

DCN 1424

178

**DATA CALL 66  
INSTALLATION RESOURCES**

**Activity Information:**

Activity Name:	Naval Facilities Engineering Service Center (NFESC), Port Hueneme, CA
UIC:	N0537A
Host Activity Name (if response is for a tenant activity):	N/A, However upon completion of the BRAC 93 MILCON, in FY95 the NFESC will become a tenant of MCBC, Port Hueneme CA
Host Activity UIC:	N/A (N62583 in FY95)

**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

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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.

<b>Table 1A - Base Operating Support Costs (Other Than DBOF Overhead) None. In FY96 the NFESC will be completely DBOF</b>			
<b>Activity Name: NFESC</b>		<b>UIC: N0537A</b>	
Category	FY 1996 BOS Costs (\$000)		
	Non-Labor	Labor	Total
<b>1. Real Property Maintenance Costs:</b>			
1a. Maintenance and Repair	0	0	0
1b. Minor Construction	0	0	0
1c. Sub-total 1a. and 1b.	0	0	0
<b>2. Other Base Operating Support Costs:</b>			
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	0	0	0
2f. Bachelor Quarters	0	0	0
2g. Child Care Centers	0	0	0
2h. Family Service Centers	0	0	0
2i. Administration	0	0	0
2j. Other (Specify)	0	0	0
2k. Sub-total 2a. through 2j:	0	0	0
<b>3. Grand Total (sum of 1c. and 2k.)</b>	0	0	0

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**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:

<u>Appropriation</u>	<u>Amount (\$000)</u>
N/A	

**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..

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<b>Table 1B - Base Operating Support Costs (DBOF Overhead)</b>			
<b>Activity Name: NFESC</b>		<b>UIC: N0537A</b>	
<b>Category</b>	<b>FY 1996 Net Cost From UC/FUND-4 (\$000)</b>		
	<b>Non-Labor</b>	<b>Labor</b>	<b>Total</b>
<b>1. Real Property Maintenance Costs:</b>			
1a. Real Property Maintenance (>\$15K)	0	0	0
1b. Real Property Maintenance (<\$15K)	302	0	302
1c. Minor Construction (Expensed)	0	0	0
1d. Minor Construction (Capital Budget)	0	0	0
1e. Sub-total 1a. through 1d.	302	0	302
<b>2. Other Base Operating Support Costs:</b>			
2a. Command Office	160	390	550
2b. ADP Support	402	698	1100
2c. Equipment Maintenance	74	0	74
2d. Civilian Personnel Services	250	120	370
2e. Accounting/Finance	750	397	1047
2f. Utilities	1100	0	1100
2g. Environmental Compliance	328	177	505
2h. Police and Fire	175	0	175
2i. Safety	435	0	435
2j. Supply and Storage Operations	1083	0	1083
2k. Major Range Test Facility Base Costs	0	0	0
2l. Other (Specify)	2538*	1986*	4624*
2m. Sub-total 2a. through 2l:	7295	3768	11063
<b>3. Depreciation</b>	185	0	185

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4. Grand Total (sum of 1c., 2m., and 3.) :	7782	3768	11550
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\* Details of 2l. Other

Area	Non-Labor	Labor	Total
Facilities Support	610	245	855
Tech. Information	418	372	790
Business Operations	510	725	1235
FECA	0	317	317
Security	212	125	337
Other Administrative	273	202	475
Transportation	285	0	285
Other Engineering Support	230	0	230
<b>Total</b>	<b>2538</b>	<b>1986</b>	<b>4524</b>

**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.

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<b>Table 2 - Services/Supplies Cost Data</b>	
<b>Activity Name: NFESC</b>	<b>UIC: N0537A</b>
<b>Cost Category</b>	<b>FY 1996 Projected Costs (\$000)</b>
<b>Travel:</b>	<b>3,345</b>
<b>Material and Supplies (including equipment):</b>	<b>5,792</b>
<b>Industrial Fund Purchases (other DBOF purchases):</b>	<b>3,365</b>
<b>Transportation:</b>	<b>405</b>
<b>Other Purchases (Contract support, etc.):</b>	<b>28,292</b>
<b>Total:</b>	<b>41,199</b>

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**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.

<b>Table 3 - Contract Workyears</b>	
<b>Activity Name:</b>	<b>UIC:</b>
<b>Contract Type</b>	<b>FY 1996 Estimated Number of Workyears On-Base</b>
Construction:	0
Facilities Support: (Computer)	1
Mission Support:	13.25
Procurement:	0
Other:*	0
<b>Total Workyears:</b>	<b>14.25</b>

\* Note: Provide a brief narrative description of the type(s) of contracts, if any, included under the "Other" category.

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**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)):

12.25

2) Estimated number of workyears which would be eliminated:

2

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):

0

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**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.)
7.3 32 11	Engineering Services, Security Design Engineering Services <sup>1</sup> M/V Independence Support <sup>1</sup>

<sup>1</sup> The loss of these contract work years assumes a move far enough away from a location where the M/V Independence could be home ported. The tasks associated with her would also be lost.

No. of Additional Contract Workyears Which Would Be Relocated	General Type of Work Performed on Contract (e.g., engineering support, technical services, etc.)
29.9 5	Software, information, engineering, technical, research support and security design CRADA

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)

COMMANDER  
Title

NAVAL FACILITIES ENGINEERING COMMAND  
Activity

J. E. Buffington  
Signature  
7/22/94  
Date

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)

\_\_\_\_\_  
Title

W. A. Earner  
Signature  
8/3/94  
Date

**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**

JOHN P. COLLINS, CAPT, CEC, USN  
NAME (Please type or print)

  
Signature

Commanding Officer  
Title

7-19-94  
Date

NFESC Port Hueneme, CA  
Activity

**CAPACITY ANALYSIS:  
 DATA CALL #4 WORK SHEET FOR  
 TECHNICAL CENTER or LABORATORY: Naval Facilities Engineering  
Service Center (NFESC)  
 (UIC N0537A)**

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<b>TAB A: Ship Berthing Capacity</b>	<b>None/Not Required</b>
<b>TAB B: Operational Airfield Capacity</b>	<b>None/Not Required</b>
<b>TAB C: Depot Level Maintenance Capacity</b>	<b>None/Not Required</b>
<b>TAB D: Ordnance Storage Capacity</b>	<b>None/Not Required</b>

\*\*\*\*\*If any responses are classified, attach a separate classified annex. \*\*\*\*\*

9 May 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.

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).

**Table 1.1 Historical and Projected Workload for NFESC  
(UIC N0357A)**

<b>Fiscal Year</b>	<b>Total Funds Budgeted (\$K)</b>	<b>Total Funds Received w/o Direct Cite (\$K)</b>	<b>Direct Cite Funds Received (\$K)</b>	<b>Budgeted Wkys</b>	<b>Actual In-House Wkys</b>	<b>Actual Onsite Contract Wkys</b>
86	61,758	66,654	1,500	432	451	0
87	76,060	65,356	16,228	503	531	0
88	71,843	80,730	5,040	602	567	0
89	68,631	70,521	13,198	565	545	0
90	79,745	78,449	6,156	553	556	0
91	76,687	83,300	9,209	561	547	0
92	83,245	84,679	7,137	531	543	0
93	89,794	90,487	20,305	548	554	0
94	76,991			520		
95	81,431			473		
96	82,665			525		
97	85,145			525		

Note: Data prior to the establishment of the NFESC, on 1 Oct. 1993, is for the component organizations that are now part of the NFESC. In this tables case they are the Naval Civil Engineering Laboratory (NCEL) and the Naval Energy and Environment Support Activity (NEESA).

**Table 1.2 Historical and Projected Workload for Detachments of NFESC  
(UIC N0537A)**

<b>Fiscal Year</b>	<b>Total Funds Budgeted (\$K)</b>	<b>Total Funds Received w/o Direct Cite (\$K)</b>	<b>Direct Cite Funds Received (\$K)</b>	<b>Budgeted Wkys</b>	<b>Actual In-House Wkys</b>	<b>Actual Onsite Contract Wkys</b>
86	47,653	13,486	33,442	73	65	0
87	29,201	18,474	9,986	76	67	0
88	28,389	16,362	11,297	74	64	0
89	39,076	20,437	18,639	73	62	0
90	26,190	13,431	11,975	70	58	0
91	22,647	14,972	6,875	71	61	0
92	23,461	17,557	4,907	71	60	0
93	23,916	8,353	15,627	66	58	0
94	29,572			66		
95	27,778			61		
96	27,894			62		
97	28,091			63		

Note: Data prior to the establishment of the NFESC, 1 Oct. 1993, is for the component organizations that are now part of the NFESC. In this tables case they are the Field Project Office-1 (FPO-1), Field Project Office -2 (FPO-2), NAVFAC Chief Engineer (FAC-04B) and Naval Ocean Facilities Program Office (NAVFAC-07).

**TABLE 1.3 FY 1993 BREAKOUT OF FUNDS BUDGETED for NFESC Port Hueneume (UIC N0537A)**

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
NAVFAC	1210		1800	2683					26213		15686			585	66
NAVSEA				1075					573						
ONR	252	5250		846	1268	10	623		407						
R&D LABS															2019
SPAWAR	40		15110	4010	3205		1025	5536	240				31		809
NAVAIR				291					271						20
MARINE CORPS		1636		35	470		323								2547
OTHER NAVY											15			1047	1710
OTHER DOD		375		4178				1497							
OTHER								449	1000					3500	672

Note: Data prior to the establishment of the NFESC, on 1 Oct. 1993, is for the component organizations that are now part of the NFESC. In this tables case they are the Naval Civil Engineering Laboratory (NCEL) and the Naval Energy and Environment Support Activity (NEESA). Budgeted amounts include Direct Cite funds.

**TABLE 1.3 FY 1993 BREAKOUT OF FUNDS BUDGETED for NFESC  
(UIC N0537A)**

SPONSOR	RDT&E(N)							Other RDT&E	Other Ap			
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		OMN	APN	OPN	W
NAVFAC	1210		1800	2683					26213		15686	
NAVSEA				1075					573			
ONR	252	5250		846	1268	10	623		407			
R&D LABS												
SPAWAR	40		15110	4010	3205		1025	5536	240			
NAVAIR				291					271			
MARINE CORPS		1636		35	470		323					
OTHER NAVY											15	
OTHER DOD		375		4178				1497				
OTHER								449	1000			

Note: Data prior to the establishment of the NFESC, on 1 Oct. 1993, is for the component organizations that are now part of the NFESC. In this tables case they are the Naval Civil Engineering Laboratory (NCEL) and the Naval Energy and Environment Support Activity (NEESA). Budgeted amounts include Direct Cite funds.

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**TABLE 1.3 FY 1994. BREAKOUT OF FUNDS BUDGETED for NFESC  
(UIC N0537A)**

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
NAVFAC			2612	1101					26880		15300			600	50
NAVSEA				150			304		500						
ONR	1267	6298		2744	1035				300						
R&D LABS															2000
SPAWAR			322	5815	380		1704	2000	320						
NAVAIR									300						500
MARINE CORPS		1040			150		415								1689
OTHER NAVY													1000	1000	
OTHER DOD															11799
OTHER													4500	1025	

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**TABLE 1.3 FY 1994 BREAKOUT OF FUNDS BUDGETED for NFESC  
(UIC N0537A)**

SPONSOR	RDT&E(N)							Other RDT&E	Other Ap			
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		OMN	APN	OPN	W
NAVFAC			2612	1101					26880		15300	
NAVSEA				150			304		500			
ONR	1267	6298		2744	1035				300			
R&D LABS												
SPAWAR			322	5815	380		1704	2000	320			
NAVAIR									300			
MARINE CORPS		1040			150		415					
OTHER NAVY												
OTHER DOD												
OTHER												

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**TABLE 1.3 FY 1995 BREAKOUT OF FUNDS BUDGETED for NFESC  
(UIC N0537A)**

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
NAVFAC			2500	2500					26780		14200			184	
NAVSEA				150			323		515						
ONR	1297	7544		786	1097				310						
R&D LABS															2500
SPAWAR				10086			1440	2000	330						
NAVAIR									310						515
MARINE CORPS		1123			12										800
OTHER NAVY													1070	1000	
OTHER DOD															11703
OTHER													4500	1025	

**TABLE 1.3 FY 1995\_ BREAKOUT OF FUNDS BUDGETED for NFESC  
(UIC N0537A )**

SPONSOR	RDT&E(N)							Other RDT&E	Other Ap			
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		OMN	APN	OPN	W
NAVFAC			2500	2500					26780		14200	
NAVSEA				150			323		515			
ONR	1297	7544		786	1097				310			
R&D LABS												
SPAWAR				10086			1440	2000	330			
NAVAIR									310			
MARINE CORPS		1123			12							
OTHER NAVY												
OTHER DOD												
OTHER												

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TABLE 1.3 FY 1996 BREAKOUT OF FUNDS BUDGETED for NFESC  
(UIC N0537A)

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
NAVFAC			2600	1923					26990		14245			724	
NAVSEA				150			330		530						
ONR	1400	7800		810	1130				320						
R&D LABS															2580
SPAWAR				10380			1480	2070	340						
NAVAIR									320						530
MARINE CORPS		1200													790
OTHER NAVY														1130	1000
OTHER DOD															12040
OTHER														4500	1025

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**TABLE 1.3 FY 1996 BREAKOUT OF FUNDS BUDGETED for NFESC  
(UIC N0537A)**

SPONSOR	RDT&E(N)							Other RDT&E	Other Ap			
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		OMN	APN	OPN	W
NAVFAC			2600	1923					26990		14245	
NAVSEA				150			330		530			
ONR	1400	7800		810	1130				320			
R&D LABS												
SPAWAR				10380			1480	2070	340			
NAVAIR									320			
MARINE CORPS		1200										
OTHER NAVY												
OTHER DOD												
OTHER												

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TABLE 1.3 FY 1997 BREAKOUT OF FUNDS BUDGETED for NFESC  
(UIC N0537A)

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
NAVFAC			2700	1026											
NAVSEA						495		27215		14290			690		
ONR	1445	8035		835	1165			545							
R&D LABS								330						2660	
SPAWAR				11695		1525		2130							
NAVAIR								350						545	
MARINE CORPS		1236						330						814	
OTHER NAVY													1165	1030	
OTHER DOD														12400	
OTHER													4500	1030	

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**TABLE 1.3 FY 1997 BREAKOUT OF FUNDS BUDGETED for NFESC  
(UIC N0537A)**

SPONSOR	RDT&E(N)							Other RDT&E	Other Ap			
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		OMN	APN	OPN	W
NAVFAC			2700	1026								
NAVSEA							495		27215		14290	
ONR	1445	8035		835	1165				545			
R&D LABS									330			
SPAWAR				11695			1525	2130				
NAVAIR									350			
MARINE CORPS		1236							330			
OTHER NAVY												
OTHER DOD												
OTHER												

TABLE 1.4 FY 1993 BREAKOUT OF FUNDS BUDGETED for DETACHMENTS of NFESC  
(UIC N0537A)

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
PACFLT									2500		800			315	
LANTFLT									2000		600			315	
NAVFAC									3251		3200			1200	
NAVSEA									600		1500				
SPAWAR									500						
NAVAIR									200		200				
NAVSUP									200						
DFSC															1173
OTHER NAVY	15								2000		600				1200
OTHER															611

Note: Data prior to the establishment of the NFESC, 1 Oct. 1993, is for the component organizations that are now part of the NFESC. In this tables case they are the Field Project Office-1 (FPO-1), Field Project Office -2 (FPO-2), NAVFAC Chief Engineer (FAC-04B) and NAVFAC-07. Includes Direct Cite funds

TABLE 1.4 FY 1993 BREAKOUT OF FUNDS BUDGETED for DETACHMENTS of  
NFESC

(UIC N0537A)

SPONSOR	RDT&E(N)							Other RDT&E	Other Ap			
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		OMN	APN	OPN	W
PACFLT									2500		800	
LANIFLT									2000		600	
NAVFAC									3251		3200	
NAVSEA									600		1500	
SPAWAR									500			
NAVAIR									200		200	
NAVSUP									200			
DFSC												
OTHER NAVY	15								2000		600	
OTHER												

Note: Data prior to the establishment of the NFESC, 1 Oct. 1993, is for the component organizations that are now part of the NFESC. In this tables case they are the Field Project Office-1 (FPO-1), Field Project Office -2 (FPO-2), NAVFAC Chief Engineer (FAC-04B) and NAVFAC-07. Includes Direct Cite funds

TABLE 1.4 FY 1994 BREAKOUT OF FUNDS BUDGETED for DETACHMENTS of NFESC  
(UIC N0537A)

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
PACFLT									3500		2200			400	
LANTFLT									3500		2000			400	
NAVFAC									4385		300			400	
NAVSEA									600		3500				
SPAWAR									500						
NAVAIR									200		250				
NAVSUP									250						
DFSC															2500
OTHER NAVY	24								2180		1000				1000
OTHER															483

**TABLE 1.4 FY 1994 BREAKOUT OF FUNDS BUDGETED for DETACHMENTS of  
NFESC**

**(UIC N0537A)**

SPONSOR	RDT&E(N)							Other RDT&E	Other Ap			
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		OMN	APN	OPN	W
PACFLT									3500		2200	
LANTFLT									3500		2000	
NAVFAC									4385		300	
NAVSEA									600		3500	
SPAWAR									500			
NAVAIR									200		250	
NAVSUP									250			
DFSC												
OTHER NAVY	24								2180		1000	
OTHER												

TABLE 1.4 FY 1995 BREAKOUT OF FUNDS BUDGETED for DETACHMENTS of NFESC  
(UIC N0537A)

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
PACFLT									3500		2200			400	
LANTFLT									3500		2000			400	
NAVFAC									4265		300			400	
NAVSEA									600		3500				
SPAWAR									400						
NAVAIR									200		200				
NAVSUP									250						
DFSC															4000
OTHER NAVY	30								800		300				400
OTHER															133

TABLE 1.4 FY 1995 BREAKOUT OF FUNDS BUDGETED for DETACHMENTS of  
NFESC

(UIC N0537A)

SPONSOR	RDT&E(N)							Other RDT&E	Other Ap			
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		OMN	APN	OPN	W
PACFLT									3500		2200	
LANTFLT									3500		2000	
NAVFAC									4265		300	
NAVSEA									600		3500	
SPAWAR									400			
NAVAIR									200		200	
NAVSUP									250			
DFSC												
OTHER NAVY	30								800		300	
OTHER												

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TABLE 1.4 FY 1996 BREAKOUT OF FUNDS BUDGETED for DETACHMENTS of NFESC  
(UIC N0537A)

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
	PACFLT									4000		2500			
LANTFLT								4000		2500					
NAVFAC								1565		300					
NAVSEA								750		4000					
SPAWAR								500							
NAVAIR								200		500					
NAVSUP								300							
DFSC														4000	
OTHER NAVY	40							1539		500				500	
OTHER														200	

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TABLE 1.4 FY 1996 BREAKOUT OF FUNDS BUDGETED for DETACHMENTS of  
NFESC

(UIC N0537A)

SPONSOR	RDT&E(N)							Other RDT&E	Other Ap			
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		OMN	APN	OPN	W
PACFLT									4000		2500	
LANIFLT									4000		2500	
NAVFAC									1565		300	
NAVSEA									750		4000	
SPAWAR									500			
NAVAIR									200		500	
NAVSUP									300			
DFSC												
OTHER NAVY	40								1539		500	
OTHER												

Revised page

TABLE 1.4 FY 1997 BREAKOUT OF FUNDS BUDGETED FOR DETACHMENTS of NFESC  
(UIC N0537A)

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
PACFLT								4000		2500				
LANTFLT								4000		2500				
NAVFAC								1365		300				
NAVSEA								750		4000				
SPAWAR								500						
NAVAIR								250		700				
NAVSUP								300						
DFSC														4000
OTHER NAVY	52							1779		500				500
OTHER														95

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*[Signature]*  
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TABLE 1.4 FY 1997 BREAKOUT OF FUNDS BUDGETED for DETACHMENTS of  
NFESC

(UIC N0537A)

SPONSOR	RDT&E(N)							Other RDT&E	Other Ap			
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		OMN	APN	OPN	W
PACFLT									4000		2500	
LANTFLT									4000		2500	
NAVFAC									1365		300	
NAVSEA									750		4000	
SPAWAR									500			
NAVAIR									250		700	
NAVSUP									300			
DFSC												
OTHER NAVY	52								1779		500	
OTHER												

**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 NFESC  
(UIC N0537A )**

Building type	NAVFAC (P-80) category code	Gross Floor/Building Area (KSF)			
		See Note #1			
		Adequate	Sub-standard	In-adequate	Total
Operational & Training	100	7.5	6.6		14.1
Maintenance & Production	200	4.5	3.2		7.7
Science labs	310	27.3	28.4		55.7
Aircraft labs	311				
Missile and Space labs	312				
Ship and Marine labs	313				
Ground Transportation labs	314				
Weapon and Weapon Systems labs	315				
Ammunition, Explosives, & Toxics labs	316				
Electrical Equip. labs	317	8.0	4.0		12.0
Propulsion labs	318				
Miscellaneous labs	319	13.3	2.5		15.8
Underwater Equip. labs	320	8.0	2.3		10.3
Technical Services labs	321		11.4		11.4
Supply Facilities	400		4.3		4.3
Hospital & other Medical	500				
Administrative Facilities	600	79.4	4.2		86.3
Housing & Community	700	7.4			7.4
Utilities & Grounds	800				
Other					
<b>Totals</b>		155.4	66.9		222.3

Note#1: The NFESC main cite will be vacated in the 3rd quarter of FY96. A BRACON, because of BRAC 93 recommendations is expected to be awarded in 5/94 for construction of a facility on NCBC Port Hueneme, CA. NCBC will be plant account holder for the facility. Exact size and cost of the contract has not yet been determined.

d. 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:

- (1) FACILITY TYPE/CODE:
- (2) WHAT MAKES IT INADEQUATE?
- (3) WHAT USE IS BEING MADE OF THE FACILITY?
- (4) WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?
- (5) WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?
- (6) CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:
- (7) HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?



**Table 2.3 Class 2 Space Utilized/Leased by NFESC (UIC N0537A)**

Building type	NAVFAC (P-80) category code	GF/BA (KSF)			
		Adequate	Sub-standard	In-adequate	Total
Operational & Training	100	0.8			0.8
Maintenance & Production	200	15.4			15.4
Science labs	310	4.0			4.0
Aircraft labs	311				
Missile and Space labs	312				
Ship and Marine labs	313				
Ground Transportation labs	314				
Weapon and Weapon Systems labs	315				
Ammunition, Explosives, and Toxics labs	316				
Electrical Equip. labs	317				
Propulsion labs	318				
Miscellaneous labs	319	4.1			4.1
Underwater Equip. labs	320				
Technical Services labs	321				
Supply Facilities	400				
Hospital & other Medical	500				
Administrative Facilities	600 Note #1	27.9			27.9
Housing & Community	700				
Utilities & Grounds	800				
Other					
<b>Totals</b>		52.2			52.2

Note #1: Category code 600 includes:

- (a) 17,085 sq. ft. space on plant account of NCBC (UIC 62583)
- (b) 10,758 sq. ft. commercial leased trailers set up as office space on NFESC Class 1 property. Cost of lease is \$65K per year.

