Transportation): PHD NSWC Employee Transportation Coordinator**

d. **Fire Protection/Hazardous Materials Incidents.** Does the activity have an agreement with the local community for fire protection or hazardous materials incidents? Explain the nature of the agreement and identify the provider of the service.

PHD NSWC is a tenant activity on the Naval Construction Battalion Center (CBC) base and receives fire protection/hazardous material incidents support from CBC via Inter-Service Support Agreement. The CBC Fire Department does have mutual aid agreements with the following local agencies: Ventura County Fire Department, Oxnard City Fire Department, Ventura City Fire Department, and Naval Air Weapons Station Point Mugu. The agreement with Ventura County Fire Department is unique, in that it is also considered an "automatic" agreement. Ventura County Fire Department can call upon CBC Fire Department as "first responders" to selected areas outside the CBC compound (CBC Fire Department is "toned out" directly by the Ventura County Fire Department dispatcher). Agreements with the other agencies are for back-up or additional response only, as the particular agency may require in a given situation. The CBC Fire Department will only call on these agencies for mutual aid as back-up or additional response. None of the agencies respond to CBC as a "first responder".

The written agreements cover not only structure fires, but hazardous material spills, rescue, or any other situation where additional resources are required. The agreements are all written to remain in effect until canceled by mutual agreement of all parties involved.

**Source of Data (3.d. Fire/Hazmat): CBC Fire Chief; PHD NSWC/CBC Inter-Service Support Agreement**

e. **Police Protection.**

Note: PHD NSWC receives police, emergency response, traffic control and physical security support services from the host command, the Naval Construction Battalion Center (CBC), via Intraservice Support Agreement.

1) What is the level of legislative jurisdiction held by the installation?

CBC host command is primarily exclusive jurisdiction, with a small area of concurrent jurisdiction.

2) If there is more than one level of legislative jurisdiction for installation property, provide a brief narrative description of the areas covered by each level of legislative jurisdiction and whether there are separate agreements for local law enforcement protection.

CBC has a small amount of concurrent jurisdiction encompassing an officer housing area (Bard Estate) for which no written agreement exists; however, this does not impact PHD NSWC.

3) Does the activity have a specific written agreement with local law enforcement concerning the provision of local police protection?

No.

4) If agreements exist with more than one local law enforcement entity, provide a brief narrative description of whom the agreement is with and what services are covered.

Not Applicable.

5) If military law enforcement officials are routinely augmented by officials of other federal agencies (BLM, Forest Service, etc.), identify any written agreements covering such services and briefly describe the level of support received.

Not Applicable.

**Source of Data (3.e. 1) - 5) - Police): CBC Security Officer**

f. **Utilities.**

1) Does the activity have an agreement with the local community for water, refuse disposal, power or any other utility requirements? Explain the nature of the agreement and identify the provider of the service.

PHD NSWC is a tenant on the Naval Construction Battalion Center (CBC) base and has an Intraservice Support Agreement (ISSA) with CBC for the provision of all utilities. CBC purchases electricity from Southern California Edison Company (SCE), purchases natural gas from Southern California Gas Company, has a water supply contract with United Water Conservation District to provide a back-up water source, and has a contract with the City of Oxnard for disposal of sewage. Refuse disposal (in an off-base landfill) was handled by

CBC base personnel until recently, but in 1993 CBC began a ten-year contract with the City of Port Hueneme for both collection and disposal of commercial and residential refuse.

For our off-base leased facilities, we have contracts with the City of Oxnard for water, sewer and refuse, with Southern California Edison for electricity, and with Southern California Gas Company for natural gas.

PHD NSWC contracts directly with SCE for electricity for our newest and largest building, which was completed and occupied in 1994. Estimated annual consumption is 2,496,000 KWH with maximum demand estimated at 1,570 KW. The government is not obligated to use nor is it restricted to these estimates.

Telephone services are provided both by our host command (CBC) and by commercial vendors as follows:

1. We pay CBC for digital instruments, lines, internal switching, local and long distance service.

2. We pay telephone companies directly for local analog services, and for long distance service.

3. We receive telephone services directly from AT&T, GTE, GTel and Pacific Bell for our off-base leased facilities in Oxnard and Ventura.

2) Has the activity been subject to water rationing or interruption of delivery during the last five years? If so, identify time period during which rationing existed and the restrictions imposed. Were activity operations affected by these situations? If so, explain extent of impact.

