

**CAPACITY ANALYSIS:
DATA CALL #4 WORK SHEET FOR
TECHNICAL CENTER or LABORATORY: PATUXENT RIVER, MD**

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

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

7 April 1994

1. Historical and Projected Workload. Use Tables 1.1, 1.2, 1.3 & 1.4 below to provide historical and currently projected workload data for your activity in terms of funding and workyears. Assume previous BRAC closures and realignments are implemented on schedule. Dollar amounts should be in then-year dollars. Workyears should be separated for in-house government efforts and on-site contractor work.

- a. Use Table 1.1 to provide data on your site.
- b. Use Table 1.2 to provide data on your Detachments that did not receive this Data Call directly. Compile the information from all of these Detachments into one table. Attach a list of the titles & UIC's of the Detachments included in the table.
- c. For FY's 1993 thru 1997 provide a breakout of the "Total Funds Budgeted" line showing the appropriation and amounts of funding budgeted from your major customers. Major resource Sponsors are defined as, but not limited to, all systems commands, ONR, SSPO, CNO, FLT CINCs, Other DON, Other DOD by Department, Other Federal Government, All other. Use Table 1.3 to report this breakout for your site. Use Table 1.4 to report this breakout for your compiled Detachments that did not receive this Data Call directly. Provide separate tables for FY's 1993 thru 1997.

Use the following definitions when providing data for the tables below:

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

In-House government efforts or In-House workyears: Includes both military and civil servant employees

On-Site Contractor workyears: Actual or estimated workyears performed by support contractors with workyears defined consistent with the definition used in the President's budget.

On-site Contractors: Those contractors that occupy space directly on the site on nearly a full time basis.

Total Funds Budgeted: The funds used as inputs to the President's Budget.

Civilian Personnel On-Board: Full Time Permanent employees (FTP).

**Table 1.1 Historical and Projected Workload for NAWCAD, Patuxent River
(UIC N00421)**

CHART 1 - PATUXENT RIVER AS IT EXISTS TODAY

Fiscal Year	Total Funds Budgeted (\$K)	Total Funds Received w/o Direct Cite (\$K)	Direct Cite Funds Received (\$K)	Budgeted Wkyrs	Actual In-House Wkyrs	Actual Onsite Contract Wkyrs
86	274,800	265,500	117,200	3,892	3,922	1,090
87	287,100	280,500	65,000	3,863	3,887	1,351
88	293,700	320,700	58,300	3,994	4,015	1,439
89	329,800	353,800	38,200	4,039	4,078	1,743
90	344,000	409,100	27,300	4,207	4,251	1,579
91	447,500	426,900	33,500	4,242	4,283	1,656
92	420,200	440,000	31,700	4,308	4,338	1,621
93	430,800	522,500	65,300	3,861	4,372	1,848
94	432,500			3,928		
95	400,100			3,806		
96	410,000			3,830		
97	415,000			3,726		

***Budgeted workyears and Actual In-House workyears include civilian and military.**

*NAUCHQ Change
ams NAUC-21
9/17/94*

**Table 1.1 Historical and Projected Workload for NAWCAD, Patuxent River
(UIC N00421)**

CHART 1 - PATUXENT RIVER AS IT EXISTS TODAY

Fiscal Year	Total Funds Budgeted (\$K)	Total Funds Received w/o Direct Cite (\$K)	Direct Cite Funds Received (\$K)	Budgeted Wkyrs	Actual In-House Wkyrs	Actual Onsite Contract Wkyrs
86	274,800	265,500	117,200	3,892	3,922	1,090
87	287,100	280,500	65,000	3,863	3,887	1,351
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89	329,800	353,800	38,200	4,039	4,078	1,743
90	344,000	409,100	27,300	4,207	4,251	1,579
91	447,500	426,900	33,500	4,242	4,283	1,656
92	420,200	440,000	31,700	4,308	4,338	1,621
93	430,800	522,500	65,300	3,861	4,372	1,848
94	432,500			3,928		
95	400,100			3,806		
96	410,000			3,830		
97	415,000			3,644		

*Budgeted workyears and Actual In-House workyears include civilian and military.

**Table 1.1 Historical and Projected Workload for Patuxent River Complex
(UIC Multiple)**

CHART 2 - PATUXENT RIVER AFTER BRAC 91/93 REALIGNMENTS

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	274,800	265,500	117,200	3,892	3,922	1,090
87	287,100	280,500	65,000	3,863	3,887	1,351
88	293,700	320,700	58,300	3,994	4,015	1,439
89	329,800	353,800	38,200	4,039	4,078	1,743
90	344,000	409,100	27,300	4,207	4,251	1,579
91	447,500	426,900	33,500	4,242	4,283	1,656
92	420,200	440,000	31,700	4,308	4,338	1,621
93	430,800	522,500	65,300	3,861	4,372	1,848
94	793,112			4,804		
95	762,411			4,618		
96	1,004,800			6,183		
97	981,500			5,939		

Includes data for Patuxent River Complex (NAWCADPAX, NAVAIR, NAWCADWAR, NAWCADTRN, Webster Field)

NAWCAD Change
ans NAVR-21
9/19/94

**Table 1.1 Historical and Projected Workload for Patuxent River Complex
(UIC Multiple)**

CHART 2 - PATUXENT RIVER AFTER BRAC 91/93 REALIGNMENTS

Fiscal Year	Total Funds Budgeted (\$K)	Total Funds Received w/o Direct Cite (\$K)	Direct Cite Funds Received (\$K)	Budgeted Wkyrs	Actual In-House Wkyrs	Actual Onsite Contract Wkyrs
86	274,800	265,500	117,200	3,892	3,922	1,090
87	287,100	280,500	65,000	3,863	3,887	1,351
88	293,700	320,700	58,300	3,994	4,015	1,439
89	329,800	353,800	38,200	4,039	4,078	1,743
90	344,000	409,100	27,300	4,207	4,251	1,579
91	447,500	426,900	33,500	4,242	4,283	1,656
92	420,200	440,000	31,700	4,308	4,338	1,621
93	430,800	522,500	65,300	3,861	4,372	1,848
94	793,112			4,804		
95	762,411			4,618		
96	1,004,800			6,183		
97	981,500			5,873		

Includes data for Patuxent River Complex (NAWCADPAX, NAWCADWAR, NAWCADTRN, Webster Field)

**Table 1.1 Historical and Projected Workload for Patuxent River Complex
(UIC Multiple)**

CHART 2 - PATUXENT RIVER AFTER BRAC 91/93 REALIGNMENTS

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	274,800	265,500	117,200	3,892	3,922	1,090
87	287,100	280,500	65,000	3,863	3,887	1,351
88	293,700	320,700	58,300	3,994	4,015	1,439
89	329,800	353,800	38,200	4,039	4,078	1,743
90	344,000	409,100	27,300	4,207	4,251	1,579
91	447,500	426,900	33,500	4,242	4,283	1,656
92	420,200	440,000	31,700	4,308	4,338	1,621
93	430,800	522,500	65,300	3,861	4,372	1,848
94	793,112			4,804		
95	762,411			4,618		
96	1,004,800			6,183		
97	981,500			5,873		

Includes data for Patuxent River Complex (NAWCADPAX, NAVAIR, NAWCADWAR, NAWCADTRN, Webster Field)

**Table 1.1 Historical and Projected Workload for Patuxent River Complex
(UIC N65980)**

CHART 3 - WEBSTER FIELD INFLUX

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	289,200			242		
95	289,500			240		
96	280,000			230		
97	275,000			225		

**Table 1.1 Historical and Projected Workload for Patuxent River Complex
(UIC N62376)**

CHART 3 - TRENTON INFLUX

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	71,412			634		
95	72,811			572		
96	72,000			511		
97	71,000			414		

**Table 1.1 Historical and Projected Workload for Patuxent River Complex
(UIC Multiple)**

**Historical and Projected Workload for Patuxent River Complex
(UIC N62269)**

CHART 3 - WARMINSTER INFLUX

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	242,800			1,596		
97	220,500			1,574		

**Table 1.1 Historical and Projected Workload for Patuxent River Complex
(UIC N00019)**

CHART 3 - NAVAIRHQ INFLUX

FOR NAVAIRHQ, CHECK DATA CALL 30 QUESTION 1

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						

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Table 1.2 Historical and Projected Workload for Detachments of Patuxent River Complex (UIC N00421)

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

Detachments from Patuxent River have not been budgeted separately but as part of the N00421 UIC. Therefore; no data is available.

TABLE 1.3 FY 1993 BREAKOUT OF FUNDS BUDGETED FOR NAWCAD, Patuxent River (UIC N00421)

CHART 1 - PATUXENT RIVER AS IT EXISTS TODAY

SPONSOR	RDT&E(N)										Other Appropriation				
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	Other
NAVAIR		595	2,110	11,910	47,651	100,404	35,081	2,885	104,429	87,851	8,050	2,723	935		32,559
SPAWAR			240		3,445	1,630	23	260			50				
NAVSEA				54	(9)		20	987		484	475	1,235			
NAVFAC								10							
NAVSUP			254					2							
OCNR					75	8									
SSPO															
CNO															
OTHER NAVY			2,416		27	125	283	17,801	4,089	571	24				38,845
ARMY															3,336
AIR FORCE															2,273
OTHER DOD															53
OTHER GOVNT															5,627
PRIVATE PARTY															653

This table reflects FY93 actual funds received which matches the Total Funds Received w/o Direct Cite column on Table 1.1.

**TABLE 1.3 FY 1993 BREAKOUT OF FUNDS BUDGETED for Webster Field
(UIC N65980)**

SPONSOR	RDT&E(N) (\$K)							Other Appropriation (\$K)							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR				105.0	8,201.5				12,468		31,295		20,833		8,400
SPAWAR				168.5	3,204.0	324.0	4,202.5		25,964		40,448		48,489	110	46,000
NAVSEA				2,204.0	420.0				5,971		10,370		30,134		21,710
NAVFAC															
NAVSUP															
OCNR															
SSPO															
CNO															
OTHER NAVY		3,000		508.5	89.5		2,552.9		10,325		6,175		22	5,300	
ARMY								11,556.1							6,000
AIR FORCE								42.2							2,660
OTHER DOD															20,000
OTHER GOVT															
PRIVATE PARTY															

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*NAWC HQ Change
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9/12/94*

**TABLE 1.3 FY 1993 BREAKOUT OF FUNDS BUDGETED for Webster Field
(UIC N65980)**

SPONSOR	RDT&E(N) (\$K)							Other Appropriation (\$K)							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR				105.0	8,201.5				12,468		31,295		20,833		8,400
SPAWAR				168.5	3,204.0	324.0	4,202.5		25,964		40,448		48,489	110	46,000
NAVSEA				2,204.0	420.0				5,971		10,370		30,134		21,710
NAVFAC															
NAVSUP															
OCNR															
SSPO															
CNO															
OTHER NAVY		3,000		508.5	89.5		2,255.9		18,325		6,175		22	5,300	
ARMY								11,556.1							6,000
AIR FORCE								42.2							2,660
OTHER DOD															20,000
OTHER GOVT															
PRIVATE PARTY															

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**TABLE 1.3 FY 1993 BREAKOUT OF FUNDS BUDGETED for WARMINSTER
(UIC N62269)**

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR		240	7,994	30,647	59,177	8,125	11,496		19,574	36,574	2,816	2,616		2,589	14,154
NAVSEA				2,300	5,865				1,704	642	394		98		
CNO															
OCNR	1,82 2	51,386		143	1,115		5,180		555					1,195	777
OSD															2,505
SPAWAR		3	5,252	408	2,015		708		159		381		32	2,039	163
OTHER NAVY	104	1,116	163	7,290	170		552		7,139		3,348			19,440	130
ARMY															1,879
AIR FORCE															1,867
NON-DOD															
OTHER DOD															546
OTHER GOVNT															2,894

**TABLE 1.3 FY 1993 BREAKOUT OF FUNDS BUDGETED for TRENTON
(UIC N62376)**

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
OCNR			805			30			136						
NAVAIR		2,116	1,461	2,599	14,591	26,784			612	855	1,108				
NELO			127												
NAVINTCOM									45						
NAVFAC									45						
NAVSUP															
OTHER									9					2,114	2,576
ARMY															845
AIR FORCE															582
PRIVATE PARTY															3,595

NAUHQ Change
ans NAUC-21
9/19/94

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**TABLE 1.3 FY 1993 BREAKOUT OF FUNDS BUDGETED for TRENTON
(UIC N62376)**

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
OCNR			805			30			136						
NAVAIR		2,116	1,461	2,599	14,591	26,784			612	855	1,108				
NELO				127											
NAVINTCOM									45						
NAVFAC									45						
NAVSUP															
OTHER									9					2,114	2,576
ARMY															845
AIR FORCE															582
PRIVATE PARTY															3,595

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**TABLE 1.3 FY 1994 BREAKOUT OF FUNDS BUDGETED for NAWCAD, Patuxent River
(UIC N00421)**

CHART 1 - PATUXENT RIVER AS IT EXISTS TODAY

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR		100	1,053	4,036	35,737	115,221	16,328	877	84,529	64,997	14,071	936	980		45,309
SPAWAR					1,834		1,140		255		50				
NAVSEA				374	2,104		145		42		139	50	883		
NAVFAC									10						
NAVSUP									2						
OCNR						21									
SSPO															
CNO															
OTHER NAVY				635		26	31		7,801	3,525	656	14			18,968
ARMY															2,458
AIR FORCE															843
OTHER DOD															
OTHER GOVNT															5,667
PRIVATE PARTY															653

**TABLE 1.3 FY 1994 BREAKOUT OF FUNDS BUDGETED for Patuxent River Complex
(UIC Multiple)**

CHART 2 - PATUXENT RIVER WITH BRAC 91/93 REALIGNMENTS

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR		2,026	4,327	42,400	106,901	141,542	25,880	944	125,933	113,729	48,809	4,602	7,877	3,252	61,659
SPAWAR		90	2,458	1,060	3,077		6,144		29,013		54,406		45,955	2,551	1,585
NAVSEA				2,110	6,504		145		7,976	343	10,766	50	15,204		4,441
NAVFAC									13						
NAVSUP									2						
OCNR	1,986	34,500	785		845	56	2,573		736					1,107	1,619
SSPO															
CNO															
OTHER NAVY	65	758	184	18,766	125	126	398		16,032	3,525	8,475	14	76	20,469	22,055
ARMY															8,185
AIR FORCE															9,880
OTHER DOD															23,991
OTHER GOVNT															14,863
PRIVATE PARTY															3,214
NAVINTCOM									90						
OSD															1,197
NON-DOD															305

Includes data for Patuxent River Complex (NAWCADPAX, NAWCADWAR, NAWCADTRN, Webster Field)

SPONSOR	RDT&E(N)										Other Appropriation				
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
SPAWAR						4,160		28,672		54,324			45,955	1,135	1,535
NAVAIR			150		5,408			19,148		32,629			6,897		3,225
NAVSEA					100			6,534		10,377			13,895		4,441
NAVFAC															
OTHER NAVY								3							
ARMY				275	65	50	15	6,067		6,184		76	1,514		
AIR FORCE															120
OTHER DOD															5,285
OTHER GOVT															23,880
															7,057

TABLE 1.3 FY 1994 BREAKOUT OF FUNDS BUDGETED FOR WEBSTER FIELD
 (UIC N65980)

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**TABLE 1.3 FY 1994 BREAKOUT OF FUNDS BUDGETED for WARMINSTER
(UIC N62269)**

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR		282	2,604	27,879	51,952	185	9,552	67	21,378	46,457	2,109	2,399		3,252	13,125
NAVSEA				1,736	4,300				1,400	343	250		426		
CNO															
OCNR	1,986	34,385			845		2,573		652					1,107	1,619
OSD															1,197
SPAWAR		90	2,458	1,060	1,243		844		86		32			1,416	50
OTHER NAVY	65	758	184	17,856	60	50	352		2,153		1,635			13,473	
ARMY															4,760
AIR FORCE															2,446
NON-DOD															305
OTHER DOD															111
OTHER GOVT															2,139

**TABLE 1.3 FY 1994 BREAKOUT OF FUNDS BUDGETED for TRENTON
(UIC N62376)**

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
OCNR		115	785			35			84						
NAVAIR		1,644	670	10,335	13,804	26,136			878	2,275		1,267			
NELO															
NAVINTCOM									90						
NAVFAC															
NAVSUP															
OTHER									11					5,482	3,087
ARMY															847
AIR FORCE															1,306
PRIVATE PARTY															2,561

**TABLE 1.3 FY 1995 BREAKOUT OF FUNDS BUDGETED for NAWCAD, Patuxent River
(UIC N00421)**

CHART 1 - PATUXENT RIVER AS IT EXISTS TODAY

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR			1,623	6,493	28,225	96,553	35,413		76,834	54,895	5,888	319	255	4,027	27,598
SPAWAR					3,231		423		194		33				
NAVSEA				341	300		166		492		355	57	339		
NAVFAC									8						
NAVSUP															
OCNR				3,360		141									
SSPO															
CNO															
OTHER NAVY				500	30				8,660	1,698	415	5			29,343
ARMY															776
AIR FORCE															1,368
OTHER DOD															9,395
OTHER GOVNT															349
PRIVATE PARTY															28

**TABLE 1.3 FY 1995 BREAKOUT OF FUNDS BUDGETED for Patuxent River Complex
(UIC Multiple)**

CHART 2 - PATUXENT RIVER AFTER BRAC 91/93 REALIGNMENTS

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR		1,922	6,673	43,060	86,776	124,265	42,704		118,691	88,572	36,808	2,632	7,482	5,806	42,603
SPAWAR		7,550	1,872	894	10,821		4,214		24,678		55,439		41,806	1,697	1,535
NAVSEA				1,741	2,398		166		9,706		8,013	57	16,671		5,315
NAVFAC									12						
NAVSUP									12						
OCNR	1,597	37,828	795	3,360	598	189			762					606	27
SSPO															
CNO															
OTHER NAVY		880	200	19,158	30		452		17,049	1,698	7,251	5		22,221	29,943
ARMY															6,758
AIR FORCE															8,423
OTHER DOD															36,203
OTHER GOVNT															7,015
PRIVATE PARTY															2,528
NAVINTCOM									107						
OSD															270
NON DOD															205
OTHER														8,653	2,372

Includes data for Patuxent River Complex (NAWCADPAX, NAWCADWAR, NAWCADTRN, Webster Field)

**TABLE 1.3 FY 1995 BREAKOUT OF FUNDS BUDGETED for WEBSTER FIELD
(UIC N65980)**

SPONSOR	RDT&E(N)						Other Appropriation								
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
SPAWAR		7,500			6,806		3,408		23,496		55,406		41,806	750	1,535
NAVAIR				150	5,242				21,337		28,997		7,227		3,148
NAVSEA					198				6,924		7,408		16,332		5,315
OTHER NAVY							100		6,731		6,000			2,209	600
NAVFAC									4						
ARMY															80
AIR FORCE															4,814
OTHER DOD															26,508
OTHER GOVT															6,241

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**TABLE 1.3 FY 1995 BREAKOUT OF FUNDS BUDGETED for WARMINSTER
(UIC N62269)**

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR			4,370	29,718	39,395	200	7,291		20,520	32,583	1,923	747		1,779	11,857
NAVSEA				1,400	1,900				2,290		250				
CNO															
OCNR	1,597	37,828			598		128		672					606	27
OSD															270
SPAWAR		50	1,872	894	784		383		86					947	
OTHER NAVY		880	200	18,658			352		1,658		836			20,012	
ARMY															3,638
AIR FORCE															915
NON-DOD															205
OTHER DOD															300
OTHER GOVT															425

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SPONSOR		RDT&E(N)										Other Appropriation				
6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other		
OCNR	265	795			48			90								
NAVAIR	1,922	770	6,699	13,914	27,512			902	1,094		1,566					
NETO																
NAVINTCOM								107								
NAVFAC																
NAVSUP																
OTHER								12					8,653	2,372		
ARMY																
AIR FORCE														2,264		
PRIVATE PARTY														1,326		
														2,500		

TABLE 1.3 FY 1995 BREAKOUT OF FUNDS BUDGETED FOR TRENTON (UIC N62376)

UIC: N00421

**TABLE 1.3 FY 1995 BREAKOUT OF FUNDS BUDGETED for TRENTON
(UIC N62376)**

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
OCNR		265	795			48			90						
NAVAIR		1,922	770	6,699	13,914	27,512			902	1,094		1,566			
NELO															
NAVINTCOM									107						
NAPAC															
NAVSUP									12						
OTHER														8,653	2,372
ARMY															2,264
AIR FORCE															1,326
PRIVATE PARTY															2,500

**TABLE 1.3 FY 1996 BREAKOUT OF FUNDS BUDGETED for NAWCAD, Patuxent River
(UIC N00421)**

CHART 1 - PATUXENT RIVER AS IT EXISTS TODAY

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR		191	1,404	6,243	37,263	97,573	35,582	261	75,386	74,548	3,978	974	435		35,099
SPAWAR						2,789			432		201				
NAVSEA									40		75	295	1,398		
NAVFAC															
NAVSUP															
OCNR															
SSPO															
CNO															
OTHER NAVY								1	3,481	7,720	643	96			17,976
ARMY															3,490
AIR FORCE															1,249
OTHER DOD															384
OTHER GOVNT															793
PRIVATE PARTY															

**TABLE 1.3 FY 1996 BREAKOUT OF FUNDS BUDGETED for Patuxent River Complex
(UIC Multiple)**

CHART 2 - PATUXENT RIVER WITH BRAC 91/93 REALIGNMENTS

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR		1,891	6,071	47,352	93,878	124,223	42,279	261	115,246	107,380	34,859	3,048	7,435	1,519	43,487
SPAWAR			1,640	327	7,409	2,789	3,674		22,218		50,201		42,000	1,070	1,535
NAVSEA				800	2,000				8,125		7,550	295	17,398		5,315
NAVFAC									44						
NAVSUP															
OCNR	471	39,091	800		422	50	28		752					458	15
SSPO															
CNO															
OTHER NAVY		767	200	18,658			100	1	11,022	7,728	6,643	96		31,021	18,576
ARMY															7,710
AIR FORCE															7,926
OTHER DOD															27,884
OTHER GOVNT															8,178
PRIVATE PARTY															
OSD															1,030
NON-DOD															240
OTHER									15					5,450	3,040
DOD															2,500

Includes data for Patuxent River Complex (NAWCADPAX, NAWCADWAR, NAWCADTRN, Webster Field)

**TABLE 1.3 FY 1996 BREAKOUT OF FUNDS BUDGETED for WEBSTER FIELD
(UIC N65980)**

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
SPAWAR					6,800		3,400		21,700		50,000		42,000	750	1,535
NAVAIR				150	5,242				19,000		29,000		7,000		3,100
NAVSEA					200				6,900		7,400		16,000		5,315
OTHER NAVY							100		6,800		6,000			2,200	600
NAVFAC									4						
ARMY															80
AIR FORCE															4,800
OTHER DOD															27,000
OTHER GOVT															7,000

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**TABLE 1.3 FY 1996 BREAKOUT OF FUNDS BUDGETED for WARMINSTER
(UIC N62269)**

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR			3,967	30,459	37,473	200	6,697		19,975	30,507	1,881	769		1,519	5,288
NAVSEA				800	1,800				1,185		75				
CNO															
OCNR	471	38,971			422		28		672					458	15
OSD															1,030
SPAWAR			1,640	327	609		274		86					320	
OTHER NAVY		767	200	18,658					741	8				29,421	
ARMY															3,300
AIR FORCE															627
NON-DOD															240
OTHER DOD															500
OTHER GOVT															385

TABLE 1.3 FY 1996 BREAKOUT OF FUNDS BUDGETED for TRENTON
(UIC N62376)

SPONSOR	RDT&E(N)										Other Appropriation				
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other	OMN	APN	OPN	WPN	SCN	Navy	All Other
OCNR		120	800			50		80							
NAVAIR		1,700	700	10,500	13,900	26,450		885	2,325		1,305				
NELO															
NAVFAC								40							
NAVSUP															
OTHER								15					5,450	3,040	
ARMY														840	
AIR FORCE														1,300	
PRIVATE PARTY														2,500	

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SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
OCNR		120	800			50			80						
NAVAIR		1,700	700	10,500	13,900	26,450			885	2,325		1,305			
NELO															
NAVFAC									40						
NAVSUP															
OTHER									15					5,450	3,040
ARMY															840
AIR FORCE															1,300
DOD															2,500

TABLE 1.3 FY 1996 BREAKOUT OF FUNDS BUDGETED FOR TRENTON
 (UIC N62376)

**TABLE 1.3 FY 1997 BREAKOUT OF FUNDS BUDGETED for NAWCAD, Patuxent River
(UIC N00421)**

CHART 1 - PATUXENT RIVER AS IT EXISTS TODAY

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR		201	1,647	5,111	75,043	97,689	36,028	269	60,836	98,331	4,023	890			2,112
SPAWAR					1,550				316		205				
NAVSEA									89		50	309	1,752		
NAVFAC															
NAVSUP															
OCNR															
SSPO															
CNO															
OTHER NAVY								2	3,570	5,516	673	103			12,922
ARMY															3,233
AIR FORCE															1,268
OTHER DOD															
OTHER GOVNT															1,224
PRIVATE PARTY															38

**TABLE 1.3 FY 1997 BREAKOUT OF FUNDS BUDGETED for Patuxent River Complex
(UIC Multiple)**

CHART 2 - PATUXENT RIVER WITH BRAC 91/93 REALIGNMENTS

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR		1,701	4,985	40,076	145,573	124,189	41,844	269	100,102	132,497	34,304	2,878	7,000	940	8,722
SPAWAR			20		8,258		3,000		21,316		50,205		42,000	750	1,535
NAVSEA				600	2,000				7,089		7,050	309	17,752		5,520
NAVFAC									28						
NAVSUP															
OCNR		33,718	750		400	50	28		347						15
SSPO															
CNO															
OTHER NAVY				1,850			100	2	10,730	5,516	6,673	103		38,256	13,522
ARMY															4,438
AIR FORCE															6,774
OTHER DOD														5,425	30,025
OTHER GOVNT															8,394
PRIVATE PARTY															2,488
NELO															
OSD															405

Includes data for Patuxent River Complex (NAWCADPAX, NAWCADWAR, NAWCADTRN, Webster Field)

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TABLE 1.3 FY 1997 BREAKOUT OF FUNDS BUDGETED FOR WEBSTER FIELD
(UIC N65980)

SPONSOR	RDT&E(N)										Other Appropriation				
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	Other
SPAWAR				6,500	3,000			21,000	50,000		42,000	750		1,535	
NAVAIR			150	5,000				18,000	29,000		7,000			3,100	
NAVSEA				200				6,800	7,000		16,000			5,315	
OTHER NAVY					100			6,800	6,000				2,200	600	
NAVFAC															
ARMY															
AIR FORCE															80
OTHER DOD															3,900
OTHER GOVT															27,000
															7,000

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**TABLE 1.3 FY 1997 BREAKOUT OF FUNDS BUDGETED for WARMINSTER
(UIC N62269)**

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVAIR			2,738	24,480	51,805	200	5,816		20,391	31,856	1,281	683		940	3,510
NAVSEA				600	1,800				200						205
CNO															
OCNR		33,603			400		28		272						15
OSD															405
SPAWAR			20		208										
OTHER NAVY				1,850					360					36,056	
ARMY															300
AIR FORCE															306
NON-DOD															
OTHER-DOD															
OTHER GOVT															170

**TABLE 1.3 FY 1997 BREAKOUT OF FUNDS BUDGETED for TRENTON
(UIC N62376)**

SPONSOR	RDT&E(N)							Other Appropriation							
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
OCNR		115	750			50			75						
NAVAIR		1,500	600	10,335	13,725	26,300			875	2,310		1,305			
NAVFAC									25						
NAVSUP															
OTHER DOD									10					5,425	3,025
ARMY															825
AIR FORCE															1,300
PRIVATE PARTY															2,450

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TABLE 1.3 FY 1997 BREAKOUT OF FUNDS BUDGETED for TRENTON
(UIC N62376)

SPONSOR	RDT&E(N)										Other Appropriation				
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6	Other RDT&E	OMN	APN	OPN	WPN	SCN	Other Navy	All Other
OCNR	115	750	50					75							
NAVAIR	1,500	600	10,335	13,725	26,300			875	2,310		1,305				
NAVFAC								25							
NAVSUP															
OTHER DOD															
ARMY															
AIR FORCE															
PRIVATE PARTY															2,450
															1,300
															825
															3,025
															5,425

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**TABLE 1.4 FY 1993 BREAKOUT OF FUNDS BUDGETED for DETACHMENTS of Patuxent River
(UIC N00421)**

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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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**TABLE 1.4 FY 1994 BREAKOUT OF FUNDS BUDGETED for DETACHMENTS of Patuxent River
(UIC N00421)**

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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**TABLE 1.4 FY 1996 BREAKOUT OF FUNDS BUDGETED for DETACHMENTS of Patuxent River
(UIC N00421)**

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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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**TABLE 1.4 FY 1997 BREAKOUT OF FUNDS BUDGETED for DETACHMENTS of Patuxent River
(UIC N00421)**

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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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:

For this portion of the data call (Class 1 and Class 2), Patuxent River Complex is defined as NAS Patuxent River, Solomons Annex, and Webster Field. As of 1 October 1994, NAS Patuxent River will assume Class 1 and 2 Assets responsibility for Webster Field.

- 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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Project Number: P-721
AEGIS Electronic Equipment Staging Facility
\$6,700,000
57,560 SQFT
Award Date: October 1998
Estimated Completion: April 2000
Description: Provides logistics support and staging facilities for electronic and communication systems and equipment undergoing integration, test and evaluation in support of the AEGIS CG-47 and DDG-51 radio communication systems integration and the related in-service engineering program.

Project Number: P-723
FACSFAC Electronic Systems Integration Facility
\$2,632,000
27,000 SQFT
Award Date: March 94
Estimated Completion: October 1994
Description: Project will provide space for all hardware and software functions, logistics support, and administrative personnel.

Project Number: P-720
AN/SPN-46(V) Life Cycle Support Facility
\$3,437,000
27,900 SQFT
Award Date: May 1994
Estimated Completion: April 1995
Description: Provides software and hardware maintenance, repair, configuration, management, problem analysis, and logistics support for AN/SPN-46 ACLS installations.

Project Number: P-920-S
Aircraft Technologies Laboratory
\$12,000,000
65,000 SQFT
Award Date: 1993
Estimated Completion: December 1994
Description: Provides an integrated laboratory to study aircraft materials and structures in a naval operating environment. Meets current EPA and OSHA requirements.

Project Number: P-930-1-S
Frank Knox School Improvements
\$3,562,000
33,927 SQFT
Award Date: 1993
Estimated Completion: November 1994
Description: Provides a centralized base training facility to handle expanding training requirements. Renovates a Navy owned, former elementary school for training and meeting space.

Project Number: P-930-3-S
Aircraft Mods Shop
\$2,300,000

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11,624 SQFT

Award Date: 1993

Estimated Completion: June 1995

Description: Provides an aircraft modifications shop building to support R&D functions being relocated. Shop performs prototype modifications to aircraft to prove concept validity. Meets current EPA and OSHA standards for this type of work.

Project Number: P-930-3A-S

Ejection Tower Support Structure

\$785,000

1,728 SQFT

Award Date: 1993

Estimated Completion: February 1995

Description: Provides utility and support building for the relocation of the only man-rated ejection tower in the DoD inventory. Supports crew survivability R&D.

Project Number: P-930-4B-S

Addition to Building 1490

\$2,450,000

13,576 SQFT

Award Date: 1993

Estimated Completion: August 1995

Description: Provides additional space and interior alterations to support expanded R&D mainframe computer processing requirements at the computer center.

Project Number: P-930-4-S

Building 1406 Addition

\$1,972,000

11,400 SQFT

Award Date: 1993

Estimated Completion: September 1995

Description: Provides additional space to move non-computer center personnel from computer center to allow for additional R&D mainframe computer processing at the computer center.

Project Number: P-930-4A-S

Addition/Renovation to Building 1652

\$450,000

8,600 SQFT

Award Date: 1993

Estimated Completion: August 1995

Description: Provides additional space and interior alterations to support consolidated RDT&E for the TACAMO Strategic Communications Program.

Project Number: P-930-S

North and South Centers

\$78,500,000

705,000 SQFT

Award Date: 1994

Estimated Completion: March 1996

Description: Provides two integrated engineering R&D laboratory centers to support BRAC 91 decisions to consolidate Naval Aviation RDT&E. Laboratories support crew systems, air vehicle research, embedded computer systems and airborne antisubmarine warfare.

Project Number: P-383

Jet Engine Test Cell

\$4,400,000

6,720 SQFT

Award Date: 1994

Estimated Completion: November 1995

Description: This project will construct a T-10 jet engine test cell relocated from Subic Bay. Neither of the two existing cells can be adapted to perform post maintenance engine runup of the engines in our existing inventory or those programmed to be here by FY96.

Project Number: P-426
Hazardous Flammable Material Storehouse
\$3,400,000
12,860 SQFT
Award Date: 1994
Estimated Completion: June 1996
Description: This project will construct a building to meet safety requirements for the storage of hazardous materials. Currently, hazardous materials are stored in an environmentally unsuitable structure that is in violation of the Navy Occupational Safety and Health and environmental standards.

Project Number: P-930-1A-S
Library Renovations
\$1,000,000
0 SQFT
Award Date: 1994
Estimated Completion: January 1996
Description: Provides interior alterations to support scientific, technical and classified libraries in support of the BRAC 91 decision to consolidate Naval Aviation RDT&E. Existing library is too small to handle combined function.

Project Number: P-497
Recreational Cottages (Solomons)
\$440,000
5,280 SQFT
Award Date: 1994
Estimated Completion: January 1996
Description: This project will construct five duplex cabins for ten recreational lodging units for military personnel. Some of the Naval Recreational Center's lodging units have been condemned, due to facility age.

Project Number: P-505
Sewage Flow Equalization Basin
\$1,000,000
0 SQFT
Award Date: 1995
Estimated Completion: Unknown
Description: This MILCON will pay the one time cost of the Navy's share of a county planned upgrade to the treatment plant. This MILCON solves a waste water quantity surge problem.

Project Number: P-951-T
Administration Facilities (NAVAIR)
\$94,500,000
495,012 SQFT
Award Date: 1995
Estimated Completion: June 1997
Description: (Integrated Project Team Building) Provides space for integrated project teams (IPT) that support aircraft acquisition and need to be collocated with RDT&E. The IPT's will move from Arlington, VA (Crystal City) due to BRAC 93 decision to move Headquarters out of the National Capital Region.

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Project Number: P-953-T
Propulsion System Evaluation Facility
\$25,575,000
77,000 SQFT

Award Date: 1996

Estimated Completion: Unknown

Description: Provides a facility to support the BRAC 93 decision to consolidate small engine RDT&E. Building houses test chambers, component test rigs and supporting laboratories.

Project Number: P-516
Future Upgrade Pine Hill Wastewater Plant
\$2,500,000
0 SQFT

Award Date: 1996

Estimated Completion: August 1996

Description: This MILCON will pay a one time cost to the Navy for a planned county upgrade to the sewage treatment plant. This MILCON will bring the facility into compliance with the latest water quality standards imposed by the Maryland Department of the Environment.

Project Number: P-493
Airwarfare Systems Integration Lab
\$7,600,000
42,400 SQFT

Award Date: 1999

Estimated Completion: January 2000

Description: This project will construct a two story integrated laboratory to test and evaluate, in a night combat environment, integrated weapons systems being developed. Facility will also be used for foreign weapon technology and international cooperative programs.

Special Projects:

C8-91 Addition to B140, 2769 SQFT, CCN (317-25)
C14-91 Addition to B131, 1632 SQFT, CCN (313-25)
C5-89 Addition to B142, 2000 SQFT, CCN (217-77)
C18-91 Addition to B8, 704 SQFT, CCN (321-10)
C(X)-94 Addition to B123/Anechoic Chamber, 2800 SQFT, CCN (317-25)

PATUXENT RIVER COMPLEX DETACHMENT AT WARMINSTER, PA

Under BRAC-91, the Naval Air Warfare Center Aircraft Division, Warminster is being realigned to become part of the Naval Air Warfare Center at Patuxent River, MD and is scheduled to be relocated in the 1995/96 timeframe. The base at Warminster is being subdivided with a portion, 36 acres, being retained to house the NCCOSC R&D organization as the host and the balance, 733 acres, being excessed. Within the reduced NCCOSC host, the Naval Air Warfare Center Aircraft Division at Patuxent River will retain a small detachment of 30 personnel.

The detachment at Warminster is to maintain and operate the Dynamic Flight Simulator that will be operated as a tenant of NCCOSC at Warminster. All support services will be contained within the Centrifuge building itself and no separately identifiable infrastructure will be maintained. The detachment will consist of 24 civilians, 6 military and be supported by approximately 5 contractor workyears. The technical operations will vary over time dependent upon the particular efforts funded in any given year.

The following three tables, 2.1a thru c, define the class 2 assets associated with the buildings being assigned to the NCCOSC host, the buildings being excessed, and the NAWC detachment, respectively.

Table 2.1a Class 2 Assets of NCCOSC HOST (UIC N49281)

Building type	NAVFAC (P-80) category code	Gross Floor/Building Area (KSF)			
		Adequate	Sub-standard	Inadequate	Total
Operational & Training	100				
Maintenance & Production	200				
Science labs	310				
Aircraft labs	311	21.2			21.2
Missile and Space labs	312				
Ship and Marine labs	313	39.1			39.1
Ground Transportation labs	314				
Weapon and Weapon Systems labs	315				
Ammunition, Explosives, & Toxics labs	316				
Electrical Equip. labs	317	16.1			16.1
Propulsion labs	318				
Miscellaneous labs	319				
Underwater Equip. labs	320	18.0			18.0
Technical Services labs	321				
Supply Facilities	400				
Hospital & other Medical	500				
Administrative Facilities	600				
Housing & Community	700				
Utilities & Grounds	800				
Other					
Totals		94.4			94.4

Table 2.1b Class 2 Assets of property being excessed (UIC 62269)

Building type	NAVFAC (P-80) category code	Gross Floor/Building Area (KSF)			
		Adequate	Sub-standard	Inadequate	Total
Operational & Training	100	62.5			62.5
Maintenance & Production	200	83.8			83.8
Science labs	310	227.7			227.7
Aircraft labs	311	118.7			118.7
Missile and Space labs	312				
Ship and Marine labs	313	9.5			9.5
Ground Transportation labs	314				
Weapon and Weapon Systems labs	315				
Ammunition, Explosives, & Toxics labs	316				
Electrical Equip. labs	317	205.1			205.1
Propulsion labs	318				
Miscellaneous labs	319	67.6			67.6
Underwater Equip. labs	320	6.9			6.9
Technical Services labs	321	90.5			90.5
Supply Facilities	400	103.1			103.1
Hospital & other Medical	500	5.1			5.1
Administrative Facilities	600	103.8			103.8
Housing & Community	700	71.1			71.1
Utilities & Grounds	800				
Other					
Totals		1,155.4			1,155.4

Table 2.1c Class 2 Assets of NAWCAD detachment (UIC 00421)

Building type	NAVFAC (P-80) category code	Gross Floor/Building Area (KSF)			
		Adequate	Sub-standard	Inadequate	Total
Operational & Training	100				
Maintenance & Production	200				
Science labs	310	48.1			48.1
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	16.0			16.0
Underwater Equip. labs	320				
Technical Services labs	321	6.0			6.0
Supply Facilities	400				
Hospital & other Medical	500				
Administrative Facilities	600				
Housing & Community	700				
Utilities & Grounds	800				
Other					
Totals		70.1			70.1

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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?

Building 107

- (1) FACILITY TYPE/CODE:
Building, Small Craft Boathouse; Cat. Code 155-21
- (2) WHAT MAKES IT INADEQUATE?
This building is a 9,108 SF boat house built in 1943 and is inadequate due to NAVOSH and Fire Safety Code violations.
- (3) WHAT USE IS BEING MADE OF THE FACILITY?
Air Operations uses small portion of building for Search and Rescue storage, remainder of building abandoned.
- (4) WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?
Cost to upgrade the facility would be approximately \$365K.
- (5) WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?
Due to the many fire and safety discrepancies demolition is recommended.
- (6) CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:
Demolition is programmed due to high maintenance costs and safety problems.
- (7) HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?
No.

Table 2.1 Main Site Class 2 Assets of Patuxent River Complex (UIC Multiple)

Building type	NAVFAC (P-80) category code	Gross Floor/Building Area (KSF)			
		Adequate	Sub-standard	Inadequate	Total
Operational & Training	100	214	161	9	384
Maintenance & Production	200	274	376	3	653
Science labs	310	39	6	0	44
Aircraft labs	311	600	705	0	1305
Missile and Space labs	312	1	0	0	1
Ship and Marine labs	313	59	0	0	59
Ground Transportation labs	314	0	0	0	0
Weapon and Weapon Systems labs	315	0	0	0	0
Ammunition, Explosives, & Toxics labs	316	0	0	0	0
Electrical Equip. labs	317	346	138	0	484
Propulsion labs	318	82	28	0	110
Miscellaneous labs	319	204	47	0	251
Underwater Equip. labs	320	0	0	0	0
Technical Services labs	321	40	25	0	65
Supply Facilities	400	162	91	0	253
Hospital & other Medical	500	0	72	0	72
Administrative Facilities	600	284	295	0	579
Housing & Community	700	2406	346	10	2762
Utilities & Grounds	800	44	48	0	92
Other					
Totals		4755	2338	22	7114

Project Number: P-712**ACLS Integration Test Facility****\$1,053,000****7,200 SQFT****Award Date: March 94****Estimated Completion: September 1994**

Description: Building will include integration lab, test lab, staging and test area, repair and instrumentation area, parts storage, fire protection system, security alarms, handicapped access, parking and utilities.

Building 185

- (1) FACILITY TYPE/CODE:
Building, Engine Test Cell (Non Depot); Cat Code 211-81:
- (2) WHAT MAKES IT INADEQUATE?
Building 185 was built in 1960 and has required yearly exhaust stack repairs. Aging, deteriorating, and spalling concrete cause serious FOD hazards.
- (3) WHAT USE IS BEING MADE OF THE FACILITY?
Building 185 is used as an Engine Test Cell but maintenance is high due to age/deterioration of facility and unwarranted downtime often occurs.
- (4) WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?
Cost to upgrade this facility would be approximately \$768K.
- (5) WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?
Building 185 is scheduled for demolition as a part of MILCON P-383 "Jet Engine Test Cell" and it is not economical to maintain due to deterioration.
- (6) CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:
MILCON P-383 is an FY94 project estimated to cost \$4,400K. This jet engine test cell came from Subic Bay and is being rebuilt at Patuxent River. The existing test cell is obsolete and unable to withstand the heat and vibration of the new engines.
- (7) HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?
Building 185 is identified on our BASEREP as condition "C3" and will be replaced by MILCON P-383.

Building 841

- (1) FACILITY TYPE/CODE:
Building, Public Works Shop; Category Code 219-10:
- (2) WHAT MAKES IT INADEQUATE?
This building is an 800 SF abandoned pest control facility built in 1943. The building site has been identified under the Environmental Installation Restoration Program for cleanup of existing contamination in both the building and the grounds.
- (3) WHAT USE IS BEING MADE OF THE FACILITY?
None.
- (4) WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?
None planned. Demolition costs could vary depending on final resolution by State and Federal Environmental Agencies concerning precise procedures to be followed for demolition.
- (5) WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?
None due to the contaminated state of building.
- (6) CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:
None planned. Funding for cleanup/demolition will be programmed under DERA in concert with a Federal Facility Agreement.
- (7) HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?
No.

Building 972

- (1) FACILITY TYPE/CODE:
**Building, Unaccompanied Officer, Commanders, and Above;
Cat. Code 724-12:**
- (2) WHAT MAKES IT INADEQUATE?
This building is an 825 SF Bachelor Officers Quarters built in 1944 that due to age and deterioration (walls, floors, and water leaks) is inadequate.
- (3) WHAT USE IS BEING MADE OF THE FACILITY?
Building used for temporary assignment to officers for short periods of time.
- (4) WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?
Cost to upgrade this facility to substandard is approximately \$25K.
- (5) WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?
Cost to upgrade is approximately \$10K to use as storage facility.
- (6) CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:
None.
- (7) HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?
No.

Building 6078

- (1) FACILITY TYPE/CODE:
Building, Community Storage; Cat Code 740-77.
- (2) WHAT MAKES IT INADEQUATE?
Building 6078 is located at the Solomons Annex and was built in 1943 as an Officers Club for the Navy Recreation Center. Due to its age and deteriorated condition it is no longer utilized for its intended purpose.
- (3) WHAT USE IS BEING MADE OF THE FACILITY?
Building is being used for general storage purposes only.
- (4) WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?
Cost to upgrade this facility to a dining room would cost approximately \$350K.
- (5) WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?
Continue to use as general storage.
- (6) CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:
Due to age and deteriorated condition, future plan is to demolish.
- (7) HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?
No.