For your Detachment sites not receiving this Data Call directly:

e. Use Table 2.4 below to indicate the combined total amount of Class 2 space that is occupied by your Detachments for which you are the plant account holder as of 31 March 1994. Attach a list with the titles and UIC's of these Detachments.

f. Use Table 2.5 below to indicate the total amount of your Class 2 space reported in Table 2.4 that is assigned to tenant commands and/or independent activities as of 31 March 1994. Include numbered notes to indicate the Detachment site that hosts the tenant.

g. Use Table 2.6 below to indicate the combined total amount of Class 2 space utilized/leased by your Detachments for which you are not the plant account holder. Provide numbered notes to indicate the quantity of leased space and their associated rental cost.

**Table 2.4 Class 2 Assets of NFESC (N0537A) Occupied by Detachments**

Building type	NAVFAC	GF/BA (KSF)			
		Adequate	Sub-standard	In-adequate	Total
Operational & Training	100	None			
Maintenance & Production	200				
Science labs	310				
Aircraft labs	311				
Missile and Space labs	312				
Ship and Marine labs	313				
Ground Transportation labs	314				
Weapon and Weapon Systems labs	315				
Ammunition, Explosives, and Toxics labs	316				
Electrical Equip. labs	317				
Propulsion labs	318				
Miscellaneous labs	319				
Underwater Equip. labs	320				
Technical Services labs	321				
Supply Facilities	400				
Hospital & other Medical	500				
Administrative Facilities	600				
Housing & Community	700				
Utilities & Grounds	800				
Other					
<b>Totals</b>					

h. 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:

- (1) FACILITY TYPE/CODE:
- (2) WHAT MAKES IT INADEQUATE?
- (3) WHAT USE IS BEING MADE OF THE FACILITY?
- (4) WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?
- (5) WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?
- (6) CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:
- (7) HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?

**Table 2.5 Class 2 Space at Detachment Sites of NFESC (UIC N0537A)  
Assigned to Tenants**

TENANT		NAVFAC (P-80) Category Code	GF/BA (KSF) Assigned
Name	UIC		
There are no tenants on the NFESC compound			
		<b>Total:</b>	

**Table 2.6 Class 2 Space Utilized/Leased by Detachments of NFESC (UIC N0537A)**

Building type	NAVFAC (P-80) category code	GF/BA (KSF)			
		Adequate	Sub-standard	In-adequate	Total
Operational & Training	100				
Maintenance & Production	200	7.7			7.7
Science labs	310				
Aircraft labs	311				
Missile and Space labs	312				
Ship and Marine labs	313				
Ground Transportation labs	314				
Weapon and Weapon Systems labs	315				
Ammunition, Explosives, and Toxics labs	316				
Electrical Equip. labs	317				
Propulsion labs	318				
Miscellaneous labs	319				
Underwater Equip. labs	320				
Technical Services labs	321				
Supply Facilities	400	17.1			17.1
Hospital & other Medical	500				
Administrative Facilities	600	15.7			15.7
Housing & Community	700				
Utilities & Grounds	800				
Other					
<b>Totals</b>		40.5			40.5

**3. Class 2 Space Available for Expansion.** An activity's expansion capability is a function of its 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. 0 SQFT. See Note #1.

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. N/A  
       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.

**Note #1. BRAC 93 directed the closure of this compound (previously NCEL) and the realignment of necessary functions to NCBC Port Hueneme, CA. Therefore there will be no space available for expansion on the main compound.**



**Table 3.2 Unconstrained Class 2 Space Available for Expansion at NFESC  
(UIC N0537A )**

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		
None,	See Note #1				
<b>Totals</b>					

**Note #1. BRAC 93 directed the closure of this compound (previously NCEL) and the realignment of necessary functions to NCBC Port Hueneme, CA. Therefore there will be no space available for expansion on the main compound.**

#### **4. Class 1 Space Available for Expansion. See Note #1**

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? **None, see Note #1**

c. Explain the radio frequency constraints/opportunities within your Class 1 holdings. **None, see Note #1**

**Note #1. BRAC 93 directed the closure of this compound (previously NCEL) and the realignment of necessary functions to NCBC Port Hueneme, CA. Therefore there will be no space available for expansion on the main compound.**

**Class 1 Resources of NFESC (UIC: N0537A)**

**Site Location: Port Hueneme CA**

Land Use	Total Acres	Developed Acreage	Available for Development	
			Restricted	Unrestricted
Maintenance	3.9	3.9	See Note #1	
Operational	6.4	6.4		
Training				
R & D	8.8	8.8		
Supply & Storage	8.1	8.1		
Admin	6.0	6.0		
Housing				
Recreational				
Navy Forestry Program				
Navy Agricultural Outlease Program				
Hunting/Fishing Programs				
Other				
Total:	33.2	33.2		

d. Of the total Unrestricted Acres reported above, how much of it has existing roads and/or utilities that could support expansion efforts? 0 Acres. Explain. See Note #1.

**Note #1. BRAC 93 directed the closure of this compound (previously NCEL) and the realignment of necessary functions to NCBC Port Hueneme, CA. Therefore there will be no space available for expansion on the main compound.**

**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 Base Infrastructure Capacity & Load:**

	<b>On Base Capacity</b>	<b>Off base long term contract</b>	<b>Normal Steady State Load</b>	<b>Peak Demand</b>
<b>Electrical Supply (KWH)</b>	0 Note #1 (Substation 45,000 KWH cap)		1424 KWH	38,400 KWH
<b>Natural Gas (CFH)</b>	0 Note #1		47	73
<b>Sewage (GPD)</b>	144,000		5468	21,870
<b>Potable Water (GPD)</b>	0 Note #1		6075	24,300
<b>Steam (PSI &amp; lbm/Hr)</b>	38 PSI & 9314 lbm/Hr		38 PSI & 3495 lbm/Hr	38 PSI & 9314 lbm/Hr
<b>Long Term Parking</b>	0		0	0
<b>Short Term Parking</b>	543 spaces		303 spaces	364 spaces

Note #1. The NFESC has no on base capacity. Utilities are purchased from the Naval Construction Battalion Center (NCBC) Port Hueneme. When compound closes, per BRAC93 NFESC will become a tenant of NCBC and all utility capacity will come from host 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 Maintenance, Repair & Equipment Expenditure Data  
for NFESC (UIC: N0537A)  
See Note #1**

<b>Fiscal Year</b>	<b>MRP (\$M)</b>	<b>CPV (\$M)</b>	<b>ACE (\$M) Note #2</b>
1985	.475	22.5	1.8
1986	.752	23.2	2.2
1987	.310	23.2	3.1
1988	1.883	26.4	4.4
1989	.263	26.8	5.5
1990	.508	27.6	6.2
1991	.394	27.9	6.7
1992	1.250	29.1	7.2
1993	.619	30.2	7.7
1994	.80	30.7	6.9
1995	.96	31.2	6.8
1996 See Note 1	40K (new); 56K (old)	31.5	5.6
1997			5.7

Note 1: BRAC directed closure of the main compound. BRACON project P-012T is scheduled for completion in FY96. When the NFESC moves into the completed new facility on the NCBC, Port Hueneme, CA it will become a tenant of that organization.

Note #2: ACE column contains only class 3, 4, and, 5 equipment.

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 (i.e.: 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.

Type of Training Facility/CCN	School	Type of Training	FY 1993 Requirements			FY 2001 Requirements		
			A	B	C	A	B	C
None								

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) <sup>1</sup>	Capacity (Student HRS/YR)
None			

(3) Describe how the Student HRS/YR value in the preceding table was derived.

---

<sup>1</sup> 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. No integral berthing capacity. NFESC uses NCBC Port Hueneme berths as required (No dedicated space at NCBC). Capacity being reported separately by NCBC.

**7. Operational Airfield Capacity.** If your activity owns and operates an operational airfield fill out the data sheets provided at TAB B. No integral airfield capacity.

**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. No Depot Level maintenance capacity

**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. No integral ordnance storage capacity.

#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."

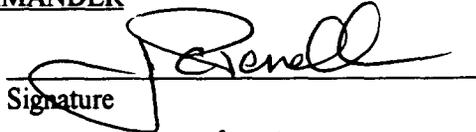
The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

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

J. C. PENELL  
NAME (Please type or print)

  
Signature

Commanding Officer  
Title

5/10/94  
Date

NFESC Port Hueneme  
Activity

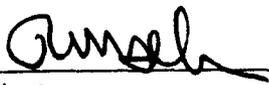
I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

**RADM R. M. GALLEN, CEC, USN**  
NAME (Please type or print)

Acting Commander  
Title

Naval Facilities Engineering Command  
Activity

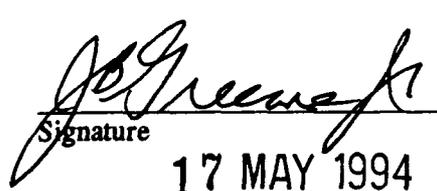
  
\_\_\_\_\_  
Signature  
5-13-94  
\_\_\_\_\_  
Date

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)

**ACTING**  
\_\_\_\_\_  
Title

  
\_\_\_\_\_  
Signature  
17 MAY 1994  
\_\_\_\_\_  
Date

cert for Revised pages  
5, 6, 7, 8, 9, 10, 11, 12, 13, 14

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)

J. E. Buffington  
Signature

COMMANDER  
Title

6/10/94  
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)

J. B. Greene, Jr.  
NAME (Please type or print)

J. B. Greene Jr  
Signature

Acting  
Title

J. B. Greene 10 JUN 1994  
Date

cert for revised pages  
5, 6, 7, 8, 9, 10, 11, 12, 13, 14

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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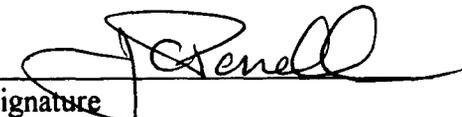
The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

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

J. C. PENELL  
NAME (Please type or print)

  
Signature

Commanding Officer  
Title

6/9/94  
Date

NFESC Port Hueneme  
Activity

# Document Separator

**DATA CALL 1: GENERAL INSTALLATION INFORMATION**

1. **ACTIVITY:** Follow example as provided in the table below. 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 redesignation, realignments/closures or other action, provide current and projected data and so annotate.

- Name

Official name	<u>Naval Facilities Engineering Service Center, Port Hueneme CA</u>
Acronym(s) used in correspondence	<u>NFESC, Port Hueneme CA</u>
Commonly accepted short title(s)	<u>ESC</u>

- Complete Mailing Address

Naval Facilities Engineering Service Center  
560 Center Drive  
Port Hueneme CA 93043-4328

- PLAD NFESC PORT HUENEME CA

• PRIMARY UIC: 0537A \* (Plant Account UIC for Plant Account Holders)\* Note: Per OPNAV Note 5450 dated 23 Nov 93

Enter this number as the Activity identifier at the top of each Data Call response page.

- ALL OTHER UIC(s): B1074 PURPOSE: Marine Corps Liaison Office

2. **PLANT ACCOUNT HOLDER:**

- Yes  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 \_\_\_\_\_ No X \_\_\_\_\_ (check one)

• Primary Host (current) UIC: \_\_\_\_\_

• Primary Host (as of 01 Oct 1995) UIC: \_\_\_\_\_

• Primary Host (as of 01 Oct 2001) UIC: 62583 \*

\* Note: The NFESC will become a tenant of NCBC Port Hueneme after vacating its current site in FY96.

• **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 X \_\_\_\_\_ No \_\_\_\_\_ (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
None		

5. DETACHMENTS: If your activity has detachments at other locations, please list them in the table below.

Name	UIC	Location	Host name	Host UIC
NFESC, East Coast Det.	0537A	Washington, DC	Naval District Washington	00171
Ocean Construction Equipment Inventory Det.	0537A	Portsmouth, VA	Norfolk Naval Shipyard	00181

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-93 recommended the closing of the Naval Civil Engineering Laboratory (NCEL) and the realigning of necessary functions, personnel, equipment and support at the Construction Battalion Center, Port Hueneme CA. This recommendation, along with an ongoing consolidation effort resulted in the disestablishing of NCEL on 30 Sept. 93 and the establishing of the NFESC on 1 Oct. 93. The NFESC combines the relevant missions of; the Naval Energy and Environmental Support Activity (NEESA); the NCEL; the Ocean Engineering and Construction Project Office (FPO-1); the Communications/Electronics Facilities Project Office (FPO-2); the Naval Facilities Engineering Command's Chief Engineer Office and the Assistant Commander for Ocean Facilities (FAC04B and 07).

This consolidation resulted in the formation of an organization that is more capable of meeting the needs of its customers. It is a full spectrum service center that is capable of handling facilities related technologies from development through design, technology transfer, field engineering consultation and in-service engineering support.

Plans call for the 33 acres of land that was the site of the NCEL will be vacated by FY96.

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

The NFESC was established on 1 Oct. 93. It was formed as a result of BRAC 93 recommendations and an ongoing consolidation effort, as described in the above paragraph (6). The basic NFESC mission is to be an integral member of the Naval Facilities Systems Command Team, and to provide specialized engineering, scientific, and technical products on a world-wide basis in the areas of shore, ocean and waterfront facilities, amphibious and expeditionary operations, energy and utilities, and environmental engineering. The services provided include research, consulting, and field engineering for Navy, Marine Corps, DOD customers and other federal agencies. The current mission includes:

- Design, development, implementation and in-service engineering of energy and utilities efficiency, conservation, management and cost reduction technologies.
- Execution of the Marine Corps Amphibious Logistics Systems Program. This includes bulk and batch liquid transfer, surf zone facilities for cargo off-loading, amphibious combat service support equipment, extreme climate engineering
- Design, development, implementation and in-service engineering of environmental systems to assure compliance in the Environmental Restoration, Pollution Prevention, and Air Quality Programs. This includes: data management of 15 Navywide environmental data bases, dissemination of innovative cleanup technologies navywide, Navy's Pollution Prevention Center, oil spill management, industrial ventilation and air quality, asbestos management assistance, minimization of environmental impact of Navy industrial processes.
- Design, develop, survey, construct and maintain fixed ocean facilities including; fleet moorings anchors, TACTs ranges, cables and cable systems; structures such as piers and coastal facilities, ocean construction equipment, pipeline and hyperbaric facilities.
- Provide technical development and field engineering consultation/assistance to support the acquisition and maintenance of an effective shore establishment to support the operational readiness and sustainability of the fleet. Special emphasis in waterfront, ordnance, aviation and electronics facilities especially; structural diagnostics and modeling,

explosive safety facility design, physical security, materials coatings and composites, computer networks, computer aided design and geographical information systems.

#### Projected Missions for FY 2001

NFESC Missions will see some evolutionary changes as we respond to contemporary military operational needs. Due to the consolidation of several activities into the NFESC, some complementary blending of our mission will occur. Mission changes anticipated include:

- \* Reorganization of the EFD public works facilities support areas because of the BRAC decisions and general DOD downsizing will shift some of their (specialized capabilities) facilities workload to the NFESC. This will be the most noticeable in the areas of energy and utilities consultation and management assistance.

- \* Becoming the Navy's single organization for environmental data and information reporting, including managing specific environmental data/information for the Defense Environmental Corporate Information Management Office in Washington D.C. and supporting the Navy's role as the DOD lead for Clean Air Act implementation.

- \* Development of new specialized core expertise to solve Navy infrastructure problems.

- \* Expand efforts in Installation Restoration focusing on site closure and maintenance.

- \* Harbor/Ocean environmental site investigation, survey, remediation and restoration equipment and techniques.

- \* Computer aided design and optimization.

- \* Computer aided facility life cycle cost management.

- \* Executive security. (e.g. designing areas in building secure from terrorist attacks, identifying building safe areas)

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

\* Navy Energy Ashore

HVAC Direct Digital Control Design, Installation and Testing  
Utilities Assessment, Evaluation, Troubleshooting, and Life Extension

Power/Steam Plant Design, Start-up, Inspection, Casualty Investigation, Testing, Predictive/Preventative Maintenance, and Acquisition Services

Energy Technology Development (For CNO)

Navy Strategic Submarine Communications Large Structure Antenna Upgrading and Maintenance

\* Navy Environmental Ashore

DERA (relatively unique applications)

Pollution Abatement (relatively unique applications)

Navywide Database Management

Oil Spill Cleanup-Equipment and Procurement

\* Marine Corps Amphibious Logistics Systems

The NFESC is the only organization that has both the Navy Amphibious Logistic and the Marine Corps Expeditionary Technology Development Programs

Helicopter External Lift Certification

\* Shore Facilities

Electronic Facilities Design, Construction and Certification  
e.g. UPS, Communications Facilities

Hyperbarics Certification and Acquisition

Physical Security (DOD Lead on Locks, Barriers and Containers)

Drydock certification

Explosive Safety Ashore (Navy Lead)

Reliance Lead on Waterfront Facilities Technology Development

UPS/Communications Facilities Design

\* Ocean Facilities

Reliance Lead for Technology Development

Marine Geotechniques

Moorings Design, Acquisition, and, Maintenance

Magnetic Silencing Facilities Acquisition (For NAVSEA)

Underwater Inspection of Ocean Facilities

Specialized ocean technology supporting classified military missions

Projected Unique Missions for FY 2001

Our unique missions will also see some evolutionary changes as we respond to contemporary military operational needs. Again, natural complementary blending of our missions will result in some unique mission changes. Examples include:

- The handling of technologies from initial design and development through in-service engineering of the mature technology.
- The combining of environmental and ocean engineering capabilities.
- The combining of environmental and energy engineering capabilities.

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 Facilities Engineering Command 00025\_\_\_\_\_
- Funding Source UIC  
Naval Facilities Engineering Command 00025 (RMS funding)

Note: The NFESC also receives reimbursable and DBOF funding from a wide range of Naval, DOD, Federal and private organizations.

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	<u>9(RMS)+7(DBOF)=16*</u>	<u>0+9=9</u>	<u>206+372=578</u>
• Tenants (total)	<u>0</u>	<u>0</u>	<u>0</u>

Authorized Positions as of 30 September 1994

	Officers	Enlisted	Civilian
(Appropriated)			
• Reporting Command	<u>9+6=15*</u>	<u>0+7=7</u>	<u>206+337=543**</u>
• Tenants (total)	<u>0</u>	<u>0</u>	<u>0</u>

Notes: \* Includes one Army Liaison Officer  
 \*\* Dependent on FY94 VERA/VSIP approval

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.

<u>Title/Name</u>	<u>Office</u>	<u>Fax</u>	<u>Home</u>
• CO/OIC			
<u>CAPT Joe Penell</u>	<u>805-982-1393</u>	<u>805-982-1409</u>	<u>805-483-0995</u>
• Duty Officer	<u>805-444-0373</u>	N/A	N/A
• Primary POC			
<u>A. Peter Shack</u>	<u>805-982-1348</u>	<u>805-982-1409</u>	<u>805-985-7567</u>
• XO/Secondary POC			
<u>CDR Joe Taylor</u>	<u>805-982-3584</u>	<u>805-982-1409</u>	<u>805-483-9260</u>

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				

- Tenants residing on main complex (homeported units.)

Tenant Command Name	UIC	Officer	Enlisted	Civilian
None				

- 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
None					

- Tenants (Other than those identified previously)

Tenant Command Name	UIC	Location	Officer	Enlisted	Civilian
None					

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.)
None		

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).)

\* Note: Two endangered species have been identified, but no critical habitat has been determined. the species are:

- Sterna Antillarum, Brown Eye (Migratory)-California Least Tern
- Pelecanus Occidentalis (Year Round)-California Brown Pelican

- 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".)

Note: Best available photo is from late 1990.

- Air Installations Compatible Use Zones (AICUZ) Map. (Provide 12 copies.)

**N/A**

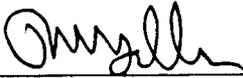
I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

**RADM R. M. GALLEN, CEC, USN**  
NAME (Please type or print)

Acting Commander  
Title

Naval Facilities Engineering Command  
Activity

  
\_\_\_\_\_  
Signature  
2/15/94  
\_\_\_\_\_  
Date

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)**

R.R. Sareeram  
\_\_\_\_\_  
NAME (Please type or print)

Acting  
\_\_\_\_\_  
Title

  
\_\_\_\_\_  
Signature  
15 Feb 1994  
\_\_\_\_\_  
Date

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

J. C. PENELL  
NAME (Please type or print)

  
Signature

Commanding Officer

4 FEB 1994

Title

Date

Naval Facilities Eng Serv Center  
Activity

BRAC-95 CERTIFICATION

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

A. Peter Shack  
NAME (Please type or print)

A Peter Shack  
Signature

Requirements Manager  
Title

2/3/94  
Date

ESC 101  
Division

ESC 10  
Department

NFESC  
Activity

Enclosure (1)

# Document Separator

178

**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.

<b>Activity Name:</b>	<b>Naval Facilities Engineering Service Center, Fort Huene, California</b>
<b>UIC:</b>	<b>N0537A</b>
<b>Major Claimant:</b>	<b>Naval Facilities Engineering Command</b>

**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

DATA CALL 65  
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

source. Records must be retained by the certifying official to clearly document the source of any non-DoD information submitted for this data call.

General Comment: The information provided in this data call is for the personnel and facilities on the main compound of the NFESC. Information on East Coast detachment is generally not included, as it did not seem relevant to the questions included in the data call. It should further be noted that as a consequence of BRAC 93, the NFESC will be relocated onto the Naval Construction Battalion Center, Port Hueneme. This relocation will take place at the completion of MILCON P-012T, which is anticipated to be in FY96.

**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:	\$55,881
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Source of Data (1.a. Salary Rate): CP-2 submittal for DONIBIS (Dept. of Navy Industrial Budget Information System)
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**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	18	494	94	10	20
Santa Barbara	CA	0	16	3	50	60
Los Angeles	CA	0	16	3	40	70
<b>TOTALS:</b>		18	526	100%		

Note: This information is provided for employees on the main compound. Employees at NFESC detachments are not included.

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

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**Source of Data (1.b. 1) & 2) Residence Data): NFESC Personnel Management Information System (PERMIS), Defense Civilian Personnel Data System (DCPDS), 31 March 91**

**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	0
Simi Valley	Ventura	22
Thousand Oaks	Ventura	20
Santa Barbara	Santa Barbara	35
San Fernando Area	Los Angeles	35
Los Angeles Area	Los Angeles	45

**Source of Data (1.c. Metro Areas): ARCO "The Californias" Map**

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**d. Age of Civilian Workforce.** Complete the following table, identifying the age of the activity's civil service workforce.

<b>Age Category</b>	<b>Number of Employees</b>	<b>Percentage of Employees</b>
<b>16 - 19 Years</b>	0	0%
<b>20 - 24 Years</b>	5	1.0%
<b>25 - 34 Years</b>	132	25.1%
<b>35 - 44 Years</b>	135	25.5%
<b>45 - 54 Years</b>	168	32.0%
<b>55 - 64 Years</b>	65	12.4%
<b>65 or Older</b>	21	12.4%
<b>TOTAL</b>	526	100 %

**Source of Data (I.d.) Age Data): PERMIS, Defense Civilian Personnel Data System (DCPDS), 31 March 91**

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**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.

<b>Last School Year Completed</b>	<b>Number of Employees</b>	<b>Percentage of Employees</b>
8th Grade or less	0	0%
9th through 11th Grade	1	0.2%
12th Grade or High School Equivalency	118	22.4%
1-3 Years of College	68	12.9%
4 Years of College (Bachelors Degree)	170	32.3%
5 or More Years of College (Graduate Work)	169	32.1%
<b>TOTAL</b>	<b>526</b>	<b>100 %</b>

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").