PHD NSWC has not been subject to water rationing in the past five years, but we did have an allocation from the City of Oxnard for two leased facilities (30,000 sq. ft.). Activity operations were not affected. Our water bill included a financial penalty if we exceeded our allocation from May 1991 through March 1992. Our penalties were never significant (less than $100 total).

3) Has the activity been subject to any other significant disruptions in utility service, e.g., electrical "brown outs", "rolling black outs", etc., during the last five years? If so, identify time period(s) covered and extent/nature of restrictions/disruption. Were activity operations affected by these situations? If so, explain extent of impact.

No.

**DATA CALL 65**
**ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

| |
|---|
| **Source of Data (3.f. 1) - 3) Utilities): NAVFACCO, WESTDIV CODE 0221KS; PHD NSWC Leased Facilities Coordinator** |

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

4. **Business Profile.** List the top ten employers in the geographic area defined by your response to question 1.b. (page 3), taken in the aggregate, (include your activity, if appropriate):

| Employer | Product/Service | No. of Employees |
|---|---|---|
| 1. Construction Battalion Center, Port Hueneme | U.S. Navy | 7581 |
| 2. Ventura County | County Government | 6788 |
| 3. NACWPNS, Pt Mugu | U.S. Navy | 6058 |
| 4. GTE-GTEL | Telephone Systems | 2555 |
| 5. PHD-NSWC | U.S. Navy | 2490 |
| 6. AMGEN | Biochemical Research | 2287 |
| 7. Simi Valley Unified School District | Education | 2126 |
| 8. Ventura County Community College District | Education | 1871 |
| 9. Conejo Unified School District | Education | 1863 |
| 10. St. Johns Regional Medical Center | Health Care | 1300 |

**Source of Data (4. Business Profile): 1994 Ventura County Economic Outlook, Published by University of California Santa Barbara Economic Forecast Project and Ventura County Economic Development Agency**

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

5. **Other Socio-Economic Impacts.** For each of the following areas, describe other recent (past 5 years), on-going or projected economic impacts (both positive and negative) on the geographic region defined by your response to question 1.b. (page 3), in the aggregate:

**a. Loss of Major Employers:**

Total Ventura County wage and salary employment has fallen by another 2,500 jobs in 1994. This continued loss of jobs marks the fourth straight year of declining labor markets in the county. Since the outset of the recession in the fourth quarter of 1990, the county has suffered a decline of 9,000 non-farm jobs, a rate of about 2,500 jobs per year.

The principal sectors which have been heaviest hit by downsizing and firm departure are construction (5,100 jobs), durable manufacturing (3,000 jobs), and retail trade (4,700). Remarkably, the job decline in Ventura County is modest compared to other southern California counties especially Los Angeles, Orange, And Santa Barbara Counties.

The following are some of the major employers that have gone out of business or have left the area during the last five years:

- Abex - 600 employees
- Raytheon Company, Oxnard - 600+ employees
- Oxnard Press Courier - 170 employees
- Everest & Jennings - 400-450 employees
- Clairol Inc., Camarillo - 200+ employees
- First Interstate Bancard - 500 employees relocated

The severe decline in jobs since 1990 represents some of the most formidable economic news ever recorded for Ventura County. This contrasts with the gain of 47,200 non-farm jobs from 1985 to 1990. Even during the previous economic recession which caused an employment loss in the state of California during the 1981-82 period, total jobs in Ventura County never contracted.

**b. Introduction of New Businesses/Technologies:**

The business services and medical/health care services industries show the most potential for future growth in view of their resiliency over the last 3 years. Non-durable manufacturing is expected to show positive growth in 1994 and thereafter. Home sales and construction are expected to cool off during the latter half of 1994.

A relatively new and expanding technology that could have a major impact on the Ventura County economy, is biotechnology. AMGEN in Thousand Oaks now employs in excess of 2,200 workers and has the potential to double that employment base in the future through: (1) growth, and

(2) consolidation of operations located elsewhere. AMGEN currently occupies over a million square feet of commercial space in Thousand Oaks. Eastern Ventura County could become a locational advantage for further biotechnology development. However, significant competition may exist from bio-tech centers now vigorously developing in alternative locations, i.e., the Torrey Pines area near UCSD in San Diego.