**Table 2.2 Main Site Class 2 Space of NAWCAD Patuxent River (UIC N00421)
Assigned to Tenants**

TENANT		NAVFAC (P-80) Category Code	GF/BA Assigned (KSF)
Name	UIC		
Naval Air Station, Patuxent River, MD	N0428A	123-15	0
		125-20	1
		131-35	2
		131-40	5
		131-50	3
		133-35	2
		133-72	6
		133-75	2
		137-20	6
		141-25	10
		141-30	1
		141-40	9
		141-70	3
		141-87	2
		143-11	13
		143-20	10
		143-75	0
		143-77	8
		143-78	3
		155-21	9
		156-10	0
		171-10	2
		171-25	5
		211-05	23
		211-06	1
		211-08	24
		211-12	1
		211-21	41
		211-45	31
		211-54	2
		211-75	9
		211-81	9
		211-96	48
		213-58	9
		214-20	22
		214-30	2
		214-40	13
		216-55	2
		216-60	0
		217-10	14
		217-77	1

Naval Air Station, Patuxent River, MD - Cont'd	N0428A	218-50	2
		218-60	36
		218-61	5
		218-65	0
		218-77	1
		218-80	0
		219-10	49
		219-20	2
		219-25	24
		219-77	38
		311-25	7
		319-15	6
		421-12	2
		421-22	7
		421-32	11
		421-35	3
		421-48	12
		421-52	9
		431-10	8
		441-10	113
		441-20	12
		441-30	12
		441-72	12
		610-10	121
		610-77	1
		711-40	18
		711-41	2
		711-42	5
		714-10	0
		714-77	0
		722-10	25
		724-11	0
		724-30	6
		730-10	16
		730-20	19
		730-25	1
		730-45	7
		730-66	3
		730-75	0
		730-76	1
		730-77	0
		730-81	4
		730-82	5
		730-83	5
		730-84	13
		730-85	7
		740-25	10
		740-34	3

Naval Air Station, Patuxent River, MD - Cont'd	N0428A	740-36	20
		740-37	2
		740-38	8
		740-40	11
		740-43	57
		740-53	24
		740-55	4
		740-56	11
		740-60	19
		740-63	2
		740-64	25
		740-74	19
		740-75	4
		740-76	12
		740-77	2
		740-78	12
		740-79	8
		740-80	10
		740-84	2
		740-87	4
		740-88	5
		740-89	5
		811-59	5
		812-09	6
		813-10	2
		821-09	51
		822-09	0
		826-10	0
		831-09	1
		831-41	4
		832-29	1
		833-09	0
		841-09	2
		842-09	10
		843-50	1
		844-10	1
		845-10	0
		890-09	0
		Total:	1,347K

**Table 2.2 Main Site Class 2 Space of NAWCAD Patuxent River (UIC N00421)
Assigned to Tenants**

TENANT		NAVFAC (P-80) Category Code	GF/BA Assigned (KSF)
Name	UIC		
Defense Commissary Agency	DCNE18	740-23	53
Marine Security Force	M52560	143-46	24
Marine Aviation Detachment	MZZ939	610-10	4
		610-77	1
Fleet Air Reconnaissance Squadron Four	N09962	143-47	13
		211-96	5
		441-10	12
		812-09	0
Aviation Board of Inspection and Survey	N30904	610-10	4
NRL Flight Support Detachment	N31686	141-30	1
		311-25	59
		319-15	2
Naval Audit Service	N31863	610-10	1
Special Trials Unit	N32172	143-78	1
		313-10	32
		319-15	10
Branch Dental Clinic	N35751	540-10	7
Navy Exchange	N39229	740-01	47
		740-03	4
		740-05	3
		740-09	7
		740-20	31
		740-30	6
		740-71	1
		740-86	4
		833-40	0
Naval Oceanographic Office	N41499	311-15	1
		319-15	1
Personnel Support Activity Detachment	N42325	610-10	8
Defense Printing Service Detachment Branch Office	N43629	229-50	7
		229-77	2
National Weather Service	N46766	133-72	1
		141-40	1
Naval Reserve Recruitment Com Det V	N47767	610-10	1
Naval Telecommunications Center (Vacant)	N48912	131-15	3
Fleet Composite Squadron Six	N55243	311-10	7
		319-15	2
Air Test & Evaluation Squadron One	N55600	141-30	1
		141-87	1
		141-78	1
		211-03	1

Air Test & Evaluation Squadron One	N55600	211-05	70
		211-06	24
		211-07	19
		211-96	4
		311-25	6
Naval School Explosive Ordnance Disposal	N62640	171-20	2
		171-77	4
Naval Inservice Engineering East St. Inigoes	N65980	311-15	11
Naval Hospital	N66098	143-10	1
		171-20	16
		510-10	56
		510-77	9
Naval Oceanography Command Detachment	N66124	141-40	2
		143-77	0
Bupers Detachment Morale, Welfare & Recreation Training Unit	N66133	171-10	13
		171-20	5
		610-10	13
		610-20	2
		610-77	3
Navy Recreation Center Solomons	N66843	143-78	0
		219-10	7
		219-77	3
		610-10	2
		730-75	6
		740-09	1
		740-13	0
		740-28	2
		740-31	0
		740-77	12
		740-78	3
		740-81	74
		740-87	1
Naval Aviation Depot Operations Center	N68520	171-10	1
		610-10	74
		610-20	11
		610-40	2
		610-77	1
Naval Air Maintenance Office	N68626	610-10	58
		610-20	2
		610-77	2
Naval Aviation Depot Operations Center Solomons	N68778	143-77	1
		143-78	1
		218-19	1
		218-90	22
Naval Surface Weapons Center Solomons	NX1427	317-20	4
Defense Investigative Service	NX1430	610-10	0
Cedar Point Federal Credit Union	NX1433	740-19	4

Defense Finance Accounting Service	NX1450	610-10	4
Defense Reutilization and Marketing Office	NX1537	441-10	11
		831-42	2
Naval Investigative Service Regional Office	NZZ212	610-10	3
Naval Air Warfare Center Aircraft Division, Lakehurst (Solomons)	N68335	211-64	5
		218-60	15
		610-10	2
Webster Field	N65980	217-77	11.670
		310-27	2.507
		313-25	3.584
		317-10	12.532
		317-20	12.262
		317-25	55.403
		319-15	7.146
		319-35	.116
		321-10	.602
		610-10	18.778
		Total:	1091.60

**Table 2.3 Class 2 Space Utilized/Leased by Patuxent River Complex
(UIC Multiple)**

Building type	NAVFAC (P-80) category code	GF/BA (KSF)			
		Adequate	Sub-standard	Inadequate	Total
Operational & Training	100	N/A	N/A	N/A	N/A
Maintenance & Production ¹	200	62.2	N/A	N/A	62.2
Science labs	310	N/A	N/A	N/A	N/A
Aircraft labs	311	N/A	N/A	N/A	N/A
Missile and Space labs	312	N/A	N/A	N/A	N/A
Ship and Marine labs	313	N/A	N/A	N/A	N/A
Ground Transportation labs	314	N/A	N/A	N/A	N/A
Weapon and Weapon Systems labs	315	N/A	N/A	N/A	N/A
Ammunition, Explosives, and Toxics labs	316	N/A	N/A	N/A	N/A
Electrical Equip. labs	317	N/A	N/A	N/A	N/A
Propulsion labs	318	N/A	N/A	N/A	N/A
Miscellaneous labs	319	N/A	N/A	N/A	N/A
Underwater Equip. labs	320	N/A	N/A	N/A	N/A
Technical Services labs	321	N/A	N/A	N/A	N/A
Supply Facilities	400	N/A	N/A	N/A	N/A
Hospital & other Medical	500	N/A	N/A	N/A	N/A
Administrative Facilities	600	N/A	N/A	N/A	N/A
Housing & Community ²	700	5.4	N/A	N/A	5.4
Utilities & Grounds	800	N/A	N/A	N/A	N/A
Other					
Totals		67.6	N/A	N/A	67.6

Notes:

1. Webster Field 62,200 SF; UIC N65980; Lease \$495K/yr rent

2. Patuxent River leased apartments:

The Hampton Apts. 2,580 SF; UIC N00421; Lease \$26,424/yr rent
Arlington, VA

Bella Vista Apt. 780 SF; UIC N00421; Lease \$17,820/yr rent
Arlington, VA

Crystal Quarters 780 SF; UIC N00421; Lease \$17,940/yr rent
Arlington, VA

Spyglass Apt. 1,290 SF; UIC N00421; Lease \$15,480/yr rent
Lexington Park, MD 5,430 SF

For your Detachment sites not receiving this Data Call directly:

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

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

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

Table 2.4 Class 2 Assets of NAWCAD, Patuxent River Occupied by Detachments

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

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

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

**Table 2.5 Class 2 Space at Detachment Sites of NAWCAD Patuxent River
(UIC N00421)
Assigned to Tenants**

TENANT		NAVFAC (P-80) Category Code	GF/BA (KSF) Assigned
Name	UIC		
None	N/A	N/A	N/A
		Total:	N/A

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Table 2.6 Class 2 Space Utilized/Leased by Detachments of Patuxent River Complex (UIC N00421)

Building type	NAVFAC (P-80) category code	GF/BA (KSF)			
		Adequate	Sub-standard	Inadequate	Total
Operational & Training	100				
Maintenance & Production	200				
Science labs	310	48.1			48.1
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	16.0			16.0
Underwater Equip. labs	320				
Technical Services labs	321	6.0			6.0
Supply Facilities	400				
Hospital & other Medical	500				
Administrative Facilities	600				
Housing & Community	700				
Utilities & Grounds	800				
Other					
Totals		70.1			70.1

NAVAIRWARCENACDIV Warminster, PA

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

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

0 SQFT.

When the NISE EAST Detachment at Webster Field moves (estimated to begin in FY97/FY98) to Charleston they will vacate approximately 122.713K SQFT. Of this vacated space, 24.269K SQFT is recommended to be demolished. Another 27.413K SQFT are located within existing facilities which may not be available for relocation or expansion. To renovate this existing space upon NISE EAST departure, it will cost approximately \$2.3M. The remaining space which could be used for expansion is 46.762K SQFT within Building 185. Some renovations to this facility would be necessary and would cost approximately \$701K.

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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.

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.

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

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

0 SQFT.

When the NISE EAST Detachment at Webster Field moves (estimated to begin in FY97/FY98) to Charleston they will vacate approximately 22.713 SQFT. Of this vacated space, 24.269 SQFT is recommended to be demolished. Another 27.413 SQFT are located within existing facilities which may not be available for relocation or expansion. To renovate this existing space upon NISE EAST departure, it will cost approximately \$2.3M. The remaining space which could be used for expansion is 46.762 SQFT within Building 185. Some renovations to this facility would be necessary and would cost approximately \$701K.

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.

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.

UIC: N00421

Limit new buildings to three stories. Add numbered notes to highlight and explain additional opportunities that would require remediation or waiver of a land use constraint as part of the expansion. Provide lettered notes to clearly identify each opportunity with the title & UIC of the site it refers to. Do not include space that has been reported in Table 3.1.

Table 3.2 Unconstrained Class 2 Space Available for Expansion at Patuxent River Complex (UIC Multiple)

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		
P-724/317*	0	16.800	40	15	0
P-727/317*	0	14.074	102	15	0
P-727/610	0	9.600	N/A	N/A	0
P-727/217	0	3.704	N/A	N/A	0
P-727/218	0	1.481	N/A	N/A	0
Totals	0	45.659	142	N/A	0

*Primary category code.

Applies to Webster Field

Note:

P-724 - AEGIS Backfit Test Center

P-727 - Special Operation Forces Communications-Electronics Operations Laboratory

Revised pg

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?

The only legal restrictions that exist are those required by the State of Maryland concerning development near the Chesapeake Bay, tidal and non-tidal wetlands. In most cases, mitigation on a two for one basis can occur if the mission need clearly documents a required location at the base. No other legal restrictions exist. Parking, utilities and roads were considered in the developed area, therefore, no additional constraints for these items exist. There are four utilities easement agreements with the station and the local utility supplier. These easements are for electrical service, gas service, limited water service and sewer service. Relocation of the utility lines under these easements has occurred in the recent past. R

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

Radio frequencies are coordinated for Patuxent River Complex to promote effective electromagnetic spectrum use and minimize harmful interference for the area commands and activities. This service is provided by the Mid-Atlantic Area Frequency Management Office (MID-LANT AFC), an officially authorized, formal frequency management office based at Patuxent River. The MID-LANT AFC is authorized by the National Telecommunications & Information Administration to permit use of almost any frequency for RDT&E. This office is also responsible for coordinating all USN electronic warfare activity, and is designated the National Telemetry Coordinator in the frequency band 1435-1535 MHz for the area. In addition, the MID-LANT AFC has amassed a "pool" of critical frequencies (HF/VHF/UHF comm, telemetry, etc.) for short term usage, quick reaction requirements or easy future expansion in crowded bands. Also, the Patuxent River Complex is serviced by a secure land-mobile trunking system, which provides the capability for near-unlimited short or long term expansion for the popular land-mobile communications functions. Given enough time for coordination, no constraints are expected.

NAWCW Change
 dms NAWC-21
 9/19/94

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?

The only legal restrictions that exist are those required by the State of Maryland concerning development near the Chesapeake Bay, tidal and non-tidal wetlands. In most cases, mitigation on a two for one basis can occur if the mission need clearly documents a required location at the base. No other legal restrictions exist. Parking, utilities and roads were considered in the developed area, therefore, no additional constraints for these items exist. There are three utilities easement agreements with the station and the local utility supplier. These easements are for electrical service, gas service and sewer service. Relocation of the utility lines under these easements has occurred in the recent past.

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

Radio frequencies are coordinated for Patuxent River Complex to promote effective electromagnetic spectrum use and minimize harmful interference for the area commands and activities. This service is provided by the Mid-Atlantic Area Frequency Management Office (MID-LANT AFC), an officially authorized, formal frequency management office based at Patuxent River. The MID-LANT AFC is authorized by the National Telecommunications & Information Administration to permit use of almost any frequency for RDT&E. This office is also responsible for coordinating all USN electronic warfare activity, and is designated the National Telemetry Coordinator in the frequency band 1435-1535 MHz for the area. In addition, the MID-LANT AFC has amassed a "pool" of critical frequencies (HF/VHF/UHF comm, telemetry, etc.) for short term usage, quick reaction requirements or easy future expansion in crowded bands. Also, the Patuxent River Complex is serviced by a secure land-mobile trunking system, which provides the capability for near-unlimited short or long term expansion for the popular land-mobile communications functions. Given enough time for coordination, no constraints are expected.

NAWCAD PAX RIVER MAIN SITE ACREAGE 6,379

Developed Acreage - There are approximately 6,379 acres of Class 1 assets at the Main Complex. This includes approximately 1,791 acres of Runways, Taxiways, Aircraft Parking Aprons and Clear Zones. The other 2,324 acres are occupied by buildings, structures, utilities, and improved grounds such as landscaped areas.

Available for Development - There are approximately 2,054 Restricted acres of undeveloped land at the Main Complex. This undeveloped land area is the total of the Maintenance, Operational, R&D, Supply & Storage, Administration, Housing, Recreational, and Navy Agricultural Outlease Program. There are approximately 100 acres of Golf Course area that is exclusive from any constraints except for the limitation of Utilities and Infrastructure. The totals above exclude the 135 Acres use for development as a result of the BRAC 91 and BRAC 93 decisions.

**Class 1 Resources of NAWCAD (UIC: N00421)
Site Location: Patuxent River, Maryland**

Land Use	Total Acres	Developed Acreage	Available for Development	
			Restricted	Unrestricted
Maintenance	59	48	11	0
Operational	1,841	1,791	50	0
Training	0 ²	0 ²	0 ²	0
R & D	583	165	418	0
Supply & Storage	245	38	208	
Admin	134	36	98	0
Housing	701	218	483	0
Recreational	421	0 ³	421	0
Navy Forestry Program	2,847 ⁴	0	2,847 ⁴	0
Navy Agricultural Outlease Program	500	0	500	0
Hunting/Fishing Programs	3,108	0	3,108	0
Other (Open/Wooded)	2,194	28	2,167	100
Total:	0¹	0¹	0¹	0¹

¹The areas above are non additive as the totals would exceed the acreage of the Main Complex since the areas as reflected overlap because of the different criteria outlined to establish each one.

²Training Area is included in R&D (Test Pilot School). Unable to separate the acreage.

³Buildings and Structures associated with Morale, Welfare and Recreation are included in the Housing Area. This total includes areas such as beaches, campgrounds, picnic areas, ball fields, etc.

⁴Forestry Areas and Hunting/Fishing Areas are included in the totals shown for the other areas.

Constraint Information

824 Acres are encumbered by Explosive Safe Quantity Distances (ESQD). Some of the undeveloped areas are located at the Main Magazine Complex and the two Arming/Dearming Pads along with 11 other areas that have various small distances next to ready service magazines.

27 Acres are encumbered by Hazards of Electromagnetic Radiation to Fuel (HERF). There are approximately 15 sites located throughout the Main Complex with the largest being 3 acres.

371 Acres are encumbered by Hazards of Electromagnetic Radiation to Personnel (HERP). There are approximately 12 sites located throughout the complex with the largest covering approximately 311 acres at the Chesapeake Test Range. The remaining 11 sites are located throughout the base both on developed areas and areas available for development.

Hazards of Electromagnetic Radiation to Ordnance (HERO)

Hero Arcs and Constraints are defined to provide guidance for Ordnance circulation routes, defining safe handling areas, and for site locations of Ordnance Storage Facilities.

603 Acres of Patuxent River are identified as (HERO Susceptible). There are 9 different transmitter sites that transmit at High Frequencies that are above the maximum safe level for HERO unsafe ordnance. There are current safety procedures in place which silence the particular transmitters during movements of ordnance.

Unsafe Ordnance is defined as unsafe when its internal wiring is exposed or an additional electrical connection to the ordnance will be made or when the item is being assembled or disassembled.

Air Installation Compatible Use Zones (AICUZ)

196 Acres of Taxiway and Aircraft Parking Aprons Lateral clearance zones areas exist and these areas require management based on the mission being supported but are not excluded from development.

Accident Potential Zones exist due to the Flying Mission and the number of aircraft operations being performed. These zones are used to ensure that minimal risk are accepted during the siting of new mission supported facilities or operations.

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.

UIC: N00421

There is a very limited capacity of existing utilities that pass through the unrestricted area that could support additional development. A two lane perimeter road passes around Patuxent River which could be used to support expansion efforts.

**Class 1 Resources of Naval Recreational Center (UIC: N0428A)
Site Location: Solomons Annex**

Land Use	Total Acres	Developed Acreage	Available for Development	
			Restricted	Unrestricted
Maintenance	0	0	0	0
Operational	59	14	0	46
Training	0	0	0	0
R & D	20	2	0	18
Supply & Storage	24	1	0	23
Admin	3	1	0	2
Housing	41	40	0	1
Recreational	148	0 ¹	0	148
Navy Forestry Program	0	0	0	0
Navy Agricultural Outlease Program	0	0	0	0
Hunting/Fishing Programs	0	0	0	0
Other (Open/Wooded)	0	0	0	0
Total:	295	58	0	238

1 Buildings and Structures associated with Morale, Welfare and Recreation are included in the Housing Area. This total includes areas such as beaches, campgrounds, picnic areas, ball fields, etc.

NAWCAD SOLOMONS MAIN SITE ACREAGE 295

Developed Acreage - There are approximately 295 acres of Class 1 assets at the Solomons Complex. The 56 acres that are developed are occupied by building, structures, utilities, and improved ground such as landscaped areas and golf driving ranges.

Available for Development - There are approximately 238 unrestricted acres of undeveloped land at the Solomons Complex. This undeveloped land area is the total of the Operational, R&D, Supply & Storage, Administration, Housing and Recreational.

d. Of the total Unrestricted Acres reported above, how much of it has existing roads and/or utilities that could support expansion efforts? 238 Acres. Explain.

Existing two lane roads and limited utilities exist throughout the unrestricted areas; therefore, additional expansion is possible depending upon the requirement.

**Class 1 Resources of Patuxent River Complex (UIC: N65980)
Site Location: Webster Field**

Land Use	Total Acres	Developed Acreage	Available for Development	
			Restricted	Unrestricted
Maintenance	0	0	0	0
Operational	350.0 ¹	100.0	174.4 ²	75.6
Training	0	0	0	0
R & D	0	0	0	0
Supply & Storage	0	0	0	0
Admin	90.0 ¹	90.0	0	0
Housing	0	0	0	0
Recreational (Tennis Courts, Football Area, Softball Field, Driving Range)	6.1	0	0	6.1
Navy Forestry Program	182.6 ¹	0	34.6 ³	148.0
Navy Agricultural Outlease Program	110.0	0	83.1 ³	26.9
Hunting/Fishing Programs	113.8 ¹	0	33.4 ³	80.4
Other (Open/Wooded)	0	0	0	0
Total:	852.5	190.0	325.6	337.0

¹This site has 121.96 acres of jurisdictional wetlands, and approximately 36 acres which fall within the 100 ft. shoreline buffer mandated by the Chesapeake Bay Critical Land area Initiative. These restricted areas are interspersed across several land use categories, and some of the land use areas overlap.

²Operationally constrained because of runway clear zone requirements.

³Restricted due to wetland classification.

d. Of the total Unrestricted Acres reported above, how much of it has existing roads and/or utilities that could support expansion efforts? 120 Acres. Explain.

Existing roads and utilities generally follow the perimeter of this site along the shoreline. New development would require that roads and utilities be extended inland.

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
for Patuxent River Complex**

	On Base Capacity	Off base long term contract	Normal Steady State Load	Peak Demand
Electrical Supply (KWH)	52,575	N/A	18,592	26,644
Natural Gas (CFH)	400,000	N/A	80,000	175,000
Sewage (GPD)	45,000	1,200,000	677,033	856,600
Potable Water (GPD)	6,212,000	N/A	954,878	1,218,000
Steam (PSI & lbm/Hr)	N/A	N/A	N/A	N/A
Long Term Parking	318,060	0	263,989	263,989
Short Term Parking	13,207	0	10,962	10,962
HTHW (400 PSI & MBH)	195,000	N/A	65,000	125,000

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According to Southern Maryland Electrical Co-op (SMECO) Patuxent River has the capacity to grow 230 percent from its current peak load demand identified in the table above. This additional capability is for the base only and is not affected by growth into other portions of the region.

NOTES:

The following projects will affect utility capacity and loads.

1. BRAC 91 projects are awarded and will add:
 - a. 20,000 Kilovolt Amperes (KVA) of electrical capacity and 12,000 KVA of electrical peak load.
 - b. 2 new water wells with a capacity of 864,000 Gallons Per Day (GPD) and additional potable water usage of 170,000 GPD.
 - c. 31,000 Cubic Feet per Hour (CFH) of natural gas peak load.
 - d. 123,000 gallons of sewage peak load.
 - e. Add 61,470 Sq. Yds. of long term and 6,000 Sq. Yds. of short term parking

2. BRAC 93 projects will be awarded in FY95 and will add:
 - a. 40,000 KVA of electrical capacity and 16,000 KVA of electrical peak load.
 - b. Additional potable water peak usage of 127,000 GPD.
 - c. 9,071 CFH of natural gas peak load.

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
for Patuxent River Complex**

	On Base Capacity	Off base long term contract	Normal Steady State Load	Peak Demand
Electrical Supply (KWH)	52,575	N/A	18,592	26,644
Natural Gas (CFH)	400,000	N/A	80,000	175,000
Sewage (GPD)	45,000	1,200,000	677,033	856,600
Potable Water (GPD)	6,212,000	N/A	954,878	1,218,000
Steam (PSI & lbm/Hr)	N/A	N/A	N/A	N/A
Long Term Parking	318,060	0	317,895	323,929
Short Term Parking	13,207	0	13,207	14,423
HTHW (400 PSI & MBH)	195,000	N/A	65,000	125,000

According to Southern Maryland Electrical Co-op (SMECO) Patuxent River has the capacity to grow 230 percent from its current peak load demand identified in the table above. This additional capability is for the base only and is not affected by growth into other portions of the region.

NOTES:

The following projects will affect utility capacity and loads.

1. BRAC 91 projects are awarded and will add:
 - a. 20,000 Kilovolt Amperes (KVA) of electrical capacity and 12,000 KVA of electrical peak load.
 - b. 2 new water wells with a capacity of 864,000 Gallons Per Day (GPD) and additional potable water usage of 170,000 GPD.
 - c. 31,000 Cubic Feet per Hour (CFH) of natural gas peak load.
 - d. 123,000 gallons of sewage peak load.
 - e. Add 61,470 Sq. Yds. of long term and 6,000 Sq. Yds. of short term parking
2. BRAC 93 projects will be awarded in FY95 and will add:
 - a. 40,000 KVA of electrical capacity and 16,000 KVA of electrical peak load.
 - b. Additional potable water peak usage of 127,000 GPD.
 - c. 9,071 CFH of natural gas peak load.

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- d. 92,000 gallons of sewage peak load.
- e. Add 69,389 Sq. Yds. long term and 8,090 Sq. Yds. of short term parking.

3. Project R29-93, Repair Water Well 5-B and various minor repair projects will provide increases in water well capacity and reliability will improve by repairing/replacing 1943 vintage water wells.

4. Project P-505, Sewage Flow Equalization Basin will provide METCOMM (our sewage municipality) with a means to equalize Patuxent River flowrates and reduce the affects of peak flows.

5. The State of Maryland will allow increased sewage capacity to 60,000 GPD when the NPDS permit is re-issued for Webster Field.

b. Maintenance, Repair & Equipment Expenditure Data: Use Table 5.2 below to provide data on facilities and equipment expenditures at your activity. Project expenditures to FY 1997. Do not include data on Detachments who have received this Data Call directly. Do not report this information if you are a tenant activity. The following definitions apply:

Maintenance of Real Property (MRP) Dollars: MRP is a budgetary term used to gather the expenses or budget requirements for facility work including recurring maintenance, major repairs & minor construction (non-MILCON) inclusive of all Major Claimant funded Special Projects. It is the amount of funds spent on or budgeted for maintenance and repair of real property assets to maintain the facility in satisfactory operating condition. For purposes of this Data Call MRP includes all M1/R1 and M2/R2 expenditures.

Revised pg

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 Patuxent River Complex (UIC: Multiple)

Fiscal Year	MRP (\$M)	CPV (\$M)	ACE (\$M)
1985	10.822	1491.592	84.10
1986	10.184	1470.917	119.50
1987	10.231	1509.636	126.60
1988	13.771	1518.698	142.10
1989	15.369	1538.078	140.80
1990	22.422	1562.189	144.80
1991	17.612	1578.253	154.60
1992	48.824	1582.141	161.60
1993	47.809	1604.880	161.30
1994	46.350	1609.683	157.40
1995	46.195	1622.052	147.70
1996	49.963	1702.285	199.20
1997	52.603	1776.785	202.80

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Projected CPV Increases due to BRAC related construction.
FY95 \$18.719M
FY96 \$75.983M
FY97 \$70M

It should be noted these figures are understated due to not being able to include such items as computer operating software and many specialized project support software. Additionally, specialized flight instrumentation pool test equipment and aircraft ground support equipment note in the Intermediate Maintenance Requirements Listing (IMRL) are not identified in the above figures. These items are estimated to be worth over \$400M.

NOTE: The 1992 increase was the result of a Congressional appropriation on Real Property Maintenance Defense Account which allowed Patuxent River to execute approximately a \$20M program on barracks repairs and other infrastructure that was on the Chief of Naval Operations high priority list for shore installations. The 1993 numbers are the result of follow on repairs to other facilities through centrally managed Environmental and Major Range Test Facility Base funds. The 1994 through 1997 figures are projected expenditures based on the consolidations due to BRAC 91 decisions.

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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 Patuxent River Complex (UIC: Multiple)

Fiscal Year	MRP (\$M)	CPV (\$M)	ACE (\$M)
1985	10.822	1491.592	84.10
1986	10.184	1470.917	119.50
1987	10.231	1509.636	126.60
1988	13.771	1518.698	142.10
1989	15.369	1538.078	140.80
1990	22.422	1562.189	144.80
1991	17.612	1578.253	154.60
1992	48.824	1582.141	161.60
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Projected CPV Increases due to BRAC related construction.
FY95 \$18.719M
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It should be noted these figures are understated due to not being able to include such items as computer operating software and many specialized project support software. Additionally, specialized flight instrumentation pool test equipment and aircraft ground support equipment note in the Intermediate Maintenance Requirements Listing (IMRL) are not identified in the above figures. These items are estimated to be worth over \$400M.

NOTE: The 1992 increase was the result of a Congressional appropriation on Real Property Maintenance Defense Account which allowed Patuxent River to execute approximately a \$20M program on barracks repairs and other infrastructure that was on the Chief of Naval Operations high priority list for shore installations. The 1993 numbers are the result of follow on repairs to other facilities through centrally managed Environmental and Major Range Test Facility Base funds. The 1994 through 1997 figures are projected expenditures based on the consolidations due to BRAC 91 decisions.

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
Academic Instruction Classroom 171-10	U.S. Naval Test Pilot School	Flight Test Engineering	72	1,200	86,400	68	1,200	81,600
Academic Instruction Classroom 171-10	Employee Development Center	General	17,817	8	142,536	37,000	8	296,000
Family Service Center	Family Service Center	General	4,450	313.5	17,340	6,365	35.5	31,671
Classroom - Lab 171-20	ATC	Radio Operator	102	128	13,056	120	128	15,360
Classroom - Lab 171-20	AN/UPX-29 US	AN/UPX-29 Maintenance	19	160	3,040	36	160	5,760
Classroom - Lab 171-20	AN/UPX-29 FMS	AN/UPX-29 Maintenance	4	400	1,600	4	400	1,600
Academic Instruction Classroom 171-10	LST	Leadership Skills	520	40	20,800	520	40	20,800
Academic Instruction Classroom 171-10	PO/CPO Indoctrination	Indoctrination	68	44	1,496	68	44	1,496
General Purpose 171-25	Crow's Nest	Various	1,456	40	58,240	2,184	40	87,360
Counseling Center	Counseling Center	General	910	182	30,449	1,138	182	38,081
Academic Instruction Classroom 171-10	MWRTU	General	43,875	8	351,000	48,750	8	390,000
Naval Hospital 171-20	Aviation Physiology Training Unit	Physiology Training	1,444	7	10,108	1,500	7	10,500

Naval School for Explosive Ordnance Disposal (Solomons) 171-77	Training Material Storage	Explosive/ Diving	150	3	450	150	3	450
Naval School for Explosive Ordnance Disposal (Solomons) 171-20	Applied Instruction Building	Explosive/ Diving	150	11	1,650	150	11	1,650

A = STUDENTS PER YEAR

B = NUMBER OF HOURS EACH STUDENT SPENDS IN THIS TRAINING FACILITY FOR THE TYPE OF TRAINING RECEIVED

C = A x B

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UIC: N00421

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

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

Type Training Facility/CCN	Total Number	Design Capacity (PN) ¹	Capacity (Student HRS/YR)
Academic Instruction Classroom/171-10 - TPS	5	150	300,000
Academic Instruction Classroom/171-10 - EDC	17	323	1,292,000
Family Service Center	2	50	100,000
ATC Classroom - Lab/171-20 - Webster Field	1	24	23,040
AN/UPX-29 US Classroom - Lab/171-20 - Webster Field	1	6	5,760
AN/UPX-29 FMS Classroom - Lab/171-20 - Webster Field	2	6	4,800
AN/UPM-155 Tri Service Classroom - Lab/171-20 - Webster Field	3	7	840
AN/UPM-155 Navy - Air Force Classroom - Lab/171-20 - Webster Field	1	7	280
Leadership Skills Training School	1	21	42,000
General Purpose - Crow's Nest 171-25	1	100	200,000
General Purpose - Counseling Center	1	40	80,000
Academic Instruction Classroom 171-10 - MWRTU	5	215	860,000
Naval Hospital/171-20	2	36	72,000
NAVSCOLEOD/171-77 - Solomons	1	25	21,000
NAVSCOLEOD/171-20 - Solomons	5	125	105,000

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.

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

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

Type Training Facility/CCN	Total Number	Design Capacity (PN) ¹	Capacity (Student HRS/YR)
Academic Instruction Classroom/171-10 - TPS	5	150	300,000
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ATC Classroom - Lab/171-20 - Webster Field	1	24	23,040
AN/UPX-29 US Classroom - Lab/171-20 - Webster Field	6	6	5,760
AN/UPX-29 FMS Classroom - Lab/171-20 - Webster Field	2	6	4,800
AN/UPM-155 Tri Service Classroom - Lab/171-20 - Webster Field	3	7	840
AN/UPM-155 Navy - Air Force Classroom - Lab/171-20 - Webster Field	1	7	280
Leadership Skills Training School	1	21	42,000
General Purpose - Crow's Nest 171-25	1	100	200,000
General Purpose - Counseling Center	1	40	80,000
Academic Instruction Classroom 171-10 - MWRTU	5	195	780,000
Naval Hospital/171-20	2	36	72,000
NAVSCOLEOD/171-77 - Solomons	1	25	21,000
NAVSCOLEOD/171-20 - Solomons	5	125	105,000

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.

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

Test Pilot School - capacity derived by summing the individual classroom capacities (40, 40, 25, 25, and 20) and multiplying by the number of weekday hrs (minus holidays) that there are in a year (2,000).

**Employee Development Center - 17 rooms X 19 students = 323
323 Students X 16 hrs per day = 5,168 hrs per day
5,168 hrs per day X 250 days used a year = 1,292,000**

**Family Service Center - 2 rooms X 25 students = 50
50 students X 8 hrs per day = 400 hrs per day
400 hrs per day X 250 days used a year = 100,000**

**ATC example - 8 classes per year X 15 days per class = 120 days per year
120 days per year X 8 hrs per day X 24 students = 23,040**

**AN/UPX-29 US - 6 classes per year X 20 days per class = 120 days per year
120 days per year X 8 hrs per day X 6 students = 5,760**

**AN/UPX-29 FMS - 2 classes per year X 50 days per class = 100 days per year
100 days per year X 8 hrs per day X 6 students = 4,800**

**AN/UPM-155 Tri Service - 3 classes per year X 5 days per class = 15 days per year
15 days per year X 8 hrs per day X 7 students = 840**

**AN/UPM-155 Navy/Air Force - 1 class per year X 5 days per class = 5 days per year
5 days per year X 8 hrs per day X 7 students = 280**

**Leadership Skills Training - 1 room X 21 students = 21
21 students X 8 hrs per day = 168 hrs per day
168 hrs per day X 250 days used a year = 42,000**

**Crow's Nest - 1 room X 100 students = 100
100 students X 8 hrs per day = 800 hrs per day
800 hrs per day X 250 days used a year = 200,000**

**Counseling Center - 2 rooms X 20 students = 40
40 students X 8 hrs per day = 320 hrs per day
320 hrs per day X 250 days used a year = 80,000**

**MWRTU - 5 rooms X 39 students = 195
195 students X 16 hrs per day = 3,120 hrs per day
3,120 hrs per day X 250 days used a year = 780,000**

**Naval Hospital - 2 rooms X 18 students = 36
36 students X 8 hrs per day = 288 hrs per day**

288 hrs per day x 250 days used a year = 72,000

NAVSCOLEOD (171-77) - 6 classes X 10 days = 60 class days

Class operates 14 hours per day.

14 hrs per day X 60 days per year X 25 students = 21,000

Class availability can be increased.

NAVSCOLEOD (171-20) - 6 classes X 10 days = 60 class days

Class operates 14 hours per day.

14 hrs per day X 60 days per year X 125 students - 105,000

Class availability can be increased.

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

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

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.

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.

UIC: N00421

TAB A

SHIP BERTHING CAPACITY

Note: Question numbers in []'s are for internal BSAT purposes.

SOLOMONS ANNEX

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UIC: N00421

SHIP BERTHING CAPACITY

1. [11.] For each Pier/Wharf at your facility list the following structural characteristics. Indicate the additional controls required if the pier is inside a Controlled Industrial Area or High Security Area. Provide the average number of days per year over the last eight years that the pier was out of service (OOS) because of maintenance, including dredging of the associated slip:

Table 11.1

Pier/Wharf & Age ¹	CCN ²	Moor Length (ft)	Design Dredge Depth ³ (ft) (MLLW)	Slip Width ⁴ (ft)	Pier Width (ft) ⁵	CIA/Security Area? (Y/N) ⁶	ESQD Limit ⁷	# Days OOS for maint.
Pier 360/1943	151-20	722'	22'	N/A	32'	Y	0	10
Pier 389/1945	151-20	74'	9'	16'	8' 6"	Y	0	5
Pier 390/1945	151-20	74'	9'	16'	8'	Y	0	5
Pier 391/1945	151-20	76'	9'	16'	8'	Y	0	5

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¹Original age and footnote a list of MILCON improvements in the past 10 years.

²Use NAVFAC P-80 for category code number.

³Comment if unable to maintain design dredge depth

⁴Water distance between adjacent finger piers.

⁵Indicate if RO/RO and/or Aircraft access.

The piers were not designed for roll on/roll off (RO/RO) or operations involving aircraft access. However, piers are available on the Naval Air Station to support loading operations of tactical size aircraft.

⁶Describe the additional controls for the pier.

The piers are located in a controlled area that has a twenty-four hour security force with a gate guard and a roving patrol. The industrial area also has an inner security fence that requires key access after normal

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SHIP BERTHING CAPACITY

1. [11.] For each Pier/Wharf at your facility list the following structural characteristics. Indicate the additional controls required if the pier is inside a Controlled Industrial Area or High Security Area. Provide the average number of days per year over the last eight years that the pier was out of service (OOS) because of maintenance, including dredging of the associated slip:

Table 11.1

Pier/Wharf & Age ¹	CCN ²	Moor Length (ft)	Design Dredge Depth ³ (ft) (MLLW)	Slip Width ⁴ (ft)	Pier Width (ft) ⁵	CIA/Security Area? (Y/N) ⁶	ESQD Limit ⁷	# Days OOS for maint.
33/48	151-20	75'	7' 6"	57'	34' 2"	Y	0	14
34/48	151-20	75'	7' 6"	12'	34' 2"	Y	0	14
35/15	151-20	50'	7' 6"	20'	4'	Y	0	14
36/15	151-20	50'	7' 6"	20'	4'	Y	0	14
37/15	151-20	50'	7' 6"	20'	4'	Y	0	14
Boat-house 107/51	151-20	60'	7' 6"	20'	5'	Y	0	14
Boat-house 107/51	151-20	60'	7' 6"	20'	5'	Y	0	14
Boat-house 107/51	151-20	60'	7' 6"	30'	5'	Y	0	14
Davits/ 1	151-20	36'	7' 6"	12'	6'	Y	0	14
32/48	151-20	75'	7' 6"	57'	4'	Y	0	14
Seawall 76/51	151-20	500'	7' 6"	100'	25'	N	0	14
Stbd Synchro Pier 72/22	151-20	104' 9"	7' 6"	20'	91'	Y	0	14
Port Synchro 72/22	151-20	104' 9"	7' 6"	20'	91'	Y	0	14

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¹Original age and footnote a list of MILCON improvements in the past 10 years.

²Use NAVFAC P-80 for category code number.

³Comment if unable to maintain design dredge depth

⁴Water distance between adjacent finger piers.

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SHIP BERTHING CAPACITY

1. [11.] For each Pier/Wharf at your facility list the following structural characteristics. Indicate the additional controls required if the pier is inside a Controlled Industrial Area or High Security Area. Provide the average number of days per year over the last eight years that the pier was out of service (OOS) because of maintenance, including dredging of the associated slip:

Table 11.1

Pier/Wharf & Age ¹	CCN ²	Moor Length (ft)	Design Dredge Depth ³ (ft) (MLLW)	Slip Width ⁴ (ft)	Pier Width (ft) ⁵	CIA/Security Area? (Y/N) ⁶	ESQD Limit ⁷	# Days OOS for maint.
Pier 360/1951	151-20	700'	22'	N/A	32'	Y	0	10
Pier 389/1949	151-20	74'	9'	16'	8' 6"	Y	0	5
Pier 390/1949	151-20	74'	9'	16'	8' 6"	Y	0	5
Pier 391/1949	151-20	74'	9'	16'	8' 6"	Y	0	5

¹Original age and footnote a list of MILCON improvements in the past 10 years.

²Use NAVFAC P-80 for category code number.

³Comment if unable to maintain design dredge depth

⁴Water distance between adjacent finger piers.

⁵Indicate if RO/RO and/or Aircraft access.

The piers were not designed for roll on/roll off (RO/RO) or operations involving aircraft access. However, piers are available on the Naval Air Station to support loading operations of tactical size aircraft.

⁶Describe the additional controls for the pier.

The piers are located in a controlled area that has a twenty-four hour security force with a gate guard and a roving patrol. The industrial area also has an inner security fence that requires key access after normal

duty hours. For projects requiring a higher level of security, past arrangements have included the establishment of a security checkpoint at the head of the pier and project personnel badging in the administrative office spaces.

Net explosive weight. List all ESQD waivers that are in effect with expiration date.

At the present time, the piers are not approved for explosive handling operations. However, depending on project requirements waivers to conduct operations can be obtained on a case by case basis.

2. [12.] For each Pier/Wharf at your facility list the following ship support characteristics:

Table 12.1

Pier/Wharf	OPNAV 3000.8 (Y/N)	Shore Pwr (KVA) & 4160V (KVA)	Comp. Air Press. & Capacity ¹	Potable Water (GPD)	CHT (GPD)	Oily Waste ¹ (gpd)	Steam (lbm/hr & PSI) ²	Fendering limits ³
360	Y	225 KVA(480) 150 KVA(208)	None	6" Fire 4" Potable Water	None	None	None	4'
389	Y	54 KVA(208)	None	Frost Free Hydrant	None	None	None	8"
390	Y	6 KVA(240)	None	Frost Free Hydrant	None	None	None	8"
391	Y	26 KVA(240)	None	Frost Free Hydrant	None	None	None	8"

¹List only permanently installed facilities.

²indicate if the steam is certified steam.

³Describe any permanent fendering arrangement limits on ship berthing.

Pier 360 is capable of accommodating CHT operations by utilization of CHT barge with support from waste disposal trucks.

3.[13.] For each pier/wharf listed above state today's normal loading, the maximum capacity for berthing, maximum capacity for weapons handling evolutions, and maximum capacity to conduct intermediate maintenance.

Table 13.1

Pier/Wharf	Typical Steady State Loading ¹	Ship Berthing Capacity	Ordnance Handling Pier Capacity ²	IMA Maintenance Pier Capacity ³
Pier 360	See Note 1	500'	See Note 2	See Note 3
Pier 389	See Note 1	40'	See Note 2	See Note 3
Pier 390	See Note 1	40'	See Note 2	See Note 3
Pier 391	See Note 1	40'	See Note 2	See Note 3

¹ Typical pier loading by ship class with current facility ship loading.

² WMEC medium endurance cutters, 1 ATF class fleet ocean tug, 1 Tarantul Class R&D support ship.

Pier 360 is capable of accommodating six WMEC/ATF class ships or two DD class and two WMEC class ships simultaneously. The pier has also supported the berthing of a decommissioned submarine for a test and evaluation project.

² List the maximum number of ships that can be moored to conduct ordnance handling evolutions at each pier/berth without berth shifts. Consider safety, ESQD and access limitations.

Pier 360 is capable of supporting any project that requires the loading of explosive ordnance with waiver approval from NAVSEA.

³ List the maximum number of ships that can be serviced in maintenance availability's at each pier without berth shifts because of crane, laydown or access limitations.

Pier 360 is capable of accommodating four ATF/WMEC

class ships requiring modification for target operations.

4.[14.] For each pier/wharf listed above, based on Presidential Budget 1995 budgeted infrastructure improvements in the Presidential Budget 1995 through FY 1997 and the BRAC-91 and BRAC-93 realignments, state the expected normal loading, the maximum capacity for berthing, maximum capacity for weapons handling evolutions, and maximum capacity to conduct intermediate maintenance.

Table 14.1

Pier/ Wharf	Typical Steady State Loading ¹	Ship Berthing Capacity	Ordnance Handling Pier Capacity ²	IMA Maintenance Pier Capacity ³
360	Note 1	500'	Note 2	Note 3
389	Note 1	40'	Note 2	Note 3
390	Note 1	40'	Note 2	Note 3
391	Note 1	40'	Note 2	Note 3

¹ Typical pier loading by ship class with current facility ship loading.

Pier 360 typical loading includes 2 WMEC medium endurance cutters, 1 ATF class fleet tug and 1 Tarantul Class R&D support ship. This is the current loading that the pier is supporting at the present time.

² List the maximum number of ships that can be moored to conduct ordnance handling evolutions at each pier/berth without berth shifts. Consider safety, ESQD and access limitations.

Pier 360 is capable of supporting four ships requiring ordnance loading support with waiver approval from NAVSEA.

³ List the maximum number of ships that can be serviced in maintenance availability's at each pier without berth shifts because of crane, laydown, or access limitations.

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Pier 360 is capable of accommodating four ATF/WMEC class ships requiring maintenance support.

5.[15.a.] How much pier space is required to berth and support ancillary craft (tugs, barges, floating cranes, etc.) currently at your facility? Indicate if certain piers are uniquely suited to support these craft.

None. Currently there are no ancillary craft assigned or berthed at Patuxent River. Pier number 360 at the Solomons Annex is a 700 ft. structure capable of supporting deep draft tug, barge and floating cranes. An actual total of approximately 1,000 ft. of usable pier space is available to support these operations if both sides of the pier were utilized.

6.[15.b.] What is the average pier loading in ships per day due to visiting ships at your base. Indicate if it varies significantly by season.

Pier 360 supports three target ship platforms supporting test and evaluation and fleet training projects. These target support ships are berthed 365 days per year. Additionally, one Soviet Tarantul class vessel used for research and development support of Naval Surface Warfare Center and Naval Research Laboratory projects is also berthed 365 days per year at the pier. The approximate length of each of these four ships is 200 feet.

Additionally, the pier supports approximately ten ships each year for a total of 30 days per year. These ships include Navy, Army, Coast Guard and National Oceanic and Atmospheric Administration research vessel platforms.

Continual year-round use is unaffected by seasonal weather variations.

7.[15.c.] Given no funding or manning limits, what modifications or improvements would you make to the waterfront infrastructure to increase the cold iron ship berthing capacity of your installation? Provide a description, cost estimates, and additional capacity gained.

Minor improvements to Pier 360 would cost approximately \$82,000 to make the current wooden structure fully functional. Additionally, if the pier was covered with a concrete surface decking, it would have the additional capacity to add compressed air, chemical holding tanks/sewage removal and bilge water hookups. With this upgrade the pier would be able to handle larger industrial

equipment such as heavy lift cranes and provide better logistical support to the Patuxent River ship berthing capabilities. Approximate cost to upgrade this facility is estimated at \$2.5M.

8.[15.d.] Describe any unique limits or enhancements on the berthing of ships at specific piers at your base.

The controlling draft at the entrance to the Patuxent River is capable of accommodating a Perry Class size frigate transiting to the pier at the Patuxent River Solomons Annex.

Located at the Patuxent River's Solomons Annex is the Naval Surface Warfare Center's (NSWC), Electromagnetic Pulse Radiation Environment Simulator for ships (EMPRESS I) facility. This facility is a highly specialized radio transmitter which broadcasts a high amplitude electromagnetic pulse (EMP) for the purpose of assessing its effect on Navy electronic equipment, including that aboard ships.

The operation of EMPRESS I is required to perform tests on Navy ships and systems to ensure that they can survive EMP. According to NSWC, EMPRESS I is essential to the national security in order to ensure that ships and their electronic systems will not be damaged by enemy forces.

The EMPRESS I facility was specially designed and built to test Navy electronic circuits, configured within Navy ships, to determine their tolerances to upset (operational malfunction) and damage (permanent failure) by EMP. Those circuits that cannot withstand EMP without serious upset or damage are modified by appropriate techniques. These techniques, usually referred to as hardening techniques, include enclosing the circuits in metallic cages, called shields; the use of electrical current surge suppressers (similar to lightning arrestors); and in some cases, complete redesign of specific circuits.

EMPRESS I is currently the only EMP facility in the United States with the capability to perform ship EMP tests. It is therefore an asset of great importance to national security.

DESCRIPTION OF THE EMPRESS FACILITY

The EMPRESS I facility consists of a pulse generator, an antenna system, and several small buildings which contain the control and data collection (computer) equipment. Figure 1 shows the placement of the pulse generator (pulser), antenna, data collection building, pulser control trailer, and two small storage buildings. The pulse generator is normally stored in a nearby building when not in use; it is only connected to the antenna during EMPRESS I facility operations.