<b>Degree</b>	<b>Number of Civilian Employees</b>
Terminal Occupation Program - Certificate of Completion, Diploma or Equivalent (for areas such as technicians, craftsmen, artisans, skilled operators etc.)	0
Associate Degree	29
Bachelor Degree	214
Masters Degree	104
Doctorate	21

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Source of Data (1.e.1) and 2) Education Level Data): PERMIS, Defense Civilian Personnel Data System (DCPDS), 31 March 91

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 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	0	0
2. Construction (includes facility maintenance and repair)	15-17	0	0
3. Manufacturing (includes Intermediate and Depot level maintenance)	20-39		
3a. Fabricated Metal Products (include ordnance, ammo, etc.)	34	0	0
3b. Aircraft (includes engines and missiles)	3721 et al	0	0

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Industry	SIC Codes	No. of Civilians	% of Civilians
3c. Ships	3731	0	0
3d. Other Transportation (includes ground vehicles)	various	0	0
3e. Other Manufacturing not included in 3a. through 3d.	various	0	0
Sub-Total 3a. through 3e.	20-39	0	0
<b>4. Transportation/Communications/Utilities</b>			
4a. Railroad Transportation	40	0	0
4b. Motor Freight Transportation & Warehousing (includes supply services)	42	0	0
4c. Water Transportation (includes organizational level maintenance)	44	0	0
4d. Air Transportation (includes organizational level maintenance)	45	0	0
4e. Other Transportation Services (includes organizational level maintenance)	47	0	0
4f. Communications	48	0	0
4g. Utilities	49	0	0
Sub-Total 4a. through 4g.	40-49	0	0
<b>5. Services</b>			
5a. Lodging Services	70	0	0

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Industry	SIC Codes	No. of Civilians	% of Civilians
<b>5b. Personal Services</b> (includes laundry and funeral services)	72	0	0
<b>5c. Business Services</b> (includes mail, security guards, pest control, photography, janitorial and ADP services)	73	53	10.1
<b>5d. Automotive Repair and Services</b>	75	0	0
<b>5e. Other Misc. Repair Services</b>	76	0	0
<b>5f. Motion Pictures</b>	78	0	0
<b>5g. Amusement and Recreation Services</b>	79	0	0
<b>5h. Health Services</b>	80	0	0
<b>5i. Legal Services</b>	81	0	0
<b>5j. Educational Services</b>	82	0	0
<b>5k. Social Services</b>	83	0	0
<b>5l. Museums</b>	84	0	0
<b>5m. Engineering, Accounting, Research &amp; Related Services</b> (includes RDT&E, ISE, etc.)	87	379	72.1
<b>5n. Other Misc. Services</b>	89	83	15.8
<b>Sub-Total 5a. through 5n.:</b>	70-89	515	98
<b>6. Public Administration</b>	90-99	11	2
<b>6a. Executive and General Government, Except Finance</b>	91	11	2

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Industry	SIC Codes	No. of Civilians	% of Civilians
6b. Justice, Public Order & Safety (includes police, firefighting and emergency management)	92	0	0
6c. Public Finance	93	0	0
6d. Environmental Quality and Housing Programs	95	0	0
Sub-Total 6a. through 6d.		11	2
<b>TOTAL</b>		<b>526</b>	<b>100 %</b>

**Source of Data (1.f.) Classification By Industry Data):  
PERMIS, Defense Civilian Personnel Data System (DCPDS), 31  
March 91**

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**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 Employee s	Percent of Civilia n Emplee es
<b>1. Executive, Administrative and Management</b>	88	16.7
<b>2. Professional Specialty</b>		
<b>2a. Engineers</b>	300	57.0
<b>2b. Architects and Surveyors</b>	2	0.4
<b>2c. Computer, Mathematical &amp; Operations Research</b>	34	6.5
<b>2d. Life Scientists</b>	0	0
<b>2e. Physical Scientists</b>	0	0
<b>2f. Lawyers and Judges</b>	0	0
<b>2g. Social Scientists &amp; Urban Planners</b>	0	0
<b>2h. Social &amp; Recreation Workers</b>	0	0
<b>2i. Religious Workers</b>	0	0

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Occupation	Number of Civilian Employee s	Percent of Civilia n Emplee es
2j. Teachers, Librarians & Counselors	3	0.6
2k. Health Diagnosing Practitioners (Doctors)	0	0
2l. Health Assessment & Treating (Nurses, Therapists, Pharmacists, Nutritionists, etc.)	0	0
2m. Communications	6	1.1
2n. Visual Arts	9	1.7
<b>Sub-Total 2a. through 2n.:</b>	<b>354</b>	<b>67.3</b>
<b>3. Technicians and Related Support</b>		
3a. Health Technologists and Technicians	0	0
3b. Other Technologists	39	7.4
<b>Sub-Total 3a. and 3b.:</b>	<b>39</b>	<b>7.4</b>
<b>4. Administrative Support &amp; Clerical</b>	<b>45</b>	<b>8.6</b>
<b>5. Services</b>		
5a. Protective Services (includes guards, firefighters, police)	0	0
5b. Food Preparation & Service	0	0
5c. Dental/Medical Assistants/Aides	0	0
5d. Personal Service & Building & Grounds Services (includes janitorial, grounds maintenance, child care workers)	0	0
<b>Sub-Total 5a. through 5d.</b>	<b>0</b>	<b>0</b>
<b>6. Agricultural, Forestry &amp; Fishing</b>	<b>0</b>	<b>0</b>
<b>7. Mechanics, Installers and Repairers</b>	<b>0</b>	<b>0</b>

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Occupation	Number of Civilian Employee s	Percent of Civilia n Employee es
<b>8. Construction Trades</b>	0	0
<b>9. Production Occupations</b>	0	0
<b>10. Transportation &amp; Material Moving</b>	0	0
<b>11. Handlers, Equipment Cleaners, Helpers and Laborers (not included elsewhere)</b>	0	0
<b>TOTAL</b>	<b>526</b>	<b>100 %</b>

**Source of Data (1.g.) Classification By Occupation Data):  
PERMIS, Defense Civilian Personnel Data System (DCPDS), 31  
March 91**

**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

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- 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.** Bus drivers; material moving equipment operators; rail transportation occupations; truck drivers; water transportation occupations.
  11. **Handlers, Equipment Cleaners, Helpers and Laborers (not included elsewhere).** Entry level jobs not requiring significant training.

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**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:	94%
2. Percentage of Military Spouses Who Work Outside of the Home:	29.4%
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:	0
3b. Employed "On-Base" - Non-Appropriated Fund:	5.9%
3c. Employed "Off-Base" - Federal Employment:	0
3d. Employed "Off-Base" - Other Than Federal Employment	23.5%

**Source of Data (1.h.) Spouse Employment Data): Survey of Military personnel**

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**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.

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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:	A	A	A
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

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1 Infrastructure for water supply and distribution are adequate. However, as a result of drought over the past 6 years, current water quantity has limited ability to support expansion. District, county and regional programs are under consideration, which will expand supply, even in the event of continued drought.

Remember to mark with an asterisk any categories which are wholly supported on-base.

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.

NONE

<p>Source of Data (2.a. 1) &amp; 2) - Local Community Table): Ventura County Planning Department</p>
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**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:	A	A	A
Water Supply	A	A	A <sup>1</sup>
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

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Category	20% Increase	50% Increase e	100% Increase
Recreation Facilities	A	A	A

1 Infrastructure for water supply and distribution are adequate. However, as a result of drought over the past 6 years, current water quantity has limited ability to support expansion. District, county and regional programs are under consideration, which will expand supply, even in the vent of continued drought. Remember to mark with an asterisk any categories which are wholly supported on-base.

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.

NONE

Source of Data (2.b. 1) & 2) - Regional Table): Ventura County Planning Department

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**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: 4.63%

Units for Sale: 3.5%

**Source of Data (3.a. Off-Base Housing): Ventura County  
Population and Housing Estimates of 1 Jan 93**

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**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	
<b>CAMARILLO AREA</b>									
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	
Somis Union	Ventura	1	0	1	290	See Note 1	26.4	See Note 2	No
<b>OXNARD, HUENEME, VENTURA</b>									
Hueneme	Ventura	5	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

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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	
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
<b>SANTA PAULA</b>									
Briggs	Ventura	2	0	0	378	See Note 1	25.2	See Note 2	No
Mugu	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
<b>CONEJO VALLEY</b>									
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
<b>SINGLE DISTRICTS</b>									

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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	
Simi Valley Unified	Ventura	19	4	3	18,565	See Note 1	25.2	See Note 2	No
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**

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**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.

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
<b>CAMARILLO AREA</b>										
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	No ne
<b>OXNARD, HUENEME, VENTURA</b>										
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

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School District	GRADE									
	K	1	2	3	4	5	6	7	8	9-12
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	38								
<b>SANTA PAULA</b>										
Briggs	31	30	30	30	29 .9	29 .9	29 .9	29 .9	29 .9	NA
Mugu	31	30	30	30	29 .9	29 .9	29 .9	29 .9	29 .9	NA
Santa Clara	NA									
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
<b>CONEJO VALLEY</b>										
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
<b>SINGLE DISTRICTS</b>										
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									

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**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

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	Certifi- cate	Associ- ate	Bachelo- r	Gradua- te
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
California State University, Northridge Ventura Campus	Yes	No	Yes	Yes
University of LaVerne	Yes	No	Yes	Yes
University of California, Santa Barbara	Yes	No	Yes	Yes

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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
Oxnard College	Yes	Yes	No	No
Ventura College	Yes	Yes	No	No
Moorpark College	Yes	Yes	No	No

**Source of Data (3.b.3) Colleges): American Universities and College, Thirteenth Edition, 1992; Ventura County Living, Lifestyle Publishing, 1987; GTE Phone Directory, Port Hueneme-Somis, 1993-94; PHD NSWC Academic "After-Hours" Program Booklet, Revised February 1993.**

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:

NAME OF SCHOOL	MAJOR CURRICULUMS
Academy of Travel and Cruises	Travel Agent/ Travel Business
Anthony Schools for Real Estate	Real Estate Brokers/ Agents
H & R Block Tax Preparation	Income Tax/Financial Planning
Computer Applications Training Association	Computer Science
Computerfocus	Computer Science

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NAME OF SCHOOL	MAJOR CURRICULUMS
Golden State School	Business/ Trades
International Bartending	Bartending
IADE American Schools	Business/ Computers
K-9 Emporium	Dog Grooming
Oxnard Beauty College	Cosmetology
Sawyer College	Business/ Computers
Simi Valley Adult School	General Education/ Trades
Watterson College Pacific	Business/ Computers/ Technical
Westlake Institute of Technology	Business/ Computers/ Technical
Family Computer Learning Center	Computers
Graphic Traffic	Computers
Executrain	Computers
SEA Business Services	Business/ Computers
Oxnard Union High Adult School	General Education/ Trades

Source of Data (3.b.4) Vo-tech Training): GTE Phone Directory, Port Hueneme-Somis, 1993-94; Phone Surveys, April 1994

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**c. Transportation.**

1) Is the activity served by public transportation?

	<u>Yes</u>	<u>No</u>
Bus:	_____	<u>X</u> <sup>1</sup>
Rail:	_____	<u>X</u>
Subway:	_____	<u>X</u>
Ferry:	_____	<u>X</u>

<sup>1</sup> Local bus service is available close to the NFESC main entrance.

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, California Transportation Center: approximately 4 miles

Source of Data (3.c.2) Transportation): Ventura County Map

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: approximately 4 miles

Source of Data (3.c.3) Transportation): Ventura County Map

4) How many carriers are available at this airport?

TWO CARRIERS - American Eagle and United Express. They are commuter airlines for American and United Airlines, respectively.

Source of Data (3.c.4) Transportation): Oxnard (Ventura County Airport)

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5) What is the Interstate route number and distance, in miles, from the activity to the nearest Interstate highway?

Interstate 101	7 miles
Interstate 10	35 miles
Interstate 405	40 miles
Interstate 5	45 miles

**Source of Data (3.c.5) Transportation): AAA Map of California**

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.)

The facility has one access gate at the west termination of Hueneme Road. Hueneme Road in the area of the gate is a two lane asphalt road. The local International Longsherman Worker's Union is located immediately outside the access gate. From 0600 to 0800, each weekday, minor congestion occurs due to a number of ILWU going to and from the union hall.

b) Do access roads transit residential neighborhoods?

Hueneme Road transits an area primarily designated for businesses and industrial functions. A small amount of traffic transits a three block distance on Seaview Street, which is residential.

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): Direct observation**

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**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.

Fire protection is provided by NCBC, Port Hueneme. The CBC Fire Department has mutual/automatic aid agreements with Ventura County for assistance on fire protection and HAZMAT. It also has mutual aid agreements with Oxnard City Fire Department, Ventura County Fire Department and Point Mugu Fire Department for fire protection assistance.

**Source of Data (S.d. Fire/Hazmat):** NCBC, Port Hueneme Security Department Files

**e. Police Protection.**

1) What is the level of legislative jurisdiction held by the installation?

**Exclusive**

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.

**N/A**

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.

**N/A**

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.

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NCBC Port Hueneme (military/civilian) police support is provided through an ISSA. There is only a verbal agreement between NCSC and Port Hueneme and Oxnard police.

Source of Data (3.e. 1) - 5) - Police): NCBC, Port Hueneme Security Department Files

**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.

The NFESC has no utilities agreement with the local community. Utilities are purchased from NCBC, Port Hueneme. CBC purchases Electricity form Southern California Edison Company, purchases natural gas from the Southern California Gas Company, has a water supply contact with United Water Conservation District to provide back-up water supply, and a contract with the City of Oxnard for disposal of CBC Sewage. Trash disposal (off base) has been handled by base personnel, but we have been contracted by the City of Port Hueneme who would like to handle our trash collection/disposal in conjunction with their own.

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. NO

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

Source of Data (3.f. 1) - 3) Utilities): Contracts and billings between CBC and Southern California Edison, Southern California Gas Company, and the United Water Conservation District, and the Cities of Oxnard and Port Hueneme (sewer). CBC meter bills and records.

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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. Naval Construction Battalion Center	Military (U.S. Navy)	17,581
2. Naval Air Warfare Center, Weapons Division, Point Mugu Site	Military (U.S. Navy)	6,788
3. County of Ventura	County Government	6,058
4. GTE of California	Telephone Equipment Services	2,785
5. Naval Surface Warfare Center	Military (U.S. Navy)	<sup>2</sup> 2,490
6. AMGEN	Pharmaceutical	2,100
7. Bugle Boy Industries	Clothing	2,000
8. Ventura County Community College District	Education	1,800
9. St. John's Regional Medical Center	Hospital	1,300
10. Ventura County Medical Center	Hospital	1,200

<sup>1</sup> Includes NCBC and tenants except NSWC, PHD

<sup>2</sup> NSWC, PHD is a tenant of NCBC

**Source of Data (4. Business Profile):** Ventura County Economic Development Association, 1994 Economic Report and Directory of Business/Industry

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**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 contributing to the loss of jobs are durable manufacturing, construction, and retail trade. These industries are responsible for all of the net employment loss over the last 3 years.

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 employee 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 following major employers have moved to the Ventura area in the last five years:

Technicolors Inc.- 1000 employees; recently located in Camarillo.  
Guardian Products - 360 employees; recently located in the City of Simi.

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**Warner Electra Atlantic - 180 employees; due to move into a new company space in Simi Valley in August 1994.**

**Other new businesses/technologies:**

- **Civilian Joint Use of Point Mugu Airfield.** The feasibility of shared usage of the airfield aboard NWS Point Mugu is currently being studied. While it would seem unlikely that civilian service could be provided within the next few years, if feasible and if the county desires increased air carrier service, many jobs could be created with the projected 1994 carrier service at 1.2 million air passengers/year. Also associated revenue from tourism would provide economic benefits. (Source: Southern California Association of Governments First Draft Feasibility Study, Joint Use Investigation Committee 5/18/94)

- **Civilian Joint Use of the Port Hueneme Harbor** located on CBC Port Hueneme would provide, if agreed to by U.S. Navy, jobs associated with an increased harbor availability.

- **Los Angeles Postal Distribution Center** will relocate to Valencia approximately 10 miles from the eastern border of Ventura County. It is reasonable to assume that workers will commute to this site from the geographic region. Plans are before LA County officials for Newhall Ranch, a 70,000 person community in East Ventura County hoping to attract workers from this site.

- **Proposed joint effort to allow construction of aquarium** adjoining CBC base and possible use of land for parking space

- **CBC Port Hueneme has been named a National Test Site (NTS)** for environmental cleanup of sites identified under the DoD's Installation Restoration Program. Innovative new technologies for cleanup could provide positive economic benefit as yet to be determined. Point Mugu is under consideration for this program for this cleanup of heavy metals as well, but has not been named as a NTS.

**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

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**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.

**d. Economic Trends for Ventura County**

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

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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.

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. (1) Most economists were predicting a fourth quarter 1994 recovery of the economy of California. (2) 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 months 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 closest neighbors, Santa Barbara or Los

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Los Angeles Counties. Nevertheless, there are not necessarily special conditions which will allow the Ventura County economy to recover and 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 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.

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 a number of 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 countrywide. Office building vacancy was estimated at 19.2 percent during the first quarter of 1994. Industrial building

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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 prices 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 health care 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.

A key issue for decision makers is the role that an expansion of the biotechnology sector can take in the restoration of economic vitality in Ventura County. 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.

The federal government is the single largest employer in Ventura County. More than 17,687 civilian and military personnel work at the county's two Naval bases: The Naval Air Warfare Center at Point Mugu, and the Naval Construction Battalion Center in Port Hueneme, where the PHD NWC resides as a tenant command.

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**Source of Data (5. Other Socio/Econ):** Ventura County Planning Department and Ventura County profile, Lifestyle Publishing 1987; The World Almanac and Book of Facts, 1992; Ventura County Economic Development Association, 1994; and the Business License Departments in Ventura County Cities.

**6. Other.** Identify any contributions of your activity to the local community not discussed elsewhere in this response.

The NFESC (or the component commands before its formation) has been an active participant in the local community. It regularly participates in community activities such as:

Ventura County Science Fair (since 1958)  
Local, School Level, Science Fairs and other science related programs such as "Olympics of the Mind"

Blood Drives

Toys for Tots

CFC Contributions

Recycling Programs

MESA (Math, Engineering and Science Achievement), helping historically under represented high school students to enter math based college programs.

Participation in "Career Day" type programs

Tours of the NFESC Compound given to community groups

NFESC speakers at community functions

Participating with community groups and the major Ventura county Naval Commands to establish a Restoration Advisory Board (RAB). The RAB is concerned with the cleanup of contaminated land identified on Ventura County Naval bases.

**Source of Data (6. Other):** Personal Experience, Public Affairs Officer

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)

Jack Buffington  
Signature

**COMMANDER**  
Title

7/21/94  
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)

W. A. Earner  
Signature

\_\_\_\_\_  
Title

8/2/94  
Date

**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."

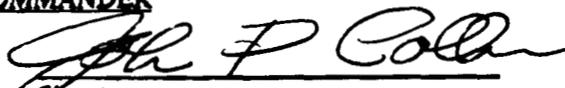
The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

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**

JOHN P. COLLINS, CAPT, CEC, USN  
NAME (Please type or print)

  
Signature

Commanding Officer  
Title

7-19-99  
Date

NFESC Port Hueneme, CA  
Activity

# Document Separator

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DATA CALL 63  
FAMILY HOUSING DATA

Information on Family Housing is required for use in BRAC-95 return on investment calculations.

<b>Installation Name:</b>	NEESA (NFESC) PORT HUENEME
<b>Unit Identification Code (UIC):</b>	N0537A
<b>Major Claimant:</b>	NAVFAC

<b>Percentage of Military Families Living On-Base:</b>	<del>38</del> 38.4% CW
<b>Number of Vacant Officer Housing Units:</b>	0
<b>Number of Vacant Enlisted Housing Units:</b>	0
<b>FY 1996 Family Housing Budget (\$000):</b>	<del>343</del> 32.3 CW
<b>Total Number of Officer Housing Units:</b>	<del>24</del> 2 CW
<b>Total Number of Enlisted Housing Units:</b>	<del>41</del> 4 CW

Line 4, Percentage of Military Families Living on Base, is taken from DD Form 1377. Lines 7-9, represents the activities' "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 14 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.

CW 7/13  
Chris Ward  
July 13, 1994  
NAVFAC 52Jew

Enclosure (1)

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)

Jack Buffington  
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)

W. A. Earner  
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."

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 the information contained herein is accurate and complete to the best of my knowledge and belief.

SOUTHWESTNAVFACENGCOM

THOMAS E. GUN  
Name (Please type or print)

  
Signature

COMMANDING OFFICER  
Title

7/13/94  
Date

# Document Separator

# MILITARY VALUE DATA CALL

## TECHNICAL CENTERS

Category	Technical Center
Technical Center Site	Naval Facilities Engineering Service Center (NFESC)
Location/Address	560 Center Drive Port Hueneeme, CA 93043- 4328

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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

## 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.

The Naval Facilities Engineering Service Center's (NFESC's) mission as stated in OPNAVNOTE 5450, Ser 09B22/3U51084G, dated 23 Nov. 1993 is:

To provide specialized engineering, scientific, and technical products and services on a worldwide basis in the areas of shore, ocean and waterfront facilities, environment, energy and utilities, amphibious and advanced base operations, and other Navy related requirements.

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

Our research programs under Environmental Quality and in Civil Engineering are planned and budgeted under the cognizance of Reliance, per Tri Services Project Reliance Technology Plans for FY 95-00.

Our research programs for the Marine Corps are in support of DOD Directive 5100.1(D), for the development of equipment of common interest to the Army and Marine Corps landing force service support.

### 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 FY 1993 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 FY 1993 to support each applicable intersection of functional support areas and life cycle work areas. When necessary, estimate data to the best of your ability

**Filled in Tab A forms at the back of the Data Call.**

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.

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.

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.