Major employers that have moved to the Ventura area in the last year include the following:

- Technicolors Inc.- 1000 employees; recently located in Camarillo.
- Guardian Products - 360 employees; recently located in the City of Simi.
- Warner Electra Atlantic - 180 employees; due to move into a new company space in Simi Valley in August 1994.

**c. Natural Disasters:**

Brush Fires

Brush Fires 26 Oct - 7 Nov 1993: A compilation of the losses from the Green meadow, Steckel, and Wheeler fires in Ventura County as follows:

66,302 acres burned
83 structures destroyed
Cost of 3,122 personnel to fight the fires.
Estimated Damage: $12,957,000
Cleanup costs: $10,000,000

Earthquake

Northridge Earthquake 1/1794 and subsequent aftershocks. A total estimated property damage value is estimated at $850 million in Ventura County. Only 30% of earthquake victim property owners were insured. However, all uninsured property owners are eligible for federal emergency grants and loans for rebuilding and restoring homes and property. The economic impact will be spread over 1994 and 1995. Later in 1995 and thereafter the local economy may slow as local wealth is used to service accumulated earthquake repair debt.

Floods

Flood damage caused by winter storms and conditions created by fall brush fires for Ventura County was $576,681 for the period 10/93-4/11/94.

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

### d. Overall Economic Trends:

The recession may be over in California, but the economic recovery has yet to gain enough traction to be convincing. Though positive signs are emerging in the state, general economic conditions still remain weak. New employment opportunities are slow in coming to California but job creation, however austere, has now turned positive. In Ventura County, total wage and salary job creation has shown no signs of a rebound in 1994. The April establishment survey reported wage and salary jobs down 3,100 from a year ago. This marks the fourth consecutive year that job opportunities have contracted in Ventura County.

The total non-farm job loss from 1990 to 1994 is 6,600 or 3.0 percent. The principal sectors which have been heaviest hit by downsizing and firm departure are construction (5,100 jobs), durable manufacturing (3,000 jobs), and retail trade (4,700). Remarkably, the job decline in Ventura County is modest compared to other southern California counties especially Los Angeles, Orange, and Santa Barbara Counties. Farm employment in Ventura County has increased by 2,000 wage and salary workers since 1990, but in the last 12 months the sector has contracted by 900 jobs.

There are many reasons for the continuing stagnant economic conditions in southern California including Ventura County. The most significant reason is the loss of manufacturing jobs and the contraction of the industrial sector in general. High technology manufacturing is the second highest paying industry and one of the most powerful engines of wealth creation in the county. The sector has been in steady decline since the latter 1980s. Recently, the defection by aerospace and other durable manufacturing firms from California has accelerated. If much of the restructuring and downsizing in this industry is completed or nearly completed by the end of 1994, the negative momentum on Ventura County's economy would then subside over the next 12 months. However, a large number of previously highly paid technology workers are now unemployed and under-employed residents in the county.

<u>Recent Evidence of Recovery in Ventura County</u>

A number of positive signs are emerging that show the Ventura County economy growing:

- Office and industrial building vacancy rates are falling in the eastern part of the county.
- Retail sales are rising in Thousand Oaks, Simi Valley, and Moorpark.
- New commercial and industrial building has rebounded during the first quarter of 1994, up 18%.
- Home sales are experiencing boom-like conditions, up 50% during the first quarter of 1994.
- Agriculture is sound and having another good year.

- Tourism appears to be improving, but very high transient occupancy from earthquake displaced families is clouding the picture. Hotels and motels throughout the county (but particularly in the east) have recorded an unprecedented surge in occupancy since January of this year.

- Residential building activity is recovering. The total number of residential units permitted during the first four months of 1994 is ahead of last year's pace by 41 percent.

The prospects for economic recovery in California during 1994 were not at all certain until March of this year. The UCLA Business Forecasting Project announced that the aggregate state economy had begun a recovery in 1994 and that it may have begun as early as November of 1994. Most economists were predicting a fourth quarter 1994 recovery of the economy of California. However, the earthquake and the fact that up to $14 billion in federal aid and insurance payment funding will flow into southern California during 1994 caused a major revision in the consensus of forecasts. Necessary conditions for recovery have begun to manifest over the first few month of 1994 and seasonally adjusted job growth has finally turned positive in California after 36 consecutive months of decline.

