

**CAPACITY ANALYSIS:
DATA CALL #4 WORK SHEET FOR
TECHNICAL CENTER or LABORATORY: NAWCTSD Orlando**

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TAB A: Ship Berthing Capacity
TAB B: Operational Airfield Capacity
TAB C: Depot Level Maintenance Capacity
TAB D: Ordnance Storage Capacity

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

7 April 1994

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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).

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**Table 1.1 Historical and Projected Workload for NAWCTSD
(UIC 61339)**

Fiscal Year	Total Funds Budgeted (\$K) 1)	Total Funds Received w/o Direct Cite (\$K)	Direct Cite Funds Received (\$K)	Budgeted Wkys 2)	Actual In-House Wkys* 3)	Actual Onsite Contract Wkys 4)
86	65,306	133,600	894,000	1318	1388	5
87	69,722	141,900	949,600	1323	1382	11
88	74,310	110,000	736,100	1312	1339	13
89	73,576	114,700	767,800	1311	1316	15
90	73,410	103,700	694,100	1298	1321	10
91	77,256	122,800	822,100	1228	1266	12
92	62,037	149,100	997,900	1185	1235	9
93	62,708	212,600	1,086,900	1093	1131	5
94	50,777			1069		
95	52,266			1050		
96	53,129			1050		
97	52,877			1050		

*Includes NAWCTSD detachments & Marine Corps military

1)O&M,N Funds - reflects actuals FY86-93; President's Budget for FY94-97.

	86	87	88	89	90	91	92	93	94	95	96	97
2)Direct	1002	1063	1059	1062	1047	968	893	760	695	670	670	670
Reimb	316	260	253	249	251	260	292	333	374	380	380	380
3)Direct	1000	1019	1043	1054	1035	959	880	736				
Reimb	326	309	246	216	238	260	304	344				

4)Consulting Services (formerly CAAS)

Table 1.2 Historical and Projected Workload for Detachments of N/A*
(UIC _____)

Fiscal Year	Total Funds Budgeted (\$K)	Total Funds Received w/o Direct Cite (\$K)	Direct Cite Funds Received (\$K)	Budgeted Wkys	Actual In-House Wkys	Actual Onsite Contract Wkys
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						
96						
97						

Note: NAWCTSD detachments included in Table 1.1.

List of NAWC TSD Detachments

UIC	NAME	LOCATION
61339	NAWCTSD ISEO (PDA12I)	NAS Lemoore, CA (UIC: 53042)
61339	NAWCTSD ISEO (PDA13I)	NAS Whidbey Island, WA (UIC: 00620)

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61339	NAWCTSD ISEO (PDA14I)	NAS North Island San Diego, CA (UIC: 00246)
61339	NAWCTSD ISEO (PDA15I)	NAS Kingsville, TX (UIC: 60241)
61339	NAWCTSD ISEO (PDA16I)	NAS Saufley Field Pensacola, FL (UIC: 68322)
61339	NAWCTSD ISEO (PDA16IW)	NAS Whiting Field Milton, FL (UIC: 60508)
61339	NAWCTSD ISEO (PDA19IH)	COMPATWINGS PAC Pearl Harbor, HI (UIC: 09452)
61339	NAWCTSD ISEO (PDA17I)	NAS Memphis* Millington, TN (UIC: 00204)
61339	NAWCTSD ISEO (PDA17IB)	MCAS Beaufort Beaufort, SC (UIC: 60169)
61339	NAWCTSD ISEO (PDA18I)	NAS Norfolk Norfolk, VA (UIC: 00188)
61339	NAWCTSD ISEO (PDA18IO)	NAS Oceana Virginia Beach, VA (UIC: 60191)
61339	NAWCTSD ISEO (PDA19I)	NAS Jacksonville Jacksonville, FL (UIC: 00207)

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61339	NAWCTSD ISEO (PDA19IW)	NAS Willow Grove Willow Grove, PA (UIC: 00158)
61339	NAWCTSD ISEO (PDA20I)	NAS Cecil Field* Jacksonville, FL (UIC: 60200)
61339	NAWCTSD ISEO (PDB10)	FCTCPAC San Diego, CA (UIC: 61665)
61339	NAWCTSD ISEO (PDMB1)	MCAS Camp Pendleton Camp Pendleton, CA (UIC: 67604)
61339	NAWCTSD ISEO (PDMB2)	MCAS El Toro* Santa Ana, CA (UIC: 02200)
61339	NAWCTSD ISEO (PDMB4)	MCAS Cherry Point Cherry Point, NC (UIC: 00146)
61339	NAWCTSD ISEO (PDMB5)	MCAS New River Jacksonville, NC (UIC: 62573)
61339	NAWCTSD ISEO (PDMB6)	NAS Oceana Virginia Beach, VA (UIC: 60191)
61339	NAWCTSD ISEO (PDS8S)	NETPMSA Pensacola, FL (UIC: 68322)
61339	NAWCTSD ISEO (PDS8C)	NTTC CORSTA Pensacola, FL (UIC: 63082)

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61339	NAWCTSD ISEO (PDS8G)	NTC Great Lakes Great Lakes, IL (UIC: 00210)
61339	NAWCTSD ISEO (PDS8N)	NETC Newport, RI (UIC: 62661)
61339	NAWCTSD ISEO (PDS9)	NAVPHIBSCOL Norfolk, VA (UIC: 63021)
61339	NAWCTSD ISEO (PDS9N)	FLEASWTRACENLANT Norfolk, VA (UIC: 63401)
61339	NAWCTSD ISEO (PDS9FN)	Federal Bldg Portsmouth, VA
61339	NAWCTSD ISEO (PDS10)	FCTCLANT Virginia Beach, VA (UIC: 00281)
61339	NAWCTSD ISEO (PDS10C)	FLEMINEWARTRACEN* Charleston, SC (UIC: 62603)
61339	NAWCTSD ISEO (PDS10M)	FLETRACEN Mayport Mayport, FL (UIC: 10151)
61339	NAWCTSD ISEO (PDS10N)	CTSGLANT Norfolk, VA (UIC: 49085)
61339	NAWCTSD ISEO (PDS11)	FLEASWTRACENPAC San Diego, CA (UIC: 00948)

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61339	NAWCTSD ISEO (PDS11H)	ATGMIDPAC Pearl Harbor, HI (UIC: 57063)
61339	NAWCTSD ISEO (PDS12)	FLETRACEN San Diego San Diego, CA (UIC: 61690)
61339	NAWCTSD ISEO (PDU4NL)	NAVSUBSCOL Groton, CT (UIC: 00750)
61339	NAWCTSD ISEO (PDU4)	SUBTRAFAC Norfolk, VA (UIC: 45679)
61339	NAWCTSD ISEO (PDU5HI)	NAVSUBTRACENPAC Pearl Harbor, HI (UIC: 63154)
61339	NAWCTSD ISEO (PDU4C)	SUBTRAFAC Charleston, SC (UIC: 61165)
61339	NAWCTSD ISEO (PDU6)	SUBTRAFAC San Diego, CA (UIC: 39145)
61339	NAWCTSD ISEO (PDU1TB)	TRITRAFAC Silverdale, WA (UIC: 68437)
61339	NAWCTSD ISEO (PDU1KB)	TRITRAFAC Kings Bay, GA (UIC: 68437)
61339	NAWCTSD ISEO (PDU1TN)	TRICCSMA Newport, RI (UIC: 66604)

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61339	NAWCTSD Rep Atlantic (0L)	Federal Bldg Portsmouth, VA
61339	NAWCTSD Rep CNET/ COMNAVRESFOR (0C)	CNET Pensacola, FL (UIC: 00062)
61339	NAWCTSD Rep Pacific (0P)	Fleet & Industrial Supply Ctr San Diego, CA (UIC: 00244)
61339	NAWCTSD Rep Washington (0W)	NAWCHQ Washington, DC (UIC: 68935)

*Four ISEO's will relocate due to BRAC 93:
 -ISEO NAS Charleston (PDS10C) to ATGLANT CSTG Det Mayport
 -ISEO NAS Cecil Field (PDA20I) to NAS North Island
 -ISEO NATTC Memphis (PDA17I) to Pensacola
 -ISEO MCAS Tustin (PDMB2) to New River

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TABLE 1.3 FY 1986 BREAKOUT OF FUNDS BUDGETED for NAWCTSD
(UIC 61339)

SPONSOR	RDT&E(N)							Other RDT& E	Other Appropriation						
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		(\$M) OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR									65.3						

Note: NAWCTSD detachment included in Table 1.1.

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**TABLE 1.3 FY 1987 BREAKOUT OF FUNDS BUDGETED for NAWCTSD
(UIC 61339)**

SPONSOR	RDT&E(N)							Other RDT& E	Other Appropriation						
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		(\$M) OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR									69.7						

Note: NAWCTSD detachments included in Table I.1.

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TABLE 1.3 FY 1988 BREAKOUT OF FUNDS BUDGETED for NAWCTSD
 (UIC 61339)

SPONSOR	RDT&E(N)							Other RDT&E	Other Appropriation						
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		(\$M) OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR									74.3						

Note: NAWCTSD detachments included in Table 1.1.

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TABLE 1.3 FY 1989 BREAKOUT OF FUNDS BUDGETED for NAWCTSD _____
(UIC 61339 _____)

SPONSOR	RDT&E(N)							Other RDT& E	Other Appropriation						
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		(\$M) OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR									73.6						

Note: NAWCTSD detachments included in Table 1.1.

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TABLE 1.3 FY 1990 BREAKOUT OF FUNDS BUDGETED for NAWCTSD
(UIC 61339)

SPONSOR	RDT&E(N)							Other RDT& E	Other Appropriation						
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		(\$M) OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR									73.4						

Note: NAWCTSD detachments included in Table I.1.

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TABLE 1.3 FY 1991 BREAKOUT OF FUNDS BUDGETED for NAWCTSD
(UIC 61339)

SPONSOR	RDT&E(N)							Other RDT& E	Other Appropriation						
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		(\$M) OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR									77.3						

Note: NAWCTSD detachments included in Table 1.1.

TABLE 1.3 FY 1992 BREAKOUT OF FUNDS BUDGETED for NAWCTSD
 (UIC 61339)

SPONSOR	RDT&E(N)							Other RDT&E	Other Appropriation						
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		(\$M) OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR									62.0						

Note: NAWCTSD detachments included in Table 1.1.

TABLE 1.3 FY 1994 BREAKOUT OF FUNDS BUDGETED FOR NAWCTSD
 (UIC 61339)

SPONSOR	RDT&E(N)						Other RDT&E	Other Appropriation						
	6.1	6.2	6.3a	6.3b	6.4	6.5		6.6	(\$M) OMN	APN	OPN	WPN	SCN	Other Navy
NAVAIR								50.8						

Note: NAWCTSD detachments included in Table I.1.

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**TABLE 1.3 FY 1995 BREAKOUT OF FUNDS BUDGETED for NAWCTSD
(UIC 61339)**

SPONSOR	RDT&E(N)							Other RDT& E	Other Appropriation						
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		(\$M) OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR									52.3						

Note: NAWCTSD detachments included in Table 1.1.

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TABLE 1.3 FY 1996 BREAKOUT OF FUNDS BUDGETED for NAWCTSD
 (UIC 61339)

SPONSOR	RDT&E(N)							Other RDT& E	Other Appropriation						
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		(\$M) OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR									53.1						

Note: NAWCTSD detachments included in Table I.1.

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TABLE 1.4 FY 199_ BREAKOUT OF FUNDS BUDGETED for DETACHMENTS of NAWCTSD

(UIC 61339)

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
N/A															

Note: NAWCTSD detachments included in Table 1.2.

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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.

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Table 2.1 Main Site Class 2 Assets of NAWCTSD (UIC 61339)

Building type	NAVFAC (P-80) category code	Gross Floor/Building Area (KSF)			
		Adequate	Sub-standard	In-adequate	Total
Operational & Training	100	2.7			2.7
Maintenance & Production	200				
Science labs	310	13.3			13.3
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				
Propulsion labs	318				
Miscellaneous labs	319				
Underwater Equip. labs	320				
Technical Services labs	321				
Supply Facilities	400				
Hospital & other Medical	500				
Administrative Facilities	600	272.9			272.9
Housing & Community	700	4.4			4.4
Utilities & Grounds	800	4.2			4.2
Other					
Totals		297.5			

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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?

N/A

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**Table 2.2 Main Site Class 2 Space of NAWCTSD (UIC 61339)
Assigned to Tenants**

TENANT		NAVFAC (P-80) Category Code	GF/BA Assigned (KSF)
Name	UIC		
Defense Printing Service Detachment Ofc (DPSDO)	66957	600	0.9
Naval Criminal Investigative Service (NCIS)	42935	600	0.2
Navy Data Automation Facility (NAVDAF)	68578	600	3.6
Navy Exchange Service Ctr Jacksonville (NEXCENJAX)	66409	700	4.0
Personnel Support Activity (PSA)	43064	600	0.3
Scheduled Airlines Traffic Ofc (SATO)	N/A	600	0.3
United States Air Force (USAF)	FB4Z	600	0.3
Small Business Administration (SBA)	N/A	600	0.2
US Army Simulation, Training and Instrumentation Cmd (STRICOM)	W317AA	600	65.8
Defense Finance and Accounting Service (DFAS)	H00115	600	0.60
US Army Research Institute Fld Ofc	W04921	600	1.50
US Army Research Lab Human Research & Engr	W71B7J	600	0.45
US Marine Corps Liaison*	83231	600	0
State of Florida Div of Blind Service	N/A	600	0.13
US Air Force Armstrong Lab Aircrew Trng Research Div Orl	FGXB	600	0.13
		Total:	78.41

*Also serves as Program Mgr Marine Corps

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Table 2.3 Class 2 Space Utilized/Leased by NAWCTSD (UIC 61339)

Building type	NAVFAC (P-80) category code	GF/BA (KSF)			
		Adequate	Sub-standard	In-adequate	Total
Operational & Training	100				
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	38.9			38.9
Hospital & other Medical	500				
Administrative Facilities	600	53.4			53.4
Housing & Community	700				
Utilities & Grounds	800	4.1			4.1
Other					
Totals		96.4			96.4

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Comments (continued from Table 2.3):

1 - Changes imminent. Result of BRAC 93 NTC Orlando is closing FY98. Class 2 space described above located at NTC Orlando. All space lost by FY98 NTCORL UIC N65928.

2 - BRAC FY98 MILCON Project P-002 warehouse and administrative facility planned to replace lost space; 48,000 sq ft estimated. Contract award date Nov 1997, estimated construction start Dec 1997, estimated BOD Sep 1998. This is not an approved MILCON Project and was zeroed out in BRAC 93. Reapplied in FY95 BRAC Budget Submission for DON Budget Review for FY96 and FY97.

3 - NAWCTSD space provided under ISA NTSORL UIC N65928

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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.

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Table 2.4 Class 2 Assets of NAWCTSD Occupied by Detachments

Building type	NAVFAC (P-80) category code	GF/BA (KSF)			
		Adequate	Sub-standard	In-adequate	Total
Operational & Training	100				
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	1.440			1.440*
Housing & Community	700				
Utilities & Grounds	800				
Other					
Totals		1.440			

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*(Continued from Table 2.4) Located at NAWCTSD ISEO Dam Neck (trailer)

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?

N/A

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Table 2.6 Class 2 Space Utilized/Leased by Detachments of NAWCTSD* (UIC 61339)

Building type	NAVFAC (P-80) category code	GF/BA (KSF)			
		Adequate	Sub-standard	In-adequate	Total
Operational & Training	100				
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		88.6			88.6
Totals		88.6			88.6

*Note: NAWCTSD occupied space provided under ISAs - no space is leased. Other refers to In-Service Engr Ofc which is a combination of computer and simulation labs and admin facilities.

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3. Class 2 Space Available for Expansion. An activity's expansion capability is a function of it's ability to reconfigure and/or expand existing facilities to accept new or increased roles. Such a reconfiguration may require rehabilitation or buildout of a space to support the new or expanded role. A space expansion could include converting an underutilized storage space into laboratory spaces, or buildout of a high bay area into a multifloor office/laboratory space. All questions refer to Class 2 property for which you are the plant account holder as of 31 March 1994. Do not report any currently programmed changes or additions previously reported in question #2 above. Expansion opportunities must follow the guidance of NAVFAC P-80 for the appropriate facility category code, as well as applicable fire and safety codes. Personnel loading density should not exceed those specified in the P-80. Space is only available if it is currently unoccupied or the current occupants are officially designated for relocation. Report space as Net Floor Area (NFA) as defined in the P-80. Do not include opportunities that are being reported by your Detachments who received this Data Call directly. Reported expansion opportunities must be able to accommodate the necessary ancillary facilities and equipment, such as adequate parking space, required to support the amount of people projected.

a. What is the maximum quantity of space that could be made available for expansion to accommodate other functions and/or increased efforts? Report in terms of the "Current NFA" as shown in Tables 3.1 & 3.2. 85,000 SQFT.

b. How much of the space reported in question 3.a. above is currently available with minimal or no reconfiguration costs? Report in terms of the "Current NFA" as shown in Tables 3.1 & 3.2. 0 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.

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3a Note: In addition to the table 3.1 and 3.2 entries, consideration could be given to expanding available space by:

1. Renegotiating space assigned by existing host/tenant agreements. (See table 2.2)
2. Reconfiguring existing parking area and constructing a multilevel parking facility. This would create additional buildable acreage. (Current paved area totals 13.7 acres, a small percentage of which is a perimeter road.)

3b Note: 65000 sq ft available for buildout of existing facilities.

3c Note: Direct that the "current NFA (KSF)" column total should match the quantity in #3.a. That would seem to be incorrect guidance as the "current net floor area" cannot equate to "space that could be made available for expansion" where that expansion will result from construction of new square footage. Therefore, the 3a. total matches the sum of "NFA(KSF)" columns on Tables 3.1 and 3.2

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.

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**Table 3.1 Constrained Class 2 Space Available for Expansion at NAWCTSD
(UIC 61339)**

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		
610	273	20	150	28	3,000
Totals	273	20	150	28	3,000

Comments (continued from Table 3.1): Expansions include: Second floor inside high bay area (48,000 sq ft) and third floor addition to annex bldg (15,000 sq ft) Personnel based on 130sq ft per person. Cost base on \$150 per sq ft.

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**Table 3.2 Unconstrained Class 2 Space Available for Expansion at NAWCTSD
(UIC 61339)**

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		
610	273	65	480	N/A	8,125
Totals	273	65	480		8,125

Comments (continued from Table 3.1): Expansions include: Addition to south end of bldg (63,000 sq ft) and Mechanical bldg (2,000 sq ft). Personnel based on 130 sq ft per person.
Cost based on \$125 per sq ft.

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4. Class 1 Space Available for Expansion.

a. Identify in Table 4.1 below the real estate resources which have the potential to facilitate future development, and for which you are the plant account holder as of 31 March 1994, or into which, though a tenant, your activity could reasonably expect to expand. Complete a separate table for each individual site (i.e., main base, outlying airfields, special off-site areas, etc.) and Detachment that did not receive this Data Call directly. The unit of measure is acres. Developed area is defined as land currently with buildings, roads, and utilities where further development is not possible without demolition of existing improvements. Include in "Restricted" acreage that is restricted for future development due to environmental constraints (e.g. wetlands, landfills, archaeological sites), operational restrictions (e.g. ESQD arcs, HERO, HERP, HERF, AICUZ, ranges) or cultural resources restrictions. Identify the reason for the restriction when providing the acreage in the table. Specify any entry in "Other" (e.g. submerged lands).

b. Are there any constraints such as parking, utilities, legal restrictions that limit the potential for using Undeveloped land for expansion?

Local zoning and building codes. Research Park tenant guidelines mandate 35% of all land holdings to remain green space and Research Park Architectural Review Board must approve all exterior construction efforts and building plans.

c. Explain the radio frequency constraints/opportunities within your Class 1 holdings.

Constraints: Local zoning and building codes. NAWCTSD located at Central Florida Research Park and is required to abide by local zoning and bldg codes. Located within 15 miles of Orlando International Airport and 12 miles of Orlando Executive Airport which would restrict EMF emissions.

Note 3a: NAWCTSD detachments are tenants at other activities. Expansion could be obtained by renegotiating current host/tenant agreements.

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**Table 4.1 Class 1 Resources of NAWCTSD (UIC: 61339)
Site Location: Orlando, FL**

Land Use	Total Acres	Developed Acreage	Available for Development	
			Restricted	Unrestricted
Maintenance				
Operational				
Training				
R & D				
Supply & Storage				
Admin	40.5	38.5		2.0
Housing				
Recreational				
Navy Forestry Program				
Navy Agricultural Outlease Program				
Hunting/Fishing Programs				
Other				
Total:	40.5	38.5		2.0

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. Unrestricted areas are immediately adjacent to existing roads and utilities.

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

	On Base Capacity	Off base long term contract	Normal Steady State Load	Peak Demand
Electrical Supply (KWH)	0	unlimited	550,000	775,000
Natural Gas (CFH)	0	0	0	0
Sewage (GPD)	0	60,000	21,000	30,000
Potable Water (GPD)	0	2,500,000	21,000	30,000
Steam (PSI & lbm/Hr)	0	0	0	0
Long Term Parking	10 spaces	0	6 spaces	10 spaces
Short Term Parking	1050 spaces	0	1000 spaces	1040 spaces

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

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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 NAWCTSD (UIC: 61339)**

Fiscal Year	MRP (\$M)	CPV (\$M)	ACE (\$M)
1985	.025	**	
1986	.052	**	
1987	.585	**	
1988	.310	23.5M	
1989	.254	24.8M	
1990	.766	26.2M	
1991	.812	26.8M	
1992	.655	27.2M	
1993	.590*	28.1M	
1994	.672*	29.2	1.48
1995	.707*	30.6	.577
1996	.728*	32.2	.579
1997	.749*	33.7	.882

*Authority resides with NAVAIRSYSCOM. In year of execution EOB funding increased by MRP funding control.

**NAWC TSD became a Class 2 Real Property holder in 1988. Prior to that the activity was a tenant at NTCORL

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c. Training Facilities:

(1) By facility Category Code Number (CCN), provide the usage requirements for each course of instruction required for all formal schools on your installation. A formal school is a programmed course of instruction for military and/or civilian personnel that has been formally approved by an authorized authority (ie: Service Schools Command, Weapons Training Battalion, Human Resources Office). Do not include requirements for maintaining unit readiness, GMT, sexual harassment, etc. Include all applicable 171-xx, 179-xx CCN's.

Type of Training Facility/CCN	School	Type of Training	FY 1993 Requirements			FY 2001 Requirements		
			A	B	C	A	B	C
*N/A								

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

*No formal schools established at NAWCTSD

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 UIC 61339

(2) By Category Code Number (CCN), complete the following table for all training facilities aboard the installation. Include all 171-xx and 179-xx CCN's.

For example: in the category 171-10, a type of training facility is academic instruction classroom. If you have 10 classrooms with a capacity of 25 students per room, the design capacity would be 250. If these classrooms are available 8 hours a day for 300 days a year, the capacity in student hours per year would be 600,000.

Type Training Facility/CCN	Total Number	Design Capacity (PN) ¹	Capacity (Student HRS/YR)
N/A			

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

¹ Design Capacity (PN) is the total number of seats available for students in spaces used for academic instruction; applied instruction; and seats or positions for operational trainer spaces and training facilities other than buildings, i.e., ranges. Design Capacity (PN) must reflect current use of the facilities.

6. Ship Berthing Capacity. If your activity has the capacity to berth ships fill out the data sheets provided at TAB A. N/A

7. Operational Airfield Capacity. If your activity owns and operates an operational airfield fill out the data sheets provided at TAB B. N/A

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. N/A

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. N/A

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BRAC 95
DATA CALL 4

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

NEXT ECHELON LEVEL (if applicable)

G. H. Strohsahl, RADM, USN
NAME (Please type or print)


Signature

Commander
Title

5/13/94
Date

Naval Air Warfare Center
Activity

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

NEXT ECHELON LEVEL (if applicable)

NAME (Please type or print)

Signature

Title

Date

Activity

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

MAJOR CLAIMANT LEVEL

W. C. Bowes, VADM, USN
NAME (please type or print)


Signature

Commander
Title

13 May 94
Date

Naval Air Systems Command
Activity

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

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

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


Signature

Acting
Title

19 May 1994
Date

CAPACITY ANALYSIS

BRAC-95 CERTIFICATION

Reference: SECNAV NOTE 11000 dtd 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."

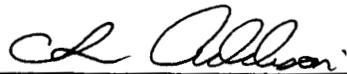
The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

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.

ACTIVITY COMMANDER

C. L. ADDISON
NAME (Please type of print)
Commanding Officer
Title
NAWCTSD Orlando
Activity


Signature
5 MAY 1994
Date

Document Separator

DATA CALL 1: GENERAL INSTALLATION INFORMATION

1. **ACTIVITY:** Follow example as provided in the table below (*delete the examples when providing your input*). If any of the questions have multiple responses, please provide all. If any of the information requested is subject to change between now and the end of Fiscal Year (FY) 1995 due to known redesignations, realignments/closures or other action, provide current and projected data and so annotate.

• Name

Official name	<i>Naval Air Warfare Center Training Systems Division, Orlando, FL</i>
Acronym(s) used in correspondence	<i>NAVAIRWARCENTRASYS DIV</i>
Commonly accepted short title(s)	<i>NAWCTSD</i>

• Complete Mailing Address

Commanding Officer
Naval Air Warfare Center Training Systems Division
12350 Research Parkway
Orlando, FL 32826-3224

• PLAD: **NAVAIRWARCENTRASYS DIV ORLANDO FL**

• **PRIMARY UIC: 61339** (Plant Account UIC for Plant Account Holders)
 Enter this number as the Activity identifier at the top of each Data Call response

page.

• **ALL OTHER UIC(s): 43406** **PURPOSE: Training Support, San Diego, CA**
 83231 **USMC Liaison**
 43399 **Training Support, Norfolk, VA**
 45683 **NAVAIR Program Mgmt. Liaison**
 45973 **Dayton Ohio**

2. **PLANT ACCOUNT HOLDER:**

• Yes No (check one)

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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 X No (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.

NA • 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:

• **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.

NA • Yes No X (check one)

4. **SPECIAL AREAS:** List all Special Areas. Special Areas are defined as Class 1/Class 2 property for which your command has responsibility that is not located on or contiguous to main complex.

Name	Location	UIC
NA		

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

In-Service Engineering Office (ISEO)

On-Site Representative (OSR)

Each site listed consists of a minimum of one to a maximum of seven people.

Name	UIC	Location	Host name	Host UIC
NAWCTSD Rep Atlantic	61339	Portsmouth, VA	Federal Building	NA
NAWCTSD Rep CNET/COMNAVRES- FOR	61339	Pensacola, FL	CNET	00062
NAWCTSD Rep Pacific	61339	San Diego, CA	Fleet & Industrial Supply Center	00244
NAWCTSD Rep Washington, DC	61339	Arlington, VA	NAWCHQ	68935
* NAWCTSD HRO	61339	Orlando, FL	NTCORL	65928
* NAWCTSD Herndon Annex	61339	Orlando, FL	NTCORL	65928
* NAWCTSD Area C	61339	Orlando, FL	NTCORL	65928
NAWCTSD ISEO (PDA10T)	61339	Lemoore, CA	NAS Lemoore	63042
NAWCTSD ISEO (PDA11T)	61339	Oak Harbor, WA	NAS Whidbey Island	00620
NAWCTSD ISEO (PDA12T)	61339	San Diego, CA	NAS North Island	00246
NAWCTSD ISEO (PDA13T)	61339	Kingsville, TX	NAS Kingsville	60241
NAWCTSD ISEO (PDA14T)	61339	Pensacola, FL	NAS Saufley Field	68322
NAWCTSD ISEO (PDA15T)	61339	Milton, FL	NAS Whiting Field	60508

* NAWCTSD ISEO (PDA16T)	61339	Millington, TN	NAS Memphis	00204
NAWCTSD ISEO (PDA16TB)	61339	Beaufort, SC	MCAS Beaufort	60169
NAWCTSD ISEO (PDA17T)	61339	Norfolk, VA	NAS Norfolk	00188
NAWCTSD ISEO (PDA17T)	61339	Virginia Beach, VA	NAS Oceana	60191
NAWCTSD ISEO (PDA19T)	61339	Jacksonville, FL	NAS Jacksonville	00207
NAWCTSD ISEO (PDA19TW)	61339	Willow Grove, PA	NAS Willow Grove	00158
* NAWCTSD ISEO (PDA20T)	61339	Jacksonville, FL	NAS Cecil Field	60200
NAWCTSD ISEO (PDB10)	61339	San Diego, CA	FCTCPAC	61665
NAWCTSD ISEO (PDMB1)	61339	Camp Pendleton, CA	MCAS Camp Pendleton	67604
* NAWCTSD ISEO (PDMB2)	61339	Santa Ana, CA	MCAS El Toro	02200
NAWCTSD ISEO (PDMB3)	61339	Yuma, AZ	MCAS Yuma	62974
NAWCTSD ISEO (PDMB4)	61339	Cherry Point, NC	MCAS Cherry Point	00146
NAWCTSD ISEO (PDMB5)	61339	Jacksonville, NC	MCAS New River	62573
NAWCTSD ISEO (PDMB6)	61339	Virginia Beach, VA	NAS Oceana	60191
NAWCTSD ISEO (PDS8S)	61339	Pensacola, FL	NETPMSA	68322
NAWCTSD ISEO (PDS8C)	61339	Pensacola, FL	NITC CORSTA	63082
NAWCTSD ISEO (PDS8G)	61339	Great Lakes, IL	NTC Great Lakes	00210

NAWCTSD ISEO (PDS8N)	61339	Newport, RI	NETC	62661
NAWCTSD ISEO (PDS9)	61339	Norfolk, VA	NAVPHIBSCOL	63021
NAWCTSD ISEO (PDS9N)	61339	Norfolk, VA	FLEASWTRA- CENLANT	63401
NAWCTSD ISEO (PDS9FN)	61339	Portsmouth, VA	Federal Building	NA
NAWCTSD ISEO (PDS10)	61339	Virginia Beach, VA	FCTCLANT	00281
* NAWCTSD ISEO (PDS10C)	61339	Charleston, SC	FLEMINEWAR- TRACEN	62603
NAWCTSD ISEO (PDS10M)	61339	Mayport, FL	FLETRACEN Mayport	10151
NAWCTSD ISEO (PDS10N)	61339	Norfolk, VA	CTSGLANT	49085
NAWCTSD ISEO (PDS11)	61339	San Diego, CA	FLEASWTRA- CENPAC	00948
NAWCTSD ISEO (PDS12)	61339	San Diego, CA	FLETRACEN San Diego	61690
NAWCTSD ISEO (PDU4NL)	61339	Groton, CT	NAVSUBSCOL	00750
NAWCTSD ISEO (PDU4)	61339	Norfolk, VA	SUBTRAFAC	45679
NAWCTSD ISEO (PDU5HI)	61339	Pearl Harbor, HI	COMPATWINGS- PAC AFLOATTRA- GRPMIDPAC NAVSUBTRA- CENPAC	09452 57063 63154
NAWCTSD ISEO (PDU4C)	61339	Charleston, SC	SUBTRAFAC	61165
NAWCTSD ISEO (PDU6)	61339	San Diego, CA	SUBTRAFAC	31954

NAWCTSD OSR (PDU1TB)	61339	Silverdale, WA	TRITRAFAC	68437
NAWCTSD OSR (PDU1KB)	61339	Kings Bay, GA	TRITRAFAC	68437
NAWCTSD ISEO (PDU1TN)	61339	Newport, RI	TRICCSMA	66604

* BRAC-91 and -93, See Question #6

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-91:

One NAWCTSD In-Service Engineering Office (ISEO) relocated. The ISEO operates as a tenant strategically located to support fleet training requirements.

- ISEO Moffett Field relocated to San Diego and NAS Jacksonville.

BRAC-93:

Closure of Naval Training Center, Orlando, impacts NAWCTSD in several ways:

- Operational support, provided via Intraservice Support Agreement, will need to be obtained from other sources

- Loss of available/affordable quality of life services (MWR, housing, hospital, Exchange, transportation, etc.)

- Loss of space: *

- McCoy Annex - 10,000 sq ft (warehouse/storage)

- Area C - 29,000 sq ft (warehouse/storage)

- Herndon Annex - 52,000 sq ft (research/lab area, publication archives, bid evaluation rooms, warehouse)

* MILCON DD 1391, dated 25 Jun 93 - Project # P-0002
Requirement: 48,000 sq ft

Four ISEO's will relocate:

- ISEO NAS Charleston (PDS10C) to ATGLANT CSTG Det Mayport
- ISEO NAS Cecil Field (PDA20T) to NAS North Island
- ISEO NATTC Memphis (PDA16T) to Pensacola
- ISEO MCAS Tustin (PDMB2) to New River

Trainer Relocations:

NAWCTSD (inventory manager for all Cognizance Symbol 2"0" training devices) serves as the prime point of contact for training device moves resulting from base closures and realignments. BRAC-93 implementation is undergoing revisions constantly in terms of training device retirement vice relocation. Currently 75 training activities and 1085 devices are impacted. Total inventory value of devices is \$1,403,076,238.00.

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

- Full life cycle support of training systems - research, development, test & evaluation, acquisition, and product support - for all Naval warfare areas (Aviation, Surface, Undersea, Land and Battleforce/C4I/SEW)
- Interservice coordination and training systems support for Marine Corps, Army, Air Force, and Coast Guard; partnering in simulation and training initiatives with industry and academia
- Front end analysis (Instructional Systems Design) of training system requirements
- Research in technologies and improved methods for simulation and training, e.g., distributive interactive simulation and team training
- Standards development for training systems - common joint acceptance and documentation
- Technology Reinvestment Program participation - implementation of White House initiative to commercialize Defense simulation and training technology (i.e., through Cooperative Research and Development Agreements (CRADA's))
- Coordination and training systems support for international customers

Projected Missions for FY 2001

The current missions will continue. However, projected missions will be enhanced/expanded as a result of the continued application of new technologies and improved methods to support (1) joint service training requirements, and (2) technology transfer to non-DOD Activities. Examples of applicable technologies include the following:

- **Distributive Interactive Simulation:** evolving technology to support mission rehearsal, test and evaluation, weapons acquisition and joint training using interacting real and simulated warfighting entities
- **Embedded Simulations:** use of simulated real world conditions to stimulate tactical systems and equipment for on-board/in-the-field training and mission rehearsal/analysis
- **Voice Recognition:** capability of a computer to recognize human voice commands/inputs independent of the speaker in high ambient noise conditions such as on-board an aircraft carrier
- **Virtual Environment Technology:** emerging technology that allows a natural man machine interface that immerses the user in a total/comprehensive synthetic environment
- **On-Board/In-the-Field Training:** deployment of training systems to operational units geographically removed from the traditional training infrastructure
- **Electronic Classroom/Distance Learning:** infusion of electronic technology into the classroom and laboratory (including transmission/distribution of training to remote sites); examples include interactive courseware, multi media, artificial intelligence, instructor training aids and computer games.
- **Simulation and Training Technology Transfer:** expansion of the commercialization of taxpayer funded Defense simulation and training technologies
- **Smart Weapons Simulation:** representation of intelligent weapons in real time through the use of simulation
- **Scientific Visualization:** use of computer graphics and animation to display and explain complex physical phenomena such as propagation of sound in the ocean

8. **UNIQUE MISSIONS:** Describe any missions which are unique or relatively unique to the activity. Include information on projected changes. Indicate if your command has any National Command Authority or classified mission responsibilities.

Current Unique Missions

The NAWCTSD is unique in providing fully integrated life-cycle support (i.e., research, front end analysis, acquisition, as well as product support) for training systems using state-of-the-art simulation and training technologies, for all Naval warfare areas and other services. The NAWCTSD is unique in being:

- a Leader in joint initiatives for simulation and training - for Navy, Marine Corps, Army, Air Force, Coast Guard, and DoD (Defense Modeling and Simulation Office [DMSO])
- customer based for all Naval warfare areas - Aviation, Surface, Undersea, Land, Battleforce/C4I/SEW
- world recognized for capability/expertise in all major simulation and training disciplines - research and technology, front end analysis, human systems integration, acquisition management, program/project management, engineering, product support
- the only Navy organization with full spectrum mission for life cycle support of training systems - research, front end analysis, development, test and evaluation, acquisition, product support, technology transfer
- the "cornerstone" organization of the Center of Excellence for Simulation and Training Technology as endorsed by the State of Florida - membership includes NAWCTSD; U.S. Army, Simulation, Training and Instrumentation Command (STRICOM); University of Central Florida/Institute for Simulation and Training; and an industrial base with over 75 firms located in the Central Florida area

Projected Unique Missions for FY 2001

The NAWCTSD is positioned, through fifty years' experience and by current expertise, to design and develop integrated life-cycle supported training systems, for individual service and joint use, that apply emerging simulation and modeling technologies, such as:

- **Distributive Interactive Simulation**
- **Embedded Simulations**
- **Voice Recognition**
- **Virtual Environment Technology**
- **Electronic Classroom/Distance Learning**

- **Simulation and Training Technology Transfer**

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
NAWCHQ	68935
• Funding Source	UIC
NAVAIR (Mission Operating Budget)	00019
Reimbursable Customers	Various

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.)

	<u>On Board Count as of 01 January 1994</u>		
	Officers	Enlisted	Civilian
(Appropriated)			
• Reporting Command	29	16	1055 (FTE)
• Tenants (total)	57	15	390
• Marine Corps	5*	1	0

	<u>Authorized Positions as of 30 September 1994</u>		
	Officers	Enlisted	Civilian
(Appropriated)			
• Reporting Command	27	18	1069
• Tenants (total)	64	16	549
• Marine Corps	5*	1	0

* Includes 1 Marine Corps Officer also listed as a Tenant (U.S. Marine Corps Liaison, See Item #12)

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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>
● Commanding Officer CAPT C. L. Addison	(407)380-8238	(407)381-8744	(407)671-8019
● Executive Director Mr. M. Akin	(407)380-8240	(407)381-8744	(407)359-8615
● Head, BRAC Team Mr. W. Wheatley	(407)380-8090	(407)381-8744	(407)359-0456
● BRAC Coordinator Ms. M. Bays	(407)380-4597	(407)381-8744	(407)273-1175

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)

NOTE: Number of personnel listed below may overlap with number of personnel listed under Item #10.

Tenant Command Name	UIC	Officer	Enlisted	Civilian
U.S. Air Force Liaison	FB4Z	1	0	0
U.S. Air Force Armstrong Laboratory Aircrew Training Research Division Orlando Operating Location	FGXB	0	0	1
Defense Finance and Accounting Service DAO-CL Division IXX	H00115	0	0	4

U.S. Army Research Institute Field Office	W04921	0	0	10
U.S. Army Simulation, Training and Instrumentation Command (STRICOM)	W317AA	47	5	483
U.S. Army Research Laboratory, Human Research & Engineering Director Field Office	W71B7J	0	0	3
Naval Criminal Investigative Service	42935	0	0	2
Personnel Support Activity	43064	0	1	2
Defense Printing Service Detachment Office	66957	0	0	3
Navy Data Automation Command	68578	1	0	40**
* Navy Reserve Unit 0167 Atlanta, GA	83079	6	4	0
* Navy Reserve Unit 0474 Jacksonville, FL	83140	8	6	0
U.S. Marine Corps Liaison	83231	1	0	0
U.S. Small Business Administration	NA	0	0	1
Scheduled Airline Ticket Office	NA	NA	NA	NA
Navy Exchange Service Center (Non-Appropriated)	NA	NA	NA	NA
State of Florida, Division of Blind Services	NA	NA	NA	NA

* Weekend Drills

** Current on-Board = 24. Space available for projected increase to be determined.

- Tenants residing on main complex (homeported units.)