**Table 4.1, General Support Resources for (Activity: NFESC) (UIC: N0537A)**

Function	Space	Work	Civilian	Contract	Military Personnel	
					Off	Enl
<b>ADMINISTRATION</b>						
Command (CO/XO/TD/etc.)	1487	2	0	0	2	0
Comptroller	3600	11	11	0	0	0
Admin	3760	4	4	0	0	0
Human Resources	1041	2	2	0	0	0
<b>OPERATIONS SUPPORT</b>						
Supply Management	306	2	2	0	0	0
Consolidated Computational	2820	3	3	0	0	0
Computer Support Information Systems and	2145	16	13	2	1	0
Communications Safety/OSH/Environmental	3979	4	3	0	1	0
<b>INFRASTRUCTURE</b>						
Physical Security	714	6	3	3	0	0
Public Works/Staff Civil Engr	21368	5	3	0	1	1
Fire Protection	0	0	0	0	0	0
Medical/Dental	0	0	0	0	0	0
Military Support	0	0	0	0	0	0
Air/Waterfront Operations	0	0	0	0	0	0
Other <i>Note #1</i>	0	62	94	0	0	
<b>TECHNICAL STAFF</b>						
Technical Operations <i>Note #2</i>			359	0	2	8
<b>Total</b>	<b>41,220</b>	<b>117</b>	<b>408</b>	<b>5</b>	<b>7</b>	<b>0</b>

**Note #1: Other Category includes personnel in Instrumentation, Photo Lab., Graphics and Publications, engineering, etc. Approximately 1/3 of the time these people are working directly for projects, therefore support work is less then the personnel Other Function Area.**

**Note #2: Technical Operations includes all technical personnel not just support personnel.**

**Table 4.2, General Support Resources for all Detachments (Activity: NFESC) (UIC:N0537A) See Note #1**

Function	Space allocated	Work Years	Civilian Personnel	Contract Work	Military Personnel	
					Off	Onboard
<b>ADMINISTRATION</b>						
Command (CO/ XO/ TD/etc.)	450	0.5	0.25	0	0.25	0
Comptroller	0	0	0	0	0	0
Admin	1400	13.0	12.25	0	2.25	0
Human Resources	0	0	0	0	0	0
<b>OPERATIONS SUPPORT</b>						
Supply Management	200	1.0	0.1	1.0	0	0
Consolidated Computational	320	0.5	0.5	0	0	0
Computer Support	0	0	0	0	0	0
Information Systems and Communications	0	0	0	0	0	0
Safety/OSH/Environmental	0	0	0	0	0	0
<b>INFRASTRUCTURE</b>						
Physical Security	0	0	0	0	0	0
Public Works/Staff Civil Engr	0	0	0	0	0	0
Fire Protection	0	0	0	0	0	0
Medical/Dental	0	0	0	0	0	0
Military Support	0	0	0	0	0	0
Air/Waterfront Operations	0	0	0	0	0	0
Other	0	0	0	0	0	0
<b>TECHNICAL STAFF</b>						
Technical Operations			54.9	0	3.5	0
<b>Total</b>	<b>2370</b>	<b>15.0</b>	<b>68.0</b>	<b>1.0</b>	<b>6.0</b>	<b>0</b>

**Note: Technical Operations includes all technical personnel not just support personnel.**

**Note #1: The East Coast detachment of the NFESC, which is the only detachment of the NFESC, is located at the Washington Navy Yard, Washington DC and the Ocean Construction Equipment Inventory Support Facility at St. Juliens Creek, Portsmouth, VA. The detachment has the same UIC as the NFESC (N0537A).**

**No photographs of the detachments facilities are available at this time, partially because of renovations to some of the detachments facilities. However, those facilities are standard administrative and warehouse buildings.**

**Table 4.3, Previous BRAC Impact to General Support Resources for (Activity: \_NFESC\_) (UIC: N0537A)**

Function	Space Receipt No. #1	Work Years	Ct-En No. #2	Centre of	Military Personnel	
					Off	Onboard Enl
<b>ADMINISTRATION</b>						
Command (CO/XO/ TD/etc.)	508	0	0	0	0	0
Comptroller	2599	6	6	0	0	0
Admin	3248	2	2	0	0	0
Human Resources	1041	1	1	0	0	0
<b>OPERATIONS SUPPORT</b>						
Supply Management	(94)	0	0	0	0	0
Consolidated Computational Computer Support	2820	1	1	0	0	0
Information Systems and Communications	405	1	1	0	0	0
Safety/OSH/Environmental	3441	3	3	0	0	0
<b>INFRASTRUCTURE</b>						
Physical Security	510	1	1	0	0	0
Public Works/Staff Civil Engr	20,808	3	3	0	0	1
Fire Protection	0	0	0	0	0	0
Medical/Dental	0	0	0	0	0	0
Military Support	0	0	0	0	0	0
Air/Waterfront Operations	0	0	0	0	0	0
Other	0	10	11	0	0	0
<b>TECHNICAL STAFF</b>						
Technical Operations			35	0	0	0
<b>Totals</b>	<b>35,286</b>	<b>29</b>	<b>64</b>	<b>0</b>	<b>0</b>	<b>1</b>

Note #1: Spaces recorded are the difference between existing spaces and design areas in BRACON project P-012T. For Example almost all the Public Works space will be lost.  
 Note #2: Total anticipated BRAC 93 personnel cuts are shown in table 4.3. Some of these cuts have already occurred and are reflected in the table 4.1 numbers.

**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: NFESC) (UIC:N0537A)**

Grade School	0	0	0	0	0	0
High School	0	4	7	5	18	34
B.A./B.S	8	102	43	10	22	185
M.A./M.S	10	12	13	14	49	98
Ph.D./M.D.	0	3	3	4	14	24
	18	121	66	33	103	341

Note: The database that this information was drawn from is missing 18 people. The educational level of these people is unknown at this time. This is the reason that table 5.1 is 18 people short of table 4.1.

*Janet*  
1252  
7/20/93

**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: NFESC) (UIC:N0537A)

Highest Degree Attained	Years of Government and/or Military Service					Total
	Less than 3 Years	3-10 Years	11-15 Years	16-20 Years	More than 20 Years	
Grade School	0	0	0	0	0	0
High School	0	4	7	5	18	34
B.A./B.S	8	102	43	10	22	185
M.A./M.S	10	12	13	14	49	98
Ph.D./M.D.	0	3	3	4	14	24
<b>Total</b>	18	121	66	33	103	341

Note: Includes all technician, engineer and scientist employees at NFESC except detachment.

**Table 5.2, Technical Staff Education Level for all Detachments (Parent Activity:NFESC) (UIC:N0537A)**

Highest Degree Attained	Years of Government and/or Military Service					Total
	Less than 3 Years	3-10 Years	11-15 Years	16-20 Years	More than 20 Years	
Grade School	0	0	0	0	0	0
High School	0	0	0	0	1	1
B.A./B.S	2	10	10	1	9	32
M.A./M.S	0	2	5	6	15	28
Ph.D./M.D.	0	0	0	0	3	3
<b>Total</b>	<b>2</b>	<b>12</b>	<b>15</b>	<b>7</b>	<b>28</b>	<b>64</b>

Note: Includes all of the technician, engineer and scientist employees at the only NFESC detachment, the NFESC, East Coast Det.

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: NFESC) (UIC: N0537A)**

Academic field	Number
Physics	0
Chemistry	1
Biology	1
Mathematics/Statistics/ Operations Research	0
Engineering	108
Medical	0
Dental	0
Computer Science	1
Social Science	0
Other Science	0
Non-Science	1
<b>Total</b>	<b>112</b>

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**Table 5.3, Technical Staff Academic Fields for (Activity: NFESC) (UIC: N0537A)**

Academic field	Number
Physics	0
Chemistry	8
Biology	1
Mathematics/Statistics/ Operations Research	1
Engineering	263
Medical	0
Dental	0
Computer Science	1
Social Science	0
Other Science	3
Non-Science	4
<b>Total</b>	<b>281</b>

Note: Table 5.3 Includes B.A/B.S. degrees and above.

Revised pg

**Table 5.4, Technical Staff Academic Fields for all Detachments  
(Parent Activity: NFESC) (UIC: N0537A)**

Academic field	Number
Physics	0
Chemistry	1
Biology	1
Mathematics/Statistics/ Operations Research	0
Engineering	29
Medical	0
Dental	0
Computer Science	0
Social Science	0
Other Science	0
Non-Science	0
<b>Total</b>	<b>31</b>

Note: The data is for the only detachment of the NFESC the NFESC East Coast Det.

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

The climate of the location as well as it's proximity to major metropolitan areas, while remaining relatively rural help to attract qualified personnel. Another factor is the addition of locality pay.

d. List all articles written by the in-house technical staff that were published or accepted for publication in refereed journals since 1 January 1990.

"Confinement Stress Dependent Bond Behavior, Part II: Two Degree of Freedom Plasticity Model", Proceedings of the International Conference on Bond in Concrete, Riga, Latvia, Oct, 1992 by Cox, J.V. and Herrmann, L.R.

"A Plasticity Model for the Bond Between Matrix and Reinforcement", 6th Japan-U.S. Conference on Composite Materials, Orlando, 1992, Herrmann, L.R. and Cox, J.V.

"Confinement Stress Dependent Bond Behavior, Part I: Experimental Investigation", Proceedings of the International Conference on Bond in Concrete, 1992 Malvar, L.J.

"Shear Current Forces on a Submerged Cylinder", Ocean Engineering, Jan. 1992, Chakrabarti, Cotter, and Palo

"A General Identification Technique for Non-Linear Differential Equations of Motion", Probabilistic Engineering Mechanics, V7, pp 43-61, 1992

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UIC: N0537A

**Table 5.4, Technical Staff Academic Fields for all Detachments  
(Parent Activity: NFESC) (UIC: N0537A)**

Academic field	Number
Physics	0
Chemistry	1
Biology	1
Mathematics/Statistics/ Operations Research	0
Engineering	61
Medical	0
Dental	0
Computer Science	0
Social Science	1
Other Science	0
Non-Science	0
<b>Total</b>	<b>64</b>

Note: The data is for the only detachment of the NFESC the NFESC East Coast Det., B.A/B.S. degrees and above.

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

The climate of the location as well as it's proximity to major metropolitan areas, while remaining relatively rural help to attract qualified personnel. Another factor is the addition of locality pay.

d. List all articles written by the in-house technical staff that were published or accepted for publication in refereed journals since 1 January 1990.

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"Mixed Mode Crack Propagation in Concrete, Cement and Concrete Research, 1992

"Punching Shear Failures of a Reinforced Concrete Pier Deck Model, ACI Structural Journal, 1992 Malvar, L.J.

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"A Study of Mechanism of Thermal Surface Deterioration of Refractories Using X-Ray Photoelectron Spectroscopy", Cement and Concrete Research, 22 No.5, 1992 Pong, Yamamoto, Novinson

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"Integrated Cogeneration and Chiller System Study", Journal of Energy Engineering, Aug./Sep 1990, V87, No.5, pp 42-48, Lee, R.

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"Hazardous Waste Incinerator Selections and Economic Analysis", Proceedings of the 1991 Incineration Conference, 10th International Symposium of the Incineration of Radioactive, Hazardous, Mixed, and Medical Wastes, May 1991, pp 55-60, Lee, R.

"IWWTP Sludge Reduction", Navy Pollution Prevention Conference, July 1993, Durlak, E.R.

"The Sodium Sulfide/Ferrous Sulfate Metal Treatment Process", International Symposium on Environmental Contamination in Central and Eastern Europe, Budapest Hungary, Oct. 1992, Durlak, E.R.

"The Sodium Sulfide/Ferrous Sulfate Metal Treatment Process, Pilot Study", Enviro Asia 91, International Exhibition and Conference on the Environment, Singapore, Nov. 1991, Durlak, E.R.

"Navy Air Emission Tracking System", 8th Annual Meeting of the Air and Waste Management Association, Vancouver, B.C. June 1991, Hickenbottom, C.H.

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"Optical, Thermal and Electronic Semiconductor Properties of Thermochromic Metal Halides", Proceeding of the International Society for Optical Engineering, V1323, pp 210-219, 1990, Novinson, T., J., Kennedy, J., Kaska, W.

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"Simulation of Unsteady Oceanic Deployment by Direct Integration with Suppression, Ocean Engineering, 1993 Sun, Leonard, Chiou

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"Shock Spectrum Calculation from Acceleration Time Histories", published in Shock and Vibration Journal, May 1994, Howard A. Gaberson.

"Electrostatic Optimization of Porcelain Insulator Grading For Use In Very Low Frequency (VLF) Antenna Systems", published in Proceedings of Society of Mexican American Engineers and Scientists, May 1993, Jose Chavez.

"A Case Study: Controlling Air Pollution and Increasing Energy Efficiency of Boilers", published in Association of Energy Engineers Journal, 1993, Donald G. Yokum.

"Location of Leaks in Pressure Testable Direct Burial Steam Distribution Conduits", published in Proceedings of the 15th National Industrial Energy Technology Conference, March 1993, Richard K. Messock and M. Glen Sittel.

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"Direct Digital Control--A Tool for Energy Management of HVAC Systems", published in Proceedings of the 15th National Industrial Energy Technology Conference, March 1993, Karl T. Swanson.

"Base-Catalyzed Decomposition Process (BCDP) for PCB Decontamination", Proceedings of Air and Waste Management Association, June 1992, Chapter 92-34.06, Chan, D.D.

"Bioventing Soils Contaminated with Petroleum Hydrocarbons", Journal of Industrial Microbiology, Chapter 8 pp.141-146, Hoeppel, R.E. Hincee, R.E.

e. List all technical books and/or chapters written by the in-house technical staff that were published or accepted for publication since 1 January 1990.

Civil Engineering Practice, VI, Technomic Publishing Co., Chapter on Economics/Cost/Benefit Analysis by John Ferritto

Hydrocarbon Bioremediation Handbook, CRC Press, Inc., 1994, Hincee, R.E., Alaman B.C., Hoeppel, R.E., Miller, R.N.,

Engineering Aspects of Metal-Waste Management, Lewis Publishers, 1992, Iskander, I.K., Selim, H.M.

Chapter 4: Metal Contamination from Small Arms Firing Range, Karr, L., Flynn, D., Smithrawecki, T., Mouat, D., Cameron, T.

Chapter 10: The Chemical Stabilization of Metal Contaminated Sandblasting Grit: the Physicochemical Form of Metal Contaminants, Means, J., Headington, G., Heath, J., McLaughlin, W.

Anchors, Handbook of Coastal and Ocean Engineering, V3, Harbors, Navigation Channels, Estuaries, Environmental Effects, pp 587-620., Herbich, J.B., True, D.

Standards for Corrosion Testing, American Society of Testing & Materials: Corrosion Testing in Natural Environments-Sea Waer, 1994, Jenkins, J.

Non-Linear Dynamic Analysis Using Random Data, Wiley & Sons, 1990, Palo, P.

Chapter: Machinery Condition Monitoring

Book: Shock & Vibration Computer Programs- Reviews & Summaries  
Pub by Shock & Vibration Information & Analysis Center, Arlington, Va.

NFGS 15551A - Watertube (Packaged) Boilers Oil/Gas or Oil - Mar 94

NFGS 15553 - Steam Heating Plant, Watertube (Shop Assembled) Coal/Oil or Oil - Mar 94

NFGS 15554A - Steam Heating Plant, Watertube (Field Erected) Coal/Oil or Oil - Dec 93

NFGS 15631G - Steam Boilers and Equipment (500,000 - 18,000,000 BTU/HR) - Completed but not published yet

NFGS 15632G - Steam Boilers and Equipment (18,000,000 - 60,000,000 BTU/HR) - Completed but not published yet

NFGS 15972 - Direct Digital Controls- March 1992

MH 1125/1 - Central Heating Plants - complete not published yet

MO 303 - Utility Consumption Estimating Manual - 1993

MO 324 - Inspection & Certification of Boilers and Unfired Pressure Vessels - March 1992

Energy Efficient Application Guidance for Lighting, Motors, and Variable Speed Drives - 1993

Biodecontamination of Fuel Oil Spills, DOD Installation Restoration and Hazardous Waste Control

Technologies, 1990 edition, p117

Steam Injection Vacuum Extraction (SIVE) for Removal of JP-5 in Soil, Chapter of Hydrocarbon Contaminated Soils, U. of Mass., Lewis Press, 1994

Enhanced Biodegradation for On-Site Remediation of Contaminated Soils and Groundwater., Hazardous Waste Site Soil Remediation-- Theory and Application of Innovative Technologies, pp. 311-431, Hoeppel, R.E., Hincee, R.E., 1993

f. Identify any Nobel laureates employed at this activity.

None.

g. List all non-governmental awards for research or technical excellence given to members of your technical staff since 1 January 1990.

1990 R&D Magazine award top 100 R&D Projects  
1990 Federal Laboratory Consortium, Award for Excellence in Tech Transfer  
1990 SAME Oxnard/Ventura Post Engineer of the Year  
1990 SAME Oxnard/Ventura Post Project of the Year  
1990 SAME Oxnard/Ventura Post Technical Publication of the Year  
1991 SAME Oxnard/Ventura Post Project of the Year  
1991 SAME Goethals Medal  
1992 R&D Magazine top 100 R&D Project  
1992 SAME Goethals Medal  
1992 Popular Science Magazine Best of What's New for 1992  
1992 R&D Magazine Award for Technically Significant New Product (2 different)  
1992 Federal Laboratory Consortium Award for Excellence in Tech Transfer  
1993 Popular Science Magazine Award for Best of What's New in 1993

h. List all governmental awards for research or technical excellence given to members of your technical staff since 1 January 1990.

Navy Arctic Service Ribbon for ICEX 89,90 (3 different)  
Navy Arctic Service Ribbon for ICEX 90 (5 different)

i. List all patents awarded to the in-house technical staff members of this activity since 1 January 1990.

Lanthanide Oxides and Phosphates For Improving Properties of Heated Refractory Concrete  
Method for Assessment of Corrosion activity in Reinforced...  
Magnetic Amplifier Housing and Detector for an Improved Tamper Alarm System  
Portable Rapid Installable Dolphin System  
Flexible Flow Through Saddle  
Mine Clearing Apparatus  
Seawater Hydraulic Rock Drill  
Advanced Heat Pump  
Fifty Five Gallon Drum Handling Apparatus  
R.F. Lockout Circuit for Electronic Locking System  
Container Connector Having a Skewed Installation Configuration  
Barge Connector System  
Container Connector  
Seawater Hydraulic Band Saw  
Seawater Hydraulic Rotary Impact Tool  
Seawater Hydraulic Rotary Disk Tool  
Undertow Reduction System for Shoreline Protection  
Multi-function Tool System Seawater Power Source

Lift Link for Helicopter External Lift of Dual HMMWVs  
Safety Line Harness  
Seawater Hydraulic Vane Type Pump  
Biodegradation of 2,4,6-Trinitrotoluene by White-rot Fungus  
barrier Curtain  
Treatment of Sodium Nitrite Containing Boiler Wastewater  
Annular Vortex Combustor  
Treatment of Wastewater Containing Citric Acid and Triethanolamine  
Lock Operator F/Inactive Magazine Door Locking Bolt Service  
Relocatable Explosives Storage Magazine  
Diver Navigation System  
Atmosphere Moisture Collection Device  
Underwater IR Communication System

j. List all patents applied for by the in-house technical staff members of this activity since 1 January 1990.

Seawater Hydraulic Band Saw  
Container Connector  
Atmospheric Moisture Collection Device  
Seawater Hydraulic Rotary Disk Tool  
NCEL Mini-Blimp  
Seawater Hydraulic Rotary Impact Tool  
Seawater Hydraulic Vane Pump  
Amphibious Vehicle Cargo Transfer Facility  
Recycling Process for Hydroblasting Wastewater  
ICE Penetration System  
Environmentally Sensitive Pigments in Packaging Material and Marking Inks For Detecting and Recording

Environmental Conditions

Inverse Flash Steam Purifier  
Equipment Sequencing Control  
Improvement For Sargent & Greenleaf 833C Lock... Ball Retainer For Disassembly  
Undertow Reduction System For Shoreline Protection  
Annular Vortex Combustor  
Radially Constrained Inflatable Seal Pipe Coupler  
Fiber Optic Cable Deployed Footage Indicator  
Heat Shrink/Polymer Wrap Repair Seal  
Color Changing Pigments For Solar Energy Controllable Paints and Coatings  
Small Relocatable Explosives Storage Magazine  
Interface Hardware for ELCAS RO/RO Concept  
Treatment of Sodium Nitrite Wastewater Using Chemical Method  
Lock/Operator for Inactive Magazine Door Locking Bolt System  
Electric Actuator for Standard Deadbolt Locks  
Improved Forced Entry Attack Padlock Design  
Split Pipe Testing Device for the Measurement of Bond of Reinforcement Under Controlled Confinement  
Layflat Hoseline Connector Tool  
External pipe Coupler  
Internal Pipe Coupler with Layflat Hoseline  
Inflatable Leak Clamp

Ranging method for Acoustic Ranging in a Refractive Environment  
Cold Forge Coupler Tool  
Shipboard Tow Body Handling System  
Integrated Astragal  
Ion Exchange Removal of Ions Under Chelating/Complexing Conditions  
Magnetostrictive Peristaltic Pump  
Limited Access Tool  
Vacuum Operated Storm Water Sampler  
Man Portable Vehicle Barrier  
PSD Signal Conditioning Amplifier  
Interlocking Blocks for Retaining Walls

k. Identify any in-house staff that are members of the National Academy of Engineering.

None

l. Identify any in-house staff that are members of the National Academy of Sciences.

None

m. How many Cooperative Research and Development Agreements (CRDAs) have been signed by the activity since 1 January 1990?

6

n. What has been the activity's annual royalty income from CRDAs and patent licenses for each year since 1 January 1990?

\$37,954.

o. List and describe any major end item prototypes, either product or process technology, developed in-house 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.

**Note:** Published documentation of all the processes/products delivered and in use by DoD/Industry is not available for all products. Many products were transferred with minimal documentation in accordance with customer wishes (the Marine Corps, for example). Informal manuals were delivered with many of the products listed as the only documentation. Due to time constraints much of the local documentation has been omitted from this paragraph. Other products' development were completed and the product/process transferred to another organization for final development. Final status of those products/processes is not known.

**In Use by Navy Underwater Construction Teams** This equipment has been added to the Table of Allowance for the UCTs. The primary purpose of these equipments is to provide the UCTs with a baseline capability for operating in Arctic conditions.

- Arctic Ice Penetration System
- Diver Navigation System
- Arctic Ground fault Indicator
- Clean Air Heater
- Arctic ROV
- Underwater Cable Tracking Signal Injector
- NAVFAC P992 UCT Arctic Operations Manual
- Portable Hydraulic Power Source
- Arctic Mobile Work Shelter

**In Use by Private Industry** This technology was developed, using high pressure water jetting to extend the maximum distances attainable with horizontal drilling to 6000 feet or more.

Horizontal Drilling System

**In Use by Major Navy Range** This is a part of the Intermediate Scale Measurement System (ISMS) and will be used during installation and operation of the system.

Position Management & Monitoring System

**In Use by Navy Fleet and Commercial Ships and Both Navy and Commercial Designers of Mooring Systems.**

Various anchor/mooring technologies that were developed here are improving the mooring and anchoring capability of Navy and Commercial vessels.

- Pile Driven Plat Anchor Technology and Design Guides
- Plate Anchor Fabrication Drawings
- Drag Emplacement Anchor Performance Relationships Incorporated into:
  - American Petroleum Institute (API) Design Guides
  - API RP2P (1991); API RP2FPI (1993)
- Drag Anchor Design and Sizing Guidance Incorporated into:
  - U.S. Navy Salvage Engineers Handbook, VI, May 1992
- NAVMOOR Anchor
  - 6,000 lb NAVMOOR Anchor now being built for Salvage Ships (ARS Class)
  - 2,000 lb NAVMOOR Anchor selected as emergency mooring anchor for the RO-RO platform

The following system provides a rapid method for determining seafloor strength characteristics from a surface ship. When it impacts the seafloor, the penetrometer transmits data to the surface ship.

Seafloor property measurement/Expendable Doppler Penetrometer System

Marine Geotechnical Guidelines for Siting Undersea Structures.

**Products Delivered to SPAWARSSCOM for Production/Deployment.** The following products are a variety of techniques developed and incorporated into deployed systems for the deployment, installation, and termination of fixed and towable acoustic arrays.