The EMPRESS I antenna system is a system of wires connected along a number of tall (100-foot-high) wooden poles. The antenna consists of six of the poles, arranged to form a circle with a diameter of 120 feet. The wires connected to these six poles form a cone-shaped antenna. A number of wires at the top of the main antenna connect it to another set of wires that run horizontally along the tops of eleven 100-foot-high poles. These eleven poles

form a line that extends about 1300 feet down Pt. Patience. The horizontal wires, together with an underground grid of wires that runs along the poles form an electronic circuit known as the horizontal transmission line. The horizontal transmission line carries the current that the pulse generator pumps into the main antenna. This current is then carried downward through some other wires, through a large antenna termination resistor, and into the ground.

This system of wires and poles that make up the EMPRESS I antenna system is so constructed because several years ago the horizontal transmission line was used as a separate antenna. This transmission line is no longer used as an antenna, but it is part of the system needed to the main antenna will radiate properly.

The EMPRESS I wave is an electromagnetic radio frequency wave. (A technical description of the radio wave is given in Appendix A.) In that sense, it is similar to other forms of electromagnetic wave, such as radio and television waves. The EMPRESS I wave differs from these other waves in that it is a single pulse of energy, not a continuous stream of energy. The EMPRESS I pulse lasts for only about one hundred billionths of a second. It can be produced as frequently as one pulse every 80 seconds.

TAB A

SHIP BERTHING CAPACITY

Note: Question numbers in []'s are for internal BSAT purposes.

WEST BASIN

SHIP BERTHING CAPACITY

1. [11.] For each Pier/Wharf at your facility list the following structural characteristics. Indicate the additional controls required if the pier is inside a Controlled Industrial Area or High Security Area. Provide the average number of days per year over the last eight years that the pier was out of service (OOS) because of maintenance, including dredging of the associated slip:

Table 11.1

Pier/ Wharf & Age ¹	CCN ²	Moor Length (ft)	Design Dredge Depth ³ (ft) (MLLW)	Slip Width ⁴ (ft)	Pier Width (ft) ⁵	CIA/ Secur- ity Area? (Y/N) ⁶	ESQD Limit ⁷	# Days OOS for maint.
33/48	151- 20	75'	7' 6"	57'	34' 2"	Y	0	14
34/48	151- 20	75'	7' 6"	12'	34' 2"	Y	0	14
35/48	151- 20	50'	7' 6"	20'	4'	Y	0	14
36/48	151- 20	50'	7' 6"	20'	4'	Y	0	14
37/48	151- 20	50'	7' 6"	20'	4'	Y	0	14
Boat- house 107/48	151- 20	70'	7' 6"	20'	5'	Y	0	14
Boat- house 107/48	151- 20	70'	7' 6"	20'	5'	Y	0	14
Boat- house 107/48	151- 20	70'	7' 6"	30'	5'	Y	0	14
Davits	151- 20	36'	7' 6"	12'	6'	Y	0	14
32	151- 20	75'	7' 6"	57'	4'	Y	0	14
Seawall 76	151- 20	500'	7' 6"	100'	25'	N	0	14
Stbd Synchro Pier 72	151- 20	104'	7' 6"	20'	96'	Y	0	14
Port Synchro 72	151- 20	104'	7' 6"	20'	96'	Y	0	14

¹Original age and footnote a list of MILCON improvements in the past 10 years.

²Use NAVFAC P-80 for category code number.

³Comment if unable to maintain design dredge depth

⁴Water distance between adjacent finger piers.

⁵Indicate if RO/RO and/or Aircraft access.

Describe the additional controls for the pier.

The piers are located in a controlled area that has a twenty-four hour security roving patrol. For projects requiring a higher level of security, past arrangements have included the establishment of security checkpoints and special personnel badging. Patuxent River Auxillary Security Force can also be deployed to provide perimeter control.

⁷Net explosive weight. List all ESQD waivers that are in effect with expiration date.

2. [12.] For each Pier/Wharf at your facility list the following ship support characteristics:

Table 12.1

Pier/Wharf	OPNAV 3000.8 (Y/N)	Shore Pwr (KVA) & 4160V (KVA)	Comp. Air Press. & Capacity ¹	Potable Water (GPD)	CHT (GPD)	Oily Waste ¹ (gpd)	Steam (lbm/hr & PSI) ²	Fendering limits ³
33	Y	120V	None	None	None	None	None	3'
34	Y	120V	None	None	None	None	None	0
35	Y	120V	None	None	None	None	None	0
36	Y	120V	None	None	None	None	None	0
37	Y	120V	None	None	None	None	None	0
Boat-house	Y	120V	None	None	None	None	None	0
Davit	Y	120V	None	None	None	None	None	0
32	Y	120V	None	None	None	None	None	0
Sea-wall	Y	440V	None	None	None	None	None	3'
Stbd Synchro Pier	Y	None	Y	Y	None	None	None	0
Port Synchro Pier	Y	None	Y	Y	None	None	None	0

¹List only permanently installed facilities.

²indicate if the steam is certified steam.

³Describe any permanent fendering arrangement limits on ship berthing.

3.[13.] For each pier/wharf listed above state today's normal loading, the maximum capacity for berthing, maximum capacity for weapons handling evolutions, and maximum capacity to conduct intermediate maintenance.

Table 13.1

Pier/Wharf	Typical Steady State Loading ¹	Ship Berthing Capacity	Ordnance Handling Pier Capacity ²	IMA Maintenance Pier Capacity ³
33	Small Boats/Service Rafts	75'	1	1
34	Small Boats	50'	1	1
35	Small Boats	50'	1	1
36	Small Boats	50'	1	1
37	Small Boats	50'	1	1
B107	Small Boats	50'	3	0 Covered Piers
Davits		19' UB's	2	2
32	Small Boats	75'	1	1
Sea-wall	SES	300'	1	1
Stbd Synchro Pier	Service Craft/Small Boats	104'	1	1
Port Synchro Pier	Service Craft/Small Boats	104'	1	1

UB = Utility Boat

SES = Surface Effect Ships

¹ Typical pier loading by ship class with current facility ship loading.

² List the maximum number of ships that can be moored to conduct ordnance handling evolutions at each pier/berth without berth shifts. Consider safety, ESQD and access limitations.

³ List the maximum number of ships that can be serviced in maintenance availability's at each pier without berth shifts because of crane, laydown or access limitations.

4. [14.] For each pier/wharf listed above, based on Presidential Budget 1995 budgeted infrastructure improvements in the Presidential Budget 1995 through FY 1997 and the BRAC-91 and BRAC-93 realignments, state the expected normal loading, the maximum capacity for berthing, maximum capacity for weapons handling evolutions, and maximum capacity to conduct intermediate maintenance.

Table 14.1

Pier/Wharf	Typical Steady State Loading ¹	Ship Berthing Capacity	Ordnance Handling Pier Capacity ²	IMA Maintenance Pier Capacity ³
33	Small Boats/Service Rafts	75'	1	1
34	Small Boats	50'	1	1
35	Small Boats	50'	1	1
36	Small Boats	50'	1	1
37	Small Boats	50'	1	1
B107	Small Boats	50'	3	0 Covered Piers
Davits		19' UB's	2	2
32	Small Boats	75'	1	1
Sea-wall	SES	300'	1	1
Stbd Synchro Pier	Service Craft/Small Boats	104'	1	1
Port Synchro Pier	Service Craft/Small Boats	104'	1	1

UB = Utility Boat

SES = Surface Effect Ship

¹ Typical pier loading by ship class with current facility ship loading.

² List the maximum number of ships that can be moored to conduct ordnance handling evolutions at each pier/berth without berth shifts. Consider safety, ESQD and access limitations.

³ List the maximum number of ships that can be serviced in maintenance availability's at each pier without berth shifts because of crane, laydown or access limitations.

5. [15.a.] How much pier space is required to berth and support ancillary craft (tugs, barges, floating cranes, etc.) currently at your facility? Indicate if certain piers are uniquely suited to support these craft.

- 1) Pier 34 is the only pier that can support 65' Aircraft Salvage and Rescue (AVR).
- 2) Pier 34 is restricted to 40' craft due to installation of Davit.
- 3) Port Pier 35 is restricted to 33' craft due to installation of Davit.
- 4) Starboard Pier 35 is berth for 42' AVR.
- 5) Pier 36 is berth for 25' security boat.
- 6) Pier 37 berth 19' Utility Boat (UB).
- 7) Building 107 house berthing for (2) 40' Personnel Escorts (PE) and (1) 33' boom handling boat.
- 8) Davits berth (2) 19' UB's.
- 9) Pier 33 is VIP Pier

6. [15.b.] What is the average pier loading in ships per day due to visiting ships at your base. Indicate if it varies significantly by season.

1 boat or small craft per month; maximum stay is 3 days.

7. [15.c.] Given no funding or manning limits, what modifications or improvements would you make to the waterfront infrastructure to increase the cold iron ship berthing capacity of your installation? Provide a description, cost estimates, and additional capacity gained.

60 long ton capacity boat lift needs a gear box located at the boathouse. Estimated cost is \$80,000. This would enable Patuxent River's West Basin to life boats for maintenance and serve as an emergency lift for Naval Operating craft in this area.

8. [15.d.] Describe any unique limits or enhancements on the berthing of ships at specific piers at your base.

The seawall pier is the only berthing for Surface Effect Ship (SES) 200. Starboard synchro piers have a design lift of 360 tons.

TAB A

SHIP BERTHING CAPACITY

Note: Question numbers in []'s are for internal BSAT purposes.

CHESAPEAKE BASIN

Note 2: The pier facilities are not permanently approved for ordnance loading operations, however a waiver event request for temporary operations approval is available on a case by case basis.

2.[12.] For each Pier/Wharf at your facility list the following ship support characteristics:

Table 12.1

Pier/Wharf	OPNAV 3000.8 (Y/N)	Shore Pwr (KVA) & 4160V (KVA)	Comp. Air Press. & Capacity ¹	Potable Water (GPD)	CHT (GPD)	Oily Waste ¹ (gpd)	Steam (lbm/hr & PSI) ²	Fendering limits ³
1817	Y	220V 3ph	None	15,000	None	Note 1	None	None
1818	Y	220V 3ph	None	15,000	None	Note 1	None	None
1819	Y	220V 3ph	None	15,000	None	Note 1	None	None

¹List only permanently installed facilities.
²indicate if the steam is certified steam.
³Describe any permanent fendering arrangement limits on ship berthing.

Note 1: Although permanently installed facilities for removal of CHT and oily waste are not available on the piers, the capability does exist to remove these products by truck.

3. [13.] For each pier/wharf listed above state today's normal loading, the maximum capacity for berthing, maximum capacity for weapons handling evolutions, and maximum capacity to conduct intermediate maintenance.

Table 13.1

Pier/Wharf	Typical Steady State Loading ¹	Ship Berthing Capacity	Ordnance Handling Pier Capacity ²	IMA Maintenance Pier Capacity ³
1817	QST-35 Remote Control Target Craft/MK3 Patrol Craft	QST-35 Remote Control Target Craft/MK3 Patrol Craft	None	1
1818	QST-35 Remote Control Target Craft/MK3 Patrol Craft	QST-35 Remote Control Target Craft/MK3 Patrol Craft	1	1
1819	QST-35 Remote Control Target Craft/MK3 Patrol Craft	QST-35 Remote Control Target Craft/MK3 Patrol Craft	1	1

¹ Typical pier loading by ship class with current facility ship loading.

² List the maximum number of ships that can be moored to conduct ordnance handling evolutions at each pier/berth without berth shifts. Consider safety, ESQD and access limitations.

³ List the maximum number of ships that can be serviced in maintenance availability's at each pier without berth shifts because of crane, laydown or access limitations.

4. [14.] For each pier/wharf listed above, based on Presidential Budget 1995 budgeted infrastructure improvements in the Presidential Budget 1995 through FY 1997 and the BRAC-91 and BRAC-93 realignments, state the expected normal loading, the maximum capacity for berthing, maximum capacity for weapons handling evolutions, and maximum capacity to conduct intermediate maintenance.

Table 14.1

Pier/Wharf	Typical Steady State Loading ¹	Ship Berthing Capacity	Ordnance Handling Pier Capacity ²	IMA Maintenance Pier Capacity ³
1817	QST-35 Remote Control Target Craft/MK3 Patrol Craft	QST-35 Remote Control Target Craft/MK3 Patrol Craft	None	1
1818	QST-35 Remote Control Target Craft/MK3 Patrol Craft	QST-35 Remote Control Target Craft/MK3 Patrol Craft	1	1
1819	QST-35 Remote Control Target Craft/MK3 Patrol Craft	QST-35 Remote Control Target Craft/MK3 Patrol Craft	1	1

¹ Typical pier loading by ship class with current facility ship loading.

² List the maximum number of ships that can be moored to conduct ordnance handling evolutions at each pier/berth without berth shifts. Consider safety, ESQD and access limitations.

³ List the maximum number of ships that can be serviced in maintenance availability's at each pier without berth shifts because of crane, laydown or access limitations.

5.[15.a.] How much pier space is required to berth and support ancillary craft (tugs, barges, floating cranes, etc.) currently at your facility? Indicate if certain piers are uniquely suited to support these craft.

The seawall structure that forms the protective breakwater for the Chesapeake Basin and piers 1817, 1818, and 1819 has in the past accommodated the berthing of tugs, barges and floating cranes conducting construction operations at Patuxent River. Approximately 800 feet of seawall would be available for this purpose.

6.[15.b.] What is the average pier loading in ships per day due to visiting ships at your base. Indicate if it varies significantly by season.

Ship visits to the pier facilities at the Chesapeake Basin take place approximately six times per year. Support provided to other agencies includes the Naval Research Laboratory, Naval Surface Warfare Center and Navy Special Operations support craft.

7.[15.c.] Given no funding or manning limits, what modifications or improvements would you make to the waterfront infrastructure to increase the cold iron ship berthing capacity of your installation? Provide a description, cost estimates, and additional capacity gained.

Desired improvements to the facility would include the installation of a mobile travel lift crane and concrete pile structure to facilitate out of water maintenance on deployed surface craft. Estimated cost would be approximately \$300K to accomplish this installation. Additional capability would reduce need to transit the vessels to commercial repair facilities semi-annual and emergency repair requirements.

8.[15.d.] Describe any unique limits or enhancements on the berthing of ships at specific piers at your base.

The berthing of vessels in the Chesapeake Basin allows for close proximity to the Navy's Hooper Target Complex and the support of naval aircraft test and evaluation missions in the Chesapeake Basin.

TAB B
OPERATIONAL AIRFIELD CAPACITY

Note: Question numbers in []'s are for internal BSAT purposes.

1.[1a.] For the main airfield and each auxiliary airfield, answer the following questions:

Airfield Name: **Trapnell Field, NAS Patuxent River, MD. 20670**

For each runway, give its designation, length, width, load capacity, lighting configurations, and arresting gear types. For each runway list any approach obstructions or any restrictions on flight patterns.

Runway	Length (ft)	Width (ft)	Max load	Lighting				Arresting Gear Type(s)
				F	P	C	N	
6/24	11,800	200	340,000	X				E-28
14/32	9,700	200	398,000		X			E-28
2/20	5,000	150	316,000				X	NONE

The airfield also has two helicopter landing pads, one AV-8 Harrier landing pad, one C-13 Mod 0 catapult, and a MARK-7 arresting gear. Two seaplane landing lanes are available with 24 hours Prior Permission Required (PPR).

- F -- Full lighting (runway edge, center, and threshold)
- P -- Partial lighting (less than full)
- C -- Carrier deck lighting simulated
- N -- No lighting

OLF WEBSTER FIELD

Runway	Length (ft)	Width (ft)	Max load	Lighting				Arresting Gear Type(s)
				F	P	C	N	
7/25	5,000	150	50,000				X	NONE
14/32	5,000	150	50,000				X	NONE

For NAS Patuxent River:

Both main runways (6/24 and 14/32) are designed to accommodate all types of aircraft. Runway 02/20 is designed for small prop aircraft and helos. (Class ALFA Runway)

For OLF Webster Field:

Webster Field is designed to accommodate Category 1 aircraft (weighing less than 10,000 lbs.) and Category 2 aircraft that weigh less than 50,000 lbs. It is ideally suited for Unmanned Air Vehicles (UAV's), helicopters, and small aircraft.

RUNWAYS, TAXIWAYS, RAMPS/PARKING

Number, size, weight capacity

The Patuxent River airfield, with three runways, is capable of handling any size aircraft and provides a quick reaction capability. The site is capable of

supporting in excess of 300 aircraft with approximately 1769 acres of runways, taxiways, aircraft parking aprons and clear zones. The airport landing area consists of two primary runways and one utility runway numbered to the nearest ten degrees of magnetic direction with dimensions as follows:

Runway	Magnetic Heading	Threshold Elevation	Length/Width
2/20	018° 198°	38'/20'	5000'/150'
6/24	059° 239°	38'/20'	11800'/200'
14/32	136° 316°	27'/16'	9700'/150'

All taxiways are 100' wide except ALPHA, east of runway 6/24 which is 150' wide.

The runway and taxiway pavement weight limitations listed below may be exceeded by 50% on an infrequent basis without seriously damaging the pavement. C-5A/B aircraft have twin delta landing gear (28 wheels) and can be allowed to taxi on the field wherever a dual tandem aircraft at maximum weight can taxi (subject to wing span limitations).

Area	Single Wheel Gear		Dual Gear	Dual Tandem
	(150 PSI)	(400 PSI)		
6/24	126,000	105,000	188,000	340,000
14/32	147,000	121,000	222,000	398,000
2/20	102,000	84,000	159,000	316,000
Taxiway A West of Runway 6	147,000	113,000	226,000	339,000
East of Runway 6	105,000	82,000	198,000	332,000
Taxiway B	100,000	78,000	170,000	351,000
Taxiway C	104,000	88,000	170,000	351,000
Taxiway D	143,000	119,000	210,000	370,000
Taxiway E	78,000	65,000	122,000	255,000
H110 and 111 Apron	70,000	55,000	120,000	271,000
H101 and 109 Apron	68,000	52,000	110,000	267,000
H305 and 306 Apron	74,000	60,000	126,000	287,000
H301 Apron	84,000	65,000	138,000	290,000
H144 Apron & Taxiway	147,000	147,000	225,000	445,000
H115 Apron	90,000	76,000	140,000	286,000
Aero Club Apron	60,000	47,000	96,000	251,000
H201 Apron	105,000	80,000	160,000	309,000

The Patuxent River complex also possesses four primary helicopter landing areas.

In addition, Webster Field is an Outlying Landing Field (OLF) of Naval Air Station Patuxent River. Operation of the airspace at Webster Field is the responsibility of the Commanding Officer, Naval Air Station Patuxent River, and is exercised through the Naval Air Station Air Operations Officer. Due to Crash, Fire, Rescue (CFR) service availability, operations at OLF Webster are normally limited to Category I aircraft (maximum gross weight under 10,000 lbs.). For operation of Category II aircraft (maximum gross weight 10,000 - 50,000 lbs.), 24 hours advance notice to the Air Operations Duty Office is required to coordinate additional CFR services. Specifics on the Webster Field runways are as follows:

Runway	Magnetic Heading	Threshold Elevation	Length/Width
7/25	066° 246°	12'/21'	5000'/150'
14/32	141° 321°	13'/19'	5000'/150'

All taxiways are asphalt and are 75' wide. All taxiways northeast of runway 14/32 are closed.

The weight limitations for the Webster Field area are as follows:

Area	Single Wheel Gear		Dual Gear	Dual Tandem
	(150 psi)	(400 psi)		
R 14/32	16,800	8,400	21,840	32,760
R 7/25	18,900	9,450	24,750	36,855
T 14/32	15,700	7,850	20,410	30,615
T 7/25	10,500	5,250	13,650	20,475
T 18/36	30,500	15,250	39,650	59,475

R = Runway

T = Taxiway

The Helo Pad at Webster Field is located on the northeast corner of the ramp in front of the Tower and is stressed to 50,000 pounds.

Specialties (barriers, cables, etc.)

Emergency arresting/abort gear is installed on runways 6/24 and 14/32. Duty runway arresting gear is rigged at all times unless NOTAMED otherwise. Optical Landing Systems (OLS) are also installed on runways 6/24 and 14/32. Glide slopes are set at 3.25 degrees on all runways. The intensity of the source and datum lights may be varied at the installations. Due to different touchdown points and glide slope settings, the Precision Approach Radar and the OLS glide slopes do not coincide.

2.[1b.] Provide the composition (concrete, asphalt) and load bearing capacity of your aprons, ramps and taxiway.

NAS PATUXENT RIVER

Apron/ramp/taxiway Location - ID	SF	Comp. * **	Load Bearing Capacity (lbs) Dual Tandem	Comments * **
TAXI A (EAST)	NA	PCC/APC ¹	332,000	150 ft wide
TAXI A (WEST)	NA	PCC/APC	339,000	
TAXI B	NA	PCC/APC	351,000	
TAXI C	NA	APC	351,000	
TAXI D	NA	APC	370,000	
TAXI E	NA	APC	255,000	
Hangar 110/111 Apron	946,870	PCC/APC	271,000	
Hangar 101/109/AOPS	1,218,420	PCC/APC	267,000	
Hangar 305/306 Apron	794,350	PCC/APC	287,000	
Hangar 301 Apron	NA	PCC	290,000	No longer rated for parking
Hangar 144 Apron & Taxi	306,075	PCC/APC	445,000	
Hangar 115 Apron	645,450	PCC	286,000	
VQ-4 Apron (2199)	163,200	PCC	342,000	
Hangar 2133 Apron	260,625	PCC	251,000	
Hangar 201 Apron	388,565	PCC/APC	309,000	

PCC = Portland cement concrete
APC = Asphaltic concrete

NOTE:

The two main runways have been totally reconstructed as of 1993. Based on these repairs and routine maintenance the runways will not require major repair work for the next 15 years. The remaining class A runway is programmed for reconstruction in FY94. Two apron reconstruction contracts were awarded in FY93 with a scheduled completion in the summer of 1994. All other airfield pavements are rated from fair to excellent condition based on the latest Pavement Condition Report from the Atlantic Division of the Naval Facilities Engineering Command. Runway lighting repairs to match current criteria were accomplished with the runway reconstruction contracts. Taxiway lighting is scheduled to be repaired to match current criteria in two phases in FY94 and FY95.

OLF WEBSTER FIELD

Apron/ramp/taxiway Location - ID	SF	Comp. * **	Load Bearing Capacity (lbs) Dual Tandem	Comments * **
Taxiway 14/32	NA	Asphalt	30,615	
Taxiway 7/25	NA	Asphalt	20,475	
Taxiway 18/36	NA	Asphalt	59,475	

3.[1c.] Do you have **high speed taxiways**? Discuss number and impact on airfield operations.

There are no high speed taxiways at Trapnell Field or OLF Webster Field. At Trapnell Field this has slightly increased the separation time between aircraft landings.

4.[1d.] Are all runways with approved instrument approaches served by **hi-speed taxiways**?

No runways have hi-speed taxiways at either field.

5.[1e.] List any restrictions to **runways with approach obstructions** or any **restrictions on flight patterns**. Explain

For NAS Patuxent River:

The only restrictions to flight patterns are for noise abatement and these are only in effect during Visual Meteorological Conditions.

Runway 24 departure: Right turn to heading 210 so as not to fly over Navy housing.

Runway 32 departure: Right turn when airborne so as not to fly over Solomons below 1000 feet.

Runway 14 landing: Avoid flying over Solomons below 1000 feet.

For OLF Webster:

There are no obstructions to the VFR flight patterns. No IFR approaches are allowed. Helicopters weighing up to 50,000 lbs. are authorized to operate at the field with Category 1 fire protection.

6.[1f.] For the main airfield and each auxiliary and outlying field, discuss any **runway design features** that are specific to particular types of aircraft (i.e., are the airfield facilities designated primarily fixed wing jet, prop, or helo aircraft?)

For NAS Patuxent River:

Both main runways (6/24 and 14/32) are designed to accommodate all types of aircraft. Runway 02/20 is designed for small prop aircraft and helos. (Class ALFA Runway)

For OLF Webster Field:

Webster Field is designed to accommodate Category 1 aircraft (weighing less than 10,000 lbs.) and Category 2 aircraft that weigh less than 50,000 lbs. It is ideally suited for Unmanned Air Vehicles (UAV's), helicopters, and small aircraft.

RUNWAYS, TAXIWAYS, RAMPS/PARKING**Number, size, weight capacity**

The Patuxent River airfield, with three runways, is capable of handling any size aircraft and provides a quick reaction capability. The site is capable of supporting in excess of 300 aircraft with approximately 1769 acres of runways, taxiways, aircraft parking aprons and clear zones. The airport landing area consists of two primary runways and one utility runway numbered to the nearest ten degrees of magnetic direction with dimensions as follows:

Runway	Magnetic Heading	Threshold Elevation	Length/Width
2/20	018° 198°	38'/20'	5000'/150'
6/24	059° 239°	38'/20'	11800'/200'
14/32	136° 316°	27'/16'	9700'/150'

All taxiways are 100' wide except ALPHA, east of runway 6/24 which is 150' wide.

The runway and taxiway pavement weight limitations listed below may be exceeded by 50% on an infrequent basis without seriously damaging the pavement. C-5A/B aircraft have twin delta landing gear (28 wheels) and can be allowed to taxi on the field wherever a dual tandem aircraft at maximum weight can taxi (subject to wing span limitations).

Area	Single Wheel Gear		Dual Gear	Dual Tandem
	(150 PSI)	(400 PSI)		
6/24	126,000	105,000	188,000	340,000
14/32	147,000	121,000	222,000	398,000
2/20	102,000	84,000	159,000	316,000
Taxiway A West of Runway 6	147,000	113,000	226,000	339,000
East of Runway 6	105,000	82,000	198,000	332,000
Taxiway B	100,000	78,000	170,000	351,000
Taxiway C	104,000	88,000	170,000	351,000
Taxiway D	143,000	119,000	210,000	370,000
Taxiway E	78,000	65,000	122,000	255,000
H110 and 111 Apron	70,000	55,000	120,000	271,000
H101 and 109 Apron	68,000	52,000	110,000	267,000
H305 and 306 Apron	74,000	60,000	126,000	287,000
H301 Apron	84,000	65,000	138,000	290,000
H144 Apron & Taxiway	147,000	147,000	225,000	445,000
H115 Apron	90,000	76,000	140,000	286,000
Aero Club Apron	60,000	47,000	96,000	251,000
H201 Apron	105,000	80,000	160,000	309,000

The Patuxent River complex also possesses four primary helicopter landing areas.

In addition, Webster Field is an Outlying Landing Field (OLF) of Naval Air Station Patuxent River. Operation of the airspace at Webster Field is the responsibility of the Commanding Officer, Naval Air Station Patuxent River, and is exercised through the Naval Air Station Air Operations Officer. Due to Crash, Fire, Rescue (CFR) service availability, operations at OLF Webster are normally limited to Category I aircraft (maximum gross weight under 10,000 lbs.). For operation of Category II aircraft (maximum gross weight 10,000 - 50,000 lbs.), 24 hours advance notice to the Air Operations Duty Office is required to coordinate additional CFR services. Specifics on the Webster Field runways are as follows:

Runway	Magnetic Heading	Threshold Elevation	Length/Width
7/25	066° 246°	12'/21'	5000'/150'
14/32	141° 321°	13'/19'	5000'/150'

All taxiways are asphalt and are 75' wide. All taxiways northeast of runway 14/32 are closed.

The weight limitations for the Webster Field area are as follows:

Area	Single Wheel Gear		Dual Gear	Dual Tandem
	(150 psi)	(400 psi)		
R 14/32	16,800	8,400	21,840	32,760
R 7/25	18,900	9,450	24,750	36,855
T 14/32	15,700	7,850	20,410	30,615
T 7/25	10,500	5,250	13,650	20,475
T 18/36	30,500	15,250	39,650	59,475

R = Runway
T = Taxiway

The Helo Pad at Webster Field is located on the northeast corner of the ramp in front of the Tower and is stressed to 50,000 pounds.

Specialties (barriers, cables, etc.)

Emergency arresting/abort gear is installed on runways 6/24 and 14/32. Duty runway arresting gear is rigged at all times unless NOTAMED otherwise. Optical Landing Systems (OLS) are also installed on runways 6/24 and 14/32. Glide slopes are set at 3.25 degrees on all runways. The intensity of the source and datum lights may be varied at the installations. Due to different touchdown points and glide slope settings, the Precision Approach Radar and the OLS glide slopes do not coincide.

7.[2a.] List the number of flight operations (take-off, landing, or approach without landing) that the main airfield and all auxiliary fields can support on an hourly basis in both VMC and IMC. Comment on the factors at each field that limit this capacity (e.g., taxiway/runway limitations, airspace, ATC restrictions, environmental restrictions).

Airfield	# Flight Ops/Hr		Comments on Limiting Factors
	IMC	VMC	
Main	30	60	Lack of parallel runways and high speed taxiways.
Auxiliary Webster	0	40	No instrument approaches published. No ramp areas.

8.[2b.] Provide the average number of (historical) flight operations per month conducted at this station and the total number of days during which these operations were conducted. If data is not normally recorded, include estimates (and how derived). A flight operation is defined as a take-off, landing, or approach without a landing.

FY	Main Airfield		Auxiliary Field Webster	
	# Ops	# Days	# Ops	# Days
1991	12,500	30	2,200	30
1992	10,850	30	2,475	30
1993	7,750	30	2,646	30

The reduction of FY93 flight operations at Patuxent River's main airfield occurred because of single runway operations due to extensive runway repairs.

9.[2c.] What percent of your flight operations are Fleet Carrier Landing Practices (FCLPs)?

Historically, FCLP landings have averaged out to be approximately 600 landings per year. This average fluctuates considerably higher during new airframe introduction such as the FA-18E/F. Software modifications also drive the requirement for FCLP's. As a percentage of the total airfield landing (5%) the numbers are low; however, the capability to perform FCLP landing and then perform catapult take-offs and arrested landings is critical to our carrier aircraft air-based mission.

10.[2d.] Are you designated as an authorized divert field for any non-DoD aircraft? Explain.

Yes, we accept any commercial or military aircraft in emergency situations.

11.[2d.] Is your airfield designated as a joint use airfield (i.e. civilian/military)? Explain.

No.

12.[2e.] What percentage of total operations are civilian?

0%.

13.[2f.] Describe the major civilian air traffic structures (routes, terminal control areas, approaches, etc.) discuss the present and likely future impact of each on air station operations.

Patuxent River is located adjacent to the East Coast Air Traffic Corridor. Jet and low altitude routes border the Patuxent Restricted Area Complex. However, all air traffic control for airfield operations is provided by an approach control facility manned by active duty military controllers. No foreseen changes to the civilian air traffic structure should impact air station operations. NAWCAD Patuxent River Departure and Arrival Control has been delegated by the FAA to control 28 airfields in a 4,600 square-mile Mid-Atlantic region. Eight of these airports have published instrument approaches, and 23 are civilian-operated. All restricted areas are controlled by Patuxent River. FACSAC VACAPES controls shared airspace. Availability of airspace is not an issue.

14.[2g.] Are there any air traffic control constraints/procedures that currently, or may in the future, limit air station operations? If yes, fully explain impact.

There are no constraints now, nor are there any known changes being planned.

15.[4.] List all NAVAIDS with published approaches that support the main airfield and/or your auxiliary airfields. Note any additions/upgrades to be added between now and FY1997.

NAVAID	DESCRIPTION/LOCATION
Patuxent VORTAC	FA9996/At the Field
Patuxent NDB	FA9781/At the Field
Patuxent Precision Approach Radar	AN/FPN-63/At the Field
Instrument Landing System (Proposed)	

16.[5a.] List all active duty Navy/USMC squadrons/detachments and the number of aircraft by type, model, and series (T/M/S), that will be permanently stationed/are scheduled to be stationed at this air station at the end of the indicated fiscal years.

Squadron/Det	# of Aircraft (PAA)	Aircraft (T/M/S)	FY 1994	FY 1995	FY 1997	FY 1999	FY 2001
VX1	5	P-3C	3	3	3	3	3
	6	SH-60B/F	5	5	5	5	5
	4	E/S-3A/B	3	3	3	3	3
VQ4	2	E-6A	2	3	3	2	2
	0	E-6B	0	0	0	1	1
NRL	6	E/RP-3A/B	5	5	5	5	5
VC6	12	Pioneer Option 2	10	10	10	10	10

NOTE: VC6 operates Remote Powered Vehicles (RPV) at Webster Field.

17.[5b.] Summarize average visiting squadron/det loading on air station operations (i.e. airwing/wing weapons deployment).

Squadron/Det Size (#A/C)	Apron Space Used	Hangar Space Assigned	Maintenance Support	Ave length of stay
VQ3 3 A/C per yr	VQ4 Alert Site	Hgr 109 when required	VQ4 Det	1 Day per yr
VP Squadron 2 A/C per yr	Hgr 109 Apron	Hgr 109	NRL and Hosted Squadron	2 Days per yr

18.[5c.] If a major percent of flight operations at your air station is from other than permanently stationed squadron/detachments, provide explanation.

N/A

19.[6a.] List all reserve Navy/USMC squadrons/detachments and the number of aircraft by type, model, and series (T/M/S), which will be stationed/are scheduled to be stationed at this air station at the end of the indicated fiscal years.

Squadron/Det	# of Aircraft (PAA)	Aircraft (T/M/S)	FY 1994	FY 1995	FY 1997	FY 1999	FY 2001
N/A							

20.[7.] List all **Station aircraft** by number, type, model, and series (T/M/S), which will be parked or stationed/are scheduled to be stationed at this air station at the **end** of the indicated fiscal years.

Squadron/ Custodian	# of Aircraft (PAA)	Aircraft (T/M/S)	FY 1994	FY 1995	FY 1997	FY 1999	FY 2001
Strike	12	N/F/A- 18A	6	6	6	4	4
	2	F/A- 18B	4	4	4	4	4
	3	F/A-18 C	4	4	4	4	4
	2	N/F/A- 18D	4	4	4	4	4
	0	F/A- 18E/F	0	0	6	5	5
	6	N/F- 14A/B/ D	6	6	6	6	6
	1	T-45A	0	0	2	0	0
	3	N/T/A V-8B	4	4	4	4	4
	3	EA-6B	4	3	3	3	3
	6	N/A- 6E	4	3	3	3	3
Force	1	E-6A	1	0	0	0	0
	3	E-2C	3	2	2	2	2
	3	E/S- 3A/B	4	3	3	3	3
	1	C-2A	1	0	0	0	0
	3	P-3B/C	6	6	5	5	5
	1	RP-3D	1	1	1	1	1
	0	UP-3A	3	2	2	2	2
	3	N/T- 34C	2	2	2	2	2
Rotary Wing	2	TH- 57C	2	2	2	2	2
	8	A/UH- 1W/J/ N	5	5	5	5	5
	7	H/N/Y/ SH- 60B/F/ H	6	6	5	5	5
	5	NV/S/ UH- 3A/H	5	5	4	4	4

	1	SH-2F/G	2	2	1	0	0
	3	M/CH-53	3	3	2	2	2
	2	CH-46E	2	1	1	1	1
	3	T-2C	2	0	0	0	0
USNTPS	6	T-2C	6	6	6	6	6
	4	TA-4J	3	0	0	0	0
	4	OH-58A	4	4	4	4	4
	6	OH-6B	6	6	6	6	6
	3	UH-60A	3	3	3	3	3
	6	T-38A/B	8	8	6	6	6
	4	F/A-18B	4	4	4	4	4
	2	X-26A	2	2	2	2	2
	1	NU-1B	1	1	1	1	1
	2	U-6A	2	2	2	2	2
	3	U-21A	3	3	3	3	3
	1	NSH-60B	1	1	1	1	1
NAS ¹	2	C-28A	2	2	2	2	2
	1	UC-12B	1	1	1	1	1
	3	S/UH-3D/H	4	0	0	0	0
STRIKE UAV ²	17	BQM-147A (var)	25	30	33	36	39

- (1) NAS Station aircraft redistribution throughout Strike, Force and Rotary Wing during FY95.
- (2) Unmanned Air Vehicle (UAV).

21.[8.] List all DoD and non-DoD aircraft not previously listed, by custodian, including number, type, model, and series (T/M/S) of aircraft, which will be parked or stationed/are scheduled to be stationed at this air station at the end of the indicated fiscal years.

Service/ Agency/ Custodian	# of Aircraft (PAA)	Aircraft (T/M/S)	FY 1994	FY 1995	FY 1997	FY 1999	FY 2001
McDonnell Douglas/ Strike¹	2	T-45A	2	2	2	0	0
	0	F/A-18E/F	0	0	6	5	5
ITT(V22)/ Rotary	2	V-22	2	2	4	5	5
Flying Club²	1	Cessna 150	1	1	1	1	1
	1	Cessna 172	1	1	1	1	1
	1	T-34	1	1	2	3	3
	0	Piper	0	1	1	1	1
Civil Air Patrol	1	Cessna 172	1	1	1	1	1
Kuwait/ Strike	1	KAF/A-18	1	0	0	0	0

- (1) McDonnell Douglas has T-45 and F/A-18E/F collocated in FY97. Only F/A-18E/F will be stationed aboard after FY97.
- (2) Inventory increases are tied to BRAC 91/93 relocation of Warminster and Naval Air Systems Command Flying Club assets to Patuxent River.

NOTE:

Presently Patuxent River has 6 aircraft (2 UC-880's and 4 KC-135's) on board to conduct FAA Baggage Compartment Explosive Testing. These aircraft are not listed due to the temporary nature of the project and they are not parked on any major hangar apron. Occasionally it will be necessary to instrument aircraft near a hangar but impact will be minimal.

22.[9a.] List other operational command or support units (i.e. air wing staffs, MWSG, MWSS, MACG, MASS, etc.) stationed at this installation. For each Unit, give the unit identification number/UIC, mission, and facilities required (currently being used) to support the unit (i.e. equipment parking - 2500 SF; maintenance shop-200 SF; etc.).

Support Unit Identification/ UIC	Mission	Facilities Required	Equipment Laydown Requirement (covered/ uncovered in SF)
N/A			

23.[9b.] Due to BRAC or other realignments, what increases/decreases in operational command or support units will occur at your installation. Provide expected gains/losses by year through 2001.

BRAC 91 relocation of 5 aircraft consisting of 3 Type, Model, Series from NAWCAD Warminster to NAWCAD Patuxent River (FY94 1/1, FY 95 4/2). These gains/losses have been included in paragraph 20(7.) data.

24.[10a.] List all other USN/USNR, USMC/USMCR, and other DoD or non-DoD active and SELRES units not listed previously, that are scheduled to be stationed at this air station at the end of the indicated fiscal years.

Unit	Active or Reserve	FY 1994	FY 1995	FY 1997	FY 1999	FY 2001
N/A						

25.[12b.] For each **Special Use Airspace (SUA)** or **airspace-for-special-use** routinely used by squadrons/units assigned to your installation (regardless of location¹), indicate how many hours per year are **required** for each user to maintain required **readiness**. Special Use Airspace includes alert areas, military operating areas (MOA), restricted areas, and warning areas which are used for air-to-air, air-to-ground, electronic (EW, ECM), low level training routes (MTRs), and other training.

¹ include RON/domestic deployment training

SUA	Location/ Distance	Types/Uses	Scheduling Authority (UIC)	Squadron/Unit	Training Requirement (types of training)	Yearly Usage Rate (Hrs)
R4005 R4006 R4008	Chesa- peake Bay	Test/Eval	NAWC- AD 00421	FTEG Directorates/ Tenants	NA - See remarks	10,196
W386 W108 W72	Off- shore/70 -100nm	Test/Eval	NAWC- AD 00421	FTEG Directorates/ Tenants	NA - See remarks	1,250

Remarks: Flight Test and Engineering Group (FTEG) Directorates use the Patuxent Restricted Areas and the Offshore Warning Areas for test and evaluation missions. There are no readiness requirements. Yearly usage rate listed is for test missions. Offshore Warning Area usage rate estimated from limited data available. Yearly records of scheduled/usage rates are not kept by scheduling or controlling authorities.

¹ include RON/domestic deployment training

26.[12c.] For each **Special Use Airspace (SUA)** or **airspace-for-special-use** complete the following table:

SUA	Location/ Distance	Types/Uses	Scheduling Authority (UIC)	Fiscal Year	Scheduled	Utilized ¹	Operating Limitations ²
					# Events/ # Hours (est)	# Events/ # Hours	
R4005 R4006 R4008	Ches- apeake Bay	Training/Air- craft Testing	NAWCAD 00421	1991	10,885 21,700	6,600 13,200	See Note 2
R4005 R4006 R4008	Ches- apeake Bay	Training/Air- craft Testing	NAWCAD 00421	1992	10,667 21,300	5,849 11,698	See Note 2
R4005 R4006 R4008	Ches- apeake Bay	Training/Air- craft Testing	NAWCAD 00421	1993	10,450 20,900	5,098 10,196	See Note 2
W386 W108 W72	Ches- apeake Bay	Training/Air- craft Testing	NAWCAD 00421	1991	1,014 2,537	531 1,043.4	None
W386 W108 W72	Ches- apeake Bay	Training/Air- craft Testing	NAWCAD 00421	1992	966 2,781	483 953	None
W386 W108 W72	Ches- apeake Bay	Training/Air- craft Testing	NAWCAD 00421	1993	719 1,853 Note	327 658	None

¹ For the "Utilized" values, provide reasons for hours scheduled, but not utilized (e.g. 40% canceled due to weather; 10% canceled for unscheduled range maintenance, etc.).

² Provide any comments on operating limitations.

Less than 1% of cancellations were due to unscheduled maintenance of the range facilities. No data was kept on the number of cancellations due to non-range factors.

Patuxent River Complex has a self-imposed limit of 10 total aircraft maximum (11 if V-22 aircraft are operating) on test missions in the restricted area. Aircraft on IFR transits of the complex are not counted against this maximum.

NOTE:

Offshore Warning Areas W-386/108/72 scheduling/usage hours are based on limited historical data. Numbers extrapolated from 1 months schedule. Yearly records not kept by controlling agency.

27.[12d.] Assuming that the flight training facility is **not constrained by operational funding** (personnel support, increased overhead costs, etc.), with the present equipment, physical plant, etc. , what **additional use of airspace assets** could be realized? Provide details and assumptions for all calculations.

Patuxent River Complex has a self-imposed limit of 10 total aircraft maximum (11 if V-22 aircraft are operating) on test missions in the restricted area. Assuming

this self-imposed restriction 41,600 aircraft flight hours are available for use. In the last Fiscal Year, 10,196 hours were used for test and evaluation operations which leaves 31,404 hours available for use.

28.[12h.] In the event that it became necessary to increase base loading at your installation, does the airspace overlying and adjacent to your installation have the capacity to assume an additional workload? Estimate the percentage of the possible increase. Provide the basis/calculations for these estimates.

If scheduling is unconstrained by mission, a 75% increase in restricted airspace usage could be realized.

The Offshore Warning Areas (W-386/W108/W72) could be easily used 300-400 percent more for some types of aircraft test and evaluation operations if funding was unconstrained.

29.[17a.] Using the types (and mix) of aircraft currently stationed at your installation, project the additional number of these aircraft (maintain approximate current mix/ratio of A/C) that could be based and parked on your current parking aprons.

Provide two estimates:

1. Using NAVFAC P-80 standard measures
2. Using real world planning factors to accommodate a surge demand for space (maintaining safe operating procedures).

Aircraft Type	Current # of Aircraft Parked/Stationed	Maximum Additional Capacity (# of Aircraft)		Total	
		NAVFAC	Surge	NAVFAC	Surge
Summary Fixed Wing Carrier Aircraft	(88)¹ 68	0	27	68	95
F/A-18	(24) 18	0	7	18	25
A-6	(9) 7	0	3	7	10
T-2	(9) 7	0	3	7	10
S-3	(7) 5	0	2	5	7
F-14	(6) 5	0	2	5	7
T-38	(6) 5	0	2	5	7
A-4	(4) 2	0	1	2	3
AV-8	(3) 2	0	1	2	3
E-2	(3) 2	0	1	2	3
T-45	(3) 2	0	1	2	3
T-34	(3) 2	0	1	2	3
U-21	(3) 3	0	1	3	4
C-28	(2) 2	0	1	2	3
U-6	(2) 2	0	1	2	3
X-26	(2) 2	0	0	2	2
C-12	(1) 1	0	0	1	1
C-2	(1) 1	0	0	1	1

Summary Multiengine Patrol Transport	(15) 12	0	3	12	15
P-3	(15) 13	0	3	13	16
Summary Rotary Wing Aircraft	(54) 39	0	12	39	51
H-60	(17) 12	0	4	12	16
AH-1	(8) 7	0	2	7	9
SH-3	(8) 6	0	2	6	8
OH-6	(6) 4	0	1	4	5
OH-58	(4) 3	0	1	3	4
CH-53	(3) 2	0	1	2	3
H-57	(2) 1	0	1	1	2
CH-46	(2) 1	0	0	1	1
V-22	(2) 1	0	0	1	1
SH-2	(1) 1	0	0	1	1
U-1	(1) 1	0	0	1	1
Summary E-6A Aircraft	(3) 3	0 ²	0	2	3
E-6A	(3) 3	0 ²	0	2	3

Provide the details of your calculations, including your assumptions on the minimum separation between aircraft, parking angle, folding of aircraft wings and any obstructions that may limit the placement of aircraft on the parking apron spaces. Indicate if taxiway aprons are used in the projection.

- 1 Numbers shown in () are total aircraft by Type. Numbers shown out of () are those aircraft parked on the apron so as to be consistent with Question 34.
- 2 Apron for Alert Facility was built in FY92 for two aircraft. FY94 mission change added an additional aircraft on the apron.

GENERAL NOTES AND ASSUMPTIONS:

This data call appears to be constructed to fit an activity with a more traditional mix of squadrons/station aircraft, typically not more than 4 type/model/series (T/M/S). This air station has a unique aircraft composition of 52 T/M/S because of its RDT&E mission.

1. Aircraft numbers shown do not include transient aircraft that require testing at Patuxent River. In FY 93 there were 41 transient aircraft not assigned that underwent RDT&E evaluations.