Tenant Command Name	UIC	Officer	Enlisted	Civilian
NA				

- 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
NA					

- Tenants (Other than those identified previously)

Tenant Command Name	UIC	Location	Officer	Enlisted	Civilian
NA					

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.)
<i>Naval Ordnance Test Unit</i>	<i>Cape Canaveral, FL</i>	<i>Full Personnel Services - ISSA</i>
<i>Navy Data Automation Facility</i>	<i>Orlando, FL</i>	<i>Full Personnel Services - ISSA</i>
<i>* Naval Training Center</i>	<i>Orlando, FL</i>	<i>Full Personnel Services - ISSA</i>
<i>* Naval Hospital</i>	<i>Orlando, FL</i>	<i>Full Personnel Services - ISSA</i>
<i>* Naval Dental Clinic</i>	<i>Orlando, FL</i>	<i>Full Personnel Services - ISSA</i>
<i>* Navy Legal Services Office Jacksonville Detachment</i>	<i>Orlando, FL</i>	<i>Full Personnel Services - ISSA</i>
<i>* Service School Command NTC</i>	<i>Orlando, FL</i>	<i>Full Personnel Services - ISSA</i>
<i>* Recruit Training Command NTC</i>	<i>Orlando, FL</i>	<i>Full Personnel Services - ISSA</i>

** Defense Printing Service Detachment Branch Office (includes Branches at Cape Canaveral, Patrick AFB, and NAS Key West	<i>Orlando, FL</i>	<i>Full Personnel Services - ISSA</i>
* Personnel Support Detachment NTC	<i>Orlando, FL</i>	<i>Full Personnel Services - ISSA</i>
* Personnel Support Detachment RTC	<i>Orlando, FL</i>	<i>Full Personnel Services - ISSA</i>
* Naval Education & Training Program Management Support Activity	<i>Orlando, FL</i>	<i>Full Personnel Services - ISSA</i>
** Navy Resale Systems Support Office Field Support Office Jacksonville (Orlando NTC Exchange)	<i>Orlando, FL</i>	<i>EEO/Out Placement Services - ISSA</i>
* Morale Welfare & Recreation (NAF) NTC	<i>Orlando, FL</i>	<i>EEO/Out Placement Services - ISSA</i>
** Defense Reutilization & Marketing Office NTC	<i>Orlando, FL</i>	<i>Courtesy Personnel Services - ISSA</i>
** Naval Security Group	<i>Orlando, FL</i>	<i>Courtesy Personnel Services - ISSA</i>
** Resident Officer in Charge of Construction NTC	<i>Orlando, FL</i>	<i>Courtesy Personnel Services - ISSA</i>
** Defense Commissary Agency Southern Division (NTC Store)	<i>Orlando, FL</i>	<i>Courtesy Personnel Services - ISSA</i>
Loral Defense Systems	<i>Orlando, FL</i>	<i>Provide development, integration, and evaluation of a potential simulator trainer with commercial applications - Cooperative Research and Development Agreement (CRADA)</i>

<i>Motorola</i>	<i>Orlando, FL</i>	<i>Apply research methods and mechanisms to promote the development of products that support the interface of training systems using DIS Network - CRADA</i>
<i>Encore Computer Corporation</i>	<i>Orlando, FL</i>	<i>Cooperate in the application of research methods to demonstrate and evaluate transportability of existing simulation software in support of DIS Network - CRADA</i>
<i>Digital Equipment Corporation</i>	<i>Orlando, FL</i>	<i>Cooperate in demonstrating and evaluating the portability of simulation software in support of DIS Network - CRADA</i>
<i>Technology Reinvestment Program (TRP)</i>	<i>Orlando, FL</i>	<i>Public/private partnership to provide access to effective training and simulation technologies in order to support creation and enhancement of quality public and private sector jobs - Letter of Understanding (LOU)</i>
<i>Enterprise Florida</i>	<i>Orlando, FL</i>	<i>Public/private partnership which provides leadership and investment opportunities to hasten growth of technology based jobs in the State of Florida - LOU</i>
<i>Orlando Regional Medical Center</i>	<i>Orlando, FL</i>	<i>Partnership in the technology transfer program - LOU</i>
<i>Science Applications International Corporation</i>	<i>Orlando, FL</i>	<i>Sharing of personnel and laboratory space to jointly develop ADA reusable assessment tool - LOU</i>
<i>Patrick Air Force Base</i>	<i>Cocoa Beach, FL</i>	<i>Provide sensitive compartmented information support - MOU</i>
<i>National Aeronautics and Space Administration</i>	<i>Cape Canaveral, FL</i>	<i>Partnership in the technology transfer program by sharing technical knowledge in order to optimize the investment of tax dollars in Research & Development Programs - MOU</i>

<i>University of Central Florida/Institute for Simulation and Training</i>	<i>Orlando, FL</i>	<i>Cooperate in applying research methods/mechanizations to promote development of automated software development environment technologies - MOU</i>
<i>Defense Contract Management Area Office</i>	<i>Orlando, FL</i>	<i>Provides cross training in the pre-award/post-award procurement functional areas - MOU</i>
<i>Defense Plant Representative Office, Martin Marietta</i>	<i>Orlando, FL</i>	<i>Provides cross training in the pre-award/post-award procurement functional areas - MOU</i>
<i>Blankner Elementary School</i>	<i>Orlando, Fl</i>	<i>Partnership in Education - Sponsor school projects, provide speakers, assist teachers - Partnership Agreement</i>
<i>Edgewater High School</i>	<i>Orlando, Fl</i>	<i>Partnership in Education - Sponsor school projects, provide speakers, assist teachers - Partnership Agreement</i>
<i>Eastbrook Elementary School</i>	<i>Winter Park, FL</i>	<i>Partnership in Education - Sponsor school projects, provide speakers, assist teachers - Partnership Agreement</i>
<i>Maitland Middle School</i>	<i>Maitland, Fl</i>	<i>Partnership in Education - Sponsor school projects, provide speakers, Co-Chair Education Technology Committee - Partnership Agreement</i>
<i>Winter Park High School</i>	<i>Winter Park, FL</i>	<i>Partnership in Education - Sponsor school projects, provide speakers, assist teachers, and provide hardware/software consulting - Partnership Agreement</i>
<i>Seminole County Public Schools</i>	<i>Sanford, FL</i>	<i>Provide support for electronics training, provide "shell" software, provide technology training for teachers - Partnership Agreement</i>

<i>Lake Howell High School</i>	<i>Winter Park, FL</i>	<i>Provide support for electronics training, provide "shell" software, provide technology training for teachers - Partnership Agreement</i>
<i>University High School</i>	<i>Orlando, Fl</i>	<i>Provide speakers, sponsor school projects</i>

- * Included in NTC Closure
- ** Status Unknown After NTC Closure

14. FACILITY MAPS: This is a primary responsibility of the plant account holders/host commands. Tenant activities are not required to comply with submission if it is known that your host activity has complied with the request. Maps and photos should not be dated earlier than 01 January 1991, unless annotated that no changes have taken place. Any recent changes should be annotated on the appropriate map or photo. Date and label all copies.

- Local Area Map. This map should encompass, at a minimum, a 50 mile radius of your activity. Indicate the name and location of all DoD activities within this area, whether or not you support that activity. Map should also provide the geographical relationship to the major civilian communities within this radius. (Provide 12 copies.)

- Installation Map / Activity Map / Base Map / General Development Map / Site Map. Provide the most current map of your activity, clearly showing all the land under ownership/control of your activity, whether owned or leased. Include all outlying areas, special areas, and housing. Indicate date of last update. Map should show all structures (numbered with a legend, if available) and all significant restrictive use areas/zones that encumber further development such as HERO, HERP, HERF, ESQD arcs, agricultural/forestry programs, environmental restrictions (e.g., endangered species). (Provide in two sizes: 36"x 42" (2 copies, if available); and 11"x 17" (12 copies).)

- Aerial photo(s). Aerial shots should show all base use areas (both land and water) as well as any local encroachment sites/issues. You should ensure that these photos provide a good look at the areas identified on your Base Map as areas of concern/interest - remember, a picture tells a thousand words. Again, date and label all copies. (Provide 12 copies of each, 8½"x 11".)

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

BRAC-95 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

C. L. ADDISON
NAME (Please type or print)

C. L. Addison
Signature

COMMANDING OFFICER
Title

2/2/94
Date

NAVAL AIR WARFARE CENTER
TRAINING SYSTEMS DIVISION
Activity

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

NEXT ECHELON LEVEL (if applicable)

G. H. STROHSAHL
NAME (Please type or print)
Rear Admiral, U.S. Navy
Title
Commander, Naval Air Warfare Center
Activity

[Signature]
Signature
2/10/94
Date

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

NEXT ECHELON LEVEL (if applicable)

NAME (Please type or print)

Title

Activity

Signature

Date

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

MAJOR CLAIMANT LEVEL

W. C. BOWES
NAME (Please type or print)
Vice Admiral, U.S. Navy
Title
Commander, Naval Air Systems Command
Activity

[Signature]
Signature
10 Feb 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]
Signature

Date

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Document Separator

NAWCTSD

166 COMPLETE
REVISION
8-25-94

"LAB" JOINT CROSS-SERVICE GROUP GUIDANCE PACKAGE

Section I: Takings

- 1.1 Guidelines
- 1.2 Standards
- 1.3 Assumptions
- 1.4 Measures of Merit
- 1.5 Activities
- 1.6 Common Support Functions

PLUS REVISIONS
DATED:

9-14-94
9-16-94

Section II: Capacity of DOD Components

- 2.1 Workload
- 2.2 Excess Capacity

Section III: Capability of Activities to Perform Common Support Functions

- 3.0 Mission
- 3.1 Location
- 3.2 Personnel
- 3.3 Workload
- 3.4 Facilities & Equipment
- 3.5 Expansion Potential

Section IV: Appendices

- A. Macro Process/Schedule
- B. List of Activities
- C. Common Support Functions

SECTION I: TASKING

In accordance with the Deputy Secretary of Defense memorandum dated 7 Jan 94, the Laboratory Joint Cross-Service Group (LJCSG) with DOD components should, where operationally and cost effective, strive to: retain in only one Service militarily unique capabilities used by two or more Services; consolidate workload across the Service to reduce capacity; and assign operational units from more than one Service to a single base. Specifically, the purpose of the LJCSG is:

- Determine common support functions and bases to be addressed by LJCSG
- Establish guidelines, standards, assumptions, measures of merit, data elements and milestone schedules for DOD Component conduct of cross-service analysis of common support functions
- Review excess capacity analysis
- Develop closure or realignment alternatives
- Analyze cross-service trade-offs

The following information identifies to the Services common support functions and data element requirements necessary to support the cross-service analysis of these common support functions.

1.1 Guidelines

Because the DOD components are organized differently, "Lab" activities are considered to be those involved in the following life cycle efforts: Science and technology, and/or engineering development, and/or in-service engineering.

Service missions and force structure will be as stipulated in the FY1995-2000 Defense Planning Guidance and Interim Force Structure Plan.

The Military Departments will use the projected funding in the FY95 President's Budget Submission (Future Years Defense Plan -- FYDP) and an estimate of funds that will be received from outside the military department for execution.

If "lab" excess capacity exists, the Military Departments will start to reduce it where operationally and cost effective through a combination of downsizing in place within the departments, internal service consolidation, and cross service alternatives.

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The Military Departments will gather, exchange, and analyze data collected per this guidance call for Common Support Functions (Appendix C) at "lab" activities (Appendix B) in accordance with the milestones and schedule dates identified in Appendix A.

Cross-service alternatives will result in an aggregate reduction in the overall "lab" infrastructure across the Military Departments -- personnel/funding/facilities and equipment.

Common cross-service Measures of Merit will be consistently applied for all cross-service alternatives.

Integration of weapon systems/components into operational forces will remain with the individual Military Departments responsible for those forces.

1.2 Standards

Evaluation of cross-service alternatives will be consistent with PL 101-510 (as amended) and the eight BRAC criteria. Only certified data will be used.

The COBRA cost model will be used to calculate estimated costs, estimated savings, and Return on Investment (ROI) of alternatives leading to proposed closures and realignments. Common inputs will be used for Military COBRA runs incorporating cross-service alternatives.

Military value analysis will be conducted by the Military Departments IAW Title 10, USC responsibilities.

1.3 Assumptions

"Lab" Common Support Functions and activities identified herein represent the major opportunities for developing cross-service alternatives. The Military Departments are not precluded from proposing other cross-service alternatives to reduce excess capacity as they assess the full complement of "lab" functions.

Previous BRAC decisions will be factored into cross-service alternatives.

"Lab" capacity will be based on budgeted workyears. A workyear is considered to be 2080 hours adjusted for time not on the job (e.g. sick leave, annual leave, etc.)

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1.4 Measures of Merit

The following Measures of Merit represent the outcome from the DOD component final realignment and closure recommendations that are supported by the capabilities data which will be gathered by activity and common support function in Section III of this guidance.

- Reduction of "lab" infrastructure
- Return on investment (COBRA)
- Military value (BRAC criteria 1-4) -- the composite assessment of the quality of the remaining "lab" infrastructure

1.5 Activities

The Military Departments will collect capacity data for each "lab" activity identified in Appendix B. The "lab" activities were selected by considering all individual aggregates of personnel and facilities located at one base, under the same commander, performing predominantly science and technology (S&T), engineering development, and/or in-service engineering work. Small subelements of these "lab" activities were included with the activity. Larger subelements were broken out and defined as separate activities. The list of activities was then narrowed down to the list in Appendix B based on a joint Military Department assessment of common support functions with cross-service potential.

1.6 Common Support Functions

The common support functions (CSFs) were selected as shown in Appendix C based on a joint Military Department assessment of commonality and cross-servicing potential. Common support functions which were already consolidated and being cross serviced were not included.

Common Support Functions are divided into two categories: product and pervasive. Product functions include all S&T, engineering development, and in-service engineering efforts associated with a product from all funding sources. Pervasive functions only include those efforts that are S&T funded, i.e. Technology Base (6.1)/Exploratory Development (6.2)/Advanced Development (6.3).

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SECTION II: CAPACITY OF DOD COMPONENTS

2.1 **Workload.** Use the following table to describe historic and projected workload at each activity in terms of funding and workyears. Assume previous BRAC closures and realignments are implemented on schedule. Projected funding will be derived from FY95 President's Budget Submission (Then year dollars). Past fiscal year data shall begin with FY86 or at the inception of the activity as it existed on 1 Oct 93. (BRAC Criteria I & IV)

NAWCTSD S&T, ENG DEVELOPMENT, AND ISE WORKLOAD

Information Required	Fiscal Years											
	86	87	88	89	90	91	92	93	94	95	96	97
Total Funds Programmed (\$M)	*	*	*	*	*	*	*	*	410	422	362	390
Total Actual Funds (\$M)	605	678	396	476	424	442	517	478				
Programmed Workyears	1166	1136	1099	1099	1085	1026	981	898	890	876	876	876
Actual Workyears	1236	1195	1126	1104	1108	1164	1031	936				

* Historical data is maintained by activity total. Data is not maintained by funds programmed. Total funds programmed are maintained only outside NAWCTSD by the funding source.

- Budgeted workyears are the selected indicator of the "lab" infrastructure's capacity at an aggregate level for each Military Department. They include both workyears funded directly by the Military Department and the workyears funded from organizations outside the Military Department.

Workyears = government personnel and on-site FFRDCs and SETAs

SECTION II: CAPACITY OF DOD COMPONENTS

2.1 **Workload.** Use the following table to describe historic and projected workload at each activity in terms of funding and workyears. Assume previous BRAC closures and realignments are implemented on schedule. Projected funding will be derived from FY95 President's Budget Submission (Then year dollars). Past fiscal year data shall begin with FY86 or at the inception of the activity as it existed on 1 Oct 93. (BRAC Criteria I & IV)

SCIENCE & TECHNOLOGY BASE

Information Required	Fiscal Years											
	86	87	88	89	90	91	92	93	94	95	96	97
Total Funds Programmed (\$M)	*	*	*	*	*	*	*	*	21.0	20.5	17.2	15.0
Total Actual Funds (\$M)	10.4	8.1	17.2	7.7	5.3	8.4	10.3	18.5				
Programmed Workyears	86	86	86	86	89	89	93	91	94	94	95	95
Actual Workyears	98	98	99	99	66**	94	96	94				

* Historical data is maintained by activity total. Data is not maintained by funds programmed. Total funds programmed are maintained only outside NAWCTSD by the funding source.

** The result of a major congressional R&D budget shortfall.

- Budgeted workyears are the selected indicator of the "lab" infrastructure's capacity at an aggregate level for each Military Department. They include both workyears funded directly by the Military Department and the workyears funded from organizations outside the Military Department.

Workyears = government personnel and on-site FFRDCs and SETAs

2.2 Excess "Lab" Capacity -- Measured at the DOD Component Level

- Excess "Lab" Capacity = Sum of the Peak Workyears - Sum of the Projected Workyears
- Peak at each activity = Highest value between FY86 (or since inception of organization) and FY93
- Projected at each activity = Estimated at FY97

SECTION III: CAPABILITY OF ACTIVITIES TO PERFORM COMMON SUPPORT FUNCTIONS (CSFs): Provide the information described for each common support function listed in Appendix C in which you are actively engaged.

Responses in Section III relate to CSF Training Systems. Other CSFs (as defined) are not applicable to NAWCTSD.

3.0 Mission: Describe the major capabilities at your activity contributing to the common support function in bulletized format. Describe any relationship and interconnectivity with other functions (common or otherwise) in support of the overall activity mission.

Under the Agreement on Armed Services Training and Personnel System Science and Technology Evaluation and Management Committee, NAWCTSD is responsible for research related to sea warfare training as well as training devices and their instructional features. Under the agreement, NAWCTSD also participates in joint efforts in multiservice distributed training testbed; virtual environments for training applications and virtual environments interface standards; air-ground training feedback system; and development of improved dead reckoning algorithms for distributed interactive simulation.

References:

1. Agreement on Armed Services Training and Personnel Systems Science and Technology Evaluation and Management (TAPSTEM) Committee, signed November 1990.

2. TAPSTEM Annual Report, October 1993

The NAWCTSD mission is to be the principal Navy center for research and development, test and evaluation, acquisition and product support of training systems; to provide interservice coordination and training systems support for the Army and Air Force; and to perform such other functions and tasks as directed by higher authority.

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Reference: OPNAVNOTE 5450, Ser 09B22/3U510780, dated 8 Sep 1993

The mission of the S & T component of NAWCTSD is to perform the R & D required to support the acquisition of and improvements to Navy training and training systems in response to Navy requirements. There is a commitment to share technology with the other services, government agencies, and the commercial world through technology transfer. In order to accomplish the S & T mission, R & D capabilities exist at NAWCTSD in the following areas:

- o Modeling, Simulation and Databases
- o Distributed Interactive Simulation
- o Embedded Training
- o Helmet-mounted Display Systems
- o Computer Image Generation
- o Virtual Environment
- o Voice Recognition
- o Computer Architecture and Reusable Software
- o Artificial Intelligence
- o Team Training
- o Decision-making Under Stress
- o Underwater Acoustics
- o Interactive Training Systems

3.1 Location

3.1.1 Geographic/Climatological Features: Describe any geographic/climatological features in and around your activity that are relevant to each CSF. Indicate and justify those that are required versus those that just serve to enhance accomplishing the mission of the activity. For example, clear air at high altitude that increases quality of atmospheric, ground-based laser experiments in support of the weapons CSF. (BRAC Criteria I)

NAWCTSD's S & T mission is significantly enhanced by its geographical location.

NAWCTSD's current location is recognized by both government and industry as the single geographic area where significant multiservice assets are collocated and can be quickly and easily brought together concerning the major issues of training, simulation, modeling, and education.

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Numerous and diverse activities have chosen to collocate with NAWCTSD since 1965 including the four military services and over 150 firms engaged in simulation and training technology. The Institute for Simulation and Training of the University of Central Florida with state and municipal governments are active participants in technology transfer initiatives. All of Florida's top ten contractors are in commuting distance.

The State of Florida is dedicated to encouraging training and simulation as evidenced by its support of the Center of Excellence (COE). This concept was supported and encouraged by a DON study, April 1983; a study for the Under Secretary for Defense Research and Engineering, 22 March 1982; and was affirmed by a State of Florida resolution, 16 April 1985. The COE's commitment to cooperative research, technology transfer, and information exchange benefits all participants. The Florida High Technology Industry Council and the Institute for Simulation and Training at UCF provide invaluable assistance with the common goal of advancing simulation and training technology.

Close proximity to contractors enhances problem-solving and information exchange resulting in improved training systems and quicker transition to the fleet. Additionally, with the U.S. Army Simulation, Training and Instrumentation Command (STRICOM) as our major tenant, a Marine Corps liaison officer, and an Air Force liaison officer on site, joint development of technologies and training systems is encouraged and facilitated.

3.1.2 Licenses & permits: Describe and list the licenses or permits (e.g., environmental, safety, etc.) that your activity currently holds and justify why they are required to allow tests, experiments, or other special capabilities at your location for each CSF. For example, permit to store and use high explosives. (BRAC Criteria I)

No special licenses or permits are required to support the functions/activities performed by NAWCTSD in the local government-owned Central Florida Research Park (CFRP). At the DeFlorez building, located in the CFRP, NAWCTSD has a 1,000 gallon underground diesel fuel storage tank that is registered with the State of Florida. The fuel is used to operate a backup generator.

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3.1.3 Environmental constraints: Describe and list the environmental or land use constraints present at your activity which limit or restrict your current scope for each CSF, i.e., would not allow increased "volume" or "spectrum" for the CSF. Example -- Volume: frequency of a type of experiment. Example -- Spectrum: Current permit to detonate high explosives will not allow detonation or storage of increased quantity of explosives without legal waiver (state law) or relocation of surrounding (non-govt) buildings. (BRAC Criteria II)

In the CFRP, NAWCTSD Orlando is subject to the environmental and land use constraints outlined in the Orange County Research and Development Authority Design Standards Manual that govern the design review and plan submittal process, use approval process, building and site criteria, and landscape standards.

NAWCTSD does not engage in any tests in the CFRP that would have an adverse effect on the environment.

The NAWCTSD facility (de Florez building) as currently configured is fully occupied and cannot accommodate additional workyears due to fire/safety codes. However, modifications could be made. Those modifications include:

- 1. Modifying the current footprint by adding a second floor to the high bay area and a third floor to the annex building adding approximately 20,000 square foot and costing approximately \$3 million dollars.**
- 2. Constructing a buildout to the current facility adding 65,000 sq ft and costing approximately \$8 million.**

3.1.4 Special Support Infrastructure: List and describe the importance of any mission related special support infrastructure (e.g. utilities) present at your location for your activity. (BRAC Criteria I)

There is no mission-related special support infrastructure, e.g., utilities, roads, electrical distributions lines, etc., present at NAWCTSD Orlando.

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3.1.5. **Proximity to Mission-Related organizations:** List and describe the importance and impact of not having nearby organizations which facilitate accomplishing or performing your mission -- e.g. operational units, FFRDCs, universities/colleges, other government organizations, and commercial activities. Restrict your response to the top five. Complete the following: (BRAC Criteria I)

Common Support Function	Name	Type of Organization	Distance	Workyears Performed by Your Activity	Workyears Funded by Your Activity
Training Systems (1)	* USMC	Acquisition R&D	0	89	54
	** STRICOM	Acquisition Support	0	128	0
	** Air Force	R&D	0	3	0
	* NASA	Space	45	.5	approx .5
	*** Industry	Contract	0-10	approx 700	approx 500-700

* The mission of the Marine Corps Liaison Office and the Program Director for Marine Corps programs is to provide training analysis support training policy decisions; to support USMC modeling, simulation, and distributed interactive simulation initiatives; to provide training systems acquisition support for both standard and non-standard systems; to provide life cycle support for training systems (COMS, TSSAs); and to support USMC training systems R&D.

Colocation with STRICOM supports and promotes close collaboration on ground warfare modeling and simulation as well as distributed interactive simulation. Teaming on acquisition contracts is another benefit derived from this partnership. Similar but even more substantial benefits are derived from the historically integrated acquisition of Navy and USMC air training systems, and the colocation of NAWCTSD and USMC PD for training systems.

(1) S&T is only a small part of NAWCTSD's mission; the majority involves acquisition of major devices. For clarity, this table reflects integration of NAWCTSD's total mission in both areas.

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**** The colocation of the STRICOM, Air Force, and NASA-KSC allows concentration of resources to accomplish similar missions and tasks, avoids duplication of efforts, promotes technology sharing, and creates opportunities for cost avoidances. The proposed relocation of the U.S. Air Force Aircrew Training Research Division of Armstrong Laboratories from Williams AFB, Mesa, Arizona, to the Central Florida Research Park will greatly increase the resources available to accomplish the aforementioned similar missions, etc.**

***** The colocation of the approximately 150 contractors in the Center of Excellence (COE) in Central Florida produces cost avoidances in travel and technical synergism between government/ industry/academia. Should NAWCTSD relocate, significant costs will be incurred either in travel or in relocation of the COE partnerships. For the investment of each workyear of government employee, industry employs three people, establishing an approximate leveraging ratio of 1:3. These employees are engaged in the production of NAWCTSD products. Although local funded workyears are as indicated in Table 3.1.5., this ratio represents funded workyears in the industrial base of approximately 3000.**

A significant partnership with the State of Florida is represented by the University of Central Florida/Institute for Simulation & Training (IST). IST conducts research in simulation and training (S&T) for the organizations listed in Table 3.1.5. IST also provides graduate programs in S&T, thereby providing a source of skill development/maintenance for NAWCTSD employees and a pool of potential future employees.

The NAWCTSD is the "cornerstone" organization of the Center of Excellence (COE) for Simulation and Training Technology. The COE was established by a State of Florida resolution on 16 April 1985 -membership includes NAWCTSD; U.S. Army, Simulation, Training and Instrumentation Command (STRICOM); University of Central Florida/Institute for Simulation and Training; operating site for the USAF Armstrong Laboratory/Aircrew Training Research Division (AL/HRA) and USAF Special Projects Office, Wright Patterson AFB, Ohio; and an industrial base with approximately 150 firms located in the Central Florida area.

Many of the functions performed are joint efforts. As a result of joint efforts, one service leverages of another. The following cooperative research and development agreements have been signed:

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1. University of Central Florida, Institute for Simulation and Training. Purpose - use CASE Tools for evaluating simulator software.
2. Dynamics research Corporation. Purpose - Develop and adapt "Gameshell" for educational games.
3. Embry Riddle Aeronautical University. Purpose - Evaluate and adapt aviation instrument navigation trainer.
4. Loral Defense Systems. Purpose - Develop and evaluate virtual reality for aviation training.
5. Motorola Corporation. Purpose - Develop interface for Distributed Interactive Simulation (DIS).
6. Encore Computer Systems. Purpose - Demonstrate and test transportability of simulation software for DIS protocols.
7. Digital Equipment Corporation. Purpose - Demonstrate and test transportability of simulation software for DIS protocols.
8. SBS Engineering, INC. (in process) Purpose - Apply small arms simulation technology to law enforcement training.
9. Paragon Graphics. Purpose - Develop, integrate, demonstrate, and evaluate Helmet Mounted Display Technology.

The following joint efforts have been initiated:

NAWCTSD is the lead activity for DOD for:

TIDES - Threat/Intelligence Data Extraction Systems (Electronic Warfare)
USN/USAF/USA/USMC
Tasking Order N0001994WXC935R of 18 February 1994

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NAWCTSD is the lead Navy activity for the following joint projects:

Technology Reinvestment Project - A training and Simulation Technology Consortium - Advanced Research Projects Agency - USN/USA Industry Proposal Call from Advanced Research Projects Agency

**Unmanned Aerial Vehicle - USN/USA/USMC
UAV/JPO Task PEO (CU)-UL-4A27-014-00000 of 27 January 1994**

**Precision Gunnery Training System - USN/USA/USMC
Marine Corps Order 8390.6A**

**Joint Primary Aircraft Training System - USN/USAF
Air Task P20520512-0602-0205000148 of 21 March 1990**

**E3/E-6 Flight Crew Training Systems - USN/USAF
Air Task P20520521-0608-042050028 of 27 January 1994**

**Navy Agent for Distributed Interactive Simulation - USN/USAF/USMC
Commander SPAWAR ltr Ser 31/027 of 3 February 1994**

**AV-8 Harrier Aircraft Program - USN/USMC/Italy/Spain
Air Task PMA2052052N-0608-4205000012**

Additional information concerning the top five mission-related organizations is as follows:

**U.S. ARMY SIMULATION, TRAINING AND INSTRUMENTATION COMMAND
(STRICOM)**

STRICOM's mission is to serve as the technology base for simulation and training; to acquire Training Devices/Simulators/Simulations, Instrumentation, Threat Simulators, and Targets; to provide life-cycle sustainment support of fielded products; to serve as the DoD focal point for Distributed Interactive Simulation (DIS) environment and Aggregate Level Simulation Protocol (ALSP); to operate aerial and ground targets for test and training; and to provide quality support to the soldier.

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The STRICOM buys 128 reimbursable workyears (FY94) from NAWCTSD to perform primarily engineering and acquisition functions. Since the two commands are co-located, many of these work years are blended with Army and Navy employees working side by side. In addition, the Army also benefits from sharing facility and operating costs, which in turn eliminates the need for some positions and jointly reduces costs for both.

AIR FORCE

A decision of BRAC 91 was to move the Aircrew Training Research Division AL/HRA of Armstrong LA at Williams AFB, Mesa, AZ to Orlando, FL. This move should produce mutual benefits both in costs and capability and will further enhance these joint efforts in the planning and conduct of training research and development.

The Aircrew Training Research Division is a part of the Human Resources Directorate of the U.S. Air Force Armstrong Laboratory. The division is responsible for the development, evaluation, and transition of aircrew training methods and technologies.

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)
KENNEDY SPACE CENTER (KSC)**

NASA is an acknowledged pioneer in successful technology transition and commercialization. NASA participates with NAWCTSD, STRICOM, University of Central Florida, and private industry in the Training and Simulation Technology Consortium recently funded by the Advance Research Projects Agency. This participation is a logical extension of previous initiatives such as:

1. NAWCTSD consultation to KSC on development of Interactive Courseware (ICW).
2. NASA providing training opportunities to NAWCTSD employees on ICW authoring.
3. NAWCTSD supplying Navy training materials to be utilized by KSC for on-site civilian training.

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STATE OF FLORIDA

The most prominent activities at the state level are with the Institute for Simulation and Training (IST) at the University of Central Florida (UCF). UCF is the first university in the nation to offer a Master of Science in Simulation Systems. Other tailored academic programs include a Masters in Instructional Systems and a PHD program in Human Factors Engineering. The IST is a member of the Center of Excellence for Simulation and Training Technology and has over 180 personnel involved in (100 faculty and staff and 80 students) program and research activities.

Since 1985, the IST has provided a necessary link between the talent of academia and the requirements of DoD.

The Central Florida Research Park, contiguous to the UCF, has over 60 companies represented with a work force of over 1500. The park is anchored by the NAWCTSD and STRICOM; the combination of tenants, military, federal, state, and private enterprise make this park one of the ten most successful in the United States.

INDUSTRY

Because of the Center of Excellence concept and T&S business activity, approximately 150 industrial firms are represented in the Central Florida area.

Industrial activity is brisk as over \$1307M was obligated in FY93 by NAWCTSD/STRICOM with over 4,923 contract actions.

Conservative employment figures have been extrapolated from an "impact of the Simulation Training Industry on the Florida Economy", a study joint sponsored by Barnett Bank of Central Florida and the University of Central Florida. At least 10,000 jobs are estimated to be directly related to Simulation and Training Technology. This estimate is generated by using a multiplier of 2X (direct government contract workyears). Estimate was used in previously mentioned study to forecast total job impact.

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3.2 Personnel:

3.2.1 Total Personnel: What is the total number of government (military and civilian), on-site federally funded research and development center (FFRDC), and on-site system engineering technical assistance (SETA) personnel engaged in science and technology (S&T), engineering development and in-service engineering activities as of end FY93? For individuals that predominantly work in CSFs, involved in more than one CSF, account for those individuals in the CSF that represents the preponderance of their effort. (BRAC Criteria I)

Types of personnel	Number of Personnel		
	Government		On-Site FFRDC
	Civilian	Military	On-Site SETA
Technical	71	1	
Management (Supv)	11	0	
Other	12	0	

3.2.2 Education: What is the number of government personnel actively engaged in S&T, engineering development and in-service engineering activities by highest degree and type of position? Provide the data in the following table: (BRAC Criteria I)

Type of Degree/Diploma	Number of Government Personnel by Type of Position		
	Technical	Management (Supv)	Other
High School or Less	5	0	4
* Associates	4	0	6
Bachelor	20	2	0
Masters	30	7	2
Doctorate (include Med/Vet/etc.)	13	2	0

* Includes AA Degrees and 2 or less years of college.

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3.2.3 Experience: What is the experience level of government personnel? Fill in the number of government personnel in the appropriate boxes of the following table. (BRAC Criteria I)

Type of Position	Years of Government and/or Military Service				
	Less than 3 years	3-10 years	11-15 years	16-20 years	More than 20 years
Technical	0	24	17	7	24
Management (Supv)	0	0	0	1	10
Other	0	1	3	4	4
Total	0	25	20	12	38

3.2.4 Accomplishments During FY91-93: For government personnel answer the following questions.

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3.2.4.1 How many patents were awarded and patent disclosures (only count disclosures with issued disclosure numbers) were made? (BRAC Criteria I)

CSF	Disclosures	Awarded	Patent Titles (List)
Training Systems	7 (*)	9 (#)	
"	"	"	* # Infrared Spot Tracker
"	"	"	* # Disappearing Target
"	"	"	# Oxygen Breathing Bag Simulator
"	"	"	# Oxygen Breathing Apparatus Simulator
"	"	"	# Machine Gun And Minor Caliber Weapons Trainer
"	"	"	# Automated Answer Evaluation and Scoring System and Method
"	"	"	# Semiconductor Laser Weapon Trainer and Target Designator for Live Fire
"	"	"	# Team Trainer
"	"	"	# Aggressor Shoot-Back Simulation
"	"	"	* Position and Orientation Measurement System and Method
"	"	"	* Air to Air Ground Weapon Fire Simulator
"	"	"	* Wireless RF Data Communication System
"	"	"	* Three Axis Automated Video-To-Motion Platform Synchronization Using A Low-Cost Two Axis Motion Platform
"	"	"	* 3-D/Stereoscopic Weapons Trainer
Total	7	9	

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3.2.4.2 How many papers were published in peer reviewed journals?
(BRAC Criteria I)

CSF	Number Published	Paper Titles (List)
Training Systems	29	<p>"Automated Task Analysis for Training Development" R. Ahlers; Bulletin of the American Society for Information Science 16(6), 11-14; Nov-Dec 1990</p> <p>"The Relative Power of Training Evaluation Designs Under Different Cost Configurations", R. D. Arvey, S. E. Maxwell, and E. Salas; Journal of Applied Psychology, 77(2), 155-160; Apr 1992</p> <p>"Using Task Inventories to Forecast Skills and Abilities", R. D. Arvey, E. Salas, and K. A. Gialluca, K. A.; Human Performance, 5(3), 171-190; Sep 1990</p> <p>"Aviation Computer Games for Crew Resource Management Training", D. Baker, C. Prince, L. Shrestha, R. Oser, and E. Salas; The International Journal of Aviation Psychology, 3(2), 143-155; Jun 1993</p> <p>"Principles for Measuring Teamwork Skills", D. P. Baker, and E. Salas; Human Factors, 34(4), 469-476; Aug 1992</p>

3.2.4.2 How many papers were published in peer reviewed journals? (BRAC Criteria I)

CSF	Number Published	Paper Titles (List)
Training Systems	69	
"	"	Flying Qualities Lessons Learned from the T-45A Flight Test Program - An Analytical and Flight Test View
"	"	Developmental Evaluation of Centrifuge Flight Simulation as an Enhanced Maneuverability Flying Qualities Tool
"	"	Application of Centrifuge Based Dynamic Flight Simulation to Enhanced Maneuverability RDT&E
"	"	Application of Current Departure Resistance Criteria to the Post-Stall Maneuvering Envelope
"	"	Effects of High Power Microwaves to Flight Control Sensors
"	"	Microwave Vulnerability of Digital Flight Control Systems
"	"	Innovations in Training Simulation
"	"	Use of Case Tools in the Software Acquisition Management Process

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CSF	Number Published	Paper Titles (List)
Training Systems	29	<p>"Assessment of Coordination Development for Aircrew Coordination Training", C. Bowers, B. Morgan, E. Salas, and C. Prince; Military Psychology, 5(2), 95-112; Jun 1993</p> <p>"Games Teams play: A Methodology for Investigating Team Coordination and Performance", C. A. Bowers, E. Salas, C. Prince, and M. Brannick; Behavior Methods, Instruments and Computers, 24(4), 503-506; Dec 1992</p> <p>"Understanding Team Performance: A Multimethod Study", M. T. Brannick, R. M. Roach, and E. Salas; Human Performance, 6(4), 287-306; Dec 1993</p> <p>"Toward an Integration of Training Theory", J. A. Cannon-Bowers, S. I. Tannenbaum, E. Salas, and S. A. Converse; Human Factors, 33(3), 281-292; Jul 1991</p> <p>"Toward Theoretically-Based Principles of Training Effectiveness: A Model and Initial Empirical Investigation", J. A. Cannon-Bowers, E. Salas, S. I. Tannenbaum, and J. E. Mathieu; Military Psychology; (In Press)</p> <p>"Sensory and Cognitive Vigilance: Effects of Age on Performance and Subjective Workload", J. Deaton and R. Parasuraman; Human Performance, 6(1), 71-97; Mar 1993</p>

CSF	Number Published	Paper Titles (List)
Training Systems	69	
"	"	Tools and Utilities for the Development of Speech Recognition Systems
"	"	Engineering Issues that Affect Training Using Networked Simulations
"	"	Rehost of a Real-time Systems Interrupt-Driven Simulation Onto a DOS/PC/Ada Environment Using OOD
"	"	Data Acquisition for CIG Database Development
"	"	Design Guidelines for a Carrier Based Trainer System
"	"	Automatic Scenario Generation and Control for Tactical Training Systems of the 90s
"	"	Assessment of Software Engineering Technology for Training Systems
"	"	Use of CASE Tools in the Software Acquisition Process

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CSF	Number Published	Paper Titles (List)
Training Systems	29	<p>"Cognitive and Personality Predictors of Training Performance", J. E. Driskell, J. Hogan, E. Salas, and B. Hoskin; Military Psychology, 6(1), 31-46; Mar 1994</p> <p>"Task Cues, Dominance Cues, and Influence in Task Groups", J. E. Driskell, B. Olmstead, and E. Salas; Journal of Applied Psychology, 78(1), 51-60; Feb 1993</p> <p>"Group Decision Making Under Stress", J. E. Driskell and E. Salas; Journal of Applied Psychology, 76(3), 473-478; Jun 1991</p> <p>"Collective Behavior and Team Performance", J. E. Driskell E. Salas; Human Factors, 34(3), 277-288; Jun 1992</p> <p>"Effect of Overlearning on Retention", J. E. Driskell, R. P. Willis, and C. Copper; Journal of Applied Psychology, 77(5), 615-622; Oct 1992</p> <p>"Improving the Measurement of Team Performance: The TARGETS Methodology", J. E. Fowlkes, N. E. Lane, E. Salas, T. Franz, and R. Oser; Military Psychology, 6(1), 47-61; Mar 1994</p> <p>"Systems Concepts for Training Systems Development", R. T. Hays; IEEE Transactions on Systems, Man, and Cybernetics, 22(2), 1-9; Mar-Apr 1992</p>

CSF	Number Published	Paper Titles (List)
Training Systems	69	
"	"	The Relative Power of Training Evaluation Designs Under Different Cost Configurations
"	"	Using Task Inventories to Forecast Skills and Abilities
"	"	Aviation Computer Games for Crew Resource Management Training
"	"	Principles for Measuring Teamwork Skills
"	"	Assessment of Coordination Development for Aircrew Coordination Training
"	"	Games Teams Play: A Methodology for Investigating Team Coordination and Performance
"	"	Understanding Team Performance: A Multi-method Study
"	"	Toward an Integration of Training Theory
"	"	Sensory and Cognitive Vigilance: Effects of Age on Performance and Subjective Workload

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CSF	Number Published	Paper Titles (List)
Training Systems	29	<p>"Flight Simulator Training Effectiveness: A Meta-Analysis", R. T. Hays, J. W. Jacobs, C. Prince, and E. Salas; Military Psychology, 4(2), 63-74; Jun 1992</p> <p>"Requirements for Future Research in Flight Simulation Training: Guidance Based on a Meta-Analytic Review", R. T. Hays, J. W. Jacobs, C. Prince, and E. Salas; International Journal of Aviation Psychology, 2(2), 143-158; Jun 1992</p> <p>"Application of Cognitive, Skill-Based, and Affective Theories of Learning Outcomes to New Methods of Training Evaluation", K. Kraiger, J. K. Ford, and E. Salas; Journal of Applied Psychology, 78(2), 311-328; Apr 1993</p> <p>"The Influences of Individual and Situational Characteristics on Measures of Training Effectiveness", J. E. Mathieu, S. I. Tannenbaum, and E. Salas; Academy of Management Journal, 35(4), 828-847; Oct 1992</p> <p>"The Journal of General Psychology", B. B. Morgan, Jr., E. Salas, and A. S. Glickman; An analysis of Team Evolution and Maturation. The Journal of General Psychology, 120(3), 277-291; Jul 1994</p>

CSF	Number Published	Paper Titles (List)
Training Systems	69	
"	"	Task Cues, Dominance Cues, and Influence in Task Groups
"	"	Group Decision Making Under Stress
"	"	Collective Behavior and Team Performance
"	"	Effect of Overlearning on Retention
"	"	Relationships of Work Stress Measures for Employees with the Same Job
"	"	Systems Concepts for Training Systems Development
"	"	Flight Simulator Training Effectiveness: A Meta-Analysis
"	"	Requirements for Future Research in Flight Simulation Training: Guidance Based on a Meta-Analytic Review
"	"	Application of Cognitive, Skill-Based, and Affective Theories of Learning Outcomes to New Methods of Training Evaluation

CSF	Number Published	Paper Titles (List)
Training Systems	29	<p data-bbox="863 342 1447 591">"Increasing Hits, Reducing Misses in CRM/LOS Scenarios: Guidelines for Simulator Scenario Development", C. Prince, R. Oser, E. Salas, and W. Woodruff; International Journal of Aviation Psychology, 3(1), 69-82; Mar 1993</p> <p data-bbox="863 623 1541 838">"The Role of Mental Models in Team Performance in Complex Systems", W. B. Rouse, J. A. Cannon-Bowers, and E. Salas; IEEE Transactions on Systems, Man, and Cybernetics, 22(6), 1296-1308; Nov-Dec 1992</p> <p data-bbox="863 874 1447 1023">"Group Decision Making Under Stress", E. Salas and J. Driskell; Journal of Applied Psychology, 76(3), 473-478; Jun 1991</p> <p data-bbox="863 1059 1466 1242">"Individual Task Proficiency and Team Process: What's Important for Team Functioning", R. J. Stout, E. Salas, and R. Carson; Military Psychology, 6, 177-192; Dec 1994</p> <p data-bbox="863 1278 1466 1491">"Ensuring Teamwork: A Checklist for use in Designing Team Training Programs", R. W. Swezey, R. E. Llaneras, and E. Salas; Performance & Instruction, 31(2), 33-37; Feb 1992</p>

CSF	Number Published	Paper Titles (List)
Training Systems	69	
"	"	The Influences of Individual and Situational Characteristics on Measures of Training Effectiveness
"	"	A Comparison of Methods for Increasing Power in Randomized Between-Subjects Designs
"	"	Transfer of Simulated Instrument Training to Instrument and Contact Flight
"	"	Increasing Hits, Reducing Misses in CRM/LOS Scenarios: Guidelines for Simulator Scenario Development
"	"	The Role of Mental Models in Team Performance in Complex Systems
"	"	Special Issue Preface
"	"	Team Training and Performance
"	"	Group Decision Making Under Stress
"	"	Ensuring Teamwork: A Checklist for Use in Designing Team Training Programs

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CSF	Number Published	Paper Titles (List)
Training Systems	29	
		"Meeting Trainees Expectations: The Influence of Training Fulfillment on the Development of Commitment, Self-Efficacy and Motivation", S. I. Tannenbaum, Mathieu, E. Salas, and J. Cannon Bowers; Journal of Applied Psychology, 76(6), 759-769; Dec 1991

This replaces pages 19-27 of BRAC Data Call 12 (revised 25 Aug 1994).