Rapidly Deployable Mobile Facility Complex for FDS-D  
Offshore Tactical Termination System  
Air Defense Initiative (ADI) handling and Array System  
Critical Sea Test (CST) High Frequency Handling and Array System  
Joint Environmental Test Initiative (JETI) Handling System  
Port Area Surveillance (PAS) Project Array Deployment and Recovery Process And Hardware to SSN Defense System  
ULF/VLF Deployment/Recovery Process and Hardware to SSN Defense System  
Low Frequency Active (LFA) Transmission System and System Advanced Deployment Model  
Towable Critical Sea Test (CST) High Frequency Active Handling and Array System  
Heard Island Global Warming Experiment Acoustic Array and Handling System  
Echo Array and Handling System for Mid-Atlantic Ridge Study Program

**Battery Technology in Use by Navy Deep Submergence Forces** The battery technology products are used to maintain and test batteries used in deep submergence rescue vehicles and other deep diving submersibles.

DSV/DSRV Battery Technology  
Dissection of Silver-Zinc Cell Process  
Silver-Zinc Battery Training Video Tapes

**Electro-Optic Cable Technology Transferred to DoD.** These technologies are used to improve methods of installing, protecting, field splicing, recovering and testing fiber optic and electro-optical cables.

Deep Water Deployment Technology, Small Fiber Optic Cables  
Cable Burial Technology  
Fiber Optic Cable Combined Pressure, Temperature Stress-Strain Testing Process  
Method for Cold Flow Test of Small Diameter Fiber Optic Cables  
Lightweight Reburial Plow  
Underwater Electric Field Detector  
Underwater Voltmeter  
Cut and Hold Grapple  
Cable Tracking System  
Horizontal Drilling Technology  
Cable Deployment Simulation Computer Program (FOCAL-P)

**Procurement Packages/Specifications/Equipment Delivered to/in Use by the Marine Corps**

**Beach Interface Unit (BIU):** The device used to interface Navy ship-to-shore fuel transfer with the Marine Corps tactical bulk fuel system. The BIU contains valving and strainers to control flowrate and fuel contamination. Unpublished, but delivered to the Marine Corps as a procurement package.

**PALCON:** A family of palletized containers that can be joined together in various configurations for multi-modal lift capability. Individual configurations are tailored for tools, repair parts, etc. Unpublished, but delivered to the Marine Corps as a procurement package.

**QUADCON:** A family of small containers that can be joined together in various configurations for multi-modal lift capability. Individual configurations can be tailored for specific functions. Unpublished, but delivered to the Naval Facilities Engineering Command for equipping the Naval Construction Force.

**FUEL TEST LABORATORY:** ISO configured tactical shelter designed and outfitted to perform Level B fuel testing for expeditionary airfield use. Unpublished, but delivered to the Marine Corps as a procurement package.

**HOSE REEL SYSTEM:** A tactical fuel hose deployment and retrieval system consisting of base, reel system with lightweight, high strength hose, and a power unit which is slaved to the host vehicle electrical system. Unpublished, but delivered to the Marine Corps and the Naval Support Force, Antarctica as a procurement package.

**POL HOSE PIGGING KIT:** A complete kit for emptying residual fuel from hose subsequent to use, including new technology soft pigs and a new design pig catcher system. Unpublished, but delivered to the Marine Corps as a procurement package.

**SIXCON Fuel Module:** Marine Corps rigid fuel tank configured for joining six tanks together in an ISO envelope. Used as expedient tanker with tactical vehicles, and as ISO configuration for intermodal shipping. The 700 gallon tank can be lifted as external helicopter load individually or in multiples. Unpublished, but delivered to the Marine Corps as a procurement package.

**SIXCON Pump Module:** Marine Corps fuel pump in a SIXCON frame for coupling with and use with deployed SIXCON Fuel modules. Unpublished, but delivered to the Marine Corps as a procurement package.

**SIXCON Water Module:** Marine Corps rigid, insulated, water tank configured for joining six tanks together in an ISO envelope. Used as expedient tanker with tactical vehicles, and as ISO configuration for intermodal shipping. The 700 gallon tank can be lifted as external helicopter load individually or in multiples. Unpublished, but delivered to the Marine Corps as a procurement package.

**SIXCON Cargo Module:** A SIXCON configured frame that can be used for miscellaneous cargo and joined with SIXCON fuel, water or pump modules for transport. Unpublished, but delivered to the Marine Corps as a procurement package.

**LVTP-7 Tactical Bulk Fuel Distribution System:** A kit for conversion of an LVTP-7 amphibious tracked vehicle into a mobile refueler for maneuver elements. The 1,000 gallon capacity kit includes fuel bags, fuel pumps slaved to the host vehicle electrical system, electrical bonding system, hoses, nozzles, and tie-downs. Unpublished, but delivered to the Marine Corps as a procurement package.

**LAV Tactical Bulk Fuel Distribution System:** A kit for conversion of an LAV light amphibious wheeled vehicle into a mobile refueler for maneuver elements. The 500 gallon capacity kit includes fuel bags, fuel pumps slaved to the host vehicle electrical system, electrical bonding system, hoses, nozzles, and tie-downs. Unpublished, but delivered to the Marine Corps as a procurement package.

**Fuel Additive Injector System:** A system for injecting various additives into aircraft fuels at expeditionary locations. The system is a major upgrade and modernization of an older Air Force design. Unpublished, but delivered to the Marine Corps as a procurement package.

**ISO Transportable Water Drill (ITWD):** An expeditionary water well drilling system that will fit inside an ISO container, is transportable by C-130 aircraft in a single sortie without disassembly, and is liftable as external load by CH-53E helicopter. The 24,400 pound, self-propelled system can drill to 1,500 foot depths. Unpublished, but delivered as a procurement package to the Naval Facilities Engineering Command for the Naval Construction Force.

**Ocean Intake Structure:** A device for use with reverse osmosis water purification systems to draw seawater for desalination and production of potable water. The device prohibits the pickup of sand and other debris which would adversely impact on reverse osmosis systems. Unpublished, and all systems in Fleet Marine Force use were designed, fabricated and tested in-house. The devices were used extensively in Desert Storm and Operation Restore Hope.

**Float-Sink Fuel Hose:** A ship-to-shore hose system specifically designed and fabricated to float when empty to facilitate deployment, and to sink to the bottom when filled with fuel to provide protection against damage. Currently in use by the Air Force for fuel transfer from tankers to isolated shore installations. Unpublished, but delivered to the Naval Facilities Engineering Command as a specification.

**Powered Causeway System:** Ship-to-shore lighter for follow-on support of amphibious landings, providing extremely high maneuverability and payload capabilities. Published in Technical Note N-618, and delivered as a procurement package to the Naval Facilities Engineering Command for equipping the Naval Beach Groups.

**Side-Loadable Warping Tug System:** This lighterage/work platform is carried on the side of the hull of LSD amphibious ships in an on-edge orientation, and dropped into the water at the amphibious objective area. It is a major workhorse for transfer of equipment and material during the early phases of amphibious operations. Unpublished, but delivered as a procurement package to the Naval Facilities Engineering Command for equipping the Naval Beach Groups.

**NL Pontoon System:** This module is the basic building block employed by the Naval Beach Groups for assembling a variety of lighters, platforms, barges and causeways. Development was published in Technical Report TR-022, and delivered as a procurement package to the Naval Facilities Engineering Command.

**RO-RO Platform:** An assembled pontoon system configured for use as a sea-based offload platform with Roll-On/Roll-Off ships. It provides the interface between ship vehicle ramps and lighterage, and is suitable for very low seastate operations. Unpublished, but delivered as a procurement package to the Naval Facilities Engineering Command for equipping the Naval Beach Groups.

**Energy Monitoring and Control System (EMCS):** Measures energy consumption and controls HVAC systems. MIL-STD-2202A "Factory Test Procedures", May 1994 and MIL-STD-2203A "A performance verification And Endurance Test", May 1994

**High Altitude Electromagnetic Pulse (HEMP) Testing:** Simulates power line conditions and verifies performance curves for HEMP event for equipment with HEMP requirements. MIL-HDBK 188-125 "HEMP Protection for Ground-Based C41 Facilities Performing Critical Time-Urgent Missions" subhead, "Long Hoaul/Tactical Communications Systems", Aug. 91

**Power-Line Filter For Withstanding HEMP Events:** MIL-HDBK 423 "HEMP Protection for Fixed & Transportable Ground-Based C41 Facilities", Jan. 92

**Computer Program For Calculating Shock Spectrum:** Chapter 12 of Army's "Conventional Weapons Effects Handbook"

**2.5kVA Arctic Ground Fault Detector:** Tested and obtained approval for service use of this device to protect divers, using electrical tools, from shock hazard. Purchase description of 2.5kVA Arctic Ground-Fault Detector

**Guyline Insulators for VLF Antennas:** TM-72-87-04 "Voltage Tests of Guyline Insulators", Jul 87

**Steam Generating Plant:** This self-contained, low emission steam generating plant has an integral feedwater treatment system. The Plant differs from commercial units in its capability to operate without the need of auxiliary feedwater or pumping units and with low Nox emission burner technology.

**Ex-situ Bioremediation System for Treatment of Fuel Contaminated Soils:** The ex-situ bioremediation is a process in which excavated soils are placed in a treatment facility designed to maintain optimal conditions to enhance indigenous microbial growth for rapid degradation of fuel contaminants. Using MCAGCC 29 Palms as a base model, the technology for this design package was developed over several years from laboratory and on-site testing and then expanded for implementation DoD wide.

**Recycling System for Spent Sand Blast Grit into Asphaltic Concrete:** The system takes spent sand blast grit that is classified as a hazardous waste and recycles it as a raw ingredient for the production of asphaltic pavement. Bench scale testing to determine the appropriate mix design was used as a basis as a pilot demonstration of the process technology. The process technology was first demonstrated at NCBC Port Hueneme and in use at NS Treasure Island, Hunters Point Annex.

**Recycling System for Spent Blasting Abrasives into Portland Cement:** The system takes spent slag type blasting abrasives generated during ship paint removal operations and recovers its silicate value by recycling the hazardous waste as a raw material at a Portland cement kiln. The process technology is available DoD-wide and is being used by NSY Mare Island.

**In-situ Bioslurping Process for Remediating JP-5 Fuel Hydrocarbon Contaminated Soil:** The bioslurping process is a n in-situ process that teams vacuum-assisted free product recovery with bioventing. Bioslurping thus simultaneously recovers free product fuel from the water table and capillary fringe while promoting aerobic bioremediation in the vadose zone of subsurface soils. The process is developed for DoD and is being used at NAS Fallon, NV and initiated at MCAS Kaneohe Bay, HI.

**Based Catalyzed Decomposition Process:** The based catalyzed decomposition process was developed for removal of PCBs, dioxins, furans, and other chlorinated hydrocarbons. A prototype unit which uses low temperature combined with sodium bicarbonate is being used at PWC Guam to clean-up a past PCB spill into the soil.

**Anaerobic Bioremediation of Hydrocarbons in Groundwater:** The objective of this process is to anaerobically degrade petroleum hydrocarbons by native micro-organisms. The process uses a number of small diameter recirculation and monitoring wells to add nutrients. The prototype unit is being used at NWS Seal Beach.

**Base Isolation Modeling Analysis:** Criteria for application of of seismic base isolation requirements for Navy buildings, DOE-STD-1020-93 (draft)

**Site Motion Prediction Methodology:** Procedures for computing seismic design motion levels, used during site studies of various Navy facilities. UG-0027

**Pier Load Distribution Criteria:** Establishes criteria for the lateral definition of loading on a pier. This is used in the design of piersload carrying capacity. MIL-HDBK 1025/1

**High Performance Magazine:** Newly designee magazine capable of larger quantities of explosives, in a small area, by reducing the possibility of multiple internal detonations

**Aircraft Pavement Joint Sealants:** Improved sealants for use on Aircraft pavement, NFGS-02522B

**Cathodic Protection:** A series of documents that provide design, maintenance, materials, systems and procedures to improve cathodic protection systems. MO-306 and 307, MIL-HDBK-1004/10

**Roofing Criteria:** A series of documents that improve roofing systems. NFGS 07545, 07450, 07531E, 07532F, 07534F, 07535E and UG-0011.

**Hydroblast Recycle System** -- To reduce the amount of waste nitrite solution resulting from a typical boiler tube cleaning operation, a system was developed that collects, reconditions, and recirculates the working fluid. This has lead to a reduction of over 90% in wastewater production; some 28 units have been fielded to NSYs, SIMAs, and NAVSTAs.

**Wet-to-Dry Spray Booth Conversions** -- Water-wall aerosol scrubbers have been used to clean ventilation air exhausted from paint spray booths, generating large amounts of hazardous waste in the form of gelatinous paint deposits in scrubber sumps, and an odorous scrubber liquid. Design guidelines were accordingly developed that led to the retrofitting a large number of Navy

booths with dry aerosol filters, which provide: (1) equal or superior air cleaning performance; (2) reduced delta P; and (3) complete elimination of hazardous waste.

**Innovative Hard Chrome Electroplating** -- An electroplating procedure was developed and thoroughly tested that eliminates rinsewater treatment, airborne chrome aerosol release, and many of the plating performance problems associated with the old process. At least four major Navy activities are now using the process.

**Bilge and Oily Wastewater Treatment System (BOWTS)** -- To eliminate the use of doughnuts, BOWTS was developed for onshore bilgewater treatment that will furnish NPDES-quality effluent and recyclable oil. Some twenty Naval activities have requested these systems, with the first seven already in various stages of production.

**Electrolytic Recovery Unit for Detoxification of Plating Wastewaters** -- Electrolytic technology was evaluated for the point source recovery of metals (cadmium, copper, silver, nickel, and tin-lead) from electroplating rinsewaters. The design and operational parameters were developed and optimized for effective use of the systems at Navy plating shops where production is lower and often sporadic. Nine Navy activities are currently using one or more of the electrolytic systems.

**Non-emulsifying Degreasers** -- Criteria were developed for specifying the use of non-emulsifying degreasers for ship bilge and tank cleaning operations. Oily wastewaters generated during bilge and tank cleaning are difficult to treat and dispose when persistent oily emulsions are formed. Based on this study, several shipyards have adopted the use of commercial degreasers that met the criteria developed and have avoided costly offsite treatment and disposal.

## 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 FY 1995? 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 FY 1995? For each project provide:

BRACON project P-012T

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

The project title is Environmental/Research Services Facility. The project number is P-012T. The facility will be constructed of precast concrete or masonry, with gas fired hot water and space heating; computer and chemical laboratory to be air conditioned; ballistics laboratory and environmental chambers, hazardous materials storage, electrical and mechanical utilities, parking, sidewalks, and site improvements. The project includes the demolition of 3 facilities, pavement and a railway.

The new facility will be a two story building occupying about 187,100 sq. ft. of floor space for offices, laboratories and storage. An additional 55,000 sq. ft. of concrete surface area will be developed for an outdoor storage and staging area. A parking lot with a capacity of 430 vehicles will also be constructed.

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

The areas supported include 4 (Special Operations Support), 5 (Sensors and Surveillance Systems), 7 (Command, Control, Communications and Intelligence), 10 (General Mission Support), and, 11 (Generic Technology Base).

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

- (a) Two new cold chambers similar to existing chambers, to be purchased and installed in the new facilities.
- (b) Existing Controlled Suspension Test Flume to be moved to the new site.
- (c) Existing pressure vessels in the Deep Ocean Laboratory to be moved to the new site.

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

None, the new facility will be smaller than the old facility.

(5) CWE & planned BOD.

CWE is \$20.6 M and BOD is November 1995. BOD is scheduled to be 18 months after contract award. Currently, award is expected in May 1994, if funding becomes available.

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 NCBC, where the NFESC is relocating includes piers. The nearest military airport is located 10 miles away, at the NAWC, Point Mugu CA Detachment

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.

The NFESC's facilities and location are essential to the conducting of the organization's mission. The location supports the NAVFAC global organizational structure in Port Hueneme. It also provides access to a deep water harbor and deep ocean test beds (along the Hueneme Trench) in support of our ocean facilities research and is a short distance from documented seafloor conditions. The Port Hueneme location provides immediate access (within 2 hours) to a wide variety of beach, seafloor, and nearshore conditions. This provides the test platform to execute the Navy's assigned Tri-Service Project Reliance technology areas of ocean and waterfront facilities operations. The facility includes laboratory space and equipment in place specifically to support the products and services delivered. Port services from NCBC are required for several of the ongoing projects at the NFESC.

The NFESC has well developed relationships with local universities and colleges. Substantial local contractor base exists to support the NFESC's programs. The local community provides many additional general support services.

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

The NFESC supports customers world-wide, providing technology and engineering expertise. In addition to the items discussed above, the Port Hueneme location provides the ability to provide this expertise based on:

1. Testing of components and systems in operational environments (ocean, nearshore, seafloor, and beach) existing at this location.

2. Rapid communication for joint efforts between the different NAVFAC commands at Port Hueneme. Also located between two west coast Engineering Field Divisions and Public Works Centers, which facilitates tech transfer and field consultation.

3. Rapid communication for joint efforts with the Naval Air Warfare Center and Naval Surface Warfare Center located in Port Hueneme.

4. Easy access by all major forms of transportation including air (Oxnard Airport, Los Angeles International Airport), rail (spur line on base), bus, highway and a deep water port.

5. Relatively close to major population centers including, Los Angeles, San Diego and the commercial facilities associated with them.

## **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.

The NFESC does not have any specialized computational facilities. However, the organization is networked throughout the Navy, DOD, and university community through Novell, Banyan, and Internet networks, for computational support. The NFESC is procuring CAD 2 hardware and software.

### **10. Mobilization Responsibility and Capability.**

The NFESC has no direct mobilization responsibility. Engineers, scientists and technicians provide technical support to the Naval Construction Battalion Center and local Marine Corps commands during mobilization. In past conflicts, NFESC personnel have provided on-site consulting services to operational commands, CBC and Marine Corps engineers. During Operation Desert Storm, NFESC personnel (then in NCEL) provided support to amphibious forces in new methods of very shallow water mine clearing and shipped experimental equipment to Marine Corps forces deployed in the Gulf.

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

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

(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?

(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.

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

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

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

(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.

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

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

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:

**No ranges are located at or operated by the NFESC.**

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.

**QUALITY OF LIFE**

**12. Military Housing**

The NFESC has no integral military housing/ BOQ/BEQ. Housing and related services are provided by the Naval Construction Battalion Center, Port Hueneme CA, with the exception of a few MWR services, and a small technical library.

(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:

N/A

Type of Quarters	Number of Bedrooms	Total number of units	Number Adequate	Number Substandard	Number Inadequate
Officer	4+				
Officer	3				
Officer	1 or 2				
Enlisted	4+				
Enlisted	3				
Enlisted	1 or 2				
Mobile Homes					
Mobile Home lots					

(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.

N/A

Pay Grade	Number of Bedrooms	Number on List <sup>10</sup>	Average Wait
O-6/7/8/9	1		
	2		
	3		
	4+		
O-4/5	1		
	2		
	3		
	4+		
O-1/2/3/CWO	1		
	2		
	3		
	4+		
E7-E9	1		
	2		
	3		
	4+		
E1-E6	1		
	2		
	3		
	4+		

<sup>10</sup> 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.

N/A

Top Five Factors Driving the Demand for Base Housing	
1	
2	
3	
4	
5	

(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)?

N/A

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

N/A

Type of Quarters	Utilization Rate
Adequate	
Substandard	
Inadequate	

(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?

**N/A**

(b) BEQ:

N/A

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

N/A

Type of Quarters	Utilization Rate
Adequate	
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?

N/A

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

N/A

$$\text{AOB} = \frac{(\# \text{ Geographic Bachelors} \times \text{average number of days in barracks})}{365}$$

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

N/A

Reason for Separation from Family	Number of GB	Percent of GB	Comments
Family Commitments (children in school, financial, etc.)			
Spouse Employment (non-military)			
Other			
<b>TOTAL</b>		100	

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

**N/A**

(c) BOQ:  
N/A

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

Type of Quarters	Utilization Rate
Adequate	
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?  
N/A

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

$$\text{AOB} = \frac{\text{\# Geographic Bachelors} \times \text{average number of days in barracks}}{365}$$

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

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

<b>TOTAL</b>	100
--------------	-----

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

N/A

(d) BOQ/BEQ Housing and Messing.

N/A

(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.

N/A

Facility Type, Bldg. # & CCN	Total No. of Beds	Total No. of Rooms	Adequate		Substandard		Inadequate	
			Beds	Sq Ft	Beds	Sq Ft	Beds	Sq Ft

(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:

N/A

- 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.

N/A

Facility Type, Bldg. # & CCN	Total No. of Beds	Total No. of Rooms	Adequate		Substandard		Inadequate	
			Beds	Sq Ft	Beds	Sq Ft	Beds	Sq Ft

(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:

N/A

- 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.

N/A

Facility Type, CC and Bldg. #	Total Sq. Ft.	Adequate		Substandard		Inadequate		Avg # Noon Meals Served
		Seats	Sq Ft	Seats	Sq Ft	Seats	Sq Ft	

(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:

N/A

- 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.

N/A

Facility Type, CC and Bldg. #	Total Sq. Ft.	Adequate		Substandard		Inadequate		Avg # Noon Meals Served
		Seats	Sq Ft	Seats	Sq Ft	Seats	Sq Ft	

(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:

N/A

- 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<sup>11</sup> 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.

**LOCATION** NFESC      **DISTANCE** 0

Facility	Unit of Measure	Total	Profitable (Y,N,N/A)
Auto Hobby	Indoor Bays	0	N/A
	Outdoor Bays	0	N/A
Arts/Crafts	SF	0	N/A
Wood Hobby	SF	0	N/A
Bowling	Lanes	0	N/A
Enlisted Club	SF	0	N/A
Officer's Club	SF	0	N/A
Library	SF	0	N/A
Library	Books	0	N/A
Theater	Seats	0	N/A
ITT	SF	0	N/A
Museum/Memorial	SF	0	N/A
Pool (indoor)	Lanes	0	N/A
Pool (outdoor)	Lanes	0	N/A
Beach	LF	0	N/A
Swimming Ponds	Each	0	N/A
Tennis CT	Each	0	N/A

<sup>11</sup> 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	1	N/A
Basketball CT (outdoor)	Each	1	N/A
Racquetball CT	Each	0	N/A
Golf Course	Holes	0	N/A
Driving Range	Tee Boxes	0	N/A
Gymnasium	SF	0	N/A
Fitness Center	SF	0	N/A
Marina	Berths	0	N/A
Stables	Stalls	0	N/A
Softball Fld	Each	0	N/A
Football Fld	Each	0	N/A
Soccer Fld	Each	0	N/A
Youth Center	SF	0	N/A

NOTE: MWR FACILITIES WILL BE PROVIDED BY NCBC UPON COMPLETION OF BRACON P-012T AND MOVEMENT OF NFESC PERSONNEL INTO NEW FACILITY.

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

**We maintain a small technical library that is a part of a regional interlibrary loan program.**

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

**The NFESC has no integral Family Support Facilities or Programs. the Naval Construction Battalion center, Port Hueneme CA provides these services.**

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

N/A

Age Category	Capacity (Children)	SF			Number on Wait List	Average Wait (Days)
		Adequate	Substandard	Inadequate		
0-6 Mos						
6-12 Mos						
12-24 Mos						
24-36 Mos						
3-5 Yrs						

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:

N/A

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.

N/A

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

N/A

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 Construction Battalion Center, Port Hueneme, CA;  
Naval Air Weapons Station, Point Mugu, CA:

212, 0-5 years  
90, 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.