2. Hangar 144 and its apron were included in the calculations. This hangar, however, is a Shielded Hangar used for RDT&E Projects. This apron has a specialized grounding plane built in and it is utilized for all National/DOD/Private aircraft Test and Evaluation Programs. Aircraft are not parked on the apron except during test and evaluation.
3. Hangar 101 and its apron are used exclusively for instrumentation of aircraft being tested. Only unscheduled maintenance for aircraft under test is performed at the hangar or on the ramp. No aircraft are parked on the apron except during instrumentation or while waiting to be instrumented.
4. NAVFAC P-80 criteria does not address provisions for hangar and ramp for RDT&E aircraft. No considerations for RDT&E provisions were included in the calculations for ramp and hangar.
5. Flying Club aircraft (a Cessna 150, a Cessna 172 and a T-34) are parked on an area of reduced load capacity (66,375 SF). Neither the parking area nor the aircraft are included in the aircraft loading analysis.
6. An explanation of the calculations of Assets minus Aircraft Loading for both Hangars and Ramps is shown below since the two are not mutually exclusive. That is, you would not count a ramp and hangar spot for each aircraft, since the aircraft can only be on the ramp or in the hangar at one time.

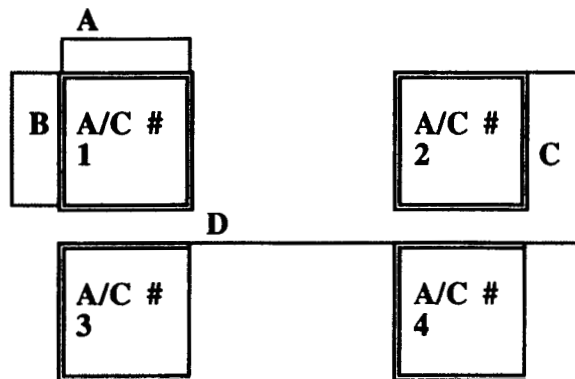
DETAILS OF CALCULATIONS TO SUPPORT ADDITIONAL CAPACITY ABOVE
NAVFAC P-80 CRITERIA:

AIRCRAFT LOADING EVALUATION:

TYPE. The aircraft loading shown above were broken down into 4 basic aircraft types: F-14, P-3, H-60 and E-6A. The aircraft listed were converted to one of the four types so total numbers of aircraft by type could be determined. This analysis means that an apron spot striped for an F-14 could be used for any aircraft smaller than an F-14, i.e., a T-2, AV-8, T-45, C-12 or X-26, etc. For this analysis propeller and jet aircraft were intermixed. Fixed wing and rotary wing aircraft were not mixed due to the downwash environment concerns.

AREA. The area for each aircraft type was computed using NAVFAC P-80 Table 113-20A for 90 degree parking. The width was determined by adding the aircraft wingspan (B) to one half of the separation distances (C-B) between the aircraft. $W = B + 1/2(C-B) \times 2$. The length was determined by adding the aircraft length (A) to one half of the separation distance to another aircraft (D) on both ends. $L = A + 1/2(D) \times 2$. The resulting area (L x W) is equal to the ramp space required for that aircraft type including the interior taxilanes, but excluding the peripheral taxilanes.

The ramp space required for each type of aircraft was calculated by using the dimensions identified in the figure below, (NAVFAC P-80 figure 113-20A).



A = Aircraft Length

B = Wingspan

C-B = Separation Wingtip to Wingtip

D = Separation Distance Tail to Nose between Aircraft

	A	B	C	D
F-14	62	65	111	125
P-3	117	100	120	150
H-60	65	54	81	108
E-6A	150	148	200	20

NUMBER OF AIRCRAFT IN THE HANGARS. The total number of aircraft in a hangar for maintenance at one time was determined by using updated NAVFAC P-80 planning formulas. Maintenance hangar spaces for carrier aircraft, helicopters and training aircraft is the total number of aircraft divided by 3; for patrol aircraft it is the total number of aircraft divided by 6; and for transport aircraft it is the total number of aircraft divided by 9.

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NUMBER OF AIRCRAFT ON THE RAMP. The total number of aircraft on the ramp was determined by subtracting the number of aircraft that could be placed in the existing hangars modules from the current number of aircraft assigned to the station.

ASSET EVALUATION:

HANGAR ASSETS. Total number of hangar modules by type was determined for the station. The hangars at Patuxent River do not conform to the Modular Hangar Dimensional Statistics shown in NAVFAC P-80, Table 211-05 except for Hangar 2133. Calculations to determine the number of hangar modules were based on taking the gross square footage of the hangars and dividing by the gross area shown in the table for each modular hangar type (I or II).

RAMP ASSETS. Total ramp assets were determined by adding all of the parking areas of all hangars of a particular modular type (I or II). Peripheral taxilanes were excluded from this ramp area. Areas came from the latest Naval Facilities Engineering Command, Atlantic Division Pavement Condition Index Report, dated June 1992.

DETERMINATION OF ADDITIONAL CAPACITY:

CAPACITY: Total additional capacity was determined for the four basic aircraft types (F-14, P-3, H-60, and E-6A). This was done by subtracting the calculated area by type from the assets.

TYPE. After the total capacity was determined, that capacity was adjusted back to the original mix ratio using percentages of assigned aircraft for each of the four types.

Details of Calculations to Support Surge Capacity.

Surge capacity was based on changing from NAVFAC P-80 criteria to those listed below.

Four aircraft types (F-14, P-3, H-60, and E-6A) used above were also used for this analysis. All of the aircraft maintenance officers at Patuxent River were polled to determine the number of aircraft that could be safely parked on an apron based on the type of model aircraft. Aircraft wingtip separation distances used are: F-14 = 34'; P-3 = 12'; H-60 = 20'; and E-6A = 20' and length separation distances used are: F-14 = 90'; P-3 = 120'; H-60 = 80'; and E-6A N/A based on ramp configuration.

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30. [18a.] List the hangars at the air station. Identify by (P-80) type, year built, dimensions.

Hangar ID/#	Type I, II or (O)ther	Year Built	Hangar Deck Dimensions	Limiting Height	Current Usage	In SF			
						Adequate	Substandard	Inadequate	Total
101	O ¹	1943	2 Bays @ 251' x 160'	30'	A/C Flight Equipment Lab	101,439	5,500		106,939
109	O ²	1943	2 Bays @ 251' x 160'	42'	A/C Maintenance	127,260			127,260
110	O ¹	1944	2 Bays @ 251' x 160'	42'	RDT&E	127,489			127,489
111	O ¹	1944	2 Bays @ 251' x 160'	42'	RDT&E	127,512			127,512
115	O ¹	1944	2 Bays @ 251' x 160'	42'	RDT&E	136,896			136,896
144	O ²	1949	300' x 150'	35'	RDT&E		69,621		69,621
201	O ¹	1943	2 Bays @ 251' x 160'	42'	RDT&E	146,594			146,594
305	O ²	1943	2 Bays @ 251' x 160'	42'	A/C Maintenance	127,260			127,260
306	O ²	1943	2 Bays @ 251' x 160'	42'	RDT&E	127,260			127,260
133	I	1990	104' x 557'	28'	RDT&E	130,683			130,683

1 Type I Equivalent

2 Type II Equivalent

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 describe why the facility is inadequate; indicate how it is being used and list other possible uses; and specify the costs to remove the deficiencies that make it inadequate. Indicate current plans to remove these deficiencies and the amount of any programmed funds. Discuss any material conditions of substandard facilities which have resulted in a C3 or C4 designation on your BASEREP.

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31.[18b.] For each hangar provide space allocation information listed in table below. Indicate if OPS/ADMIN space is in a non-contiguous building. Provide subtotal for each hangar.

Hangar #/ID/Type	SQD/Mod# Assignment	Ops + Admin Spaces SF/Module	Maint Shops SF/Module (O Level)	Hangar Deck SF/Module	A/C Line parking spaces ^{2,3}		
					#/Module	SF	Elec. Pwr.
101/ALL/I	Range	12,370	181	19,855	3.9	558,256	No
109A/II	NRL/A	5,569	5,569	28,742	2.2	148,100	Yes
109/B/I	V-22/B	17,695	3,898	20,120	1	64,000	No
110/ALL/I	TPS	7,566	3,906	20,400	4.5	389,200	Yes
111/ALL/I	Rotary Wing	5,619	5,859	20,400	1.8	240,300	No
115/ALL/I	Strike	2,902	6,151	21,415	4.8	271,200	Yes
144/ALL/II	Systems	15,388	0	28,125	1.9	215,720	No
201/ALL/I	Strike	9,286	6,892	20,400	5	319,725	No
305/A/II	VX-1/A	7,994	10,198	29,000	4	125,850	Yes
305/B/II	A/C Mods/B	5,000	0	30,000	0	0	N/A
306/ALL/II	Force	10,497	5,248	28,138	3	125,850	No
2133/ALL I	Strike	19,358	0	20,185	2.3	260,625	No
TOTAL		119,244	47,902	286,780	34.4	2,718,826	

- 1 Provide which SQD/Det was assigned to the specific module at receipt of this Data Call. (i.e., VFA-15, Hgr 1, Mod C)
- 2 Dedicated aircraft parking spaces per Module and total square feet (SF) of A/C line parking spaces
- 3 Are there A/C line parking spaces supported by permanently installed electric power? (Y/N)

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32.[18f.] List all **squadrons/detachments** normally homeported at this air station that were deployed and **not assigned** hangar/maintenance spaces at receipt of this data call.

Squadron/Detachment	#/Type Aircraft	Deployed Location
N/A		

33.[18g.] List all **squadrons/detachments** normally homeported at this air station that were deployed and **were assigned** hangar/maintenance spaces at receipt of this data call.

Squadron/Detachment	#/Type Aircraft	Hanger Module Assignment
N/A		

OH-58	(4) 1	0	6	1	7
CH-53	(3) 1	0	5	1	6
H-57	(2) 1	0	3	1	4
CH-46	(2) 1	0	3	1	4
V-22	(2) 1	0	2	1	3
SH-2	(1) 1	0	2	1	3
U-1	(1) 0	0	2	0	2
Summary	(3) 0 ²	0	1	0	4
E-6A Aircraft	(3) 0 ²	0	1	0	4

- 1 Numbers shown in () are total aircraft by Type. Numbers shown out of () are those aircraft parked on the apron.
- 2 Hangar modules are not required for the E-6A's stationed at Patuxent River. Hangar maintenance is performed at Tinker AFB. A decision has been made to augment the current VQ-4 detachment with additional personnel to perform maintenance at Patuxent River.

Provide the details of your calculations, including your assumptions on the minimum separation between aircraft, folding of aircraft wings and any obstructions that may limit the placement of aircraft in the hangars.

GENERAL NOTES AND ASSUMPTIONS:

This data call appears to be constructed to fit an activity with a more traditional mix of squadrons/station aircraft, typically not more than 4 type/model/series (T/M/S). This air station has a unique aircraft composition of 52 T/M/S because of its RDT&E mission.

1. Aircraft numbers shown do not include transient aircraft loading that require testing at Patuxent River and are not stationed permanently. In FY 93 there were 41 transient aircraft not assigned that underwent RDT&E.
2. Hangar 144 was included in the calculations. This hangar, however, is a shielded Hangar primarily used for RDT&E Projects.
3. Hangar 101 was included in the calculations. This hangar, however, is used primarily for instrumentation of aircraft being tested. Only unscheduled maintenance for aircraft under testing is performed at the hangar.
4. NAVFAC P-80 criteria does not address hangar provisions for RDT&E aircraft. No considerations for RDT&E provisions were included in the calculations for the hangar loadings.
5. The hangars at Patuxent River do not conform to the Modular Hangar Dimensional Statistics shown in NAVFAC P-80, Table 211-05 except for hangar 2133. Calculations to determine the number of hangar modules were based on taking the gross square

footage of the hangars and dividing by the gross area shown in the table for each hangar modular type (I or II).

6. Flying Club aircraft (a Cessna 150, a Cessna 172 and a T-34) are not included in the aircraft loading analysis.

DETAILS OF CALCULATIONS TO SUPPORT ADDITIONAL CAPACITY ABOVE NAVFAC P-80 CRITERIA:

AIRCRAFT LOADING EVALUATION:

TYPE. The aircraft shown above were broken down into 4 basic aircraft types: F-14, P-3, H-53 and E-6A. The aircraft listed above were converted to one of the four types so total numbers of aircraft by type could be determined. This analysis means that a hangar module sized for an F-14 could be used for any aircraft smaller than an F-14, i.e., a T-2, AV-8, T-45, C-12 or X-26, etc. For this analysis propeller and jet aircraft were intermixed. Fixed wing and rotary wing aircraft were not mixed due to the downwash environment.

NUMBER OF AIRCRAFT IN THE HANGARS. The total number of aircraft in a hangar for maintenance at one time was determined by using updated NAVFAC P-80 planning formulas. Maintenance hangar space for carrier aircraft, helicopters and training aircraft is the total number of aircraft divided by 3; for patrol aircraft it is the total number of aircraft divided by 6; and for transport aircraft it is the total number of aircraft divided by 9.

ASSET EVALUATION:

HANGAR ASSETS. Total number of hangar modules by type was determined for the station. The hangars at Patuxent River do not conform to the Modular Hangar Dimensional Statistics shown in NAVFAC P-80, Table 211-05 except for hangar 2133. Calculations to determine the Number of Hangar Modules were based on taking the gross square footage of the hangars and dividing by the Gross Area shown in the table for each hangar modular type (I or II).

DETERMINATION OF ADDITIONAL CAPACITY:

CAPACITY: Total additional capacity was determined for the four (F-14, P-3, H-60, and E-6A) aircraft types. This was done by subtracting the maintenance modules needed by aircraft type from the existing hangar modules.

TYPE. After the total capacity was determined, that capacity was adjusted back to the original mix ratio using percentages of assigned aircraft for each of the four types.

Details of Calculations to Support Surge Capacity.

The four aircraft types (F-14, P-3, H-60, and E-6A) were also used for this analysis. All of the aircraft maintenance officers at Patuxent River were polled to determine the number of aircraft that could be safely parked in each hangar based on one of the four aircraft types.

Surge capacity was based on changing aircraft placement from that described for NAVFAC P-80 hangar modules to placing: 8 F-14s in 40,000 SF; 3 P-3s in 40,000 SF;

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and 15 H-60s in 40,000 SF. This placement requires 90% of the aircraft wings/blades be folded and 10% spread. In no cases were firelanes of egress compromised.

35.[19.] Do you have any of the following special use facilities at the Air Station?

IN	Type of Facility	In SF				# of Units	Year Built
		Adequate	Substandard	Inadequate	Total		
211-01	Aircraft Acoustical Enclosure	N/A					
211-02	Nose Hangar	N/A					
211-03	Corrosion Control Hangar	675			675	1	1952
211-75	Parachute/Survival Equipment Shop	8,934			8,934	1	1969
211-81	Engine Test Cell		6,188		6,188	1	1975
211-81 *	Engine Test Cell			2,686	2,686	1	1960
211-88	Power Check Pad with Sound Suppression	N/A					
211-89	Power Check Pad without Sound Suppression	1 Each				1	1981
211-96	Maintenance Aircraft Spares Storage		176		176	1	1953
211-96	Maintenance Aircraft Spares Storage		22,958		22,958	1	1943
211-96	Maintenance Aircraft Spares Storage	21,424	3,650		25,074	4	1944
211-96	Maintenance Aircraft Spares Storage		544		544	1	1946
211-96	Maintenance Aircraft Spares Storage		532		532	1	1951
211-96	Maintenance Aircraft Spares Storage	960			960	1	1973
211-96	Maintenance Aircraft Spares Storage		3,815		3,815	1	1945
211-96	Maintenance Aircraft Spares Storage		544		544	1	1959
211-96	Maintenance Aircraft Spares Storage	480			480	1	1981
211-96	Maintenance Aircraft Spares Storage	817			817	1	1990
211-96	Maintenance Aircraft Spares Storage	680			680	1	1992
116-10	Airfield Washrack Pavement	43,655			43,655	3	1978
116-15	Aircraft Rinse Facility	11,400			11,400	1	1965
214-30	Refueling Vehicle Shop	2,252			2,252	1	1943
218-60	Aircraft Ground Support Equipment		39,228		39,228	2	1943
218-60	Aircraft Ground Support Equipment	3,448			3,448	2	1953
218-60	Aircraft Ground Support Equipment	1,640			1,640	1	1955
218-60	Aircraft Ground Support Equipment	1,920			1,920	1	1966

218-60	Aircraft Ground Support Equipment	644			644	1	1980
	Other						

*** 211-81; Engine Test Cell - Inadequate due to the age and the high cost to maintain. The Test Cell has an aged electrical system and numerous water leaks. The concrete has spalled with metal deterioration. MILCON P-383 will construct a new facility and it is programmed for FY94.**

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 describe why the facility is inadequate; indicate how it is being used and list other possible uses; and specify the costs to remove the deficiencies that make it inadequate. Indicate current plans to remove these deficiencies and the amount of any programmed funds. Discuss any material conditions of substandard facilities which have resulted in a C3 or C4 designation on your BASEREP.

36.[21a.] For the following **aircraft support facility** category codes, provide the amount of adequate, substandard, and inadequate facilities.

CCN	Facility Type	Unit of Measure	Adequate	Substandard	Inadequate	Total	Number of Units
111-20	Landing Pads	SF	13,030			13,030	2
121-10	Direct Fueling	OL/GM	20,600			20,600	2
124-30	Fuel Storage	GA	3,201,000	175,000	100,000	3,476,000	16
421-xx	Ammunition Storage	CF/TONS	16,691	63,900		80,541	21
425-xx	Open Ammunition Storage	SF	N/A				
113-20	Parking Aprons	SF	8,561,700			8,561,700	1
113-40	Access Aprons	SF	518,400			518,400	1
116-56	Combat Aircraft Ordnance Loading Area	SF	N/A				
	Other						

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 describe why the facility is inadequate; indicate how it is being used and list other possible uses; and specify the costs to remove the deficiencies that make it inadequate. Indicate current plans to remove these deficiencies and the amount of any programmed funds. Discuss any material conditions of substandard facilities which have resulted in a C3 or C4 designation on your BASEREP.

TAB C
DEPOT LEVEL MAINTENANCE CAPACITY

**THERE IS NO DEPOT LEVEL MAINTENANCE
PERFORMED AT PATUXENT RIVER OR ITS
SOLOMONS AND WEBSTER FIELD ANNEXES.**

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TAB D
ORDNANCE STORAGE CAPACITY

ORDNANCE STORAGE CAPACITY

Please answer the following questions if your activity performs any stowage or maintenance on any of the following ordnance commodity types:

ORDNANCE COMMODITY TYPES

- Mines
- Torpedoes
- Air Launched Threat
- Surface Launched
Threat
- Other Threat
- Expendables
- INERT
- CADS/PADS
- Strategic Nuclear
- Tactical Nuclear
- LOE: Rockets
- LOE: Bombs
- LOE: Gun Ammo
- LOE: Small Arms
- LOE: Pyro/Demo
- Grenades/Mortars/Projectiles

(20mm-16")
(up to 50 cal.)

1. Ordnance Stowage and Support

1.1 Provide present and predicted inventories (coordinate with inventory control manager) and maximum rated capability of all stowage facilities at each weapons storage location controlled by this activity. In predicting the out year facility utilization, distribute overall ordnance compliment to the most likely configuration. The maximum rated capability is also an out year projection taking into account any known or programmed upgrades that may increase current stowage capacity. When listing stowage facilities, group by location (e.g. main base, outlying field, special area).

Table 1.1: Total Facility Ordnance Stowage Summary for Patuxent River Complex

Facility Number	PRESENT INVENTORY		PREDICTED INVENTORY FY 2001		MAXIMUM RATED CAPABILITY	
	TONS	SQ FT	TONS	SQ FT	TONS	SQ FT
209A	2.0	880	2.0	880	4.8	2000
209B	14.0	1300	14.0	1300	23.8	2000
209C	10.0	1000	10.0	1000	20.0	2000
210A	4.0	1100	4.0	1100	7.6	2000
210B	2.0	900	2.0	900	4.2	2000
210C	6.0	1000	6.0	1000	12.0	2000
212	0.0	0	0.0	0	1.0	140
1412A	3.0	236	3.0	236	6.9	675
1412B	6.0	405	6.0	405	10.8	675
1412C	3.0	338	3.0	338	6.0	675
1412D	2.0	135	2.0	135	10.0	675
1412E	3.0	68	3.0	68	30.0	675
1412F	2.0	101	2.0	101	5.4	675
1412G	4.0	203	4.0	203	9.6	675
1371	1.0	61	1.0	61	4.8	135
1372	1.0	250	1.0	250	2.0	500
1373	10.0	563	10.0	563	21.0	1250
1374	6.0	500	6.0	500	13.2	1250
1375	30.0	813	30.0	813	40.5	1250
208	2.0	375	2.0	375	4.8	1250
245	2.0	63	2.0	63	5.4	420
248	6.0	525	6.0	525	13.8	1500
211	600.0	8000	600.0	8000	720.0	10000
213	1.0	188	1.0	188	1.85	1250
221A	0.0	0	0.0	0	1.0	64
221B	0.0	0	0.0	0	1.0	64
577A	1.0	45	1.0	45	1.3	64
577B	0.0	0	0.0	0	1.0	64
138	1.0	101	1.0	101	1.1	112
219A	0.0	0	0.0	0	1.0	64
219B	0.0	0	0.0	0	1.0	64
225A	1.0	61	1.0	61	1.1	64
225B	1.0	58	1.0	58	1.1	64
218A	1.0	26	1.0	26	2.2	64
218B	1.0	54	1.0	54	1.2	64

231A	0.0	0	0.0	0	1.0	64
231B	0.0	0	0.0	0	1.0	64
222A	0.0	0	0.0	0	1.0	112
222B	0.0	0	0.0	0	1.0	112
142	0.0	0	0.0	0	.5	35
220A	1.0	61	1.0	61	1.1	64
220B	1.0	64	1.0	64	1.0	64
1388A	1.0	366	1.0	366	1.1	407
1388B	1.0	346	1.0	346	1.1	407
240A	0.0	0	0.0	0	1.0	64
240B	0.0	0	0.0	0	1.0	64
3181	1.0	49	1.0	49	1.0	49
Port.RSL	1.0	49	1.0	49	1.0	49
TOTAL	732.0	20,284	732.0	20,284	1005.3	37,977

* Predicted inventory is based on current historical usage for mission support.

1.2 For each Stowage facility identified in question 1.1 above, identify the type of facility (specify if "igloo", "box", etc.). Identify the types of ordnance commodity (from the list above) which are currently stowed in that facility and all other ordnance types which, given existing restrictions, could be physically accommodated in that stowage facility. Specify below if such additional accommodation would require a modification of the facility (e.g. enhanced environmental controls, ESQD waiver).

Identify the reason(s) for which this ordnance is stored at your facility from the following list: own activity use (training); own activity use (operational stock); Receipt/Segregation/Stowage/Issue (RSSI); transshipment/awaiting issue; deep stow (war reserve); deep stow (awaiting Demil); other. Explain each "other" entry in the space provided, including ordnance stowed which is not a DON asset.

Table 1.2: Total Facility Ordnance Stowage Summary

Facility Number/Type	Currently Stowed Commodity Type(s)	Reason for Stowage at your Activity	Commodity Type(s) Which Can Be Stowed
209A/Trippl Arch	CADS	Operational Stock	SEE NOTE
209B/Trippl Arch	CADS	Operational Stock	SEE NOTE
209C/Trippl Arch	ROCKETS	Operational Stock	SEE NOTE
210A/Trippl Arch	CADS	Operational Stock	SEE NOTE
210B/Trippl Arch	PYRO	Operational Stock	SEE NOTE
210C/Trippl Arch	PYRO	Operational Stock	SEE NOTE
212/Earth Cov. Box	EMPTY	Operational Stock	SEE NOTE
1412A/Arch	AIR LAUNCHED	Operational Stock	SEE NOTE
1412B/Arch	SURFACE LAUNCHED	Operational Stock	SEE NOTE
1412C/Arch	AIR LAUNCHED	Operational Stock	SEE NOTE
1412D/Arch	AIR LAUNCHED	Operational Stock	SEE NOTE
1412E/Arch	AIR LAUNCHED	Operational Stock	SEE NOTE
1412F/Arch	AIR LAUNCHED	Operational Stock	SEE NOTE
1412G/Arch	AIR LAUNCHED	Operational Stock	SEE NOTE

1371/Earth Cov.Arch	EXPENDABLES	Operational Stock	SEE NOTE
1372/Earth Cov. Arch	BOMBS	Operational Stock	SEE NOTE
1373/Earth Cov. Arch	SMALL ARMS	Operational Stock	SEE NOTE
1374/Earth Cov. Arch	OTHER THREAT	Operational Stock	SEE NOTE
1375/Earth Cov. Arch	GUN AMMO/BOMBS	Operational Stock	SEE NOTE
208/Earth Cov. Arch	GRENADES	Operational Stock	SEE NOTE
245/Earth Cov. Arch	CADS	Operational Stock	SEE NOTE
248/Earth Cov. Arch	SMALL ARMS	Operational Stock	SEE NOTE
211/Box, Warehouse	INERT	Operational Stock	SEE NOTE
213/Box, Warehouse	INERT	Operational Stock	SEE NOTE
221A/ RSL	EMPTY	Operational Stock	SEE NOTE
221B/ RSL	EMPTY	Operational Stock	SEE NOTE
577A/ RSL	CADS	Operational Stock	SEE NOTE
577B/ RSL	EMPTY	Operational Stock	SEE NOTE
138/ RSL	CADS	Operational Stock	SEE NOTE
219A/ RSL	EMPTY	Operational Stock	SEE NOTE
219B/ RSL	EMPTY	Operational Stock	SEE NOTE
218A/ RSL	CADS	Operational Stock	SEE NOTE
218B/ RSL	CADS	Operational Stock	SEE NOTE
225A/ RSL	CADS	Operational Stock	SEE NOTE
225B/ RSL	CADS	Operational Stock	SEE NOTE
231A/ RSL	EMPTY	Operational Stock	SEE NOTE
231B/ RSL	EMPTY	Operational Stock	SEE NOTE
222A/ RSL	EMPTY	Operational Stock	SEE NOTE
222B/ RSL	EMPTY	Operational Stock	SEE NOTE
142/ RSL	EMPTY	Operational Stock	SEE NOTE
220A/ RSL	CADS	Operational Stock	SEE NOTE
220B/ RSL	CADS	Operational Stock	SEE NOTE
240A/ RSL	EMPTY	Operational Stock	SEE NOTE
240B/ RSL	EMPTY	Operational Stock	SEE NOTE
1388A/ RSL	CADS	Operational Stock	SEE NOTE
1388B/ RSL	CADS	Operational Stock	SEE NOTE
3181/ RSL	CADS	Operational Stock	SEE NOTE
Portable Ready Service Locker	CADS	Operational Stock	SEE NOTE

NOTE:

No modifications of the current facilities are required in order to store naval conventional ordnance.

Additional comments:

1.3 Identify the rated category, rated NEW and status of ESQD arc for each stowage facility listed above.

Table 1.3: Facility Rated Status

Facility Number / Type	Hazard Rating (1.1-1.4)	Rated NEW	ESQD Arc		
			Established (Y/N)	Waiver (Y/N)	Waiver Expiration Date
209 A	1.3	333K	Y	N	
209 B	1.3	333K	Y	N	
209 C	1.3	333K	Y	N	
210 A	1.3	166K	Y	N	
210 B	1.3	166K	Y	N	
210 C	1.3	166K	Y	N	
212	1.3	P.C.	Y	N	
1412 A	1.3	10K	Y	N	
1412 B	1.3	20K	Y	N	
1412 C	1.3	60K	Y	N	
1412 D	1.3	100K	Y	N	
1412 E	1.3	100K	Y	N	
1412 F	1.3	100K	Y	N	
1412 G	1.3	100K	Y	N	
1371	1.1	15K	Y	N	
1372	1.1	60K	Y	N	
1373	1.1	95k	Y	N	
1374	1.1	100K	Y	N	
1375	1.1	100k	Y	N	
208	(08)1.2	PC-1.2 300K- 1.3	Y	N	
245	(08)1.2	PC-1.2 300K- 1.3	Y	N	
248	1.1	60K	Y	N	
211	N/A	N/A	N/A	N/A	
213	N/A	N/A	N/A	N/A	
221 A	1.3	500LB	Y	N	
221 B	1.3	500LB	Y	N	
577 A	1.3	500LB	Y	N	
577 B	1.3	500LB	Y	N	
138	1.3	500LB	Y	N	
219 A	1.3	500LB	Y	N	
219 B	1.3	500LB	Y	N	
255 A	1.3	500LB	Y	N	
225 B	1.3	500LB	Y	N	

218 A	1.3	500LB	Y	N	
218 B	1.3	500LB	Y	N	
231 A	1.3	500LB	Y	N	
231 B	1.3	500LB	Y	N	
222 A	1.3	500LB	Y	N	
222 B	1.3	500LB	Y	N	
142	1.3	500LB	Y	N	
220 A	1.3	500LB	Y	N	
220 B	1.3	500LB	Y	N	
1388 A	1.3	500LB	Y	N	
1388 B	1.3	500LB	Y	N	
240 A	1.3	500LB	Y	N	
240 B	1.3	500LB	Y	N	
3181	1.3	500LB	Y	N	
Portable Ready Service Locker	1.3	500LB	Y	N	

1.4 Identify any restrictions which prevent maximum utilization of your facilities. If restrictions are based on facility conditions, specify reason, the cost to correct the deficiency, and identify any programmed projects that will correct the deficiency and/or increase your capability.

Magazines 209A, 209B, 209C - Limited to storing 1.3 and 1.4 material by building design and boundary distances. Limited to 1M (333k per cell), 1.3 material by building design.

Magazines 210A, 210B, 210C - Limited to storing 1.3 and 1.4 material by building design and boundary distances. Limited to 500K (166K per cell), 1.3 material by inhabited building distance.

Magazine 212 - Limited to storing 1.3 and 1.4 material by building design and boundary distances.

***No costs were identified since we have adequate capacity to store necessary ordnance for aircraft system test and evaluation.**

1.5 Identify if your activity performs any of the following functions on any of the ordnance commodities previously listed. Technical support includes planning, financial, administrative, process engineering and SOP support. Within each related function identify each ordnance commodity type for which you provide these services and the total Direct Labor Man Hours (DLMHs) expended (FY 1994); identify only those DLMHs expended by personnel under your command.

Table 1.5: Related Ordnance Support

Related Functions	Performed? (Y/N)	Type of Commodity	DLMHs
Maintenance (specify level)	Y "O" Level	Missiles	40 per week
Testing	N		
Manufacturing	N		
Outload	N		
Technical Support	Y		80 per week
Aviation Weapons Support Equipment	Y		280 per week
Receipt/Segregation Stowage/Issue	Y		820 per week

DATA CALL 4
BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 8 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."

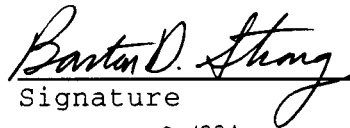
The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

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

BARTON D. STRONG
NAME (Please type or print)


Signature

COMMANDER
Title

MAY 12 1994
Date

NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION PATUXENT RIVER, MD
Activity


*NAVAIR did not provide data for inclusion in this package.

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

DATA CALL 4 CHANGE 1
NAWCAD
PAX RIVER

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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

DONALD V. BOECKER RADM USN
~~XXXXXXXXXXXXXXXXXXXX~~
NAME (Please type or print)
COMMANDER (ACTING)
Title
NAVAL AIR SYSTEMS COMMAND
Activity

Donald V. Boecker
Signature
2 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 Earner
Signature
8/2/94
Date

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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

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

Each individual in your activity generating information for the BRAC-95 process must certify that information. Enclosure (1) is provided for individual certifications and may be duplicated as necessary. You are directed to maintain those certifications at your activity for audit purposes. For purposes of this certification sheet, the commander of the activity will begin the certification process and each reporting senior in the Chain of Command reviewing the information will also sign this certification sheet. This sheet must remain attached to this package and be forwarded up the Chain of Command. Copies must be retained by each level in the Chain of Command for audit purposes.

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


CHANGE I NAWCAD/PR 24 May 94 - DATA CALL NUMBER FOUR

ACTIVITY COMMANDER

BARTON D. STRONG
NAME (Please type or print)

COMMANDER
Title

NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION
PATUXENT RIVER
Activity


Signature
MAY 27 1994
Date

Enclosure (3)



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



N00421

**DATA CALL #4 - AUDIT
BRAC-95 CERTIFICATION**

Reference: SECNAVNOTE 11000 of 8 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."

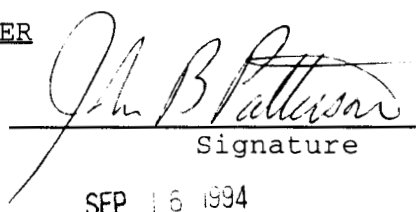
The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

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

CAPTAIN JOHN B. PATTERSON
NAME (Please type or print)


Signature

SEP 16 1994

ACTING COMMANDER
Title

Date

NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION PATUXENT RIVER, MD

Document Separator

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**DATA CALL 66
INSTALLATION RESOURCES**

Activity Information:

Activity Name:	DBO Patuxent River NDW
UIC:	43629
Host Activity Name (if response is for a tenant activity):	Naval Air Warfare Center
Host Activity UIC:	49860

DATA CALL 66
INSTALLATION RESOURCES

Table 1A - Base Operating Support Costs (Other Than DBOF Overhead)			
Activity Name: Defense Printing Service			UIC: AW 43629
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.):			

N/A (DPS is DBOF)

**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..

Table 1B - Base Operating Support Costs (DBOF Overhead)

Activity Name: DBO Patuxent River		UIC: 43629	
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)			
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	\$20		\$20
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:	\$20		\$20
3. Depreciation			
4. Grand Total (sum of 1c., 2m., and 3.):	\$20		\$20

UIC: 43629

DATA CALL 66
INSTALLATION RESOURCES

Table 2 - Services/Supplies Cost Data	
Activity Name: DBO Patuxent River	UIC: 43629
Cost Category	FY 1996 Projected Costs (\$000)
Travel:	\$1
Material and Supplies (including equipment):	\$122
Industrial Fund Purchases (other DBOF purchases):	\$0
Transportation:	\$2
Other Purchases (Contract support, etc.):	\$607
Total:	\$732

**DATA CALL 66
INSTALLATION RESOURCES**

Table 3 - Contract Workyears	
Activity Name: Defense Printing Service	UIC: <i>AT 43629</i>
Contract Type	FY 1996 Estimated Number of Workyears On-Base
Construction:	
Facilities Support:	
Mission Support:	
Procurement:	
Other:*	
Total Workyears:	

N/A (DPS has tenants only; do not support installations)

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)):

N/A

2) Estimated number of workyears which would be eliminated:

N/A

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):

N/A

**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):

<p>No. of Additional Contract Workyears Which Would Be Eliminated</p>	<p>General Type of Work Performed on Contract (e.g., engineering support, technical services, etc.)</p>
<p>N/A</p>	<p>N/A</p>

<p>No. of Additional Contract Workyears Which Would Be Relocated</p>	<p>General Type of Work Performed on Contract (e.g., engineering support, technical services, etc.)</p>
<p>N/A</p>	<p>N/A</p>

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)

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

R. M. MOORE, RADM, SC, USN
NAME (Please type or print)

RMT Moore
Signature

COMMANDER
Title

AUG 24 1994
Date

NAVAL SUPPLY 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 Earner
Signature

Title

8/30/94
Date

BRAC-95 CERTIFICATION

EFFECTED LOCATION(S):

DPS-Wide

DATA CALL BEING CERTIFIED:

BRAC-95 Data Call #66

Per SECNAV NOTE 11000 dtd 8 Dec 93

"I certify that the information contained herein for the following location(s) is accurate and complete to the best of my knowledge and belief."

WILLIAM J. PORTER

NAME (Please type or print)



Signature

Acting Director

Title

8/15/94

Date

DPS Headquarters

Activity

enclosure (1)

Document Separator

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DATA CALL 66
INSTALLATION RESOURCES

UIC: 42325

Activity Information:

Activity Name:	PERSUPPET Patuxent River
UIC:	42325
Host Activity Name (if response is for a tenant activity):	NAWCAD Patuxent River
Host Activity UIC:	00019

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

**DATA CALL 66
INSTALLATION RESOURCES**

UIC: 42325

lines to the table (following line 2j., as necessary, to identify any additional cost elements not currently shown). Leave shaded areas of table blank.

Table 1A - Base Operating Support Costs (Other Than DBOF Overhead)			
Activity Name: PERSUPPET Patuxent River			UIC: 42325
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	114	1260	1374
2j. Other (Specify)			
2k. Sub-total 2a. through 2j.:	114	1260	1374
3. Grand Total (sum of 1c. and 2k.):	114	1260	1374

DATA CALL 66
INSTALLATION RESOURCES

UIC: 42325

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>
O&MN	505
MPN	869

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**

UIC: 42325

Table 1B - Base Operating Support Costs (DBOF Overhead)			
Activity Name: N/A; not a DBOF Activity		UIC: 42325	
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)			
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**

UIC: 42325

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: PERSUPPDET Patuxent River	UIC: 42325
Cost Category	FY 1996 Projected Costs (\$000)
Travel:	1
Material and Supplies (including equipment):	90
Industrial Fund Purchases (other DBOF purchases):	
Transportation:	
Other Purchases (Contract support, etc.):	23
Total:	114

**DATA CALL 66
INSTALLATION RESOURCES**

UIC: 42325

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: PERSUPPET Patuxent River	UIC: 42325
Contract Type	FY 1996 Estimated Number of Workyears On-Base
Construction:	
Facilities Support:	
Mission Support:	
Procurement:	
Other:*	
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

UIC: 42325

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)):

N/A; no contract workyears

2) Estimated number of workyears which would be eliminated:

N/A; no contract workyears

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):

N/A; no contract workyears

**DATA CALL 66
INSTALLATION RESOURCES**

UIC: 42325

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.

No. of Additional Contract Workyears Which Would Be Eliminated	General Type of Work Performed on Contract (e.g., engineering support, technical services, etc.)
None	

No. of Additional Contract Workyears Which Would Be Relocated	General Type of Work Performed on Contract (e.g., engineering support, technical services, etc.)
None	

PSA WASHINGTON UIC N42553
DATA CALL SIXTY-SIX

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)

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

RADM H. W. GEHMAN, JR.

NAME (Please type or print)

H. W. Gehman, Jr.

Signature

Acting

Title Commander in Chief
U.S. Atlantic Fleet

115 AUG 1984
Date

Activity

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

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

W. A. EARNER

NAME (Please type or print)

W. A. Earner

Signature

Title

8/25/84
Date

Document Separator

BRAC-95 CERTIFICATION

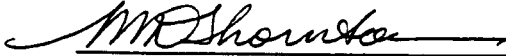
I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MICHAEL D. THORNTON
NAME (Please type or print)

CDR, CEC, USN
Title

MILCON PROGRAMMING DIVISION
Division

NAVAL FACILITIES ENGINEERING COMMAND
Activity


Signature

9 Dec 94
Date


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

MAJOR CLAIMANT LEVEL

J. E. BUFFINGTON, RADM, CEC, USN
NAME (Please type or print)

COMMANDER
Title

NAVAL FACILITIES ENGINEERING COMMAND
Activity


Signature
12/9/94
Date


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

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

W. A. EARNER

NAME (Please type or print)

Title


Signature
12/17/94
Date

Document Separator

DATA CALL 64
CONSTRUCTION COST AVOIDANCES

Table 1: Military Construction (MILCON) Projects (Excluding Family Housing Construction Projects)

Installation Name:		PATUXENT RIVER MD AWCACDV		
Unit Identification Code (UIC):		N00421		
Major Claimant:		NAVAIR		
Project FY	Project No.	Description	Appn	Project Cost Avoid (\$000)
1993	389	ADVANCED SYSTEM INTEGRATION FAC - PH (I)	MCON	10,000
		Sub-Total - 1993		10,000
1994	389A	ADVANCED SYSTEM INTEGRATION FACILITY	MCON	10,000
1994	426	HAZARDOUS & FLAMMABLE MATERIALS ST	MCON	3,400
1994	505	SEWAGE TREATMENT PLANT UPGRADES	MCON	1,000
		Sub-Total - 1994		14,400
1995	389B	ADVANCED SYSTEM INTEGRATION FAC (PH III)	MCON	10,000
1995	481	AIR ASW INTEROPERABILITY CENTER	MCON	4,200
1995	950S	SCI/ENG FACS PH III	BRAC	12,844
1995	951T	ADMIN HQ'S FACS PHASE I *	BRAC	14,105
		Sub-Total - 1995		41,149
1996	953T	PROPULSION SYS EVAL FAC	BRAC	25,750
1996	960T	ADMIN HQ'S FACS PHASE II	BRAC	29,400
		Sub-Total - 1996		55,150
1997	516	WASTEWTR TRMT PLNT UPGRD	MCON	2,500
		Sub-Total - 1997		2,500

BRAC-95 CERTIFICATION

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

MICHAEL D. THORNTON
NAME (Please type or print)

CDR, CEC, USN
Title

MILCON PROGRAMMING DIVISION
Division

NAVAL FACILITIES ENGINEERING COMMAND
Activity


Signature

9 Dec 94
Date


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

MAJOR CLAIMANT LEVEL

J. E. BUFFINGTON, RADM, CEC, USN
NAME (Please type or print)

COMMANDER
Title

NAVAL FACILITIES ENGINEERING COMMAND
Activity



Signature
12/9/94

Date


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

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

W. A. EARNER

NAME (Please type or print)

Title



Signature
12/17/94

Date

Document Separator

MILITARY VALUE DATA CALL
TECHNICAL CENTERS

Category	Weapon System and Material Support
Technical center site	NAWCAD PAX RIVER
Location/address	Patuxent River, MD

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

TAB B Special 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.

OPNAVNOTE 5450

Naval Air Warfare Center Aircraft Division, Patuxent River, MD. To be the Navy's principal research, development, test, evaluation, engineering, and fleet support activity for Naval aircraft, engines, avionics, aircraft support systems, and ship/shore/air operation. This mission includes: research and development of manned and unmanned air vehicles, air vehicles propulsion systems, core and mission-unique avionics including air ASW systems, airborne surveillance systems, aircraft launch and recovery systems, aviation support equipment, and related functions such as aircraft modeling and analysis and aircraft active and passive signatures; systems integration of all air platform subsystems; conduct of test and evaluation for these same aircraft electronics warfare throughout the spectrum of the life cycle to ensure successful operational performance; maintain life cycle to ensure successful operational performance; maintain aircraft test and evaluation ranges; assure an effective transition to production, including manufacturing production support and pilot/emergency production, to maintain a responsive industrial base; and perform in-service engineering of aircraft, avionics, and launch/recovery systems; direct the operations of the Naval Air Warfare Center Aircraft Division and its subordinate activities.

Naval Air Station, Patuxent River, MD. To maintain and operate facilities and provide services and material support operations of the Naval Air Warfare Center Aircraft Division Patuxent River, MD, and other activities and units as designated by appropriate authority.

AS A RESULT OF BRAC 91 AND BRAC 93, THE INTEGRATED MISSION FOR THE PATUXENT RIVER COMPLEX IS AS FOLLOWS:

Responsible for full spectrum Acquisition and Life Cycle support of Naval Aviation systems including:

**Integrated Acquisition Capability for Naval Aircraft
Research & Development (R&D) of Maritime Aircraft Systems
Flight & Ground Test & Evaluation (T&E) of Maritime Aircraft Systems
Maritime Logistic & Aircraft Maintenance Management
Shore Station Operations and Maintenance**

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PRECEDENTIAL INFORMATION**

Narrative:

INTEGRATED ACQUISITION CAPABILITY FOR NAVAL AIRCRAFT

The collocation of a large portion of the Naval Air Systems Command at Patuxent River will significantly enhance the integration of management, technical, and support efforts; better utilize our workforce, facility, and laboratory resources and shorten the time for acquiring and updating Naval aircraft/systems. This collocation provides Naval aviation Program Executive Officers (PEO)/Program Managers (PM) with an integrated Headquarters, Research, and Development, Systems Engineering, Test and Evaluation, Maintenance Engineering, and Integrated Logistics Support for all fixed and rotary wing airplane types including, fighter, attack, electronic warfare, reconnaissance, airborne early warning, antisubmarine, command, control and communications, observation, utility, cargo, trainer, and special warfare aircraft. The close proximity to the Washington DC arena and the large operational communities in Norfolk, Virginia is a distinct major advantage for timely communications and integrating acquisition and operational processes. This acquisition integration will be unique within DoD.

RESEARCH AND DEVELOPMENT OF MARITIME AIRCRAFT SYSTEMS

Research and development activities in air warfare systems are integral to resolving the needs of maritime air warfare systems and to guiding acquisition managers and system engineers throughout the acquisition cycle. Patuxent River will perform research and development in those areas unique to Navy needs. Included areas are:

- New and updated avionics/mission systems for maritime tactical aircraft (Unique within Navy)
- New and updated air vehicle systems, materials, and processes (Unique within DoD)
- New and updated maritime aircrew life support, escape, and survival systems (Unique within Navy)
- Airborne undersea warfare anti-surface warfare sensors and systems including reconnaissance, surveillance and ASW (Unique within DoD)
- Maritime air breathing propulsion systems (small aircraft engines) (Unique within Navy)
- Propulsion system components and accessories (Unique within DoD)
- Engineering support for Fleet aviation fuels, lubricants, fuel storage and delivery systems (Unique within Navy)
- Engineering and fleet support for assigned command, control, and communications systems and ocean surveillance (unique to the Navy).

Integration and collocation of maritime research and development capabilities with integrated acquisition management, flight and ground test engineering, logistic and maintenance management at Patuxent River will improve the air warfare system acquisition process by reducing acquisition time and costs.

FLIGHT AND GROUND T&E OF MARITIME AIRCRAFT SYSTEMS

Patuxent River's capabilities and facilities provide development test and support operational test activities essential to acquisition and fleet support functions for all Naval aircraft throughout the aircraft's life cycle. The flight and ground test functions include air vehicle system testing, aircraft propulsion system testing, avionics/mission system testing and those test disciplines such as flying qualities and performance, carrier suitability for tactical aircraft and dynamic interface between rotary wing aircraft and the various ships on which they operate, store/weapon compatibility with the aircraft. Patuxent River also serves as the lead DoD facility for aircraft electromagnetic environmental effects test and evaluation. Extensive simulation and aircraft stimulation capabilities are utilized to facilitate early-on testing during concept exploration and demonstration and validation phases of acquisition. When the Naval Air Systems Team is consolidated at Patuxent River, the total maritime acquisition cycle (from determination of mission need to fleet operations) will be supported at a single site. Principal site operations for fixed wing and rotary wing flight and ground test activities covering the complete fighter, attack, electronic warfare, reconnaissance, airborne early warning, antisubmarine, command/control/communications, observation, utility, cargo, trainer and special operations aircraft and its avionics systems is Unique within Navy, although certain mission critical test environments associated with aircraft carrier and other aviation capable ship operations and extremely high-density EMI testing are Unique within DoD.