CSF	Number Published	Paper Titles (List)
Training Systems	69	
"	"	Meeting Trainees' Expectations: The Influence of Training Fulfillment on the Development of Commitment, Self-Efficacy and Motivation
"	"	Embedded Training Instructional Technology Enhancement : An Evaluation of a Methodology for Cognitive Structuring and Adaptability Sequencing Exercise Content for Embedded Training
"	"	A Meta-Analysis of the Flight Simulator Training Research
"	"	SPA25G Embedded Training System (SETS)
"	"	Effects of Graphics Detail Parameters on Disassembly/Assembly Performance for Computer-Based Training
"	"	Effects of Graphics Detail Parameters on Procedural Task Performance for Computer-Based Training
"	"	A Survey of Fleet Opinions Regarding Unaided Vision Training Topics

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CSF	Number Published	Paper Titles (List)
Training Systems	69	
"	"	Independent Research and Independent Exploratory Development (IR/IED) Programs: Annual Report FY90
"	"	Technical Advancements in Simulator-Based Weapons Team Training
"	"	Instructor Operator Station Design for Tactical Aviation Simulators
"	"	An Analysis of Aircrew Communication Patterns and Content
"	"	Automated Simulator Test and Assessment Routine (ASTAR) Operational Evaluation Report
"	"	Team Performance, Training Needs and Teamwork: Some Field Observations
"	"	A Review of Potential Moderating Factors in the Stress-Performance Relationship
"	"	Advanced Laser Semi-Conductor Air to Air Training Device Concept

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CSF	Number Published	Paper Titles (List)
Training Systems	69	
"	"	Independent Research and Independent Exploratory Development (IR/IED) Programs: Annual Report FY91
"	"	A Performance Assessment Task for Examining Tactical Decision Making Under Stress
"	"	Independent Research and Independent Exploratory Development (IR/IED) Programs: Annual Report FY92
"	"	Instructor Operator Station Training Aids: Preliminary Design Guidelines and Research Recommendations
"	"	Psychophysiological Measures as a Function of Fidelity of Simulation: An Experimental Plan
"	"	Radio Instruments Orientation Trainer (RIOT): Development and Evaluation
"	"	An Analysis of Hands-On Training Time Required for the Unmanned Aerial Vehicle Community

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3.3 Workload

3.3.1 FY93 Workload

3.3.1.1 Work Year and Lifecycle: Identify the number of actual workyears executed for each applicable CSF in FY93 for each of the following: government civilian; military; on-site FFRDCs; and on-site SETAs. (BRAC Criteria I)

"LAB" Training Systems	Fiscal Year 1993 Actual			
	Civilian	Military	FFRDC	SETA
Science & Technology	94	1	ϕ	ϕ

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9/19/94

CSF	Number Published	Paper Titles (List)
Training Systems	69	
"	"	Weapons Team Engagement Trainer, Vol 1, Engineering Report
"	"	Weapons Team Engagement Trainer, Vol 2, Training Capability Demonstration
"	"	A Simulation and Training Technology Survey
"	"	Night Vision Camcorder System

3.3 Workload

3.3.1 FY93 Workload

3.3.1.1 Work Year and Lifecycle: Identify the number of actual workyears executed for each applicable CSF in FY93 for each of the following: government civilian; military; on-site FFRDCs; and on-site SETAs. (BRAC Criteria D)

"LAB" Training Systems	Fiscal Year 1993 Actual			
	Civilian	Military	FFRDC	SETA
Science & Technology	94	1		

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3.3.1.2 Engineering Development By ACAT: For each Common Support Function (e.g. airborne C4I) at each activity engaged in engineering development, provide:

- For each ACAT IC, ID, and II program (as defined in DODI 5000.2):
 - The name of the program
 - A brief program description
- For each ACAT III and IV programs:
 - The number of such programs
 - A list of program names
- For each program not an ACAT I, II, III, IV:
 - The number of such programs
 - A list of program names
- For the purpose of this question, any program between Milestone I and IV and containing demonstration and validation (Dem/Val 6.4)/Engineering and Manufacturing Development (EMD 6.5) funds in the FY95 PBS is considered to be engaged in engineering development (BRAC Criteria I).

NOT APPLICABLE TO NAWCTSD UNDER CSFs PROVIDED

Engineering Development	Name or Number	Workyears (FY93 Actual)	FY93 Funds Received (Obligation Authority)	Narrative

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3.3.1.3 In-Service Engineering: For each Common Support Function at each activity engaged in in-service engineering, list the in-service engineering efforts, the FY93 funds (from all sources) obligated for these efforts, the FY93 workyears for these efforts, and the weapon system(s) supported by these efforts. In-service engineering consists of all engineering support of fielded and/or out of production systems and includes efforts to improve cost, throughput, and schedule to support customer requirements as well as mods and upgrades for reliability, maintainability, and performance enhancements. (BRAC Criteria I).

NOT APPLICABLE TO NAWCTSD UNDER CSFs PROVIDED

Common Support Functions	* In-Service Engineering Efforts (List)	FY93 Actual		* Weapon System(s) Supported
		Funds Received (Obligation Authority)	Workyears	

3.3.2 Projected Funding

3.3.2.1 Direct Funding: For each applicable CSF, identify direct mission funding by appropriation from FY94 to FY97. Use FY95 PBS for FY95-FY97. (BRAC Criteria I)

NOT APPLICABLE TO NAWCTSD UNDER CSFs PROVIDED

Common Support Function	FY94	FY95	FY96	FY97

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3.3.2.2 Other Obligation Authority: For each applicable CSF, identify reimbursable and direct-cite funding (other obligation authority expected) from FY94 to FY97. Funding allocation must be traceable to FY95 PBS. (BRAC Criteria I).

Common Support Function	FY94	FY95	FY96	FY97
Training Systems	21.0M	20.5M	17.2M	15.0M

3.4 Facilities and Equipment

3.4.1 Major Equipment and Facilities: Describe major facilities and equipment necessary to support each Common Support Function (include SCIFs). If the facilities and equipment are shared with other functions, identify those functions and the percentage of total time used by each of the functions. Provide labeled photographs that picture the breadth and scope of the equipment and facilities described. If it is unique to DOD, to the Federal Government, or to the US, describe why it is unique. Insert the replacement cost. For this exercise, Replacement cost = (Initial cost + capital investment) multiplied by the inflation factor for the original year of construction. (BRAC Criteria II)

Common Support Functions	Major Facility or Equipment Description	Unique To			Replacement Cost (\$K)
		DoD	Federal Gov't	U. S.	
Training Systems	Virtual Environment Training Technology Laboratory provides capability to perform behavioral research for evaluating benefits of immersive learning environments	** Yes	** Yes	* No	\$1,000.
	Visual System Evaluation Facility provides capability for visual databases to be inspected for specification compliance	** Yes	** Yes	* No	\$600

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Common Support Functions	Major Facility or Equipment Description	Unique To			Replacement Cost (\$K)
		DoD	Federal Gov't	U. S.	
Training Systems	Common Acoustic Data Base & Passive Acoustic Analysis Facility supports training systems with standard acoustic data formatted for simulation	** Yes	** Yes	* No	\$450
	Organic Combat System Training Technology provides threat simulation test bed for training research, including of embedded training technology for Battle Force Tactical Training	** Yes	** Yes	* No	\$5,000
	Naval Aviation Simulator Network Training consists of R&D laboratory dedicated to networking aviation simulation systems to operate in Distributed Interactive Simulation environment	* No	* No	* No	\$1,000

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Common Support Functions	Major Facility or Equipment Description	Unique To			Replacement Cost (\$K)
		DoD	Federal Gov't	U. S.	
Training Systems	Tactical Training Instructor Components provide tactics, doctrines, expert systems, etc., for automated training exercise preparation and distribution to DIS participants	* No	* No	* No	\$100
	TEMPEST Room provides shielded enclosure for secure experimentation in the areas of ASW, EW, etc.	* No	* No	* No	\$1,000
	Computer Laboratories provide controlled environment for environmentally sensitive computer and electronic equipment	* No	* No	* No	\$500
	Forward-Deployable Aviation Simulator Technology Test Bed provides improved fleet readiness through development, demonstration, application of simulation/training device technology	* No	* No	* No	\$6,000

* The facilities/equipment listed are not unique to DoD, Federal Government, or US Government. However, the military mission is.

** There are no other identical facilities/functions in the DoD/Federal Government.

3.5 Expansion Potential

3.5.1 Laboratory Facilities: Use facilities records as of fourth-quarter FY93 in answering the following (in sq ft) for each CSF: (BRAC Criteria II)

Common Support Functions	Facility or Equipment Description	Type of Space*	Space Capacity (KSF)		
			Current	Used	Excess
Training Systems	Science Laboratories	Technical	13.3	13.3	0

* Administrative, Technical, Storage, Utility

3.5.1.1 Describe the capacity of your activity to absorb additional similar workyears categorized in the same common support function with minor facility modification. If major modification is required, describe to what extent the facilities would have to be modified. (Use FY97 workyears as your requirement) (BRAC Criteria III)

The NAWCTSD facility (de Florez building) as currently configured is fully occupied (consistent with fire/safety code) but could accommodate additional workyears utilizing one or a combination of the following scenarios:

- Renegotiate existing host/tenant agreements to increase available space
- Modify current deFlorez building footprint at an approximate cost of \$3 million dollars to add 20,000 square feet. These modifications would add a second floor to the high bay area and a third floor to the annex building

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- **Buildout of current facility adding 65,000 square feet and costing approximately \$8 million dollars. This option would utilize existing buildable 2 acres**
- **If necessary, reconfigure existing parking and construct parking facility to create additional buildable acreage.**

3.5.1.2 If there is capacity to absorb additional workyears, how many additional workyears can be supported? (BRAC Criteria III)

There is no current capacity to absorb additional workyears without exercising options in 3.5.1.1 or leasing additional space.

3.5.1.3 For 3.5.1.1 and 3.5.1.2 (above) describe the impact of military construction programs or other alteration projects programmed in the FY95 PBS. (BRAC Criteria II)

NAWCTSD has no construction/alteration projects programmed in the FY95 PBS.

3.5.2 Land Use: Provide number of buildable acres for additional laboratory/administrative support construction at your installation. (BRAC Criteria II)

Current number of buildable acres = Two (2)

If necessary, additional buildable acres could be generated by changing the existing footprint for parking and construction of a parking facility as described in 3.5.1.1 (approximately 13.7 paved acres, a small part of which is a perimeter road.)

3.5.3 Utilities: Provide an estimate of your installation's capability to expand or procure additional utility services (electric, gas, water). Estimates should be provided in appropriate units -- e.g. KWH of electricity. (BRAC Criteria II)

Electric - Unlimited capacity
Sewer - 60,000 GPD (expansion capacity)
Water - 2,500,000 GPD (expansion capacity)

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25 August 1994

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Page 34 of 34

UIC 61339

DATA CALL #12
25 Aug 94 Resubmit
TSD

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

NEXT ECHELON LEVEL (if applicable)

W. E. NEWMAN, RADM, USN
NAME (Please type or print)
COMMANDER
Title
NAVAL AIR WARFARE CENTER
Activity

W E Newman
Signature
8/26/94
Date

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

NEXT ECHELON LEVEL (if applicable)

NAME (Please type or print)

Title

Activity

Signature

Date

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

MAJOR CLAIMANT LEVEL

W. C. BOWES, VADM, USN
NAME (Please type or print)
COMMANDER
Title
NAVAL AIR SYSTEMS COMMAND
Activity

W C Bowes
Signature
29 AUG 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
9/1/94
Date

BRAC DATA CALL #12

BRAC-95 CERTIFICATION

Reference: SECNAV NOTE 11000 dtd 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.

ACTIVITY COMMANDER

C. L. ADDISON
NAME (Please type of print)

COMMANDING OFFICER
Title
NAVAL AIR WARFARE CENTER
TRAINING SYSTEMS DIVISION
Activity

C. L. Addison
Signature

25 AUGUST 1994
Date



DEPARTMENT OF THE NAVY
NAVAL AIR WARFARE CENTER
NAVAL AIR WARFARE CENTER HEADQUARTERS
1421 JEFFERSON DAVIS HWY
ARLINGTON VA 22243

IN REPLY REFER TO

1000
Ser NAWC-21C/

SEP 16 1994

From: Commander, Naval Air Warfare Center
To: Distribution

Subj: RELEASE OF BASE REALIGNMENT AND CLOSURE DATA CALL IN
THE ABSENCE OF THE COMMANDER

1. During the period 19-21 September I will be on travel.
2. Mr. Lewis L. Lundberg, Technical Director, Naval Air Warfare Center, is designated as acting as Acting Commander during this period. As such, he is authorized to release completed Base Realignment and Closure Data Calls and to provide certification for the data calls.

W. E. Newman
W. E. NEWMAN

Distribution:
COMNAVAIRWARCENWPNDIV
COMNAVAIRWARCENACDIV
NAVAIRWARTRASYS DIV



DATA CALL # 12 (REVISION)

BRAC-95 CERTIFICATION

QUES 3.2.4.2

Reference: SECNAV NOTE 11000 dtd 8 Dec 93

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

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

ACTIVITY COMMANDER

CAPT C. L. ADDISON
NAME (Please type of print)

COMMANDING OFFICER
Title
NAVAL AIR WARFARE CENTER
TRAINING SYSTEMS DIVISION
Activity

C. L. Addison
Signature

14 SEP 1994
Date

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

NEXT ECHELON LEVEL (if applicable)

L. L. LUNDBERG
NAME (Please type or print)
ACTING COMMANDER
Title
NAVAL AIR WARFARE CENTER
Activity

L. L. Lundberg
Signature
9/19/94
Date

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

NEXT ECHELON LEVEL (if applicable)

NAME (Please type or print)

Title

Activity

Signature

Date

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

MAJOR CLAIMANT LEVEL

W. C. BOWES, VADM, USN
NAME (Please type or print)
COMMANDER
Title
NAVAL AIR SYSTEMS COMMAND
Activity

W. C. Bowes
Signature
20 Sep 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
9/21/94
Date

DATA CALL #12 (REVISION TO QUES 2.1)
BRAC-95 CERTIFICATION

Reference: SECNAV NOTE 11000 dtd 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.

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

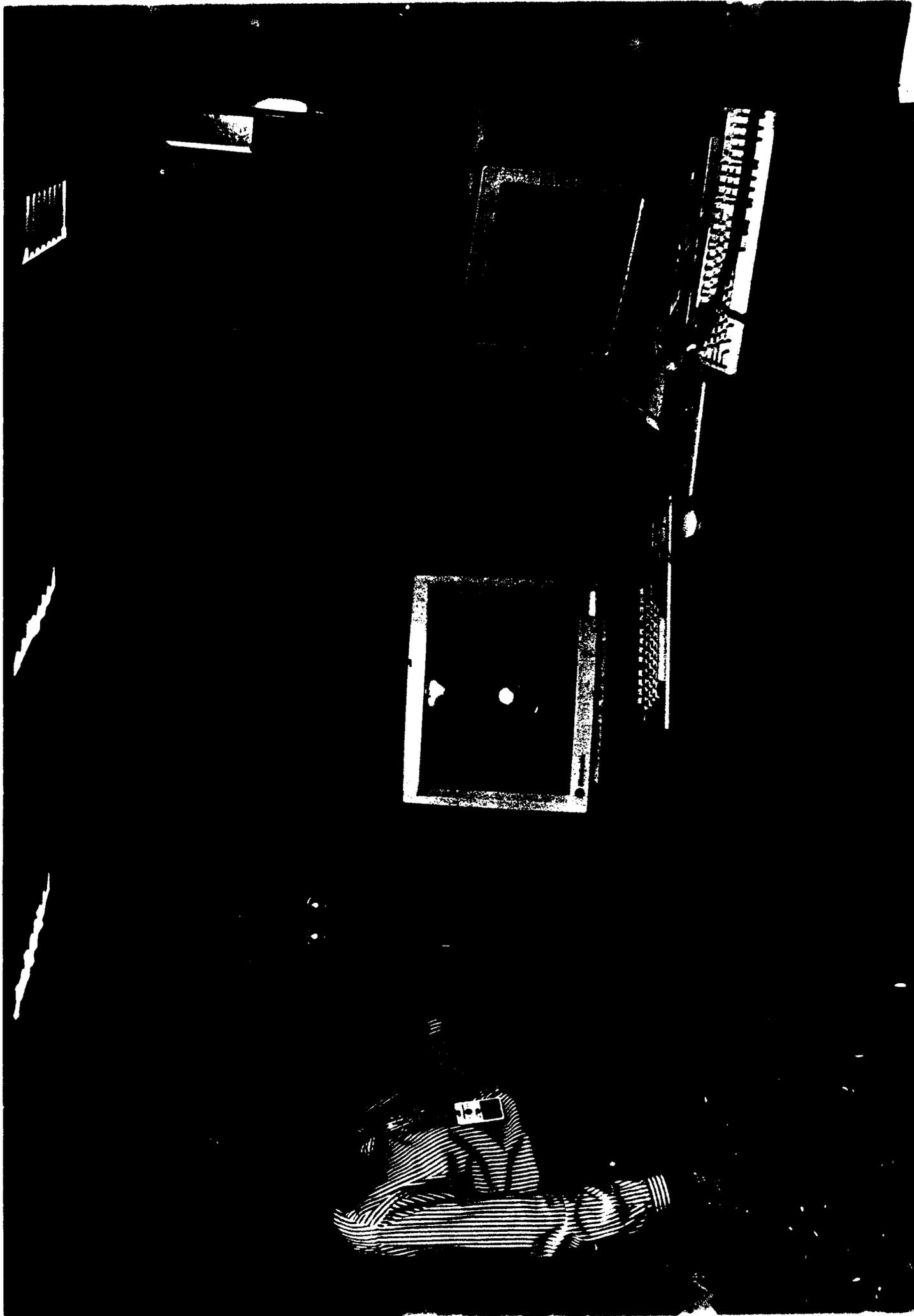
ACTIVITY COMMANDER

CAPT C. L. ADDISON
 NAME (Please type of print)

C. L. Addison
 Signature

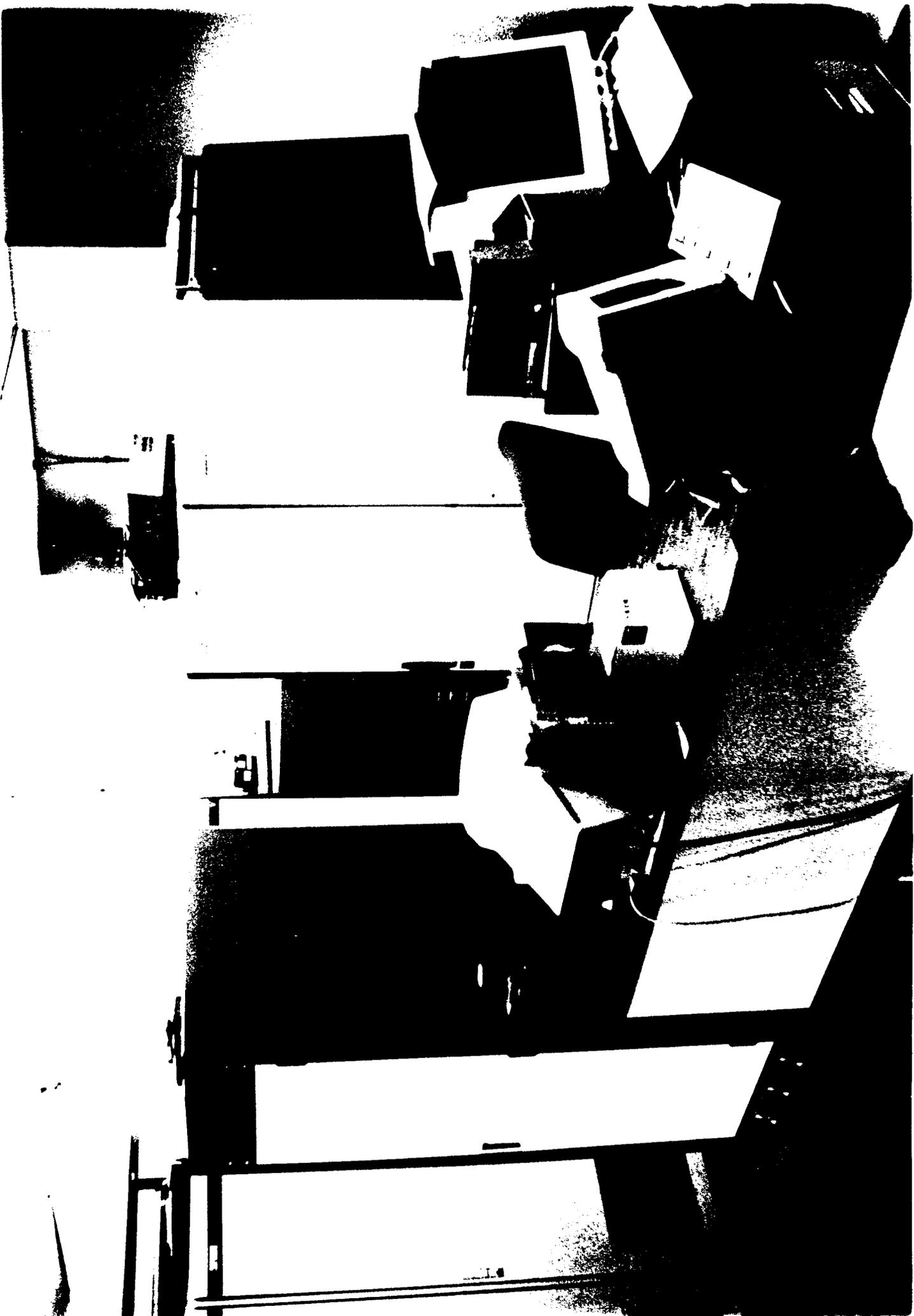
COMMANDING OFFICER
 Title
NAVAL AIR WARFARE CENTER
TRAINING SYSTEMS DIVISION
 Activity

16 SEP 1994
 Date





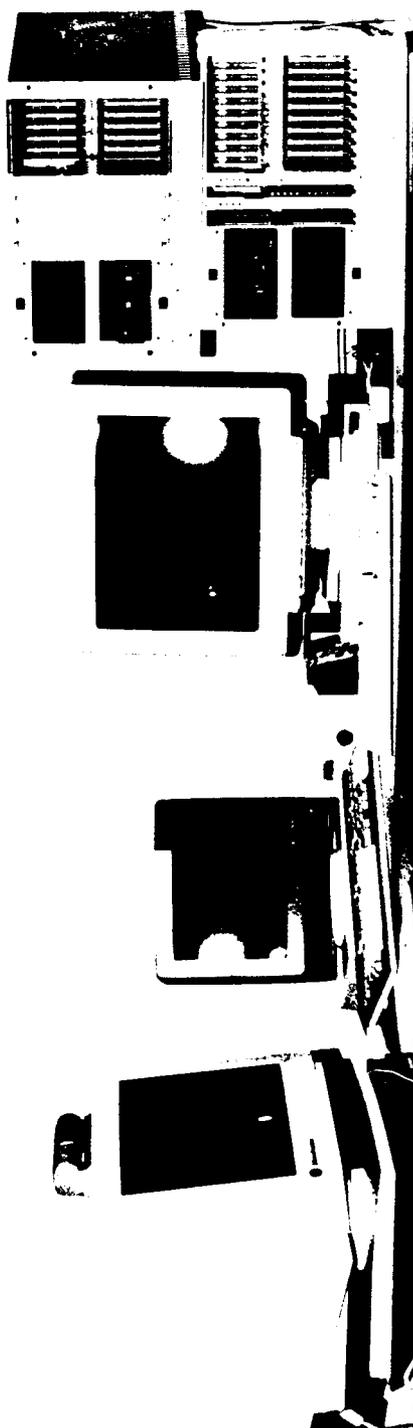








MOTOROLA
Prototype DIS Network Interface Unit



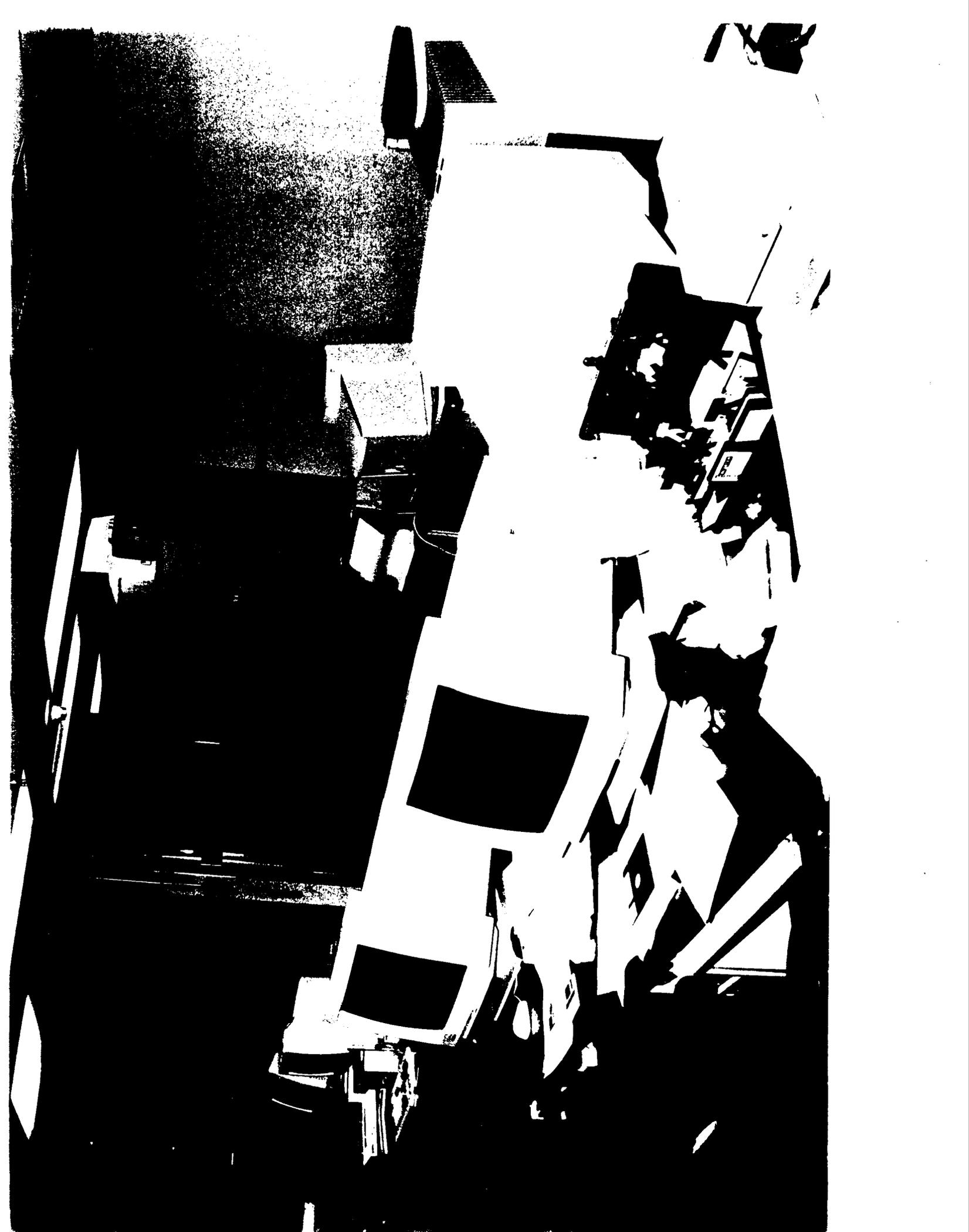


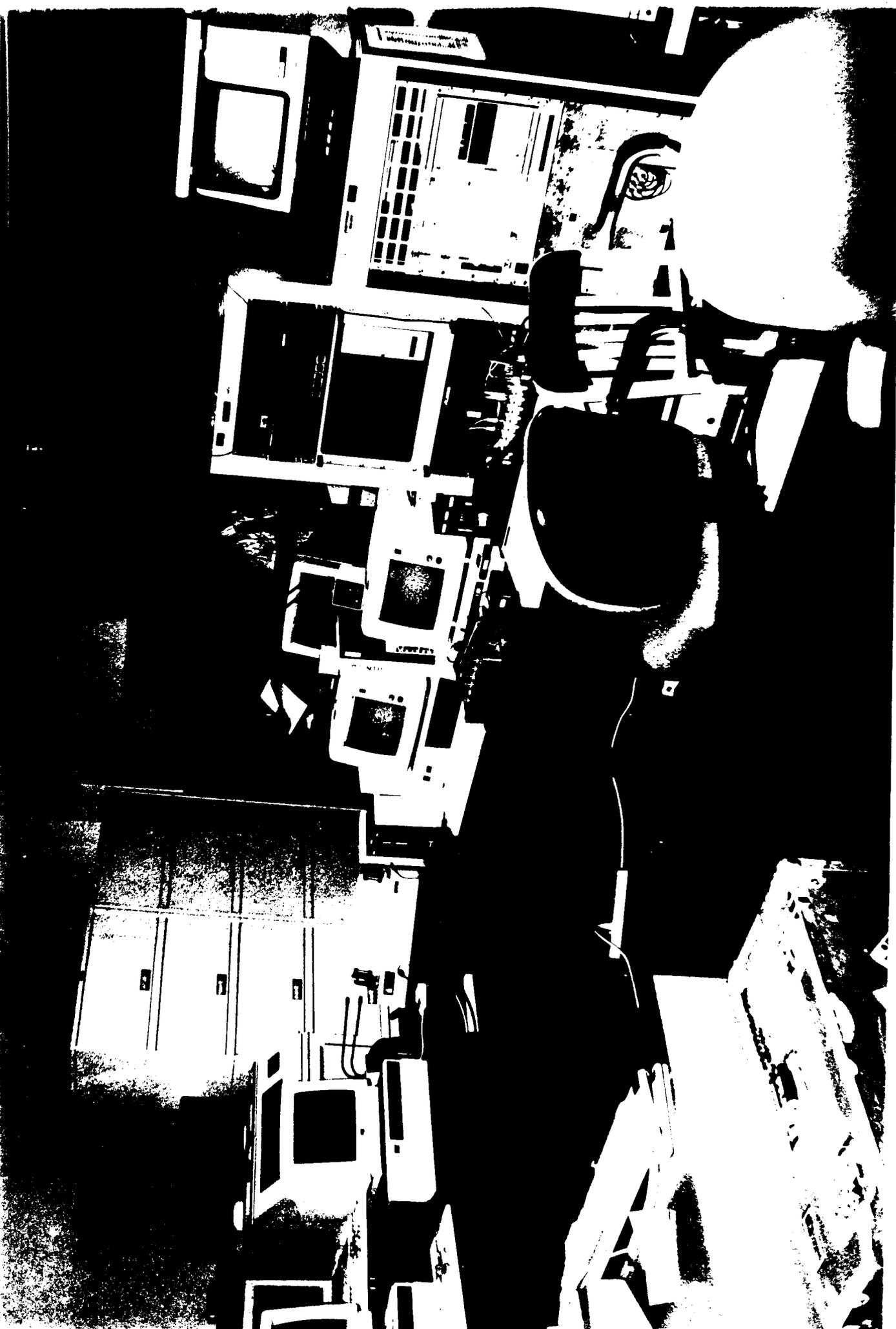
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ICTIS
Tactical Training
Instructor
Component

STCIS
Tactical Training
Component





146

**DATA CALL 66
INSTALLATION RESOURCES**

Activity Information:

Activity Name:	Naval Air Warfare Center Training Systems Division
UIC:	61339
Host Activity Name (if response is for a tenant activity):	N/A
Host Activity UIC:	N/A

General Instructions/Background. A separate response to this data call must be completed for each Department of the Navy (DON) host, independent and tenant activity which separately budgets BOS costs (regardless of appropriation), and, is located in the United States, its territories or possessions.

1. Base Operating Support (BOS) Cost Data. Data is required which captures the total annual cost of operating and maintaining Department of the Navy (DON) shore installations. Information must reflect FY 1996 budget data supporting the FY 1996 NAVCOMPT Budget Submit. Two tables are provided. Table 1A identifies "Other than DBOF Overhead" BOS costs and Table 1B identifies "DBOF Overhead" BOS costs. These tables must be completed, as appropriate, for all DON host, independent or tenant activities which separately budget BOS costs (regardless of appropriation), and, are located in the United States, its territories or possessions. Responses for DBOF activities may need to include both Table 1A and 1B to ensure that all BOS costs, including those incurred by the activity in support of tenants, are identified. If both table 1A and 1B are submitted for a single DON activity, please ensure that no data is double counted (that is, included on both Table 1A and 1B). The following tables are designed to collect all BOS costs currently budgeted, regardless of appropriation, e.g., Operations and Maintenance, Research and Development, Military Personnel, etc. Data must reflect FY 1996 and should be reported in thousands of dollars.

a. Table 1A - Base Operating Support Costs (Other Than DBOF Overhead). This Table should be completed to identify "Other Than DBOF Overhead" Costs. Display, in the format shown on the table, the O&M, R&D and MPN resources currently budgeted for BOS services. O&M cost data must be consistent with data provided on the BS-1 exhibit. Report only direct funding for the activity. Host activities should not include reimbursable support provided to tenants, since tenants will be separately reporting these costs. Military personnel costs should be included on the appropriate lines of the table. Please ensure that individual lines of the table do not include duplicate costs. Add additional lines to the table (following line 2j., as necessary, to identify any additional cost elements not currently shown). Leave shaded areas of table blank.

**DATA CALL 66
INSTALLATION RESOURCES**

Table 1A - Base Operating Support Costs (Other Than DBOF Overhead)			
Activity Name: NAWCTSD		UIC: 61339	
Category	FY 1996 BOS Costs		
	Non-Labor	Labor	Total
1. Real Property Maintenance Costs:			
1a. Maintenance and Repair	785		785
1b. Minor Construction	87		87
1c. Sub-total 1a. and 1b.	872		872
2. Other Base Operating Support Costs:			
2a. Utilities	589		589
2b. Transportation	72		72
2c. Environmental	1		1
2d. Facility Leases	20		20
2e. Morale, Welfare & Recreation	0		0
2f. Bachelor Quarters	0		0
2g. Child Care Centers	0		0
2h. Family Service Centers	0		0
2i. Administration	1478	3334	4812
2j. Other (Specify) *	970		970
2k. Sub-total 2a. through 2j:	3130	3334	6464
3. Grand Total (sum of 1c. and 2k.):	4002	3334	7336

* Custodial, grounds maintenance, painting, lighting, carpet (supplies/contractor support - no direct labor), base communications.

**DATA CALL 66
INSTALLATION RESOURCES**

b. Funding Source. If data shown on Table 1A reflects more than one appropriation, then please provide a break out of the total shown for the "3. Grand-Total" line, by appropriation:

<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..

NAWCTSD is not a DBOF Activity

**DATA CALL 66
INSTALLATION RESOURCES**

Table 1B - Base Operating Support Costs (DBOF Overhead) <u>N/A</u>			
Activity Name:		UIC:	
Category	FY1996 Net	Cost From	UC/FUND-4
	Non-Labor	Labor	Total
1. Real Property Maintenance Costs:			
1a. Real Property Maintenance (>\$15K)			
1b. Real Property Maintenance (<\$15K)			
1c. Minor Construction (Expensed)			
1d. Minor Construction (Capital Budget)			
1c. Sub-total 1a. through 1d.			
2. Other Base Operating Support Costs:			
2a. Command Office			
2b. ADP Support			
2c. Equipment Maintenance			
2d. Civilian Personnel Services			
2e. Accounting/Finance			
2f. Utilities			
2g. Environmental Compliance			
2h. Police and Fire			
2i. Safety			
2j. Supply and Storage Operations			
2k. Major Range Test Facility Base Costs			
2l. Other (Specify)			
2m. Sub-total 2a. through 2l:			
3. Depreciation			
4. Grand Total (sum of 1c., 2m., and 3.) :			

**DATA CALL 66
INSTALLATION RESOURCES**

2. Services/Supplies Cost Data. The purpose of Table 2 is to provide information about projected FY 1996 costs for the purchase of services and supplies by the activity. (Note: Unlike Question 1 and Tables 1A and 1B, above, this question is not limited to overhead costs.) The source for this information, where possible, should be either the NAVCOMPT OP-32 Budget Exhibit for O&M activities or the NAVCOMPT UC/FUND-1/IF-4 exhibit for DBOF activities. Information must reflect FY 1996 budget data supporting the FY 1996 NAVCOMPT Budget Submit. Break out cost data by the major sub-headings identified on the OP-32 or UC/FUND-1/IF-4 exhibit, disregarding the sub-headings on the exhibit which apply to civilian and military salary costs and depreciation. Please note that while the OP-32 exhibit aggregates information by budget activity, this data call requests OP-32 data for the activity responding to the data call. Refer to NAVCOMPTINST 7102.2B of 23 April 1990, Subj: Guidance for the Preparation, Submission and Review of the Department of the Navy (DON) Budget Estimates (DON Budget Guidance Manual) with Changes 1 and 2 for more information on categories of costs identified. Any rows that do not apply to your activity may be left blank. However, totals reported should reflect all costs, exclusive of salary and depreciation.

Table 2 - Services/Supplies Cost Data	
Activity Name: NAWCTSD	UIC: 61339
Cost Category	FY 1996 Projected Costs (\$000)
Travel:	127
Material and Supplies (including equipment):	934
Industrial Fund Purchases (other DBOF purchases): *	1,650
Transportation:	205
Other Purchases (Contract support, etc.): **	14,607
Total:	17,523

* Includes: Support of Division's Financial Management System

** Includes: Communications, Centrally-Managed Programs (Simulator, Operations, & Maintenance, Submarine and Surface Taskings, Aviation Programs, etc.), Base Operating Support, General Support for Personnel (Training)

**DATA CALL 66
INSTALLATION RESOURCES**

3. Contractor Workyears. **

a. On-Base Contract Workyear Table. Provide a projected estimate of the number of contract workyears expected to be **performed "on base"** in support of the installation during FY 1996. Information should represent an annual estimate on a full-time equivalency basis. Several categories of contract support have been identified in the table below. While some of the categories are self-explanatory, please note that the category "mission support" entails management support, labor service and other mission support contracting efforts, e.g., aircraft maintenance, RDT&E support, technical services in support of aircraft and ships, etc.