**N/A, These services are provided by the Naval Construction Battalion Center, Port Hueneme, CA**

Service	Unit of Measure	Qty
Exchange	SF	
Gas Station	SF	
Auto Repair	SF	
Auto Parts Store	SF	
Commissary	SF	
Mini-Mart	SF	
Package Store	SF	
Fast Food Restaurants	Each	
Bank/Credit Union	Each	
Family Service Center	SF	
Laundromat	SF	
Dry Cleaners	Each	
ARC	PN	
Chapel	PN	
FSC Classrm/Auditorium	PN	

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 (priced) housing units, due in part to mandated, ultra-high construction standards, location, and current slow growth policies in adjacent communities.

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
Multiple ratings all Divers, form xxx/DV	0	9

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)
Port Hueneme	13	2	5
West Oxnard	10	4	15
North/East Oxnard	27	10	15
Ventura	11	15	25
Camarillo	10	15	25

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/High School Senior Year Data**

Institution	Type	Grade Level(s)	Special Education Available	Annual Enrollment Cost per Student	1993 Avg SAT/ACT Score	% HS Grad to Higher Educ	Source of Info
CAMARILLO, Mesa Union	Pub	K-8	SLD	387.26	*	*	**
Pleasant Valley	Pub	K-8	MR/HH/SI/VH/SED/OI/OHI/SLD	437.31	*	*	**
Somis Union	Pub	K-8	SLD	533.58	*	*	**
OXNARD/HUENEME/VENTURA Hueneme	Pub	K-8	MR/HH/VH/SED/OI/OHI/SLD	326.24	*	*	**
Ocean View	Pub	K-8	MR/SI/OI/OHI/SLD	256.76	*	*	**
Oxnard	Pub	K-8	MR/HH/SI/VH/SED/OI/OHI/SLD/MH/AUT/TBI/NC	499.42	*	*	**

Rio	Pub	K-8	MR/HH/SI /SED/OHI/ SLD	612.44	*	*	**
Ventura Unified	Pub	K-12	MR/HH/D EAF/SI/V H/SED/OI/ OHI/SLD/ MH/AUT/ NC	348.35	885/ 13.8	33.2	**
Oxnard Union	Pub	9-12	MR/HH/D EAF/SI/V H/SED/OI/ OHI/SLD/ DB/MH/A UT	68.62	*	*	**
Camarillo (Adolfo)HS	Pub	12	N/A	N/A	996/ 12.3	34.4	**
Channel Islands HS	Pub	12	N/A	N/A	817/ 12.1	38.6	**
Hueneme HS	Pub	12	N/A	N/A	797/ 5.3	33.70	**
Oxnard HS	Pub	12	N/A	N/A	901/ 9.1	42.1	**
Rio Mesa HS	Pub	12	N/A	N/A	897/ 16.6	36.7	**
SANTA PAULA Briggs	Pub	K-8	SLD	570.27	*	*	**
Mugu	Pub	K-8	SI/SLD	1235.97	*	*	**
Santa Clara	Pri	K-8	SLD	4113.90	*	*	**
Santa Paula	Pub	K-8	MR/HH/SI /VH/SED/ OHI/SLD	244.63	*	*	**

Santa Paula Union	Pub	9-12	MR/SI/SE D/OI/OHI/ SLD	565.14	*	*	**
Santa Paula Union HS	Pub	12	N/A	N/A	869/ 2.8	31.6	**
CANEJO VALLEY Canejo Valley Unified	Pub	K-12	MR/HH/D EAF/SI/V H/SED/OI/ OHI/SLD/ MH/AUT/ TBI	209.53	*	*	**
Newberry Park HS	Pub	12	N/A	N/A	960/ 20.4	62.1	**
Thousand Oaks HS	Pub	12	N/A	N/A	1025/ 25.1	60.3	**
Westlake HS	Pub	12	N/A	N/A	984/2 7.7	46.9	**
Oak Park Unified	Pub	K-12	MH/HH/SI /VH/SED/ OI/SLD	445.19	*	*	**
Oak Park HS	Pub	12	N/A	N/A	995/ 14.1	37.5	**
SIMI VALLEY Simi Valley Unified	Pub	K-12	MR/HH/D EAF/SI/V H/SED/OI/ OHI/SLD/ MH/AUT/ NC	620.08	*	*	**
Royal HS	Pub	12	N/A	N/A	918/ 11.1	59.5	**
Simi Valley HS	Pub	12	N/A	N/A	954/ 11.9	50.7	**
MOORPARK	Pub	K-12	MR/HH/SI	542.85	*	*	**

Moorpark Unified			/VH/SED/ OI/OHI/SL D/MH/AU T/NC				
Moorpark HS	Pub	12	N/A	N/A	957/ 10.4	27.8	**
OJAI OJAI Unified	Pub	K-12	MR/SI/SE D/OI/OHI/ SLD/TBI	271.84	*	*	**
Nordoff High	Pub	12	N/A	N/A	940/ 9.9	35.3	**
FILLMORE Fillmore Unified	Pub	K-12	MR/HH/SI /OHI/SLD	330.11	*	*	**
Fillmore Sr. High	Pub	12	N/A	N/A	796/ 12.8	19.4	**
INDEPENDENT/ PRIVATE Happy Valley	Pri	K-12	None	8150.00	939	88	**
The Teacher	Pri	9-12	None	10,000.00	1180	94	**
Villanova Prep	Pri	9-12	None	3400.00	1105	100	**
Ojai Valley	Pri	1-12	None	7000.00	960	91	**

NOTES:

\* Data not available for districts, it is provided, in this table, only for individual high schools.

\*\* NAVAL SURFACE WEAPONS CENTER, PORT HUENEME DETACHMENT

(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 and Cruises	Day	No	Yes	No	No	No
	Night	No	Yes	No	No	No
Anthony Schools for Real Estate	Day	No	Yes	Yes	No	No
	Night	No	Yes	Yes	No	No
H&R Tax Preparation	Day	No	Yes	No	No	No
	Night	No	Yes	No	No	No
Computer App. Training Ass.	Day	No	Yes	No	No	No
	Night	No	Yes	No	No	No
Computerfocus	Day	No	Yes	No	No	No
	Night	No	Yes	No	No	No
Golden State School of International Bartending	Day	No	Yes	No	No	No
	Night	No	Yes	No	No	No
IADE American Schools	Day	No	Yes	No	No	No
	Night	No	Yes	No	No	No

K-9 Emporium	Day	No	Yes	No	No	No
	Night	No	Yes	No	No	No
Oxnard Beauty College	Day	No	Yes	No	No	No
	Night	No	Yes	No	No	No
Sawyer College	Day	No	Yes	No	No	No
	Night	No	Yes	No	No	No
Simi Valley Adult School	Day	Yes	Yes	No	No	No
	Night	Yes	Yes	No	No	No
Watterson College Pacific	Day	No	Yes	No	No	No
	Night	No	Yes	No	No	No
Westlake Institute of Technology	Day	No	Yes	No	No	No
	Night	No	Yes	No	No	No
Family Learning Computer Center	Day	No	Yes	No	No	No
	Night	No	Yes	No	No	No
Graphic Traffic	Day	No	Yes	No	No	No
	Night	No	Yes	No	No	No
Executrain	Day	No	Yes	No	No	No
	Night	No	Yes	No	No	No
Sea Business Services	Day	No	Yes	No	No	No
	Night	No	Yes	No	No	No
Cal. State University Northridge	Day	No	No	Yes	Yes	Yes
	Night	No	No	Yes	Yes	Yes

Cal. Lutheran University	Day	No	No	Yes	Yes	Yes
	Night	No	No	Yes	Yes	Yes
U. of Phoenix, Southern Cal Campus	Day	No	No	Yes	Yes	Yes
	Night	No	No	Yes	Yes	Yes
Cal. State Northridge, Ventura Campus	Day	No	No	Yes	Yes	Yes
	Night	No	No	Yes	Yes	Yes
University of LaVerne	Day	No	No	Yes	Yes	Yes
	Night	No	No	Yes	Yes	Yes
U. of Cal, Santa Barbara	Day	No	Yes	Yes	Yes	Yes
	Night	No	Yes	Yes	Yes	Yes
U. of Southern California	Day	No	No	Yes	Yes	Yes
	Night	No	No	Yes	Yes	Yes
West Coast University	Day	No	Yes	Yes	Yes	Yes
	Night	No	Yes	Yes	Yes	Yes
Pepperdine University	Day	No	No	Yes	Yes	Yes
	Night	No	No	Yes	Yes	Yes
National University	Day	No	Yes	Yes	Yes	Yes
	Night	No	Yes	Yes	Yes	Yes
Oxnard College	Day	Yes	Yes	Yes	Yes	No
	Night	Yes	Yes	Yes	Yes	No
Ventura College	Day	Yes	Yes	Yes	Yes	No
	Night	Yes	Yes	Yes	Yes	No

Moorpark College	Day	No	No	Yes	Yes	No
	Night	No	No	Yes	Yes	No
Ventura College of Law	Day	No	Yes	Yes	Yes	Yes
	Night	No	Yes	Yes	Yes	Yes
Cal. Polytechnic State University San Luis Obispo	Day	No	No	Yes	Yes	Yes
	Night	No	No	Yes	Yes	Yes
Saint John's College	Day	No	No	Yes	No	No
	Night	No	No	Yes	No	No
Thomas Aquinas College	Day	No	No	Yes	No	No
	Night	No	No	Yes	No	No
Oxnard Union High	Day	Yes	Yes	No	No	No
	Night	Yes	Yes	No	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	No	No	Yes	No	No
	Night	No	No	No	No	No
	Correspondence	No	No	No	No	No
University of California, Los Angeles	Day	No	No	Yes	No	No
	Night	No	No	No	No	No
	Correspondence	No	No	No	No	No
University of Southern California	Day	No	No	No	No	Yes
	Night	No	No	No	No	Yes
	Correspondence	No	No	No	No	No
University of LaVerne	Day	No	No	No	No	No
	Night	No	No	Yes	Yes	Yes
	Correspondence	No	No	Yes	Yes	Yes

**21. Spousal Employment Opportunities.**

Provide the following data on spousal employment opportunities.

**N/A This service is provided by the Naval Construction Battalion Center, Port Hueneme**

Skill Level	Number of Military Spouses Serviced by Family Service Center Spouse Employment Assistance			Local Community Unemployment Rate
	1991	1992	1993	
Professional				
Manufacturing				
Clerical				
Service				
Other				

**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.

No, the Naval Construction Battalion Center has a clinic for military personnel and the surrounding community has adequate medical/Dental facilities for the civilian employees.

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.

No, same as 22.a.

**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.

Crime Definitions	FY 1991	FY 1992	FY 1993
<b>1. Arson (6A)</b>			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	3	3	4
<b>2. Black-market (6C)</b>			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
<b>3. Counterfeiting (6G)</b>			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
<b>4. Postal (6L)</b>			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2

Crime Definitions	FY 1991	FY 1992	FY 1993
<b>5. Customs (6M)</b>			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
<b>6. Burglary (6N)</b>			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	262	250	159
<b>7. Larceny - Ordnance (6R)</b>			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
<b>8. Larceny - Government (6S)</b>			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	4	0	2

Crime Definitions	FY 1991	FY 1992	FY 1993
9. Larceny - Personal (6T)			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
10. Wrongful Destruction (6U)			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
11. Larceny - Vehicle (6V)			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	82	57	72
12. Bomb Threat (7B)			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2

Crime Definitions	FY 1991	FY 1992	FY 1993
13. Extortion (7E)			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
14. Assault (7G)			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	251	208	209
15. Death (7H)			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	0	2	5
16. Kidnapping (7K)			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2

Crime Definitions	FY 1991	FY 1992	FY 1993
18. Narcotics (7N)			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
19. Perjury (7P)			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
20. Robbery (7R)			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	37	46	35
21. Traffic Accident (7T)			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	Not available	211	183

Crime Definitions	FY 1991	FY 1992	FY 1993
<b>22. Sex Abuse - Child (8B)</b>			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
<b>23. Indecent Assault (8D)</b>			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
<b>24. Rape (8F)</b>			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	4	0	3
<b>25. Sodomy (8G)</b>			
Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - military	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2
Off Base Personnel - civilian	Notes #1 & #2	Notes #1 & #2	Notes #1 & #2

Note #1: Crime information is provided by the local civilian police force (Port Hueneme, CA, Leslie Peacock) for crimes committed in Port Hueneme. The numbers, although reported under civilian/off base personnel do not distinguish between any of the categories listed for each crime definition.

**Note #2: NCIS has advised us that the information for on-base personnel involved in crimes is only available directly from them. Crime rate information for Base Personnel is available from Special Agent Harlan Rossman, NCIS Headquarters DSN 288-9247 or (202) 433-9247.**

**TAB A**  
**TECHNICAL OPERATIONS**  
**FUNCTIONAL SUPPORT AREA - LIFE CYCLE WORK AREA FORM**

**TECHNICAL FUNCTIONS**

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

Technical Center Site	NFESC
Functional Support Area	4.1 Landing Force Equipment & Systems
Life Cycle Work Area	2. Exploratory Development

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 FY 1993 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. 13.02 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 2202

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 186

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 for this functional support area - life cycle work area. \$(K) 592

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	NFESC
Functional Support Area	4.1 Landing Force Equipment & Systems
Life Cycle Work Area	3. Advanced Development

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 FY 1993 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. 1.03 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 175

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	4.1 Landing Force Equipment & Systems
Life Cycle Work Area	4. Engineering Development

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 FY 1993 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. 2.87 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 470

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	4.1 Landing Force Equipment & Systems
Life Cycle Work Area	6. Op. Systems Development

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 FY 1993 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. 1.18 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 226

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 40

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 for this functional support area - life cycle work area. \$(K) 32

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	NFESC
Functional Support Area	4.1 Landing Force Equipment & Systems
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 FY 1993 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. 6.87 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 5430

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 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 FY 1993 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	NFESC
Functional Support Area	5.5 Ocean Surveillance
Life Cycle Work Area	3. Advanced Development

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 FY 1993 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. 10.03 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 2650

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 81

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	5.5 Ocean Surveillance
Life Cycle Work Area	4. Engineering/ Manufacturing Dev.

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 FY 1993 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.

5.98 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area.

\$(K) 1454

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding.

\$(K) 59

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 for this functional support area - life cycle work area.

\$(K) 2879

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	NFESC
Functional Support Area	5.5 Ocean Surveillance
Life Cycle Work Area	6. Operational System Development

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 FY 1993 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. 4.58 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 1500

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 56

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	10.1 Personnel and Training
Life Cycle Work Area	17. Training/ Operational 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 FY 1993 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.

0.18 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area.

\$(K) 30

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

\$(K) 1

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	7.4 Land-based
Life Cycle Work Area	13. Testing

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 FY 1993 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. 0.87 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K)172

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 35

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	10.2 Logistics Planning & Implementation
Life Cycle Work Area	5. RDT&E Management 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 FY 1993 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. 4.0 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 301

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	10.2 Logistics Planning and Implementation
Life Cycle Work Area	8. Acceptance Testing

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 FY 1993 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. 1.87 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 308

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 211

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	10.2 Logistics Planning and Implementation
Life Cycle Work Area	17. Training/Operational 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 FY 1993 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. 29.6 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 2316

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 385

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 for this functional support area - life cycle work area. \$(K) 605

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	NFESC
Functional Support Area	10.3 Facilities Engineering
Life Cycle Work Area	1 Basic Research

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 FY 1993 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.

1.39 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area.

\$(K) 509

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding.

\$(K) 239

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	10.3 Facilities Engineering
Life Cycle Work Area	2. Exploratory Development

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 FY 1993 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. 19.00 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 2929

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 428

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	10.3 Facilities Engineering
Life Cycle Work Area	3. Advanced Development

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 FY 1993 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. 52.61 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 11,338

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 4475

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 for this functional support area - life cycle work area. \$(K) 1743

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	NFESC
Functional Support Area	10.3 Facilities Engineering
Life Cycle Work Area	4. Engineering & Man. Development

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 FY 1993 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. 10.52 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 1814

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 208

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 for this functional support area - life cycle work area. \$(K) 390

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	NFESC
Functional Support Area	10.3 Facilities Engineering
Life Cycle Work Area	5. RDT&E Management 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 FY 1993 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.

1.58 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area.

\$(K) 229

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding.

\$(K) 171

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	10.3 Facilities Engineering
Life Cycle Work Area	6. Operational Systems Development

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 FY 1993 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.

0.97 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area.

\$(K) 153

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

\$(K) 44

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	10.3 Facilities Engineering
Life Cycle Work Area	7. 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 FY 1993 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. 16.61 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 1348

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 1138

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 for this functional support area - life cycle work area. \$(K) 7783

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	NFESC
Functional Support Area	10.3 Facilities Engineering
Life Cycle Work Area	8. Acceptance Testing

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 FY 1993 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. 4.95 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 399

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	10.3 Facilities Engineering
Life Cycle Work Area	9. Modernization

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 FY 1993 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. 25.20 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 2272

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 7100

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 for this functional support area - life cycle work area. \$(K) 3964

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	NFESC
Functional Support Area	10.3 Facilities Engineering
Life Cycle Work Area	10. 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 FY 1993 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. 8.14 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 1095

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 642

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 for this functional support area - life cycle work area. \$(K) 10,324

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	NFESC
Functional Support Area	10.3 Facilities Engineering
Life Cycle Work Area	11. Maintenance

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 FY 1993 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. 11.86 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 1090

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 900

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 for this functional support area - life cycle work area. \$(K) 3898

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	NFESC
Functional Support Area	10.3 Facilities Engineering
Life Cycle Work Area	12. Repair

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 FY 1993 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. 15.12 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 1148

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 1201

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 for this functional support area - life cycle work area. \$(K) 5847

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	NFESC
Functional Support Area	10.3 Facilities Engineering
Life Cycle Work Area	13. Testing

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 FY 1993 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. 6.05 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 528

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 60

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	10.3 Facilities Engineering
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 FY 1993 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.

31.01 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area.

\$(K) 3464

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

\$(K) 116

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 for this functional support area - life cycle work area.

\$(K) 195

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	NFESC
Functional Support Area	10.3 Facilities Engineering
Life Cycle Work Area	15. 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 FY 1993 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. 32.9 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 2860

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 1530

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 for this functional support area - life cycle work area. \$(K) 893

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	NFESC
Functional Support Area	10.3 Facilities Engineering
Life Cycle Work Area	17. Training/Operational 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 FY 1993 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. 36.82 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 2620

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 70

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 for this functional support area - life cycle work area. \$(K) 5710

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	NFESC
Functional Support Area	10.3 Facilities Engineering
Life Cycle Work Area	18.Simulation, Modeling and Analysis

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 FY 1993 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.

0.42 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area.

\$(K) 24

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

\$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	10.4 Diving, Salvage & Ocean Engineering
Life Cycle Work Area	3. Advanced Development

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 FY 1993 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.

3.49 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area.

\$(K) 683

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding.

\$(K) 37

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	10.4 Diving, Salvage & Ocean Engineering
Life Cycle Work Area	13. Testing

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 FY 1993 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. 1.0 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 187

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	10.5 Environmental Descrip. Prediction & Effects
Life Cycle Work Area	3. Advanced Development

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 FY 1993 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.

16.00 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area.

\$(K) 6075

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

\$(K) 175

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 for this functional support area - life cycle work area.

\$(K) 2469

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	NFESC
Functional Support Area	10.7 Major Range Development & Op.
Life Cycle Work Area	3. Advanced Development

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 FY 1993 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. 17.10 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 3451

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 1057

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 for this functional support area - life cycle work area. \$(K) 13,317

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	NFESC
Functional Support Area	10.8 Other Subsidiary Systems or Comp.
Life Cycle Work Area	2. Exploratory Development

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 FY 1993 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.

0.46 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area.

\$(K) 75

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

\$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.1 Computers
Life Cycle Work Area	1. Basic Research

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 FY 1993 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. 0.06 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 10

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.1 Computer
Life Cycle Work Area	13. Testing

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 FY 1993 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. 0.03 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 5

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.1 Computer
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 FY 1993 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. 0.15 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 23

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.2 Software
Life Cycle Work Area	3. Advanced Development

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 FY 1993 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. 3.17 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 498

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 250

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.2 Software
Life Cycle Work Area	7. 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 FY 1993 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. 0.13 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 20

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.2 Software
Life Cycle Work Area	8. Acceptance Testing

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 FY 1993 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. 1.92 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 301

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.2 Software
Life Cycle Work Area	18. Simulation, Modeling & Analysis

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 FY 1993 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. 0.58 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 91

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 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 FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.3 Communications Networking
Life Cycle Work Area	2. Exploratory Development

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 FY 1993 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. 0.64 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 100

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.3 Communications Networking
Life Cycle Work Area	6. Operational Systems Development

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 FY 1993 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. 0.16 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 25

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.3 Communications Networking
Life Cycle Work Area	7. 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 FY 1993 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.

7.06 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area.

\$(K) 1110

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

\$(K) 6

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.3 Communications Networking
Life Cycle Work Area	9. Modernization

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 FY 1993 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. 0.12 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 19

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.3 Communications Networking
Life Cycle Work Area	13. Testing

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 FY 1993 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. 0.01 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 2

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.3 Communications Networking
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 FY 1993 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. 0.06 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 10

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.3 Communications Networking
Life Cycle Work Area	18. Simulation, Modeling & Analysis

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 FY 1993 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. 0.01 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 2

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.5 Materials & Processes
Life Cycle Work Area	1. Basic Research

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 FY 1993 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.

2.81 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area.

\$(K) 442

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

\$(K) 222

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.5 Materials & Processes
Life Cycle Work Area	2. Exploratory Development

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 FY 1993 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.

5.63 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area.

\$(K) 885

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

\$(K) 10

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.5 Materials & Processes
Life Cycle Work Area	3. Advanced Development

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 FY 1993 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. .01 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 2

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 141

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.5 Materials & Processes
Life Cycle Work Area	4. Engineering & Manufacturing Dev.

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 FY 1993 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. 1.1 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 173

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.5 Materials & Processes
Life Cycle Work Area	7. 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 FY 1993 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. 0.08 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 12

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.5 Materials & Processes
Life Cycle Work Area	11. Maintenance

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 FY 1993 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. .08 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 13

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 for this functional support area - life cycle work area. \$(K) \_\_\_\_\_

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	NFESC
Functional Support Area	11 Generic Technology Base, 11.5 Materials & Processes
Life Cycle Work Area	13. Testing

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 FY 1993 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. 0.10 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 15

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.5 Materials & Processes
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 FY 1993 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. 1.18 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 186

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.5 Materials & Processes
Life Cycle Work Area	17. Training/ Operational 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 FY 1993 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. 0.15 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 24

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding.

\$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.8 Design Automation
Life Cycle Work Area	2. Exploratory Development

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 FY 1993 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. 0.77 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 121

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding.

\$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.8 Design Automation
Life Cycle Work Area	3. Advanced Development

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 FY 1993 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. 0.06 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 10

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 40

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.8 Design Automation
Life Cycle Work Area	Engineering & Manufacturing Dev.