MARITIME LOGISTIC AND AIRCRAFT MAINTENANCE MANAGEMENT

Aircraft and aircraft system logistic management and aircraft maintenance management are integrated with all other acquisition management elements to fully describe and plan for support and operations of the aircraft/system. This includes consideration of all elements of integrated logistic support (ILS) and all elements of the Navy maintenance plan. The scope of this activity includes ILS element plans and acquisitions, management of shore and ship aircraft maintenance facilities, and the maintenance plan formulation and execution for all in-service and new aircraft/systems. The former Naval Aviation Depot Operations Center (NADOC) and the Naval Aviation Maintenance Office (NAMO) are consolidated with other NAVAIR fleet/product support functions which significantly enhance the acquisition management of aircraft systems. Integration of this area with "Research and Development of Maritime Aircraft Systems" and "Flight and Ground Test and Evaluation of Maritime Systems" at Patuxent River will significantly contribute to improved acquisition processes for Naval air warfare aircraft/systems. This area is Unique within Navy, but the special requirements of sustainability aboard aircraft carriers and other aviation capable ships is Unique within DoD.

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SHORE STATION OPERATIONS & MANAGEMENT

The Naval Air Station (NAS) Patuxent River provides base infrastructure support. The Naval Air Systems Team, Naval Research Laboratory Detachment, VQ-4 and the Air Development Squadron 1 are several major organizations comprising a total of 58 tenants onboard. NAS Patuxent River manages and provides supply support including full authority financial services, procurement services, centralized computer support for both T&E and administrative activities, public works, airfield operations, intermediate maintenance, fire safety, and security support. The NAS also provides all administrative services for military and civilian personnel attached to Patuxent River. Patuxent River is a sea level air station dedicated to the maritime support of RDT&E of Naval aircraft. It is key to the principal site test and evaluation operations carried out at Patuxent River. Its facilities originally designed to support Navy aircraft T&E have been continually improved and modernized to handle the Tri-Service/full spectrum RDT&E mission. Test sites such as catapult, arresting gear, and landing system test facilities as well as hangar, engine repair and aircraft maintenance facilities are all integral to the total Patuxent River infrastructure. With collocation of the Naval Air Systems Team all shore station management functions will be performed by the NAS.

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

NAWCAD PAX:

**F18C/D JOINT DIRECT ATTACK
MUNITIONS (JDAM)**

**Commander
Naval Air Systems Command
Order for Work and Service
N0001993WXBA7AR
Dated 6 Jan 94**

F18C/D JOINT STAND-OFF WEAPON

**Commander
Naval Air Systems Command
Order for Work and Service
N0001993WXCM5MR
Dated 6 Jan 94**

**JOINT ADVANCED STRIKE
TECHNOLOGY PROGRAM (JAST)**

**Commander
Naval Air Systems Command
Order for Work and Service
N0001994WXZM05R
Dated 24 Mar 94**

**JOINT PRIMARY AIRCRAFT
TRAINING SYSTEM (JPATS)**

**Commander
Naval Air Systems Command
Airtask
A5115117B/053D/4H1150000
Dated 3 Feb 1994**

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PRECEDENTIAL INFORMATION**

**JOINT TACTICAL AIRCREW COMBAT
TRAINING SYSTEM (TACTS)/AIR
COMBAT MANEUVERING INSTRUMENT-
ATION (ACMI)/MEASUREMENT AND
DEBRIEFING SYSTEM (MDS)
CONFIGURATION MANAGEMENT (CM)
PLANNING AND SUPPORT**

**Commander
Naval Air Systems Command
Airtask
A2482482/0538/3248000035
Dated 21 Dec 1992**

**UNMANNED AERIAL VEHICLES
JOINT PROJECT**

**Commander
Naval Air Systems Command
Order for Work and Service
N0001993WX8P36D
Dated 23 Sep 1993**

LEAD, TECNET

**Defense Technical Information
Center
S3318194MPI9419
Dated 7 Apr 1994**

**LEAD, COMMON AIRBORNE
INSTRUMENTATION SYSTEM (CAIS)**

**Commander
Naval Air Warfare Center
Order for work and Service
Dated 6 Jan 1994**

PATUXENT RIVER COMPLEX

**Assigned total responsibility for performing acceptance/verification testing of
magnetic tape for DOD - Reference (1) CNM Ltr 4120 Ser 0521/326 of 19 Sep
1984 / USDR&E memo of 19 Jul 84.**

**LEAD, MICROWAVE EFFECTS ON DIGITAL
FLIGHT CONTROL SYSTEMS (MEDFCS) -
EARLY MODEL FLIGHT CONTROL SYSTEM
SURVIVABILITY TO ELECTROMAGNETIC
RADIATION (FSTER) - LATE MODEL FLIGHT
CONTROL SYSTEM**

N0001494WX35032

**LEAD, NEURAL NETWORK AND FUZZY
LOGIC APPLICATIONS**

N0001494WX3502

**LEAD, AGILITY CRITERIA
DEVELOPMENT**

N0001494WX35032

**LEAD, LASER EYE PROTECTION
SPECTACLES**

A02025311/001D/4W06060000

LEAD, FREQUENCY AGILE LASER

N0007594WR00064

**LEAD, AILSS - LOW ENERGY LASER
VISOR**

A05C531TA/001C/4W0584-000

**LEAD, AIR WARRIOR (AW) - ROTARY
WING SURVEY**

A05C531TA/001C/4W0584-000

LEAD, AILSS - AAODS - CERAMIC OXYGEN GENERATING SYSTEM (COGS)	A05C531TA/001C/4W0584-000
LEAD, ESCAPE SYSTEM TECHNOLOGY 4TH GENERATION ESCAPE SYSTEM TECHNOLOGIES DEMONSTRATION	A05C531TA/001C/4W0584-000
LEAD, AIR WARRIOR (AW) - SYSTEM DESIGN	A05C531TA/001C/4W0584-000
LEAD, ASAP (AIRBORNE SHARED APERTURE PROGRAM) PROGRAM: JOINT WIDEBAND SHARED APERTURE	FY95 Joint Service Program Plan, Technology Panel for Sensors (JDL-TPSE) of 31 Jan 1994
LEAD, 2-D ISAR (INVERSE SYNTHETIC APERTURE RADAR) AIR TARGET ID PROGRAM: JOINT 2-D (RADAR) IMAGING PROGRAM	FY95 Joint Service Program Plan, Technology Panel for Sensors (JDL-TPSE) of 31 Jan 1994
LEAD, F-14D AIR TARGET ID DATA COLLECTION PROGRAM: JOINT UHRR/DATA COLLECTION PROGRAM	FY95 Joint Service Program Plan, Technology Panel for Sensors (JDL-TPSE) of 31 Jan 1994
LEAD, ALL-SOURCE CLASSIFIER/ FUSION EVALUATION PROGRAM: JOINT UHRR/DATA COLLECTION PROGRAM	FY95 Joint Service Program Plan, Technology Panel for Sensors (JDL-TPSE) of 31 Jan 1994
LEAD, SPACE-TIME ADAPTIVE PROCESSING WITH MODIFIED E-2 ANTENNA PROGRAM: ARPA/ADI/NAVY MOUNTAINTOP PROGRAM	FY95 Joint Service Program Plan, Technology Panel for Sensors (JDL-TPSE) of 31 Jan 1994
LEAD, MULTIBAND SAR ON P-3 - UHF UPGRADE PROGRAM: ARPA/WARBREAKER	TBD
LEAD, AUTOMATIC ISAR SHIP CLASSIFICATION PROGRAM: JOINT JSTARS ATR DEMO	FY95 Joint Service Program Plan, Technology Panel for Sensors (JDL-TPSE) of 31 Jan 1994
LEAD, DISTRIBUTED APERTURE IR SENSOR; DISCRIMINATION PROCESSING; SHARED APERTURE EO/IR; RADIANT OUTLAW; MULTI-FUNCTION SURVEILLANCE TECHNOLOGY PROGRAM: JOINT AIR INTERCEPT EO	FY95 Joint Service Program Plan, Technology Panel for Sensors (JDL-TPSE) of 31 Jan 1991

**LEAD, RF EXPENDABLE JAMMERS
PROGRAM: RF COUNTERMEASURES**

**JDL Technical Plan for
Electronic Warfare, Joint
Service Program Plan**

**LEAD, STRUCTURALLY EMBEDDED
RECONFIGURABLE ANTENNAS
PROGRAM: CNI ANTENNA SYSTEMS**

JDL Panel on Generic Antennas

**LEAD, RADOME SURVIVABILITY TESTING
PROGRAM: GPS**

**MOU between NAVSTAR GPS
JPO and NCCOSC-NRAD
14 Feb 1994**

**LEAD, HIGH PERFORMANCE OPTICAL
NETWORKS (PHOTONIC EXCHANGE
NETWORK) - (JOINT LEAD WITH AIR
FORCE)
PROGRAM: JAST SUPPORT PENDING**

**Joint Service Program Plan
(JSPP) of the JDL Integrated
Avionics Subpanel
Feb 1994**

**LEAD, JAST ARCHITECTURE DEFINITION
PROGRAM: JAST**

JAST PROGRAM PLAN

**LEAD, RESEARCH, DEVELOPMENT &
EVALUATION OF MAGNETIC TAPES
PROGRAM: MAGNETIC MEDIA PROGRAM**

**CNM ltr of 19 Sep 1984
Ser: 0521/326**

TECHNICAL FUNCTIONS

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

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

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

MANPOWER

4. Work Breakdown Structure.

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

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

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

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

NOTES:

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

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

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

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

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

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**Table 4.1, General Support Resources for
(Activity: **NAWCAD PAX/NAS PAX) (UIC: N00421)**

Function	Space allocated (Gross SQFT)	Work Years (R)	Civilian Persnel onboard	Contract Work Years	*Military Personnel Onboard	
					Off	Enl
ADMINISTRATION						
Command (CO/XO/TD/etc.)	31,328	112.5	116	14	18	24
Comptroller	28,837	91.2	94	0	0	0
Admin	22,216	6.8	7	1	1	16
Human Resources	84,028	181.4	187	0	0	0
OPERATIONS SUPPORT						
Supply Management	524,989	138.7	143	0	3	81
Consolidated Computational Computer Support	0	0	0	0	0	0
Information Systems and Communications	91,122	127.1	131	125	1	0
Safety/OSH/Environmental	3,259	25.2	26	0	0	0
INFRASTRUCTURE						
Physical Security	20,162	52.4	54	0	0	20
Public Works/Staff Civil Engr	314,113	132.9	137	477	4	3
Fire Protection	27,999	66.9	69	0	0	0
Medical/Dental	0	0	0	30	0	1
Military Support	2,188,590	87.3	90	0	0	0
Air/Waterfront Operations	137,251	22.3	23	4	13	220
Other	3,165	19.4	20	2	0	0
TECHNICAL STAFF						
Technical Operations			1,624	2,011	169	817
Totals	3,477,059	1,064.1	2,721	2,664	209	1182

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NAWCAD Change
VBC NAWC-210
9/20/94

**Table 4.1, General Support Resources for
(Activity: **NAWCAD PAX/NAS PAX) (UIC: N00421)**

Function	Space allocated (Gross SQFT)	Work Years	Civilian Personnel onboard	Contract Work Years	*Military Personnel Onboard	
					Off	Enl
ADMINISTRATION						
Command (CO/XO/TD/etc.)	31,328	113	116	14	18	24
Comptroller	28,837	91.2	94	0	0	0
Admin	22,216	6.8	7	1	1	16
Human Resources	84,028	182	187	0	0	0
OPERATIONS SUPPORT						
Supply Management	524,989	138.7	143	0	3	81
Consolidated Computational Computer Support	0	0	0	0	0	0
Information Systems and Communications	91,122	128	131	125	1	0
Safety/OSH/Environmental	3,259	25.2	26	0	0	0
INFRASTRUCTURE						
Physical Security	20,162	52.4	54	0	0	20
Public Works/Staff Civil Engr	314,113	132.9	137	477	4	3
Fire Protection	27,999	67	69	0	0	0
Medical/Dental	0	0	0	30	0	1
Military Support	2,188,590	88	90	0	0	0
Air/Waterfront Operations	137,251	22.3	23	4	13	220
Other	3,165	19.4	20	2	0	0
TECHNICAL STAFF						
Technical Operations			1,624	2,011	169	817
Totals	3,477,059	1,067	2,721	2,664	209	1,182

* Military personnel onboard includes the following UIC's (which are under the NAWCAD Pax UIC): 44689, 47608, 35679, 48711, 68122, 42846 and 47650. V-22 Ft. Worth, TX and V-22 Wilmington, DE detachments have been moved under NAWCAD's UIC N00421.

** NAS is collocated with NAWCAD Pax but is included in above table 4.1. The differences in the functions of each are as follows:

NAVAIRWARCENACDIV Patuxent River, Headquarters:

Supports the Naval Air Systems Command (NAVAIRSYSCOM) and the Naval Air Warfare Center (NAWC) in the development, acquisition, and support of aeronautical and related technology systems for the operating forces. Commands units in various locations that comprise the Aircraft Division.

NAVAIRWARCENACDIV Patuxent River, Flight Test and Engineering Group Functions:

- **Test and evaluate aircraft weapons systems**
- **Develop and operate major instrumented ranges and test facilities**
- **Serve as principal site aircraft development programs**
- **Provide mission support, quality of life support, and facilities to tenants and regional activities**
- **Provide engineering and range support to fleet activities**
- **Operate the U.S. Naval Test Pilot School for Navy, Marine, and Army aviators and engineers**

Naval Air Station, Patuxent River, MD. To maintain and operate facilities and provide services and material support operations of the Naval Air Warfare Center Aircraft Division Patuxent River, MD, and other activities and units as designated by appropriate authority.

Revised pg

**Table 4.2, General Support Resources for all Detachments
(Activity: NAWCAD PAX RIVER) (UIC: N00421) N/A**

Function	Space allocated (Gross SQFT)	Work Years	Civilian Persnel onboard	Contract Work Years	Military Personnel Onboard	
					Off	Enl
ADMINISTRATION						
Command (CO/ XO/ TD/etc.)	.3	0	1	0	0	0
Comptroller	.2	0	1	0	0	0
Admin	2.8	0	2	2	0	0
Human Resources	0	0	0	0	0	0
OPERATIONS SUPPORT						
Supply Management	.3	0	2	2	0	0
Consolidated Computational Computer Support	0	0	0	0	0	0
Information Systems and Communications	0	0	0	0	0	0
Safety/OSH/Environmental	0	0	0	0	0	0
INFRASTRUCTURE						
Physical Security	0	0	0	1	0	0
Public Works/Staff Civil Engr	0	0	0	0	0	0
Fire Protection	0	0	0	0	0	0
Medical/Dental	0	0	0	0	0	0
Military Support	0	0	0	0	0	0
Air/Waterfront Operations	.4	0	0	0	0	0
Other	400	0	0	9	0	0
TECHNICAL STAFF						
Technical Operations			37	47	11	51
Totals	404.0	0	43	61	11	51

R

NOTE: V-22 Ft. Worth, TX and V-22 Wilmington, DE detachments have been moved under NAWCAD's UIC N00421. The following detachments were established based on the movement of BRAC-91&93 functions to Patuxent River Complex. Included are: NAWCAD Willow Grove; NAWCAD DET AEDC Tullahoma; NAWCAD DET Key West and *NAWCAD DET Warminster, PA. (None have over 50 civ personnel or own technical facilities).

*** This detachment consists of 24 civ, 6 mil & 5 contractors to maintain and operate the Dynamic Flight Simulator (DFS). A separate data call was submitted by NAWCAD for the DFS. It is included here to reflect BRAC 91&93 functions moving to PAX.**

Revised pg

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**Table 4.2, General Support Resources for all Detachments
(Activity: NAWCAD PAX RIVER) (UIC: N00421)**

Function	Space allocated (Gross SQFT)	Work Years	Civilian Persnel onboard	Contract Work Years	Military Personnel Onboard	
					Off	Enl
ADMINISTRATION						
Command (CO/ XO/ TD/etc.)	.3	0	1	0	0	0
Comptroller	.2	0	1	0	0	0
Admin	2.8	0	2	2	0	0
Human Resources	0	0	0	0	0	0
OPERATIONS SUPPORT						
Supply Management	.3	0	2	2	0	0
Consolidated Computational Computer Support	0	0	0	0	0	0
Information Systems and Communications	0	0	0	0	0	0
Safety/OSH/Environmental	0	0	0	0	0	0
INFRASTRUCTURE						
Physical Security	0	0	0	1	0	0
Public Works/Staff Civil Engr	0	0	0	0	0	0
Fire Protection	0	0	0	0	0	0
Medical/Dental	0	0	0	0	0	0
Military Support	0	0	0	0	0	0
Air/Waterfront Operations	.4	0	0	0	0	0
Other	400	0	0	9	0	0
TECHNICAL STAFF						
Technical Operations			37	47	11	51
Totals	404.0	0	43	61	11	51

R
NOTE: V-22 Ft. Worth, TX and V-22 Wilmington, DE detachments have been moved under NAWCAD's UIC N00421. The detachments listed above are based on the movement of BRAC-91 and BRAC-93 functions to Patuxent River Complex. Included are: NAVAIRWARCENACDIV Willow Grove; NAVAIRWARCENACDIV DET AEDC Tullahoma; NAVAIRWARCENACDIV DET Key West, and NAVAIRWARCENACDIV DET Warminster, Pa. None of these detachments have over 50 Civilian personnel or own technical facilities.

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 12 May 1994
 UIC N00421

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Enclosure (4)

**Table 4.2, General Support Resources for all Detachments
(Activity: NAWCAD PAX RIVER) (UIC: N00421) N/A**

Function	Space allocated (Gross SQFT)	Work Years	Civilian Personnel onboard	Contract Work Years	Military Personnel Onboard	
					Off	Enl
ADMINISTRATION						
Command (CO/ XO/ TD/etc.)	.3	0	1	0	0	0
Comptroller	.2	0	1	0	0	0
Admin	2.8	0	2	2	0	0
Human Resources	0	0	0	0	0	0
OPERATIONS SUPPORT						
Supply Management	.3	0	2	2	0	0
Consolidated Computational Computer Support	0	0	0	0	0	0
Information Systems and Communications	0	0	0	0	0	0
Safety/OSH/Environmental	0	0	0	0	0	0
INFRASTRUCTURE						
Physical Security	0	0	0	1	0	0
Public Works/Staff Civil Engr	0	0	0	0	0	0
Fire Protection	0	0	0	0	0	0
Medical/Dental	0	0	0	0	0	0
Military Support	0	0	0	0	0	0
Air/Waterfront Operations	.4	0	0	0	0	0
Other	400	0	0	9	8	35
TECHNICAL STAFF						
Technical Operations			37	47	3	16
Totals	404.0	0	43	61	11	51

NOTE: V-22 Ft. Worth, TX and V-22 Wilmington, DE detachments have been moved under NAWCAD's UIC N00421. The detachments listed above are based on the movement of BRAC-91 and BRAC-93 functions to Patuxent River Complex. Included are: NAVAIRWARCENACDIV Willow Grove; NAVAIRWARCENACDIV DET AEDC Tullahoma; NAVAIRWARCENACDIV DET Key West; NAVAIRWARCENACDIV (DBOF) Patuxent River, Md and Deep Water Test Facility, Oreland, Pa. None of these detachments have over 50 Civilian personnel or own technical facilities.

Revised pg

**Table 4.3, Previous BRAC Impact to General Support Resources for
(Activity: **NAWCAD PAX/NAS PAX) (UIC: N00421)**

R

Function	Space allocated (Gross SQFT)	Work Years (R)	Civilian Persnel onboard	Contract Work Years	*Military Personnel Onboard	
					Off	Enl
ADMINISTRATION						
Command (CO/XO/TD/etc.)	60,893	59.0	54.0	19.0	4.0	2.0
Comptroller	21,200	62.0	60.0	0	0	0
Admin	996.0	6.0	5.0	1.0	0	0
Human Resources	11,176	34.8	28.0	0	0	0
OPERATIONS SUPPORT						
Supply Management	41,400	66.0	65.0	27.0	1.0	3.0
Consolidated Computational Computer Support	0	0	0	0	0	0
Information Systems and Communications	70,924	53.0	51.0	73.0	1	0
Safety/OSH/Environmental	2,810	20.0	20.0	0	0	0
INFRASTRUCTURE						
Physical Security	4,178	8.0	8.0	22.0	0	1
Public Works/Staff Civil Engr	18,900	48.0	48.0	0	0	0
Fire Protection	0	2.0	0	0	0	0
Medical/Dental	0	0	0	0	0	0
Military Support	400	6.9	3.0	0	1.0	2.0
Air/Waterfront Operations	1,768	7.0	7.0	0	22.0	68.0
Other	0	0	0	0	0	0
TECHNICAL STAFF						
Technical Operations			1,837.0	1,380.0	21.0	37.0
Totals	234,645	372.7	2,186.0	1,522.0	50.0	113.0

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Table 4.3, Previous BRAC Impact to General Support Resources for (Activity: Patuxent River Complex) (UIC: N00421) INCLUDES PAX RIVER WITH BRAC-91 TRENTON/WARMINSTER IMPACTS AND BRAC-93 WEBSTER FIELD AND TRENTON. DATA NOT PROVIDED BY NAWAIR.

Function	Space allocated (Gross SQFT)	Work Years	Civilian Persnel onboard	Contract Work Years	*Military Personnel Onboard	
					Off	Enl
ADMINISTRATION						
Command (CO/XO/TD/etc.)	92,221	171.5	170	33	22	26
Comptroller	50,037	153.2	154	0	0	0
Admin	23,212	12.8	12	2	1	16
Human Resources	95,204	216.2	215	0	0	0
OPERATIONS SUPPORT						
Supply Management	566,389	204.7	208	27	4	84
Consolidated Computational Computer Support	0	0	0	0	0	0
Information Systems and Communications	162,046	180.1	182	198	2	0
Safety/OSH/Environmental	6,069	45.2	46	0	0	0
INFRASTRUCTURE						
Physical Security	24,340	60.4	62	22	0	21
Public Works/Staff Civil Engr	333,013	180.9	185	477	4	3
Fire Protection	27,999	68.9	69	0	0	0
Medical/Dental	0	0	0	30	0	1
Military Support	2,188,990	94.2	93	0	1	2
Air/Waterfront Operations	139,019	29.3	30	4	35	288
Other	3,165	19.4	20	2	0	0
TECHNICAL STAFF						
Technical Operations			3,461	3,391	190	854
Totals	3,711,704	1,436.8	4,907	4,186	259	1295

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Enclosure (2)

**Table 4.3, Previous BRAC Impact to General Support Resources for
(Activity: Patuxent River Complex) (UIC: N00421)**

**INCLUDES PAX RIVER WITH BRAC-91 TRENTON/WARMINSTER IMPACTS AND
BRAC-93 WEBSTER FIELD AND TRENTON. DATA FOR NAVAIR WILL BE
PROVIDED IN DATA CALL NUMBER THIRTY-ONE, QUESTION #3.**

Function	Space allocated (Gross SQFT)	Work Years	Civilian Persnel onboard	Contract Work Years	*Military Personnel Onboard	
					Off	Enl
ADMINISTRATION						
Command (CO/XO/TD/etc.)	92,221	171.5	170	33	22	26
Comptroller	50,037	153.2	154	0	0	0
Admin	23,212	12.8	12	2	1	16
Human Resources	95,204	216.2	215	0	0	0
OPERATIONS SUPPORT						
Supply Management	566,389	204.7	208	27	4	84
Consolidated Computational Computer Support	0	0	0	0	0	0
Information Systems and Communications	162,046	180.1	182	198	2	0
Safety/OSH/Environmental	5,069	45.2	46	0	0	0
INFRASTRUCTURE						
Physical Security	24,340	60.4	62	22	0	21
Public Works/Staff Civil Engr	333,013	180.9	185	477	4	3
Fire Protection	27,999	68.9	69	0	0	0
Medical/Dental	0	0	0	30	0	1
Military Support	2,188,990	94.2	93	0	1	2
Air/Waterfront Operations	139,019	29.3	30	4	35	288
Other	3,165	19.4	20	2	0	0
TECHNICAL STAFF						
Technical Operations			3,461	3,391	202	905
Totals	3,711,704	1,436.8	4,907	4,186	271	1,346

NOTE: The data included in table 4.3 for the Warminster influx represents the billets scheduled for transfer to Patuxent River and are identified to previous BRAC submissions. As of this date the actual on-board personnel identical with those billets have not been defined. In addition, the technical count is currently less than the scheduled billet transfer. Therefore, the tables that follow represent the on-board counts that are in fact less than the expected billet transfer scheduled in FY96.

5. Technical Staff Qualifications.

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

**Table 5.1, Technical Staff Education Level for
(Activity: NAWCAD PAX) (UIC: N00421)**

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	3	1	4	11	19
High School	5	187	118	119	224	653
B.A./B.S	7	472	156	48	99	782
M.A./M.S	0	53	33	18	61	165
Ph.D./M.D.	0	1	0	1	3	5
Total	12	716	308	190	398	1,624

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**Table 5.1, Technical Staff Education Level for
(Activity: NAWCAD PAX) (UIC: N00421) with BRAC-91 and BRAC 93
Technical Staff Influx from Webster Field, Warminster and Trenton. NAVAIR
DID NOT PROVIDE DATA.**

Highest Degree Attained	Years of Government and/or Military Service (R)					
	Less than 3 Years	3-10 Years	11-15 Years	16-20 Years	More than 20 Years	Total
Grade School	0	4	1	5	12	22
High School	7	245	158	159	319	888
B.A./B.S	14	961	302	109	301	1,687
M.A./M.S	0	181	88	75	302	646
Ph.D./M.D.	0	37	14	10	20	81
Total	21	1,428	563	358	954	3,324

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**Table 5.1, Technical Staff Education Level for
 (Activity: NAWCAD PAX) (UIC: N00421) with BRAC-91 and BRAC 93
 Technical Staff Influx from Webster Field, Warminster and Trenton. NAVAIR
 DID NOT PROVIDE DATA.**

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	4	1	5	12	22
High School	7	245	158	159	319	888
B.A./B.S	14	961	302	109	301	1,687
M.A./M.S	0	181	88	75	302	646
Ph.D./M.D.	0	37	14	10	20	81
Total	21	1,428	563	358	954	3,329

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**Table 5.2, Technical Staff Education Level for all Detachments
(Parent Activity: NAWCAD PAX) (UIC: N00421)**

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
High School					1	1
B.A./B.S		7	1	1	3	12
M.A./M.S		5	13	1	1	20
Ph.D./M.D.		3	1			4
Total		15	15	2	5	37

R

NOTE: V-22 Ft. Worth, TX and V-22 Wilmington, DE detachments have been moved under NAWCAD's UIC N00421. The following detachments were established based on the movement of BRAC-91&93 functions to Patuxent River Complex. Included are: NAWCAD Willow Grove; NAWCAD DET AEDC Tullahoma; NAWCAD DET Key West; *NAWCAD DET Warminster, PA. None of these detachments have over 50 civilian personnel or own technical facilities.

*This detachment consists of 24 civ, 6 mil & 5 contractors to maintain and operate the Dynamic Flight Simulator (DFS). A separate data call has been submitted by NAWCAD for the DFS. It is included here to reflect BRAC 91&93 functions moving to PAX.

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**Table 5.2, Technical Staff Education Level for all Detachments
(Parent Activity: NAWCAD PAX) (UIC: N00421)**

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
High School					1	1
B.A./B.S		7	1	1	3	12
M.A./M.S		5	13	1	1	20
Ph.D./M.D.		3	1			4
Total		15	15	2	5	37

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NOTE: V-22 Ft. Worth, TX and V-22 Wilmington, DE detachments have been moved under NAWCAD's UIC N00421. The detachments listed above are based on the movement of BRAC-91 and BRAC-93 functions to Patuxent River Complex. Included are: NAVAIRWARCENACDIV Willow Grove; NAVAIRWARCENACDIV DET AEDC Tullahoma; NAVAIRWARCENACDIV DET Key West, and NAVAIRWARCENACDIV DET Warminster, Pa.

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

Yes, the NAWCADPAX is ideally located approximately 70 miles southeast of Washington, D.C., Annapolis, MD, and Baltimore, MD and surrounded on three sides by the Patuxent River and Chesapeake Bay. The wide range of inviting technical opportunities for government employees and has established a strong base of contractor and industrial support. This area has abundant recreational opportunities including unsurpassed water related sports such as boating and fishing and is also within easy driving distance of a rich cultural life and superb shopping.

**Table 5.2, Technical Staff Education Level for all Detachments
(Parent Activity: NAWCAD PAX) (UIC: N00421) N/A**

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
High School					1	1
B.A./B.S		7	1	1	3	12
M.A./M.S		5	13	1	1	20
Ph.D./M.D.		3	1			4
Total		15	15	2	5	37

NOTE: V-22 Ft. Worth, TX and V-22 Wilmington, DE detachments have been moved under NAWCAD's UIC N00421. The detachments listed above are based on the movement of BRAC-91 and BRAC-93 functions to Patuxent River Complex. Included are: NAVAIRWARCENACDIV Willow Grove; NAVAIRWARCENACDIV DET AEDC Tullahoma; NAVAIRWARCENACDIV DET Key West; NAVAIRWARCENACDIV DET Warminster, Pa and Deep Water Test Facility, Oreland, Pa.

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

**Table 5.3, Technical Staff Academic Fields for
(Activity: NAWCAD PAX) (UIC: N00421)**

Academic field	Number
Physics	1
Chemistry	0
Biology	2
Mathematics/Statistics/ Operations Research	7
Engineering	92
Medical	0
Dental	0
Computer Science	9
Social Science	6
Other Science	3
Non-Science	50
Total	170

**Table 5.3, Technical Staff Academic Fields for
 (Activity: NAWCAD PAX) (UIC: N00421) with BRAC-91 and BRAC-93
 Technical Staff influx from Webster Field, Warminster and Trenton, NAVAIR
 DID NOT PROVIDE DATA.**

Academic field	Number
Physics	43
Chemistry	4
Biology	2
Mathematics/Statistics/ Operations Research	23
Engineering	564
Medical	0
Dental	0
Computer Science	26
Social Science	6
Other Science	10
Non-Science	53
Total	731

**Table 5.4, Technical Staff Academic Fields for all Detachments
(Parent Activity: NAWCAD PAX RIVER) (UIC: N00421) N/A**

Academic field	Number
Physics	2
Chemistry	
Biology	
Mathematics/Statistics/ Operations Research	1
Engineering	20
Medical	
Dental	
Computer Science	
Social Science	
Other Science	1
Non-Science	
Total	24

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NOTE: V-22 Ft. Worth, TX and V-22 Wilmington, DE detachments have been moved under NAWCAD's UIC N00421. The following detachments were established based on the movement of BRAC-91&93 functions to Patuxent River Complex. Included are: NAWCAD Willow Grove; NAWCAD DET AEDC Tullahoma; NAWCAD DET Key West; *NAWCAD DET Warminster, PA.

*This detachment consists of 24 civ, 6 mil & 5 contractors to maintain and operate the Dynamic Flight Simulator (DFS). A separate data call has been submitted by NAWCAD for the DFS. It is included here to reflect BRAC 91&93 functions moving to PAX.

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

Yes, the NAWCADPAX is ideally located approximately 70 miles southeast of Washington, D.C., Annapolis, MD, and Baltimore, MD and surrounded on three sides by the Patuxent River and Chesapeake Bay. The wide range of inviting technical opportunities for government employees and has established a strong base of contractor and industrial support. This area has abundant recreational opportunities including unsurpassed water related sports such as boating and fishing and is also within easy driving distance of a rich cultural life and superb shopping.

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**Table 5.4, Technical Staff Academic Fields for all Detachments
(Parent Activity: NAWCAD PAX RIVER) (UIC: N00421) N/A**

Academic field	Number
Physics	2
Chemistry	
Biology	
Mathematics/Statistics/ Operations Research	1
Engineering	20
Medical	
Dental	
Computer Science	
Social Science	
Other Science	1
Non-Science	
Total	24

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NOTE: V-22 Ft. Worth, TX and V-22 Wilmington, DE detachments have been moved under NAWCAD's UIC N00421. The following detachments were established based on the movement of BRAC-91&93 functions to Patuxent River Complex. Included are: NAWCAD Willow Grove; NAWCAD DET AEDC Tullahoma; NAWCAD DET Key West; *NAWCAD DET Warminster, PA. None of these detachments have over 50 civilian personnel or own technical facilities.

*This detachment consists of 24 civ, 6 mil & 5 contractors to maintain and operate the Dynamic Flight Simulator (DFS). A separate data call has been submitted by NAWCAD for the DFS. It is included here to reflect BRAC 91&93 functions moving to PAX.

FOR OFFICIAL USE ONLY**Table 5.4, Technical Staff Academic Fields for all Detachments
(Parent Activity: NAWCAD PAX RIVER) (UIC: N00421)**

Academic field	Number
Physics	2
Chemistry	
Biology	
Mathematics/Statistics/ Operations Research	1
Engineering	20
Medical	
Dental	
Computer Science	
Social Science	
Other Science	1
Non-Science	
Total	24

Note: V-22 Ft. Worth, TX and V-22 Wilmington, DE detachments have been moved under NAWCAD's UIC N00421. The detachments listed above are based on the movement of BRAC-91 and BRAC-93 functions to Patuxent River Complex. Included are: NAVAIRWARCENACDIV Willow Grove; NAVAIRWARCENACDIV DET AEDC Tullahoma; NAVAIRWARCENACDIV DET Key West, and NAVAIRWARCENACDIV DET Warminster, Pa.

**Table 5.4, Technical Staff Academic Fields for all Detachments
(Parent Activity: NAWCAD PAX RIVER) (UIC: N00421) N/A**

Academic field	Number
Physics	2
Chemistry	
Biology	
Mathematics/Statistics/ Operations Research	1
Engineering	20
Medical	
Dental	
Computer Science	
Social Science	
Other Science	1
Non-Science	
Total	24

Note: V-22 Ft. Worth, TX and V-22 Wilmington, DE detachments have been moved under NAWCAD's UIC N00421. The detachments listed above are based on the movement of BRAC-91 and BRAC-93 functions to Patuxent River Complex. Included are: NAVAIRWARCENACDIV Willow Grove; NAVAIRWARCENACDIV DET AEDC Tullahoma; NAVAIRWARCENACDIV DET Key West; NAVAIRWARCENACDIV DET Warminster, Pa and Deep Water Test Facility, Oreland, Pa.

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

Yes, the NAWCADPAX is ideally located approximately 70 miles southeast of Washington, D.C., Annapolis, MD, and Baltimore, MD and surrounded on three sides by the Patuxent River and Chesapeake Bay. The wide range of inviting technical opportunities for government employees and has established a strong base of contractor and industrial support. This area has abundant recreational opportunities including unsurpassed water related sports such as boating and fishing and is also within easy driving distance of a rich cultural life and superb shopping.

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

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PATUXENT RIVER COMPLEX

Analysis of Phenolic Antioxidants in JP-5 Aviation Fuels, Huang, M.A., and Turner, L.M., American Chemical Society, Division of Fuel Chemistry, Preprints Volume 35, No. 4, pp 1255, August 1990

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Fuel Effects on Gas Turbine Combustor Dynamics; AIAA-90-1957, Mehta, J., Mungur, P., Dodds, W., Bahr, D., and Clouser, S., AIAA/SAE/ASME/ASEE 26th Joint Propulsion conference, July 1990

Hediger, T., A. Passamante, and Mary Eileen Farrell, "Characterizing attractors using local intrinsic dimensions calculated by singular value decomposition and information theoretic criteria," *Physical Review A* 41, 5325 (1990).

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UIC: N00421
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Enclosure (10)

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.

NAWCAD PATUXENT RIVER

Proceeding July 1990 - "Blind Man's Bluff" by Ken Harmon. Combat Identification Systems Conference (CISC) 94 - "NTCR" (Non-Cooperative Target Recognition) by Thuy Le (to be published).

PATUXENT RIVER COMPLEX

Analysis of Phenolic Antioxidants in JP-5 Aviation Fuels, Huang, M.A., and Turner, L.M., American Chemical Society, Division of Fuel Chemistry, Preprints Volume 35, No. 4, pp 1255, August 1990

An Accurate Hydrocarbon Type Analysis of All Fuel Types, Sink, W., Hardy, D.R., and Huang, M.A., Fuel Science & Technology International, May 1994

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Determination of Turbine Blade Heat Transfer and Film Cooling Effectiveness in Unsteady Wake Flow Conditions, Sautner, M., Clouser, S., Han, Prof. J.C., NATO Advisory Group for Aerospace Research and Development, Propulsion and Energetics Panel 80th Symposium, Heat Transfer and Cooling in Gas Turbines, October 1992.

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Thermacoustics of Unsteady Combustion; AIII-90-3928, Mehta, J., Mungur, P., Dodds, W., and Bahr, D., Clouser, S., AIAA 13th Aeroacoustics Conference, October 1990.

Fuel Effects on Gas Turbine Combustor Dynamics; AIAA-90-1957, Mehta, J., Mungur, P., Dodds, W., Bahr, D., and Clouser, S., AIAA/SAE/ASME/ASEE 26th Joint Propulsion conference, July 1990

Hediger, T., A. Passamante, and Mary Eileen Farrell, "Characterizing attractors using local intrinsic dimensions calculated by singular value decomposition and information theoretic criteria, "Physical Review A 41, 5325 (1990).

Farrell, Mary Eileen, A. Passamante, and T. Hediger, "Comparing a nearest neighbor estimator of local attractor dimensions for noisy data to the correlation dimension," *Physical Review A* 41, 6591 (1990).

Draham, Michael, A. Passamante, Mary Eileen Farrell, and Nancy Harned, "Using General Nonlinear Models for Chaotic Signals," in *Proceedings of the Fourth IEEE Digital Signal Processing Workshop*, New Paltz, New York, 16-19 September 1990.

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Twardowski, A., K. Pakula, I. Perez, P. Wise, J.E. Crow, "Magneto Reflectance and Magnetization of ZnFeSe Semimagnetic Semiconductor", *Phys. Rev. B* 42, 7567 (1990)

Rud, R., Simms, R. W., Ferguson, G. D., "Advanced Tunable Solid-State EOCM Transceiver Development (U)," Proceedings 28th IRIS IRCM Symposium, Dec 1990. (SECRET)

Rud, R., Davis, J. P., Ferguson, G. D., Giranda, C., "Laser Augmented Expendables (U)," Proceedings 28th IRIS IRCM Symposium, Dec 1990. (SECRET)

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Marrs, C. D., Mason, B. E., Rud, R., Ferguson, G. D., "Advanced Expendable Laser (U)," Proceedings 12th Annual Lasers on the Modern Battlefield Conference, Nov 1990. (SECRET)

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Chanda, T., Frazier, W. E., Mohamed, F. A., and Lavernia, E. J., "Elevated Temperature Behavior of Al-Ti-SiC_p Materials," in Low Density, High Temperature P/M Alloys, ed. Frazier, W. E., Koczak, M. J., and Lee, P. W., Warrendale, PA: TMS-AIME, 1991.

Frazer, W. E., London, G. J., and Talia, J. E., "In Situ Polymer Reinforced Hybrid Materials," in Light Weigh Alloys for Aerospace Applications, edited by Lee, E., and Kim, N., Warrendale, PA: TMS, 1991.

Frazier, W. E., Benci, J. E., and Zanter, J. W., "Microstructural Evaluation of As-Cast and Melt Spun Al₃Ti and Al₃Ti Plus Copper," in Low Density, High Temperature P/M Alloys, ed. Frazier, W. E., Koczak, M. J., and Lee, P. W., Warrendale, PA: TMS-AIME, 1991.

Hegedus, C. R., Spadafora, S. J., and Pulley, D. F., "Aerospace and Aircraft Coatings" Chapter of the ASTM Paint Test Manual, 1991.

Lee, E., "Fatigue of P/M Aluminum Alloys 7091 and CW67," in Low Density High Temperature Powder Metallurgy Alloys, TMS, 1991.

Ryan, M. J., Scott, W. R., and Sottos, N. R., "Repeatability of Local Thermal Displacement Measurements near the Fiber/Matrix Interface Using Micro-Interferometry" in Progress in Quantitative Nondestructive Evaluation, Vol. 10a, p. 1057, Plenum, 1991.

Ryan, M. J., Scott, W. R., and Sottos, N., "Scanning Heterodyne Micro-Interferometer for High Resolution Counter Mapping," in Progress in Quantitative Nondestructive Evaluation, Vol. 10b, p. 2069, Plenum, 1991.

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Varma, A., "Handbook of Inductively Coupled Plasma Emission Spectroscopy," CRC Press Inc., 1991.

"Failure Modes in a Type 316 Stainless Steel Under Biaxial Strain Cycling," edited by Kulowitch, Zamjik, and Davis, ASTM-STP, 1122, pp. 299-318, Philadelphia, PA, 1992.

"New Methods for Corrosion Testing of Aluminum Alloyws," edited by Agarwala, V. S., ASTM Philadelphia, STP 1134, January, 1992.

Agarwala, V. S., "Macrocyclic Compounds - A New Family of Corrosion Inhibitors," in Reviews on Corrosion Inhibitor Science and Technology, edited by A. Raman and P. Labine, NACE International Publications, Houston, TX, 1992.

Agarwala, V. S., and Ugiansky, G.M., "New Methods for Corrosion Testing of Aluminum Alloys," ASTM STP-1134, ASTM Philadelphia, 1992.

Balldin, U., and Whinnery, J. E., "May Breathing Sounds Reveal a G-induced Loss of Consciousness in Fatal Aircraft Crashes?" in Medicine Aeronautique et Spatiale Vol. XXXI No. 123:1992.

Boodey, B., Granata, D., Scott, W. R., "Acoustic Emission From Micro Indentation Fracture Toughness," in Review of Progress in Quantitative Nondestructive Evaluation, Vol. 11B, p. 1709, Plenum, 1992.

Granata, D., Scott, W. R., Davis, J., Lee, E. U., Boodey, B., and Kulowitch, P., "Acoustic Emission Monitoring of a Fatigue Crack," in Progress in Quantitative Nondestructive Evaluation, Vol. 11B, p. 1593, Plenum, 1992.

Guy, T. T., Barrera, E. V., Frazier, W. E., and Talia, J. E., "Microstructural Characterization of Melt Spun Al3Ti-Nb Intermetallics," in Melt Spinning and Strip Casting, edited by Matthys, E. F., Warrendale, PA: TMS, March 1992.

Wang, S., Kowalik, R. W., and Sands, R. R., "Strength of Nicalon Fiber Reinforced Glass-Ceramic Matrix Composites After Corrosion with Na₂SO₄ Deposits," in Ceramic Engineering & Science Proceedings, Vol. 13, No. 9-10, 1992

Whinnery, J. E., "Describing an Aircrewman's Ability to Withstand Acceleration Stress," in Medicine Aeronautique et Spatiale Vol. XXXI No. 123: 186-191, 1992.

"Complexity and Chaos," Co-edited by Passamante, A. (NAWCADWAR), World Scientific Publishing Co. Pte. Ltd., Singapore, 1993.

Frazier, W. E., and Chen, J. S. J., "Melt Spun Intermetallic Alloys," in Computational and Numerical Techniques in Powder Metallurgy, edited by Madan, D. S., Anderson, I. E., Frazer, W. E., and McKimpson, M. G., Warrendale, PA: TMS, 1993.

Gluckman, J. P., Carmody, M. A., Morrison, J. G., Hitchcock, E. M., and Warm, J. S., "Effects of Allocation and Partitioning Strategies of Adaptive Automation on Task Performance and Perceived Workload in Aviation Relevant Tasks," in Proceedings of the Seventh International Symposium on Aviation Psychology, April 27-30, 1993, The Department of Aviation, The Aviation Psychology Laboratory, The Ohio State University, Columbus, OH, 1993.

Granata, D. M., Kulowitch, P., Scott, W. R., and Talia, J., "Acoustic Emission Waveform Acquisition During Crack Growth," in Review of Progress in Quantitative NDE Vol. 12B, UCSD, La Jolla, CA, July 19-24, 1992, p. 2183, Plenum, 1993.

Kirsch, B., "Adaptive Beamforming Using RNS Arithmetic," 11th IEEE Symposium on Computer Arithmetic, 30 June - 2 July 1993 & the National Meeting of the Society of Industrial and Applied Mathematics (SIAM), Philadelphia, July, 1993.

Morrison, J., Cohen, D., and Gluckman, J., "Prospective Principles and Guidelines for the Design of Adaptively Automated Crewstations," in Proceedings of the Seventh International Symposium on Aviation Psychology, April 27-30, 1993, The Department of Aviation, The Aviation Psychology Laboratory, The Ohio State University, Columbus, OH, 1993.

Perez, I., Wilson, M., Thomas, M., Price, D., and Scott, W. R., "Light Scatterometry as an NDE Technique for Surface Characterization of Ge Windows," in Review of Progress in Quantitative NDE Vol. 12B, p. 1703, Plenum, 1993.

Scott, W. R., Ryan, M. J., and Granata, D. M., "Imaging Surface Displacements in Piezoelectric Composites," in Review of Progress in Quantitative NDE Vol. 12A, p. 965, Plenum, 1993.

Wang, S., Kowalik, R. W., and Sands, R. R., "Hot Corrosion of Two Nicalon Fiber-Reinforced Glass-Ceramic Matrix Composites," in Ceramic Engineering & Science Proceedings, Vol. 14, No. 7-8, 1993.

"Performance Test Code #2, Definitions and Values," The American Society of Mechanical Engineers 1994.

Agarwala, V. S., "Corrosion and Corrosivity Sensors," Corrosion 94 Symposium Publications, NACE International Publications, Houston, TX 1994.

Glenn, F., Barba, C., Wherry, F. J., Morrison, J., Hitchcock, E., Gluckman, J. P., "Adaptive Automation Effects on Flight Management Task Performance," in Human Performance in Automated System: Current Research and Trends, ed. Mouloua, M., and Parasuraman, R., Lawrence Erlbaum Associates, Publishers, Hillsdale, NJ, pp. 33-39, 1994.

Kennedy, P. J., Conte, A. A., Whitentow, E. P., Ives, G. K., and Peterson, M. B., "Surface Damage and Mechanics of Friction Wear" in Ceramics: Friction and Wear of Ceramics, edited by S. Jahanmir, Marcel Dekker Inc., New York, NY, 1994.

Lee, E. W., "Fatigue and Fracture Mechanic Properties of Light Structured Alloys," Al-Li Wrought Alloy Chapter, ASM, Materials Park, OH, 1994.

Morrison, J. G., and Gluckman, J. P., "Definitions and Prospective Guidelines for the Application of Adaptive Automation," in Human Performance in Automated System: Current Research and Trends, ed. Mouloua, M., and Parasuraman, R., Lawrence Erlbaum Associates, Publishers, Hillsdale, NJ, pp. 256-263, 1994.