Table 3 - Contract Workyears	
Activity Name: NAWCTSD	UIC: 61339
Contract Type	FY 1996 Estimated Number of Workyears On-Base
Construction:	1
Facilities Support:	19
Mission Support:	10
Procurement:	0
Other:*	0
Total Workyears:	30

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

** Workyears shown represent Base Operating Support. Not included are Acquisition, Contractor Operation and Maintenance of Simulators, Simulator Operations and Maintenance, Modifications, and Training Systems Support Activities contractor workyears. Those efforts directly support activities where fielded trainers are located.

**DATA CALL 66
INSTALLATION RESOURCES**

b. Potential Disposition of On-Base Contract Workyears. If the mission/functions of your activity were relocated to another site, what would be the anticipated disposition of the on-base contract workyears identified in Table 3.?

- 1) Estimated number of contract workyears which would be transferred to the receiving site (This number should reflect the number of jobs which would in the future be contracted for at the receiving site, not an estimate of the number of people who would move or an indication that work would necessarily be done by the same contractor(s)):

30

- 2) Estimated number of workyears which would be eliminated:

0

- 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

**DATA CALL 66
INSTALLATION RESOURCES**

c. "Off-Base" Contract Workyear Data. Are there any contract workyears located in the local community, but not on-base, which would either be eliminated or relocated if your activity were to be closed or relocated? If so, then provide the following information (ensure that numbers reported below do not double count numbers included in 3.a. and 3.b., above):

No. of Additional Contract Workyears Which Would Be Eliminated *	General Type of Work Performed on Contract (e.g., engineering support, technical services, etc.)
0	

No. of Additional Contract Workyears Which Would Be Relocated *	General Type of Work Performed on Contract (e.g., engineering support, technical services, etc.)
6 3 1 <u>2</u> 12 Total	Technical Support for Spares Screening Warehousing/Storage of Supplies/Material Computer (VAX) Support Visual Research Engineering Support

* Assumption - mission/functions continue even if Activity is closed/relocated

DATA CALL 66
NAWCTSD

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

NEXT ECHELON LEVEL (if applicable)

W. E. NEWMAN, RADM, USN

NAME (Please type or print)

COMMANDER

Title

NAVAL AIR WARFARE CENTER

Activity

WE Newman
Signature

7/18/94
Date

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

NEXT ECHELON LEVEL (if applicable)

NAME (Please type or print)

Title

Activity

Signature

Date

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

MAJOR CLAIMANT LEVEL

W. C. BOWES, VADM, USN

NAME (Please type or print)

COMMANDER

Title

NAVAL AIR SYSTEMS COMMAND

Activity

W. C. Bowes
Signature

29 AUG 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

9/1/94
Date

BRAC-95 DATA CALL #66

BRAC-95 CERTIFICATION

Reference: SECNAV NOTE 11000 dtd 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.

ACTIVITY COMMANDER

C. L. ADDISON
NAME (Please type of print)

COMMANDING OFFICER
Title
NAVAL AIR WARFARE CENTER
TRAINING SYSTEMS DIVISION
Activity


Signature

7 JULY 1994
Date

DATA CALL 66
INSTALLATION RESOURCES

164

Activity Information:

Activity Name:	NAVDAF Orlando, FL
UIC:	N68578
Host Activity Name (if response is for a tenant activity):	Naval Air Warfare Center, Technical Support Div
Host Activity UIC:	N61339

General Instructions/Background. A separate response to this data call must be completed for each Department of the Navy (DON) host, independent and tenant activity which separately budgets BOS costs (regardless of appropriation), and, is located in the United States, its territories or possessions.

1. Base Operating Support (BOS) Cost Data. Data is required which captures the total annual cost of operating and maintaining Department of the Navy (DON) shore installations. Information must reflect FY 1996 budget data supporting the FY 1996 NAVCOMPT Budget Submit. Two tables are provided. Table 1A identifies "Other than DBOF Overhead" BOS costs and Table 1B identifies "DBOF Overhead" BOS costs. These tables must be completed, as appropriate, for all DON host, independent or tenant activities which separately budget BOS costs (regardless of appropriation), and, are located in the United States, its territories or possessions. Responses for DBOF activities may need to include both Table 1A and 1B to ensure that all BOS costs, including those incurred by the activity in support of tenants, are identified. If both table 1A and 1B are submitted for a single DON activity, please ensure that no data is double counted (that is, included on both Table 1A and 1B). The following tables are designed to collect all BOS costs currently budgeted, regardless of appropriation, e.g., Operations and Maintenance, Research and Development, Military Personnel, etc. Data must reflect FY 1996 and should be reported in thousands of dollars.

a. Table 1A - Base Operating Support Costs (Other Than DBOF Overhead).

This Table should be completed to identify "Other Than DBOF Overhead" Costs. Display, in the format shown on the table, the O&M, R&D and MPN resources currently budgeted for BOS services. O&M cost data must be consistent with data provided on the BS-1 exhibit. Report only direct funding for the activity. Host activities should not include reimbursable support provided to tenants, since tenants will be separately reporting these costs. Military personnel costs should be included on the appropriate lines of the table. Please ensure that individual lines of the table do not include duplicate costs. Add additional lines to the table (following line 2j., as necessary, to identify any additional cost elements not currently shown). Leave shaded areas of table blank.

**DATA CALL 66
INSTALLATION RESOURCES**

Table 1A - Base Operating Support Costs (Other Than DBOF Overhead)			
Activity Name: NAVDAF Orlando, FL		UIC: N68578	
Category	FY 1996 BOS Costs (\$000)		
	Non-Labor	Labor	Total
1. Real Property Maintenance Costs:			
1a. Maintenance and Repair			
1b. Minor Construction			
1c. Sub-total 1a. and 1b.			
2. Other Base Operating Support Costs:			
2a. Utilities			
2b. Transportation			
2c. Environmental			
2d. Facility Leases			
2e. Morale, Welfare & Recreation			
2f. Bachelor Quarters			
2g. Child Care Centers			
2h. Family Service Centers			
2i. Administration			
2j. Other (Specify)			
2k. Sub-total 2a. through 2j:			
3. Grand Total (sum of 1c. and 2k.):	0	0	0

**DATA CALL 66
INSTALLATION RESOURCES**

b. Funding Source. If data shown on Table 1A reflects more than one appropriation, then please provide a break out of the total shown for the "3. Grand-Total" line, by appropriation:

<u>Appropriation</u>	<u>Amount (\$000)</u>
----------------------	-----------------------

c. Table 1B - Base Operating Support Costs (DBOF Overhead). This Table should be submitted for all current DBOF activities. Costs reported should reflect BOS costs supporting the DBOF activity itself (usually included in the G&A cost of the activity). For DBOF activities which are tenants on another installation, total cost of BOS incurred by the tenant activity for itself should be shown on this table. It is recognized that differences exist among DBOF activity groups regarding the costing of base operating support: some groups reflect all such costs only in general and administrative (G&A), while others spread them between G&A and production overhead. Regardless of the costing process, all such costs should be included on Table 1B. The Minor Construction portion of the FY 1996 capital budget should be included on the appropriate line. Military personnel costs (at civilian equivalency rates) should also be included on the appropriate lines of the table. Please ensure that individual lines of the table do not include duplicate costs. Also ensure that there is no duplication between data provided on Table 1A. and 1B. These two tables must be mutually exclusive, since in those cases where both tables are submitted for an activity, the two tables will be added together to estimate total BOS costs at the activity. Add additional lines to the table (following line 21., as necessary, to identify any additional cost elements not currently shown). Leave shaded areas of table blank.

Other Notes: All costs of operating the five Major Range Test Facility Bases at DBOF activities (even if direct RDT&E funded) should be included on Table 1B. Weapon Stations should include underutilized plant capacity costs as a DBOF overhead "BOS expense" on Table 1B..

**DATA CALL 66
INSTALLATION RESOURCES**

Table 1B - Base Operating Support Costs (DBOF Overhead)			
Activity Name: NAVDAF Orlando, FL		UIC: N68578	
Category	FY 1996 Net Cost From UC/FUND-4 (\$000)		
	Non-Labor	Labor	Total
1. Real Property Maintenance Costs:			
1a. Real Property Maintenance (> \$15K)			
1b. Real Property Maintenance (< \$15K)			
1c. Minor Construction (Expensed)			
1d. Minor Construction (Capital Budget)			
1e. Sub-total 1a. through 1d.			
2. Other Base Operating Support Costs:			
2a. Command Office			
2b. ADP Support			
2c. Equipment Maintenance			
2d. Civilian Personnel Services			
2e. Accounting/Finance			
2f. Utilities			
2g. Environmental Compliance			
2h. Police and Fire			
2i. Safety			
2j. Supply and Storage Operations			
2k. Major Range Test Facility Base Costs			
2l. Other (Specify)			
2m. Sub-total 2a. through 2l:			
3. Depreciation			
4. Grand Total (sum of 1c., 2m., and 3.) :	0	0	0

**DATA CALL 66
INSTALLATION RESOURCES**

2. Services/Supplies Cost Data. The purpose of Table 2 is to provide information about projected FY 1996 costs for the purchase of services and supplies by the activity. (Note: Unlike Question 1 and Tables 1A and 1B, above, this question is not limited to overhead costs.) The source for this information, where possible, should be either the NAVCOMPT OP-32 Budget Exhibit for O&M activities or the NAVCOMPT UC/FUND-1/IF-4 exhibit for DBOF activities. Information must reflect FY 1996 budget data supporting the FY 1996 NAVCOMPT Budget Submit. Break out cost data by the major sub-headings identified on the OP-32 or UC/FUND-1/IF-4 exhibit, disregarding the sub-headings on the exhibit which apply to civilian and military salary costs and depreciation. Please note that while the OP-32 exhibit aggregates information by budget activity, this data call requests OP-32 data for the activity responding to the data call. Refer to NAVCOMPTINST 7102.2B of 23 April 1990, Subj: Guidance for the Preparation, Submission and Review of the Department of the Navy (DON) Budget Estimates (DON Budget Guidance Manual) with Changes 1 and 2 for more information on categories of costs identified. Any rows that do not apply to your activity may be left blank. However, totals reported should reflect all costs, exclusive of salary and depreciation.

Table 2 - Services/Supplies Cost Data	
Activity Name: NAVDAF Orlando, Fl	UIC: N68578
Cost Category	FY 1996 Projected Costs (\$000)
Travel:	2
Material and Supplies (including equipment):	2
Industrial Fund Purchases (other DBOF purchases):	294
Transportation:	0
Other Purchases (Contract support, etc.):	11
Total:	309

**DATA CALL 66
INSTALLATION RESOURCES**

3. Contractor Workyears.

a. On-Base Contract Workyear Table. Provide a projected estimate of the number of contract workyears expected to be **performed "on base"** in support of the installation during FY 1996. Information should represent an annual estimate on a full-time equivalency basis. Several categories of contract support have been identified in the table below. While some of the categories are self-explanatory, please note that the category "mission support" entails management support, labor service and other mission support contracting efforts, e.g., aircraft maintenance, RDT&E support, technical services in support of aircraft and ships, etc.

Table 3 - Contract Workyears	
Activity Name: NAVDAF Orlando, FL	UIC: N68578
Contract Type	FY 1996 Estimated Number of Workyears On-Base
Construction:	0
Facilities Support:	0
Mission Support:	0
Procurement:	0
Other:*	0
Total Workyears:	0

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

**DATA CALL 66
INSTALLATION RESOURCES**

b. Potential Disposition of On-Base Contract Workyears. If the mission/functions of your activity were relocated to another site, what would be the anticipated disposition of the on-base contract workyears identified in Table 3.?

1) Estimated number of contract workyears which would be transferred to the receiving site (This number should reflect the number of jobs which would in the future be contracted for at the receiving site, not an estimate of the number of people who would move or an indication that work would necessarily be done by the same contractor(s)):

0

2) Estimated number of workyears which would be eliminated:

0

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

**DATA CALL 66
INSTALLATION RESOURCES**

c. "Off-Base" Contract Workyear Data. Are there any contract workyears located in the local community, but not on-base, which would either be eliminated or relocated if your activity were to be closed or relocated? If so, then provide the following information (ensure that numbers reported below do not double count numbers included in 3.a. and 3.b., above): **NAVDAF Orlando has no contractor support**

No. of Additional Contract Workyears Which Would Be Eliminated	General Type of Work Performed on Contract (e.g., engineering support, technical services, etc.)
0	

No. of Additional Contract Workyears Which Would Be Relocated	General Type of Work Performed on Contract (e.g., engineering support, technical services, etc.)
0	

INSTALLATION RESOURCES, DATA CALL 66 for COMNAVCOMTELCOM

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

NEXT ECHELON LEVEL (if applicable)

NAME (Please type or print)

Signature

Title

Date

Activity

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

NEXT ECHELON LEVEL (if applicable)

(Please type or print)

Signature

Name

Title

Date

Activity

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

MAJOR CLAIMANT LEVEL

T. A. STARK

Name (Please type or print)

Signature

Commander,

Title

25 Aug 1994

Date

Naval Computer and
Telecommunications Command

Activity

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

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

W. A. EARNER

NAME (Please type or print)

Signature

Title

Date

Enclosure (2)

1. ENDANGERED/THREATENED SPECIES AND BIOLOGICAL HABITAT

1a. For federal or state listed endangered, threatened, or category 1 plant and/or animal species on your base, complete the following table. Critical/sensitive habitats for these species are designated by the U. S. Fish and Wildlife Service (USFWS). A species is present on your base if some part of its life-cycle occurs on Navy controlled property (e.g., nesting, feeding, loafing). Important Habitat refers to that number of acres of habitat that is important to some life cycle stage of the threatened/endangered species that is not formally designated.

SPECIES (plant or animal)	Designation (Threatened/ Endangered)	Federal/ State	Critical / Designated Habitat (Acres)	Important Habitat (acres)
<i>example: Haliaeetus leucocephalus - bald eagle</i>	<i>threatened</i>	<i>Federal</i>	<i>25</i>	<i>0</i>
NONE				

Source Citation: **Natural Resources Plan, February 1994**

1b.

<p>Have your base operations or development plans been constrained due to:</p> <ul style="list-style-type: none"> - USFWS or National Marine Fisheries Service (NMFS)? - State required modifications or constraints? <p>If so, identify below the impact of the constraints including any restrictions on land use.</p>	<p>NO NO</p>
<p>Are there any requirements resulting from species not residing on base, but which migrate or are present nearby? If so, summarize the impact of such constraints.</p>	<p>NO</p>

1c. If the area of the habitat and the associated species have not been identified on base maps provided in Data Call 1, submit this information on an updated version of Data Call 1 map.

N/A (No endangered species)

1d.

Have any efforts been made to relocate any species and/or conduct any mitigation with regards to critical habitats or endangered/threatened species? Explain what has been done and why.	N/A
--	------------

N/A (No endangered species)

1e.

Will any state or local laws and/or regulations applying to endangered/threatened species which have been enacted or promulgated but not yet effected, constrain base operations or development plans beyond those already identified? Explain.	NO
---	-----------

(No threatened or endangered species on current listings)

2. WETLANDS

Note: Jurisdictional wetlands are those areas that meet the wetland definitional criteria detailed in the Corps of Engineers (COE) Wetland Delineation Manual, 1987, Technical Report Y-87-1, U.S. Army Engineer Waterway Experiment Station, Vicksburg, MS or officially adapted state definitions.

2a.

Does your base possess federal jurisdictional wetlands?	NO
Has a wetlands survey in accordance with established standards been conducted for your base?	NO
When was the survey conducted or when will it be conducted? ____ / ____ / ____	
What percent of the base has been surveyed?	
What is the total acreage of jurisdictional wetlands present on your base?	

Source Citation: **Natural Resources Plan, February 1994**

2b. If the area of the wetlands has not been identified on base maps provided in Data Call 1, submit this on an updated version of Data Call 1 map. **N/A (No wetlands)**

2c. Has the EPA, COE or a state wetland regulatory agency required you to modify or constrain base operations or development plans in any way in order to accommodate a jurisdictional wetland? NO If YES, summarize the results of such modifications or constraints.

3. CULTURAL RESOURCES

3a.

Has a survey been conducted to determine historic sites, structures, districts or archaeological resources which are listed, or determined eligible for listing, on the National Register of Historic Places? If so, list the sites below.	YES
--	------------

We have no historic sites. Corps of Engineers letter of 3 March 1994 and State Historic Protection Officer concurrence.

3b.

<p>Has the President's Advisory Council on Historic Preservation or the cognizant State Historic Preservation Officer required you to mitigate or constrain base operations or development plans in any way in order to accommodate a National Register cultural resource? If YES, list the results of such modifications or constraints below.</p>	<p>NO</p>
---	------------------

3c.

<p>Are there any on base areas identified as sacred areas or burial sites by Native Americans or others? List below.</p>	<p>NO</p>
--	------------------

4. ENVIRONMENTAL FACILITIES

Notes: If your facility is permitted for less than maximum capacity, state the maximum capacity and explain below the associated table why it is not permitted for maximum capacity. Under "Permit Status" state when the permit expires, and whether the facility is operating under a waiver. For permit violations, limit the list to the last 5 years.

4a. N/A (We do not own/operate any environmental facilities.)

Does your base have an operating landfill?					NO
ID/Location of Landfill	Permitted Capacity (CYD)		Maximum Capacity (CYD)	Contents ¹	Permit Status
	TOTAL	Remaining			

¹ Contents (e.g. building demolition, asbestos, sanitary debris, etc)

Are there any current or programmed projects to correct deficiencies or improve the facility.

N/A

4b. If there are any non-Navy users of the landfill, describe the user and conditions/agreements.

N/A

4c.

Does your base have any disposal, recycling, or incineration facilities for solid waste?					NO
Facility/Type of Operation	Permitted Capacity	Ave Daily Throughput	Maximum Capacity	Permit Status	Comments

List any permit violations and projects to correct deficiencies or improve the facility.

N/A

4d.

Does your base own/operate a Domestic Wastewater Treatment Plant (WWTP) ?					NO
ID/Location of WWTP	Permitted Capacity	Ave Daily Discharge Rate	Maximum Capacity	Permit Status	Level of Treatment/Year Built

List permit violations and discuss any projects to correct deficiencies.

N/A

4e. If you do not have a domestic WWTP, describe the average discharge rate of your base to the local sanitary sewer authority, discharge limits set by the sanitary sewer authority (flow and pollutants) and whether the base is in compliance with their permit. Discuss recurring discharge violations.

Our average discharge to the public utility is 11,000 GPD. No discharge limits have been set by the public utility. We are in compliance with all discharge requirements set by the utility. No known discharge violations.

4f.

Does your base operate an Industrial Waste Treatment Plant (IWTP)?					NO
ID/Location of IWTP	Type of Treatment	Permitted Capacity	Ave Daily Discharge Rate	Maximum Capacity	Permit Status

List any permit violations and projects to correct deficiencies or improve the facility. N/A

4g. Are there other waste treatment flows not accounted for in the previous tables? Estimate capacity and describe the system. NO

4h.

Does your base operate drinking Water Treatment Plants (WTP)?				NO	
ID/Location of WTP	Operating (GPD)		Method of Treatment	Maximum Capacity	Permit Status
	Permitted Capacity	Daily Rate			

List permit violations and projects/actions to correct deficiencies or improve the facility. N/A

4i. If you do not operate a WTP, what is the source of the base potable water supply. State terms and limits on capacity in the agreement/contract, if applicable.

Publicly owned utility company. No limit set to our consumption. Our average consumption is 21,000 GPD. The plant capacity is 2,500,000 GPD.

4j.

Does the presence of contaminants or lack of supply of water constrain base operations. Explain.	NO
--	----

No contaminants are present in the water supply. Currently excess water supply capacity exists and a major expansion of the water utility is planned in the near future.

4k.

Other than those described above does your base hold any NPDES or stormwater permits? If YES, describe permit conditions.	NO
If NO, why not and provide explanation of plan to achieve permitted status.	

We are not an industrial facility; therefore, NPDES/stormwater permits are not required.

4l.

Does your base have bilge water discharge problem?	NO
Do you have a bilge water treatment facility?	NO

Explain:

4m.

Will any state or local laws and/or regulations applying to Environmental Facilities, which have been enacted or promulgated but not yet effected, constrain base operations or development plans beyond those already identified? Explain.	NO
---	----

4n. What expansion capacity is possible with these Environmental Facilities? Will any expansions/upgrades as a result of BRACON or projects programmed through the Presidents budget through FY1997 result in additional capacity? Explain.

N/A - We don't have any of these facilities. The services are provided by public utility companies which have sufficient excess capacity to handle our growth potential.

4o. Do capacity limitations on any of the facilities discussed in question 4 pose a present or future limitation on base operations? Explain.

NO. The services are provided by public utility companies which have more than enough capacity to handle our growth potential.

5. AIR POLLUTION

5a.

<p>What is the name of the Air Quality Control Areas (AQCA) in which the base is located? Orange County, Florida</p>
<p>Is the installation or any of its OLFs or non-contiguous base properties located in different AQCA's? <u>NO</u> List site, location and name of AQCA.</p>

5b. For each parcel in a separate AQCA fill in the following table. Identify with and "X" whether the status of each regulated pollutant is: attainment/nonattainment/maintenance. For those areas which are in non-attainment, state whether they are: Marginal, Moderate, Serious, Severe, or Extreme. State target attainment year.

Site: **Main Base**

AQCA: **Orange County, FL**

Pollutant	Attainment	Non-Attainment	Maintenance	Target Attainment Year ¹	Comments ²
CO	X	--	--	*	
Ozone	X	--	--	*	
PM-10	X	--	--	*	
SO ₂	X	--	--	*	
NO ₂	X	--	--	*	
Pb	X	--	--	*	

¹ Based on national standard for Non-Attainment areas or SIP for Maintenance areas.

² Indicate if attainment is dependent upon BRACON, MILCON or Special Projects. Also indicate if the project is currently programmed within the Presidents FY1997 budget.

* N/A (because we are in Attainment)

We are a new facility constructed in 1988. We are not an industrial facility, and have no activities which generate the air pollutants described above. Stationary source generators (emergency diesel generator and small boiler) have AQCA waiver on emission permits due to infrequent use and small quantity generated. (Florida Department of Environmental Regulation letter OCD-AP-93-051 of March 1993)

5c. For your base, identify the baseline level of emissions, established in accordance with the Clean Air Act. Baseline information is assumed to be 1990 data or other year as specified. Determine the total level of emissions (tons/yr) for CO, NOx, VOC, PM10 for the general sources listed. For all data provide a list of the sources and show your calculations. Use known emissions data, or emissions derived from use of state methodologies, or identify other sources used. "Other Mobile" sources include such items as ground support equipment.

Emission Sources (Tons/Year)					
Pollutant	Permitted Stationary	Personal Automobiles	Aircraft Emissions	Other Mobile	Total
CO	NA*	11.13	NA*	1.55	12.68
NOx	NA*	.73	NA*	.10	.83
VOC	NA*	1.46	NA*	.20	1.66
PM10	NA*	.03	NA*	.00	.03

Source Document: See Page 11

5d. For your base, determine the total FY1993 level of emissions (tons/yr) for CO, NOx, VOC, PM10 for the general sources listed. For all data provide a list of the sources and show your calculations. Use known emissions data, or emissions derived from use of state methodologies, or identify other sources used. "Other Mobile" sources include such items as ground support equipment.

Emissions Sources (Tons/Year)					
Pollutant	Permitted Stationary	Personal Automobiles	Aircraft Emissions	Other Mobile	Total
CO	NA*	10.12	NA*	2.25	12.37
NOx	NA*	.67	NA*	.15	.82
VOC	NA*	1.33	NA*	.30	1.63
PM10	NA*	.02	NA*	.01	.03

Source Document: See Page 11

* We have no permitted stationary or aircraft emissions.

NAWCTSD
61339

5e. Provide estimated increases/decreases in air emissions (Tons/Year of CO, NOx, VOC, PM10) expected within the next six years (1995-2001). Either from previous BRAC realignments and/or previously planned downsizing shown in the Presidents FY1997 budget. Explain.

Future Emissions 1994 and Beyond (Tons/Year)

Pollutant	Personal Automobiles	Other Mobile	Total
CO	9.11	2.02	11.13
NOx	.60	.13	.73
VOC	1.20	.27	1.47
PM10	.02	.00	.02

Future (> 1994) emission factors estimated to decrease due to more efficient vehicles. NAWCTSD manpower is expected to remain relatively constant for the years shown. (See Page 11)

5f. Are there any critical air quality regions (i.e. non-attainment areas, national parks, etc.) within 100 miles of the base?

Ocala National Forest

National Wildlife Refuges:

Lake Woodruff

St. Johns

Merritt Island

Cedar Key

Canaveral National Seashore

5g. Have any base operations/mission/functions (i.e.: training, R&D, ship movement, aircraft movement, military operations, support functions, vehicle trips per day, etc.) been restricted or delayed due to air quality considerations. Explain the reason for the restriction and the "fix" implemented or planned to correct. NO

5h. Does your base have Emission Reduction Credits (ERCs) or is it subject to any emission offset requirements? If yes, provide details of the sources affected and conditions of the ERCs and offsets. Is there any potential for getting ERCs? NO

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PREDECISIONAL INFORMATION**

NOTES for 5c, 5d, and 5e:

1. Basis of calculations is as follows:

Pollutant	Pollutant Factor 1990 *	Pollutant Factor 1993*	Pollutant Factor >1994*
CO	28.05	25.50	22.95
NOx	1.85	1.68	1.51
VOC	3.69	3.35	3.02
PM10	.07	.06	.05

* grams/mile

2. Current year pollutant factors provided by EPA Emissions Planning and Strategies Division. 1990 emission factors are estimated as ten percent higher due to less efficient vehicles. Future (>1994) emission factors estimated to be ten percent lower due to more efficient vehicles.

3. Mileage Estimates 1990:

Personal Automobiles = 1,000 @ 1.5 miles ea x 240 days = 360,000 miles
Other Mobile = 5 ea @ 10,000 miles/yr = 50,000 miles

4. Mileage Estimates 1993:

Personal Automobiles = 1,000 @ 1.5 miles ea x 240 days = 360,000 miles
Other Mobile = 8 ea @ 10,000 miles/yr = 80,000 miles

5. Mileage Estimates 1994 and beyond:

Personal Automobiles = 1,000 @ 1.5 miles ea x 240 days = 360,000 miles
Other Mobile = 8 ea @ 10,000 miles/yr = 80,000 miles

6. Conversion factor:

1 ton = 907,185 grams

7. Sample Calculation for 1993 personal automobile CO emission:

25.50 gr per mi x 360,000 mi/907,185 gr per ton = 10.12 Tons
(See 5d, Personal Automobiles)

6. ENVIRONMENTAL COMPLIANCE

6a. Identify compliance costs, currently known or estimated that are required for permits or other actions required to bring existing practices into compliance with appropriate regulations. Do not include Installation Restoration costs that are covered in Section 7 or recurring costs included in question 6c. For the last two columns provide the combined total for those two FY's.

Program	Survey Completed?	Costs in \$K to correct deficiencies					
		FY94	FY95	FY96	FY97	FY98-99	FY00-01
Air	1993	35	0	0	0	525	0
Hazardous Waste	1993	0	0	0	0	0	0
Safe Drinking Water Act	1993	0	0	0	0	0	0
PCBs	1993	0	0	0	0	0	0
Other (non-PCB) Toxic Substance Control Act	1993	0	0	0	0	0	0
Lead Based Paint	1993	0	0	0	0	0	0
Radon	1993	0	0	0	0	0	0
Clean Water Act	1993	0	0	0	0	0	0
Solid Waste	1993	0	0	0	0	0	0
Oil Pollution Act	1993	0	0	0	0	0	0
USTs	1993	0	0	0	0	0	0
Other	--	0	0	0	0	0	0
Total *		35	0	0	0	525	0

* We are not an industrial activity. We are a relatively new (1988) administrative activity. Our facilities are maintained in compliance.

Provide a separate list of compliance projects in progress or required, with associated cost and estimated start/completion date. See attached list

6a. (Continued) Compliance Projects:

<u>FY</u>	<u>Project</u>	<u>Cost</u>
1994	Install high efficiency purges for refrigeration chiller to eliminate the discharge of ozone depleting substances (ODS) into the atmosphere.	\$ 35K
1998	Replace Underground Storage Tank (UST) with above ground system to come into compliance with Navy and State of Florida UST regulations.	\$ 25K
1998	Convert existing refrigeration chillers to use non ODS refrigerants	\$500K

6b.

Does your base have structures containing asbestos? NO What % of your base has been surveyed for asbestos? 100% Are additional surveys planned? NO What is the estimated cost to remediate asbestos (\$K) 0. Are asbestos survey costs based on encapsulation, removal or a combination of both?

6c. Provide detailed cost of recurring operational (environmental) compliance costs, with funding source.

Funding Source	FY92	FY93	FY94	FY95	FY96	FY97	FY98-99	FY00-01
O&MN	--	2*	2*	40**	2*	2*	2*	2*
HA								
PA								
Other (specify)								
TOTAL	--	2	2	40	2	2	2	2

* Annual test and registration fee for underground fuel storage tank (UST)

** \$38K for design/construction of on-site HW storage area and containment improvements plus \$2K for annual test and registration fee of UST

6d. Are there any compliance issues/requirements that have impacted operations and/or development plans at your base. **NO**

7. INSTALLATION RESTORATION

7a.

Does your base have any sites that are contaminated with hazardous substances or petroleum products?	NO
Is your base an NPL site or proposed NPL site?	NO

7b. Provide the following information about your Installation Restoration (IR) program. Project list may be provided in separate table format. Note: List only projects eligible for funding under the Defense Environmental Restoration Account (DERA). Do not include UST compliance projects properly listed in section VI.

Site # or name	Type site ¹	Groundwater Contaminated?	Extends off base?	Drinking Water Source?	Cost to Complete (\$M)/Est. Compl. Date	Status ² /Comments
NONE						

¹ Type site: CERCLA, RCRA corrective action (CA), UST or other (explain)

² Status = PA, SI, RI, RD, RA, long term monitoring, etc.

7c. Have any contamination sites been identified for which there is no recognized/accepted remediation process available? List. N/A (See 7a)

7d.

Is there a groundwater treatment system in place?	NO
Is there a groundwater treatment system planned?	NO

State scope and expected length of pump and treat operation. N/A

7e.

Has a RCRA Facilities Assessment been performed for your base?	NO
--	----

7f. Does your base operate any "Conforming Storage" facilities for handling hazardous materials? If YES, describe facility, capacity, restrictions, and permit conditions. NO

7g. Does your base operate any "Conforming Storage" facilities for handling hazardous waste? If YES, describe facility, capacity, restrictions, and permit conditions. NO

7h. Is your base responsible for any non-appropriated fund facilities (exchange, gas station) that require cleanup? If so, describe facility/location and cleanup required/status.

NO

7i.

Do the results of any radiological surveys conducted indicate limitations on future land use? Explain below.	N/A
--	-----

None has been conducted

7j. Have any base operations or development plans been restricted due to Installation Restoration considerations? **NO**

7k. List any other hazardous waste treatment or disposal facilities not included in question 7b above. Include capacity, restrictions and permit conditions. **NONE**

8. LAND / AIR / WATER USE

8a. List the acreage of each real estate component controlled or managed by your base (e.g., Main Base - 1,200 acres, Outlying Field - 200 acres, Remote Range - 1,000 acres, remote antenna site - 5 acres, Off-Base Housing Area - 25 acres).

Parcel Descriptor	Acres	Location
Main Base	40.5	Orlando, FL

NAWCTSD
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8b. Provide the acreage of the land use categories listed in the table below:

LAND USE CATEGORY		ACRES
Total Developed: (administration, operational, housing, recreational, training, etc.)		24.3
Total Undeveloped (areas that are left in their natural state but are under specific environmental development constraints, i.e.: wetlands, endangered species, etc.)		Wetlands:
		All others:
Total Undeveloped land considered to be without development constraints, but which may have operational/man caused constraints (i.e.: HERO, HERF, HERP, ESQD, AICUZ, etc.) TOTAL		14.2 (1)
Total Undeveloped land considered to be without development constraints		2
Total Off-base lands held for easements/lease for specific purposes		0
Breakout of undeveloped, restricted areas. Some restricted areas may overlap:	ESQD	0
	HERF	0
	HERP	0
	HERO	0
	AICUZ	0
	Airfield Safety Criteria	0
	Other	0

(1) NAWCTSD is located in the Central Florida Research Park. The 14.2 acres are subject to a covenant in the Central Florida Research Park agreement requiring that a certain amount of acreage within the park remain as a green belt.

8c. How many acres on your base (includes off base sites) are dedicated for training purposes (e.g., vehicular, earth moving, mobilization)? This does not include buildings or interior small arms ranges used for training purposes. 0

8d. What is the date of your last AICUZ update? N/A* Are any waivers of airfield safety criteria in effect on your base? NO Summarize the conditions of the waivers below.

* AICUZ does not apply to this installation. We do not have an airfield, nor are we near one, nor do we have the capacity to accommodate an airfield on our property.

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8e. List the off-base land use *types* (e.g, residential, industrial, agricultural) and *acreage* within Noise Zones 2 & 3 generated by your flight operations and whether it is compatible/incompatible with AICUZ guidelines on land use.

N/A - No flight operations

Acreage/Location/ID	Zones 2 or 3	Land Use	Compatible/ Incompatible

8f. List the navigational channels and berthing areas controlled by your base which require maintenance dredging? Include the frequency, volume, current project depth, and costs of the maintenance requirement. N/A

Navigational Channels/ Berthing Areas	Location / Description	Maintenance Dredging Requirement			
		Frequency	Volume (MCY)	Current Project Depth (FT)	Cost (\$M)

We have no navigational channels or berthing areas.

8g. Summarize planned projects through FY 1997 requiring new channel or berthing area dredged depths, include location, volume and depth. NONE

8h.

Are there available designated dredge disposal areas for maintenance dredging material? List location, remaining capacity, and future limitations.	NO
Are there available designated dredge disposal areas for new dredge material? List location, remaining capacity, and future limitations.	NO
Are the dredged materials considered contaminated? List known contaminants.	NO

8.i. List any requirements or constraints resulting from consistency with **State Coastal Zone Management Plans**. NONE

8j. Describe any **non-point source pollution problems affecting water quality** ,e.g.: coastal erosion. NONE

8k. N/A - No such agreements exist

If the base has a cooperative agreement with the US Fish and Wildlife Service and/or the State Fish and Game Department for conducting a hunting and fishing program, does the agreement or these resources constrain either current or future operations or activities? Explain the nature and extent of restrictions.	YES/NO
---	--------

8l. List any other areas on your base which are indicated as protected or preserved habitat other than threatened/endangered species that have been listed in Section 1. List the species, whether or not treated, and the acres protected/preserved. NONE

9. WRAPUP

9a. Are there **existing or potential environmental showstoppers** that have affected or will affect the accomplishment of the installation mission that have not been covered in the previous 8 questions? NO

9b. Are there any **other environmental permits** required for base operations, include any relating to industrial operations. NO

9c. Describe any **other environmental or encroachment restrictions** on base property not covered in the previous 8 sections. NONE

9d. List any **future/proposed laws/regulations or any proposed laws/regulations** which will constrain base operations or development plans in any way. Explain. NONE

BRAC-95 CERTIFICATION

Reference: SECNAV NOTE 11000 dtd 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.

ACTIVITY COMMANDER

C. L. ADDISON
NAME (Please type of print)

COMMANDING OFFICER
Title
NAVAL AIR WARFARE CENTER
TRAINING SYSTEMS DIVISION
Activity


Signature

5/25/94
Date

DATA CALL #33
NAVAL AIR WARFARE CENTER
TRAINING SYSTEMS DIVISION

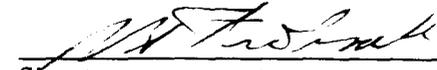
I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

G. H. STROHSAHL, RADM, USN
NAME (Please type or print)

COMMANDER
Title

NAVAL AIR WARFARE CENTER
Activity


Signature

6/7/94
Date

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

NEXT ECHELON LEVEL (if applicable)

NAME (Please type or print)

Title

Activity

Signature

Date

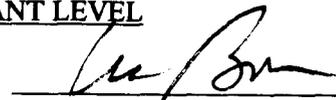
I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

W. C. BOWES, VADM, USN
NAME (Please type or print)

COMMANDER
Title

NAVAL AIR SYSTEMS COMMAND
Activity


Signature

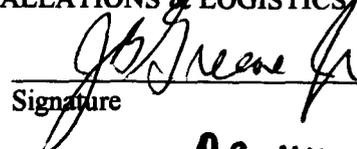
29 JUL 94
Date

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

06 JUL 1994
Date

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DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

Activity Identification: Please complete the following table, identifying the activity for which this response is being submitted.

Activity Name:	Naval Air Warfare Center Training Systems Division
UIC:	N61339
Major Claimant:	Naval Air Systems Command

General Instructions/Background:

Information requested in this data call is required for use by the Base Structure Evaluation Committee (BSEC), in concert with information from other data calls, to analyze both the impact that potential closure or realignment actions would have on a local community and the impact that relocations of personnel would have on communities surrounding receiving activities. In addition to Cost of Base Realignment Actions (COBRA) analyses which incorporate standard Department of the Navy (DON) average cost factors, the BSEC will also be conducting more sophisticated economic and community infrastructure analyses requiring more precise, activity-specific data. For example, activity-specific salary rates are required to reflect differences in salary costs for activities with large concentrations of scientists and engineers and to address geographic differences in wage grade salary rates. Questions relating to "Community Infrastructure" are required to assist the BSEC in evaluating the ability of a community to absorb additional employees and functions as the result of relocation from a closing or realigning DON activity.

Due to the varied nature of potential sources which could be used to respond to the questions contained in this data call, a block appears after each question, requesting the identification of the source of data used to respond to the question. To complete this block, identify the source of the data provided, including the appropriate references for source documents, names and organizational titles of individuals providing information, etc. Completion of this "Source of Data" block is critical since some of the information requested may be available from a non-DoD source such as a published document from the local chamber of commerce, school board, etc. Certification of data obtained from a non-DoD source is then limited to certifying that the information contained in the data call response is an accurate and complete representation of the information obtained from the source. Records must be retained by the certifying official to clearly document the source of any non-DoD information submitted for this data call.

**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:	\$49,076.00
--	--------------------

Source of Data (1.a. Salary Rate): FY96/97 NAVCOMPT Budget June 1994

**DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

b. Location of Residence. Complete the following table to identify where employees live. Data should reflect current workforce.

1) Residency Table. Identify residency data, by county, for both military and civilian (civil service) employees working at the installation (including, for example, operational units that are homeported or stationed at the installation). For each county listed, also provide the estimated average distance from the activity, in miles, of employee residences and the estimated average length of time to commute one-way to work. For the purposes of displaying data in the table, any county(s) in which 1% or fewer of the activity's employees reside may be consolidated as a single line entry in the table, titled "Other".

County of Residence	State	No. of Employees Residing in County		Percentage of Total Employees	Average Distance From Base (Miles)	Average Duration of Commute (Minutes)
		Military	Civilian			
Orange *	FL	44	742	.48	10	15
Seminole *	FL	61	551	.38	20	25
Volusia *	FL	0	23	.01	42	75
Other *	FL	0	7266 *	.04	30	45
TSD FIELD LOCATIONS:						
Outside Orlando, FL		2	134	.09	NA	NA

* Includes: Tenants and Marines (6)

= 100%

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.

**DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

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:

Orange County (Government housing belongs to Naval Training Center, Orlando, scheduled to close by BRAC-93)

Source of Data (1.b. 1) & 2) Residence Data): M. Bays (Code 0B31)/L. Pepper (HRO) NAWCTSD; Sgt. Jordan, STRICOM Admin Officer

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)
Orlando (SMSA*)	Orange, Seminole, Osceola	0 (NAWCTSD is in Orange County)

*** Standard Metropolitan Statistical Area**

Source of Data (1.c. Metro Areas): Phyllis Intro, Economic Development Commission of Mid-Florida, Inc.

DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

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

Age Category	Number of Employees (*)	Percentage of Employees
16 - 19 Years	2 (1)	.002
20 - 24 Years	3 (9)	.009
25 - 34 Years	153 (84)	.17
35 - 44 Years	264 (168)	.31
45 - 54 Years	322 (141)	.34
55 - 64 Years	163 (51)	.15
65 or Older	23 (4)	.02
TOTAL	** 930 (458)	100 %

* Numbers in parentheses reflect NAWCTSD tenant data as directed by CNO letter 11000 Ser N441/4U594964 of 28 Jun 94

** Does not include NAWCTSD field personnel - 134. Total NAWCTSD employees = 1064

Source of Data (1.d.) Age Data): NCPDS - L. Pepper (HRO) NAWCTSD; G. Bond, Director, IXX DFAS; J. O'Bryant, Director, Resource Management, STRICOM; W. Fenwick, Director, Information Systems, NAVDAF

**DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

e. Education Level of Civilian Workforce

1) **Education Level Table.** Complete the following table, identifying the education level of the activity's civil service workforce.