Ventura County has not contracted in terms of jobs, retail sales, or income, as severely as its closet neighbors, Santa Barbara or Los Angeles Counties. Nevertheless, there are not necessarily special conditions which will allow the Ventura County economy to recover any sooner than other southern California counties. Total non-farm employment is forecast to remain approximately stable for the remaining seven months of 1994, increasing slightly in 1995. The service sector will be the beneficiary of any new jobs created in Ventura County in the near term. Manufacturing employment will continue to contract throughout 1994 and 1995.

Retail sales have seriously declined in 9 of 10 cities in Ventura County since 1990. The recent evidence indicates that a reversal of the declining trend began in the east county cities in 1993. Consumers have delayed purchases for a long time and in the process, have been eliminating household debt. Debt has now reached more tolerable level by families, and renewed expenditures are more likely to prevail this year than in any previous year since 1990. Stability of labor markets should provide more positive confidence among consumers in the western half of the county this year.

Problems Still Exist as the Recovery Begins

There has been no discernible improvement in the employment numbers and prospects for recovery of the labor markets during 1994 are not optimistic. Ventura County along with most of the southern California economy suffers from numerous problems that appear to be structural rather than cyclical. Consequently, their expeditious resolution may require proactive intervention by state and

local governments regarding economic development policies and incentives, land use ordinances, or business permitting conditions. Conditions hindering recovery of the Ventura County economy:

The unemployment rate continues to rise. Both the California and Ventura County rate of unemployment jumped in April to 9.6% and 7.4% respectively.

The severe collapse of the aerospace and/or high technology sectors. The most recent evidence shows that high technology manufacturing has declined by 1,700 jobs in the last 3 years.

The loss of wealthier age populations to net out-migration. The recent data imply that a significant number of business firms and/or individual families are defecting from the state of California including the county of Ventura.

Continued decline in real per capita personal incomes. Real per capita income, a measure of wealth per person, has fallen from $22,830 in 1990 to $21,119 in 1993.

High vacancy rates for office and industrial space countywide. Office building vacancy was estimated at 19.2 percent during the first quarter of 1994. Industrial building vacancy is 12.8 percent, and retail vacancy is 8.1 percent. Though vacancy rates have been improving (falling) steadily in all commercial categories since 1992, by any standard they are still quite high.

Relatively high housing costs. With the general decline in housing prices since 1990, Ventura County has now fallen to 6th place among California counties in terms of median selling price. However median selling process are still at $201,000 for single family homes, nearly twice the national median price.

Business sentiment faltering. The results of our latest spring survey indicate a disappointing 4.7 percent fall in the composite sentiment index. As a group, business leaders in Ventura County are less optimistic about current and future business conditions.

A difficult business climate. Over sixty percent of the Ventura County respondents to the spring quarter business sentiment survey indicated that healthcare costs and environmental regulations negatively affect the business climate in the county.

But the largest problem facing both the California and Ventura County economies in the immediate future is the absence of any new sectors emerging. With the decline of the durable manufacturing industry, there does not appear to be any growth sector that can replace it soon. The wealth loss experienced in the economy will persist for a number of years until a clear replacement sector or sectors can be identified.

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

**Source of Data (5. Other Socio/Econ): The 1994 Ventura County Economic Outlook, Published by The University of California, Santa Barbara Economic Forecast Project, Ventura County Offices of Emergency Services, and Phone Conversations with the City Managers of Camarillo, Simi Valley, Oxnard, Ventura and Thousand Oaks.**

**6. Other.** Identify any contributions of your activity to the local community not discussed elsewhere in this response.

### FINANCIAL CONTRIBUTIONS TO THE LOCAL COMMUNITY

A. EMPLOYMENT - PHD NSWC has a total projected payroll for FY 94 of $137,585,000 for civilians and $9,793,000 for military personnel.

B. CONTRACTS TO LOCAL BUSINESSES - PHD NSWC has contracts totalling $40.3M with local contractors.

C. BANKCARD PURCHASES - PHD-NSWC placed $8,370,384 in orders with local businesses through the bankcard program.

D. SMALL PURCHASE - PHD NSWC placed a total of $1,226,442 in small purchase orders last year.

E. TOTAL CONTRACTS AND PURCHASES - The total contract dollars invested in the local community last year was approximately $44,938,050

### TECHNOLOGY TRANSFER

The Ventura County Business Resource Center On-Line System is a result of a joint effort between PHD-NSWC, the Ventura County Economic Development Agency and the Ventura County Community College District. This system, which is based on a BBS system developed by PHD NSWC, offers the local community one-stop shopping for a wide variety of business information. Information is available through the system on subjects that range from how to get a city building permit to the latest schedule of classes for the community colleges.