Perez, I., Granata, D., Scott, W. R., "Crack Growth Techniques for Use in Fabrication of Superconducting Microcircuits," accepted for publication in Fracture Mechanics: 25th Volume, ASTM STP 1220, edited by Erdogan, F., and Hartranft, R., American Society for Testing and Materials, Philadelphia, PA 1994.

Sotos, N. R., Heimstra, D. L., and Scott, W. R., "Correlating Interphase Material Properties and Interfacial Microcracking in Polymer Composites," submitted for publication in Fracture Mechanics: 25th Volume, ASTM STP 1220, edited by Erdogan, F., and Hartranft, R., American Society for Testing and Materials, Philadelphia, PA, 1994.

Wang, S., Kowalik, R. W., and Sands, R. R., "High Temperature Behavior of Salt Coated Nicalon Fiber Reinforced Calcium Aluminosilicate Composite," in Ceramic Engineering & Science Proceedings, Vol. 15, 1994.

Monaghan, T., "Dependability Requirements of Military Systems" chapter of "Foundations of Ultradependable Parallel and Distributed Computing" to be published by Kluwer Academic Publishers, Spring, 1995.

- f. Identify any Nobel laureates employed at this activity.

Information not available through official manpower data bases.

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

PATUXENT RIVER COMPLEX

1992 ENVIRONMENTAL PROTECTION AGENCY (EPA) ADMINISTRATOR'S NATIONAL AWARD FOR POLLUTION PREVENTION: UNICOAT.

AGARWALA, V.S.

- Member of the DoD Tri-Service Panel on Material Degradation
- Secretary NACE Technical Practice Committee T-9 and Chairman Unit Committee
- T-9B on Degradation of Materials in Aircraft and Military Systems (1987-1992)
- Member of the Organizing Panel of the International Corrosion Congress, 1993.
- Organized and Chaired an International Symposium on Corrosion and Corrosivity Sensors by the NACE - The International Corrosion Society, Baltimore, MD, 1994.
- Served on the Organizing Committee, 12th International Corrosion Congress, Houston, TX, 1993.
- Chairman, Aircraft Corrosion Symposium, 12th International Corrosion Congress, Houston, TX, 1993.
- Chairman, NACE Task Group T-3L-18 on Corrosion Sensors, 1993.
- Member, DoD Tri Service Panel on Material Degradation, 1994.
- Chairman, NACE Technical Practice Committee T-9 on Corrosion of Military and Aerospace Equipment.
- Vice Chairman, ASTM Committee G1.05 on Corrosion.
- Chairman, ASTM International Symposium on Corrosion Testing of Aluminum Alloys, 1990.
- Technical Committee Award, NACE INTERNATIONAL, 1994
- Technical Committee Award on Corrosion Sensors, NACE INTERNATIONAL, 1994.
- Technical Practice Award for Chairing Corrosion in Military Committee, NACE INTERNATIONAL, 1990.
- Chaired an International Symposium on "Environmental Effects on Advanced Materials, held in San Diego, CA, 1991.
- Invited speaker for the ASM/NACE Chapter of Greater San Antonio, TX at Southwest Research Institute, San Antonio, TX, 1990.
- Invited speaker at the Western Regional NACE Conference on Aging Aircraft Double Tree Hotel, Orange County, CA 1990.
- Invited speaker at the Indira Gandhi Center for Atomic Research, Kalpakkam, Tamilnadu, India, 1991.
- Invited speaker for the Canadian Institute of Metallurgists at the 30th Conference of Metallurgists, Ottawa, Canada, 1991.
- Organizing Chairman, Symposium on Protection Systems for Military & Aircraft Materials, NACE National Conference, CORROSION/90, Las Vegas, NV, 1990
- Plaque Award, Certificate of Appreciation for Outstanding Contribution as Chairman of the Corrosion/90 Symposium, National Association of Corrosion Engineers, Houston, TX.
- Elected, Task Chairman, NACE Technical Practice Committee, T-3A on Corrosion Inhibitors for High Temperature Application, April 1990.

- **Organizing Chairman, ASTM Symposium on Corrosion Testing of Aluminum Alloys, The American Society for Testing of Materials, San Francisco, CA, 21-22 May 1990.**
- **Invited Speaker, Gordon Research Conference on Corrosion, Aging Aircraft and Corrosion, New London, NH, 26 July 1990 (letter of appreciation).**
- **Organizer and Course Director, Liberty Bell Corrosion Course, Philadelphia PA, 17-19 September 1990.**
- **General Chairman and Organizer, 1989 Tri-Service Conference on Corrosion, Atlantic City, NJ, 17-19 October 1989.**
- **Chairman, Marine Corrosion Session, 11th International Corrosion Congress, Florence, Italy, 6 April 1990.**
- **Appointed Vice-Chairman, ASTM Sub-Committee on Corrosion, G.01.05.**

SAITTA, M.

- **Research or Technical Excellence Awards: Bronze Medal in the Field of ASW, 1990.**

KAUFMAN,

- **Special Achievement Award, National Aeronautics and Space Administration Astronaut Office.**
- **Session Chairman, 4th International Conference on Environmental Ergonomics, Austin, TX, 1990.**

CLARK, J.W.

- **AIAA (Greater Philadelphia Section) Ground Testing/Simulation Award, 1990.**

CYRUS, J.D.

- ASME International Gas Turbine Institute
- Certificate of Appreciation for Advancing the Engineering Profession.

COTE, S.

- Associate Fellow AIAA, 1990.

STEINBERG, M.

- Best Conference Paper, IEEE National Aerospace Electronics Conference, 1992.

CALVERT, J.

- Greater Philadelphia Area AIAA Award for Flight Testing and Simulation, 1993.

CENKO, A.

- Associate Fellow, AIAA, 1990.

KEYSER, D.

- Fellow, American Society of Mechanical Engineers.
- Certificate of Awards from the Board of Governors, ASME.

FRAZIER, W.E.

- TMS-Materials Design and Manufacturing Division, for Exemplary Service on the Publications Coordinating Committee, 1994.
- American Biographical Institute, Distinguished Leadership Award for Extraordinary Technical Contribution to the Engineering Profession.

MORRISON, J.G.

- George E. Briggs Dissertation Award for original research exhibiting creative application of scientific inquiry in the area of engineering Psychology, from the American Psychological Association Division of Applied Experiment Psychologists (Division 21) and The New Mexico State University, 1993.

MCEACHERN, J.F.

- Received the Kenneth T. Simowitz Memorial Citation, from Pennsylvania State University, 1993.

FOSTER, E.M.

- Certificate of Commendation - Young Investigators Award, Aerospace Medical Association, 1991.

WHINNERY, J.E.

- Who's Who in Science and Engineering, 1991.
- American Men and Women of Science, 1992.
- Alliance of Air National Guard Flight Surgeons; Scientific Achievement Award, 1992.
- Minuteman Award of the National Guard Bureau, 1993.
- Alliance of Air National Guard Flight Surgeons; Board of Director's Award (for career contributions) 1993.

OHLSON, J.

- Society of Automotive Surgeons SAE Recognition of Performance Award 1992.
- Society of Automotive Engineers, Inc. Recognition Award Air 4543 "Aerospace Hydraulics & Actuation Lessons Learned", 1993.

BAGWELL, D.

- SAE A-G Fluid Power Committee Outstanding Performance, 1990.

PANETTA, D.

- American Defense Preparedness Association Award, 1993.

WALDMAN, J

- ASM International Fellow

TRABACCO, R.

- ASM Fellow

KAUFMAN, J.W.

- "Silver Snoopy" - Special Achievement Award from NASA Astronaut Office, 1990.
- Session Chairman, 4th International Conference on Environmental Ergonomics, Austin, TX, 1990.

GABRIELSON, T.B.

- Outstanding Independent Exploratory Development Project, 1990.
- Special Act Award for IED presentation to Navy IR/IED Symposium, 1991.

KERN, S.B.

- This IED project received the Center Award for most significant accomplishments in one year.

OCHADLICK, A.R.

- NADC/MATD Annual Award for the Outstanding Technical Publication, a plaque award, 1990.
- Vice Chairman of IEEE Philadelphia Antennas and Propagation/ Microwave Theory and Techniques (AP/MTT) Society Chapter (1991 to present).

BUCKLEY, L.J.

- Chairperson, SAMPE Electronics Conference, Albuquerque, NM, "Photonics." 1990.
- Chairperson, Aerospace Materials Conference, Long Beach, CA, "Electroactive Polymers." 1990.
- Chairperson, Aerospace Materials Conference, Long Beach, CA, "Smart Materials." 1991.

Barrett, D. J., Ph.D.

- Chairman, ASME Applied Mechanics Committee, Philadelphia Section, 1990

Buckley, L. J., Ph.D.

- Chairman, "Photonics and Conductive Polymers I and II, "4th International SAMPE Electronic Materials Conference, June 1990.
- Chairman, "Electroactive Polymers and Composites," First ASM Aerospace Material Conference, May 1990.
- Chairman, "Smart Materials," 2nd ASM Aerospace Materials Conference, May 1991.

Conte, A .A., Jr.

- Member, Editorial Board, Journal of Synthetic Lubrication
- Vice Chairman, Third International Conference on Solid Lubrication American Society of Lubrication Engineers Best Technical Paper Award. A. Deuterated Lubricants. B. Intercalated Solid Lubrication.
- Chairman, Herb Meyers Memorial Lubrication Seminar, Philadelphia Section, American Society of Lubrication Engineers.

Herman, W. N.

- Co-chair, Intergrated Optics session, University of Va/ONR Optoelectronics Workshop, U. Va., November 1992.
- Acting President, Photoinduced Processes and Devices session, ACS/OSA Topical Meeting on Organic Thin Films for Photonic Applications, Toronto, October 1993.

Rosen, W. A.

- Chairman for Electronic and Optoelectronic Materials Growth Technology Session at the Fourth Navy R&D Information Exchange Conference, San Diego, CA, 13 April 1993.
- The Society of Automative Engineers (SAE) Avionics System Division, Sensor/video Implementation Taskgroup (SVIT) has selected an approach proposed in Dr. Rosen's project as the baseline for a new standard for sensor and video data distribution in avionics applications.

Ochadlick, A. R., Jr.

- Secretary/treasurer of the IEEE Philadelphia AP-S/MTT-S chapter, August 1989 till present.
- Recipient of the 1990 MATD Award for the Outstanding Technical Publication.

Sheehy, O., Dr.

- Chairman, Bioeffects Session, 11th Annual Lasers on the Modern Battlefield, October 1989.
- Chairman, Dynamic Eye Protection, SPIE Conference January 1990.
- U. S. Chairman, Bioeffects Subpanel US/UK Informatin Exchange Program, Effective January 1989.
- Chairman, Bioeffects Session & Bioeffects Roundtable Discussions 12th Annual Lasers on the Modern Battlefield, October 1990.
- Invited Session Chair, 62nd and 63rd Annual Scientific Meeting of the AsMA.

Varma, A.

Fellow, The American Institute of Chemists and Chemical Engineers.
Comissioner, National Certification Commission, AIC, Bethesda, MD.

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

NAWCAD PATUXENT RIVER

Yearly awards given for technical excellence at Patuxent River does not include awards from outside the organization. Data for that is not available.

John Burdette Award: Presented annually to the outstanding project engineer at the NAWCAD PAX Flight Test & Engineering Group by the Society of Engineers and Scientists to perpetuate the professional achievements and integrity of John E. Burdette, Flight Test Engineer.

Richard Wernecke Award: The Wernecke award was established in 1988 and is presented annually to a civilian or military person who has exhibited exceptional performance in advancing the principles of engineering, planning, testing, reporting, leadership, teamwork, and innovation in the test and evaluation of rotorcraft and Vertical Takeoff and Landing aircraft.

John B. Paradis Award: To recognize the outstanding manager of the year AT the NAWCAD PAX Flight Test & Engineering Group.

**Test Pilot Award,
Test Naval Flight Officer Award
Test Pilot Instructor Award**

Demonstrated ability, aptitude, and motivation toward flight or systems testing and leadership management as a professional aviator, flight officer, or test engineer. For the Test Pilot Flight Instructor Award: ability, aptitude and motivation toward flight instruction in the science of flight test and engineering.

NAWCAD Patuxent River Maintenance Chief Petty Officer of the Year Award

PATUXENT RIVER COMPLEX

Yearly awards given for technical excellence at Patuxent River Complex:

1990

**Commander/Technical Director Award for
Scientific Achievement**

**Commander/Technical Director Award for
Junior Professional**

**Commander/Technical Director Award for
Engineering Achievement**

**Commander/Technical Director Award for
Project Leadership**

**Commander/Technical Director Award for
Technical Support Achievement**

1990

**Survival and Flight Equipment Association's
East Coast Chapter Daniel S. McCauley Junior**

**Failsafe Award for Individual Engineering
Achievement**

**Failsafe Special Award for Sustained
Engineering Excellence**

**Wiley Post Award for Contributions to
Operational Aerospace Physiology**

AVCSTD Scientific and Engineering Award

1991

**ONT Extraordinary Accomplishment Award
for Exploratory Development**

Best IR Project Award

**AIAA Ground Testing/Simulation Award for
Engineering Excellence**

AIAA Ground Test & Simulation Research Award

**Recognition for Singular Distinctive Service During
Medical Operation in Operation Desert Storm**

1992

Engineering Achievement

Desert Storm Medals

1993

AVCSTD Scientific & Engineering Award

Commander/Technical Director Award

Patent Award on Epoxy Self-Priming Topcoat

Patent Award on Goggles Emergency Release Apparatus

Patent Award on Helmet Visor Support Apparatus

American Psychological Association

Black Engineer of the Year Nominee

Safe Junior Professional Award Nominee-Axten

NAWCADWAR PHD Fellowship Award

AIAA Ground Testing/Simulation Award

ASM International Fellow

P-3 Update Program Plaque/Letter Award

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

TITLE	AUTHOR(S)	PATENT NUMBER	DATE OF ISSUE
Apparatus and Method Utilizing Interference Fringes to Determine the Thermal Stability of a Licquid	Darrah, S.D., DiGiusseppe, T.D., Marram, E.P., Kamin,	4,842,410	
Multi-Channel Acoustic Simulator	Marc Nowakowski, Michael Patterson	4,908,800	03/13/90
Helmet-Mounted Head Restraint	Michael Patterson	4,909,459	03/20/90
Fiber Optic Magnetometers for Multiple Order Gradiometers	Lloyd C. Bobb	4,918,371	04/17/90
Apparatus for Cooling Electronic Components in Aircraft	Frank E. Altoz; John D. McClure	4,934,154	06/19/90
Production of Monoclonal Antibodies to Treponema Denticola by Hybridoma TDIII, IIIBB2	Lloyd G. Simonson	4,959,304	09/25/90

TITLE	AUTHOR(S)	PATENT NUMBER	DATE OF ISSUE
High Temperature, Corrosion-Preventive Coating	Stephen J. Spadafora	4,960,817	10/02/90
Polymer Composite Preform and Process for Producing Same	John J. Reilly; Ihab L. Kamel	4,960,818	10/02/90
Control Surfaces	Maurice M. Sevik	4,979,455	12/25/90
Optical Fiber Refractometer	Lloyd C. Bobb; Howard D. Krumboltz	4,981,338	01/01/91
Optical Fiber Refractometer Launching Light at a Non-Zero Launch Angle	Lloyd C. Bobb; Howard D. Krumboltz	4,988,863	01/29/91
Method and Apparatus for Measuring Corrosion Beneath Thin Films	Vinod S. Agarwala; Paul J. Kennedy	4,994,159	02/19/91
Hydrophone Deployment System for a Sonobuoy	John R. Dale; Roger A. Holler	4,999,816	03/12/91
Interferometric Surface Distortion Detector	Arthur E. Scotese; Shih L. Huang; Armando J. Gaetano	5,000,574	03/19/91
Deep Ocean Recoverable Acoustic Sensor Vehicle	Edward J. Cotilla; Joseph M. McCandless; Paul Savitz; Edwin H. Kribbs, Jr.	5,003,514	03/26/91
Air-Surface-Missile Data Link System	John C. Lockhart; Standish C. Hartman; Bruce R. Meuron; Joseph B. Lyons, Jr.	5,004,185	04/02/91
Stationary Probability Integrator System	Paul F. Reimel	5,008,630	04/16/91
Vehicle Steering Device	Bruce W. Travor; Roger A. Holler	5,011,097	04/30/91
Air-to-Subsurface Missile System	Morton L. Metersky; James R. Howard	5,012,717	05/07/91
Data Link and Return Link	Bruce R. Meuron; Joseph B. Lyons	5,018,685	05/28/91
Sonobuoy Suspension System	John R. Dale; Lawrence F. Coar	5,020,032	05/28/91
Corrosion-Inhibiting Coating Composition	Walter E. Knight; Kenneth G. Clark; David L. Gauntt	5,021,489	06/04/91
Lock Means and TV Sync for Air-to-Surface Missile	John C. Lockhart, Jr.	5,022,079	06/04/91
Sonic Detection and Tracking System	Henry Suter	5,025,425	06/18/91
Engine Block Cylinder Head Bolt Hole Repair	James C. Stafford	5,025,556	06/25/91
Video Processor for a Counter-Countermeasure System	Burton L. Hulland	5,027,121	06/25/91
Electro-Optic Line Narrowing of Optical Parametric Oscillators	Bruce O. Boczar	5,028,816	07/02/91
Stabilized Square Parachute	Carl T. Calianno	5,037,042	08/06/91
Guideable Stores	Bruce W. Travor; James F. McEachern; Frank P. Marshall	5,042,744	08/27/91

TITLE	AUTHOR(S)	PATENT NUMBER	DATE OF ISSUE
High Gloss Corrosion-Resistant Coatings	Charles R. Hegedus; Donald J. Hirst; Anthony T. Eng; William J. Green	5,043,373	08/27/91
Optical Fiber Sensor for Measuring Physical Properties of Liquids	Lloyd C. Bobb; Barbara J. White; Jon P. Davis	5,047,626	09/10/91
Multi-Sonobuoy Launch Container with Constant Force Spring	Bruce W. Travor; Richard M. Coughlan; Edward J. Cotilla; Frank P. Marshall	5,052,270	10/01/91
Naval Electrochemical Corrosion Reducer	Howard L. Clark	5,052,962	10/01/91
Seismic-Acoustic Detection Device	George A. Gimber; Edward J. Cotilla; Salvatore R. Picard; Robert F. Starry	5,054,006	10/01/91
Multi-Sonobuoy Launch Container with Mechanical Actuator	Leo Dragonuk	5,054,364	10/08/91
Superconducting Josephson Junction Gyroscope Apparatus	Francis A. Karwacki	5,058,431	10/22/91
Epoxy Corrosion-Resistant Coating	Charles R. Hegedus; Donald J. Hirst; Anthony T. Eng; William J. Green	5,059,640	10/22/91
Composition and Method for Producing an Aluminum Alloy Resistant to Environmentally-Assisted Cracking	John J. DeLuccia	5,061,323	10/29/91
Launch Container for Multiple Stores Using Electrically-Actuated Paddle Assemblies	Frank P. Marshall; Bruce W. Travor; Timothy L. Kraynak	5,063,823	11/12/91
Pivoting Seat for Fighter Aircraft	Chi Tung	5,064,146	11/12/91
Programmable Pulse Shaper for Sonobuoy Apparatus	Keith S. Rizkowski; David E. Zeidler	5,065,370	11/12/91
Optical Interconnects In The Computer Environment	Todd A. Kline; Warren A. Rosen; William J. Bermingham; Eric A. Alfonsi	5,068,880	11/26/91
Pneumatically Actuated Multiple Store Launcher	Frank P. Marshall; Bruce W. Travor	5,070,760	12/10/91
Electrically Actuated Multiple Store Launcher	Frank P. Marshall; Bruce W. Travor	5,074,186	12/24/91
Wing-Extendible Gliding Store	Samuel Greenhalgh	5,074,493	12/24/91
Launch Container for Multiple Stores Using Piezo Electrically-Actuated Paddle Assemblies	Frank P. Marshall; Bruce W. Travor; Timothy L. Kraynak	5,076,134	12/31/91
Floating Sensor to Detect Very Low Frequency Pressure Signals	James F. McEachern; Robert M. Balonis	5,077,696	12/31/91
Digital Bottom Mapping	Anthony P. Passamante; Paul A. Labonski; Nancy J. Harned; Timothy B. Hediger; John Ambrose	5,077,699	12/31/91

TITLE	AUTHOR(S)	PATENT NUMBER	DATE OF ISSUE
Doppler Velocity Profiler	Peter T. Shaw; Arthur P. Stevens; Anthony Marino	5,077,700	12/31/91
Nonlinear Optical Acrylic Polymers and Use Thereof in Optical and Electro-Optic Devices	Leslie H. Sperling; Clarence J. Murphy; Warren A. Rosen; Himanshu Jain; Warren N. Herman	5,079,321	01/07/92
Vibration-Damppling Structural Member	David J. Barrett	5,087,491	02/11/92
Corrosion-Resistant Alkyd Coatings	Charles R. Hegedus; Donald J. Hirst; William J. Green; Anthony T. Eng	5,089,551	02/18/92
Launch Container for Multiple Stores	Bruce W. Travor; James F. McEachern	5,092,221	03/03/92
Tapered Optical Fiber Sensor	Howard D. Krumboltz; Lloyd C. Bobb	5,093,569	03/03/92
Adaptive Filter Technique for Suppression of Wideband or Offset Narrowband Radio Frequency Interference	Jeffery J. Miller	5,097,221	03/17/92
Radial Damper Disk	Martha E. Snyderwine; Saroja Mahadevan	5,097,451	03/17/92
Polymer-Reinforced Metal Matrix Composite	Gilbert J. London; William E. Frazier; John G. Williams	5,100,736	03/31/92
Corrosion-Resistant Acrylic Coatings	Charles R. Hegedus; Donald J. Hirst; William J. Green; Anthony T. Eng	5,100,942	03/31/92
Optoelectronic Devices	Leslie H. Sperling; Clarence J. Murphy; Warren A. Rosen; Himanshu Jain; Warren N. Herman	5,112,531	05/12/92
Optical Fiber Sensor for Measuring Physical Properties of Fluids	Lloyd C. Bobb; Barbara J. White; Jon P. Davis; Arthur Samouris	5,115,127	05/19/92
Apparatus for Preparing Thermoplastic Composites	Roland C. Cochran; Edwin L. Rosenweig	5,116,216	05/26/92
Polyurethane Self-Priming Topcoats	Charles R. Hegedus; Donald J. Hirst; Anthony T. Eng	5,124,385	06/23/92
Epoxy Self-Priming Topcoats	Charles R. Hegedus; Donald J. Hirst; Anthony T. Eng	5,130,361	07/14/92
Synthetic Lubricating Oil Greases Containing Metal Chelates of Schiff Bases	Vinod S. Agarwala; Alfeo A. Conte, Jr.; Krishnaswamy S.; Prabir K. Sen	5,147,567	09/15/92
Aircraft Controlled Launch Container for Multiple Stores	Frank P. Marshall; Bruce W. Travor; James F. McEachern	5,155,288	10/13/92

TITLE	AUTHOR(S)	PATENT NUMBER	DATE OF ISSUE
Obturator Retaining Means	Bruce W. Travor; Frank P. Marshall; Timothy L. Kraynak	5,160,800	11/03/92
Temperature Compensated Lithium Battery Energy Monitor	Albert M. Bates	5,162,741	11/10/92
Optical Antenna Beam Steering Using Digital Phase Shifter Control	William D. Jemison; Peter R. Herczfeld; Arthur Paoella	5,164,736	11/17/92
Thermal Phase Modulator and Method of Modulation of Light Beams by Optical Means	Lloyd C. Bobb; Howard D. Krumboltz	5,166,988	11/24/92
Goggles Emergency Release Apparatus	Daniel J. Schmidt; Thomas J. Dillon; Ricky L. Greth	5,176,342	01/05/93
Helmet Visor Support Apparatus	Daniel J. Schmidt; John D. Jacks	5,177,816	01/12/93
Cable Pack Winding and Payout System	Roger A. Holler; Peter A. Ulrich	5,183,217	02/02/93
Optically Controlled Active Impedance Element Particularly Suited for a Microwave Oscillator	William D. Jemison; Peter R. Herczfeld	5,198,783	03/30/93
Epoxy Self-Priming Topcoats	Charles R. Hegedus; Donald J. Hirst; Anthony T. Eng	5,202,367	04/13/93
Extending Bandwidth of Optical Emitters Using Active Matching Technique	Vladimir Gershman; Afshin S. Daryoush; Warren A. Rosen	5,214,525	05/25/93
Underwater Transducer	Robert A. DeChico	5,218,576	06/08/93
Buoy Launch Container Extender	Frank P. Marshall; Bruce W. Travor; Saroja Mahadevan	5,222,996	06/29/93
Lift Enhancement Device	Samuel Greenhalgh	5,226,618	07/13/93
Optically Controlled Active Impedance Element and Filters Employing the Same	William D. Jemison; Peter R. Herczfeld	5,229,665	07/20/93
Multiplatform Sonar System and Method for Underwater Surveillance	Marvin C. Gaer	5,231,609	07/27/93
Process for Preparing Thermoplastic Composites	Roland C. Cochran; Edwin L. Rosenzweig	5,236,646	08/17/93
Polyurethane Self-Priming Topcoats	Charles R. Hegedus; Donald J. Hirst; Anthony T. Eng	5,236,983	08/17/93
Strain Sensing Composites	Leonard J. Buckley; Gary C. Neumeister	5,240,643	08/31/93
Flexible Acoustic Array with Polymer Hydrophones	Robert A. DeChico; James F. McEachern; Timothy L. Kraynak	5,257,243	10/26/93
Stainless Steel Surface Treatment	Georgette B. Gaskin; Gabriel J. Pills; Stanley R. Brown; Robert B. Boak	5,275,696	01/04/94
Dielectric Viscometer Including Fixed and Variable Cells	John G. Williams; Thomas M. Donnellan; Ronald E. Trabocco	5,279,149	01/18/94

TITLE	AUTHOR(S)	PATENT NUMBER	DATE OF ISSUE
Active Vortex Control for a High Performance Wing	Marvin M. Walters; Steven B. Kern	5,282,591	02/01/94
Polyurethane Self-Priming Topcoats	Charles R. Hegedus; Donald J. Hirst; Anthony T. Eng	5,290,599	03/01/94
Polyurethane Self-Priming Topcoats	Charles R. Hegedus; Donald J. Hirst; Anthony T. Eng	5,290,839	03/01/94
Polyurethane Self-Priming Topcoats	Charles R. Hegedus; Donald J. Hirst; Anthony T. Eng	5,290,840	03/01/94
Trivalent Chromium Conversion Coatings for Aluminum	Fred Pearlstein; Vinod S. Agarwala	5,304,257	04/19/94

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

PATUXENT RIVER COMPLEX

TITLE	AUTHOR(S)	NAVY CASE NUMBER	SERIAL NUMBER	DATE FILED
Reconfigurable Aircraft Stick Control		75350		10/8/93
A Jack Mechanism Having Positive Stop		75876		1/12/94
Meigs Bombing Control Handle Microinterferometer	William R. Scott	74227	07/827,233	1/29/92
Nonlinear Frequency Conversion Optical Filter	Bruce P. Boczar	74269	08/123,959	9/20/93
Offset Corrugated Sandwich	Hemen Ray	74298	08/082,069	6/23/93
Corrosivity Sensor	Vinod S. Agarwala, Fred Pearlstein	74845	07/942,914	9/10/92
Josephson Break Junction and Method of Making Same	Ignacio M. Perez, William R. Scott	74889	07/947,022	9/17/92
A System for Conveniently Producing Load Testing Termination of an AC Power Source Having at Least One Battery	Wilbert J. Morell, III	74934	07/972,701	11/5/92
Lift Enhancement Device	Samuel Greenhalgh	74935	08/067,763	5/26/93
Ship's Attitude Data Converter (SADC)	Peter J. Konopelski	75037	08/096,088	7/21/93
Wavefront Simulator for Evaluating RF Communication Array Signal Processors	Steven B. Minarik	75055	08/145,352	10/27/93
Underwater Acoustic Intensity Probe	Thomas B. Gabrielson, James F. McEachern, Gerald C. Launchle	75162	08/136,637	10/12/93
An Automatic Repeater System for Signal Transmissions	Elliott L. Ressler, Yoram Levy, Douglas Bancroft	72839	08/106,746	8/16/93
Vibration-Damping Structure Component	David John Barrett	73018	07/800,902	11/26/91
Simplified Reuseable Sonobuoy Launcher	Bruce W. Travor, Richard M. Coughlan	73043	08/102,023	7/28/93

TITLE	AUTHOR(S)	NAVY CASE NUMBER	SERIAL NUMBER	DATE FILED
Liquid Metal Confinement Cylinder for Optical Discharge Devices	Marie E. Taylor, Edward J. Seibert	73195	08/172,795	12/27/93
Johnson Break Junction and Method of Making Same	Ignacio M. Perez, William R. Scott	73325	07/777,773	10/10/91
Passive Range Measurement System	Walter L. Harriman	73330	07/921,863	7/27/92
Method of Making an Offset Corrugated Sandwich Construction	Hemen Ray, Lee W. Gause	73384	08/082,068	6/23/93
Lattice Core Sandwich Construction	Hemen Ray, Lee W. Gause	73428	08/082,067	6/23/93
Aircraft Control Lever Simulator	G. Terry Thomas	73610	08/130,950	10/4/93
An Elastomeric Electrical Connector	Joseph E. Laska, John T. Oakley, Francis R. Reinert	73688	08/107,431	8/16/93
Improved Vibration-Damping Structural Component	David John Barrett	73728	08/025,535	3/3/93
System and Method for Automatic Ship Steering	Jules Kriegsman, Martin E. Leblang	73748	07/758,976	9/6/91
Apparent Size Passive Range Method	Walter L. Harriman	73890	08/094,663	7/15/93
Meniscus Regulator System	Marshall K. Thomas	74028	08/123,944	9/20/93
Reconfigurable Aircraft Stick Control	Thomas M. Kelso, John K. Kotch, Damon Boyle, David H. Meiser, William Flaherty, Benard Baird	75350	08/129,729	9/29/93
Polyurethane Self-Priming Topcoats	Charles R. Hegedus, Donald J. Hirst, Anthony T. Eng	75351	08/207,445	3/7/94
Cable Multi-Pack	Roger A. Holler, Peter R. Ulrick	75487	08/093,961	6/23/93
Thoriated Tungsten Split Ring Hollow Cathode Electrode for Longitudinal Discharge of Gases and Metal Vapors	Edward J. Seibert, Gerald D. Ferguson, Marie E. Taylor	75523	08/209,345	3/14/94
Corrosivity Sensor	Vinod S. Agarwala, Fred Pearlstein	75524	08/087,237	6/30/93
Epoxy Self-Priming Topcoats	Charles R. Hegedus, Donald J. Hirst, Anthony T. Eng	75558	08/207,448	3/7/94
Trivalent Chromium Solutions for Sealing Anodized Aluminum	Fred Pearlstein, Vinod S. Agarwala	75647	08/134,762	10/1/93
Oil/Coolant Separator	Jack H. Fentz	75693	08/221,126	3/31/94
A Jack Mechanism Having Positive Stop Means for Crank Handle	Watkins Crockett IV, Bernard W. Baird	75876	08/183,707	1/18/94

TITLE	AUTHOR(S)	NAVY CASE NUMBER	SERIAL NUMBER	DATE FILED
Ice Penetrating Buoy	Bruce W. Travor; Ronald D. DiGirolamo	73230	08/053,763	05/03/94
Polyurethane Self-Priming Topcoats	Charles R. Hegedus; Donald J. Hirst; Anthony T. Eng	75419	08/062,864	05/03/94

PATUXENT RIVER COMPLEX List of Invention Disclosures

TITLE	AUTHOR(S)	NAVY CASE NUMBER	DATE RECEIVED
Optical Fiber Strain-to-Failure Sensor	Lloyd C. Bobb, Howard D. Krumboltz	74061	10/11/91
Repeated Rapid Response Anti-G Valve	Matthew J. Lamb	74220	12/30/91
Biodegradable Wheel Well Cleaner Via a Lyotropic Liquid Crystal	Douglas P. Jackson, Kenneth G. Clark, David L. Gauntt	74357	2/27/92
Switchable Beam Position Antenna	Joseph F. Miller	74446	4/3/92
Method of Enhancing Superplasticity and Reducing Cavity by the Application of Cyclic Strain Rates During Deformation of Al-Li Alloys	Jorge E. Talia, Eui W. Lee	74501	4/21/92
Self-Lubricating Composite Ceramic	Alfeo A. Conte, Jr., Vinod S. Agarwala	74503	10/29/91
Composite Implants for Active Thermography	William R. Scott	74539	4/21/92
Fiber Optic Bolt Stress/Strain Sensor	Peter A. Raiti	74540	4/21/92
Recording Fiber Optic Strain Gauge Extensometer	Peter A. Raiti	74541	4/21/92
Cross-Corrugated Sandwich	Hemen Ray	74594	5/7/92
Phase Shifting Jitter Clock	Chul Ho Oh, Rick Massary	74624	5/26/92
Pneumatic Urine Collection Device for Female Aviators	David C. Johanson, Mark K. Ammerman	74625	5/28/92
Periscope Buoy	Albert M. McCarty, Bruce W. Travor, Richard M. Coughlan	74664	6/1/92
Multichannel, Multifunction Radio Relay Architecture	Dean Nathans	74725	7/7/92
Gib Key Puller	Gregory L. Phillips	74764	7/7/92
Oxygen Sensor Using Hall Effect Device	James Roche, Paul Klein	74765	6/2/92
Effective Etching of Titanium-Aluminides and Their Intermetallics	Thu-Ha Mickle	74787	7/15/92
Tank Cover Storage Bracket	Aaron Blandon	74844	7/24/92
Rescue/Location Unit	Bruce W. Travor, Patrick J. Kelly, Frank P. Marshall	74846	3/5/92
Fluidic Angle of Attack Sensor	David R. Keyser	74918	9/11/92

TITLE	AUTHOR(S)	NAVY CASE NUMBER	DATE RECEIVED
Low Volatile Organic Compound (VOC), Water Borne Polyurethane Self-Priming Topcoat	Charles R. Hegedus, Donald J. Hirst, Anthony T. Eng	75002	9/25/92
Desulfurization of Nickel-Base Superalloys	Thu-Ma Mickle, Thomas Kircher, Bruce Pregger	75015	10/1/92
Disc Segmented Buoy	Bruce W. Travor, Frank P. Marshall	75016	10/1/92
Oscillating Flapped Wing	Samuel Greenhalgh	75017	10/1/92
Fluorescent Redox Materials as Corrosion Indicators	Vinod S. Agarwala, Richard E. Johnson	75038	10/9/92
Reactive Phase, Hot Isostatic Pressing of Intermetallic Alloys and Intermetallic Matrix Composites	William E. Frazier	75044	6/23/92
Functional Replica of the Human Eye	Dr. James B. Sheehy, Dr. Kenneth W. Gish, John J. Sprenger	75094	11/13/92
Helicopter Cyclic Delethalization Method	Nancy H. Tillman, Chi Tung	75194	1/7/93
RR-184 Chaff Packet Loader/Downloader Separation Assembly	Francis A. Guffey, III	75208	1/15/93
Communications Planning Tool	Paul Hodowanec	72847	5/11/90
Water-Base Turbine Engine Cleaning Compound and Method for Engine Cleaning Compound Evaluation	Kenneth G. Clark, David L. Gauntt	72856	3/29/90
High Temperature Aluminum/Thermoplastic Reinforced Laminate	Mary E. Donnellan	72942	6/19/90
Thick, Articulated, Variable Camber Airfoil With a Multi-Segment Trailing Edge Flap	Samuel Greenhalgh, Douglas R. Hall	72970	6/21/90
Moored Buoy-Compass Alignment	Bruce W. Travor	73044	8/9/90
Capstan -- Jet Pump	Bruce W. Travor	73045	8/9/90
Controlled Cable Payout System	Bruce W. Travor	73046	8/9/90
Buoy Release Mechanism	Bruce W. Travor	73047	8/9/90
Die Assembly and Insertion Cradle	Jeffry Cook	73224	10/9/90
Occupant Reach and Mobility Apparatus	Gary R. Whitman, David A. Rose	73293	11/16/90
Aligned In-Situ Composite Single Crystal of a Ti-44Al-11Nb Alloy	Rabindra N. Mahapatra, J. H. Perepezko, Eni W. Lee	73329	12/6/90
A Thin Membrane Flap Projecting Out From the Trailing Edge of a Wing to Increase the Operational Lift/Drag	Samuel Greenhalgh	73633	4/26/91
Tactical Aircraft Articulating Ejection Seat for Gravity-Loss of Consciousness (G-LOC) Protection	Joseph P. Notaro	73643	5/3/91
Means to Make a Featureless Radio Signal	Chul Ho Oh	73686	5/16/91
The Moire Interferometric Surface Strain Inspection (MISSI) Apparatus	Arthur E. Scotese, Howard D. Krumboltz	73729	5/28/91
Flush Mounted Instantaneous Velocity Sensing System	Samuel Greenhalgh, Donald P. McErlean	73891	8/14/91

TITLE	AUTHOR(S)	NAVY CASE NUMBER	DATE RECEIVED
Unobtrusive Instantaneous Velocity Sensing System	Samuel Greenhalgh	73892	8/14/91
Unobtrusive Instantaneous Velocity Sensing System	Samuel Greenhalgh	73893	8/14/91
Unobtrusive Instantaneous Velocity Sensing System	Samuel Greenhalgh	73894	8/14/91
Highly Conductive Thermal Heatsinks	Steven J. Thoman, Mary E. Donnellan, Ronald E. Trabocco	73962	9/6/91
Optical Fiber Strain Sensor With Memory	Lloyd C. Bobb, Howard D. Krumboltz	73976	9/18/91
Strain Monitoring Using Replication of Deformed Diffraction Gratings	Arthur E. Scotese, Howard D. Krumboltz	74027	9/17/91
??rtd, Lightweight Barrel Stave Flextensional Projector	Robert A. DeChico	75293	2/25/93
Spinning Target for the Simulation of "Pushbroom" Sensors	Michael Jenquin	75343	3/2/93
Force Deflection Anemometer	Curtis L. Meyerhoff, Robert E. Lake	75418	4/19/93
Survival Equipment Carrier	Gary King, Gary Whitman, Gary Bradley	75443	5/19/93
Method for Improving the Fracture Toughness and Damping of Composite Materials	Eileen Armstrong- Carroll, Roland C. Cochran	75559	6/30/93
Manual Soldering Process Monitoring System (MSPMS)	Michael D. Frederickson, Stephen T. Kertis, Joel A. Mearig	75681	8/18/93
Improved Buoy Separation Means	Bruce W. Tavor, Ralph Damato, Dean Stanley	75717	10/30/91
Cross-Corrugated Sandwich Construction	Hemen Ray	75754	9/7/93
Antenna Control With Interface for PC	Joseph Arico	75795	9/22/93
Dual Channel Reference Hydrophone Control/Calibration Unit	Peter T. Shaw	75869	10/18/93
Actively Pumped Faraday Optical Filter	Richard I. Billmers, Martin F. Squicciarini, William J. Scharpf, Vincent M. Contarino, David M. Allocca	75888	10/22/93
Bragg Grating Corrosion Monitoring Sensor	Vinod Agarwala, Ignacio Perez	75942	11/29/93
Hydraulic Separator/Transfer Tank	John L. Standish	75947	3/26/90
Separation of Two Co-Channel FM Signals	Jeffery J. Miller	75978	12/17/93
Modified Reduced Frequency Equation	Samuel Greenhalgh	75992	1/7/94
Aircraft Integrated CBR Protective Respirator	Timothy J. Jones, John E. Hollingsworth	76043	2/10/94
CAIS (Trademark)	Wes Gleason	76058	2/18/94
Tactical Airborne Digital Camera System - TADCS	Michael Mocenter, Sreekanth Rajan	76182	3/25/94

TITLE	AUTHOR(S)	NAVY CASE NUMBER	DATE RECEIVED
A Design For Shape Memory Metal Matrix Composites	David John Barrett	76213	4/1/94
Sonobuoy Large Receive Array for Acoustic Signals	Bruce W. Travor	75300	3/2/93
Multi-Functional (Corrosion Inhibiting and Radar Absorbing Coating	Charles R. Hegedus, Donald J. Hirst, Anthony T. Eng, William J. Green	75383	4/14/93
Quick Release Lanyard Anchoring Device	Gary E. King, Jr., Gary R. Whitman	75444	5/19/93
Offset-Corrugated Sandwich Construction With Curved Corrugations	Hemen Ray	75753	9/7/93
Bragg Grating Writing Device	Ignacio M. Perez, Som Dev Tyagi	75755	9/3/93
W1 Connector Switch Assembly	Melvin Brown	75843	10/1/93
Remote Single-User Simulation Control System	Thomas M. Kelso, David T. Purdue, Gary L. Pratz, Damon J. Boyle, Scott R. Davis, Douglas M. Vojik	75918	11/1/93
Latching Tool for Aero-1B	Theodore Malone	75946	3/19/91
Intense Light Filter for Imaging Systems	George E. Bray	75964	12/7/93
Fine Water Mist Nozzle System	Joseph E. Wolfe	75983	12/20/93
Polyurethane Self-Priming Topcoat Using a Low Reactivity Pigment System Including Molybdate Modified Zinc Phosphate	Charles R. Hegedus, Donald J. Hirst, Anthony T. Eng	76000	10/31/91
Polyurethane Self-Priming Topcoat Using a Low Reactivity Pigment System Including Calcium Zinc Molybdate/Phosphate	Charles R. Hegedus, Donald J. Hirst, Anthony T. Eng	76001	10/31/91
Polyurethane Self-Priming Topcoat Using a Low Reactivity Pigment System Including Barium Metaborate	Charles R. Hegedus, Donald J. Hirst, Anthony T. Eng	76002	10/31/91
Explosive Line Array Failure Mode Analysis System	Timothy B. Hediger, Donato M. Russo, Nancy J. Harned, Paul A. Labonski	76055	2/16/94
Scattered Light as a Non-Destructive Evaluation Tool	Michael Wilson	76210	3/28/94
Fax Machine Attachment	Vladimir Gershman, Julian Olyansky	76246	4/14/94
Occupant Reach and Probability Apparatus	Gary R. Whitman; David A. Rose	73293	11/16/94

Revised pg

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

Information not available through official manpower data bases.

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

Information not available through official manpower data bases.

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

NAWCAD PATUXENT RIVER

Signed with SBS Engineering on 5/21/91 regarding development of software to support the AYK-14 computer control unit emulator.

PATUXENT RIVER COMPLEX

ARRCA -- Relationship of Seat Design to Spinal Compression Injury (\$24.9K)

Low-Cost Ceramic Composites Virtual Company -- Interface Characterization and Non-Destructive Evaluation of Ceramic Matrix Composites (data exchange)

General Dynamics Corporation -- Use of the Dynamic Flight Simulator to Test Response to G-Stress

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

NAWCAD PATUXENT RIVER

FY91 \$40K
FY92 \$25K
FY93 \$40K R

PATUXENT RIVER COMPLEX

Patents Licensed Since 1990

PATENT NO.	LICENSEE	PATENT TITLE	INVENTOR(S)	ROYALTIES RECEIVED
4,469,976	PenWalt Corporation	One-Side Transducer Lead Connection	W. R. Scott	\$4k
4,255,810	C.M. Brubaker Corporation	Jam Resistant Frequency Modulation System	George C. Hennessy Karl Solomon	\$25k

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

Information not available through official manpower data bases.

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

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

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

NAWCAD PATUXENT RIVER

**FY91 \$55K
FY92 \$25K
FY93 \$40K**

PATUXENT RIVER COMPLEX

Patents Licensed Since 1990

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4,469,976	PenWalt Corporation	One-Side Transducer Lead Connection	W. R. Scott	\$4k
4,255,810	C.M. Brubaker Corporation	Jam Resistant Frequency Modulation System	George C. Hennessy Karl Solomon	\$25k

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.

NAWCAD PATUXENT RIVER

The NAWCAD/Flight Test and Engineering Group (FTEG) designed and developed a vessel traffic system for purposes of monitoring surface traffic in and out of a bombing range in the Chesapeake Bay. This system has been modified and has been transitioned to the U.S. Coast Guard as its baseline vessel traffic system. The New York harbor installation is the first of three installations to be made by the NAWCAD/FTEG. This product is also being transitioned to the Panama Canal Commission to track vessels into and out of the Panama Canal.

Fleet Imagery Support Terminal (FIST). Reference document is Program Change Approval Document (PCAD), PE# 0205670N, Project X0521 signed by ASN (Shipbuilding and Logistics) 6 Apr 89.

MIL-STD-1553 Quick Installation Data System

A-6 Radar Altimeter Digital Display

PATUXENT RIVER COMPLEX

PROTOTYPES/PRODUCTS/PROCESS

Self-Priming Coat (TT-P-2765) product technology developed. This product is used by the Navy and Air Force on operational aircraft at all maintenance levels.

Reference:

1. Hegedus, C. R., "Development of a Primer/Topcoat and Flexible Primer for Aluminum," NADC Rep. No. 87016-60. 20 March 1987.
2. Hegedus, C. R., Eng, A. T., and Hirst, D. J., "Program Summary: Unicoat Development, Laboratory Characterization and Full Evaluation," 30 March 1990.

Corrosion and Corrosivity Sensors developed and are currently being tested by Boeing Defense & Space Group, Seattle, WA and Oak Ridge National Laboratory, Nashville, TN.

Multi-Purpose Corrosion and Crack Retarding Inhibitor is listed on Product List and is used by Rockwell International Collins Communication and Avionics Division, Cedar Rapids, IA.

LRU-18U VC - Bottom Life Raft 10C USN 6/90, used by NASA, VSCG, US Army, and US Navy.

Solid State Oxygen Monitor for USN/USMC fighter/attack aircraft equipped with On Board Oxygen Generation Systems (OBOGS).

SV-2 Survival Vest Zipper Mod: Added Velcro taps and directional change, Incorporated into SV-2 vests via IACC 1994. Navy-wide impact.

IBAHRS 10C Nov 95 for AH-1W (Marines) and for AH-1F (Army) Program nominated by SH-60 PMA to put IBAHRS in all SH-60 aircraft by approximately 1996.

Variable Load Energy Absorber (VLEA) developed which is now operational on SH-3, CH-5553, and V-22 aircraft crashworthy crew seats.

**PROTOTYPES PRODUCT AND/OR PROCESS TECHNOLOGY,
TRANSITIONS TO THE FLEET**

**PRINCIPLES FOR ADAPTIVE FUNCTION ALLOCATION FOR
INTELLIGENT COCKPITS**

Transitioned to the Air Force (Wright-Patterson AFB), Army, NASA, and Universities in 1990. This product improves effectiveness of Pilot Vehicle Interface Designs in all DoD aircrew weapon systems.