Last School Year Completed	Number of Employees *	Percentage of Employees
8th Grade or less	0 (0)	0
9th through 11th Grade	1 (0)	0
12th Grade or High School Equivalency	157 (55)	.16
1-3 Years of College	144 (107)	.18
4 Years of College ** (Bachelors Degree) ***	295 (146)	.32
5 or More Years of College (Graduate Work)	316 (150)	.34
TOTAL	913 (458)	100 %

* Numbers in parentheses reflect NAWCTSD tenant data as directed by CNO letter 11000 Ser N441/4U594964 of 28 Jun 94

** Not shown are Occupational Program Degrees - 17 and Field Personnel - 134 (Total 1064)

*** Bachelors Only

DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

2) **Degrees Achieved.** Complete the following table for the activity's **civil service** workforce. Identify the number of employees with each of the following degrees, etc. To avoid double counting, only identify the highest degree obtained by a worker (e.g., if an employee has both a Master's Degree and a Doctorate, only include the employee under the category "Doctorate").

Degree	Number of Civilian Employees *
Terminal Occupation Program - Certificate of Completion, Diploma or Equivalent (for areas such as technicians, craftsmen, artisans, skilled operators, etc.)	17 (3)
Associate Degree	35 (14)
Bachelor Degree **	360 (193)
Masters Degree	216 (101)
Doctorate	35 (5)

* Numbers in parentheses reflect NAWCTSD tenant data as directed by CNO letter 11000 Ser N441/4U594964 of 28 Jun 94

** Includes post-Bachelors
 Does not include NAWCTSD field personnel - 134

Source of Data (1.e.1) and 2) Education Level Data): L. Pepper (HRO) NAWCTSD; G. Bond, Director, IXX DFAS; J. O'Bryant, Director, Resource Management, STRICOM; W. Fenwick, Director, Information Systems NAVDAF

DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

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	
2. Construction (includes facility maintenance and repair)	15-17	17	.01
3. Manufacturing (includes Intermediate and Depot level maintenance)	20-39		
3a. Fabricated Metal Products (include ordnance, ammo, etc.)	34	0	
3b. Aircraft (includes engines and missiles)	3721 et al	0	
3c. Ships	3731	0	
3d. Other Transportation (includes ground vehicles)	various	0	
3e. Other Manufacturing not included in 3a. through 3d.	various	0	
Sub-Total 3a. through 3e.	20-39	0	0

**DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

Industry	SIC Codes	No. of Civilians *	% of Civilians
4. Transportation/Communications/Utilities	40-49		
4a. Railroad Transportation	40	0	
4b. Motor Freight Transportation & Warehousing (includes supply services)	42	0	
4c. Water Transportation (includes organizational level maintenance)	44	0	
4d. Air Transportation (includes organizational level maintenance)	45	0	
4e. Other Transportation Services (includes organizational level maintenance)	47	0	
4f. Communications	48	2	.001
4g. Utilities	49	0	
Sub-Total 4a. through 4g.	40-49	2	.001
5. Services	70-89		
5a. Lodging Services	70	0	
5b. Personal Services (includes laundry and funeral services)	72	0	
5c. Business Services (includes mail, security guards, pest control, photography, janitorial and ADP services)	73	16 (19)	.03
5d. Automotive Repair and Services	75	0	
5e. Other Misc. Repair Services	76	0	
5f. Motion Pictures	78	0	
5g. Amusement and Recreation Services	79	0	
5h. Health Services	80	0	

**DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

Industry	SIC Codes	No. of Civilians *	% of Civilians
5i. Legal Services	81	0	
5j. Educational Services	82	0	
5k. Social Services	83	0	
5l. Museums	84	0	
5m. Engineering, Accounting, Research & Related Services (includes RDT&E, ISE, etc.)	87	765 (439)	.87
5n. Other Misc. Services	89	130	.09
Sub-Total 5a. through 5n.:	70-89	911 (458)	.99
6. Public Administration	91-97		
6a. Executive and General Government, Except Finance	91	0	
6b. Justice, Public Order & Safety (includes police, firefighting and emergency management)	92	0	
6c. Public Finance	93	0	
6d. Environmental Quality and Housing Programs	95	0	
Sub-Total 6a. through 6d.		0	0
TOTAL **		930 (458)	100 %

* Numbers in parentheses reflect NAWCTSD tenant data as directed by CNO letter 11000 Ser N441/4U594964 of 28 Jun 94

** Does not include NAWCTSD field personnel - 134. Total NAWCTSD Employees = 1064

DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

**Source of Data (1.f.) Classification By Industry Data): NCPDS - L. Pepper (HRO)
NAWCTSD; G. Bond, Director, IXX DFAS; J. O'Bryant, Director, Resource
Management, STRICOM; W. Fenwick, Director, Information Systems, NAVDAF**

DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

g. Civilian Employment by Occupation. Complete the following table to identify the types of "occupations" performed by **civil service** employees at the activity. Employees should be categorized based on their primary duties. Additional information on categorization of employment by occupation can be found in the Department of Labor Occupational Outlook Handbook. However, you do not need to obtain a copy of this publication to provide the data requested in this table.

Note the following specific guidance regarding the "Occupation Type" codes in the first column of the table: Even though categories listed may not perfectly match the type of work performed by civilian employees, please attempt to assign each civilian employee to one of the "Occupation Types" identified in the table. Refer to the descriptions immediately following this table for more information on the various occupational categories. Retain supporting data used to construct this table at the activity-level, in case questions arise or additional information is required at some future time. Leave shaded areas blank.

Occupation	Number of Civilian Employees	Percent of Civilian Employees
1. Executive, Administrative and Management	439 (218)	.47
2. Professional Specialty		
2a. Engineers	302 (135)	.32
2b. Architects and Surveyors		
2c. Computer, Mathematical & Operations Research	13 (23)	.03
2d. Life Scientists		
2e. Physical Scientists	5	.004
2f. Lawyers and Judges	4	.003
2g. Social Scientists & Urban Planners		
2h. Social & Recreation Workers		
2i. Religious Workers		
2j. Teachers, Librarians & Counselors		
2k. Health Diagnosing Practitioners (Doctors)		
2l. Health Assessment & Treating(Nurses, Therapists, Pharmacists, Nutritionists, etc.)		

DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

Occupation	Number of Civilian Employees	Percent of Civilian Employees
2m. Communications		
2n. Visual Arts		
Sub-Total 2a. through 2n.:	324 (158)	.35
3. Technicians and Related Support		
3a. Health Technologists and Technicians		
3b. Other Technologists	12 (2)	.01
Sub-Total 3a. and 3b.:	12 (2)	.01
4. Administrative Support & Clerical	131 (80)	.15
5. Services		
5a. Protective Services (includes guards, firefighters, police)	12	.009
5b. Food Preparation & Service		
5c. Dental/Medical Assistants/Aides		
5d. Personal Service & Building & Grounds Services (includes janitorial, grounds maintenance, child care workers)	12	.009
Sub-Total 5a. through 5d.	24	.018
6. Agricultural, Forestry & Fishing		
7. Mechanics, Installers and Repairers		
8. Construction Trades		
9. Production Occupations		
10. Transportation & Material Moving		
11. Handlers, Equipment Cleaners, Helpers and Laborers (not included elsewhere)		
TOTAL	930 (458)	100 %

DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

Source of Data (1.g.) Classification By Occupation Data): L. Pepper NAWCTSD

Description of Occupational Categories used in Table 1.g. The following list identifies public and private sector occupations included in each of the major occupational categories used in the table. Refer to these examples as a guide in determining where to allocate appropriated fund civil service jobs at the activity.

1. **Executive, Administrative and Management.** Accountants and auditors; administrative services managers; budget analysts; construction and building inspectors; construction contractors and managers; cost estimators; education administrators; employment interviewers; engineering, science and data processing managers; financial managers; general managers and top executives; chief executives and legislators; health services managers; hotel managers and assistants; industrial production managers; inspectors and compliance officers, except construction; management analysts and consultants; marketing, advertising and public relations managers; personnel, training and labor relations specialists and managers; property and real estate managers; purchasing agents and managers; restaurant and food service managers; underwriters; wholesale and retail buyers and merchandise managers.
2. **Professional Specialty.** Use sub-headings provided.
3. **Technicians and Related Support.** Health Technologists and Technicians sub-category - self-explanatory. Other Technologists sub-category includes aircraft pilots; air traffic controllers; broadcast technicians; computer programmers; drafters; engineering technicians; library technicians; paralegals; science technicians; numerical control tool programmers.
4. **Administrative Support & Clerical.** Adjusters, investigators and collectors; bank tellers; clerical supervisors and managers; computer and peripheral equipment operators; credit clerks and authorizers; general office clerks; information clerks; mail clerks and messengers; material recording, scheduling, dispatching and distributing; postal clerks and mail carriers; records clerks; secretaries; stenographers and court reporters; teacher aides; telephone, telegraph and teletype operators; typists, word processors and data entry keyers.
5. **Services.** Use sub-headings provided.
6. **Agricultural, Forestry & Fishing.** Self explanatory.
7. **Mechanics, Installers and Repairers.** Aircraft mechanics and engine specialists; automotive body repairers; automotive mechanics; diesel mechanics; electronic equipment repairers; elevator installers and repairers; farm equipment mechanics; general maintenance mechanics; heating, air conditioning and refrigeration technicians; home appliance and power tool repairers, industrial machinery repairers; line installers and cable splicers; millwrights; mobile heavy equipment mechanics; motorcycle, boat and small engine mechanics; musical instrument repairers and tuners; vending machine servicers and repairers.
8. **Construction Trades.** Bricklayers and stonemasons; carpenters; carpet installers; concrete masons and terrazzo workers; drywall workers and lathers; electricians; glaziers; highway maintenance; insulation workers; painters and paperhangers; plasterers; plumbers and pipefitters; roofers; sheet metal workers; structural and reinforcing ironworkers; tilesetters.
9. **Production Occupations.** Assemblers; food processing occupations; inspectors, testers and graders; metalworking and plastics-working occupations; plant and systems operators, printing occupations; textile, apparel and furnishings occupations; woodworking occupations; miscellaneous production operations.
10. **Transportation & Material Moving.** Busdrivers; material moving equipment operators; rail transportation occupations; truckdrivers; water transportation occupations.
11. **Handlers, Equipment Cleaners, Helpers and Laborers (not included elsewhere).** Entry level jobs not requiring significant training.

DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

- 9. **Production Occupations.** Assemblers; food processing occupations; inspectors, testers and graders; metalworking and plastics-working occupations; plant and systems operators, printing occupations; textile, apparel and furnishings occupations; woodworking occupations; miscellaneous production operations.
- 10. **Transportation & Material Moving.** Busdrivers; material moving equipment operators; rail transportation occupations; truckdrivers; water transportation occupations.
- 11. **Handlers, Equipment Cleaners, Helpers and Laborers** (not included elsewhere). Entry level jobs not requiring significant training.

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:	85%
2. Percentage of Military Spouses Who Work Outside of the Home:	58%
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:	0
3c. Employed "Off-Base" - Federal Employment:	21%
3d. Employed "Off-Base" - Other Than Federal Employment	79%

Source of Data (1.h.) Spouse Employment Data): CDR M. Ryan, NAWCTSD
--

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ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

2. Infrastructure Data. For each element of community infrastructure identified in the two tables below, rate the community's ability to accommodate the relocation of additional functions and personnel to your activity. Please complete each of the three columns listed in the table, reflecting the impact of various levels of increase (20%, 50% and 100%) in the number of personnel working at the activity (and their associated families). In ranking each category, use one of the following three ratings:

- A** - Growth can be accommodated with little or no adverse impact to existing community infrastructure and at little or no additional expense.
- B** - Growth can be accommodated, but will require some investment to improve and/or expand existing community infrastructure.
- C** - Growth either cannot be accommodated due to physical/environmental limitations or would require substantial investment in community infrastructure improvements.

Table 2.a., "Local Communities": This first table refers to the local community (i.e., the community in which the base is located) and its ability to meet the increased requirements of the installation.

Table 2.b., "Economic Region": This second table asks for an assessment of the infrastructure of the economic region (those counties identified in response to question 1.b., (page 3) - taken in the aggregate) and its ability to meet the needs of additional employees and their families moving into the area.

For both tables, annotate with an asterisk (*) any categories which are wholly supported on-base, i.e., are not provided by the local community. These categories should also receive an A-B-C rating. Answers for these "wholly supported on-base" categories should refer to base infrastructure rather than community infrastructure.

Table A: Ability of the local community to meet the expanded needs of the base.

The local community was defined as an area with a ten mile radius surrounding the NAWCTSD. The area includes the University of Central Florida, east Orange County, and southeast Seminole County.

The logic utilized to define the local community was that area which would be most desirable for people to live. Most desirable takes into consideration commuting time, affordable housing, recreational activities, school systems, and transportation systems.

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ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

a. Table A: Ability of the local community to meet the expanded needs of the base.

1) Using the A - B - C rating system described above, complete the table below.

Category	20% Increase	50% Increase	100% Increase
Off-Base Housing	A	A	A
Schools - Public	A	A	A
Schools - Private	A	A	A
Public Transportation - Roadways	A	A	A
Public Transportation - Buses/Subways	A	A	A
Public Transportation - Rail	NA	NA	NA
Fire Protection	A	A	A
Police	A	A	A
Health Care Facilities	A	A	A
Utilities:			
Water Supply	A	A	A
Water Distribution	A	A	A
Energy Supply	A	A	A
Energy Distribution	A	A	A
Wastewater Collection	A	A	A
Wastewater Treatment	A	A	A
Storm Water Collection	A	A	A
Solid Waste Collection and Disposal	A	A	A
Hazardous/Toxic Waste Disposal	A	A	A
Recreational Activities	A	A	A

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

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ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

2) For each rating of "C" identified in the table on the preceding page, attach a brief narrative explanation of the types and magnitude of improvements required and/or the nature of any barriers that preclude expansion.

NA

Source of Data (2.a. 1) & 2) - Local Community Table): Mr. Leo Goff, Central Florida Research Park; Mr. Nat Lewis, Florida Power Corporation; Phyllis Intro, Economic Development Commission of Mid-Florida, Inc.

DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

b. Table B: Ability of the region described in the response to question 1.b. (page 3) (taken in the aggregate) to meet the needs of additional employees and their families relocating into the area.

1) Using the A - B - C rating system described above, complete the table below.

Category	20% Increase	50% Increase	100% Increase
Off-Base Housing	A	A	A
Schools - Public	A	A	A
Schools - Private	A	A	A
Public Transportation - Roadways	A	A	A
Public Transportation - Buses/Subways	A	A	A
Public Transportation - Rail	A	A	A
Fire Protection	A	A	A
Police	A	A	A
Health Care Facilities	A	A	A
Utilities:			
Water Supply	A	A	A
Water Distribution	A	A	A
Energy Supply	A	A	A
Energy Distribution	A	A	A
Wastewater Collection	A	A	A
Wastewater Treatment	A	A	A
Storm Water Collection	A	A	A
Solid Waste Collection and Disposal	A	A	A
Hazardous/Toxic Waste Disposal	A	A	A
Recreation Facilities	A	A	A

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

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ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

2) For each rating of "C" identified in the table on the preceding page, attach a brief narrative explanation of the types and magnitude of improvements required and/or the nature of any barriers that preclude expansion.

NA

Source of Data (2.b. 1) & 2) - Regional Table): Mr. Leo Goff, Central Florida Research Park; Mr. Nat Lewis, Florida Power Corporation; Phyllis Intro, Economic Development Commission of Mid-Florida, Inc.

DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

3. Public Facilities Data:

- a. **Off-Base Housing Availability.** For the counties identified in the response to question 1.b. (page 3), in the aggregate, estimate the current average vacancy rate for community housing. Use current data or information identified on the latest family housing market analysis. For each of the categories listed (rental units and units for sale), combine single family homes, condominiums, townhouses, mobile homes, etc., into a single rate:

Rental Units: **7% (approximate)**

Units for Sale: **3% (approximate)**
Estimate 10,000 units at any given time

<p>Source of Data (3.a. Off-Base Housing): Annette Mayle, Apartment Association of Greater Orlando; Mike Roth, Greater Orlando Association of Realtors</p>

**DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

b. Education.

1) Information is required on the current capacity and enrollment levels of school systems serving employees of the activity. Information should be keyed to the counties identified in the response to question 1.b. (page 3).

School District	County	Number of Schools			Enrollment		Pupil-to-Teacher Ratio		Does School District Serve Gov't Housing Units? *
		Elementary	Middle	High	Current	Max. Capacity **	Current	Max. Ratio **	
Orange County	Orange	85	20	14	113,638		17 to 1		Yes
Seminole County	Seminole	28	10	6	52,588		20 to 1		No
Brevard County	Brevard	47	13	10	62,556		18 to 1		No
Osceola County	Osceola	14	5	7	23,122		20 to 1		No
Volusia County	Volusia	40	9	8	53,972		18 to 1		No

* Answer "Yes" in this column if the school district in question enrolls students who reside in government housing.

** Maximum capacity and maximum pupil to teacher ratios are not available as it is the expressed plan of each school district to utilize portable classrooms to handle student population surges.

Source of Data (3.b.1) Education Table): Ms. Julia Smith, Education Information and Accountability Department, Bureau of Education Information and Assessment Services, Division of Public Schools, Florida Education Center

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): NA

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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 :

University of Central Florida
Rollins College
Brevard Community College
Orlando College
Southern College
Florida Institute of Technology
Florida Southern College
Stetson College
Seminole Community College
Valencia Community College
Florida Technical College
Bethune-Cookman College
Embry Riddle Aeronautical University
Daytona Beach Community College
Florida Bible College
Florida Christian College
Phillips Junior College of Business

Source of Data (3.b.3) Colleges): <u>Peterson's Guides, 1994 edition, Princeton, NJ</u>
--

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:

Brevard Community College
Mid-Florida Technical Institute
Orlando Vo-Tech Center
Westside Vo-Tech Center
Seminole Community College
Daytona Beach Community College
Hillcrest Vocational Center
Winter Park Adult Vocational Center

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ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

Major curriculums of vocational/technical training schools in Orange, Seminole, Brevard, Osceola, and Volusia counties:

**Electronics
Business
Automotive Repair
Computer Operation
Computer Repair
Appliance Repair
Space Related Technology**

Source of Data (3.b.4) Vo-tech Training): Dr. Larry Larson, Director, Division of Applied Technology and Adult Education, Florida Department of Education
--

Extension courses offered on base at NTC, Orlando: *

Columbia College

**Individual Studies
B.S. or B.A. in Business Administration, Criminal Justice Administration, History, Government, Psychology
A.S. in Computer Information Systems, Management Sciences
A.A. in General Studies**

Southern Illinois University:

B.S. in Electronic Management, Health Care Management

Florida Institute of Technology:

**M.S. in Contract Management, Data Processing Health Services Management, Human Resources Management, Logistics Management
M.B.A. in Contract Management, Data Processing, Health Services Management, Human Resources Management, Logistics Management**

Troy State University:

M.S. in Educational Leadership and Management

University of Central Florida:

M.S. in Mechanical Engineering, Electrical Engineering

*** NTC Orlando is scheduled to close per BRAC-93.**

Source of Data: Jim Brick, Navy Campus, NTC, Orlando

**DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

c. Transportation.

1) Is the activity served by public transportation?

	<u>Yes</u>	<u>No</u>
Bus:	<u>X</u>	<u>—</u>
Rail:	<u>—</u>	<u>X</u>
Subway:	<u>—</u>	<u>X</u>
Ferry:	<u>—</u>	<u>X</u>

Source of Data (3.c.1) Transportation): M. Bays, NAWCTSD (Code 0B31)

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.

**AMTRAK, Winter Park, FL - approximately 16 miles
AMTRAK, Orlando, FL - approximately 15 miles**

Source of Data (3.c.2) Transportation): M. Bays, NAWCTSD (Code 0B31)

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.

Orlando International Airport (OIA), Orange County - approximately 15 miles

Two smaller airports are in close proximity (no scheduled services):

**Orlando Executive Airport - approximately 12 miles
Central Florida Regional Airport (Seminole County) - approximately 25 miles**

Another airport providing scheduled service is Daytona Beach International (Volusia County) - approximately 65 miles

Source of Data (3.c.3) Transportation): Carolyn Fennel, OIA Community Relations

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ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

4) How many carriers are available at this airport?

22 scheduled carriers (including 13 international)
40-60 charter carriers (depends on seasons/events)

Source of Data (3.c.4) Transportation): Carolyn Fennel, OIA Community Relations

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

I-4 - approximately 15 miles

Source of Data (3.c.5) Transportation): M. Bays, NAWCTSD (Code 0B31)

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.)

Primary feeders (State Road 434, Highway 50, University Boulevard) are six-lane, divided highways. Main access roads (Research Parkway and Technology Parkway) are four-lane, divided roads. Roads are of high quality with no significant access/congestion problems. NAWCTSD has two means of access with no gates.

b) Do access roads transit residential neighborhoods?

No

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

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Source of Data (3.c.6) Transportation): Mr. Leo Goff, Central Florida Research Park

- d. **Fire Protection/Hazardous Materials Incidents.** Does the activity have an agreement with the local community for fire protection or hazardous materials incidents? Explain the nature of the agreement and identify the provider of the service.

No written agreement. Fire protection services are provided to the facility as a member of the community. Services are provided by Orange County Fire Department, Bonneville Fire Station #80 (primary) and Lake Underhill Fire Station #83 (secondary). With respect to Hazardous Materials Incidents, the Hazardous Materials Team of the Orange County Fire Department will respond to any emergency of this nature on NAWCTSD premises.

Source of Data (3.d. Fire/Hazmat): J. Pearce, NAWCTSD Security Manager

- e. **Police Protection.**

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

Proprietary jurisdiction

- 2) If there is more than one level of legislative jurisdiction for installation property, provide a brief narrative description of the areas covered by each level of legislative jurisdiction and whether there are separate agreements for local law enforcement protection.

NA

- 3) Does the activity have a specific written agreement with local law enforcement concerning the provision of local police protection?

No. Services are provided to the facility as a member of the community by the Orange County Sheriff Department and Florida Highway Patrol.

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ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

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.

NA

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.

None

Source of Data (3.e. 1) - 5) - Police): J. Pearce, NAWCTSD Security Manager
--

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.

**Yes - Water, Sewer, Storm drainage: Agreement with Central Florida
Research Park
- Refuse Disposal: Contract with Waste Management Services
- Electrical Power: Contract with Florida Power Corporation**

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

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ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA**

Source of Data (3.f. 1) - 3) Utilities): Mr. Leo Goff, Central Florida Research Park; Mr. Nat Lewis, Florida Power Corporation

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. Walt Disney World	Entertainment	37,000
2. Orange County Public Schools	Education	20,139
3. Naval Training Center, Orlando (scheduled to close by BRAC-93)	Department of Defense	2,200 (12,380 recruits)
4. Florida Hospital	Medical Care	7,490
5. Publix Super Markets, Inc.	Retail Foodstore	6,864
6. AT&T	Information Systems	6,000
7. Martin Marietta	Defense Electronics	5,700
8. Orlando Regional Health Care	Medical Care	5,500
9. Orange County	County Government	5,384
10. Seminole County Public Schools	Education	5,260

Source of Data (4. Business Profile): Phyllis Intro, Economic Development Commission of Mid-Florida, Inc.

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ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

5. Other Socio-Economic Impacts. For each of the following areas, describe other recent (past 5 years), on-going or projected economic impacts (both positive and negative) on the geographic region defined by your response to question 1.b. (page 3), in the aggregate:

a. Loss of Major Employers:

This region of central Florida has a current unemployment rate of 5.5%. Naval Training Center Orlando (NTCORL) is on the 1993 Base closing list with complete closure scheduled for 1998. NTCORL is the only major employer to close. However, many defense/NASA contractors have laid off employees and many banks/S&Ls have merged and lost employees. Corporations such as Martin Marietta, Hughes, Harris, GE, Rockwell, and others working for DOD or NASA have reduced their workforce over the past five years. The market for these skilled workers is soft in this area.

It is expected that some DOD/Federal Government agencies may be moving to Orlando and utilizing facilities at NTCORL. Numbers of personnel transferring to Orlando and/or jobs available with these agencies is not finalized at this time. Potential re-use plans also call for retail, office, residential, education, parks, and institutional use of the property.

b. Introduction of New Businesses/Technologies:

The biggest additions to the regional labor market are the American Automobile Association, Universal Studios, Disney expansion, and Orlando airport expansion.

c. Natural Disasters:

The most likely natural disaster to occur in Central Florida is a hurricane; however, the probability is no greater here than anywhere else in the Southeast.

d. Overall Economic Trends:

The following five year historical trends should continue in this region:

- (1) Defense/NASA will continue to downsize;**
- (2) the banking sector will continue to consolidate;**
- (3) the tourism industry will grow, but at a slower rate;**
- (4) population growth will slow;**
- (5) state and local taxes will remain relatively low.**

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**Source of Data (5. Other Socio/Econ): Economists, NAWCTSD and University of
Central Florida**

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

NAWCTSD is the "cornerstone" organization of the Center of Excellence for Simulation and Training Technology as endorsed by the State of Florida - membership includes: NAWCTSD; U.S. Army Simulation, Training, and Instrumentation Command (STRICOM); University of Central Florida/Institute for Simulation and Training; and an industrial base with approximately 140 firms located in the Central Florida area.

NAWCTSD has the following economic impact on the local community:

- a. Annual contract awards - \$25.2M ***
- b. Regional impact:**
 - (1) increased local spending - \$128M ***
 - (2) employment - local jobs - 2105 ***
- c. Business travel: (NAWCTSD/Tenant Employees) ****
 - (1) 12,000 airline tickets**
 - (2) 18,000 airport parking days**
 - (3) 17,000 roundtrips on toll roads**
- d. Visitors: ****
 - (1) 10,000 (de Florez building)**
 - (2) 14,000 locally held conferences**
 - (3) 60,000 hotel occupancy days**
 - (4) 10,000 roundtrips on toll roads**
 - (5) \$1.6M per diem**

*** Projected FY94**

**** Estimated FY93**

DATA CALL 65
ECONOMIC AND COMMUNITY INFRASTRUCTURE DATA

NAWCTSD is world recognized for capability/expertise in all major simulation and training disciplines. As such it has been a catalyst for increased technical knowledge in the local school systems - from elementary to college. Partnership in Education Agreements have allowed NAWCTSD to improve/enhance learning by providing the following: personnel to assist teachers, technical speakers, computer hardware and software consulting, technology training for teachers, sponsorship of school projects, etc. The University of Central Florida offers the only graduate program in simulation systems in the nation. Students in that program are offered the opportunity to have hands-on experience by working with/learning from NAWCTSD personnel. Additionally, NAWCTSD has been instrumental in developing an acquisition certification program at UCF for government and contractor personnel. Employees can attend classes at night to attain a Masters Certificate in Acquisition.

Cooperative Research and Development Agreements (CRADAs) with local contractors have increased technology transfer, thereby potentially cutting costs and providing more effective training systems to the fleet and fighting forces world wide. Technology transfer has also optimized investment of tax dollars in Research and Development programs through NAWCTSD's agreement with NASA.

A public/private partnership with Enterprise Florida provides leadership and investment opportunities to hasten growth of technology based jobs in Florida.

A Letter of Understanding with the Orlando Regional Healthcare System forms a partnership with one of the largest hospitals in the area to promote technology transfer.

NAWCTSD personnel support the community by volunteering hundreds of hours yearly. They participate in blood drives, adopt needy families, assist in Florida Fix-up (rehabbing houses for the elderly), act as Big Brothers/Sisters, and join numerous other volunteer groups.

Source of Data (6. Other): M. Bays, NAWCTSD (Code 0B31)
--

TSD

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

NEXT ECHELON LEVEL (if applicable)

W. E. NEWMAN, RADM, USN
NAME (Please type or print)

W E Newman
Signature

COMMANDER
Title

8/18/94
Date

NAVAL AIR WARFARE CENTER
Activity

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

NEXT ECHELON LEVEL (if applicable)

NAME (Please type or print)

Signature

Title

Date

Activity

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

MAJOR CLAIMANT LEVEL

W. C. BOWES, VADM, USN
NAME (Please type or print)

W C Bowes
Signature

COMMANDER
Title

19AV699
Date

NAVAL AIR SYSTEMS COMMAND
Activity

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

**DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)**

W. A. EARNER, JR
NAME (Please type or print)

W A Earner
Signature

Title

7/1/94
Date

DATA CARD #105
TOS

BRAC-95 CERTIFICATION

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

John C. ...
NAME (Please type or print)

[Signature]
Signature

TO BRAC ...
Title

1/2/95
Date

411 C93
Division

BRAC Program Office
Department

...
Activity

...

DATA CALL #65
BRAC-95 CERTIFICATION

Reference: SECNAV NOTE 11000 dtd 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.

ACTIVITY COMMANDER

C. L. ADDISON
NAME (Please type of print)
COMMANDING OFFICER
Title
NAVAL AIR WARFARE CENTER
TRAINING SYSTEMS DIVISION
Activity


Signature
11 JULY 1994
Date

MILITARY VALUE DATA CALL

TECHNICAL CENTERS

Category	
Technical Center Site	Naval Air Warfare Center Training Systems Division
Location/Address	12350 Research Parkway Orlando, FL

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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.

To be the principal Navy center for research, development, test and evaluation, acquisition and product support of training systems; to provide interservice coordination and training systems support for the Army and Air force, and to perform such other functions and tasks as directed by higher authority.

**OPNAVNOTE 5450
Ser 09B22/3U510780
8 Sep 93**

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

The Joint Army and Navy Agreements for Army Participation in the Navy Special Devices Center, dated 20 March 1950, and signed by Acting Secretary of the Navy, Dan A. Kimball, and Secretary of the Army, Gordon Gray, established the Army's participation in the activities of the Navy Special Devices Center (known now as NAWCTSD) in the evaluation, research and development, and procurement of certain training aids and devices, and for research in human engineering.

The Naval Air Warfare Center 1994 Business Plan identified the NAWCTSD Commanding Officer as the Advocate for its Goal E. The goal is to develop more partnerships with the services and non-DoD organizations. Specifically, its objectives are to (1) produce a guide that identifies benefits from partnerships, potential partners and a process for various partnerships, (2) establish and provide update of a database of all existing partnerships, and (3) support Chief of Naval Research initiatives to improve technology transfer process.

NAWCTSD has established Cooperative Research and Development Agreements with nine non-DoD agencies. (Additional information at question 5m)

NAWCTSD has entered into an interservice agreement with the National Aeronautics and Space Administration-Kennedy Space Center that serves as a foundation for a technology transfer program. The Interagency Agreement for Technology Cooperation was signed 21 March 1994.

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UIC 61339

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PRECEDENTIAL INFORMATION**

Letters of Agreement with the Air Force and Marine Corps date back to 1974 and 1976 respectively. They were signed by the United States Air Force Director of Development and Acquisition and the Commandant of the Marine Corps. Both documents provide for liaison, resident management of programs, and exchange of information regarding training technology.

NAWCTSD is the lead activity for DOD for:

**TIDES - Threat/Intelligence Data Extraction Systems (Electronic Warfare) -
USN/USAF/USA/USMC**

Tasking Order N0001994WXC935R of 18 February 1994

NAWCTSD is the lead Navy activity for the following joint projects:

Technology Reinvestment Project - A training and Simulation Technology Consortium - Advanced Research Projects Agency - USN/USA Industry

Proposal Call from Advanced Research Projects Agency

Unmanned Aerial Vehicle - USN/USA/USMC

UAV/JPO Task PEO (CU)-UL-4A27-014-00000 of 27 January 1994

Precision Gunnery Training System - USN/USA/USMC

Marine Corps Order 8390.6A

Joint Primary Aircraft Training System - USN/USAF

Air Task P20520512-0602-0205000148 of 21 March 1990

E3/E-6 Flight Crew Training Systems - USN/USAF

Air Task P20520521-0608-042050028 of 27 January 1994

Navy Agent for Distributed Interactive Simulation - USN/USAF/USMC

Commander SPAWAR ltr Ser 31/027 of 3 February 1994

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AV-8 Harrier Aircraft Program - USN/USMC/Italy/Spain

Air Task PMA2052052N-0608-4205000012

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TECHNICAL FUNCTIONS

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

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

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

Footnote: Financial information for NAWCTSD's detachments is not maintained separately. Field sites use the same UIC as NAWCTSD Orlando (61339).

NAWCTSD definitions for Tab A paragraph 2 Financial terms:

2. Expenditures equate to NAWCTSD obligations

2a. In-House Expenditures equates to NAWCTSD Expense Operating Budget (EOB).

2b. Out-of-House Expenditures equates to NAWCTSD Other Reimbursable.

2c. Direct Cites equates to NAWCTSD Direct Cites.

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Pages 5 - 20 have been moved to Tab A

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

Technical Center Site	NAWCTSD Orlando
Functional Support Area	10.1.5 Human Resources Research and Development
Life Cycle Work Area	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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 4 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 0

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 300

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

Note:

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

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

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

Technical Center Site	NAWCTSD Orlando
Functional Support Area	10.1.5 Human Resources Research and Development
Life Cycle Work Area	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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 32 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 0

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 1800

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 5800

Note:

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

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

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

Technical Center Site	NAWCTSD Orlando
Functional Support Area	10.1.5 Human Resources Research and Development
Life Cycle Work Area	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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 42 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 0

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 7400

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 3200

Note:

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

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

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TECHNICAL FUNCTIONS
FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

Technical Center Site	NAWCTSD Orlando
Functional Support Area	10.1.5 Human Resources Research and Development
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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 14 WYs R

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 0 R

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 2,340 R

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 1,980 R

Note:

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

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

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TECHNICAL FUNCTIONS
FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

Technical Center Site	NAWCTSD Orlando
Functional Support Area	10.1.5 Human Resources Research and Development
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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 2 WYs R

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 0 R

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 260 R

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 220 R

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	NAWCTSD Orlando
Functional Support Area	10.1.5 Human Resources Research and Development
Life Cycle Work Area	Production & 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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 16 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 0

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 2600

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 2200

Note:

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

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

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

Technical Center Site	NAWCTSD Orlando
Functional Support Area	10.1.1 Submarine Related Training Systems
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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 28 WYs **R**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 4,149 **R**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 1,331 **R**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 5,603 **R**

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	NAWCTSD Orlando
Functional Support Area	10.1.1 Submarine Related Training Systems
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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 76 WYS **R**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 11,217 **R**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 3,597 **R**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 15,150 **R**

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	NAWCTSD Orlando
Functional Support Area	10.1.1 Submarine Related Training Sys
Life Cycle Work Area	Production & 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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 104 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 15,366

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 4,928

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 20,753

Note:

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

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

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

Technical Center Site	NAWCTSD Orlando
Functional Support Area	10.1.2 Aircraft Related Training Systems
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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 67 WYs **R**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 5,948 **R**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 2,588 **R**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 48,602 **R**

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	NAWCTSD Orlando
Functional Support Area	10.1.2 Aircraft Related Training Systems
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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 141 WYS **R**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 12,640 **R**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 5,500 **R**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K)103,282 **R**

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	NAWCTSD Orlando
Functional Support Area	10.1.2 Aircraft-Related Training Sys
Life Cycle Work Area	Production & 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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 208 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 18,588

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 8,088

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 151,884

Note:

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

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

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

Technical Center Site	NAWCTSD Orlando
Functional Support Area	10.1.3 Surface Ship-Related Training Systems
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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 38 WYs **R**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 3,188 **R**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 2,667 **R**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 9,345 **R**

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	NAWCTSD Orlando
Functional Support Area	10.1.3 Surface Ship-Related Training Systems
Life Cycle Work Area	Production & 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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 98 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 8,175

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 6,838

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 23,962

Note:

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

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

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

Technical Center Site	NAWCTSD Orlando
Functional Support Area	10.1.3 Surface Ship-Related Training Systems
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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 60 WYs **R**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 4,987 **R**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 4,171 **R**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 14,617 **R**

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	NAWCTSD Orlando
Functional Support Area	10.1.4 Weapons-Related Training Systems
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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 141 WYs **R**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 518 **R**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 19,552 **R**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 639,600 **R**

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	NAWCTSD Orlando
Functional Support Area	10.1.4 Weapons-Related Training Systems
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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 99 WYs **R**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 1,513 **R**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 8,957 **R**

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 294,123 **R**

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	NAWCTSD Orlando
Functional Support Area	10.1.4 Weapons-Related Training Sys
Life Cycle Work Area	Production & 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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 240 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 2,031

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 28,509

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 933,723

Note:

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

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

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

Technical Center Site	NAWCTSD Orlando
Functional Support Area	10.9 Activity Mission and Function Support
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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 61 WYS **R**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 2,101 **R**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 1,991 **R**

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

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	NAWCTSD Orlando
Functional Support Area	10.9 Activity Mission and Function Support
Life Cycle Work Area	Production & 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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 204 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 7,004

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 391

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

Note:

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

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

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TECHNICAL FUNCTIONS
FUNCTIONAL SUPPORT AREA/LIFE CYCLE WORK AREA FORM

Technical Center Site	NAWCTSD Orlando
Functional Support Area	10.9 Activity Mission and Function Support
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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 143 WYS **R**

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 4,903 **R**

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 4,646 **R**

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

Note:

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

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

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

Technical Center Site	NAWCTSD Orlando
Functional Support Area	10.1.1 Submarine-Related Training Sys
Life Cycle Work Area	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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 0 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 1232

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 6,532

Note:

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

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

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

Technical Center Site	NAWCTSD Orlando
Functional Support Area	10.1.2 Aircraft-Related Training Sys
Life Cycle Work Area	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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 0 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 1830

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 11,235

Note:

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

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

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

Technical Center Site	NAWCTSD Orlando
Functional Support Area	10.1.3 Surface Ship-Related Training Sys
Life Cycle Work Area	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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 0 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 2200

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 0

c. **Direct Cites.** Provide total direct cite funds expended on contract during FY1993 for this functional support area - life cycle work area. \$(K) 10,393

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	NAWCTSD Orlando
Functional Support Area	10.1.4 Weapons-Related Training Sys
Life Cycle Work Area	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 FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 0 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 55

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 0

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

Note:

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

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

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

Technical Center Site	NAWCTSD Orlando
Functional Support Area	10.1.1 Submarine-Related Training Sys
Life Cycle Work Area	In-Service Engineering

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

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 19 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 896

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 0

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

Note:

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

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

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

Technical Center Site	NAWCTSD Orlando
Functional Support Area	10.1.2 Aircraft-Related Training Sys
Life Cycle Work Area	In-Service Engineering

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

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 67 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 3161

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 0

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

Note:

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

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

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

Technical Center Site	NAWCTSD Orlando
Functional Support Area	10.1.3 Surface Ship-Related Training Sys
Life Cycle Work Area	In-Service Engineering

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

1. **In-House Work Years.** Provide the number of in-house government employee (civilian and military) work years for FY1993 that were performed in this functional support area - life cycle work area. Workyears are to be consistent with those used in the preparation of inputs to the President's budget. 46 WYs

2. **Expenditures.**

a. **In-House Expenditures.** Provide the total in-house cost in FY1993 for this functional support area - life cycle work area. \$(K) 2170

b. **Out-of-House Expenditures.** Provide the total funds expended during FY1993 for this functional support area - life cycle work area. Do not include direct cite funding. \$(K) 0

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

Note:

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

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

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.

Previous BRAC decisions require that several field offices relocate to other sites. However, that is not expected to affect numbers of personnel onboard or associated workyears. Field offices still remaining to be relocated are annotated under question 4b.

For NAWCTSD in Orlando the closure of Naval Training Center Orlando results in a MILCON requirement of 48,000 sq.ft. to replace facilities lost when the base closes o/a Oct 98. That space will replace warehouse, labs, and bid/proposal rooms currently housed on NTCORL property. As depicted, additional personnel are needed to support increased effort associated with administering/maintaining a larger facility. BRACON was deleted from CNET budget but is being resubmitted in the BRAC Budget submission for DON Budget Review for FY1996 and FY1997.