### CIVIC AND SOCIAL CONTRIBUTIONS TO THE LOCAL COMMUNITY

**A. STATION SPONSORED PROGRAMS**

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

PHD-NSWC contributes to the local community through sponsorship of outreach programs that directly benefit the community. These projects include but are not limited to the following:

**Stay-in-School Program (formerly the Youth Opportunity Program)** - The station has sponsored a youth employment program for at risk teens from the local community since 1970. The program provided part time employment for local students from disadvantaged backgrounds. The program provides exposure to a professional work environment and incentive to remain in school. Since it's inception over 800 students have participated in this program and the majority of these disadvantaged youth have completed their high school education and gone on to college. Most have obtained permanent white collar jobs with the government or in the private sector.

**Personal Excellence Partnership Program** - This program, sponsored by PHD-NSWC is a long term commitment to help local area youth become better educated , healthy, fit citizens able to serve others and meet the demands of society and the workplace. Six areas of participation have been set up: (1) Tutoring, (2) Teleconference Meetings with other elementary schools across the United States, (3) Guest Speakers, (4) Science Project Mentors (5) Shadow Days, and (6) Cultural Diversity Partnership Events.

**Math Engineering and Science Achievement (MESA) Program** - PHD-NSWC supports the MESA program by providing tutoring, and work experience for local students. The program is designed to address the under representation of targeted minority students pursuing math based careers at the college and university level. PHD employees spend approximately 2 hours weekly in the classroom tutoring in math and science. The command has sponsored field trips on numerous occasions to familiarize teachers and students with the technical work that is performed at the station.

**Shadow Days** - The station has sponsored numerous shadow days for teachers and students from local schools to familiarize them with the technical work performed by the station and the relationship of that work to the subjects of math and science. Some of the special groups that have participated in these shadow days include:

Oxnard High School Career Day for students who speak English as a second language.

Rio Mesa High School Deaf Students

Oxnard Unified High School District Teachers and Administrators

**Adopt Education** -This program is part of a partnership with local schools which provides "on request" assistance in a variety of forms including: evaluation of curriculum resources, providing subject area expertise, conducting tours, providing guest speakers, judging science fairs and academic decathlons, and other related support. Specifically, PHD's American Sign Language interpreter in the

EEO Office is donating her services to the Oxnard School District. She is also a panel member for evaluating candidates for interpreting positions in the Oxnard School District. The program also includes inviting students and teachers to attend multicultural events sponsored by the command for its employees.

**Disabled Student Employment** - The station has provided a variety of summer jobs for targeted disabled students through the College Computer Pool of Disabled Applicants. Summer jobs are provided in the fields of computer science, engineering, accounting and clerical. A number of employees also assisted by providing housing for these students for the summer. Several of these employees have found permanent employment at PHD.

**Community College Cooperative Education Program** - PHD has over eighty cooperative education students from local colleges and universities who work at the base in the fields of engineering and business. The program, which provides opportunities for students to gain work experience, is an important tool in creating a culturally diverse workforce. Sixty-five percent of the students currently working at the command are ethnic minorities.

**Literacy Program** - PHD provides tutors for the Oxnard CA Literacy Program. These tutors play a significant role in the success of this vital program.

**Developmentally Disabled Assessment Program** - PHD serves as an assessment site for the Association of Retarded Citizens (ARC) of Ventura County. During the assessment, clients of the ARC work for about five days at a job site. Their work-related skills and limitations are assessed by a vocational evaluator from ARC. Based on the assessment, the client is enrolled in a job training program tailored to their needs.

**Technical Awareness Program (TAP)** - A highly successful PHD-sponsored program that provided a full-time summer curriculum consisting of hands-on training in engineering/ electronics/ computer technology/ math/ and other team projects. Students attended classes, seminars, panel sessions, and field trips. Students also shadowed employees in various departments. Command employees as well as contracted teachers taught the subjects. Twenty-five different students were selected each year and hired as GS-2s to participate in the six year program.