**COMPENDIUM OF HUMAN FACTORS ENGINEERING TOOLS FOR
CREW STATION DEVELOPMENT**

Transitioned to the Air Force, Army, Navy Laboratories, and the Airframe Industry in 1991. Improved the design and evaluation of advanced aircraft weapon systems, for example: F/A-18 E/F, AX, F22.

**KNOWLEDGEABLE OBSERVATION ANALYSIS - LINKED ADVISORY
SYSTEM ARCHITECTURE (KOALAS)**

Transitioned to the F-14 and F/A-18 Program Offices in 1992. Significantly improved multi-sensor integration in the Navy's F-14 aircraft.

AUDIO TONE GENERATOR

Transitioned in 1992 for the A-4, F-4, and A-6 aircraft. The Audio Tone Generator is part of the Navy standard two target system designed to provide low cost augmented aerial tow target for air-to-air and surface-to-air gunnery and missile training. The tone generator is currently provided as a piece of crew equipment in order to preclude costly cockpit instrumentation modifications.

Prototype Visors:

Under management of the Vision Laboratory, visors which offer multiple wavelength laser protection are being developed. Unlike eyewear currently available to the fleet, these visors have the unique characteristic of providing seven wavelengths of protection with high scotopic transmission (i.e., they are usable at night as well as day) and minimal color distortion. Milestone II transition for this program is expected in the 4th quarter, FY95.

**PROTOTYPES PRODUCT AND/OR PROCESS TECHNOLOGY,
TRANSITIONS TO THE FLEET**

DYNAMIC RELAY ROPE

Transitioned in 1990. It was a military rope which was transitioned to Navy use for rapelling.

LOCKING CARBINEERS

Transitioned in 1990. It is a carbineer with a screw down locking feature for added safety while rapelling.

FLARE MK 124

Transitioned in 1990. Designed as a replacement for the MK-13 Flare. It has both day (smoke) and night (flare) capabilities.

HAND HELD CABLE CUTTER

Transitioned in 1991. It is a replacement for the pneumatic hand tool used to free entangled aircrewmembers.

NEW SURVIVORS SLING ASSEMBLY

Transitioned in 1992. It replaces the kaplok filled sling with closed cell foam. Flotation and longevity were improved.

NEW RESCUE SWIMMER WETSUIT ENSEMBLE

Transitioned in 1992. This new wetsuit has expansion zippers to allow the wetsuit to be loosely worn when the SAR swimmer is not in the water.

NEW RESCUE SWIMMER HARNESS

Transitioned in 1992. It is an updated version of the HBU-11 Harness.

COMPUTER ASSESSMENT OF REACH (CAR)

Transitioned to Universities, Airframe industry, FAA, Air Force, Army, NASA, International Industry (Germany), Automotive Industry (GM) during 1980 thru 1991. CAR is an anthropometric model to assess aircrew reach within a crew station design; reduced crew station evaluation by 25%. Applications included F/A-18, F-14, AV-8, A-6, T-45.

**PROTOTYPES PRODUCT AND/OR PROCESS TECHNOLOGY,
TRANSITIONS TO THE FLEET**

E-2C CREW BACKPACK

Transitioned in 1990. It is more compact, lighter weight and provides twice as much oxygen as its predecessor.

LPU-31 LIFE PRESERVER

It is authorized for use with the T-65 body armour for helicopter combatant aircrew. It is composed of the LPU-21P with a protected bladder cover.

LRU-18/U MINI BOAT

Transitioned in 1990. This compact one man life raft is used in the E-2C crew backpack and is carried on the person. It is inflatable to a size and shape that enables an abandoned aircrew member to easily board and remain stably contained in a sea environment. Designed, developed, and introduced entirely by Navy. Helicopter introduction is in progress.

The following ejection Seat Kits have been designed, developed and introduced to the Fleet in 1992 for various indicated tactical aircraft:

RIGID SEAT KIT (RSSK) SKU-7/A 1992 F-14
RIGID SEAT KIT (RSSK) SKU-10/A 1992 F-18
RIGID SEAT KIT (RSSK) SKU-11/A 1992 T-45
RIGID SEAT KIT (RSSK) SKU-12/A 1992 A-6 & F-14

CWU-62/P ANTI-EXPOSURE COVERALL

Designed, developed, and transitioned in the 1980s.

RESCUE SWIMMERS WETSUIT ENSEMBLE

The Rescue Swimmers Wetsuit Ensemble is a custom fit wetsuit with hood, gloves, and boots designed for anti-exposure protection for the SAR swimmer.

PROTOTYPES PRODUCT AND/OR PROCESS TECHNOLOGY, TRANSITIONS TO THE FLEET

HGU-67/P NIGHT CAPABLE COBRA HELMET

Transitioned to the fleet in 1991. This helmet has provisions for ANVIS night vision goggles and a magnetic tracker targeting system.

HGU-68/P

This new TACAIR helmet was flight evaluated in the F/A-18, AV-8B, and A-6 aircraft in 1992 for possible use in night attack applications. It will primarily satisfy an urgent F/A-18 requirement. Initial deliveries are scheduled for 1992.

EDU-5/P MULTI-WAVELENGTH LASER EYE PROTECTION

Developed, qualified, and transitioned in 1990. The technical data package has been completed.

A-4 NEGATIVE G RESTRAINT

A new restraint concept was designed and developed in 1989 to enable control of the aircraft during negative G maneuvers. This improvement presents loss of aircraft control resulting from high G maneuvers.

NAVY AIRCREW COMMON EJECTION SEAT (NACES)

The NACES development program was initiated to reduce the proliferation of ejection seat types in the aircraft inventory and was the most extensive ejection seat development ever undertaken by the US Navy. The NACES seat has been recently approved for full scale production and approximately 1800 seats will be installed in Naval aircraft. The NACES incorporates a state-of-the-art microprocessor sequencing system, a new acceleration sensitive inertial reel, improved signal transmission system, and an improved parachute. An advanced seat mounted harness and a passive limb restraint system are targeted for the product improvement program (P3I).

HAU-12/P ANTI-EXPOSURE MITTENS

Developed, qualified, and transitioned in 1990. Used by all USN/USMC aircrew.

HGU-32/P ANTI-EXPOSURE HOOD

Developed, qualified, and transitioned in 1990. Used by all USN/USMC aircrew.

NAVY AIRCREW COMMON EJECTION SEAT

NAWC WARMINSTER directed and managed the technical team that developed and qualified NACES which provides a common ejection seat for the F/A-18, TF-18, F-14D, and the T-45 aircraft. The baseline NACES seat is a state-of-the-art system, and is also designed to incorporate future aircraft performance requirements through a preplanned product improvement program. As a result of this program, the Navy has a common ejection seat which is both reliable and maintainable, and significantly reduces overall life cycle costs. This seat is currently in production, and has been incorporated into F-18C/D, F-14D, and T-45.

Reference: SECNAV Directive 1984

FOURTH GENERATION EJECTION SEAT

The objectives of the Fourth Generation Escape System Technologies Demonstration Program is to demonstrate advanced propulsion, flight controls, and life protection devices. The approach of the propulsion system is to utilize multiple (four) fixed nozzles with independent thrust level control in order to stabilize and control the orientation of the ejection seat in free flight. The first phase of the program is to demonstrate specific propulsion technologies. The second phase of the program consists of demonstration ejection seat sled track tests, including dynamic conditions.

Reference: Memorandum of Agreement between the US Air Force Armonstrong Laboratory, Crew Systems Directorate, and Wright Laboratory, Flight Dynamics Directorate, and US Navy, Naval Air Systems Command, Aircrew Systems Program Office, of 1992.

IMPROVED TREATMENT REGIMEN FOR RESPIRATORY DISTRESS SYNDROME

Operational Impact: Reduce the risk from adult respiratory distress syndrome (ARDS), a potentially fatal condition which can be the result of a wide variety of combat injuries.

Task: MM33C30

Transition: P.E. 63706N in FY94

ARDS is an important medical problem of Navy and Marine personnel. In fatal cases the lungs are found to be nearly airless, intensely congested, and filled with a proteinaceous edema fluid that also contains a large number of red blood cells. Conditions which may cause ARDS generally involve injury to the alveolar-capillary membrane, including infection, trauma, liquid aspiration, or inhaled toxins, any of which can be encountered in combat situations. Current therapy using the drug Exosurf is non-specific and is of marginal value. The ARDS research which the Navy is sponsoring involves three main approaches.

It has been found that interleukin-8 (IL-8) and tumor necrosis factor (TNF) are central to the development of septic shock and ARDS. Better understanding of mechanisms involved are resulting in dramatically improved treatment methods. Antibodies to IL-8 and TNF that interact with the active site of these cytokines have been developed and are in-hand. These will be used to prevent or inhibit the development of septic shock or ARDS.

Experiments in human beings with ARDS have shown that leukocytic proteases and oxidants were generated at the time of injury. These do extensive damage to nearby lung cells. Further study is underway which will determine the most effective combinations of anti-oxidants and protease inhibitors to inhibit pulmonary inflammation in primates.

The final component of this research involves the development of a synthetic surfactant for replacement therapy in RDS. Loss of surfactant function is a common event in ARDS. A pulmonary surfactant has been developed, consisting of a synthetic peptide of leucine stretches and intermittent lysines (KL₄) and phospholipids. It offers the additional benefits of being relatively inexpensive and free of the problem of viral transfer that exists with extracts of animal surfactants. It appears to be equal in activity to native human surfactant, and has been shown to be significantly better than Exosurf in primates. Human trials are expected to begin within six months.

SOMAN-INDUCED PERFORMANCE CHANGES LINKED TO THE BRAIN'S HIPPOCAMPUS

Operational Impact: Protection of the lives and performance of combat personnel exposed to chemical warfare agents.

Task: MM33B30

Transition: Army 6.3B Drug Development Program in FY91 - FY92

The DoD has long recognized the lethal effects of the chemical warfare (CW) agent, soman, and has, in the past, accepted the prophylactic use of the drug, pyridostigmine, to protect servicemen who may be exposed to CW agent attack. Pyridostigmine, although effective against soman-induced death, has been shown not to be protective against injury to cognitive performance and is therefore suboptimal for military operations. A second drug, physostigmine, has subsequently been investigated as a protectant against both death and performance degradation. Hopes for the effectiveness of this alternate drug were based on the fact that, unlike pyridostigmine, physostigmine crosses the "blood brain barrier" and thus might directly protect the brain and ensuing performance from the damaging effects of soman.

Study results have shown, however, that physostigmine does not significantly enhance the level of performance protection already provided by pyridostigmine. Primates protected with the drug and then exposed to soman demonstrated only low levels of protection to cognitive performance, to a degree which would not be militarily relevant. Thus, physostigmine has been shown not to be an answer to the problem of overall protection of deployed Navy forces from the injury of chemical agent attack.

As this disappointing result was being demonstrated, however, additional insight on the neural targets of soman injury was gained. Neurochemical studies showed that continual, low level soman exposure of rodents caused a loss of "long-term potentiation" (LTP) which is an exaggerated, long-lasting measurable brain response thought to be directly related to memory storage in the brain. The loss of LTP in soman-treated animals suggests that soman may act directly on the brain hippocampus, destroying the normal synaptic activity which forms the basis of information retention and cognitive performance. This novel finding identifies a previously unknown brain tissue target of soman activity and potentiates a new focus for the development of improved prophylactic drugs and/or performance-saving therapies for chemical warfare protection.

MODIFICATIONS IN NITROGEN ELECTRODE DESIGN EXTENT STABILITY AND IMPROVE ACCURACY

Operational Impact: Augmented safety for Navy divers by facilitating the development of improved decompression tables.

Task: MM33P30

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PRECEDENTIAL INFORMATION**

Transition: P.E. 63713N in FY95

After all but the shortest and shallowest dives, too much breathing gas dissolves in a diver's tissues to permit safe immediate return to the surface. With rapid ascent, dissolved gas comes out of solution faster than it can be exhaled, and forms bubble throughout the body. This condition, known as decompression sickness (DCS) or "the bends", can cripple or even kill. A staged schedule of ascent, called "decompression", during which a diver gradually exhales the dissolved gas as it comes out of solution, minimizes the risk of DCS.

Current decompression schedules are sub-optimal. They have been derived empirically due to an inadequate understanding of the physics and kinetics of bubble formation in tissues. Current schedules have a variable risk of bends, and probably do not surface a diver in the shortest time for the risk incurred. Optimal decompression schedules will be based on mathematical models of tissue gas exchange kinetics and bubble physics. For most diving, Nitrogen (N₂), which constitutes 79% of the air at sea level, is the gas of concern for DCS. However, scientists are presently unable to measure dissolved tissue N₂.

Almost a decade ago, a prototype in vitro N₂ electrode was developed. It was relatively large, fragile, unstable, unsuitable for hyperbaric exposures, and required rejuvenation after only several minutes of measurement. Several years ago, the development team became convinced that advances in materials technology and transition metal electro chemistry would enable the limitations of the previous design to be overcome. Within the past year, dramatic progress has been made towards the fabrication of a durable, stable, pressure resistant electrode, small enough for in vivo use, and capable of sustained performance over the anticipated duration of the gas kinetics experiments.

The newest design combines a Ru/Nafion coated glassy carbon rod electrode with a durable Pt foil auxiliary electrode and a thin Pt wire pseudo-reference electrode into a single unit. The quantity of Nafion coating to provide electrochemical continuity between the three electrodes of the assembly has been optimized for best compromise between response time and usable life expectancy before a required chemical rejuvenation. When the Nafion membrane is saturated with electrolyte solution, it provides electrical continuity between the electrodes, and function as a thin-layer cell within which the electrochemical reactions required for PN₂ measurement take place. The new design appeared completely stable during six days of testing in a pressure reactor while exposed to humidified hyperbaric nitrogen. Variations in repetitive measurements with the same electrode varied from $\pm 6\%$ to 10% , significantly better than previous designs with 22% variation. Correlation coefficients along measurements made with several prototype sensors was 0.9817.

Scientists are optimistic that current efforts focusing on electrode miniaturization, pressurization hardening, and minimal variation between repetitive measurements will yield a valuable scientific instrument in the near term.

HIGH PRECISION INERT GAS SOLUBILITY MEASUREMENTS UNDER HYPERBARIC PRESSURE WILL IMPROVE QUALITY OF GAS KINETICS MODEL

Operational Impact: More accurate predictive mathematical models of inert gas kinetics will provide safer decompression schedules for divers.

Task: MM33P30

Transition: P.E. 63713N in FY95

After all but the shortest and shallowest dives, too much breathing gas dissolves in a diver's tissues to permit safe immediate return to the surface. With rapid ascent, dissolved gas comes out of solution faster than it can be exhaled, and forms bubble throughout the body. This condition, known as decompression sickness (DCS) or "the bends", can cripple or even kill. A staged schedule of ascent, called "decompression", during which a diver gradually exhales the dissolved gas as it comes out of solution, minimizes the risk of DCS.

Current decompression schedules are sub-optimal. They have been derived empirically due to an inadequate understanding of the physics and kinetics of inert gas bubble formation in tissues. Current schedules have a variable risk of bends, and probably do not surface a diver in the shortest time for the risk incurred. Optimal decompression schedules will be based on mathematical models of tissue gas exchange kinetics and bubble physics. These models will require accurate values for the solubility constants of the inert gases used in diving. The complexity of the mathematics magnifies imprecision, and low quality data seriously degrades the accuracy of the model.

Until recently, the solubility constants of the inert gases used in diving were known with a precision of only 5%, and measurements were restricted to relatively low pressures by the physical limitations of the equipment. These low pressures did not approximate the pressure associated with current Navy deep diving operations. Measurements were even less precise for gases with high diffusibility and low solubility, such as helium. Furthermore, relatively few measurements had been made using biological media, such as plasma. However, using innovative techniques and custom-designed equipment, inert gas solubility constants can now be measured with a precision of 1.5%, and at pressures up to 30 atmospheres (equivalent to a depth of -960 feet of sea water).

Newly obtained data reveals that at 30 atmospheres, and at temperatures of 10°C, 25°C, and 37°C, helium is 6% less soluble in blood plasma than it is in distilled water. The difference in solubility is temperature dependent, and is larger at 37°C than at 10°C. Under the same conditions of temperature and pressure, nitrogen is 11% less soluble in blood plasma than in distilled water. In fact, the solubility of nitrogen in plasma at 30 atmospheres is less than it is in distilled water at 1 atmosphere. These findings can be explained by postulating clathrate formation in plasma, associated with the phenomenon of salting-out, most likely due to the availability of free ions that are absent in distilled water. Analogous findings have been obtained from preliminary measurements made with hydrogen gas.

These new precision measurements have conclusively demonstrated that solubility constants based upon measurements made with distilled water should not be used in mathematical models that describe inert gas kinetics in biological systems. Diving medical scientists are optimistic that the newly available precision data will greatly improve the quality of future mathematical models of inert gas tissue kinetics, enabling safer and more efficient decompression schedules.

STEM CELL FACTOR AND INTERLEUKIN-3 SHOWN TO STIMULATE STEM CELL REPLICATION AND DIFFERENTIATION

Operational Impact: Reduce the risk of severe injury and/or death from exposure to radiation, chemical agents, and other trauma by enhancing the recovery of the blood cell-forming system.

Task: MM35C30

Transition: P.E. 63706N in FY95

Because of threats posed to the human immune and hematopoietic systems by radiation, chemical agent exposure, and other trauma, the military is very interested in developing treatment regimens which can cause the recovery of blood-forming cells (stem cells) in the bone marrow and the replenishment of the functional blood cells (red blood cells, leukocytes, and other immune cell types, platelets) which mature from cells and are essential for casualty recovery. Much of the current work focuses on cellular control mechanisms and on the effects of growth factors and other indigenous cell products (cytokines) on these mechanisms. Studies conducted this year have considered the effects of Stem Cell Factor (SCF) and other cytokine, interleukin-3, on the recovery of leukocytes, platelets, mast cells, and basophils.

In preclinical studies conducted in collaboration with NIH, SCF was used with other cytokines to expand populations of purified stem cells and progenitor cells in vitro. Treated cells were replaced into lethally (10.0 Gy) irradiated Rhesus monkeys in an autologous bone marrow transplantation model. Preliminary results indicated that peripheral blood leukocytes (myeloid) and platelets return to normal levels as soon as 2 weeks post-irradiation and transplantation. Genetic marking of the cells, using a retroviral vector intended for genetic therapy, indicated that the peripheral blood cells originated from the progenitors manipulated in vitro.

In other collaborative studies, the effect of SCF on human mast cells and basophils derived from bone progenitors was studied. Over a 3-4 week period, cultures treated with recombinant human interleukin-3 (rhIL-3) or rhIL-3 plus SCF gave equal percentages of cell types, with basophils constituting 25-50% of the final cultured cells, and mast cells 3% or less of the final number. The two factors together synergized to give a 3-5 fold increase in the total cell number at 3 weeks (compared to effect of either factor alone). Thus, SCF in conjunction with rhIL-3 is able to increase the proliferation of precursors to mast cells and basophils.

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These studies have profound implications for stem cell transplantation and transfusion therapy. Further successes in understanding growth factor and cytokine regulation of specific blood cell progenitors will result in the development of effective therapeutic applications for combat casualty care.

G-CSF THERAPY SHOWN EFFECTIVE FOR MUSTARD EXPOSURE AND DEPLOYED FOR CASUALTY TREATMENT DURING OPERATION DESERT STORM

Operational Impact: A unique and improved treatment for exposure to mustard gas was developed in response to the threat of chemical warfare during Operation Desert Shield/Desert Storm.

Task: MM33C30

Transition: P.E. 63706N in FY95

The situation in Southwestern Asia during August 1990 raised the strong possibility of warfare with a country known to have already demonstrated their willingness to use chemical weapons. At that time there were very limited clinical data regarding the effects of mustard agents on patients or the optimal means for treating those patients.

The most common casualties due to mustard gas exposure are skin, ocular, gastrointestinal, and pulmonary injuries. Only the latter is likely to be a cause of mortality, which in World War I amounted to roughly 5% of the injured. A significant contributing factor to the pulmonary injury is neutropenia which predisposes to pulmonary infection and the adult respiratory distress syndrome (ARDS). It was determined by a working group at NMRDC that the Navy should be prepared to treat some of the anticipated mustard gas victims for neutrophil.

To meet this requirement, antibiotics, fluids, blood products, and intensive care needs were assessed. In addition, the possibility of using newer therapies was also considered. One such therapy is the use of hematopoietic growth factors to enhance the rate of neutrophil recovery after injury to the bone marrow. Over the past several years, a class of biological proteins with myeloid stimulating activity have been identified, the genes have been cloned, and pharmaceutical levels of the protein have been produced for use in experimental and clinical settings. Two of these proteins, granulocyte colony-stimulating factor (G-CSF) and granulocyte-macrophage colony-stimulating factor (GM-CSF) have been evaluated in clinical trials for the purpose of ameliorating neutrophil after either chemotherapy or bone marrow transplantation. Preclinical testing of these proteins has also been conducted at NMRI using nonhuman primate models of both bone marrow transplantation and high dose, nonuniform radiation exposure (previously funded 6.2 work).

After comparative evaluation of the drugs available, G-CSF, from AMGEN, was chosen. Testing found that G-CSF therapy shortened the period of neutrophil induced by intravenous mustard chemotherapy. G-CSF therapy could be delayed to as long as 7 days after mustard exposure and still have beneficial clinical consequences.

As a result of this effort, a unique protocol for field use was developed by the Navy and approved by AMGEN, the Navy IRB, the FDA, and the DoD, in a very short time. AMGEN generously donated 1000 doses of G-CSF in single injection vials (5ug/kg/d, sc). Dr. Meisenberg, the principal investigator, went to Landstol Army Hospital in January 1991 to receive casualties.

CROSS-LINKED BOVINE HEMOGLOBIN INHIBITS MYOCARDIAL FUNCTION

Operational Impact: The search for a safe human blood substitute has led to cross linked bovine hemoglobin as a possible source. The discovery that it has toxic side effects may have saved human lives.

Task: MM33C30

Transition: P.E. 63706N in FY94

There is a potential for shortage of blood for transfusion if the U.S. is involved in large scale military conflicts. During the recent war in the Persian Gulf, appeals were made by blood banks throughout the country in anticipation of the need for blood and blood products. The utilization of red cell substitutes for transfusion presents a possible solution to the problem of blood availability in emergency combat situations. However, potential hazards may exist in using these substitutes and studies must be performed to determine their safety and efficacy. Combat casualties may not be able to survive dramatic alterations, activations, or toxic effects of reiculoendothelial or other system failures.

Preliminary studies have been completed where hypovolemic, hypotensive baboons were resuscitated with a saline-bovine hemoglobin solution. The baboons demonstrated a significant reduction in cardiac function and increased peripheral vascular resistance. The studies support the observations that have been made using perfused rabbit hearts that hemoglobin solutions can depress cardiac contractibility. These fundings resulted in the suspension of plans for FDA approved testing on human subjects, possibly saving human lives.

HORMONE - CONTAINING NASAL SPRAYS MAY EXTEND DIVING OPERATIONS

Operational Impact: Increased time periods that Navy SEALS can spend submerged in the water performing sustained operations.

Task: MM33P30

Transition: P.E. 63706N in FY92

Prolonged water immersion of Navy divers can induce diuresis (increased urine output potentially leading to dehydration), intravascular volume contraction, hypotension, decreased cerebral perfusion, and subsequent decrements in task performance. Furthermore, these effects of water immersion can be augmented under adverse environmental temperatures. For example, an increase in the ambient temperature will result in further volume loss through sweating; and a decrease in the ambient temperature will result in cutaneous vasoconstriction, a transient increase in central blood volume, and subsequently, an exaggerated diuresis. Countermeasures must be developed to prevent the untoward physiologic response that Navy divers can experience during the prolonged water immersion and adverse climates in which they need to operate.

Studies conducted this year tested the hypothesis that specific therapies using diuretic hormones may significantly alter the undesirable effects of extended water immersion. 8-Desaminoarginine vasopressin (DDAVP), a long acting synthetic analogue of a naturally occurring hormone, was tested for the ability to decrease the dehydration induced by water immersion and concomitantly increase the time available for Navy SEALs to perform operational tasks. Water balance (urine output) was measured in over 30 subjects (including Navy SEAL candidates) during three hours of immersion in thermal-neutral water.

Results showed that a single, intra-nasal spray containing 20 micrograms of DDAVP decreased urinary water loss by nearly 90%, compared with the water output of normal controls, with no reported side effects or untoward reactions. Additionally, DDAVP decreased the urinary loss of salt. These findings indicate that DDAVP could prove to be an effective measure for avoiding submersion-induced diuresis and for markedly increasing the operational underwater time of deployed Navy SEALs.

ACUTE AND CHRONIC COLD EXPOSURE CAUSES ADAPTIVE CHANGES IN NOREPINEPHRINE, TRIODOTHYRONINE, HYPERTENSION, CORE TEMPERATURE AND WHOLE BLOOD VISCOSITY

Operational Impact: Reduced injury to personnel deployed in cold weather environments through increased understanding of cold-induced physiological responses.

Task: MM33C30

Transition: P.E. 63706N in FY92

Navy personnel working in extremely cold environments commonly experience cold-induced physiological and performance injuries which are preventable by repeated, prolonged, pre-deployment cold exposures to allow adaptation to cold. Such expensive and time-consuming acclimation periods could be avoided if methods for accelerating cold adaptation could be identified. Such techniques must be based on a full understanding of the biological events associated with the cold adaptive response, so that appropriate targets of biochemical or drug therapy can be identified.

A number of such cold-induced physiological alterations has recently been discovered in the blood and hormonal composition of human subjects who were either naturally exposed to a cold environment or experimentally cold-adapted in climate chambers at the Navy Medical Research Institute. The most pertinent changes, in the context of cold adaptation regimens, were noted in blood viscosity, blood pressure, and the level of the hormone, triiodothyronine (T₃).

Reduced capillary blood flow and greatly increased blood viscosity during low temperature (10 degrees C) exposure have now been linked to an aggregation of plasma proteins. Cold exposure was shown to increase the viscosity of human whole blood and plasma equally, but to increase serum viscosity to a lesser degree. This finding implicates a central role for aggregating plasma proteins in this process, because such proteins, which are abundant in both whole blood and plasma, are relatively absent from serum. In addition, administration of the drug, pentoxifylline, was shown not to decrease the blood viscosity associated with cold exposure (pentoxifylline is an agent known to decrease blood viscosity by altering red blood cell rheological properties).

Short exposures to cold air also was shown to induce a characteristic elevation in blood pressure that is effectively attenuated by cold adaptation. Studies showed that while the beta-adrenergic blocker, propranolol, acutely lowers blood pressure at room temperature, this drug does not reduce cold-induced hypertension. Cold-associated changes in systemic blood pressure were shown to be mediated by the sympathetic nervous system through the circulating levels of plasma norepinephrine.

Lastly, studies, published this year, have now verified that cold adaptation results in a condition now termed the "Polar T₃ Syndrome", characterized by a near doubling of the T₃ production rate and distribution volume, a decrease in the free, unbound fraction of T₃, a decrease in the core body temperature, and a blunted pressor response to cold with systemic hypertension. Results of these studies suggest that a resetting of both the serum and select tissue binding constants for T₃ may lead to a heterogeneous delivery of thyroid hormone to thermogenetic sites and provide a mechanism for changes in body temperature found with cold adaptation in persons who dwell at McMurdo Sound, Antarctica.

SYNTHETIC RED BLOOD CELLS

Operational Impact: The synthetic red blood cell will provide a stable, short-term blood substitute to be used for acute combat casualty care and will help reduce mortality due to severe combat trauma.

Task: MM33C31

Transition: P.E. 63792N in FY91

In order to increase the availability of oxygen-carrying cells for combat casualty resuscitation, the Navy has embarked on the development of a synthetic red blood cell, based on the concept of liposome-encapsulated hemoglobin (LEH). These "cells" mimic the function of natural red blood cells, are stable and typeless (therefore can be transfused into any casualty without the need to type and crossmatch), and, because of their very small size, may be superior to natural red blood cells in trauma states where vasoconstriction occurs.

Because LEH differs significantly from natural red blood cells, they require extensive biocompatibility studies prior to pre-clinical testing in humans. The 6.2 work on LEH has focused primarily on the product's interaction with tissues in animals, in particular with the blood system and the reticuloendothelial system. In pre-clinical studies at the Naval Research Laboratory, in vitro analyses of the effects of LEH on fibrinolysis indicated that LEH had no significant influence on prothrombin or partial thrombin times in blood. In clinical blood chemistries, post LEH injection, there were no effects on enzyme markers for heart, liver, brain, spleen, or muscle function. Representative tissues infused with fresh or freeze-dried LEH were prepared and examined by microscopy, showing any vacuolation of liver and spleen cells, which resolved by two weeks following infusion. In addition, ganglioside modification of LEH did not extend the half-life of LEH, but did alter tissue distribution.

These very promising findings on the biocompatibility of LEH facilitated the transition of this work into an Advanced Technology Demonstration (ATD) entitled "Synthetic Red Blood Cells". Supported by the early results of the 6.2 study, this ATD initiated in FY90 is funded at a level of \$4.1 million. The focus of the ATD is to determine the feasibility of using LEH as a temporary blood substitute for the transfusion of combat casualties in those instances where natural red blood cells are not available.

Tactical Airborne Digital Camera System

Developed Real-Time Image Reconnaissance System for F-14. Principle of operation: R10 uses hand-held digital camera that can take over 250 high resolution 1K x 1K images saved to a disk. R10 can view all images on TID and selectively transmit image(s) to base station in 90 seconds.

System design completed Dec 93. One prototype system was tested and heavily used with VF102, USS America, June 93 to Jan 94, a second system was built in Jan 94 and both are being used with VF103, USS Saratoga.

Information about System can be found in:

Defense International, June 93, p. 42
Aviation Week & Space Technology, Feb 29, 1994, p. 27
The Intelligencer/Record, March 1, 1993, p. A4

F/A-18 Fiber Optics Data Bus

Developed Fiber Optic-1553 data converters for implementation of Fiber Optic data bus into F/A-18A SMS system. Initial flight tests successfully completed August, 1991.

Currently in second phase of flight tests, where AIM-7 capture carry weapon will be engaged through Fiber Optic Bus. (May 1994)

Final phase will involve dropping 'dummy' bomb through Fiber Optic Bus. (June-July 1994)

System designed, built, and tested completely in-house by code 5052 and 60. This is the first implementation and flight test of an operational Fiber Optic Bus in a tactical aircraft.

Engineering Design, Fabrication, and Aircraft Installation to Provide Upgraded High Resolution Recording of the Head Up Display (HUD) and the Pilot's Right and Left Digital Display Indicators (DDI)

The upgraded system will provide color recording capability, a four-fold increase in recording time, and significant weight savings. The installation in F/A-18C and F/A-18D are intended to provide proof of concept demonstration and design data that will define follow-on procurement and design actions to support NADEP ECP retrofit activities and MDA forward fit ECP tasks. The system includes three cameras, power supplies, controls and indicators, and attaching hardware. The design is documented through engineering documentation packages defined by the following:

- TE28091 - General Arrangement, Cockpit Video Recorder System F/A-18C Model Aircraft
- TE28092 - General Arrangement, Cockpit Video Recorder System F/A-18D Model Aircraft

Engineering Design, Fabrication, and Aircraft Installation to Provide Upgraded 8mm Recording Capability in Select USMC F/A-18D Aircraft to Support Operation Deny Flight

The task required replacing the current 3/4" tape recorder with a High 8mm recorder. Some of the design data from the F/A-18 C/D CVRS program was used. The design is documented through an engineering documentation package defined by the following:

- TE28675 - General Arrangement, High 8mm Recorder System F/A-18-D Model Aircraft

NATOPS Performance Charts

This effort encompasses the generation of "camera ready" performance charts for use in the NATOPS Manual series for out of production fixed and rotary wing aircraft. This process also supports the flight performance shown in the pocket check list. This product is in direct support of the Fleet and is a unique capability necessary for general aircraft operations and safety of flight. (United States Patent #4568766, 25 March 1986. This patent is used in support of the unique capability for generation of "camera ready" performance charts for aircraft weapons systems.

TACTICAL Maneuver Performance Charts

This effort encompasses the generation of "camera ready" maneuver performance charts for use in Naval Weapons Series 55 Tactical Manuals. These charts are used by both fixed and rotary wing pilots to define the energy maneuverability characteristics of their weapon systems versus threat weapon systems in order to effect a more efficient weapons system kill. This is a unique NAVAIR/NAWC capability.

Flight Optimization Routines for Energy Management (FOREM)

FOREM is a flight planning computer program developed to optimize fuel usage and reduce flight planning time by providing fleet pilots with readily accessible software on floppy disks for use on fleet standard desktop and laptop computers and other DOS compatible PC's. Version 1 is operational in the following communities: F/A-18, TA-4J, A-6E, F-14A, EA-6B, and KC-130R/T. The system is documented in the FOREM user manuals (e.g., F/A-18A Flight Optimization Routines for Energy Management (FOREM) Version 1.2 User Manual, 10 June 1991) which have been distributed to the Fleet along with the software. Version 2 will be distributed to the Fleet in May 1994 along with a new FOREM Version 2 User Manual. FOREM Version 3 is in development at NAWCAD Warminster.

Pocket-Size Aircraft Performance Advisory Computer (P-S APAC)

P-S APAC is a hand-held computer system developed by NAWCAD Warminster and distributed to the Fleet to simplify pre-flight and in-flight aircraft performance and weight and balance computations. P-S APAC utilizes NAWCAD Warminster developed computer programs running on commercially available hand-held computers. The system is operational in the following communities: P-3, UC-12B, C-2A, KC-130F, C-9B, and KC-130R/T. The system is documented in the P-S APAC Training and User Manuals (e.g., C-9B Pocket-Size Aircraft Performance Advisory Computer, Volumes 1 and 2, Performance Programs and Weight and Balance Programs, 30 December 1993) which have been distributed to the Fleet along with the computers and software.

Flight Performance Advisory System (FPAS)

FPAS is an aircraft performance and navigation computer program resident on all lot 10 to 14 F/A-18 aircraft mission computers which provides the pilot with a display of optimum speeds and altitudes for minimum fuel usage and/or maximum range and endurance. The system is documented in the Naval Air Training and Operating Procedures Standardization (NATOPS) Flight Manual AI-F18AC-NFM-000, Change 5, 15 August 1993.

Energy Efficient Environmental Control System for Tactical Aircraft: Joint Project with US Air Force - in development for F-22

Tim Springer and Jim McNamara: Report No. NADC-91117-60, "Flight Test of an Energy Efficient Environmental Control System (EEEECS) in a P-3 Aircraft", 18 December 1991.

Tim Springer and Jim McNamara: SAE Technical Paper 921225, "Testing of an Energy Efficient Environmental Control System for Patrol-Type Aircraft", July 1992.

TRANSITIONS TO 6.3/OTHER TECHBASE PROGRAMS/FLEET USE

Silicon carbide fiber reinforced lithium aluminosilicate, UTRC-2000 (Compglas (TM)) has been selected as the bill-of-material for the F119 engine which has been chosen to power the Advanced Tactical Fighter (ATF) and the Navy Advanced Tactical Fighter (NATF). This material will be used in the 4th and 5th compressor stage vane inner shrouds and provide improved wear resistance compared to titanium, as well as a 12 lb. weight savings per engine and a reduced parts count.

A Manufacturing Technology program was initiated to apply high temperature aluminum in the F-18 auxiliary power unit impeller GTC 36-200. The program will include component manufacturing, demonstration and testing.

Manufacturing Technology is also sponsoring two new programs in FY92 for (1) Production scale-up of the advanced single crystal alloy, CMSX-Mod 4A, developed under Task 6.1 for fabricated turbine vanes and blades with transpiration cooling, and (2) Silicon carbide fiber reinforced lithium aluminosilicate, Modified UTRC-200, for engine external exhaust nozzle flaps. Both programs will culminate in 6.3 demonstrator engine testing (XTC45-3 and XTE66) under the IHPTET program in the 1994/95 time period.

Non-Autoclave Processing for Composite Materials Repair. Report number of same title NADC-83084-60

Video Landing Loads Data Acquisition System in use by the FAA for obtaining commercial aircraft kinematic performance parameters. Report number is DOT/FAA/CT-93/7.

Developed the computer algorithms to process reflected acoustic pulses from the ocean bottom so as to reconstruct the bottom profiles over a wide swath. This information is currently used for undersea navigation and for commercial location of minerals and petroleum. Reference to this work is given in US Patent 5,077,699 (Passamante et al.) of Dec. 31, 1991.

Counterintelligence Communication System, a handheld communication device for the Marine Corps, initially built in 1990 and updated in 1993 based on Marine Corps field testing.

UYS-2 "Fast Start" signal processing graph used by ATT for UYS-2 testing of BSY-2 requirements.

Repair Adhesive HYSOL 9391 developed and transitioned to industry. Reference: NADC Report # 79-286-60, October 1991.

Staged Composite Prebreg Patches developed for composite structure repairs. Transition to fleet use, NADEPS, and Field Activities. Reference: NADC Report # 90664-60, 1990.

Double Vacuum Non-Autoclave Composite Processing developed and transitioned to the fleet and industry. Reference: NADC Report # 92091-60, 1992.

**PROTOTYPES PRODUCT AND/OR PROCESS TECHNOLOGY,
TRANSITIONS TO THE FLEET**

Dr. Shender has taken an existing thermal model and developed and enhanced it to make its predictions applicable to USN survival and mission scenarios. Dr. Shender performed both validation and sensitivity analyses on this enhanced model to ensure its utility and define its limitations. This model is now also being used at the Navy Cloth and Textile Research Facility in Natick and the Naval Health Research Center in San Diego.

Shender, B. S. "Predictions of Human Tolerance to Heat Stress During Simulated Fighter Aircraft Mission Scenarios." Proceedings of the 6th International Conference on Environmental Ergonomics, September 1994.

SONOBUOYS

"Developed Under NAWCAD Technical Direction"

AN/SSQ-1	AN/SSQ-37	AN/SSQ-50 (CASS)	AN/SSQ-101 (HLA/ADAR)**
AN/SSQ-2	AN/SSQ-38	AN/SSQ-53 (DIFAR)*	AN/SSQ-102 (TSS)
AN/SSQ-3	AN/SSQ-41 (LOFAR) AN/SSQ-103 (LCS)		AN/SSQ-57 *
AN/SSQ-10	AN/SSQ-42	AN/SSQ-71 (ATAC)	AN/SSQ-110 *
AN/SSQ-15	AN/SSQ-44	AN/SSQ-73 (DSD)	VLF IIA *

AN/SSQ-17	AN/SSQ-45	AN/SSQ-75 (ERAPS)	VLF III
AN/SSQ-20	AN/SSQ-46	AN/SSQ-77 (VLAD) *	NBIDS
AN/SSQ-23	AN/SSQ-47	AN/SSQ-79 (SVLA)	NUAMP
AN/SSQ-28	AN/SSQ-48	AN/SSQ-86 (DLC) *	PERSS *
AN/SSQ-36 *		AN/SSQ-49	AN/SSQ-90 (AMP) *

* IN OPERATIONAL USE

** IN FSD

**SIGNIFICANT ACOUSTIC PROCESSING TECHNOLOGY IMPACT
OF PROTOTYPES
IMPACT ON THE FLEET**

Common signal processor is a programmable, high speed, linear flow computer which was designed to replace the numerous special purpose acoustic processors onboard aircraft, submarines, and surface ships. Various configurations are used in the P-3, S-3, LAMPS, surface ships, and submarines.

Multi-acoustic sensor data fusion efforts have increased ASW detection and classification capabilities of advanced systems.

SIGNIFICANT PASSIVE ACOUSTICS TECHNOLOGY IMPACT

Low Frequency Analyzing and Recording

Vertical Line Array Measurements (VLAM)

Airborne low frequency analyzing, recording, and directional sonobuoys

In-buoy data storage and signal detection algorithms reduced processing capability needed in aircraft.

Low cost, more reliable, more sensitive sonobuoys reduced the number of buoys required and maximizes the aircraft coverage range per mission.

SIGNIFICANT ACTIVE ACOUSTICS TECHNOLOGY IMPACT

IMPACT ON THE FLEET

Developed every sonobuoy that is used in the Fleet dating back to World War II

Developed first helicopter dipping sonar

Developed sonobuoy communication links which greatly increase aircraft's ability to command and monitor sonobuoy signals

Developed acoustic prediction models which provide more accurate simulation of acoustic environments

IACS

Description

The Magnavox Generator-Processor Group OV-78/A is the airborne portion of the Low Data Rate (LDR) Integrated Acoustic Communication System (IACS). This equipment group is designed to interface with existing P-3 aircraft avionics to provide two way communications between the P-3 and the AN/SSQ-71 ATAC sonobuoy.

This aircraft system group consists of two units; a Reference Signal Control-Display-Generator C-10903/A (CDG) and a Signal Data Processor-Verifier CV-3678/A (SPV). The CDG is the heart of the system as it contains the system microprocessor, memory, and power supply. It is utilized for downlink message composition and encoding as well as uplink message decoding and review. The SPV performs signal conditioning on the uplink transmission to provide data compatibility with the on-board acoustic signal processor. It is likewise used to transcribe processed uplink data from the acoustic signal processor display to the CDG memory for final decoding and review.

Both units are of modular design and are comprised entirely of modules which are replaceable in the aircraft. With the aid of an automated, comprehensive Built-In Test (BIT) program, there is virtually no need to remove an entire unit from the aircraft. Fault isolation to the module (SRA) level with a numeric readout identifying any defective module to the system operator.

P-3C Aircraft Installation

The Magnavox IACS Generator-Processor Group OV-78/A has been specifically designed to interface with the existing P-3C aircraft avionics. The CDG is located at the Navigation/Communication position of the aircraft while the SPV is located in the AN/AQA-7(V) sensor station area. As illustrated in the block diagram, the CDG provides downlink transmission data to the AN/ARC-143 UHF radio set. Uplink data is received by the SPV through the AN/ARR-72 Sonobuoy Receiver, and the signal conditioned uplink data is then routed to the AN/AQA-7(V) Sonar Computer-Recorder Group via the Sono Junction Box. The AN/AQA-7(V) processes the uplink data and presents a permanent display/record to the operator on the AN/AQA-7(V) processes the uplink data and presents a permanent display/record to the operator on the AN/AQA-7(V) Signal Data Recorder (SDR).

The P-3C update III Configuration utilizes the AN/ARR-78 ASCL Receiver and the AN/UYS-1(V) Analyzer Detecting Set in place of the AN/ARR-72 Sonobuoy Receiver and the AN/AQA-7(V) Sonar Computer-Recorder Group.

FACILITIES AND EQUIPMENT

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

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

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

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

7. General Facilities.

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

No.

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

(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.

Aircraft Technologies Laboratory

P-920-S

Description: Provides an integrated laboratory to study aircraft materials and structures in a naval operating environment. Meets current EPA and OSHA requirements.

Frank Knox School Improvements For HRO

P-930-1-S

Description: Provides a centralized base training facility to handle expanding training requirements. Renovates a Navy owned, former elementary school for training and meeting space.

Aircraft MODS Shop

P-930-3-S

Description: Provides an aircraft modifications shop building to support a R&D function being relocated. Shop performs prototype modifications to aircraft to prove concept validity. Meets current EPA and OSHA standards for this type of work.

Ejection Tower (Support Structure)

P-930-3A-S

Descriptions: Project will provide utilities and support building for the relocation of the only man-rated ejection tower in the DOD inventory. Supports crew survivability R&D.

Addition to Building 1490

P-930-4B-S

Description: Provides additional space and interior alterations to support expanded R&D Mainframe computer processing requirements at the computer center.

Building 1406 Addition

P-930-4-S

Description: Provides additional space to move noncomputer center personnel from computer center to allow for additional R&D mainframe computer processing at the computer center.

Addition/Renovation to Building 1652

P-930-4A-S

Description: Provides additional space and interior alterations to support consolidated RDT&E for the TACAMO Strategic Communications Program.

ACLS Integration Test Facility.

P-712

Description: 7,200 SF, building will include integration lab, test lab, staging and test area, repair and instrumentation area, parts storage, fire protection system, security alarms, handicapped access, parking and utilities.

FACSFAC Electronic System Integration Facility P-723

Description: 27,000 SF provides space for all hardware and software functions, logistics support, and administrative personnel.

AN/SPN-46(V) Life Cycle Support Facility

P-720

Description: 27,900 SF, single story, pile supported concrete foundation, steel framed masonry walls with computer room, bench labs, offices, storage, controlled access and parking areas. Will provide software and hardware maintenance, repair, configuration management, problem analysis, and logistics support for AN/SPN-46 ACLS installations.

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

P-920-S

- 1.2 Platform (Aircraft)
- 3. Combat System Integration
- 8. Defense Systems
- 11. Generic Technology Base

P-930-1-S

- 10.1 Personnel and Trainging

P-930-3-S

- 1.2 Platform (Aircraft)
- 11. Generic Technolgy Base

P-930-3A-S

- 10.6 Crew Equipment and Life Support

P-930-4B-S

- 11.1 Computers
- 10.9 Activity Mission & Function Support

P-930-4-S

- 10.9 Activity Mission & Function support

P-930-4A-S

- 1.2 Platform (Aircraft)
- 9. Strategic Programs

P-712

- 1.2 Platform (Aircraft)
- 3.2 Combat Sysyem Integration (Air)
- 7.7 (1) Air Traffic Control System

P-723

- 7.7 (3) Air Traffic Control System

P-720

- 7.7 (1) Air Traffic Control System

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

P-920-S; Aircraft Technologues - No major equipment facilities

P-930-1-S; N/A;

P-930-3-S; Aircraft Mods Shop Code 60725 Machine shop

P-930-3A-S; Ejection Tower

P-930-4B-S

P-930-4-S; N/A

P-930-4A-S; Airborne Strategic communication Engineering and Test (ASCET) Facility

P-712; N/A

P-723; N/A

P-720; N/A

Revised pg

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

<u>Sq. Ft.</u>	<u>Proj. #</u>	
65,000	P-920-S	
33,927	P-930-1-S	
11,624	P-930-3-S	
1,728	P-930-3A-S	
11,400	P-930-4-S	
8,600	P-930-4A-S	
13,576	P-930-4B-S	R
7,200	P-712	
27,000	P-723	
27,900	P-720	

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

<u>Proj. #</u>	<u>CWE</u>	<u>BOD</u>	
P-920-S	12,000	21 December 94	
P-930-1-S	3,562	1 November 94	
P-930-3-S	2,300	1 June 95	
P-930-3A-S	785	1 February 95	
P-930-4-S	1,972	1 September 95	
P-930-4A-S	450	31 August 95	R
P-930-4B-S	2,450	August 95	

<u>Proj. #</u>	<u>CWE</u>	<u>BOD</u>
P-712	1,053	1 September 94
P-723	2,632	1 October 94
P-720	3,437	1 April 95

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.