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 FY 1993 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. 1.55 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 244

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.8 Design Automation
Life Cycle Work Area	7. 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 FY 1993 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. 0.10 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 15

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.8 Design Automation
Life Cycle Work Area	8. Acceptance Testing

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 FY 1993 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. 3.74 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 587

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. **Do not** include direct cite funding. \$(K) 37

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.8 Design Automation
Life Cycle Work Area	10. 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 FY 1993 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. 0.01 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 2

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.8 Design Automation
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 FY 1993 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. 0.32 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 50

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Functional Support Area	11 Generic Technology Base, 11.8 Design Automation
Life Cycle Work Area	18. Simulation, Modeling & Analysis

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 FY 1993 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. 1.3 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY 1993 for this functional support area - life cycle work area. \$(K) 205

b. **Out-of-House Expenditures.** Provide the total funds expended during FY 1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 36

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY 1993 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	NFESC
Facility/Equipment Nomenclature or Title	Controlled Suspension Test Facility

1. State the primary purpose(s) of the facility/equipment.

The primary purpose of the Controlled Suspension Test Facility (CSTF) is to conduct unique and specialized survivability testing of seafloor cables. The CSTF is the only known facility that is capable of accurately simulating the performance of a full-sized seafloor cable suspended in flowing water across representative seafloor materials. The full-scale, suspended cables are caused to vibrate in forced resonance by the vortex shedding of the flowing water. The motion causes wear at the suspension points.

The CSTF provides calibrated wear to allow estimates of cable life in situ and improvements in cable system and design. The CSTF also is capable of supporting tests of the seafloor stability of cables and cable hardware in the presence of currents. Visual observations of cable and hardware movement under various conditions of tension, angle, and seafloor materials directly contribute to the understanding of threats to next-generation seafloor cable survivability against fishing gear threats, cable wear from movement, fouling from debris and general abrasion, hocking, or other cable failure mechanisms.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

The CSTF is a moveable asset. The CSTF tank walls, piping, pumps, and associated fittings are removable from the concrete base by unbolting. The entire system can be relocated in a matter of days. The relocation does require the construction of a new concrete base., at the new site.

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 CSTF was constructed one year ago for a total cost of approximately 1.1 M\$. Assuming the same design was used again, it would cost approximately 1 M\$ to replace the CSTF.

4. Provide the gross weight and cube of the facility/equipment.

The CSTF is composed of approximately 23 tons of steel, moveable equipment (walls, braces, cat-walks, pumps, etc.), and 160 tons of concrete base. It contains approximately 482 tons of water (110,000 gallons). The total weight, in place, is approximately 665 tons. The CSTF occupies a volume of approximately 40,000 cubic feet.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

The CSTF requires approximately 110 amps of 440 VAC.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

The CSTF has an ongoing requirement for maintenance of water quality, servicing of corrosion control anodes and water level control.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

The CSTF is an outdoor facility and has no environmental controls other than assuring that the ambient temperature remains above the freezing point of water.

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 CSTF can be replaced or relocated with no technical difficulties, only cost. The designs are government property and most of the above ground equipment is reusable. Loss of this facility would significantly affect the future of the Navy's underwater surveillance programs, as well as many new fiberoptic seafloor cable programs related to communications and surveillance. Without the data provided by the CSTF it is not possible to quantify and mitigate the risks associated with laying new, very small cables on the seafloor. This is particularly true because most of the new systems must operate in shallow water and high currents in order to support the Navy's refocus on littoral warfare and regional, rapid response conflicts.

There are no other commercial or government facilities that can conduct the testing that is performed by the CSTF. In the one year that the CSTF has been operational, there have been three Navy programs that have used the tank, in addition to the original sponsor. One commercial concern is negotiating for the use of the facility on a not to interfere basis.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

The CSTF parts were fabricated locally and were assembled, in place, by the contractor in FY 1993. The CSTF came on line in Oct 1993 and has been in continuous operation ever since.

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 CSTF supports the 5 (Sensors and Surveillance), 10 (General Mission Support) and 11 (Generic Technology Base) Areas.

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

The CSTF has only been fully operational for 8 months. During that time, it has been continuously in use, testing cables for two different SPAWAR programs. Approximately half of the available cable testing positions are occupied. The remainder of the space in the tank is used intermittently for cable stability tests, flow resistance tests, and flow resistance testing of anti-mine det-cord rocket motor bodies, and related testing. Part of the CSTF is being utilized all of the time, and the rest is being used more then half time. That keeps just a small part of the new facility available to respond to changes in the technical direction or new Navy requirements.

12. Provide the projected utilization data out to FY 1997.

The CSTF is expected to remain in full-time use through 1998, and probably beyond. It takes 1 to 5 years to obtain credible wear data on some of the larger cables, and the Advanced Deployable Systems Program (The leading edge of undersea surveillance research) will require approximately 3 to 5 years to develop and test through the prototype stage. There are similar programs related to shallow water mine warfare, Navy ranges, and other telecommunications and surveillance systems with similar requirements.

13. What is the approximate number of personnel used to operate the facility/equipment?

The CSTF operates unattended for long periods of time. One person checks the CSTF every day or so to monitor progress. When the tests are being set up or a special short-term test is in progress, two to four additional personnel are needed to assist in the execution of the test.

14. What is the approximate number of personnel needed to maintain the equipment?

The CSTF is maintained by one engineer/technician, part time. As part of checking the progress of experiments, the engineer/technician monitors flow rate, cable behavior and other items. This requires a few minutes each day. Any needed repairs (anode replacement, for example) happen only every few months. A pool service maintains the water quality and cleans the filters once or twice a month, as needed.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

See Attached photograph.

**SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM**

Technical Center Site	NFESC
Facility/Equipment Nomenclature or Title	Recompression Chamber

1. State the primary purpose(s) of the facility/equipment.

Medical treatment of diving accidents and altitude bends for all local military diving and flying commands.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

Fixed.

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.

\$700,000

4. Provide the gross weight and cube of the facility/equipment.

12,000 lbs., 400 CSF.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

Various compressed gases.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

None.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

Temperature controlled area for diver/patient comfort.

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 chamber will not be moved to the new facility on NCBC. It will be used until 1996 and then disposed of as excess equipment.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

N/A.

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.

Areas 5 (Sensors and Surveillance), 10 (General Mission Support) and 11 (Generic Technology Base)

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

Chamber use averages 2 treatments per year, lasting about 6 hours each.

12. Provide the projected utilization data out to FY 1997.

Projected use is 2 treatments per year, lasting about 6 hours each.

13. What is the approximate number of personnel used to operate the facility/equipment?

It takes 4 people to operate the chamber.

14. What is the approximate number of personnel needed to maintain the equipment?

It takes 2 people to maintain the chamber, part time.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

See attached photograph.

**SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM**

Technical Center Site	NFESC
Facility/Equipment Nomenclature or Title	Electromagnetic Compatibility Laboratory

1. State the primary purpose(s) of the facility/equipment.

The Electromagnetic Compatibility Laboratory (ECL) is a controlled space, the inside of which is isolated from all external radio signals and conversely, the external environment is shielded from any and all radio signals generated inside the controlled space. It is used to evaluate the electromagnetic properties of materials, equipment and systems.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

The ECL is a fixed facility and cannot be economically moved. It will have to be replaced at the new 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.

The cost of a shielded facility that must withstand the elements is \$40/sq. ft. of shielding surface area (Floor, roof, walls). The current facility has 20,000 sq. ft. of surface area, with a resulting replacement cost of \$80,000. The electrical power serving the building requires EMI filtering.

4. Provide the gross weight and cube of the facility/equipment.

N/A. The facility is a thin skin steel building and is not transportable.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

The electrical power requires EMI filters and the air conditioning system requires "waveguide below cutoff" type filters.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

The skin of the facility is an electromagnetic shield, therefore it must be made of a highly conductive material. Steel is the most economical, durable, and therefore practical material.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

The air conditioning must be specially filtered. There must be no windows and specially constructed doors designed to maintain the integrity of the shielding.

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.

Other similar facilities have been built since this facility was completed. Loss to the Navy would be minimal, since these facilities could be rented as needed. Schedules may be impacted, based on the availability of these other facilities. Note: This facility is not scheduled to be replaced when the BRAC directed closure of the NFESC main compound and construction of the new facility on NCBC is completed.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

The facility was constructed 40 years ago on site.

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.

Area supported are 7 (Command, Control, Communications, and Intelligence) and 10 (General Mission Support).

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

The ECL has been used for testing in several different programs. This testing has sometimes been occurring concurrently, while at other times the nature of the testing allowed only one project at a time to be tested. ECL utilization has averaged 75-80%. Testing has generally been confined to 8 hour days but has occasionally required 24 hr/day testing. The primary work was the testing of materials and processes for establishing HEMP shielding in a building using standard building materials, such as concrete. Other projects included active noise cancellation for reducing noise in Jet Engine Test Cells, High Voltage Corona Arc experiment for the destruction of Volatile Organic Compounds, for the environmental program, and magnetic mine detection for the Marine Corps.

12. Provide the projected utilization data out to FY 1997.

HEMP concrete sampling testing through 1994, for 2-3 months  
Mine detection testing through 1995, for 6 months  
VOC destruction testing through 1996, for 6 months  
Acoustical noise experiments through 1996, for 6 -8 months

13. What is the approximate number of personnel used to operate the facility/equipment?

During testing two people must be present for safety reasons. The highest number of people ever present during testing was 10 engineers/technicians.

14. What is the approximate number of personnel needed to maintain the equipment?

One engineer/technician, part time, is need to maintain the specialized testing equipment. Public works maintains the rest of the facility.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

See attached photograph

**SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM**

Technical Center Site	NFESC
Facility/Equipment Nomenclature or Title	Cold Chamber

1. State the primary purpose(s) of the facility/equipment.

The primary purpose is to cold soak/test operational and prototype equipment.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

The chambers are fixed, and cannot be moved.

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.

Estimated value is \$100,000.

4. Provide the gross weight and cube of the facility/equipment.

Unknown.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

None.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

None.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

The facility is an environmental control 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.

Replication of this equipment would not be difficult, given the funding. The loss of these chambers would restrict the NFESC's ability to conduct this type of testing. Other facilities of this type have been constructed and could be rented if required.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

Unknown. The chambers have been in use for several decades. The refrigeration systems were replaced by the Public Works department approximately two years ago.

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.

Areas supported include 4 (Special Operations Support) and 10 (General Mission Support)

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

Estimated usage is 160 hours per year.

12. Provide the projected utilization data out to FY 1997.

Usage is expected to continue at approximately 160 hours per year.

13. What is the approximate number of personnel used to operate the facility/equipment?

One technician is used, part time to operate the chambers.

14. What is the approximate number of personnel needed to maintain the equipment?

One technician is used to maintain the chambers, part time.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

See attached photograph.

**SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM**

Technical Center Site	NFESC
Facility/Equipment Nomenclature or Title	Deep Ocean Laboratory

1. State the primary purpose(s) of the facility/equipment.

The Deep Ocean Laboratory (DOL) is a set of water filled pressure vessels and supporting equipment whose purpose is to simulate the deep ocean environment with respect to temperature and pressure. The pressure vessels are used to test and certify equipment; equipment which may be used to support research projects or equipment requiring certification for fleet use.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

The pressure vessels are considered to be moveable.

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.

- (a) 72 inch pressure vessel- replacement cost is unknown but easily in excess of \$1 M.
- (b) 24 inch pressure vessel-\$300 K.
- (c) 18 inch pressure vessel- \$200 K.
- (d) 9 inch pressure vessels (3)- \$25 K each.

4. Provide the gross weight and cube of the facility/equipment.

- (a) 72 inch pressure vessel-126,000 lbs/ approximately 700 cubic feet
- (b) 24 inch pressure vessel-unknown/ approximately 70 cubic feet
- (c) 18 inch pressure vessel-unknown/ approximately 16 cubic feet
- (d) 9 inch pressure vessels- unknown/ approximately 3 cubic feet each.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

Special utility support is required in the form of access to sea water and a 20 ton overhead crane.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

None.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

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 72 inch pressure vessel is the largest pressure vessel on the West Coast and has supported and continues to support a large number of Navy organizations' research, development, and certification testing in support of fleet activities. The next closest facility is located in San Antonio, Texas at Southwest Research Laboratory. Losing this facility would increase the cost of doing business for the customers it supports, as well as delaying projects while items are shipped east for testing. Replication of this facility is not feasible, but the vessels can be relocated.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

The three 9 inch and the 18 inch vessels have been in operation since the 1950's. They were probably trucked to the site. The 24 inch vessel was trucked to the site and installed in 1993. The 72 inch vessel was installed in 1967, but it is not known how it was brought to the site, although it was probably trucked in.

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.

Areas supported include 5 (Sensors and Surveillance Systems), and 10 (General Mission Support)

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

From 1989-1993, the DOL has typically been in use 80% of the time. Funding for the facility comes solely from customers who use it, so no overhead funds are required to maintain it. Within the past five years, long term tests lasting from 1 month to one year have been conducted.

12. Provide the projected utilization data out to FY 1997.

Projected utilization is approximately 50% of the work year. This estimate is based on the expected decrease in the defense budget. An accurate projection of usage is not possible, since projects are generally scheduled only about 1 to 2 months in advance.

13. What is the approximate number of personnel used to operate the facility/equipment?

One person is required to operate and maintain the facility.

14. What is the approximate number of personnel needed to maintain the equipment?

One person, part time, is required to operate and maintain the facility.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

See attached photograph.

**SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM**

Technical Center Site	NFESC
Facility/Equipment Nomenclature or Title	Seawater Test Tank

1. State the primary purpose(s) of the facility/equipment.

The Seawater Test Tank (STT) and adjoining building provides a unique seawater environment for controlled tests supporting manned diving operations and remotely piloted vehicle testing. Special facility modifications allow variation of the quality of the seawater for turbidity experiments on optical equipment.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

The facility is fixed and encompasses the Seawater tank, the filter and pump systems, the decking, an overhead crane, and the adjacent control room and seawater hydraulics laboratory.

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 value of the diving tank and its associated control room and hydraulics lab facility is \$400 K. The hydraulics laboratory equipment is valued at \$500 K.

4. Provide the gross weight and cube of the facility/equipment.

The 60,000 gallon tank measures 30 feet in diameter and is 12 feet in depth. The upper deck measures approximately 65 square feet. The hydraulics lab is approximately 75 square feet. Weight of the facility is unknown.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

Due to the water environment all electrical outlets must be of the GFI type. 220 and 440 volt service is also required. Fresh water outlets, pneumatic outlets and a supply line for seawater are also required. A sewer drain is required for discharging the seawater.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

None.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

The STT is an outdoor facility and does not require any special environmental conditioning. The control room needs an air conditioning system to remove the heat generated by the instrumentation and the computers.

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 could be replicated at a new site. The loss of this facility would restrict the ability of the NFESC to work on several of its programs. Other facilities would have to be rented for testing. This would increase the cost of the projects and might delay the projects, depending on the availability of these rented facilities.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

This facility was constructed on site, about 1974 using standard construction techniques. The facility was upgraded in about 1982.

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 area supported is 10 (General Mission Support).

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

The facility sees monthly operation for tests conducted in the STT. Each usage may be from one day to several weeks in duration. The facility supports weekly testing in the hydraulics laboratory by providing a source for seawater as well as a heat sink for removing heat generated in the water during testing.

12. Provide the projected utilization data out to FY 1997.

Testing is expected to continue at the historical rate for the near future.

13. What is the approximate number of personnel used to operate the facility/equipment?

No minimum number of people are required for operating the facility. Depending on the particular test, from 1 to 7 people may be required to safely operate the facility.

14. What is the approximate number of personnel needed to maintain the equipment?

General facility upkeep requires one technician, part time. Pool maintenance is contracted to local firms.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

See attached photograph.

**SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM**

Technical Center Site	NFESC
Facility/Equipment Nomenclature or Title	Ballistic Test Facility

1. State the primary purpose(s) of the facility/equipment.

The Ballistic Test Facility (BTF) is used to test materials and hardware against small arms ballistic attack.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

The BTF includes a building and is fixed.

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.

Current replacement value is estimated at \$320,000.

4. Provide the gross weight and cube of the facility/equipment.

The BTF equipment weight is approximately 8000 lbs. Facility volume is approximately 5000 cubic feet.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

None.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

The building is constructed for ballistic protection.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

Usage of the BTF requires collection of lead waste.

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 facility would not be difficult to replace or replicate. Impact to DON would be minor, if this facility would be lost. The ballistic test services could be contracted out.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

The facility was built and equipment installed in the early 1980s.

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 area supported is 10 (General Mission Support).

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

Typical usage is about 3 test series per year. Each test involves about 20 targets and requires about three weeks to set up, test and perform test analysis.

12. Provide the projected utilization data out to FY 1997.

Usage rate in the near future is expected to continue at about three tests per year.

13. What is the approximate number of personnel used to operate the facility/equipment?

Two people are needed to operate the facility .

14. What is the approximate number of personnel needed to maintain the equipment?

**One person, part time, is required to maintain the facility.**

- 15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.  
See attached photograph.**

**SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM**

Technical Center Site	NFESC
Facility/Equipment Nomenclature or Title	Security Test Bed

1. State the primary purpose(s) of the facility/equipment.

The Security Test Bed (STB) is used to test forced entry, reliability and signature testing of security hardware, equipment and materials.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

The facility is composed of two fixed structures.

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 equipment value is approximately \$250,000.

4. Provide the gross weight and cube of the facility/equipment.

Equipment weight is approximately 30,000 lbs. and facility volume is approximately 9000 cubic feet.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

Special support required are a thirty Amp electrical power line and 80 psi air.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

None.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

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 facility would not be hard to replicate or replace. The loss to the Government, in the security field would be significant. Unique capabilities of this facility could not be easily or cheaply obtained from other Government agencies or contractors.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

The facility has been built up over the last twelve years. Equipment and structures were added 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.

Area supported is 10 (General Mission Support).

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

The facility is used for approximately 8 tests per year. The tests involve about six specimens and require about 4 weeks to set up, test and do data analysis.

12. Provide the projected utilization data out to FY 1997.

A usage rate of approximately five tests per year is anticipated for the near future.

13. What is the approximate number of personnel used to operate the facility/equipment?  
6-10 people are required to operate the facility, depending on the test.

14. What is the approximate number of personnel needed to maintain the equipment?  
One person, part time, is required to maintain the facility.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

See the attached photograph.

**SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM**

Technical Center Site	NFESC
Facility/Equipment Nomenclature or Title	Steam Laboratory

1. State the primary purpose(s) of the facility/equipment.

The Steam Laboratory is a facility for conducting tests on steam and steam related equipment. tests include; steam trap performance, and testing of the Inverse Flash Steam Purification 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 is fixed.

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 equipment would require approximately \$250,000 to replace,

4. Provide the gross weight and cube of the facility/equipment.

Boiler weight is approximately 8 tons. Weight and volume of the entire facility is unknown.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

Other utility support includes water, sewer and natural gas.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

Boiler maintenance, water treatment, and boiler equipment repairs.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

An Air permit and an Operational permit is required by the county (Ventura, CA).

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.

It would be impractical to move the Steam Lab., because of the age and cost of the boiler. BRAC 93 has directed the closure of the compound that the Steam Lab is located on, and the relocation of necessary functions to NCBC. The Steam Lab is not scheduled for relocation.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

The Steam Lab. was constructed on site in the 1940s. Major modifications have been made over the years, including the removal of two boilers, and the adding of a control/data gathering room.

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 area supported is 10 (General Mission Support).

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

Average usage of the facility has been approximately 3-4 months/year.

12. Provide the projected utilization data out to FY 1997.

Usage is expected to continue at about 3-4 month/year.

13. What is the approximate number of personnel used to operate the facility/equipment?

Five people are required to operate the facility.

14. What is the approximate number of personnel needed to maintain the equipment?

One person, part-time, is required to maintain the facility.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

See attached photograph.



CONTROLLED  
SUSPENSION  
TEST FACILITY

**SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM**

Technical Center Site	NFESC
Facility/Equipment Nomenclature or Title	Recompression Chamber

1. State the primary purpose(s) of the facility/equipment.

Medical treatment of diving accidents and altitude bends for all local military diving and flying commands.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

Fixed.

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.

\$700,000

4. Provide the gross weight and cube of the facility/equipment.

12,000 lbs., 400 CSF.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

Various compressed gases.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

None.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

Temperature controlled area for diver/patient comfort.

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 chamber will not be moved to the new facility on NCBC. It will be used until 1996 and then disposed of as excess equipment.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

N/A.

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.

Areas 5 (Sensors and Surveillance), 10 (General Mission Support) and 11 (Generic Technology Base)

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

Chamber use averages 2 treatments per year, lasting about 6 hours each.

12. Provide the projected utilization data out to FY 1997.

Projected use is 2 treatments per year, lasting about 6 hours each.

13. What is the approximate number of personnel used to operate the facility/equipment?

It takes 4 people to operate the chamber.

14. What is the approximate number of personnel needed to maintain the equipment?

It takes 2 people to maintain the chamber, part time.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

See attached photograph.



**SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM**

Technical Center Site	NFESC
Facility/Equipment Nomenclature or Title	Electromagnetic Compatibility Laboratory

1. State the primary purpose(s) of the facility/equipment.

The Electromagnetic Compatibility Laboratory (ECL) is a controlled space, the inside of which is isolated from all external radio signals and conversely, the external environment is shielded from any and all radio signals generated inside the controlled space. It is used to evaluate the electromagnetic properties of materials, equipment and systems.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

The ECL is a fixed facility and cannot be economically moved. It will have to be replaced at the new 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.

The cost of a shielded facility that must withstand the elements is \$40/sq. ft. of shielding surface area (Floor, roof, walls). The current facility has 20,000 sq. ft. of surface area, with a resulting replacement cost of \$80,000. The electrical power serving the building requires EMI filtering.

4. Provide the gross weight and cube of the facility/equipment.

N/A. The facility is a thin skin steel building and is not transportable.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

The electrical power requires EMI filters and the air conditioning system requires "waveguide below cutoff" type filters.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

The skin of the facility is an electromagnetic shield, therefore it must be made of a highly conductive material. Steel is the most economical, durable, and therefore practical material.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

The air conditioning must be specially filtered. There must be no windows and specially constructed doors designed to maintain the integrity of the shielding.

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.

Other similar facilities have been built since this facility was completed. Loss to the Navy would be minimal, since these facilities could be rented as needed. Schedules may be impacted, based on the availability of these other facilities. Note: This facility is not scheduled to be replaced when the BRAC directed closure of the NFESC main compound and construction of the new facility on NCBC is completed.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

The facility was constructed 40 years ago on site.

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.

Area supported are 7 (Command, Control, Communications, and Intelligence) and 10 (General Mission Support).

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

The ECL has been used for testing in several different programs. This testing has sometimes been occurring concurrently, while at other times the nature of the testing allowed only one project at a time to be tested. ECL utilization has averaged 75-80%. Testing has generally been confined to 8 hour days but has occasionally required 24 hr/day testing. The primary work was the testing of materials and processes for establishing HEMP shielding in a building using standard building materials, such as concrete. Other projects included active noise cancellation for reducing

noise in Jet Engine Test Cells, High Voltage Corona Arc experiment for the destruction of Volatile Organic Compounds, for the environmental program, and magnetic mine detection for the Marine Corps.