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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: NAWCTSD Orlando) (UIC: 61339)**

Function	Space allocated (Gross SQFT)	Work Years	Civilian Personnel onboard	Contract Work Years	Military Personnel Onboard	
					Off	Enl
ADMINISTRATION						
Command (CO/XO/TD/etc.)	8,019	33	32		2	1
Comptroller	6,368	40	40		0	0
Admin	10,376	8	8		1	0
Human Resources	4,505	44	46		0	0
OPERATIONS SUPPORT						
Supply Management	26,345	126	126		3	2
Consolidated Computational Computer Support	1,155	0	0		0	0
Information Systems and Communications	5,822	20	20		0	1
Safety/OSH/Environmental	210	2	2		0	0
INFRASTRUCTURE						
Physical Security	2,456	18	21		0	0
Public Works/Staff Civil Engr	2,202	10	17		1	0
Fire Protection	0		0		0	0
Medical/Dental	0		0		0	1
Military Support	75	0	0		0	0
Air/Waterfront Operations	0		0		0	0
Other					0	0
TECHNICAL STAFF						
Technical Operations			616	5	18	9
Totals	67,533	301 *	928 *	5	25**	14**

* Total WYs (including field sites and technical operations) = 1069

Total FTP (including field sites) = 1064

** Navy only; does not include 6 USMC (5 Off; 1 Enl) who are in technical operations

**Table 4.2, General Support Resources for all Detachments
(Activity: NAWCTSD Orlando) (UIC: 61339)**

Function	Space allocated (Gross SQFT)	Work Years	Civilian Persnel onboard	Contract Work Years	Military Personnel Onboard	
					Off	Enl
ADMINISTRATION						
Command (CO/ XO/ TD/etc.)						
Comptroller						
Admin						
Human Resources						
OPERATIONS SUPPORT						
Supply Management						
Consolidated Computational Computer Support						
Information Systems and Communications						
Safety/OSH/Environmental						
INFRASTRUCTURE						
Physical Security						
Public Works/Staff Civil Engr						
Fire Protection						
Medical/Dental						
Military Support						
Air/Waterfront Operations						
Other						
TECHNICAL STAFF						
Technical Operations Command Reps and ISEOs			136	0	0	1*
Totals			136	0	0	1

*1 Military Enlisted shown is assigned to UIC 43406, San Diego, CA

LIST OF NAWCTSD DETACHMENTS (FIELD SITES - IN-SERVICE ENGINEERING OFFICES (ISEO) AND COMMAND REPRESENTATIVES)

UIC	NAME	LOCATION	CIV/MIL
61339	NAWCTSD ISEO (PDA12I)	NAS Lemoore, CA (UIC: 53042)	2/0
61339	NAWCTSD ISEO (PDA13I)	NAS Whidbey Island, WA (UIC: 00620)	4/0
61339	NAWCTSD ISEO (PDA14I)	NAS North Island San Diego, CA (UIC: 00246)	4/0
61339	NAWCTSD ISEO (PDA15I)	NAS Kingsville, TX (UIC: 60241)	5/0
61339	NAWCTSD ISEO (PDA16I)	NAS Saufley Field Pensacola, FL (UIC: 68322)	6/0
61339	NAWCTSD ISEO (PDA16IW)	NAS Whiting Field Milton, FL (UIC: 60508)	2/0
61339	NAWCTSD ISEO (PDA19IH)	COMPATWING5 PAC Pearl Harbor, HI (UIC: 09452)	1/0
61339	NAWCTSD ISEO * (PDA17I)	NAS Memphis Millington, TN (UIC: 00204)	5/0
61339	NAWCTSD ISEO (PDA17IB)	MCAS Beaufort Beaufort, SC (UIC: 60169)	1/0
61339	NAWCTSD ISEO (PDA18I)	NAS Norfolk Norfolk, VA (UIC: 00188)	5/0
61339	NAWCTSD ISEO (PDA18IO)	NAS Oceana Virginia Beach, VA (UIC: 60191)	5/0

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LIST OF NAWCTSD DETACHMENTS (FIELD SITES - IN-SERVICE ENGINEERING OFFICES (ISEO) AND COMMAND REPRESENTATIVES)

61339	NAWCTSD ISEO (PDA19I)	NAS Jacksonville Jacksonville, FL (UIC: 00207)	9/0
61339	NAWCTSD ISEO (PDA19IW)	NAS Willow Grove Willow Grove, PA (UIC: 00158)	0/0
61339	NAWCTSD ISEO * (PDA20I)	NAS Cecil Field Jacksonville, FL (UIC: 60200)	5/0
61339	NAWCTSD ISEO (PDB10)	FCTCPAC San Diego, CA (UIC: 61665)	5/0
61339	NAWCTSD ISEO (PDMB1)	MCAS Camp Pendleton Camp Pendleton, CA (UIC: 67604)	4/0
61339	NAWCTSD ISEO * (PDMB2)	MCAS El Toro Santa Ana, CA (UIC: 02200)	1/0
61339	NAWCTSD ISEO (PDMB4)	MCAS Cherry Point Cherry Point, NC (UIC: 00146)	5/0
61339	NAWCTSD ISEO (PDMB5)	MCAS New River Jacksonville, NC (UIC: 62573)	2/0
61339	NAWCTSD ISEO (PDMB6)	NAS Oceana Virginia Beach, VA (UIC: 60191)	2/0
61339	NAWCTSD ISEO (PDS8S)	NETPMSA Pensacola, FL (UIC: 68322)	6/0

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LIST OF NAWCTSD DETACHMENTS (FIELD SITES - IN-SERVICE ENGINEERING OFFICES (ISEO) AND COMMAND REPRESENTATIVES)

61339	NAWCTSD ISEO (PDS8C)	NTTC CORSTA Pensacola, FL (UIC: 63082)	2/0
61339	NAWCTSD ISEO (PDS8G)	NTC Great Lakes Great Lakes, IL (UIC: 00210)	2/0
61339	NAWCTSD ISEO (PDS8N)	NETC Newport, RI (UIC: 62661)	1/0
61339	NAWCTSD ISEO (PDS9)	NAVPHIBSCOL Norfolk, VA (UIC: 63021)	3/0
61339	NAWCTSD ISEO (PDS9N)	FLEASWTRACENLANT Norfolk, VA (UIC: 63401)	1/0
61339	NAWCTSD ISEO (PDS9FN)	Federal Bldg Portsmouth, VA	2/0
61339	NAWCTSD ISEO (PDS10)	FCTCLANT Virginia Beach, VA (UIC: 00281)	3/0
61339	NAWCTSD ISEO * (PDS10C)	FLEMINEWARTRACEN Charleston, SC (UIC: 62603)	1/0
61339	NAWCTSD ISEO (PDS10M)	FLETRACEN Mayport Mayport, FL (UIC: 10151)	3/0
61339	NAWCTSD ISEO (PDS10N)	CTSGLANT Norfolk, VA (UIC: 49085)	2/0
61339	NAWCTSD ISEO (PDS11)	FLEASWTRACENPAC San Diego, CA (UIC: 00948)	6/0

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LIST OF NAWCTSD DETACHMENTS (FIELD SITES - IN-SERVICE ENGINEERING OFFICES (ISEO) AND COMMAND REPRESENTATIVES)

61339	NAWCTSD ISEO (PDS11H)	ATGMIDPAC Pearl Harbor, HI (UIC: 57063)	1/0
61339	NAWCTSD ISEO (PDS12)	FLETRACEN San Diego San Diego, CA (UIC: 61690)	6/0
61339	NAWCTSD ISEO (PDU4NL)	NAVSUBSCOL Groton, CT (UIC: 00750)	4/0
61339	NAWCTSD ISEO (PDU4)	SUBTRAFAC Norfolk, VA (UIC: 45679)	3/0
61339	NAWCTSD ISEO (PDU5HI)	NAVSUBTRACENPAC Pearl Harbor, HI (UIC: 63154)	3/0
61339	NAWCTSD ISEO (PDU4C)	SUBTRAFAC Charleston, SC (UIC: 61165)	1/0
61339	NAWCTSD ISEO (PDU6)	SUBTRAFAC San Diego, CA (UIC: 39145)	2/0
61339	NAWCTSD ISEO (PDU1TB)	TRITRAFAC Silverdale, WA (UIC: 68437)	2/0
61339	NAWCTSD ISEO (PDU1KB)	TRITRAFAC Kings Bay, GA (UIC: 68437)	3/0
61339	NAWCTSD ISEO (PDU1TN)	TRICCSMA Newport, RI (UIC: 66604)	1/0
61339	NAWCTSD Rep Atlantic (0L)	Federal Bldg Portsmouth, VA	2/0

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LIST OF NAWCTSD DETACHMENTS (FIELD SITES - IN-SERVICE ENGINEERING OFFICES (ISEO) AND COMMAND REPRESENTATIVES)

61339	NAWCTSD Rep CNET/ COMNAVRESFOR (UIC: 00062) (0C)	CNET Pensacola, FL	1/0
61339	NAWCTSD Rep Pacific (0P)	Fleet & Industrial Supply Ctr San Diego, CA (UIC: 00244)	2/1**
61339	NAWCTSD Rep Washington (0W)	NAWCHQ Washington, DC (UIC: 68935)	0/0
Total			136/1

*** Four ISEO's will relocate due to BRAC 93:**

- ISEO NAS Charleston (PDS10C) to ATGLANT CSTG Det Mayport
- ISEO NAS Cecil Field (PDA20I) to NAS North Island
- ISEO NATTC Memphis (PDA17I) to Pensacola
- ISEO MCAS Tustin (PDMB2) to New River

**** 1 Military Enlisted shown is assigned to UIC 43406, San Diego, CA**

**Table 4.3, Previous BRAC Impact to General Support Resources for
(Activity: NAWCTSD Orlando) (UIC: 61339)**

Function	Space allocated (Gross SQFT)	Work Years	Civilian Personnel onboard	Contract Work Years	Military Personnel Onboard	
					Off	Enl
ADMINISTRATION						
Command (CO/XO/ TD/etc.)						
Comptroller						
Admin *	1,000					
Human Resources						
OPERATIONS SUPPORT						
Supply Management *	39,000		3			
Consolidated Computational Computer Support						
Information Systems and Communications						
Safety/OSH/Environmental						
INFRASTRUCTURE						
Physical Security *	200					
Public Works/Staff Civil Engr						
Fire Protection						
Medical/Dental						
Military Support						
Air/Waterfront Operations						
Other						
TECHNICAL STAFF						
Technical Operations *						
Totals	40,200		3			

*See note next page

* Space required to replace that currently occupied by NAWCTSD at NTCORL (closed by BRAC 93). Total sq. ft. = 48,000 (7,800 not shown above is for Technical Operations). Requirement for BRACON and interim lease submitted on both BRAC and FY96/97 NAVCOMPT O&MN budgets. Additional personnel (3) will perform routine labor and services in support of added space.

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. (See list at Table 4.2)

Table 5.1, Technical Staff Education Level for
(Activity: NAWCTSD Orlando) (UIC: 61339)

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	12	26	19	67	124
B.A./B.S	0	110	44	44	90	288
M.A./M.S	0	28	32	27	90	177
Ph.D./M.D.	0	9	4	8	6	27
Total	0	159	106	98	253	616

*** Space required to replace that currently occupied by NAWCTSD at NTCORL (closed by BRAC 93). Total sq. ft. = 48,000 (7,800 not shown above is for Technical Operations). Requirement for BRACON and interim lease submitted on both BRAC and FY96/97 NAVCOMPT O&MN budgets. Additional personnel (3) will perform routine labor and services in support of added space.**

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. (See list at Table 4.2)

Table 5.1, Technical Staff Education Level for
(Activity: NAWCTSD Orlando) (UIC: 61339)

Highest Degree Attained	Years of Government and/or Military Service					
	Less than 3 Years	3-10 Years	11-15 Years	16-20 Years	More than 20 Years	Total
Grade School	0	0	0	0	0	0
High School	0	12	26	19	67	124
B.A./B.S	0	110	44	44	90	288
M.A./M.S	0	28	32	27	09	177
Ph.D./ M.D.	0	9	4	8	6	27
Total	0	156	103	90	244	616

**Table 5.2, Technical Staff Education Level for all Detachments
(Parent Activity: NAWCTSD Orlando) (UIC: 61339)**

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	3	3	4	30	40
B.A./B.S	0	30	12	11	25	78
M.A./M.S	0	3	1	4	10	18
Ph.D./M.D.	0	0	0	0	0	0
Total	0	36	16	19	65	136

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 (See list at Table 4.2)

**Table 5.3, Technical Staff Academic Fields for
(Activity: NAWCTSD Orlando) (UIC: 61339)**

Academic field	Number
Physics	5
Chemistry	0
Biology	0
Mathematics/Statistics/ Operations Research	1
Engineering	59
Medical	0
Dental	0
Computer Science	12
Social Science	2
Other Science	3
Non-Science	122
Total	204

**Table 5.4, Technical Staff Academic Fields for all Detachments
(Parent Activity: NAWCTSD Orlando) (UIC: 61339)**

Academic field	Number
Physics	0
Chemistry	0
Biology	0
Mathematics/Statistics/ Operations Research	0
Engineering	5
Medical	0
Dental	0
Computer Science	5
Social Science	0
Other Science	0
Non-Science	8
Total	18

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

NAWCTSD's location is both geographically and economically desirable. It is located in Orlando, Florida adjacent to the University of Central Florida (UCF). Metro Orlando is one of the fastest growing areas in the nation and is projected to continue to be a leader in employment growth through the year 2010. Orange county (in which NAWCTSD is located) ranks first in the state in employment growth. Business and workers are attracted by no personal income tax and the second-lowest level of direct taxation on business in the Southeast.

Education is a top priority. In addition to public schools, there are more than 100 private and parochial schools offering a wide variety of educational focuses. Also, the area has more than 380 licensed child-care facilities. Students have access to several four year institutions and numerous community and business colleges. Most importantly, UCF offers the only graduate program in simulation systems in the nation.

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Orlando has easy access to all modes of transportation. Orlando is served by Orlando International Airport (OIA) along with six other airports. OIA is the fastest growing major airport in the United States. Rail service, both passenger and freight is readily available. Port facilities, both deep and shallow water, are also within a 50 mile radius.

In addition to being one of the world's top vacation destinations, the area has a diversified economy. Agriculture, manufacturing, construction, and financial and professional services are part of the expanding economy. Because of the number of new jobs in small companies the Wall Street Journal listed Orlando among the Top 10 "Boom Towns of the 1990's" and Fortune rated Orlando as one of the nation's top 10 cities "to meet the challenges of global competition in the 21st century."

Orlando has a growing base of high technology companies and a technologically oriented university with adjacent research park (location of NAWCTSD). Over the last 10 years employment in Central Florida's high technology industries has increased by over 100 percent.

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.

1. "Implementing Total Quality Management at the U.S. Department of Defense", Kimberly M. McCarthy and Ahmad K. Eishernnawy; Computers ind. Engng., Vol. 21, 1991

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35-REV (9-1-94)

KC, MR-0983, 9-14-94

Orlando has easy access to all modes of transportation. Orlando is served by Orlando International Airport (OIA) along with six other airports. OIA is the fastest growing major airport in the United States. Rail service, both passenger and freight is readily available. Port facilities, both deep and shallow water, are also within a 50 mile radius.

In addition to being one of the world's top vacation destinations, the area has a diversified economy. Agriculture, manufacturing, construction, and financial and professional services are part of the expanding economy. Because of the number of new jobs in small companies the Wall Street Journal listed Orlando among the Top 10 "Boom Towns of the 1990's" and Fortune rated Orlando as one of the nation's top 10 cities "to meet the challenges of global competition in the 21st century."

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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.

1. "Flying Qualities Lessons Learned from the T-45A Flight Test Program - An Analytical and Test View Point", J. F. Calvert and C. A. Wood, May 1990
2. "Developmental Evaluation of a Centrifuge Flight Simulation as an Enhanced Maneuverability Flying Qualities Tool", J. F. Calvert and D. A. Kiefer, AIAA 92-157, August 1992
3. "Application of Centrifuge Based Dynamic Flight Simulation to Enhanced Maneuverability RDT&E", J. F. Calvert and D. A. Kiefer, Agard Flight Mechanics Panel Symposium Proceedings, October 1993
4. "Application of Current Departure Resistance Criteria to the Post-Stall Maneuvering Envelope", J. F. Calvert and R. M. Seltzer, Agard Flight Mechanics Panel Symposium Proceedings, October 1993
5. "Implementing Total Quality Management at the U.S. Department of Defense", Kimberly M. McCarthy and Ahmad K. Eishernnawy; Computers ind. Engng., Vol. 21, 1991
6. "Commercialization of Tactical Equipment", Eddie B. Smith; Interservice/Industry Training Systems and Education Conference Proceedings, November/December 1993

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7. "Use of Case Tools in the Software Acquisition Management Process", A. Murray, B. Pemberton, J. Walton, D. Classe, Proceedings from 14th I/ITSC Conference, November 1992 and Joint Service Guidance and Control Committee, December 1992
8. "A Process to Evaluate Training Media Alternatives", Dr. Eric S. Houglund and Dr. Dennis S. Duke, Proceedings from 12TH I/ITSC Conference, November 1990
9. "Automatic Scenario Generation and Control for Tactical Training Systems of the '90s", Barbara J. Pemberton, LCDR Richard Campbell and Dr. Robert H. Ahlers, published in Interservice/ Industry Training Systems Conference Proceedings, November 6-8, 1990
10. "Innovations in Training Simulation", Robert A. Sottolare and Rodney A. Long, Naval Engineers Journal, May 1992
11. "Use of Case Tools in the Software Acquisition Management Process," Aimee A. Murray, Barbara J. Pemberton, Judy E. Walton and Douglas J. Classe, published in Interservice/Industry Training Systems and Education Conference Proceedings, November 2-4, 1992
12. "Tools and Utilities for the Development of Speech Recognition Systems," Roger Werner, David Kotick and Dana Smith, published in Interservice/Industry Training Systems and Education Conference Proceedings, November 2-4, 1992
13. "Engineering Issues that Affect Training Using Networked Simulations," William F. Parrish, Jr., Audrey K. Bonsall, and L. Bruce McDonald, published in Training Strategies for Networked Simulation & Gaming, NATO Defence Research Group, March 22, 1993
14. "Effects of High Power Microwaves to Flight Control Sensors," R. Bradley Cope, published in Proceedings of the 12th Digital Avionics Systems Conference, IEEE, October 1993
15. "Microwave Vulnerability of Digital Flight Control Systems," Bruce T. Clough and R. Bradley Cope, Proceedings of the 12th Digital Avionics Systems Conference, IEEE, October 1993
16. "PSPICE Modeling of a Power Resonant Converter", Audrey K. Bonsall, Zaki Moussaoui and Issa Batarseh, published in SOUTHCON Proceedings, March 1994.
17. "Automatic Scenario Generation and Control for Tactical Training Systems of the '90s," Barbara J. Pemberton, LCDR Richard Campbell, Dr. Robert H. Ahlers, Proceedings 12th I/ITSC, Nov 1990

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2. "Automated Task Analysis for Training Development"; Bulletin of the American Society for Information Science, R. Ahlers (1990) 16(6), 11-14.
3. "The Relative Power of Training Evaluation Designs Under Different Cost Configurations", R. D. Arvey, S. E. Maxwell, and E. Salas (1992) Journal of Applied Psychology, 77, 155-160. Arvey
4. "Using Task Inventories to Forecast Skills and Abilities", R. D. Arvey, E. Salas, and K. A. Gialluca, K. A., Human Performance, 5, 171-190.

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18. "Low Cost Workstations- A Training System Chameleon," Jack Booker, published in IMAGE V Conference (1990)
19. "Realtime Software and Data base development for Advanced Computer Workstations," Larry Brown, published in IMAGE V Conference (1990)
20. "Assessment of Software Engineering Technology for Training Systems," Barbara J. Pemberton, et.al Fourth Navy IR/IED Symposium, Washington, June 1991
21. "Trainer Test and Evaluation Process Review," CDR Paul S. Kenney, Paul R. Little, and R. Thomas Galloway, proceedings of 13th Interservice/Industry Training Systems Conference, Dec 1991
22. "Active Sonar Classification Training Using Real Data," Dr. Leonard Healy with M. G. Beauvais, Interservice/Industry Conference Proceedings, Dec. 1991
23. "Tools and Utilities for the Development of Speech Recognition Systems", David Kotick and Dana Smith with Roger Werner, Interservice/Industry Conference Proceedings, Nov. 1992
24. "Design Guidelines for a Carrier Based Trainer System," Bruce Riner and Blair Browder, published in IMAGE V Conference (1992)
25. "Data Acquisition for CIG Database Development," Jack Booker, published in 14th I/ITSC (1992)
26. "Use of CASE Tools in the Software Acquisition Process," Aimee A. Murray, Barbara J. Pemberton, Judy E. Walton, Douglas J. Classe, presented at the Joint Service Guidance and Control Committee (JSGCC) Software Initiative Working Group, Sponsored by Defense Advanced Research Projects Agency (DARPA), December 1992
27. "Rehost of a Real-time Systems Interrupt-Driven Simulation Onto a DOS/PC/Ada Environment Using OOD," Daniel Waterhouse and Daniel Dyke, published in ACM Ada LETTERS, Vol XIII, Number 4, July/Aug 1993.
28. "Automated Task Analysis for Training Development"; Bulletin of the American Society for Information Science, R. Ahlers (1990) 16(6), 11-14.
29. "The Relative Power of Training Evaluation Designs Under Different Cost Configurations", R. D. Arvey, S. E. Maxwell, and E. Salas (1992) Journal of Applied Psychology, 77, 155-160. Arvey
30. "Using Task Inventories to Forecast Skills and Abilities", R. D. Arvey, E. Salas, and K. A. Gialluca, K. A., Human Performance, 5, 171-190.

5. "Aviation Computer Games for Crew Resource Management Training", D. Baker, C. Prince, L. Shrestha, R. Oser, and E. Salas (1993). *The International Journal of Aviation Psychology*, 3(2), 143-155.
6. "Principles for Measuring Teamwork Skills", D. P. Baker, and E. Salas (1992), *Human Factors*, 34, 469-476.
7. "Assessment of Coordination Development for Aircrew Coordination Training", C. Bowers, B. Morgan, E. Salas, and C. Prince (1993), *Military Psychology*, 5(2), 95-112.
8. "Games Teams play: A Methodology for Investigating Team Coordination and Performance", C. A. Bowers, E. Salas, C. Prince, and M. Brannick (1992), *Behavior Methods, Instruments and Computers*, 24, 503-506.
9. "Understanding Team Performance: A Multimethod Study", M. T. Brannick, R. M. Roach, and E. Salas (1993), *Human Performance*, 6, 287-306.
10. "Toward an Integration of Training Theory", J. A. Cannon-Bowers, S. I. Tannenbaum, E. Salas, and S. A. Converse (1991). *Human Factors*, 33, 281-292.
11. "Toward Theoretically-Based Principles of Training Effectiveness: A Model and Initial Empirical Investigation", J. A. Cannon-Bowers, E. Salas, S. I. Tannenbaum, and J. E. Mathieu (in press). *Military Psychology*.
12. "Sensory and Cognitive Vigilance: Effects of Age on Performance and Subjective Workload", J. Deaton and R. Parasuraman (1993). *Human Performance*, 6(1), 71-97.
13. "Cognitive and Personality Predictors of Training Performance", J. E. Driskell, J. Hogan, E. Salas, and B. Hoskin (1994). *Military Psychology*, 6, 31-46.
14. "Task Cues, Dominance Cues, and Influence in Task Groups", J. E. Driskell, B. Olmstead, and E. Salas (1993). *Journal of Applied Psychology*, 78, 51-60.
15. "Group Decision Making Under Stress", J. E. Driskell and E. Salas (1991). *Journal of Applied Psychology*, 76, 473-478.
16. "Collective Behavior and Team Performance", J. E. Driskell E. Salas (1992). *Human Factors*, 34, 277-288.
17. "Effect of Overlearning on Retention", J. E. Driskell, R. P. Willis, and C. Copper (1992). *Journal of Applied Psychology*, 77(5), 615-622.
18. "Improving the Measurement of Team Performance: The TARGETS Methodology", J. E. Fowlkes, N. E. Lane, E. Salas, T. Franz, and R. Oser (1994). *Military Psychology*, 6, 47-61.

31. "Aviation Computer Games for Crew Resource Management Training", D. Baker, C. Prince, L. Shrestha, R. Oser, and E. Salas (1993). *The International Journal of Aviation Psychology*, 3(2), 143-155.
32. "Principles for Measuring Teamwork Skills", D. P. Baker, and E. Salas (1992), *Human Factors*, 34, 469-476.
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34. "Games Teams play: A Methodology for Investigating Team Coordination and Performance", C. A. Bowers, E. Salas, C. Prince, and M. Brannick (1992), *Behavior Methods, Instruments and Computers*, 24, 503-506.
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42. "Collective Behavior and Team Performance", J. E. Driskell and E. Salas (1992). *Human Factors*, 34, 277-288.
43. "Effect of Overlearning on Retention", J. E. Driskell, R. P. Willis, and C. Copper (1992). *Journal of Applied Psychology*, 77(5), 615-622.
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19. "Relationships of Work Stress Measures for Employees with the Same Job", J. K. Hall and P. E. Spector (1991). *Work and Stress*, 5, 29-35.
20. "Systems Concepts for Training Systems Development", R. T. Hays (1992). *IEEE Transactions on Systems, Man, and Cybernetics*, 22(2), 1-9.
21. "Flight Simulator Training Effectiveness: A Meta-Analysis", R. T. Hays, J. W. Jacobs, C. Prince, and E. Salas (1992). *Military Psychology*, 4(2), 63-74.
22. "Requirements for Future Research in Flight Simulation Training: Guidance Based on a Meta-Analytic Review", R. T. Hays, J. W. Jacobs, C. Prince, and E. Salas (1992). *International Journal of Aviation Psychology*, 2(2), 143-158.
23. "Application of Cognitive, Skill-Based, and Affective Theories of Learning Outcomes to New Methods of Training Evaluation", K. Kraiger, J. K. Ford, and E. Salas (1993). *Journal of Applied Psychology*, 78, 311-328.
24. "The Influences of Individual and Situational Characteristics on Measures of Training Effectiveness", J. E. Mathieu, S. I. Tannenbaum, and E. Salas (1992). *Academy of Management Journal*, 4, 828-847.
25. "A Comparison of Methods for Increasing Power in Randomized Between-Subjects Designs", S. E. Maxwell, D. A. Cole, R. D. Arvey, and E. Salas (1991). *Psychological Bulletin*, 110, 328-337.
26. "The Journal of General Psychology", B. B. Morgan, Jr., E. Salas, and A. S. Glickman (1994). An analysis of Team Evolution and Maturation. *The Journal of General Psychology*, 120, 277-291.
27. "Transfer of Simulated Instrument Training to Instrument and Contact Flight", M. G. Pfeiffer, J. Horey, J., and J. Butrimas (1991). *The International Journal of Aviation Psychology*, 1(3), 219- 279.
28. "Increasing Hits, Reducing Misses in CRM/LOS Scenarios: Guidelines for Simulator Scenario Development", C. Prince, R. Oser, E. Salas, and W. Woodruff (1993). *International Journal of Aviation Psychology*, 3, 69-82.
29. "The Role of Mental Models in Team Performance in Complex Systems", W. B. Rouse, J. A. Cannon-Bowers, and E. Salas (1992). *IEEE Transactions on Systems, Man, and Cybernetics*, 22, 1296-1308.
30. "Special Issue Preface", E. Salas (1991). *Human Factors*, 33, 249-250.

45. "Relationships of Work Stress Measures for Employees with the Same Job", J. K. Hall and P. E. Spector (1991). *Work and Stress*, 5, 29-35.
46. "Systems Concepts for Training Systems Development", R. T. Hays (1992). *IEEE Transactions on Systems, Man, and Cybernetics*, 22(2), 1-9.
47. "Flight Simulator Training Effectiveness: A Meta-Analysis", R. T. Hays, J. W. Jacobs, C. Prince, and E. Salas (1992). *Military Psychology*, 4(2), 63-74.
48. "Requirements for Future Research in Flight Simulation Training: Guidance Based on a Meta-Analytic Review", R. T. Hays, J. W. Jacobs, C. Prince, and E. Salas (1992). *International Journal of Aviation Psychology*, 2(2), 143-158.
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51. "A Comparison of Methods for Increasing Power in Randomized Between-Subjects Designs", S. E. Maxwell, D. A. Cole, R. D. Arvey, and E. Salas (1991). *Psychological Bulletin*, 110, 328-337.
52. "The Journal of General Psychology", B. B. Morgan, Jr., E. Salas, and A. S. Glickman (1994). An analysis of Team Evolution and Maturation. *The Journal of General Psychology*, 120, 277-291.
53. "Transfer of Simulated Instrument Training to Instrument and Contact Flight", M. G. Pfeiffer, J. Horey, J., and J. Butrimas (1991). *The International Journal of Aviation Psychology*, 1(3), 219- 279.
54. "Increasing Hits, Reducing Misses in CRM/LOS Scenarios: Guidelines for Simulator Scenario Development", C. Prince, R. Oser, E. Salas, and W. Woodruff (1993). *International Journal of Aviation Psychology*, 3, 69-82.
55. "The Role of Mental Models in Team Performance in Complex Systems", W. B. Rouse, J. A. Cannon-Bowers, and E. Salas (1992). *IEEE Transactions on Systems, Man, and Cybernetics*, 22, 1296-1308.
56. "Special Issue Preface", E. Salas (1991). *Human Factors*, 33, 249-250.
57. "Team Training and Performance", E. Salas (1993). *Psychological Science Agenda*, 6, 9-11.

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- 31. "Group Decision Making Under Stress", E. Salas and J. Driskell (1991). *Journal of Applied Psychology*, 76, 473-478.
- 32. "Organizational Behavior, Socio-Technical Systems and Quality of Work Life: The Peruvian Experience", E. Salas and A. S. Glickman (1990). *Latin American Journal of Psychology*, 22(1), 69-82.
- 33. "Development of a Task Information Taxonomy for Human Performance Systems", E. Salas, Hogan, and Broach (1990). *Military Psychology*, 2, 1-19.
- 34. "Individual Task Proficiency and Team Process: What's Important for Team Functioning", R. J. Stout, E. Salas, and R. Carson (in press). *Military Psychology*.
- 35. "Ensuring Teamwork: A Checklist for use in Designing Team Training Programs", R. W. Swezey, R. E. Llaneras, and E. Salas E. (1992). *Performance & Instruction*, 31, 33-37.
- 36. "Meeting Trainees Expectations: The Influence of Training Fulfillment on the Development of Commitment, Self-Efficacy and Motivation", S. I. Tannenbaum, Mathieu, E. Salas, and J. Cannon-Bowers (1991). *Journal of Applied Psychology*, 76, 759-769.

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.

1. "Systems Engineering" course book published by Learning Tree International, Los Angeles, CA, Course #348A, July 1992. Claude (Nick) Nichols was the lead technical writer for:

- Chapter 1: "Defense Systems Acquisitions", entire chapter
- Chapter 2: "Systems Engineering", app. 40%
- Chapter 3: "The System Life Cycle", app. 50%
- Chapter 4: "Concept Exploration & Definition", app. 45%
- Chapter 5: "Concept Demonstration & Validation", app. 40%
- Chapter 6: "Engineering and Manufacturing Development: Decomposition and Definition", app. 20%

58. "Group Decision Making Under Stress", E. Salas and J. Driskell (1991). *Journal of Applied Psychology*, 76, 473-478.
59. "Organizational Behavior, Socio-Technical Systems and Quality of Work Life: The Peruvian Experience", E. Salas and A. S. Glickman (1990). *Latin American Journal of Psychology*, 22(1), 69-82.
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61. "Individual Task Proficiency and Team Process: What's Important for Team Functioning", R. J. Stout, E. Salas, and R. Carson (in press). *Military Psychology*.
62. "Ensuring Teamwork: A Checklist for use in Designing Team Training Programs", R. W. Swezey, R. E. Llaneras, and E. Salas E. (1992). *Performance & Instruction*, 31, 33-37.
63. "Meeting Trainees Expectations: The Influence of Training Fulfillment on the Development of Commitment, Self-Efficacy and Motivation", S. I. Tannenbaum, Mathieu, E. Salas, and J. Cannon-Bowers (1991). *Journal of Applied Psychology*, 76, 759-769.
64. "Innovative Sonar Training: Linking Sonar Concepts with Familiar Mental Concepts", Dr. Tom Hammel, Fred Ewatt, Dr. Robert Ahlers and Cathy Matthews, accepted for I/ITSEC '94
65. "Performance Limitations of the DIS Interface", R. Bradley Cope and Rodney A. Long, accepted for I/ITSEC '94
66. "Partners in Education and the Distributed Interactive Simulation Instructional Animation Project", Michael D. Williams, Marsha Vandivort and Jason Ahmanson, accepted for the Ed-Media International Conference, June 1994

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.

1. "Systems Engineering" course book published by Learning Tree International, Los Angeles, CA, Course #348A, July 1992. Claude (Nick) Nichols was the lead technical writer for:

- Chapter 1: "Defense Systems Acquisitions", entire chapter
 Chapter 2: "Systems Engineering", app. 40%
 Chapter 3: "The System Life Cycle", app. 50%
 Chapter 4: "Concept Exploration & Definition", app. 45%
 Chapter 5: "Concept Demonstration & Validation:", app. 40%
 Chapter 6: "Engineering and Manufacturing Development:

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- Chapter 7: "Engineering and Manufacturing Development: Integration and Verification", app. 30%
- Chapter 9: "Production, Deployment, Operations, & Support," app 40%;
- Appendix A: "Software Development Process & Software Metrics," 100%
- Appendix B: "Checklists & Example Documents," app 30%
- Appendix F: "Workshops," developed 2 of the 8 workshops. "Concurrent Engineering" course book published by Next Generation Consulting, February 1993:
- Chapter 3: "Organizing for Concurrent Engineering," Authored by Claude (Nick) Nichols

2. "Work Teams in Industry", J. A. Cannon-Bowers, R. Oser, D. Flanagan (1992). In R. Swezey, & E. Salas (Eds.), Teams: Their Performance and Training. Norwood, NJ: Ablex.

3. "Shared Mental Models in Expert Team Decision Making", J. A. Cannon-Bowers, E. Salas, S. A. Converse (1993). In N. J. Castellan, Jr. (Ed.), Current Issues in Individual and Team Decision Making (pp. 221-246). Hillsdale, NJ: Lawrence-Erlbaum.

4. "Defining Team Competencies: Implications for Training Requirements and Strategies", J. A. Cannon-Bowers, S. I. Tannenbaum, E. Salas, C. E. Volpe (in press). In R. Guzzo & E. Salas (Eds.), Team Effectiveness and Decision Making in Organizations. Part of the Frontier Series in Industrial and Organizational Psychology. Jossey-Bass.

5. "Overcoming the Effects of Stress on Military Performance: Human Factors Training and Selection Strategies", J. E. Driskell, E. Salas (1991). In R. Gal & A. D. Mangelsdorff (Eds.), Handbook of Military Psychology (pp. 183-193). London: Wiley.

6. "Can You Study Real Teams in Contrived Settings?", J. E. Driskell, E. Salas (1992). The value of small group research to understanding teams. In R. W. Swezey & E. Salas (Eds.), Team: Their Training and Performance (pp. 101-124). Norwood, NJ: Ablex.

7. "Big Graphics and Little Screens: Model-Based Design of Large Scale Information Displays", P. R. Frey, W. B. Rouse, R. D. Garris (1993). In W. B. Rouse (ed.), Human/Technology Interaction in Complex Systems, Vol. 6. Greenwich, CT: JAI Press, Inc.

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KC, AIR-0983, 9-14-94

Decomposition and Definition", app. 20%

Chapter 7: "Engineering and Manufacturing Development: Integration and Verification", app. 30%

Chapter 9: "Production, Deployment, Operations, & Support," app 40%;

Appendix A: "Software Development Process & Software Metrics," 100%

Appendix B: "Checklists & Example Documents," app 30%

Appendix F: "Workshops," developed 2 of the 8 workshops.

"Concurrent Engineering" course book published by Next Generation Consulting, February 1993:

Chapter 3: "Organizing for Concurrent Engineering,"
Authored by Claude (Nick) Nichols

2. "Work Teams in Industry", J. A. Cannon-Bowers, R. Oser, D. Flanagan (1992). In R. Swezey, & E. Salas (Eds.), Teams: Their Performance and Training. Norwood, NJ: Ablex.

3. "Shared Mental Models in Expert Team Decision Making", J. A. Cannon-Bowers, E. Salas, S. A. Converse (1993). In N. J. Castellan, Jr. (Ed.), Current Issues in Individual and Team Decision Making (pp. 221-246). Hillsdale, NJ: Lawrence-Erlbaum.

4. "Defining Team Competencies: Implications for Training Requirements and Strategies", J. A. Cannon-Bowers, S. I. Tannenbaum, E. Salas, C. E. Volpe (in press). In R. Guzzo & E. Salas (Eds.), Team Effectiveness and Decision Making in Organizations. Part of the Frontier Series in Industrial and Organizational Psychology.

5. "Overcoming the Effects of Stress on Military Performance: Human Factors Training and Selection Strategies", J. E. Driskell, E. Salas (1991). In R. Gal & A. D. Mangelsdorff (Eds.), Handbook of Military Psychology (pp. 183-193). London: Wiley.

6. "Can You Study Real Teams in Contrived Settings?", J. E. Driskell, E. Salas (1992). The value of small group research to understanding teams. In R. W. Swezey & E. Salas (Eds.), Team: Their Training and Performance (pp. 101-124). Norwood, NJ: Ablex.

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8. "Training for Stress Exposure", J. K. hall, J. A. Cannon-Bowers (in press). In J. E. Driskell & E. Salas (Eds.), Stress and Human Performance. Hillsdale, NJ: Larence Erlbaum Assoc.
9. "Team Performance in Complex Environments: What We Have Learned So Far", R. M. McIntyre, E. Salas (in press). In R. Guzzo & E. Salas (Eds.), Team Effectiveness and Decision Making in Organizations. San Francisco: Jossey-Bass.
10. "Training Decision Makers for the Real World", B. Means, E. Salas, T. O. Jacobs (1993). In G. Klein, J. Orasanu, R. Calderwood (Eds.), Decision Making in Action: Models and Methods (pp. 306-326). Norwood, NJ: Ablex.
11. "Implications of Automation Technology for Aircrew Coordination and Performance", B. B. Morgan Jr., D. A. Herschler, E. L. Wiener, E. Salas (1993). In W. B. Rouse (Ed), Human/Technology Interaction in Complex Systems, Vol. 6 (pp. 105-136). Greenwich, CT: JAI Press, Inc.
12. "Team Decision Making in Complex Environments", J. Orasanu, E. Salas (1993). In G. Klein, J. Orasanu, & R. Calderwood (Eds.), Decision Making in Action: Models and Methods (pp. 327-345). Norwood, NJ: Ablex.
13. "Aircrew Coordination Training", C. Prince, . Chidester, J. A. Cannon-Bowers, Bowers, C. A. (1992). In R. Swezey & E. Salas (Eds.), Teams: Their Performance and Training. Norwood, NJ: Ablex.
14. "Training and Research for Teamwork in the Military Aircrew", C. Prince, E. Salas (1993). In E. L. Wiener, B. G. Kanki, & R. L. Helreich (Eds.), Cockpit Resource Management. Orlando, FL: Academic Press.
15. "Understanding Situation Awareness: Concepts, methods, and training", L. B. Sherstha, C. Prince, D. P. Baker, E. Salas (1993). To appear in W. B. Rouse (Ed.), Human/technology interaction in complex systems, vol. 7. Greenwich, CT: JAI Press, Inc.
16. "Training Effectiveness Research: The tools of the trait", E. Salas, K. A. Burgess, J. A. Cannon-Bowers (in press). In J. Weiner, (Ed.), Research techniques in human engineering. Englewood, NJ: Princeton & Hall.
17. "Toward an Understanding of Team Performance and Training", E. Salas, T. L. Dickinson, S. A. Converse, S. I. Tannenbaum (1992). In R. W. Swezey & E. Salas (Eds.), Teams: Their training and performance (pp. 3-29). Norwood, NJ: Ablex.
18. "Guidelines for use in Team-Training Development", R. W. Swezey, E. Salas (1992). In R. W. Swezey & E. Salas (Eds.), Teams: Their training and performance. Norwood, NJ: Ablex.