**At-Risk Tutoring** - This program is designed for at risk high school students at Frontier High School. Five tutors provide guidance for the most endangered students in the school district. Their efforts include tutoring in academic subjects, mentoring, and serving as role models. This program has been in existence for two years.

**Minority Engineering Program at California Polytechnic State University, San Luis Obispo**
Minority engineers from PHD coordinate speaker events at the University, exposing students to professional organizations, such as the Society of Hispanic Engineers.

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

**Scholarships** - PHD provides a number of scholarship to local high school and college students. These scholarships are presented by employee organizations such as the Federal Women's Program; the five EEO employee subcommittees representing Blacks, Hispanics, Asian Pacific Islanders, American Indians, and Persons with Disabilities; and the Alumni Association.

**Disaster Relief** - PHD NSWC employees have been heavily involved in providing volunteer assistance to meet community needs. After the Jan 17 1994 earthquake, PHD employees raised funds to purchase water for quake victims while other employees volunteered to work with FEMA field offices in Southern California in providing assistance to victims. Following Hurricane Andrew, a PHD employees, donated items for the victims while another employee traveled to Redlands Fla to aid in the cleanup. In march of 1994 sailors from PHD volunteered their time to assist in the refurbishment of the McAvoy House. The McAvoy House is a temporary home that provides shelter care to Ventura County children who are removed form their homes due to neglect or abuse.

**Blood Donor Program** - PHD sponsors four regularly scheduled blood drives each year. This program has been ongoing since 1984. In the last two years alone, PHD employees have contributed 1,230 pints of blood to the local blood bank.

**Adopt a Needy Family Program** - PHD was formally recognized by the Optimist Club of Port Hueneme for the stations support of the club's Adopt A Needy Family Program. Through this program several PHD NSWC departments adopted a needy family and raised money to provide food and clothing for this family.

**Combined Federal Campaign** - PHD NSWC raised $161,823 in last year's Combined Federal Campaign. This represented 21% of the total funds raised by CFC in Ventura County. In addition PHD provides loaned executives each year to manage the CFC fund raising campaign.

**Environmental Programs** - PHD employees participate in a number of programs designed to improve the environment. Some examples include sponsorship of a Ride Share Program to reduce air pollution and traffic congestion, and participation in the City of Port Hueneme's Adopt-An-Area Litter Removal Program.

### B. INDIVIDUAL CONTRIBUTIONS BY STATION EMPLOYEES

PHD-NSWC employees have made significant individual contributions to the local community that are independent of any organized station initiative. Employees participate in a number of community based outreach programs such as: Habitat for Humanity, Ventura County Rescue Mission, Ventura Soup Kitchen, Project Understanding, Make A Wish Foundation, International Order of Foresters, and NAACP. Other significant contributions include the following:

## DATA CALL 65
## ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

**Youth Work** - Several employees serve as Boy/Girl Scout leaders and officials, coaches for youth sports such as youth soccer, little league baseball, football, etc., and volunteers for Ventura County special Olympics. Other employees serve as Big Brothers, Sunday School Teachers and youth group leaders.

**Volunteer Income Tax Assistance (VITA)** - Several PHD employees serve as volunteers in this program to provide assistance to needy families in preparation of their state and federal income tax returns.

**Substance Abuse** - Several PHD employees are active in community efforts to fight substance abuse. One employee serves as a substance abuse counselor for a women's recovery center in Ventura County, another employee is a counselor to teenage juvenile offenders. Several other employees are active in the DARE, ALANON and ALATEEN.

**Religious Activities** - PHD employees are active supporters of the local religious community. Employees serve as: organists, choir members, Sunday school teachers, and youth group leaders. Employees also serve on the governing boards of these institutions (e.g. Deacons, Vestry members, etc) and are active in the various community outreach programs sponsored by these organizations such as jail ministries, care groups, and missionary societies.