12. Provide the projected utilization data out to FY 1997.

HEMP concrete sampling testing through 1994, for 2-3 months  
Mine detection testing through 1995, for 6 months  
VOC destruction testing through 1996, for 6 months  
Acoustical noise experiments through 1996, for 6 -8 months

13. What is the approximate number of personnel used to operate the facility/equipment?

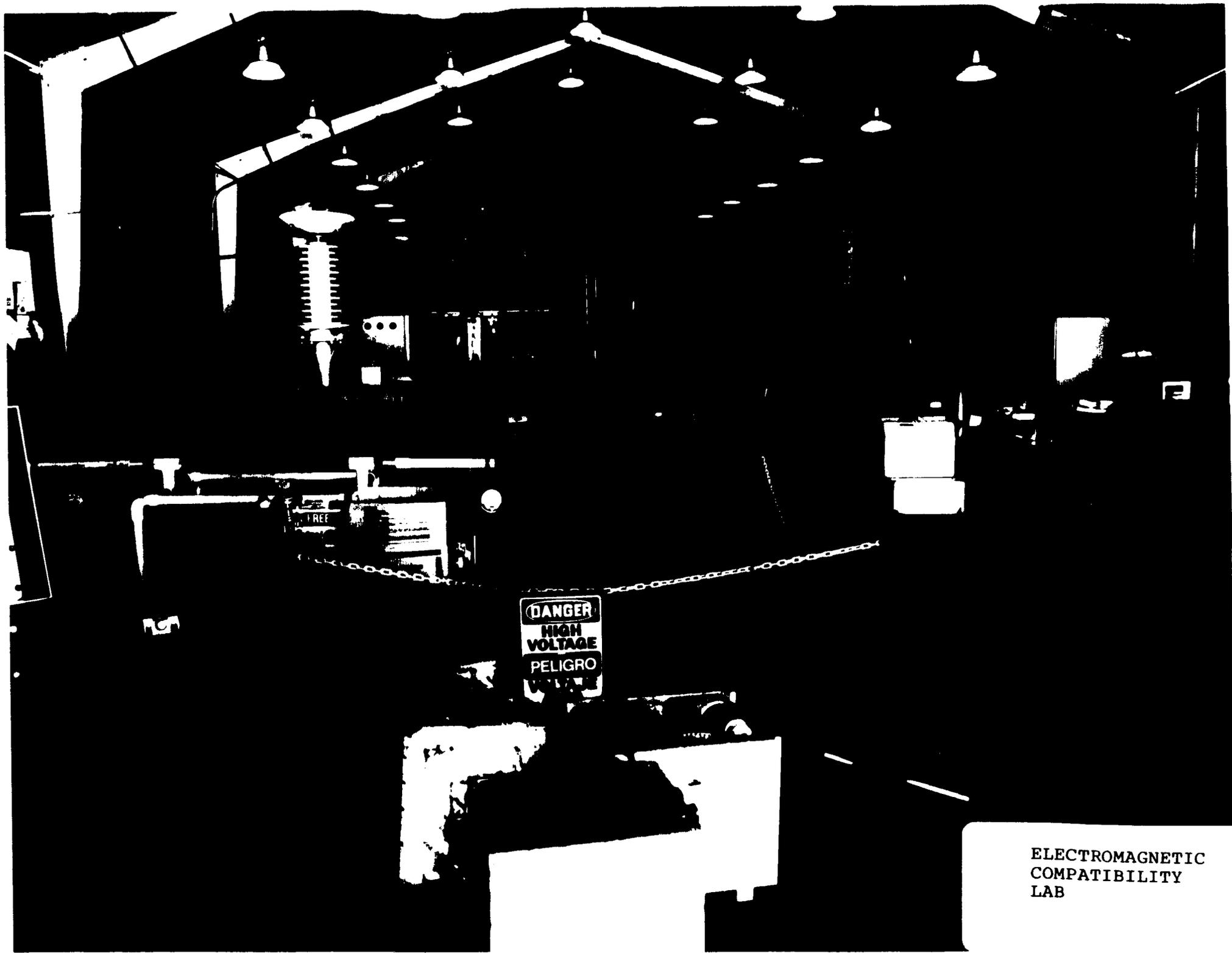
During testing two people must be present for safety reasons. The highest number of people ever present during testing was 10 engineers/technicians.

14. What is the approximate number of personnel needed to maintain the equipment?

One engineer/technician, part time, is need to maintain the specialized testing equipment. Public works maintains the rest of the facility.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

See attached photograph



**DANGER**  
**HIGH**  
**VOLTAGE**  
**PELIGRO**  
**VOLTAJE**

FREE

**ELECTROMAGNETIC**  
**COMPATIBILITY**  
**LAB**

**SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM**

Technical Center Site	NFESC
Facility/Equipment Nomenclature or Title	Cold Chamber

1. State the primary purpose(s) of the facility/equipment.

The primary purpose is to cold soak/test operational and prototype equipment.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

The chambers are fixed, and cannot be moved.

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.

Estimated value is \$100,000.

4. Provide the gross weight and cube of the facility/equipment.

Unknown.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

None.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

None.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

The facility is an environmental control 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.

Replication of this equipment would not be difficult, given the funding. The loss of these chambers would restrict the NFESC's ability to conduct this type of testing. Other facilities of this type have been constructed and could be rented if required.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

Unknown. The chambers have been in use for several decades. The refrigeration systems were replaced by the Public Works department approximately two years ago.

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.

Areas supported include 4 (Special Operations Support) and 10 (General Mission Support)

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

Estimated usage is 160 hours per year.

12. Provide the projected utilization data out to FY 1997.

Usage is expected to continue at approximately 160 hours per year.

13. What is the approximate number of personnel used to operate the facility/equipment?

One technician is used, part time to operate the chambers.

14. What is the approximate number of personnel needed to maintain the equipment?

One technician is used to maintain the chambers, part time.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

See attached photograph.



COLD  
CHAMBERS

**SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM**

Technical Center Site	NFESC
Facility/Equipment Nomenclature or Title	Deep Ocean Laboratory

1. State the primary purpose(s) of the facility/equipment.

The Deep Ocean Laboratory (DOL) is a set of water filled pressure vessels and supporting equipment whose purpose is to simulate the deep ocean environment with respect to temperature and pressure. The pressure vessels are used to test and certify equipment; equipment which may be used to support research projects or equipment requiring certification for fleet use.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

The pressure vessels are considered to be moveable.

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.

- (a) 72 inch pressure vessel- replacement cost is unknown but easily in excess of \$1 M.
- (b) 24 inch pressure vessel-\$300 K.
- (c) 18 inch pressure vessel- \$200 K.
- (d) 9 inch pressure vessels (3)- \$25 K each.

4. Provide the gross weight and cube of the facility/equipment.

- (a) 72 inch pressure vessel-126,000 lbs/ approximately 700 cubic feet
- (b) 24 inch pressure vessel-unknown/ approximately 70 cubic feet
- (c) 18 inch pressure vessel-unknown/ approximately 16 cubic feet
- (d) 9 inch pressure vessels- unknown/ approximately 3 cubic feet each.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

Special utility support is required in the form of access to sea water and a 20 ton overhead crane.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

None.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

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 72 inch pressure vessel is the largest pressure vessel on the West Coast and has supported and continues to support a large number of Navy organizations' research, development, and certification testing in support of fleet activities. The next closest facility is located in San Antonio, Texas at Southwest Research Laboratory. Losing this facility would increase the cost of doing business for the customers it supports, as well as delaying projects while items are shipped east for testing. Replication of this facility is not feasible, but the vessels can be relocated.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

The three 9 inch and the 18 inch vessels have been in operation since the 1950's. They were probably trucked to the site. The 24 inch vessel was trucked to the site and installed in 1993. The 72 inch vessel was installed in 1967, but it is not known how it was brought to the site, although it was probably trucked in.

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.

Areas supported include 5 (Sensors and Surveillance Systems), and 10 (General Mission Support)

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

From 1989-1993, the DOL has typically been in use 80% of the time. Funding for the facility comes solely from customers who use it, so no overhead funds are required to maintain it. Within the past five years, long term tests lasting from 1 month to one year have been conducted.

12. Provide the projected utilization data out to FY 1997.

Projected utilization is approximately 50% of the work year. This estimate is based on the expected decrease in the defense budget. An accurate projection of usage is not possible, since projects are generally scheduled only about 1 to 2 months in advance.

13. What is the approximate number of personnel used to operate the facility/equipment?

One person is required to operate and maintain the facility.

14. What is the approximate number of personnel needed to maintain the equipment?

One person, part time, is required to operate and maintain the facility.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

See attached photograph.



CUBICO

DEEP  
OCEAN

**SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM**

Technical Center Site	NFESC
Facility/Equipment Nomenclature or Title	Seawater Test Tank

1. State the primary purpose(s) of the facility/equipment.

The Seawater Test Tank (STT) and adjoining building provides a unique seawater environment for controlled tests supporting manned diving operations and remotely piloted vehicle testing. Special facility modifications allow variation of the quality of the seawater for turbidity experiments on optical equipment.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

The facility is fixed and encompasses the Seawater tank, the filter and pump systems, the decking, an overhead crane, and the adjacent control room and seawater hydraulics laboratory.

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 value of the diving tank and its associated control room and hydraulics lab facility is \$400 K. The hydraulics laboratory equipment is valued at \$500 K.

4. Provide the gross weight and cube of the facility/equipment.

The 60,000 gallon tank measures 30 feet in diameter and is 12 feet in depth. The upper deck measures approximately 65 square feet. The hydraulics lab is approximately 75 square feet. Weight of the facility is unknown.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

Due to the water environment all electrical outlets must be of the GFI type. 220 and 440 volt service is also required. Fresh water outlets, pneumatic outlets and a supply line for seawater are also required. A sewer drain is required for discharging the seawater.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

None.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

The STT is an outdoor facility and does not require any special environmental conditioning. The control room needs an air conditioning system to remove the heat generated by the instrumentation and the computers.

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 could be replicated at a new site. The loss of this facility would restrict the ability of the NFESC to work on several of its programs. Other facilities would have to be rented for testing. This would increase the cost of the projects and might delay the projects, depending on the availability of these rented facilities.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

This facility was constructed on site, about 1974 using standard construction techniques. The facility was upgraded in about 1982.

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 area supported is 10 (General Mission Support).

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

The facility sees monthly operation for tests conducted in the STT. Each usage may be from one day to several weeks in duration. The facility supports weekly testing in the hydraulics laboratory by providing a source for seawater as well as a heat sink for removing heat generated in the water during testing.

12. Provide the projected utilization data out to FY 1997.

Testing is expected to continue at the historical rate for the near future.

13. What is the approximate number of personnel used to operate the facility/equipment?

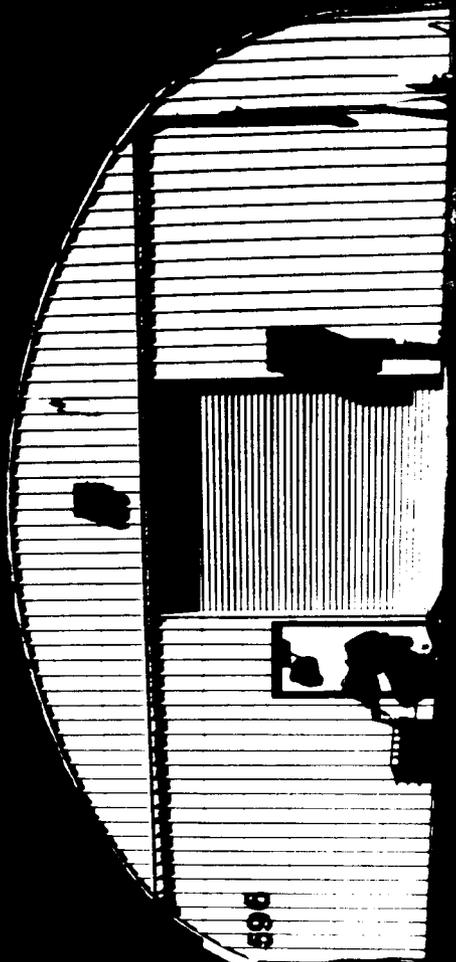
No minimum number of people are required for operating the facility. Depending on the particular test, from 1 to 7 people may be required to safely operate the facility.

14. What is the approximate number of personnel needed to maintain the equipment?

General facility upkeep requires one technician, part time. Pool maintenance is contracted to local firms.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

See attached photograph.



SEAWATER  
TEST FACILITY

**SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM**

Technical Center Site	NFESC
Facility/Equipment Nomenclature or Title	Ballistic Test Facility

1. State the primary purpose(s) of the facility/equipment.

The Ballistic Test Facility (BTF) is used to test materials and hardware against small arms ballistic attack.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

The BTF includes a building and is fixed.

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.

Current replacement value is estimated at \$320,000.

4. Provide the gross weight and cube of the facility/equipment.

The BTF equipment weight is approximately 8000 lbs. Facility volume is approximately 5000 cubic feet.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

None.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

The building is constructed for ballistic protection.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

Usage of the BTF requires collection of lead waste.

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 facility would not be difficult to replace or replicate. Impact to DON would be minor, if this facility would be lost. The ballistic test services could be contracted out.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

The facility was built and equipment installed in the early 1980s.

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 area supported is 10 (General Mission Support).

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

Typical usage is about 3 test series per year. Each test involves about 20 targets and requires about three weeks to set up, test and perform test analysis.

12. Provide the projected utilization data out to FY 1997.

Usage rate in the near future is expected to continue at about three tests per year.

13. What is the approximate number of personnel used to operate the facility/equipment?

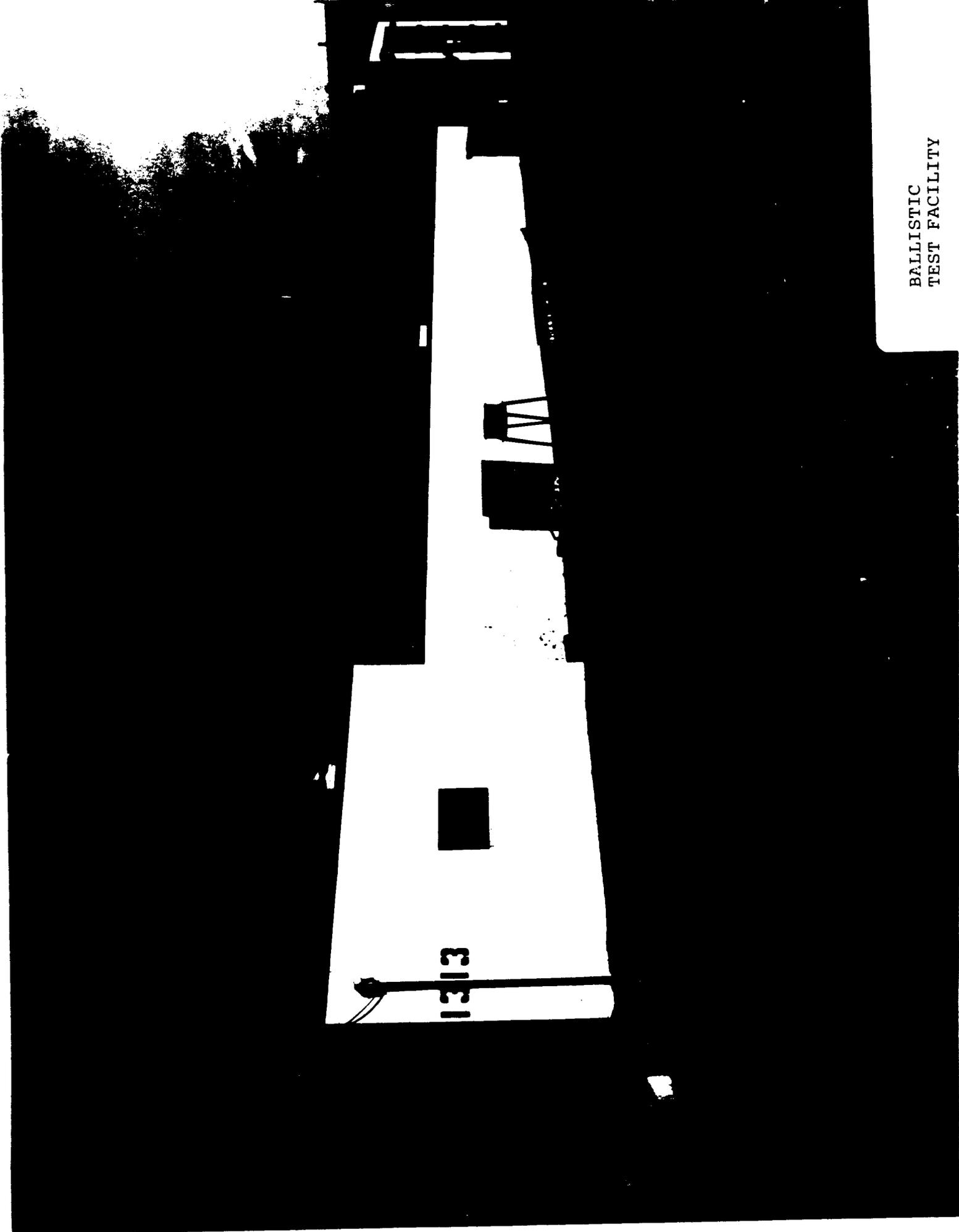
Two people are needed to operate the facility .

14. What is the approximate number of personnel needed to maintain the equipment?

One person, part time, is required to maintain the facility.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

See attached photograph.



BALLISTIC  
TEST FACILITY

**SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM**

Technical Center Site	NFESC
Facility/Equipment Nomenclature or Title	Security Test Bed

1. State the primary purpose(s) of the facility/equipment.

The Security Test Bed (STB) is used to test forced entry, reliability and signature testing of security hardware, equipment and materials.

2. Indicate whether the facility/equipment is portable, moveable or fixed as defined by paragraph 6, page 12 of this data call.

The facility is composed of two fixed structures.

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 equipment value is approximately \$250,000.

4. Provide the gross weight and cube of the facility/equipment.

Equipment weight is approximately 30,000 lbs. and facility volume is approximately 9000 cubic feet.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

Special support required are a thirty Amp electrical power line and 80 psi air.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

None.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

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 facility would not be hard to replicate or replace. The loss to the Government, in the security field would be significant. Unique capabilities of this facility could not be easily or cheaply obtained from other Government agencies or contractors.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

The facility has been built up over the last twelve years. Equipment and structures were added 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.

Area supported is 10 (General Mission Support).

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

The facility is used for approximately 8 tests per year. The tests involve about six specimens and require about 4 weeks to set up, test and do data analysis.

12. Provide the projected utilization data out to FY 1997.

A usage rate of approximately five tests per year is anticipated for the near future.

13. What is the approximate number of personnel used to operate the facility/equipment?

6-10 people are required to operate the facility, depending on the test.

14. What is the approximate number of personnel needed to maintain the equipment?

One person, part time, is required to maintain the facility.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

SECURITY  
TEST BED



131

13

See the attached photograph.

**SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM**

Technical Center Site	NFESC
Facility/Equipment Nomenclature or Title	Steam Laboratory

1. State the primary purpose(s) of the facility/equipment.

The Steam Laboratory is a facility for conducting tests on steam and steam elated equipment. tests include; steam trap performance, and testing of the Inverse Flash Steam Purification 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 is fixed.

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 equipment would require approximately \$250,000 to replace,

4. Provide the gross weight and cube of the facility/equipment.

Boiler weight is approximately 8 tons. Weight and volume of the entire facility is unknown.

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

Other utility support includes water, sewer and natural gas.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.).

Boiler maintenance, water treatment, and boiler equipment repairs.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

An Air permit and an Operational permit is required by the county (Ventura, CA).

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.

It would be impractical to move the Steam Lab., because of the age and cost of the boiler. BRAC 93 has directed the closure of the compound that the Steam Lab is located on, and the relocation of necessary functions to NCBC. The Steam Lab is not scheduled for relocation.

9. Indicate how and when the facility/equipment was transported and or constructed at the site.

The Steam Lab. was constructed on site in the 1940s. Major modifications have been made over the years, including the removal of two boilers, and the adding of a control/data gathering room.

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 area supported is 10 (General Mission Support).

11. Provide the historical utilization average for the past five fiscal years (1989-1993). Define the unit of measure used.

Average usage of the facility has been approximately 3-4 months/year.

12. Provide the projected utilization data out to FY 1997.

Usage is expected to continue at about 3-4 month/year.

13. What is the approximate number of personnel used to operate the facility/equipment?

Five people are required to operate the facility.

14. What is the approximate number of personnel needed to maintain the equipment?

One person, part-time, is required to maintain the facility.

15. Provide one 8 1/2 x 11 black and white photo of the facility/equipment.

See attached photograph.

STEAM  
I.A.B

CAUTION  
HOT SURFACES  
BEHIND DOOR

**TAB C**  
**RANGE RESOURCES**  
**RANGE CAPABILITY FORM**

**RANGE RESOURCES  
RANGE CAPABILITY FORM**

Technical Center Site	NFESC
Range Nomenclature or Title	No Ranges at NFESC

1. List all the ranges that your activity maintains and operates. Provide the following information on each range:

- a. A brief statement of what the range is used for.
- b. Geographic location of the range.
- c. Distance from the range to the activity's headquarters facility (main site).
- d. Range size in square miles.
- e. Scheduling authority.
- f. Air space available/restrictions.
- g. Maximum water depth available/restrictions.
- h. Instrumentation capability.
- i. Accuracy of tracking.
- j. Data collection/replay capability.

k. What are the maximum hours per year that this range is available to support activities? Provide the actual hours that the range was up and capable of providing services. Do not count "down time" due to maintenance, reconfiguration, or administrative activities (i.e. holiday shutdowns).

l. what were the actual hours this range was utilized per year for the last five years (FYs 1989-1993).

m. What were the actual hours that this range was utilized in FY 1993.

n. Who are the customers of the range?

o. Of the actual hours utilized what percentage of utilization time was provided to which customers?

p. Provide a sketch, drawing or map of the range.

2. Are any of your ranges part of the DoD Major Range and Test Facility Base (MRTFB)? (YES/NO) if yes, which ones?

3. Are there any limiting (current or future) environmental and/or encroachment characteristics that are associated with this range.

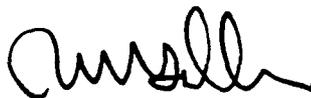
I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

**MAJOR CLAIMANT LEVEL**

**RADM R. M. GALLEN, CEC, USN**  
NAME (Please type or print)

Acting Commander  
Title

Naval Facilities Engineering Command  
Activity

  
\_\_\_\_\_  
Signature  
5-19-94  
\_\_\_\_\_  
Date

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)

Acting  
\_\_\_\_\_  
Title

  
\_\_\_\_\_  
Signature  
20 MAY 1994  
\_\_\_\_\_  
Date

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

J. C. PENELL  
NAME (Please type or print)

  
Signature

COMMANDING OFFICER  
Title

18 MAY 1994  
Date

NFESC PORT HUENEME  
Activity

Revision pgs.

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)

Jack Buffington  
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)

A. EARNER  
NAME (Please type or print)

A. Earner  
Signature

Title

7/22/94  
Date

P.2  
Revision  
pg 8

**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**

JOHN P. COLLINS, CAPT, CEC, USN  
NAME (Please type or print)

  
Signature

Commanding Officer  
Title

7-19-94  
Date

NFESC Port Hueneme, CA  
Activity

178

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

JOHN P. COLLINS  
NAME (Please type or print)

*John P. Collins*  
Signature

COMMANDING OFFICER  
Title

25 AUGUST 1994  
Date

NFESC PORT HUENEME  
Activity

*DATA CALL # 5, REVISION  
NCEL PT HUENEME, CA*

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)

**COMMANDER**  
Title

**NAVAL FACILITIES ENGINEERING COMMAND**  
Activity

  
Signature  
9/2/94  
Date

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)

\_\_\_\_\_  
Title

  
Signature  
9/8/94  
Date