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KL, AIR-0983, 9-14-94

8. "Training for Stress Exposure", J. K. hall, J. A. Cannon-Bowers (in press). In J. E. Driskell & E. Salas (Eds.), Stress and Human Performance. Hillsdale, NJ: Larence Erlbaum Assoc.
9. "Team Performance in Complex Environments: What We Have Learned So Far", R. M. McIntyre, E. Salas (in press). In R. Guzzo & E. Salas (Eds.), Team Effectiveness and Decision Making in Organizations. San Francisco: Jossey-Bass.
10. "Training Decision Makers for the Real World", B. Means, E. Salas, T. O. Jacobs (1993). In G. Klein, J. Orasanu, R. Calderwood (Eds.), Decision Making in Action: Models and Methods (pp. 306-326). Norwood, NJ: Ablex.
11. "Implications of Automation Technology for Aircrew Coordination and Performance", B. B. Morgan Jr., D. A. Herschler, E. L. Wiener, E. Salas (1993). In W. B. Rouse (Ed), Human/Technology Interaction in Complex Systems, Vol. 6 (pp. 105-136). Greenwich, CT: JAI Press, Inc.
12. "Team Decision Making in Complex Environments", J. Orasanu, E. Salas (1993). In G. Klein, J. Orasanu, & R. Calderwood (Eds.), Decision Making in Action: Models and Methods (pp. 327-345). Norwood, NJ: Ablex.
13. "Aircrew Coordination Training", C. Prince, . Chidester, J. A. Cannon-Bowers, Bowers, C. A. (1992). In R. Swezey & E. Salas (Eds.), Teams: Their Performance and Training. Norwood, NJ: Ablex.
14. "Training and Research for Teamwork in the Military Aircrew", C. Prince, E. Salas (1993). In E. L. Wiener, B. G. Kanki, & R. L. Helreich (Eds.), Cockpit Resource Management. Orlando, FL: Academic Press.
15. "Understanding Situation Awareness: Concepts, methods, and training", L. B. Sherstha, C. Prince, D. P. Baker, E. Salas (1993). To appear in W. B. Rouse (Ed.), Human/technology interaction in complex systems, vol. 7. Greenwich, CT: JAI Press, Inc.
16. "Training Effectiveness Research: The tools of the trait", E. Salas, K. A. Burgess, J. A. Cannon-Bowers (in press). In J. Weiner, (Ed.), Research techniques in human engineering. Englewood, NJ: Princeton & Hall.
17. "Toward an Understanding of Team Performance and Training", E. Salas, T. L. Dickinson, S. A. Converse, S. I. Tannenbaum (1992). In R. W. Swezey & E. Salas (Eds.), Teams: Their training and performance (pp. 3-29). Norwood, NJ: Ablex.
18. "Guidelines for use in Team-Training Development", R. W. Swezey, E. Salas (1992). In R. W. Swezey & E. Salas (Eds.), Teams: Their training and performance. Norwood, NJ: Ablex.
19. "Team Building and Its Influence on Team Effectiveness: An examination of

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19. "Team Building and Its Influence on Team Effectiveness: An examination of conceptual and empirical developments", S. I. Tannenbaum, R. L. Beard, E. Salas (1992). In K. Kelley (Ed.), Issue, theory, and research in industrial/organizational psychology (pp. 117-153). Amsterdam: Elsevier.

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.

	Technical	Research
Best Paper, 1991 International Simulation Technology Conference	0	1
AIAA de Florez Training for Flight Simulation	1	0
Florida Professional Engineer of the Year Award	1	0

conceptual and empirical developments", S. I. Tannenbaum, R. L. Beard, E. Salas (1992). In K. Kelley (Ed.), Issue, theory, and research in industrial/organizational psychology (pp. 117-153). Amsterdam: Elsevier.

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.

	Technical	Research
Elected "Fellow" in Div. 21 of American Psychological Association	0	1
Herman R. Salmon Technical Publications Award	0	1
Best Paper, 1991 International Simulation Technology Conference	0	2
Letter of Commendation from APA	0	1
AIAA de Florez Training for Flight Simulation	1	0
Florida Professional Engineer of the Year Award	1	0
Federal Computer Week and National Trade Productions, Inc "Annual Federal 100"	1	0
Orange County School Board Outstanding Volunteer Award	1	0

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

	Technical	Research
NAWCTSD Award of Merit for Group Achievement	18	7
Office of SECDEF Award for Excellence	1	0
Civilian Physiologist of the Year (From BUMED)	1	0
NAWCTSD Researcher of the Year	0	1
NAWCTSD Junior Researcher of the Year	0	1
Program Executive Office Submarine Combat & Weapons Systems Medallion	1	0
Certificate for SEACON - 1992 Wargame	0	1

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K2, AIR 2903, 9-14-94

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

	Technical	Research
Hockey Pucks		
(NAVAIR Commendation)	13	3
Special Act Awards	50	0
On-The-Spot Awards	95	14
DON Meritorious Civilian Service Award	2	0
DON Suggestion Awards	6	0
Letters of Commendation	19	1
NAWCTSD Award of Merit for Group Achievement	18	7
NAVTRASYSCEN Civilian Exemplary Service Award	14	0
Office of SECDEF Award for Excellence	1	0
Civilian Physiologist of the Year (From BUMED)	1	0
Navy Achievement Award (Military)	1	0
Outstanding Professional Service Award	1	0
Navy Commendation Medal (For Reserve duty)	2	0
NAWCTSD Researcher of the Year	0	1
NAWCTSD Junior Researcher of the Year	0	1
I/ITSEC nomination for "Best Paper"	0	4
Certificate of Appreciation for participation in FAA's National Aviation Plan for Human Factors	0	1
Certificate of Commendation for nomination Best Navy IR Paper	0	6
Nomination of Best FY90 IED Project	0	3
Program Executive Office Submarine Combat & Weapons Systems Medallion	1	0
Certificate for SEACON - 1992 Wargame	0	1

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

Date	Title	Inventors	Patent No.
5/8/90	Long Range Light Pen	Albert H. Marshall Ronald S. Wolff Robert T. McCormack Edward J. Purvis	4,923,401
5/8/90	Marksmanship Expert Trainer	Albert H. Marshall Robert T. McCormack Edward J. Purvis Ronald S. Wolff Herbert C. Towle	4,923,402
6/12/90	Low-Cost Sound Related Trainer	David M. Kotick Jonathan M. Smith	4,932,880
6/19/90	Perforated Flame Deflector	Edmund Swiatosz	4,934,927
7/31/90	Timed Oxygen Breathing Apparatus Trainer	Edmund Swiatosz Paul D. Grimmer	4,944,293
7/31/90	Generic Radar Display	John H. Allen Robert S. Reif	4,944,679
9/25/90	Intruder Target Monitoring Sonar Alarm System	Francis J. Murphree	4,959,817
10/30/90	Oxygen Breathing Bag Simulator	Edmund Swiatosz	4,966,139
7/9/91	Oxygen Breathing Apparatus Simulator	Edmund Swiatosz	5,029,578
7/30/91	Machine Gun And Minor Caliber Weapons Trainer	Albert H. Marshall Ronald S. Wolff Robert T. McCormack Edward J. Purvis	5,035,622

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KC, A12-0983, 9-14-94

**DON Appreciation Award
(SPAWAR)**

2

0

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

Date	Title	Inventors	Patent No.
5/8/90	Long Range Light Pen	Albert H. Marshall Ronald S. Wolff Robert T. McCormack Edward J. Purvis	4,923,401
5/8/90	Marksmanship Expert Trainer	Albert H. Marshall Robert T. McCormack Edward J. Purvis Ronald S. Wolff Herbert C. Towle	4,923,402
6/12/90	Low-Cost Sound Related Trainer	David M. Kotick Jonathan M. Smith	4,932,880
6/19/90	Perforated Flame Deflector	Edmund Swiatosz	4,934,927
7/31/90	Timed Oxygen Breathing Apparatus Trainer	Edmund Swiatosz Paul D. Grimmer	4,944,293
7/31/90	Generic Radar Display	John H. Allen Robert S. Reif	4,944,679
9/25/90	Intruder Target Monitoring Sonar Alarm System	Francis J. Murphree	4,959,817
10/30/90	Oxygen Breathing Bag Simulator	Edmund Swiatosz	4,966,139
7/9/91	Oxygen Breathing Apparatus Simulator	Edmund Swiatosz	5,029,578
7/30/91	Machine Gun And Minor Caliber Weapons Trainer	Albert H. Marshall Ronald S. Wolff Robert T. McCormack Edward J. Purvis	5,035,622

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1/19/93	Automated Answer Evaluation And Scoring System And Method	Michael E. Egnor	5,180,309
3/16/93	Semiconductor Laser Weapon Trainer And Target Designator For Live Fire	Albert H. Marshall Ronald S. Wolff	5,194,007
5/25/93	Team Trainer	Albert H. Marshall Robert T. McCormack Edward J. Purvis Ronald S. Wolff	5,213,503
6/1/93	Disappearing Target	Albert H. Marshall Edward J. Purvis Robert T. McCormack Ronald S. Wolff	5,215,463
6/1/93	Aggressor Shoot-Back Simulation	Albert H. Marshall Ronald S. Wolff Edward J. Purvis Robert T. McCormack	5,215,464
6/1/93	Infrared Spot Tracker	Albert H. Marshall Ronald S. Wolff Edward J. Purvis Robert T. McCormack	5,215,465

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

NC #	Title	Inventor
72,606	Automated Answer Evaluation And Scoring System And Method	Michael E. Egnor
71,635	Semiconductor Laser Weapon Trainer And Target Designator For Live Fire	Albert H. Marshall Ronald S. Wolff
72,608	Team Trainer	Albert H. Marshall

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Robert T. McCormack
Edward J. Purvis
Ronald S. Wolff

73,665 Disappearing Target

Albert H. Marshall
Edward J. Purvis
Robert T. McCormack
Ronald S. Wolff

72,016 Aggressor Shoot-Back
Simulation

Albert H. Marshall
Ronald S. Wolff
Edward J. Purvis
Robert T. McCormack

73,664 Infrared Spot Tracker

Albert H. Marshall
Ronald S. Wolff
Edward J. Purvis
Robert T. McCormack

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? NINE

1. University of Central Florida, Institute for Simulation and Training. Purpose - use CASE Tools for evaluating simulator software.

2. Dynamics research Corporation. Purpose - Develop and adapt "Gameshell" for educational games.

3. Embry Riddle Aeronautical University. Purpose - Evaluate and adapt aviation instrument navigation trainer.

4. Loral Defense Systems. Purpose - Develop and evaluate virtual reality for aviation training.

5. Motorola Corporation. Purpose - Develop interface for Distributed Interactive Simulation (DIS).

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6. Encore Computer Systems. Purpose - Demonstrate and test transportability of simulation software for DIS protocols.

7. Digital Equipment Corporation. Purpose - Demonstrate and test transportability of simulation software for DIS protocols.

8. SBS Engineering, INC. (in process) Purpose - Apply small arms simulation technology to law enforcement training.

9. Paragon Graphics. Purpose - Develop, integrate, demonstrate, and evaluate Helmet Mounted Display Technology.

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

	CRDAs	Patent Royalty
1990	\$ 0	\$ 0
1991	\$ 0	\$ 1,267.60
1992	\$ 0	\$ 0
1993	\$ 0	\$ 2,000.00

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.

1. RADIO INSTRUMENTS ORIENTATION TRAINER (RIOT):

A PC-based navigation trainer (laboratory and classroom versions) currently in use at NAS Whiting Field, NAS Pensacola, and NAS Corpus Christi. Developed in-house under 6.1 and 6.2 funding.

R. Garris-Reif, D. Weller, R. Reif, and Zegelbone. (1993, June). RIOT development and evaluation report (NAVTRASYSSEN TR 93-009). Orlando, FL: Naval Training Systems Center.

2. STANDARD NAVY AND MARINE CORPS AIRCREW COORDINATION TRAINING (ACT) METHODOLOGY:

Training program specifications and instructor training for all Navy and Marine aviation communities developed under 6.1, 6.2, and 6.3 research programs at NAWCTSD (formerly NTSC). An Instructor Tiger Team was trained at NAWCTSD then trained all other instructor for interim ACT programs currently in use. NAWCTSD personnel developed the Statement of Work and all supporting materials for PMA-205 to issue to contractors who will update future curricula to include the ACT methodology for all aviation platforms.

C. Prince and E. Salas (1993). Training and research for teamwork in the military aircrew. In E. L. Wiener, B. G. Kanki, and R. L. Helmreich (Eds.), *Cockpit Resource Management*. Orlando, FL: Academic Press.

3. TABLE-TOP AIRCREW COORDINATION TRAINING SYSTEM (T-TACTS):

A PC-based aircrew coordination trainer currently in use at NAS Whiting Field, NAS Corpus Christi, VAQ 129 NAS Whidbey Island, VMAQ MCAS Cherry Point, and various other locations under the control of the ACT Model Manager (CNET). Also in use for civilian cockpit resource management training by Aer Lingus.

C. Prince, R. Oser, E. Salas and W. Woodruff (1993). Increasing hits, reducing misses in CRM/LOS scenarios: Guidelines for simulator scenario development. *International Journal of Aviation Psychology*, 3, 69-82.

4. STRESS EXPOSURE TRAINING GUIDELINES:

The stress exposure training guidelines, developed under the 6.2 Tactical Decision Making Under Stress (TADMUS) program, have been integrated into department head training at Surface Warfare Officer School, NETC, Newport, RI (POC: CDR Ned Brooks, March 30, 1994).

J. K. Hall, J. E. Driskell, E. Salas, and J. A. Cannon-Bowers (1992). Development of instructional design guidelines for stress exposure training. *Proceedings of the 14th Annual Interservice/Industry Training Systems Conference* (pp. 357-363). San Antonio, TX: National Security Industrial Association.

5. STRESS ASSESSMENT METHODOLOGY FOR SCENARIO DEVELOPMENT:

The stress assessment methodology guidelines, developed under the 6.2 Tactical Decision Making Under Stress (TADMUS) program, have been integrated into department head training at Surface Warfare Officer School, NETC, Newport, RI (POC: CDR Ned Brooks, March 30, 1994).

J. K. Hall, D. J. Dwyer, J. A. Cannon-Bowers, E. Salas and C. E. Volpe (1993). Toward assessing team tactical decision making under stress: The development of a methodology for structuring team training scenarios. Proceedings of the 15th Annual Interservice/ Industry Training Systems Conference (pp. 87-98). Washington, DC: National Security Industrial Association, Nominated for Best Paper Award by the American Defense Preparedness Association, December 2, 1993.

6. ENHANCEMENTS FOR THE TASWIT SYSTEM:

Tactical Advanced Simulated Warfare Integrated Trainer (TASWIT) is a PC-based, networked simulation that is being used successfully for shipboard multi-warfare CIC training at Fleet ASW school, VA, Navy Reserve sites (Orlando, Atlanta), Naval Academy, MD, Surface Warfare Officers School, RI, Naval Postgraduate School, CA, and Tactical Action Officer School, VA. From 1990 to the present, the 6.2 Tactical Decision Making Under Stress (TADMUS) program has contributed to the development of the multi-warfare capabilities of TASWIT through the development of the Decision Making Evaluation Facility (DEFTT) as a research testbed for TADMUS. Specifically, enhancements to the simulation were:

- a) enhanced scenario scripting
- b) AEGIS Display System (ADS) emulation
- c) incorporation of AAW platform data bases and a radar tracking algorithm
- d) enhanced Identify Friend/Foe simulation
- e) enhanced AEGIS Command and Decision emulation
- f) enhanced electronic warfare station emulation (hostile platform data display)
- g) automated data recording of keystrokes on PC stations

TASWIT Utilization Handbook (Technical Report, June 26, 1992). Naval Underwater Systems Center, New London, CT.

Decision-Making Evaluation Facility for Tactical Teams (DEFTT) Design Analysis Report (Technical Report: July 31, 1991). Naval Underwater Systems Center, New London, CT.

7. AIRCREW INSTRUCTIONAL SYSTEM (AIS):

The AIS is a low-cost, personal computer based system to permit replay, analysis, and archiving of aircraft missions flown on live ranges. The AIS permits replay of the missions from a variety of visual perspectives, and can display the critical parameters of interest for analysis of tactics. NAWCTSD developed system requirements through an Air National Guard investment.

D. H. Fowlkes and J. A. Noble (1989). Utilization on PC Compatibles of Data From the Control and Computation Subsystem of the Tactical Aircrew Combat Training System. Chemical Propulsion Information Agency Publication 517, 1, 197-201.

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8. QUIZSHELL:

QUIZSHELL is a software tool which allows the user to create instructional games on any topic. QUIZSHELL was developed by the NAWCTSD and Dynamics Research Corporation through a cooperative R&D agreement (CRADA). QUIZSHELL is based on the NAWCTSD instructional game, Serious Pursuit, which was used by sailors and soldiers to learn facts about the former Soviet Union. The CRADA with Dynamics Research Corporation produced a military and commercial version of the software.

The military version is being used by Navy test pilots, military medical personnel as well as other applications. The commercial version is being sold to schools and for commercial training. NAWCTSD is receiving royalties from a license dynamics corporation took on a patent used in the game software. Copies of QUIZSHELL are being provided free to local schools in the Orlando area.

K. E. Ricci (1993). Use of computer-based videogames in knowledge acquisition and retention. Proceedings of the Interservice/Industry Training Systems and Education Conference, American Defense Preparedness Association, Washington, D.C.

9. VISUAL INTERACTIVE SYSTEM FOR TASK ANALYSIS (VISTA):

VISTA is a software tool for assisting the task analysis process in instructional design. VISTA is based on an expert systems knowledge acquisition tool. VISTA is designed to facilitate handling of task statements, task hierarchies, preparation of training objectives (specifications), and maintain these task analytic data the retrieval requirements of instructional designers and developers. VISTA has been distributed, on request, to various service agencies, other government agencies, business, and academia.

R. Ahlers (1990). Automated task analysis for training development. Bulletin of the American Society for Information Science. Aug/Sep.

10. FIRE FIGHTING TRAINERS:

Environmentally acceptable propane fires are computer controlled. When trainees properly apply extinguishment agent, meters in the trainer can measure it and the computer shuts down the propane burners. A 900 million dollar procurement over ten years has equipped most training sites with the 19F series of fire fighting trainers.

U.S. Patent #: 4,303,396 Fire Fighting Training Device and Method

11. PORTABLE SMOKE GENERATOR:

Non-toxic, non polluting propylene glycol portable smoke generators are being procured for training aboard most Navy ships. NAWCTSD holds the patents on the devices being procured.

U.S. Patent #: 4,349,723 Electrically Heated Non-Toxic Smoke Generator

12. MARKSMANSHIP EXPERT TRAINER:

The Marksmanship Expert Trainer uses a long-range light pen designed and patented at NAWCTSD to allow trainees to "fire" weapons at T.V. screens and practice marksmanship. In use by SEALS and foreign military.

U.S. Patent #: 4,923,402 Marksmanship Expert Trainer

13. MINOR CALIBER WEAPONS TRAINER (MK-19):

The MK-19 Trainer, in use at Norfolk, allows trainees to fire at a projected video screen with moving targets. Weapons ballistics are calculated and the trainee has visual feedback of where rounds are hitting; he can correct fire and gain experience with the weapon.

**U.S. Patent #: 5,035,622 Machine Gun and Minor Caliber Weapons Trainer
A. H. Marshall, R. McCormack, R. Wolff, and E. Purvis (1989, July). (M-CAT) minor caliber weapons trainer MK-19, 40MM machine gun (NAVTRASYSCEN SR 89-012).
Orlando, FL: Naval Training Systems Center.**

14. LASER AIR-TO-AIR GUNNERY TRAINER:

T-2 aircraft are fitted with gallium arsenide lasers that can fire at an airborne towed sleeve. This training can be conducted without firing range requirements. Hits and misses can be measured and the pilots can be scored and de-briefed after the training session.

A. H. Marshall and R. W. Wolff (1991). Advanced laser semi-conductor air to air training device concept (NAVTRASYSCEN SR 91-002). Orlando, FL: Naval Training Systems Center.

15. WEAPONS TEAM ENGAGEMENT TRAINER:

SWAT type teams of up to nine members can conduct hostage type rescue missions in a simulated environment. Aggressors can be shot, and disappear, aggressors can shoot back and team members are signaled if they are hit. Four patents cover the novel NAWCTSD designs in this simulator.

U.S. Patent #: 5,213,503 Team Trainer
U.S. Patent #: 5,215,464 Aggressor Shoot-Back Simulation
U.S. Patent #: 5,215,463 Disappearing Target
U.S. Patent #: 5,215,465 Infrared Spot Tracker

J. D. Horey (1993). Weapons team engagement trainer. Vol 2 training capability demonstration (NAVTRASYSCEN TR 93-016). Orlando, FL: Naval Training Systems Center.

A. H. Marshall, R. S. Wolff, R. T McCormack, and E. J. Purvis (1993). Weapons team engagement trainer. Vol. 1 engineering report (NAVTRASYSCEN TR 93-016). Orlando, FL: Naval Training Systems Center.

16. RADAR DISPLAY SIMULATION (AN/SPA-25F):

A PC-based radar display can be generated using D.M.A. geographic data. Any harbor for which D.M.A. data exists can be simulated showing own-ship position during harbor entry. Ship course corrections are shown in a "real time" harbor entry exercise. Currently used at the Quarter Master A school in Orlando. NAWCTSD patent establishes authorship.

U.S. Patent #: 4,944,679 Generic Radar Display

17. Prototype Electronic Warfare Simulation for Battle Force Tactical Trainer (BFTT) Using Distributed Interactive Simulation (DIS); cited in "Quarterly Status Report for 6.3 Research and Development Projects, Organic Combat Systems Training Technology (OCSTT) task", NAWCTSD.

18. Prototype Voice Communications for Battle Force Tactical Trainer (BFTT) Using Distributed Interactive Simulation (DIS); cited in "Quarterly Status Report for 6.3 Research and Development Projects, Organic Combat Systems Training Technology (OCSTT) task", NAWCTSD.

19. Prototype adaptation of Naval Simulation and Training Technology to U.S. Coast Guard Oil Spill Exercises; cited in "Project Implementation Plan for Comprehensive Marine Environmental Protection:, USCG R&D Center, December 15, 1993.

20. X-Window/Motif DIAGRAM tool for use with speech recognition systems, distributed to ITT Defense Communications Division; cited in "Tools and Utilities for the Development of Speech Recognition Systems" Roger Werner, David Kotick and Dana Smith, published in Interservice/Industry Training Systems and Education Conference Proceedings, November 2-4, 1992

21. Distributed Interactive Simulation Instructional Animation Project, distributed to Executive Office of the President: Office of Science and Technology and to Canadian National Defence Headquarters, General Land Force Development; cited in "Partners in Education and the Distributed Interactive Simulation Instructional Animation Project", Michael D. Williams, Marsha Vandivort and Jason Ahmanson, accepted for the Ed-Media International Conference, June 1994.

22. The Acoustic Workstation (AcWS) for Common Acoustic DataBase (CADB) targets was developed for fleet users of CADB products. This item is a NAWC-TSD major end item product and is currently delivered to CPW-11 (P-3C aircraft trainers), Naval Underwater Weapons Center (NUWC) (Submarine trainers), and the fleet intelligence community. The AcWS is in use by industry to support target building for foreign military sales programs. The AcWs is documented in a NAWCTSD publication titled "The Acoustic Work Station for Common Acoustic Data Base (CADB) Format Files Version 1.00, Users Manual, dated 21 December 1993."

23. A Forward-Deployable Aviation Simulator Technology (FAST) test bed prototype system was developed at NAWCTSD. The FAST test bed combines a Threat System, Scene Generation System, Reconfigurable Cockpit, and Helmet Mounted Display (HMD) systems into a small portable crew trainer and mission rehearsal device. This is a major end item prototype currently in testing by fleet users (F/A-18, F-14 and Helo).

24. Devices 14E40 and 21H14 Passive Acoustic Analysis Trainers. The trainers provide a cost effective method for presenting actual acoustic data to students learning to classify and detect submarines. References: "A New Generation of Trainers for Acoustic Analysis", Proceedings of the Eighth Annual Industry/ Interservice Training Equipment Conference, November, 1986. "Training Effectiveness Evaluation of Passive Acoustic Analysis Trainer (Device 21H14), NTSC Technical Report 86-019, Naval Training Systems Center, October 1986.

25. "Serious Pursuit" is a computer game originally designed to teach the geography and history of the Soviet Union. The game technology has evolved into commercial products called Game Shell and Quiz Shell. Dynamics Research Corporation sells the products to enable users to adapt the game to any subject area.

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26. Device 21H14 prototype, Passive Acoustic Analysis Trainer, was designed, developed, and built by the Naval Air Warfare Center Training Systems Division. It is a ten student station, one instructor station, complex trainer designed and currently used to teach SONAR analysis. The software was provided as Government Furnished Information in a competitive acquisition to build production units. Published reference document; "Trainer Engineering Design Report", March 1992

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.

Pages 57 - 79 have been moved to Tab B

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**FOR OFFICIAL USE ONLY
PREDECISIONAL INFORMATION**

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

Technical Center Site	NAWCTSD Orlando
Facility/Equipment Nomenclature or Title	Virtual Environment Training Technology Lab

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

The Virtual Environment Training Technology (VETT) Lab provides the capabilities to perform behavioral research experiments for evaluating the training benefit of training delivery system concepts which employ immersive learning environments.

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

The VETT laboratory equipment comprises visual, haptic and auditory displays and position, attitude, force and speech transducers which interface the experimental subject to computer generated, synthetic environments. The visual displays include head mounted displays as well as wide angle screens. The haptic displays include electro-mechanical force feedback systems and tactile stimulators. The auditory displays include headphones driven by sound synthesizers which provide simulated 3-dimensional sound sources. The position transducers include both magnetic and infrared position sensing systems. Force transducers are electro-mechanical devices. The speech recognition systems were developed in the NAWCTSD speech recognition laboratory. The visual environments are generated by real time 3-D computer graphics work stations. The environment incorporates synthetic, dynamic human figures. A Distributed Interactive Simulation (DIS) network allows multiple subjects to be immersed in the same learning environment. All of the equipment is portable.

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.

Approximately \$1M

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

Weigh approximately 1,000 lbs. Approximately 100 cubic feet

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

3 phase 220V electric power

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

No special budget requirements

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

No special environmental controls

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.

All equipment is commercially available off-the-shelf. Impact if lost: There are 3 sponsored R&D projects which utilize the VETT Lab. Relocation is possible but would cause a delay in the schedule of these tasks. There are no other Government or commercial facilities having the required capabilities.

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

Equipment and software was assembled, developed and integrated at the site over the past two years.

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.

10.1.5, Human Resources Research and Development

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

100% of normal business hours (40 hours/week) since its initiation

12. Provide the projected utilization data out to FY1997.

Continuous 100% utilization throughout FY1997 and beyond

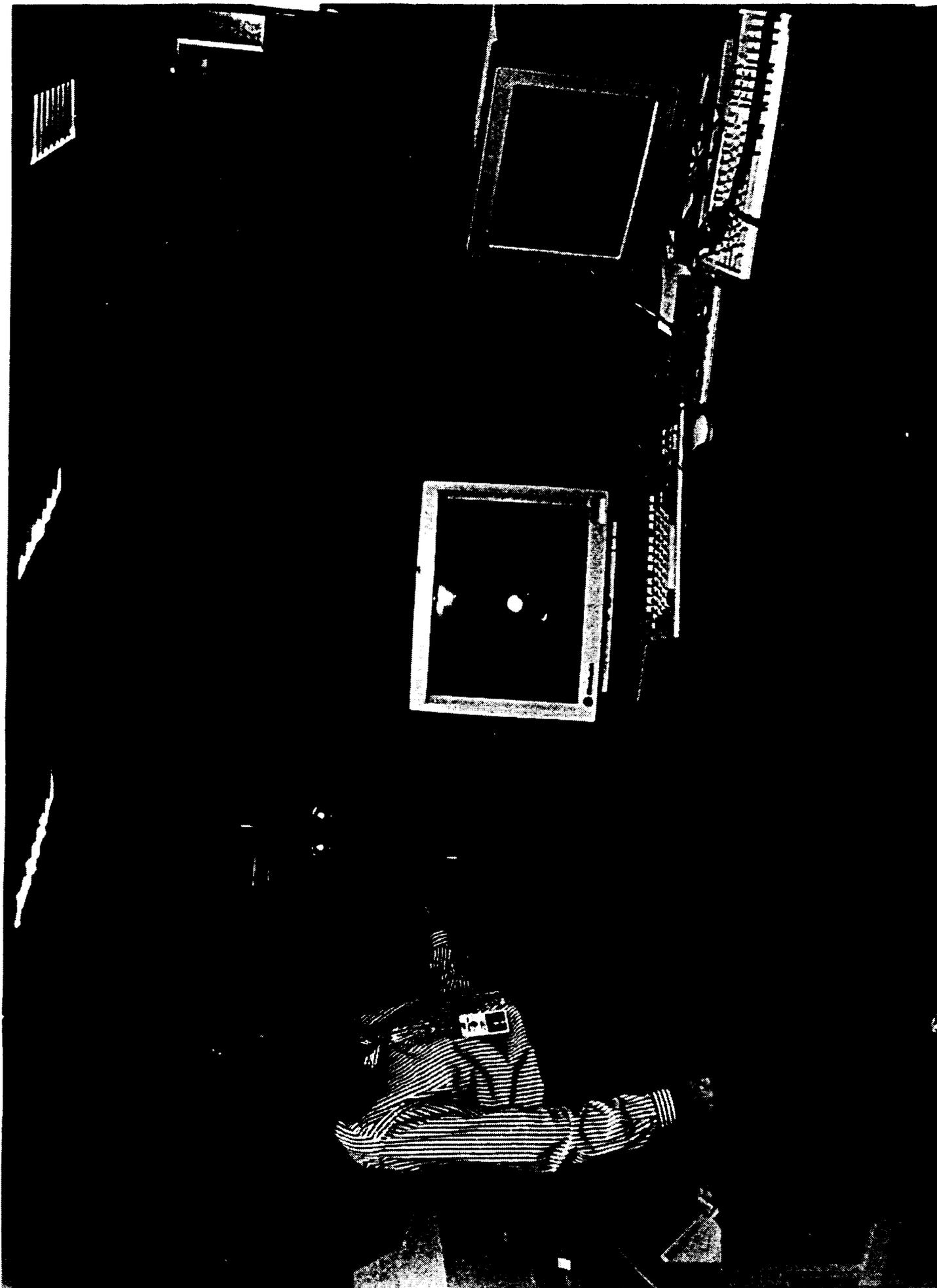
13. What is the approximate number of personnel used to operate the facility/equipment?

Six

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

One

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



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

Technical Center Site	NAWCTSD Orlando
Facility/Equipment Nomenclature or Title	Visual System Evaluation Facility

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

The Visual System Evaluation Facility (VSEF) provides the capabilities to support training system acquisition by allowing visual databases which are being developed or delivered as part of training system acquisitions to be inspected for specification compliance and assessed for intended training utility. The VSEF is also utilized for development of visual environment models for research and development projects.

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

The VSEF equipment comprises real time 3-Dimensional graphics workstations, high resolution monitors, wide screen projected displays, scanners, color printers, and a digitizing table. All of the equipment is portable.

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.

Approximately \$600K

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

Weigh approximately 1,000 lbs. Approximately 70 cubic feet

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

3 phase 200V electric power

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

No special budget requirements

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

No special environmental controls

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.

All equipment is commercially available off-the-shelf. Impact if lost: There are 14 training systems acquisition programs and 2 sponsored R&D projects which utilize the VSEF. Relocation is possible but would cause a delay in the schedule of these tasks. The use of commercial services to perform evaluation of other contractors' products is considered inappropriate in this case. Other Government facilities have the necessary equipment and software but lack the close proximity to the training systems acquisition personnel.

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

Equipment and software was assembled, developed and integrated at the site over the past three years.

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.

10.1.2, Aircraft-Related Training Systems

10.1.3, Surface Ship-Related Training Systems

10.1.4 Weapons-Related Training Systems.

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

Utilized 75% of normal business hours (30 hours/week) since its initiation

12. Provide the projected utilization data out to FY1997.

Continuous 75%-100% utilization throughout FY 1997 and beyond

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

Twenty

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

One

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



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

Technical Center Site	NAWCTSD Orlando
Facility/Equipment Nomenclature or Title	Common Acoustic Data Base & Passive Acoustic Analysis Facility

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

This facility houses two projects, the Common Acoustic Data Base (CADB) and the Passive Acoustic Analysis (PAA) Trainer data base support. The Common Acoustic Data Base (CADB) project supports both new acquisitions and fielded training systems with standard acoustic data especially formatted for simulation. The PAA trainer data base supports fielded PAA training systems with computer based acoustic data preprocessed from acoustic tapes.

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

One of the resources used to support the CADB includes a TEMPEST enclosed mainframe computer system which is considered moveable. Additional resources include TEMPEST personal computer systems and are considered portable. Security considerations limit the number and type of additional users of this system. The resource used to support the PAA is a TEMPEST enclosed micro computer workstation with associated peripherals which is considered moveable. Additional resources include multiple video tape units which are considered transportable.

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.

Approximately \$450,000 for hardware and software for both systems

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

Weigh approximately 2700 lbs. Approximately 625 feet square

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

Isolated three phase power conditioning

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

Raised computer floor and authorized access control to room for both CADB and PAA projects

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

Temperature control, humidity control and fire detection and suppression both above and below the floor

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.

If this capability were lost, the Navy would incur substantial additional costs (\$10M to \$12M) to recreate project data. Commercial capabilities can be used at an additional \$.5M.

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

Facility was created using normal construction methods and equipment was installed by prime computer manufacturer.

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.

10.1.1 Submarine-Related Training Systems

10.1.2 Aircraft-Related Training Systems

10.1.3 Surface Ship-Related Training Systems

10.1.4 Weapons-Related Training Systems.

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

Five to six hours per day, five days per week

12. Provide the projected utilization data out to FY1997.

Five to six hours per day, five days per week

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

Four to six

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

One

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



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

Technical Center Site	NAWCTSD Orlando
Facility/Equipment Nomenclature or Title	Forward-Deployable Aviation Simulator Technology (FAST) Test Bed

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

The Forward-Deployable Aviation Simulation Technology (FAST) subproject of the Simulation and Training Devices (S&TD) project. The S&TD Advanced Development Program is a continuing effort to improve fleet readiness through development, demonstration, and application of simulation and training device technology. The equipment is designed to improve the integration of technologies that support training system development, including all aspects of the research, development and acquisition (RDA) process from technology development and demonstration, to support for systems requirements analysis, design, test and evaluation, and support for deployed trainer systems. The equipment is organized around specific demonstration projects that target critical technical risks that confront weapons system acquisition programs in the 1994 and beyond time frame. The demonstration projects are carefully selected to focus attention to a problem and a solution, and to complement significant R&D investments made in industry.

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

The trainer development equipment Computers, and Flight Test Bed are considered Class 2 installed equipment requiring extensive utilities, support and assembly of components, but can be relocated and are considered "moveable" assets. The modeling and simulation support systems for the Flight Test bed are considered Class 3 Personal Property items.

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.

Approximately \$6,000,000

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

Gross weight is 40,000 lbs. 2,200 cubic feet of cabinets/boxes

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

Three phase power

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

Require combination locks and windowless building enclosure to meet security requirements for running classified loads.

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

Normal laboratory environmental controls

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.

No other Government facility exists with the equivalent Test Bed structure designed to improve the integration of technologies that support training system development, including all aspects of the research, development and acquisition (RDA) process from technology development and demonstration, to support for systems requirements analysis, design, test and evaluation, and support for deployed trainer systems.

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

The research equipment utilized to build the FAST Test Bed was constructed by local support personnel over a period of five years.

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.

10.5.1 Human Resources Research and Development

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

100% during normal business days (40 hours/week)

12. Provide the projected utilization data out to FY1997.

100%

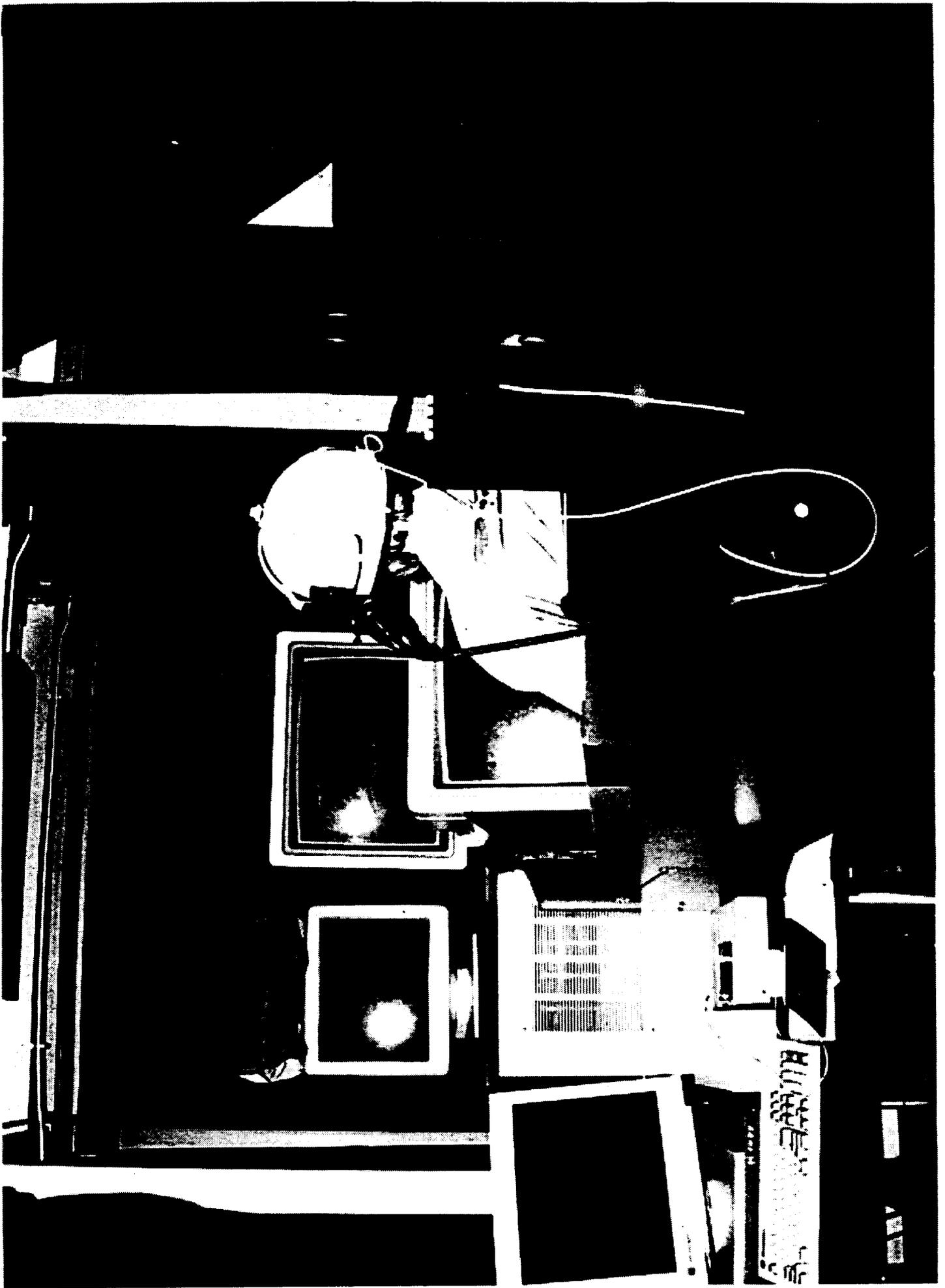
13. What is the approximate number of personnel used to operate the facility/equipment?

Three

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

Two

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



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

Technical Center Site	NAWCTSD Orlando
Facility/Equipment Nomenclature or Title	Organic Combat System Training Technology (OCSTT)

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

Threat simulation test bed for training research, including R&D of Embedded Training Technology for Battle Force Tactical Training(BFTT)

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

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.

Equipment - \$5 Million

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

Weighs 6 tons; facility is 7,800 cubic feet

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

Equipment requires 400 Hertz delta and 3 phase 'Y' electrical power. The facility must be secure.

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

Special foundations, non-ferrous materials, shielding, hardening, or other special budget requirements not required.

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

The equipment requires temperature and humidity control typical for computer equipment, as well as water cooling (chilled water cooling needed to cool ship equipment – AN/UYK-43 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.

Significant impact to The Department of the Navy if this equipment/facility were lost.

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

Incrementally constructed at the 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.