**Source of Data (6. Other): PHD NSWC Financial Reports, PHD COASTALINK Articles, and Survey of PHD Employees.**

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (Sel) D. P. Sargent, Jr.
NAME (Please type or print)

Signature

Commander
Title

7/19/94
Date

Naval Surface Warfare Center
Activity

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

~~NAME (Please type or print)~~

~~Signature~~

~~Title~~

~~Date~~

~~Activity~~

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

G. R. STERNER
NAME (Please type or print)

Signature

Commander
Title Naval Sea Systems Command

7/25/94
Date

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

W. A. EARNER
NAME (Please type or print)

Signature

Title

8/6/94
Date

DATA CALL #65
PORT HUENEME SITE

# BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

Each individual in your activity generating information for the BRAC-95 process must certify that information. Enclosure (1) is provided for individual certifications and may be duplicated as necessary. You are directed to maintain those certifications at your activity for audit purposes. For purposes of this certification sheet, the commander of the activity will begin the certification process and each reporting senior in the Chain of Command reviewing the information will also sign this certification sheet. This sheet must remain attached to this package and be forwarded up the Chain of Command. Copies must be retained by each level in the Chain of Command for audit purposes.

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

Capt. John Scott Beachy
NAME (Please type or print)

Beachy
Signature

Commanding Officer
Title

14 July 1994
Date

PHD NSWC
Activity

DATA CALL # 65
PORT HUENEME SITE

BRAC-95 CERTIFICATION

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

Dr. Robert A. Bland
NAME (Please type or print)

Signature

BRAC Coordinator
Title

7-14-94
Date

Division

Missile Systems Department
Department

Port Hueneme Division, Naval Surface Warfare Center
Activity

Enclosure (1)

206 pg2

DATA CALL #65
REVISION
PORT HUENEME SITE

~~I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.~~

~~NEXT ECHELON LEVEL (if applicable)~~

~~NAME (Please type or print~~ ~~Signature~~

~~Title~~ ~~Date~~

~~Activity~~

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

RADM (Sel) D. P. Sargent, Jr.
NAME (Please type of print

D P Sargent
Signature

Commander
Title

8/10/94
Date

Naval Surface Warfare Center
Activity

In certify that the information herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

E.S. MCGINLEY, II, ACTING
NAME (Please type or print

Signature

Title

8/16/94
Date

Commander
Naval Sea Systems Com

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

J. B. GREENE, JR.
NAME (Please type of print

J B Greene Jr.
Signature

ACTING
Title

22 AUG 1994
Date

Port Hueneme Division, Naval Surface Warfare Center
Data Call 65

## BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

Each individual in your activity generating information for the BRAC-95 process must certify that information. Enclosure (1) is provided for individual certifications and may be duplicated as necessary. You are directed to maintain those certifications at your activity for audit purposes. For purposes of this certification sheet, the commander of the activity will begin the certification process and each reporting senior in the Chain of Command reviewing the information will also sign this certification sheet. This sheet must remain attached to this package and be forwarded up the Chain of Command. Copies must be retained by each level in the Chain of Command for audit purposes.

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

Cdr. Mark Bacin
NAME (Please type or print)

Mark S Bacin
Signature

Acting Commanding Officer
Title

8-2-94
Date

PHD NSWC
Activity

The information to which this certification pertains is described as follows:

Revision to the Port Hueneme BRAC-95 Data Call #65, page 2

Additional details of this change described on the attached sheet.

206

R

# DATA CALL 64

## CONSTRUCTION COST AVOIDANCES

**Table 1: Military Construction (MILCON) Projects (Excluding Family Housing Construction Projects)**

| | |
|---|---|
| **Installation Name:** | **PORT HUENEME CA NSWCDIV** |
| **Unit Identification Code (UIC):** | **N63394** |
| **Major Claimant:** | **NAVSEA** |

| Project FY | Project No. | Description | Appn | Project Cost Avoid ($000) |
|---|---|---|---|---|
| 1999 | 016 | MSL SYS INTEGR LAB | MCON | 11,730 |
| | | Sub-Total - 1999 | | 11,730 |
| | | | | |
| | | Grand Total | | 11,730 |
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BRAC-95 CERTIFICATION

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

**MICHAEL D. THORNTON**
NAME (Please type or print)

Signature

CDR, CEC, USN
Title

9 Dec 94
Date

MILCON PROGRAMMING DIVISION
Division

NAVAL FACILITIES ENGINEERING COMMAND
Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

**J. E. BUFFINGTON, RADM, CEC, USN**
NAME (Please type or print)

Signature

**COMMANDER**
Title

12/9/94
Date

**NAVAL FACILITIES ENGINEERING COMMAND**
Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

W. A. EARNER
NAME (Please type or print)

Signature

Title

12/7/94
Date