10.1.3 Surface Ship-Related Training Systems

10.1.5 Human Resources Research and Development

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

100% based on eight hour workday

12. Provide the projected utilization data out to FY1997.

100% based on eight hour workday

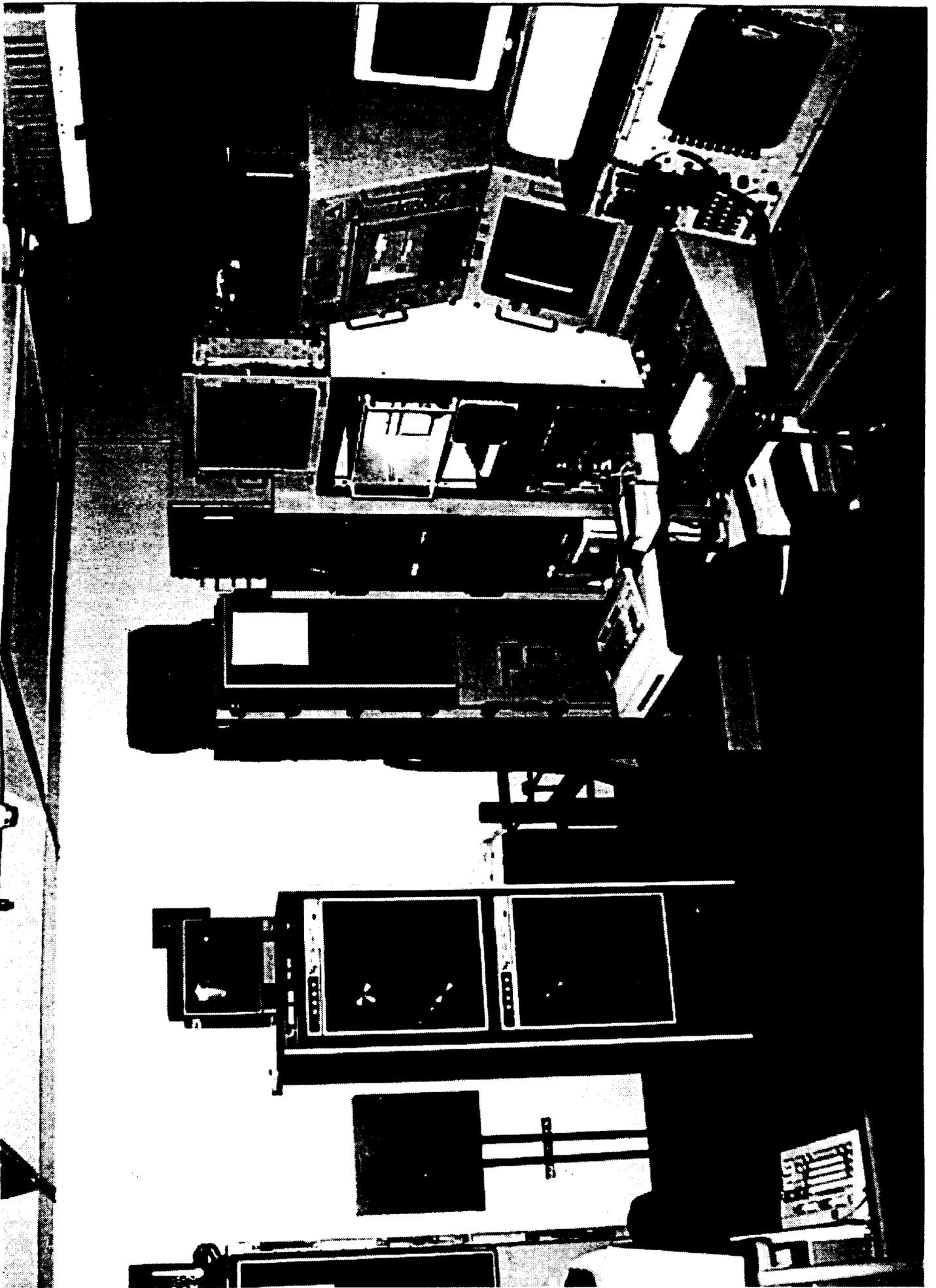
13. What is the approximate number of personnel used to operate the facility/equipment?

Eight

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

Two

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



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

Technical Center Site	NAWCTSD Orlando
Facility/Equipment Nomenclature or Title	Naval Aviation Simulator Network Training (NASNET)

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

Research and development laboratory for investigation and resolution of technology issues related to networking aviation simulation systems to operate in a Distributed Interactive Simulation (DIS) environment

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

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.

Equipment valued at \$1 Million including hardware and software

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

Weighs 0.5 Tons; facility is 3,500 cubic feet

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

60 Hertz 110/120v filtered electrical power. In FY-95 the facility will have encryption equipment and will need to be secure.

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

Not required

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

Requires temperature and humidity control typical for computer equipment

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.

Movement of equipment/facility is possible. Significant impact to the Department of the Navy if this equipment/facility were lost.

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

Incrementally constructed at the 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.

10.1.2 Aircraft-Related Training Systems

10.1.5 Human Resources Research and Development

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

100% based on eight hour workday

12. Provide the projected utilization data out to FY1997.

100% based on eight hour workday

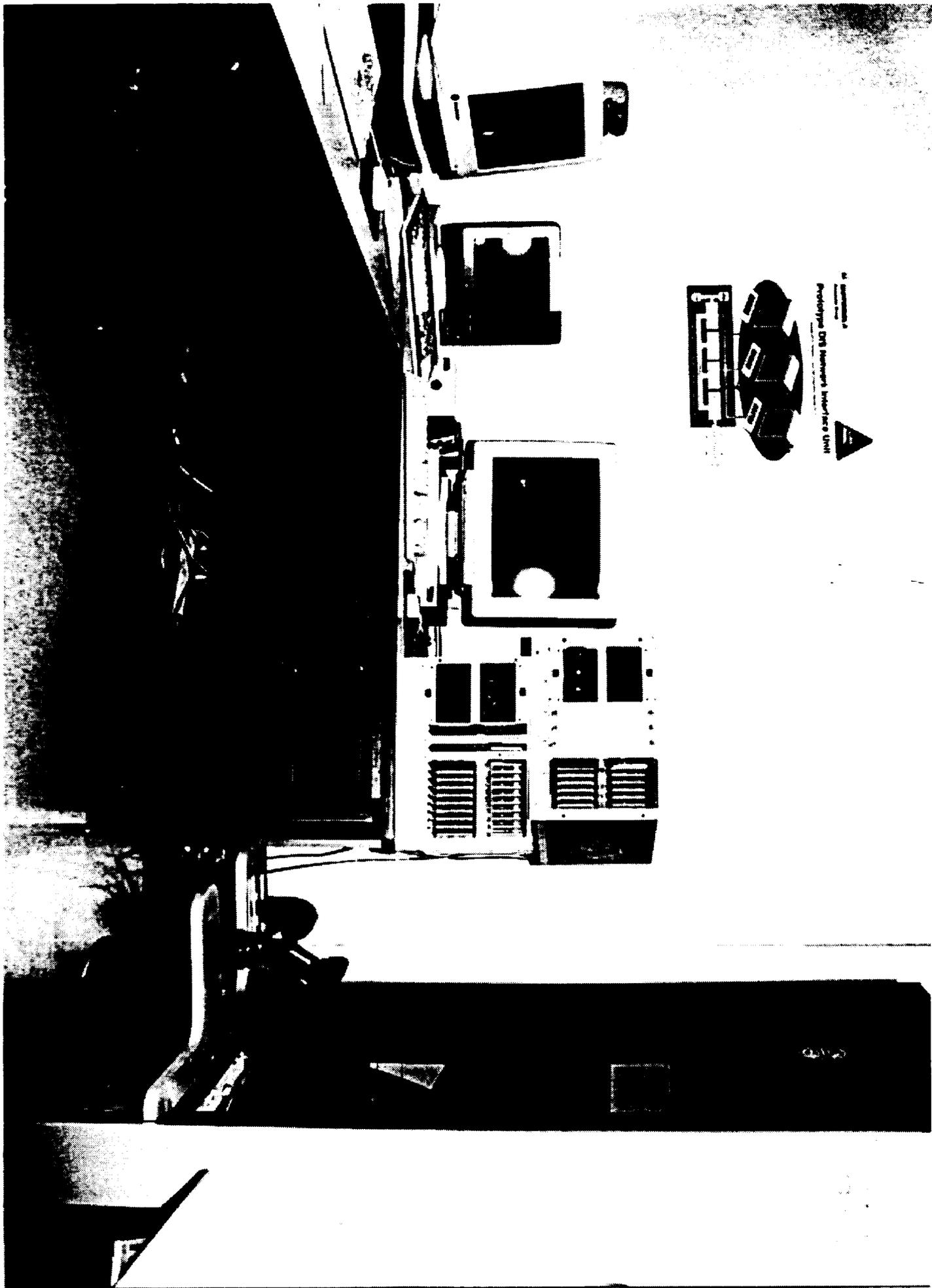
13. What is the approximate number of personnel used to operate the facility/equipment?

Four

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

.025 manyear/year

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



Prototype OHS Network Interface Unit

Q150

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

Technical Center Site	NAWCTSD Orlando
Facility/Equipment Nomenclature or Title	Tactical Training Instructor Components (TACTICS)

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

Tactics, doctrine, expert systems, computer generated forces, and DIS protocol testbed for automated training exercise preparation and electronic exercise distribution to DIS participants (e.g., battle force and wargaming applications, and embedded training applications such as Battle Force Tactical Training (BFTT))

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

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.

\$100K

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

Weights 150 lbs.; facility is 3,200 cubic feet

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

Facility must be secure.

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

Not required

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

Temperature and humidity control typical of computer equipment

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.

Movement of equipment/facility is possible. Significant impact to the Department of the Navy if this equipment/facility were lost.

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

Incrementally constructed at the 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.

10.1.1 Submarine-Related Training Systems

10.1.2 Aircraft-Related Training Systems

10.1.3 Surface Ship-Related Training Systems

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

100% based on eight hour workday

12. Provide the projected utilization data out to FY1997.

100% based on eight hour workday

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

Two

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

One

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



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

Technical Center Site	NAWCTSD Orlando
Facility/Equipment Nomenclature or Title	TEMPEST Room

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

To provide a shielded enclosure for secure experimentation.

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

Fixed, integral part of 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.

Estimated \$1,000,000

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

Estimated weight 100,000 lbs; estimated 7,200 cubic feet

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

Filtered electrical power, Cryptographic telephone

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

RF shielding

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

Temperature and humidity

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department of the Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Facility was built into building, not considered to be relocatable

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

Constructed at site to meet TEMPEST requirements

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.

Training systems (10.1.1 through and including 10.1.5)

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

Continuous for multiple projects

12. Provide the projected utilization data out to FY1997.

Continuous for multiple projects

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

One

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

One

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



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

Technical Center Site	NAWCTSD Orlando
Facility/Equipment Nomenclature or Title	Computer Labs

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

To provide a controlled environment for experimentation which uses environmentally sensitive computer and electronic equipment. The labs are subdivided to provide the following capabilities:

Speech Recognition - Contains equipment and personnel to study the capabilities of various types of speech recognition devices and their applicability to training systems.

Instructional Multimedia - Contains equipment and personnel to study the capabilities of various multimedia devices and adhering software for their applicability to training systems.

Reusable Software Repository - Provides a means for storing and accessing reusable software.

R&D Central Computer - Provides a means of electronic communication among researchers, access to Internet, and a common computing facility.

R&D Local Area Network - Interconnects computing components utilized by R&D personnel.

DIS Local Area Network - Interconnects experimental training systems using the protocols of Distributed Interactive Simulation.

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

Portable

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.

\$500,000 estimated

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

10,000 lbs of equipment estimated and 3,100 square feet

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

Uninterruptable electrical power

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

Physically secure capability

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

Temperature and humidity

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department of the Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Facility is part of building, equipment is relocatable.

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

Equipment accumulated over past five years; housed in this facility.

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.

Training systems (10.1.1 through and including 10.1.5)

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

Continuous for multiple projects

12. Provide the projected utilization data out to FY1997.

Continuous for multiple projects

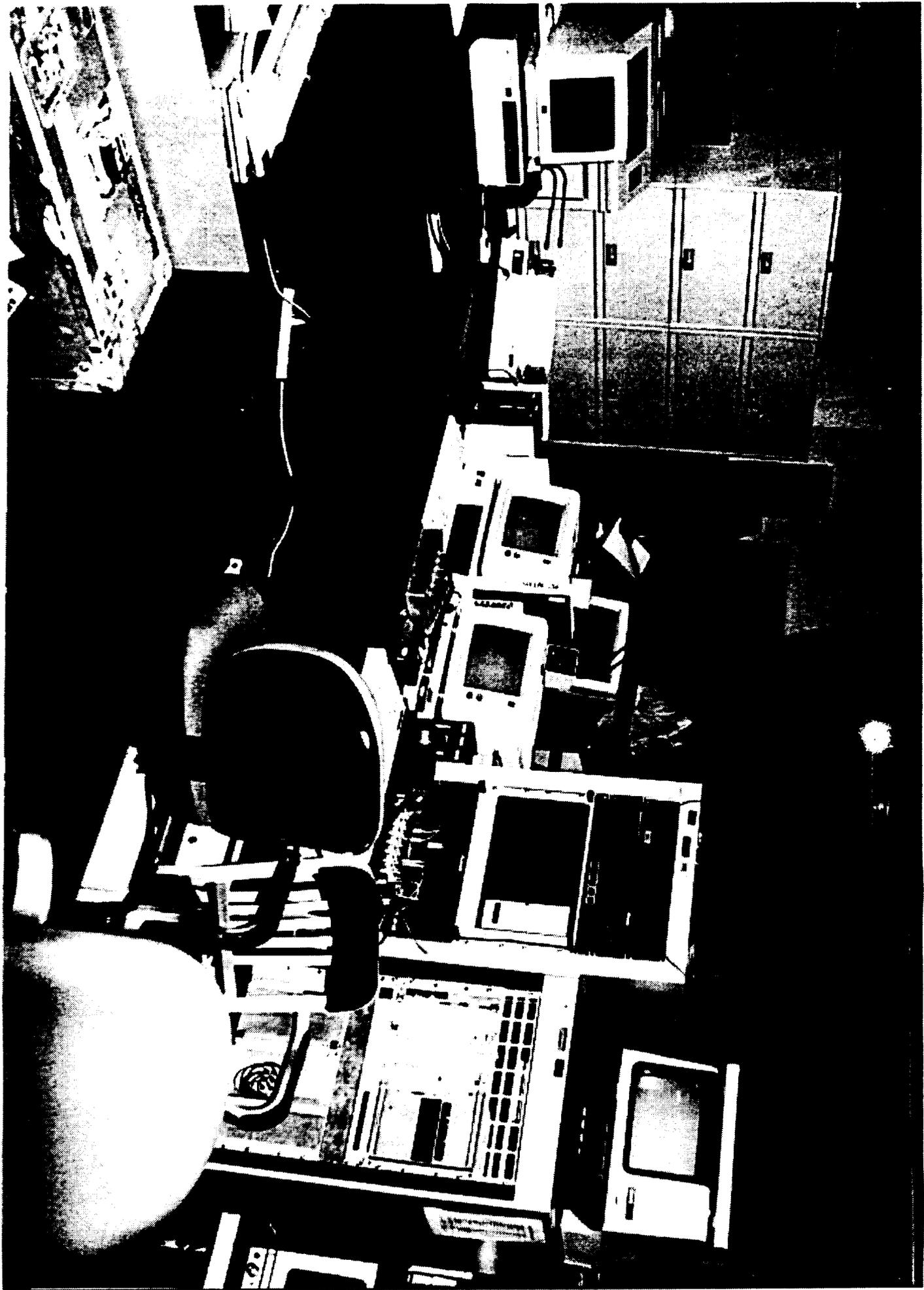
13. What is the approximate number of personnel used to operate the facility/equipment?

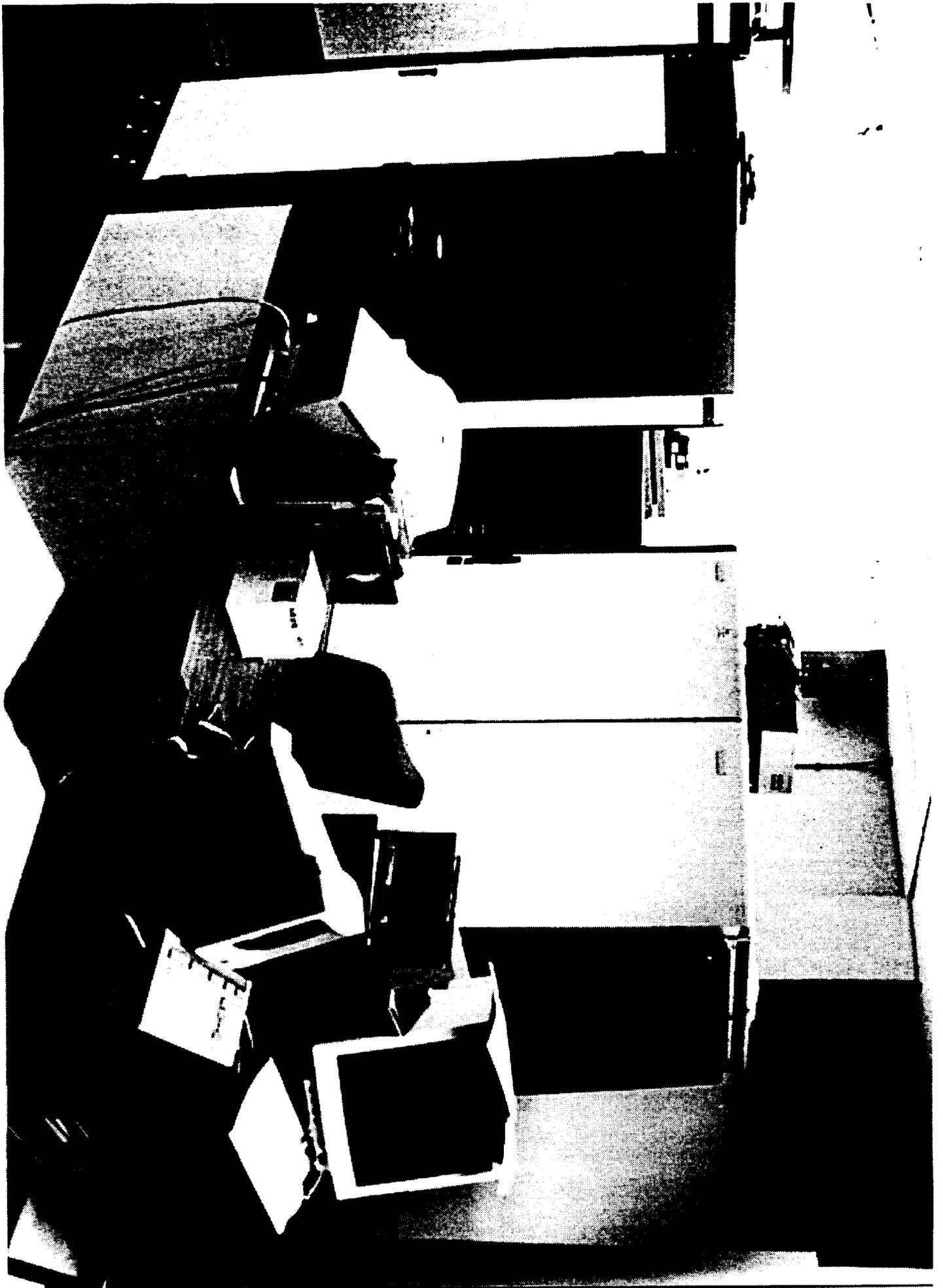
5

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

One

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





7. General Facilities.

a. Is there any cash revenue generated by this activity? Example: Electricity generated at this activity and sold to the local community. If yes, describe. **NO**

b. What MILCON projects are currently programmed to be completed by the end of FY1995? For each project provide: **NONE**

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

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

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

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

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

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

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

Research Labs/Warehouse/Admin/Bid Evaluation rooms, P-002, FY98

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

(3) The identified installed equipment to be provided based on the threshold guidance of paragraph 6, page 12, of this data call. **NONE**

10. General Missions Support

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

Warehouse Function - 28,000 square feet

(5) CWE & planned BOD.

\$8.2M, BOD 30 September 1998

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.

Canaveral AFB - 50 miles

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.

NAWCTSD's current location is recognized by both government and industry as the single geographic area where most assets are collocated and can be quickly and easily brought together concerning the major issues of training, simulation, modeling, and education.

Numerous and diverse activities have chosen to collocate with NAWCTSD since 1965 - the four military services; over 150 firms engaged in simulation and training technology; and the University of Central Florida with the Institute for Simulation and Training. State and municipal governments are active participants in technology transfer initiatives and all of Florida's top ten contractors are in commuting distance.

The State of Florida is dedicated to encouraging training and simulation as evidenced by its support of the Center of Excellence (COE). This concept was supported and encouraged by a DON study, April 1983; a study for the Under Secretary for Defense Research and Engineering, 22 March 1982; and was affirmed by a State of Florida resolution, 16 April 1985. The COE's commitment to cooperative research, technology transfer, and information exchange benefits all participants. The Florida High Technology Industry Council and the Institute for Simulation and Training at UCF provide invaluable assistance with the common goal of advancing simulation and training technology.

Close proximity to contractors enhances problem-solving and information exchange resulting in improved training systems and quicker transition to the fleet. Additionally, with the U.S. Army Simulation, Training and Instrumentation Command (STRICOM) as our major tenant, a Marine Corps Program Directorate, and an Air Force liaison officer on site, joint development of technologies and training systems is encouraged and facilitated.

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

NAWCTSD's customers, foremost being the Fleet, but including other DoD and non-DOD activities and foreign military units; benefit from NAWCTSD's ability to utilize the skills and abilities concentrated in central Florida. Resident in this one geographic area is a majority of the technical, research, and contracting knowledge and support needed to get the product to the customer quickly and cost effectively.

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.

NAWCTSD Orlando currently has a 1200 node (user) Novell Local Area Network interconnected to a Digital Equipment Corporation Vax Cluster (the majority of Orlando and field personnel are connected).

10. Mobilization Responsibility and Capability.

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

NONE

NOTE: Due to the use of NAWCTSD as a training site for two USNR units, the subordinate questions under question 10D have applicability and are answered on that basis.

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

10.1 Personnel and Training

(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?

1.5 workyears (in support of the assigned USNR mission at NAWCTSD)

NOTE: An additional 1.18 workyears can be added if able to consider USNR contributory support time expended.

(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. **NONE**

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

(1) If yes, is any space assigned for the sole purpose of maintaining mobilization readiness? (yes/no) If yes, list the square footage assigned. **YES; 400 square feet**

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

(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. **N/A**

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

NONE

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

Yes, as a training site; presently assigned two NR units sponsored by the NAVAIRSYSCOM. The total of 27 billets provided augmentation contributory support to the assigned functional support areas.

Each unit is presently undergoing the mandated zero based review (ZBR), whereby each billet is being justified as a direct contributory support billet rather than an augmentation billet.

Additionally, requirements have been identified to support the justification for the simultaneous request for the expansion of the unit membership from 27 billets to 40 billets. Direct contributory support (delayed mobilization) would serve to fill present civilian billets that would be vacated upon recall due to their reserve association/affiliation recall to active duty.

**Ref: (1) Assistant Chief of Naval Personnel for Total Force Programming and Manpower (PERS-5) ltr 7540, Ser 515/3U577629 of 6 Aug 93
(2) Commander, Naval Air Systems Command ltr 100, Ser AIR-07M/0701 of 21 Sep 93**

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

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

N/A

QUALITY OF LIFE

12. Military Housing

NAWCTSD does not have Military Housing. Housing is provided by the Naval Training Center Orlando until its closure o/a October 1998.

(a) Family Housing:

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

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

Type of Quarters	Number of Bedrooms	Total number of units	Number Adequate	Number Substandard	Number Inadequate
Officer	4+				
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.

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

(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.

¹As of 31 March 1994.

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)?

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

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?
 (b) BEQ:

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

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?

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

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

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

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

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

(c) BOQ:

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

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?

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

AOB = (# Geographic Bachelors x 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.

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

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

(d) BOQ/BEO Housing and Messing.

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

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

(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:

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

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

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

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

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

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

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

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

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

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

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

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

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

13. **MWR Facilities.** For on-base MWR facilities¹⁰ 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.

NAWCTSD does not have MWR facilities. MWR facilities are provided by Naval Training Center Orlando which is scheduled to be closed o/a October 1998.

However, the central Florida area provides many inexpensive, local recreational park and other facilities that active duty members can participate in. Available are excellent local libraries, theme parks, national parks, etc.

LOCATION _____ DISTANCE _____

Facility	Unit of Measure	Total	Profitable (Y,N,N/A)
Auto Hobby	Indoor Bays		
	Outdoor Bays		
Arts/Crafts	SF		
Wood Hobby	SF		

¹⁰Spaces 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)
Bowling	Lanes		
Enlisted Club	SF		
Officer's Club	SF		
Library	SF		
Library	Books		
Theater	Seats		
ITT	SF		
Museum/Memorial	SF		
Pool (indoor)	Lanes		
Pool (outdoor)	Lanes		
Beach	LF		
Swimming Ponds	Each		
Tennis CT	Each		

Facility	Unit of Measure	Total	Profitable (Y,N,N/A)
Volleyball CT (outdoor)	Each		
Basketball CT (outdoor)	Each		
Racquetball CT	Each		
Golf Course	Holes		
Driving Range	Tee Boxes		
Gymnasium	SF		
Fitness Center	SF		
Marina	Berths		
Stables	Stalls		

Facility	Unit of Measure	Total	Profitable (Y,N,N/A)
Softball Fld	Each		
Football Fld	Each		
Soccer Fld	Each		
Youth Center	SF		

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

14. Base Family Support Facilities and Programs.

NAWCTSD does not have Base family support facilities and programs. Currently, and until its closure o/a October 1998, those services are provided by Naval Training Center Orlando.

However, the metro Orlando area has numerous certified/qualified child care providers.

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

Age Category	Capacity (Children)	SF			Number on Wait List	Average Wait (Days)
		Adequate	Substandard	Inadequate		
0-6 Mos						
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:

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.

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

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).

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

Service	Unit of Measure	Qty
Exchange	SF	
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	

Service	Unit of Measure	Qty
FSC Classrm/Auditorium	PN	

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

City	Distance (Miles)
Orlando, FL	12 Miles
Tampa, FL	90 Miles
Jacksonville, FL	150 Miles
Miami, FL	250 Miles

16. Standard Rate VHA Data for Cost of Living:

Paygrade	With Dependents	Without Dependents
E1	139.16	77.86
E2	139.16	87.51
E3	134.85	99.36
E4	139.63	97.45
E5	157.37	109.87
E6	171.22	116.55
E7	212.48	147.60
E8	228.11	172.45
E9	207.05	157.18
W1	233.70	177.49
W2	206.07	161.63
W3	203.39	165.34
W4	206.90	183.44
O1E	147.96	109.75
O2E	153.95	122.74
O3E	194.26	164.35
O1	143.22	105.54
O2	172.09	134.51
O3	155.09	130.57
O4	183.14	159.26
O5	181.66	150.23
O6	242.79	200.96
O7	173.12	140.66

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. **NOTE: Approximate Dollar Amount**

Type Rental	Average Monthly Rent \$		Average Monthly Utilities Cost \$
	Annual High	Annual Low	
Efficiency	378		70-90
Apartment (1-2 Bedroom)	375-425		75-130
Apartment (3+ Bedroom)	585-650		150-170
Single Family Home (3 Bedroom)	800		175-225
Single Family Home (4+ Bedroom)	1100		250-275
Town House (2 Bedroom)	637		115-135
Town House (3+ Bedroom)	695-750		155-175
Condominium (2 Bedroom)	525		115-130
Condominium (3+ Bedroom)	595-625		155-170

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

Type Rental	Percent Occupancy Rate
Efficiency	92
Apartment (1-2 Bedroom)	93
Apartment (3+ Bedroom)	97
Single Family Home (3 Bedroom)	93
Single Family Home (4+ Bedroom)	93
Town House (2 Bedroom)	93
Town House (3+ Bedroom)	93
Condominium (2 Bedroom)	93
Condominium (3+ Bedroom)	93

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

Type of Home	Median Cost \$
Single Family Home (3 Bedroom)	70,000-90,000
Single Family Home (4+ Bedroom)	80,000-100,000
Town House (2 Bedroom)	70,000-75,000
Town House (3+ Bedroom)	75,000 and up
Condominium (2 Bedroom)	70,000-75,000
Condominium (3+ Bedroom)	75,000 and up

(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 = \$515-630 PITI.

Month	Number of Bedrooms		
	2	3	4+
January	997	992	0
February	997	992	0
March	997	992	0
April	997	992	0
May	997	992	0
June	994	978	0
July	993	1004	0
August	985	992	0
September	1003	984	0
October	N/A	N/A	0
November	1019	1016	0
December	988	983	0

All figures are approximate. All January-May figures are extrapolated averages from June-December figures.

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

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

No response per Headquarter guidance

Rating	Number Sea Billets in the Local Area	Number of Shore billets in the Local Area

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)
Orange County	62%	10	15
Seminole County	22%	20	25
Volusia County	2%	42	75
Brevard County	2%	30	45
Osceola County	1%	30	45

* Includes tenant employees

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.

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 *
Orange County Public Schools	Public	Pre-School thru 12	Yes	No Cost	885/21.1	4174 of 5284 = 79%	
Seminole County Public Schools	Public	Pre-School thru 12	Yes	No Cost	928/21.2	2001 of 2502 = 80%	
Osceola County Public Schools	Public	Pre-School thru 12	Yes	No Cost	822/20.1	266 of 1059 = 25%	
Brevard County Public Schools	Public	Pre-School thru 12	Yes	No Cost	904/21.1	2271 of 2884 = 78%	
Lake County	Public	Pre-School thru 12	Yes	No Cost	873/21	1024 of 1024 = 100%	
Volusia County Public Schools	Public	Pre-School thru 12	Yes	No Cost	898/21.1	1909 of 2446 = 78%	
Diocese of Orlando	Parochial	Pre-School thru 12	No Response	No Response	No Response		

* Source of info are individuals at institution

(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	
Orange Co. Public Schools	Day	Yes	Yes			
	Night	Yes	Yes			
Seminole Co. Public Schools	Day	Yes	Yes			
	Night	Yes	Yes			
Osceola Co. Public Schools	Day	Yes	Yes			
	Night	Yes	Yes			
Brevard Co. Public Schools	Day	Yes	Yes			
	Night	Yes	Yes			
Lake Co. Public Schools	Day	Yes	Yes			
	Night	Yes	Yes			
Volusia Co. Public Schools	Day	Yes	Yes			
	Night	Yes	Yes			
University of Central Florida	Day			Yes	Yes	Yes
	Night			Yes	Yes	Yes
Rollins College	Day			Yes	Yes	Yes
	Night			Yes	Yes	Yes

Seminole Community College	Day	Yes	Yes	Yes	Yes (AA & AS)	
	Night	Yes	Yes	Yes	Yes (AA & AS)	
Valencia Community College	Day	Yes	Yes	Yes	Yes (AA & AS)	
	Night	Yes	Yes	Yes	Yes (AA & AS)	

(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	
UCF	Day				Yes	Yes
	Night				Yes	Yes
	Corres- pondence					
	Day					
	Night					
	Corres- pondence					
	Day					
	Night					
	Corres- pondence					

21. Spousal Employment Opportunities.

NAWCTSD does not have a Family Service Center. That service is provided by the Naval Training Center Orlando which is scheduled to close o/a Oct 98. The Center does not carry data specific to NAWCTSD. NAWCTSD military were surveyed and, the following data was provided.

Provide the following data on spousal employment opportunities.

Skill Level	Number of Military Spouses Serviced by Family Service Center Spouse Employment Assistance			Local Community Unemployment Rate
	1991	1992	1993	
Professional			2	6.2% *
Manufacturing				
Clerical				
Service				
Other				

* Orange County does not split the local unemployment rate by categories. 6.2% is overall unemployment.

22. Medical/Dental.

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

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

Medical and Dental facilities are provided by Naval Training Center Orlando until it closes o/a October 1998. To date, neither active duty nor dependents have experienced difficulty with care provided by either the Navy Hospital Orlando or the civilian health care system. Orlando is a large metropolitan area with numerous excellent hospitals, clinics and medical personnel in all specialties.

Rev.

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

CRIME RATES PER 100,000 (POPULATION) FY93

Violent Crimes	1408.5
Property Crimes	7411.3
Drug Possession	426.8
Drug Sales	273.4

NOTE: THIS REVISED PAGE 106 REPLACES ORIGINAL SUBMISSION PAGES 106-111.

FOR OFFICIAL USE ONLY - BRAC '95 WORKING PAPERS

REQUESTS FOR CLARIFICATION
From the Base Structure Analysis Team (BSAT)

Control #: 001
To: CAPT Doug Cook
Fax: (703)746-2717
601-1359

Activity: NAVAIR
Voice: (703)746-2715

Date sent: 8 SEP 94

CLARIFICATION/CORRECTION REQUESTED for Data Call #5 Question #23

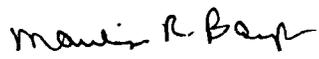
To clarify ambiguities in responses to the above question, please provide the CRIME RATES for your surrounding community or county/township/parrish/city in these three categories: Violent Crime Rate
Property Crime Rate
Drug Crime Rate

Disregard previous format in question #23.
Specify the rate per 100,000 population.
Crime rates are expected to be obtainable from appropriate law enforcement offices.
Data is needed for the activities listed on page 2.


LT Christina May
(703) 681-0481

NOTE: This information is needed urgently. Request you respond with clarification comments (below) or corrected page(s) within 24 hours after receipt at the activity. FAX a preliminary response directly to the BSAT at (703) 756-2174. Then, send your official response, properly certified, through your chain of command for certification and further forwarding to the BSAT. Official documentation must be retained to support your response and be available for validation by the Naval Audit Service.

Reply: Attached is revision to BRAC Data Call # 5, Question # 23, Crime Rate .
~~Certification attached. Originals will be overnight mailed tomorrow (9/14/94)~~
attached


Marilyn R. Bays
Name

NAWCTSD, Code OB31
Code

(407) 380-4597
Commercial Phone #

9/13/94
Date

09/08/94 15:46
SEP-05-1994 23:44
09703 004 1287
NAWC HQ
96041859
P.02
0002

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

Crime Definitions	FY 1991	FY 1992	FY 1993
1. Arson (6A)	0 *	0 *	0 *
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			
2. Blackmarket (6C)	0 *	0 *	0 *
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			
3. Counterfeiting (6G)	0 *	0 *	0 *
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			
4. Postal (6L)	0 *	0 *	0 *
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			

* No data available

Crime Definitions	FY 1991	FY 1992	FY 1993
5. Customs (6M)	0 *	0 *	0 *
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			
6. Burglary (6N)	14,397	14,558	14,422
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian	14,397	14,558	14,422
7. Larceny - Ordnance (6R)	0 *	0 *	0 *
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			
8. Larceny - Government (6S)	0 *	0 *	0 *
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			

* No data available

Crime Definitions	FY 1991	FY 1992	FY 1993
9. Larceny - Personal (6T)	33,005	33,618	34,029
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian	33,005	33,618	34,029
10. Wrongful Destruction (6U)	0 *	0 *	0 *
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			
11. Larceny - Vehicle (6V)	4,784	5,845	5,487
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian	4,784	5,845	5,487
12. Bomb Threat (7B)	0 *	0 *	0 *
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			

* No data available

FOR OFFICIAL USE ONLY
FEDERAL BUREAU OF INVESTIGATION

Crime Definitions	FY 1991	FY 1992	FY 1993
13. Extortion (7E)	0 *	0 *	0 *
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			
14. Assault (7G)	5,038	5,038	6,778
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian	5,038	5,835	6,778
15. Death (7H)	39	40	40
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian	39	40	40
16. Kidnapping (7K)	0 *	0 *	0 *
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			

* No data available

FBI
 FEDERAL BUREAU OF INVESTIGATION
 PROGRAM INFORMATION

Crime Definitions	FY 1991	FY 1992	FY 1993
18. Narcotics (7N)	0 *	0 *	0 *
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			
19. Perjury (7P)	0 *	0 *	0 *
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian	2,321	2,259	2,446
20. Robbery (7R)			
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian	2,321	2,259	2,446
21. Traffic Accident (7T)	0 *	0 *	1
Base Personnel - military			
Base Personnel - civilian			1
Off Base Personnel - military			
Off Base Personnel - civilian			

* No data available

Crime Definitions	FY 1991	FY 1992	FY 1993
22. Sex Abuse - Child (8B)	**	**	**
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military	0 *	0 *	0 *
Off Base Personnel - civilian			
23. Indecent Assault (8D)	**	**	**
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			
24. Rape (8F)	862**	983**	987**
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian	862**	983**	987**
25. Sodomy (8G)	**	**	**
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			

* No data available

** Data is an aggregate of forcible rape, forcible sodomy, and forcible fondling.

MILITARY VALUE

BRAC-95 CERTIFICATION

Reference: SECNAV NOTE 11000 dtd 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.

ACTIVITY COMMANDER

C. L. ADDISON
NAME (Please type of print)
Commanding Officer
Title
NAWCTSD Orlando
Activity


Signature
5 MAY 1994
Date

BRAC 95
DATA CALL 5

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

NEXT ECHELON LEVEL (if applicable)

G. H. Strohsahl, RADM, USN
NAME (Please type or print)


Signature

Commander
Title

5/13/94
Date

Naval Air Warfare Center
Activity

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

NEXT ECHELON LEVEL (if applicable)

NAME (Please type or print)

Signature

Title

Date

Activity

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

MAJOR CLAIMANT LEVEL

W. C. Bowes, VADM, USN
NAME (please type or print)


Signature

Commander
Title

17 May 95
Date

Naval Air Systems Command
Activity

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

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

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


Signature

Acting
Title

19 May 1994
Date

166

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

NEXT ECHELON LEVEL (if applicable)

W. E. NEWMAN, RADM, USN
NAME (Please type or print)
COMMANDER
Title
NAVAL AIR WARFARE CENTER
Activity

WE Newman
Signature
8/18/94
Date

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

NEXT ECHELON LEVEL (if applicable)

NAME (Please type or print)

Title

Activity

Signature

Date

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

MAJOR CLAIMANT LEVEL

W. C. BOWES, VADM, USN
NAME (Please type or print)
COMMANDER
Title
NAVAL AIR SYSTEMS COMMAND
Activity

W C Bowes
Signature
19 AUG 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
8/29/94
Date

11 July 1994

DATA CALL #5
REVISED (Tab A's)
BRAC-95 CERTIFICATION

Reference: SECNAV NOTE 11000 dtd 8 Dec 93

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

ACTIVITY COMMANDER

C. L. ADDISON
NAME (Please type of print)


Signature

COMMANDING OFFICER
Title
NAVAL AIR WARFARE CENTER
TRAINING SYSTEMS DIVISION
Activity

11 July 1994
Date

NAWC TSD
Data Call #5
Clarifications

166
pg 35, 36, 37, 38, 39
40-45

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

NEXT ECHELON LEVEL (if applicable)

W. E. NEWMAN, RADM, USN
NAME (Please type or print)
COMMANDER
Title
NAVAL AIR WARFARE CENTER
Activity

W E Newman
Signature
9/9/94
Date

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

NEXT ECHELON LEVEL (if applicable)

NAME (Please type or print)

Title

Activity

Signature

Date

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

MAJOR CLAIMANT LEVEL

W. E. BOWES, VADM, USN
NAME (Please type or print)
COMMANDER
Title
NAVAL AIR SYSTEMS COMMAND
Activity

W E Bowes
Signature
15 Sep 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
9/20/94
Date

19 35-45

DATA CALL # 5 (REVISION)

BRAC-95 CERTIFICATION

Reference: SECNAV NOTE 11000 dtd 8 Dec 93

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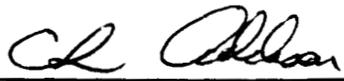
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I certify the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

CAPT C. L. ADDISON
NAME (Please type of print)

COMMANDING OFFICER
Title
NAVAL AIR WARFARE CENTER
TRAINING SYSTEMS DIVISION
Activity


Signature

1 SEP 1994
Date

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

NEXT ECHELON LEVEL (if applicable)

W. E. NEWMAN, RADM, USN
NAME (Please type or print)
COMMANDER
Title
NAVAL AIR WARFARE CENTER
Activity

WE Newman
Signature
9/16/94
Date

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

NEXT ECHELON LEVEL (if applicable)

NAME (Please type or print)

Title

Activity

Signature

Date

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

MAJOR CLAIMANT LEVEL

W. C. BOWES, VADM, USN
NAME (Please type or print)
COMMANDER
Title
NAVAL AIR SYSTEMS COMMAND
Activity

W. C. Bowes
Signature
19 Sept 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
9/26/94
Date

BRAC DATA CALL #5 REVISION #3,(QUES #23)

BRAC-95 CERTIFICATION

Reference: SECNAV NOTE 11000 dtd 8 Dec 93

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

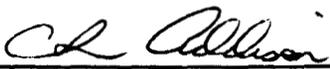
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I certify the information contained herein is accurate and complete to the best of my knowledge and belief.

ACTIVITY COMMANDER

CAPT C. L. ADDISON
NAME (Please type of print)


Signature

COMMANDING OFFICER
Title
NAVAL AIR WARFARE CENTER
TRAINING SYSTEMS DIVISION
Activity

13 SEP 1994
Date

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

NEXT ECHELON LEVEL (if applicable)

W. E. Newman, RADM, USN
NAME (Please type or print)

W E Newman
Signature

Commander
Title

11/19/94
Date

Naval Air Warfare Center
Activity

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

NEXT ECHELON LEVEL (if applicable)

NAME (Please type or print)

Signature

Title

Date

Activity

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

MAJOR CLAIMANT LEVEL

W. C. Bowes, VADM, USN
NAME (please type or print)

W C Bowes
Signature

Commander
Title

27 Nov 94
Date

Naval Air Systems Command
Activity

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

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

W. A. EARNER

NAME (Please type or print)

W A Earner
Signature

Title

12/14/94
Date

R

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

In accordance with policy set forth by the Secretary of the Navy, personnel of the Department of the Navy, uniformed and civilian, who provide information for use in the BRAC-95 process are required to provide a signed certification that states "I certify that the information contained herein is accurate and complete to the best of my knowledge and belief."

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

ACTIVITY COMMANDER

CAPT C. L. ADDISON
NAME (Please type or print)
COMMANDING OFFICER


Signature

15 NOVEMBER 1994
Date

Title
NAVAL AIR WARFARE CENTER
TRAINING SYSTEMS DIVISION
Activity