<u>Title</u>	<u>Proj. #</u>
North and South Centers	P-930-S

Description: Provide two integrated engineering R&D laboratory centers to support BRAC 91 decisions to consolidate Naval Aviation RDT&E. Laboratories support crew systems, air vehicle research, embedded computer systems and airborne anti-submarine warfare.

Jet Engine Test Cell Facility P-383

Description: This project will construct a T-10 jet engine test cell relocated from Subic Bay. Neither of the two existing cells can be adapted to perform post maintenance engine runup of the engines in our existing inventory or those programmed to be here by FY96.

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

<u>Sq. Ft.</u>	<u>Proj. #</u>
65,000	P-920-S
33,927	P-930-1-S
11,624	P-930-3-S
1,728	P-930-3A-S
11,400	P-930-4-S
8,600	P-930-4A-S
13,526	P-930-4B-S
7,200	P-712
27,000	P-723
27,900	P-720

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

<u>Proj. #</u>	<u>CWE</u>	<u>BOD</u>
P-920-S	12,000	21 December 94
P-930-1-S	3,562	1 November 94
P-930-3-S	2,300	1 June 95
P-930-3A-S	785	1 February 95
P-930-4-S	1,972	1 September 95
P-930-4A-S		31 August 95
P-930-4B-S	2,450	August 95

<u>Proj. #</u>	<u>CWE</u>	<u>BOD</u>
P-712	1,053	1 September 94
P-723	2,632	1 October 94
P-720	3,437	1 April 95

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Jet Engine Test Cell Facility	P-383
-------------------------------	-------

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Hazardous/Flammable Material Store House P-426

Description: This project will construct a building to meet safety requirements for the storage of hazardous materials. Currently hazardous materials are stored in an environmentally unsuitable structure that is in violation of the Navy Occupational Safety and Health and Environmental Standards.

Library Renovations P-930-1A-S

Description: Provides interior alterations to support scientific, technical and classified libraries in support of the BRAC 91 decision to consolidate Naval Aviation RDT&E. Existing library is too small to handle combined functions.

Recreation Cottages (Solomons) P-497

Description: This project will construct five duplex cabins for ten recreational lodging units for military personnel. Some of the Naval Recreational Center's lodging units have been condensed due to facility age.

Sewage Flow Equalization Basin P-505

Description: This MILCON will pay the one time cost of the Navy's share of a county planned upgrade to the treatment plant. This MILCON solves a waste water quantity sewage problem.

Administration Facilities (NAVAIR) P-951-T

Description: (Integrated Project Team Building) Provides space for integrated project teams (IPTs) that support aircraft acquisition and need to be collocated with RDT&E. The IPT's will move from Arlington, VA, (Crystal City) resulting from BRAC 93 decision to move Headquarters out of the National Capital Region.

Propulsion System Evaluation Facility P-953-T

Description: Provides a facility to support the BRAC 93 decision to consolidate small engine RDT&E. Building houses test chambers, component test rigs and supporting laboratories.

Waste Water Treatment Plant P-516

Description: This MILCON will pay a one time cost to the Navy for a planned county upgrade to the sewage treatment plant. This MILCON will bring the facility into compliance with the latest water quality standards imposed by the Maryland Department of the Environment.

Airframe Systems Integration Lab P-493

Description: This project will construct a two story integrated laboratory to test and evaluate, in a night combat environment, integrated weapons systems being developed. Facility will also be used for foreign weapon technology and international cooperative programs.

AEGIS Electronic Equipment Staging Facility P-721

Description: A permanent one story masonry building having a pile supported concrete foundation and floor, steel framed clear span staging and storage area, fire alarm system, security fence, environmental controls, access road, parking and utilities. Will provide logistics support and staging facilities for electronic and communication systems and equipment undergoing integration, test and evaluation in support of the AEGIS CG-47 and DDG-51 radio communication system integration and the related in-service engineering program.

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

P-930-S

1. Platforms
3. Combat System Integration
5. Sensors & Surveillance
6. Navigation
7. C³I
8. Defense Systems
9. Strategic Programs
10. General Mission support
11. General Technology Base

P-383

1. Platforms

P-951-T

All functional support areas

P-426

10. General Mission Support

P-930-1A-S

10. General Mission Support

P-497

N/A

P-505

10. General Mission Support

P-951-T

All Functional Support Areas

P-953-T

1. Platforms
3. Combat System Integration

P-516

N/A

P-493

1. Platforms
2. Weapon Systems
3. Combat System Integration
5. sensors and Surveillance
6. Navigation
7. C³I
8. Defense Systems

P-721

- 7.3 Shipboard

Revised pg

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

P-953-T - Installed equipment of replacement value greater than \$500k is limited to the gearbox/power absorption system in the Helicopter Transmission Test Chambers, and Air Supply equipment servicing the Accessories Test Area.

P-930-S

- VS Labs
- Vertical Flight
- VP Facility - Software Program Facility
- VP Facility Program Hardware Integration Center
- VH Facility (Helicopter Integration System - 2)
- Horizontal Accelerator
- Structural Test Facility
- Hydraulics Research Lab

P-383

P-426 N/A

P-930-1A-S

P-497 N/A

P-505 N/A

P-951-T

P-953-T

P-516

P-493

Aircrew Systems Test Facility

P-721

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

<u>Sq. Ft.</u>	<u>Proj. #</u>
705,000	P-930-S
6,720	P-383
12,860	P-426
0	P-930-1A-S
5,280	P-497
0	P-505
495,012	P-951-T
77,000	P-953-T
0	P-516
42,400	P-493
57,560	P-721

R

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

P-953-T - Installed equipment of replacement value greater than \$500k is limited to the gearbox/power absorption system in the Helicopter Transmission Test Chambers, and Air Supply equipment servicing the Accessories Test Area.

P-930-S

**VS Labs
Vertical Flight
VP Facility - Software Program Facility
VP Facility Program Hardware Integration Center
VH Facility (Helicopter Integration System - 2)
Horizontal Accelerator
Structural Test Facility
Hydraulics Research Lab**

P-383

P-426 N/A

P-930-1A-S

P-497 N/A

P-505 N/A

P-951-T

P-953-T

P-516

P-493

Aircrew Systems Test Facility

P-721

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

<u>Sq. Ft.</u>	<u>Proj. #</u>
705,000	P-930-S
6,720	P-383
12,860	P-426
0	P-930-1A-S
5,280	P-497
0	P-505
495,012	P-951-T
77,000	P-953-T
2,500	P-516
42,400	P-493
57,560	P-721

(5) CWE & planned BOD.

Revised pg

<u>Proj. #</u>	<u>CWE \$(000)</u>	<u>BOD</u>
P-930-S	78,500	30 March 96
P-383	4,400	21 November 95
P-426	3,400	30 June 96
P-930-1A-S	1,000	1 January 96
P-497	440	31 January 96
P-505	1,000	8 December 96
P-951T	94,500	20 June 97
P-953T	25,575	Unknown
P-516	2,500	26 August 96
P-493	7,600	10 January 00
P-721	6,700	1 Apr 2000

R*

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.

37 miles, Andrews Air Force Base; 81 miles, Norfolk Pier

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.

Facility Number	MAXIMUM RATED CAPABILITY
	TONS
209A	4.8
209B	23.8
209C	20.0
210A	7.6
210B	4.2
210C	12.0
212	1.0
1412A	6.9
1412B	10.8
1412C	6.0
1412D	10.0
1412E	30.0
1412F	5.4
1412G	9.6
1371	4.8
1372	2.0
1373	21.0
1374	13.2
1375	40.5
208	4.8

* 8 December 1996 is the projected usable completion date.

(5) CWE & planned BOD.

<u>Proj. #</u>	<u>CWE \$(000)</u>	<u>BOD</u>
P-930-S	78,500	30 March 96
P-383	4,400	21 November 95
P-426	3,400	30 June 96
P-930-1A-S	1,000	1 January 96
P-497	440	31 January 96
P-505	1,000	8 December 96
P-951T	94,500	20 June 97
P-953T	25,575	Unknown
P-516	2,500	26 August 96
P-493	7,600	10 January 00
P-721	6,700	1 Apr 2000

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.

37 miles, Andrews Air Force Base; 81 miles, Norfolk Pier

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.

Facility Number	MAXIMUM RATED CAPABILITY
	TONS
209A	4.8
209B	23.8
209C	20.0
210A	7.6
210B	4.2
210C	12.0
212	1.0
1412A	6.9
1412B	10.8
1412C	6.0
1412D	10.0
1412E	30.0
1412F	5.4
1412G	9.6
1371	4.8
1372	2.0
1373	21.0
1374	13.2
1375	40.5
208	4.8

245	5.4
248	13.8
211	720.0
213	1.85
221A	1.0
221B	1.0
577A	1.3
577B	1.0
138	1.1
219A	1.0
219B	1.0
225A	1.05
225B	1.1
218A	2.2
218B	1.15
231A	1.0
231B	1.0
222A	1.0
222B	1.0
142	.5
220A	1.05
220B	1.0
1388A	1.1
1388B	1.1
240A	1.0
240B	1.0
3181	1.0
Port.RSL	1.0
TOTAL	1005.1

LOCATION

Revised pg

8. Geographic Location.

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

The Naval Air Warfare Center Aircraft Division Patuxent River (NAWCADPAX) is ideally located in a rural area about 70 miles southeast of Washington, D.C., and is surrounded on three sides by the Patuxent River and Chesapeake Bay making available the sea level atmospheric conditions and salt laden heavy air necessary for the RDT&E of carrier-based aircraft, rotary wing aircraft and anti-submarine warfare aircraft. NAWCADPAX Complex is 60 miles west of the Atlantic and 90 miles northwest of Norfolk.

The importance of NAWCADPAX's location relative to clustering of other activities is: (1) close proximity to the fleet in Norfolk (90 air miles) for direct technical interchange, platform availability, and range support; (2) rapid access to sponsors, intelligence agencies; and other SYSCOMS; (3) direct access to NSWC-Dahlgren, and Indian Head for synergism across the cognizant platform, types and systems of all three SYSCOMS; (4) support to more than 50 tenants.

The NAWCADPAX Complex has ample land available to receive other compatible functions, has strong community support; has ideal geography for sea-level testing in an open ocean/littoral environment; has a diverse infrastructure capable of supporting increased operations; and has no encroachment problems.

NAWCADPAX Complex exists in the temperate climate conditions that prevail in Southern Maryland. This climate is conducive to the full spectrum of operations required for aircraft systems RDT&E. Experience indicates there is good, year-round VFR weather conditions 89% of the time. The facility is essentially at sea level with approaches over water making for a true direct link to the maritime environment. The Chesapeake Bay range provides an aerial firing and shallow water recovery area and includes a supersonic test corridor. The rural nature of the area allows virtually unrestricted operations under prevailing climatic and other operational conditions.

Patuxent River Complex real property consists of 6,829 acres, including 7,114K SF of facilities, of which 2,054 undeveloped acres are available for expansion with minimal constraints that would have any impacts on the current mission.* The St. Mary's County land use plan and zoning ordinance recognizes the importance of the naval establishment. The county manages one of the strictest and most supportive Air Installation Compatible Use Zone (AICUZ) provisions ever enacted. The AICUZ provision has provided and will continue to provide the buffer against encroachment. NAWCADPAX Departure and Arrival Control has been delegated by the FAA to control 28 airfields in a 4,600 square-mile Mid-Atlantic region. Eight of these airports have published instrument approaches, and twenty-three are civilian-operated. NAWCADPAX has direct cognizance of four Chesapeake Bay restricted areas and two military operating areas (MOA's).

* Includes only the Patuxent River Complex. Total is 7,124 which includes special areas outside of the complex. R

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- R4005
- R4006
- R4007
- R4008
- Rappa MOA
- Delmar MOA

Other areas are available on a shared basis:

- R4002
- R6609
- W-386, W-108, W-72, W-107, and W-105
- Low Tide A & B

NAWCADPAX Complex also has available 233.7 acres of water area in the Chesapeake Bay as a water target aerial firing range for non-explosive weapons. The area is referred to as the Hooper Target (surrounded by a 1,000 yd. radius surface prohibited area) and is under a permanent license granted by the State of Maryland in 1949. The Hannibal ship target is also located close by in the Chesapeake Bay. In addition, Bloodsworth Island (12 mi) and Dare County (155 mi) ranges provide land targets.

Adjacency to a salt water river, bay and close proximity to the Atlantic provides the extensive land/water interface diversity in water depth, temperature and sea states necessary for aircraft RDT&E. Being centrally located along the east coast provides a wide variety of weather and water conditions needed for Navy aircraft RDT&E. Located 100 miles from the Appalachian Mountains provides a large variation in terrain (sea level to approximately 6,000 ft.).

The location also provides the over the water approaches for testing ATC/ACLS and IFF shipboard systems to ensure that over the water propagation characteristics are also considered.

Combined inland and offshore operating areas available to NAWCADPAX exceed 50,000 square miles. Aircraft operations are essentially unconstrained and have access to the Chesapeake Bay and the East Coast Open Ocean Test Ranges. Transit to and from offshore operating areas is available via low-altitude IFR or VFR routing. The NASA Wallops airfield has been configured as primary divert and support facility for offshore operations. NAWCADPAX has leveraged, through incurring only labor costs, the \$400M plus of NASA Wallops range assets into daily support of the NAWCADPAX mission.

The terrain offers no obstacles and the decentralized base layout allows for many simultaneous operations to be underway.

The natural geography, layout, and security posture of the base provide for a secure environment for all aspects of RDT&E testing and other programs.

NAWCADPAX Complex has a very low exposure to natural disasters (e.g., earthquakes, floods, forest fires, tornadoes, hurricanes).

NAWCADPAX Complex has the diversity and size of air and water operating areas to perform projects in assigned mission areas and compatible expansions unencroached with low environmental impact. The geography and dispersion of facilities permit the safe and environmentally sound storage of fuel, ordnance,

and hazardous materials. Close proximity of Atlantic Ocean operating areas provides nearly unlimited maneuvering space with deployable instrumentation systems and range safety.

Webster Field Annex is situated on 852 acres on the shores of the St. Mary's River with boat launching facilities and active runways. Because of its rural location a quiet electromagnetic environment exists, making it possible to test and evaluate electronic equipment without interference from the surrounding elements such as those found in urban communities and be able to support many critical Navy, DoD, and other Agency programs which require high power transmitters to radiate. Additionally, because of this isolation it is capable of testing equipment which might need to be considered "out of public view," yet not considered classified in nature.

Webster Field Annex has the capability to:

Test water, land and air communication platforms for the Special Forces and other customers to verify interoperability between platforms.

Use SPECWAR High Speed Boats for system development platforms.

Use shoreline coastal observation systems for Navy SEAL training.

Support the White House Communications Agency design, integration, installation, and support of communication vehicles because of our remote location which is also close to Washington DC.

Provide test and ILS support for the LAMPS, IFF, and ATC/ACLS test and development programs with shipboard electronic systems and ranges.

The Patuxent River Complex is one of three Naval bases which are all within 2 hours of Washington, DC. The other two commands are the Naval Ordnance Command, Indian Head, MD (57 miles) and the Naval Surface Warfare Center Division (NSWC), Dahlgren, VA. NSWC is 75 miles from Patuxent River Complex and is separated by a natural barrier (the Potomac River) - yet is close enough again to provide or receive support where needed. The close proximity to The Naval Ordnance Command and NSWC has evolved into a close working relationship in several major Navy programs, i.e., Automatic Carrier Landing Systems, ASWOC/ASCOMM, AEGIS, IFF, and the LAMPS MK III ASW program. The three activities provide the Navy with closely located areas of expertise representing the NAVAIR, NAVSEA and SPAWAR communities and our mutually convenient locations allow joint program support in the "local area."

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

NAWCADPAX Complex is ideally located to provide and receive support from other RDT&E centers: NSWC Dahlgren, White Oak, Indian Head, and Carderock; NRL; Aberdeen Proving Ground; Washington Headquarters; NASA and FAA Center - Atlantic City; Major Defense Companies, Grumman, McDonnell Douglas, Sikorsky, General Electric, Westinghouse, RCA, Bendix; and Operational Units, Norfolk Oceana, AEGIS Training Center - Wallops and Atlantic Range Op areas; AUTEK, NASA Wallops, VACAPEP, and Maine and Florida Tomahawk ranges. NAWCADPAX's location in rural Southern Maryland has an established base of contractor and industry support that facilitates all its mission operations.

NAWCADPAX's relatively close proximity to Washington, D.C. allows for rapid and efficient communication and direct liaison with its customers and decision makers. In addition, the access to fleet units on the East Coast allows for real world input into the developmental T&E process. The area around the base, has over the years, been populated with a number of technical support contractors that are critical to the completion of mission activities. Some of these contract operations provide support both on and off base and are a major part of the technical establishment.

Being both located on the east coast and having internationally unique capabilities has enabled NAWCADPAX to be not only a national asset, but also an international center of aircraft T&E. Examples of European and South American aircraft tested include the British Nimrod, French Rafale, Spanish Harrier/Principe DeAsturias, Italian Harrier/Garibaldi, and Brazilian and Argentinean S-2s.

The Patuxent River Complex is close to three major airports, allowing rapid departure for intercontinental and overseas travel.

Washington National Airport: 65 miles
Baltimore/Washington International Airport: 76 miles
Washington Dulles International Airport: 88 miles

FEATURES AND CAPABILITIES

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

The current and future computational capability at the Patuxent River complex includes: The Central Computer System (CCS) is an extremely powerful, scientific and engineering computing facility. It is the largest hybrid computer complex in the Navy. It supports all major projects and programs at the Naval Air Warfare Center Aircraft Division Warminster. Additionally, the CCS supports over 130 remote sites throughout the United States. The CCS supports weapons system development and other research for the P-3 program, the S-3 program, the ASP program, the CV/ASWM module, the E3/AWAC program and the Oceanographic Systems Program. Through the Facility for Automated Software Production (FASP), the CCS supports structured software development for the AYK/14, UYK/7, UYK/20, UYK/32, UYS/1, and Motorola 68000 computers and microprocessors. Languages supported under this system include SPL, CMS-2M, CMS-2Y, FORTRAN, ADA, PASCAL and C. The assembly languages are also supported. There are currently more than 40 million lines of code under structured control within the FASP. The CCS FASP assures that all software developed remains the property of and under control of the Navy throughout its entire life cycle. Through a variety of communications links which include fiber optics, high-speed coax, local area networks, loosely coupled networks, satellite links, laser links, microwave links and RS-232 phone lines, the CCS is connected to other computers both at Warminster and around the country. There are currently more than 2000 workstations connected to the CCS via various networks. The CCS also supports a very powerful real-time simulation capability. Simulations that run on these computers include the Dynamic Flight Simulator which is connected via a fiber optic link to the Warminster centrifuge and an F-14/F-18 weapons system simulator. These are man-in-the-loop real-time simulations.

The CCS includes a fully integrated configuration of 7 large scale mainframes and various minicomputers and superminicomputers. There is a CDC CYBER 875 mainframe which acts as a front end processor and job scheduler for the other mainframes. There are also 2 CDC CYBER 760s, one CYBER 860, a CYBER 830 and 2 CYBER 825s. These computers, in addition to their internal memories, share access to 50 million bytes of external memory. The CCS has more than 100 billion bytes of on-line mass storage provided by more than 125 disk drives and mass storage systems. There are more than 150,000 disk files on-line and available 24 hours a day, 7 days a week, for immediate access by the more than 3000 users of the CCS. The CCS also has more than 160 billion bytes of automated cartridge storage. The CCS also has 30 tape drives which handle all densities of tape from 200 bits per inch up through 6250 bytes per inch. These tape drives enable the CCS to be used for the analysis of experimental and operational data obtained from all weapons systems under projects and programs at Warminster. Additionally, the tape drives are used for preparing operational load tapes for providing the software that runs these weapons systems in the fleet. The CCS also has 18 communications processors having a capacity of more than 1100 communications lines and up to 56 kilobaud per line. For mainframe to mainframe communications, the CCS has a loosely coupled network with a 50

Revised

megabit capacity. The CCS is also connected to a broadband network with over 3500 connections, an 11 megabit satellite earth station and an Ethernet for access by its users.

The CCS is available to users 24 hours per day, 7 days a week. The fully integrated configuration with all computers having access to all data and program files permits the CCS to have an availability to users that is consistently above 99 percent.

Chesapeake Test Range (CTR) is a key component of open air testing at Patuxent River. It has interconnectivity with virtually all flight test activities at Patuxent River as well as interconnectivity with the major ground test facilities. The CTR has the ability to support flight test for the full spectrum of aircraft test and evaluation types by flexible application of resources to the required open air test. It has the ability to provide simultaneous capability to support a number of different test requirements. CTR resources when coupled with the other extensive open air range facilities, ground test facilities, and measurement facilities available at Patuxent River provide a unique capability to conduct full spectrum Navy aircraft RDT&E as well as support of Atlantic Navy fleet training exercises.

Inter/Intra Range data links include:

NASA Wallops Flight Facility (WFF) - Real-time bi-directional - microwave link at 12.9Mbps (DSA).

Fleet Area Control & Surveillance Facility (FACSFAC), Virginia Capes - Real-time unidirectional - encrypted dedicated link at 56Kbps.

Naval Warfare Assessment Division (NWAD), Corona - encrypted telephone link at 9.6Gkbps. R

Atlantic Underwater T&E Center (AUTEK), Bahamas (via West Palm Beach, FL) - at 56Kbps (DSO).

Webster Field Annex - microwave link at 1.5Mbps (DS2) plus 5MHz video. R

ATLAS - real-time unidirectional landing link at 56Kbps.

Telemetry Data Center - Real-time bi-directional wire link at 1.5Mbps (DSI).

Landing Site Test Facility (LSTF) - Real-time unidirectional landline link at 56Kbps.

Ships Ground Station (SGS) - Real-time bi-directional encrypted fiber optic link at 1.5Mbps (DSI).

Coast Guard Vessel Traffic Control System (CGVTS) development facility - 1.5Mbps. R

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Revised pg

Real-time unidirectional CATV coaxial link for transmission of video and data to multiple sites throughout the Patuxent River complex - Broad band (up to 10Mbps). R

Air Combat Environment T&E Facility (ACETEF) - real-time bi-directional encrypted at 1.5Mbps (DSI).

The TDS facility includes telemetry antennas at two Patuxent sites and access to telemetry antennas at NASA Wallops, all connected to the TDS Real-time Telemetry Processing System (RTPS) via microwave links. RTPS can select any required measurements from a telemetry data stream for throughput to the interconnected facilities listed below. RTPS also can accept simulation data, time/space position data, etc., from interconnected facilities and merge this data with telemetry data. Telemetry antenna sites provide raw telemetry signals to RTPS, but also interconnect to aerospace contract facilities via satellite. TDS facilities interconnect with other facilities as follows:

The Patuxent River Information Computing Environment (PRICE) at the Naval Air Warfare Center Aircraft Division Patuxent River (PAX) complex is a state-of-the-art, distributed, open systems-based corporate information processing facility. It supports all Patuxent River Flight Test and Engineering Group (FTEG) activities and 50 other remote and local tenants and agencies throughout the United States. The PRICE allows over 2800 users to access corporate business and aviation-support applications.

Control of visits/visitors to Naval Air Warfare Center Aircraft Division (NAWCAD) is provided by a centralized system which supports the complete life cycle of visitor processing, starting with the receipt of visitor requests through visitor exit. Processing of classified, unclassified and foreign nation visits is encompassed with electronic approvals between Security Department personnel and unit security coordinators. Personal and vehicle passes are automatically generated and the system interfaces to existing military and civilian personnel systems for point-of-contact verification.

The NAWCAD inventory is supported by a system that accounts in quantitative and monetary terms for the procurement, receipt, issue, and control of plant and minor property, including both sponsor and government furnished equipment. Accounting controls over inventory ledgers are encompassed and subsidiary property records are reconciled quarterly to general ledger accounts. Depreciation is computed and accumulated on class 3 and class 4 property. An automated barcoding process is also provided by the system.

A Workload Planning System supports the accountability for project resources such as; aircraft, labor, material, contracts, facilities etc.. The system ensures compliance with the NAWCAD mission and Naval Air Warfare Center Headquarters (NAWCHQ) and Naval Air Systems Command (NAVAIR) requirements, identifies workload by core capabilities, maintains continuity and consistency with Long Range Plans, Master Activity Plans, A-11/DBOF/MRTFB Budgets, and other reporting requirements.

To relieve Contract Officers' Representatives (COR) of their administrative burden, a Contract Monitoring System supports the tracking of contract deliverables and expenditures. The system functions as a management tool, providing management, CORs, and administrative personnel with an efficient and

Real-time unidirectional CATV coaxial link for transmission of video and data to multiple sites throughout the Patuxent River complex - Broad band (up to 100Mbps)

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timely method of responding to contract related questions from NAWCAD and NAVAIR. Information on contract milestones, work in process, contract awards and post award is maintained by the system to support contract personnel in the management of their business.

For Federal Information Processing (FIP) approvals a system is provided which supports SECNAVINST 5232.1C. This system tracks all approved Abbreviated System Decision Papers (ASDPs) and all FIP procurement orders issued against those papers. The system provides a means for Information Resources Management Office personnel to manage, monitor and report on procurements of FIP resources for NAWCAD.

The Financial System supports the accountability of all categories of financial transactions such as: military and civilian labor, material, flight hours, travel, training, and incoming/outgoing funding. All financial processing and reporting is conducted in accordance with NAVY COMPTROLLER Manuals, Sponsors and NAWCAD requirements. Financial actuals processed by the system are also utilized in comparisons to budget and plans such as; A-11/DBOF/MRTFB, and PROJECT PLANS.

Training is supported by a Training Information Processing System (TIPS) which automates the DD Form 1556 Training Request. The system provides the accountability for all onsite, offsite, mandatory, formal and informal types of training for both military and civilians. TIPS interfaces with the Defense Civilian Personnel Data System, Defense Civilian Payroll System and the Financial System. All historic training records and output reports are in accordance with the Federal Personnel Manual, Office of Personnel Management and NAWCAD requirements.

A Flight Information and Scheduling Tracking (FIST) system supports the process of preparing flight schedules and tracking flight data with the entry of the Naval Aircraft Flight Record (OPNAV 3710/4). The FIST provides real-time information about aircrew qualifications, currency, and availability. In addition, it tracks aircraft status and availability, special inspections, phase inspections and ground hours. The system was developed in accordance with OPNAV 3710/4, OPNAV 3710/7P, and FTEGINST 3700.1 and electronically interfaces with the Financial System and the Aviation 3M Maintenance Data System.

To support aviation acquisition and logistics a Naval Aviation Lessons Learned (NALL) system is provided and is mandated by a MOA from the Joint Logistics Commanders (JLC). The information contained in NALL is used for many purposes. The various Naval Aviation Depots, as well as most major airframe manufacturers, use the lessons during new design formulation, engineering investigations, and other valuable research to ensure that problems encountered in the past are not repeated. The NALL uses an electronic Bulletin Board System and Folio Views to manage textual information. In addition to the NAVY's lessons learned, the Federal Aviation Administration and U. S. Air Force are also supported with plans and agreement in process to support NASA.

A Reliability and Maintainability Logistics (RAMLOG) system records reliability and maintainability data of the various testing phases performed on aircraft weapons systems. RAMLOG consists of several aircraft data bases, such as V-22, F/A-18, T-45 etc. Types of data stored in each of the aircraft data bases which can be retrieved in report formats include Maintenance Data Reporting

(MDR) or Visual Information Display System/Maintenance Action Form (VIDS/MAF) data and flight data from the Naval Flight Record Subsystem (NAVFLIRS).

Languages supported under this system include Ada, C, FORTRAN, COBOL and C++. Through a variety of communications links which include high-speed broadband coax, local area networks, fiber optics, T-1 and 56KB data links, NAVNET links, Defense Research and Engineering Network, Defense Simulation Internet and telephone lines, the PRICE is connected to other computers both internally to PAX and externally around the world. The Patuxent River Information Computing Environment includes a fully integrated configuration of three distributed high-end database servers and multiple minicomputers, file servers and application servers. There are two Sun SPARCcenter 2000 symmetric multi-processing (SMP) computer systems and one DEC VAX 6510 which serve as production database servers utilizing the Oracle database management system software. In addition, there are Sun SPARCserver 1000 and Sun SPARC 10 SMP front-end application servers, DEC VAX 6410 and VAX 4100 database file servers, and numerous Sun and DEC network and systems management workstations. These computers each have a high memory level (some up to 640 million bytes) which provide rapid, efficient application execution and user response time. The PRICE has more than 100 billion bytes of on-line mass storage provided by modern, plug-and-play SCSI disks and mass storage units. The PRICE can handle magnetic tape management and processing of 1/2", 8mm, 4mm, 1/4" cartridge, and DEC cartridge. All computer systems are available 24 hours a day, 7 days a week, for immediate access by remote and local users. The fully integrated modern, low-maintenance configuration permits the PRICE to have an availability that is consistently above 99 percent.

The NAWCAD has a series of Video Teleconferencing facilities (VTCs) that provide interactive communications between two or more groups or three or more individuals located at separate locations. The VTCs are networked through a leased T-1 terrestrial data link to a central TELCO (telephone company). The TELCO links facilities, providing for the transmission of secure/nonsecure video, audio, graphics and data. Two of the VTCs will multiplex the signals from their Codexs into one T-1 data service. The third VTC is planned for the new NAWCAD North Engineering Facility in FY95. This facility will provide for secure and nonsecure large volume conferences. Currently being installed are two low bit rate desktop VTCs that will be point-to-point using switched service and or ISDN as its data link.

As a result of decisions made under BRAC 91 and continued under BRAC 93, a requirements analysis was conducted, and design specification developed, for a new outside communications cable plant with bandwidth capable of supporting increased need for voice, data and video for business and scientific information exchange at the expanded RDT&E facility at Patuxent River. The result was a Fiber Optic Backbone ring of approximately thirteen miles with eleven Fiber Distribution Nodes (FDN's) located in geographic zones that allow connection of new BRAC 91 facilities, and BRAC 93 facilities, with existing facilities. With this concept the system is capable of accommodating future growth and expansion for the next 15 to 20 years. With implementation beginning in FY94, completion of entire ring is envisioned by FY98. Blown Fiber technology will be used to provide the capability of installing either single mode or multi-mode fiber as required. Additional fiber can be installed without additional backbone trenching and construction being necessary. With a raw bandwidth capability in the

Gigahertz range, initial transmission technology for data will be the Fiber Distributed Data Interface (FDDI) transmission standard of 100 Mbps to support the internetworking of several thousand Personnel Computers and Work Stations on approximately 100 Local Area Networks (LAN) throughout the Patuxent River complex. The system is also capable of supporting DS1 & DS3 point to point data transmission with scalability to future Optical Carrier (OC) standards of OC-3 and beyond as they become defined. These point to point technologies can be used to support interconnection of security monitoring systems and voice system technologies such as ISDN throughout the complex. Future planning calls for migration to a integrated multi-media transmission architecture utilizing the Asynchronous Transfer Mode (ATM) transmission standard of 622 Mbps when it is fully developed. In addition to traditional communications and networking applications, the system will be used to provide connectivity for unique applications between scientific and engineering laboratories in aircraft and weapon system test organizations (TACAIR, ASW, RW) located across the complex. An ultra high speed communications network will be implemented between these facilities and the Manned Flight Simulator, Aircraft Test & Evaluation Facility (ATEF), Anechoic Chamber and Chesapeake Test Range to create a very powerful real time simulation capability.

The Exec-Net is a portable pc-based 50 user electronic meeting system which offers a comprehensive tool set to support and improve a wide variety of group processes or team collaborative efforts. The software allows teams to construct meeting agendas, brainstorm, submit ideas for discussions, build a decision list and then vote on prioritizing the items on that list. It can help take input from several people and massage it into an agreed-on solution. Anonymous input allows ideas to be judged on their merits rather than by who proposed them. It makes meetings more focused, increases productivity, saves time, gives everyone an end product to take away and helps get full participation. Beyond electronic meetings, the software also allows collaborative work efforts on documents, spreadsheets or other database systems and software.

The Exec-Net system has been extended to broader applications. It provides a multi-site capability using current wide area network and VTC capabilities. With systems connected by hubs at each site and the main server within the Video Teleconferencing Center located at Pax River, people can tap in from various geographical locations and attend electronically. In this way, the sites share screens simultaneously through broadband connectivity and ordinary telephone lines thus providing real-time communications without the associated travel. This same time, different place technology looks toward the future of virtual meetings, which will permit people in various places to interact as if they were face to face.

In FY96, Exec-Net efforts will focus on "desktop conferencing" where participants will be able to share or edit information with several other parties on the local or wide area network. This system will provide project oriented interface that allows teams to collaborate with other people from their desks thereby permitting anytime, anywhere collaborative work efforts.

Naval Air Warfare Center Aircraft Division (NAWCAD) Patuxent River currently supports 3,456 working telephone lines. Per Base Realignment and Closure (BRAC), the NAWCAD Warminster, Trenton, and NAVAIR will be relocated to NAWCAD Patuxent River during the FY-94 through FY-97 time-frame. Additional lines are being provided to accommodate these personnel. This system uses the Fiber Optic Backbone as the transmission medium. The system will be

able to accommodate required features for DoD Technical Architecture Framework/Information Standards such as: Integrated Services Digital Network (ISDN), North American Numbering Plan (NANP), Desk To Video Connectivity, FTS-2000, and Fiber Optic (Backbone) Connectivity.

The current FTEG network operating system supports approximately 3500 local users with about 5000 Navy-wide users accessing the various electronic mail gateways at Patuxent River. The BRAC initiatives will make Pax a major hub for Naval Aviation on the East Coast which results in approximately 9,000 local users needing support from the Pax River local area network. The current 3Com network is a proprietary operating system which has been used for the past several years and does not allow the connection of additional users. 3Com Corporation has terminated the development of any future NOS software and has not supported the current product since December 1992. Our environment consists of 90 dedicated file servers; over 3,000 Motorola and Intel based personal computers physically located at every corner of the naval base; dial-in/dial-out capabilities; and over 100 networked applications. The immediate need to migrate from this NOS rises not only from lack of vendor support, limited growth opportunities and obsolescence, but also from the lack of interoperability with the many heterogeneous systems within NAWCAD.

The decision was made to transition to Microsoft Windows NT Advanced Server (NTAS) as the network operating system and Microsoft Mail for users at Patuxent River. The transition includes migrating current 3Com users and incorporating the Naval Air Systems Command (NAVAIR), Trenton and Warminster personnel as they move to Patuxent River during the FY94 through FY97 timeframe. Our future environment will consist of approximately 60 PC-based file servers with gigabyte hard drives, CD-Rom drives, corporate modem pools for dial-in/out capabilities, networked printers, and over 9,000 personal computers decentralized around Patuxent River.

The Naval Air Warfare Center Aircraft Division, Patuxent River, Maryland operates a base-wide communications network which provides data and communications to on and off-site facilities. The actual communication activity is provided by computer network and telephone cabling located in over 110 buildings on the Pax River site.

Webster Field Annex computational capability consists of 21 mini systems and 827 personal computers. These systems provide internal Command/Directorate/Division support for DDN connectivity, electronic mail, financial management, administrative support, contract tracking, property management, and project management. Local area networking (LAN) capability exists within divisions; command wide communication is accomplished through existing LAN capability and multiplexing. An FDDI rated, 18 strand, fiber optic backbone runs throughout the base connecting 19 buildings with plans to connect to all the remaining occupied buildings. The backbone is currently running at 10-megabits but is capable of 100 megabits. We have 4-T1 trunks for off-station communication, two in the local area and one to Crystal City and one to Charleston, SC. In addition, we provide Defense Data Network (DDN) connectivity support to approximately 14 government commands (including SPAWAR, NAVSEA, NAVAIR, NAWCAD/NAS Patuxent River, and Ft. Huachuca) and to approximately 50 contractor facilities as well as total mailbox coverage to over 1000 users.

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10. Mobilization Responsibility and Capability.

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

The NAWCADPAX is designated in classified DOD mobilization plans to support operational forces during times of national contingencies and operational exercises as outlined by Commandant Naval District Washington, DC, Continuity of Operations Plan 1-73 and the Joint Resource Assessment Database Report (JADREP) JCSPUB 2-FY CSCW-1 OORDER 3121. The airfield, with three runways, is capable of handling any size aircraft and provides a quick reaction capability. As a result of tenant operational squadrons including one strategic squadron, systems supporting operational forces, such as Uniform Automation Data Processing System, Naval Air Logistics Command Monitoring Information system, Aircraft Intermediate Maintenance Department, Marine Security Force, and Fleet Communications already exist. The site is capable of supporting in excess of 300 aircraft. In addition the capability to modify man-rated aircraft and to prototype exists. The organic engineering talent rounds out this capability with the expertise to technically support most aviation technical issues worldwide. With the addition of the NAWCAD Warminster complement, the fleet will have almost instant access to the most extensive aircraft scientific and engineering capabilities available in the world today. The NAWCADPAX Hospital staff has as a mobilization role, the staffing of the U.S. Hospital Ship Comfort during contingencies as was done during Desert Storm.

Webster Field Annex is included in the mobilization plans for approximately 30 programs at various sites (ship/shore). This activity is directly involved in all phases of communication support and has the ability to assemble all types of systems for all classes of ships and shore facilities. We have operational Tactical Support Center Communications (TSC) capabilities and in an emergency could provide full communications capability at the CINC level at this time. (this capability will be transferred to Charleston). We have sufficient space in existing facilities to do emergency development of most types of electronic systems in the command, control, and communication arena. We also have open space for location of temporary facilities to undertake short notice programs of practically any kind, small manufacturing capabilities, and in excess of 300 acres of land that could be developed with new facilities.

What unique features of this Center would be of value in the case of a future contingency requiring the rebuilding of U.S. Naval forces?

NAWCADPAX consists of 7,124 acres, including 7,114K SF of facilities. Of the total acreage, 2,054 is undeveloped and available for expansion with minimal impacts on the current mission. R

The natural geography, layout, and security aspects of the base provide for a secure environment for all aspects of RDT&E testing along with support of operational units.

The physical security aspects of the base include perimeter fencing, land, air and sea perimeter patrols, island security enclaves, and protected facilities and bunkers. The security response force consists of a DOD police force, and

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The physical security aspects of the base include perimeter fencing, land, air and sea perimeter patrols, island security enclaves, and protected facilities and bunkers. The security response force consists of a DOD police force, and

auxiliary security force, and a combat-ready Marine Security Force. This force is augmented, when needed, by contractor security forces and local law enforcement personnel.

NAWCADPAX, using the above-mentioned security forces and measures, is capable of responding to threat types 1-6 as defined in OPNAVINST 5530.14B, and meets or exceeds all physical security program requirements as defined in the above instruction. The hostile attack threat to the base has been rated as minimal by the Naval Investigative Service.

NAWCADPAX has a very low exposure to natural disasters (e.g., earthquakes, floods, forest fires, tornadoes, hurricanes).

NAWCADPAX operates a complete Aircraft Intermediate Maintenance Department and supports fleet and RDT&E organizational-level maintenance activities in 18 hanger bays. Our AIMD is the Navy's most diverse level-2 aircraft maintenance activity supporting 180 aircraft representing 62 different types/models/series consisting of 728 different avionics and mechanical systems. It is also a first degree repair site for six different type engines representing 16 different models/series. The Supply Department is configured to meet the unusual and varied demands of over 50 tenants and NAWCADPAX.

Major embedded assets include:

- RDT&E Hangers, Aircraft Maintenance Facilities, and Airfield

Infrastructure

- Catapult Launch System (Land Based)
- Arrested Landing System (Land Based)
- Landing Systems Test Facility
- Automatic Carrier Landing System (AN/SPN 42 & 46)
- Instrument Landing System (AN/TPS 38)
- Marine Air Traffic Control, Approach and Landing System
- Marine Remote Approach and Landing System (AN/TPN 30)
- Visual Landing System
- Chesapeake Test Range
- Range EW & Inflight Radar Cross-Section Facility
- Aircraft Electrical and Environmental Evaluation Facility
- Antenna and Avionics Test Facility
- Ship Ground Station Helo-ship Data Link Evaluation Facility
- Air Combat Environment T&E Facility
- Manned Flight Simulator
- EW Integrated Systems Test Laboratory
- Anechoic Chamber
- Electromagnetic Environmental Effects Facility
- Aircraft TEMPEST Test Laboratory
- Tactical Avionics Software T&E Facility
- EW Closed Loop Facility
- Real Time Telemetry Processing System
- Target Support Facility

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Additional assets capable of supporting future contingencies include:

- **Armory**
- **Landing aid sites**
- **Search-and-rescue aircraft and boats**
- **Administrative aircraft and services**
- **Airfield and air terminal**
- **Naval Electronic Systems Engineering Activity**
- **Aviation Board of Inspection and Survey (INSURV)**
- **Technology Demonstration Aircraft**
- **Takeoff Assist Ramp (Ski Jump)**
- **Helo and VTOL Dynamic Interface Facility**
- **R&M and ILS Facility**
- **Aircraft Support Systems Test Facility**
- **Test Technique and Data Analysis Facility**
- **Air Vehicle Systems Integration Lab**
- **U.S. Naval Test Pilot School**
- **Helo Mission Systems Support Center**
- **Aircrew Systems RDT&E Facilities**
- **Escape and Survival System Facility**
- **Human Factors Facility**
- **Environmental Control/Life Support Facility**
- **Life Support System Facility**
- **VTOL Downwash Facility**
- **Bioenvironmental Test Facility**
- **Aircraft Lighting Laboratory**
- **Crew Systems Integration Laboratory**
- **Crew Technology Laboratory**
- **Aircraft Radar Laboratory**
- **Navy IFF Test and Evaluation Laboratory**
- **EO/IR Test Range**
- **Electrostatics Effects Facilities**
- **TACAMO Mission Systems Test and Engineering Facility**
- **Flight Control Computer Test Laboratory**
- **Strain Gauge and Structures Laboratory**
- **AEW Aircraft Test Facility**
- **Fixed Wing ASW Laboratories**
- **ASW Acoustic T&E Facility**
- **Ordnance Systems Test Facility**
- **Gun Firing Evaluation Facility**
- **Ordnance Electronic Laboratory**
- **Rocket Test Facility**
- **Bomb Rack Test Facility**
- **Laboratory Instruments and Calibration Facility**
- **Airborne Instrumentation Support**
- **Synergistic tenant activities**
- **Naval Aviation Depot Operations Center**
- **Naval Aviation Maintenance Office**
- **Naval Research Laboratory**
- **Naval Surface Weapons Center**
- **VX-1**
- **VQ-4**

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- **Naval Research Laboratory**
- **Naval Surface Weapons Center**
- **VXN-8**
- **VX-1**
- **VQ-4**

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

1.2 Platforms (Aircraft)

3.2 Combat System Integration (Subsurface)

7.2 Command, Control, Communications and Intelligence (C³I) (Airborne)

7.7 Command, Control, Communications and Intelligence (C³I) (Air Traffic Control Systems)

9.1 Strategic Programs (Navy Strategic Systems)

(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?

Pax River Complex - None

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

Pax River Complex - > 1,500

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

Pax River Complex - 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.

Pax River Complex - No.

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

Pax River Complex - None identified

(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.

Pax River Complex - No

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

There are some RDT&E facilities that are capable of providing limited production.

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

Yes

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

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

QUALITY OF LIFE

12. Military Housing

(a) Family Housing:

- (1) Do you have mandatory assignment to on-base housing? (circle) yes (no)
- (2) For military family housing in your locale provide the following information:

Type of Quarters	Number of Bedrooms	Total number of units	Number Adequate	Number Substandard	Number Inadequate
Officer	4+	33	33	0	0
Officer	3	44	44	0	0
Officer	1 or 2	2	2	0	0
Enlisted	4+	202	202	0	0
Enlisted	3	303	303	0	0
Enlisted	1 or 2	273	213	60	0
Mobile Homes	0	0	N/A	N/A	N/A
Mobile Home lots	0	0	N/A	N/A	N/A

(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: N/A.

Facility type/code:

What makes it inadequate?

What use is being made of the facility?

What is the cost to upgrade the facility to substandard?

What other use could be made of the facility and at what cost?

Current improvement plans and programmed funding:

Has this facility condition resulted in C3 or C4 designation on your BASEREP?

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(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*	None	None
	2	0	Immediate**
	3*	None	None
	4+	2	Immediate**
O-4/5	1*	None	None
	2*	None	None
	3	3 (R)	Immediate**
	4+	3	Immediate**
O-1/2/3/CWO	1*	None	None
	2*	None	None
	3	10	Immediate**
	4+	2	Immediate**
E7-E9	1*	None	None
	2*	None	None
	3	3	1-9 months
	4+	2	1-9 months
E1-E6	1*	None	None
	2	101	1-9 months
	3	30 (R)	1-9 months
	4+	3	1-9 months

As of 31 March 1994

* Do not have this type of housing

** Immediate - for those people that are ready to accept housing (these people are locked into a lease, once their lease is up they will not have to wait).

¹As of 31 March 1994.
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(4) Complete the following table for the military housing waiting list.

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O-6/7/8/9	1*	None	None
	2	0	Immediate**
	3*	None	None
	4+	2	Immediate**
O-4/5	1*	None	None
	2*	None	None
	3	4	Immediate**
	4+	3	Immediate**
O-1/2/3/CWO	1*	None	None
	2*	None	None
	3	10	Immediate**
	4+	2	Immediate**
E7-E9	1*	None	None
	2*	None	None
	3	3	1-9 months
	4+	2	1-9 months
E1-E6	1*	None	None
	2	101	1-9 months
	3	31	1-9 months
	4+	3	1-9 months

As of 31 March 1994

* Do not have this type of housing

** Immediate - for those people that are ready to accept housing (these people are locked into a lease, once their lease is up they will not have to wait).

¹As of 31 March 1994.

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

Top Five Factors Driving the Demand for Base Housing	
1	More economical
2	Close to work
3	Safe/secure
4	Utilities included except phone and cable
5	Good sized units - square footage and bedrooms

(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)? **90%**

There are 857 housing units at NAWCADPAX. Ninety percent (90%) have all the required amenities as outlined in the Military Handbook 1190 and the Military Handbook 1035-Family Housing.

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

Type of Quarters	Utilization Rate
Adequate	98%
Substandard	80%
Inadequate	N/A

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

The utilization rate in the 60 substandard units was 80% for FY93. The reason is because the units are cinderblock, have radiator heat, no air conditioning, and very little ventilation. The units are 764 square feet and do not meet today's standards.

(b) BEQ:

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

Type of Quarters	Utilization Rate
Adequate	90%
Substandard	0
Inadequate	0

(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?

Yes. Occupancy is under 95% because Bachelor Enlisted Quarters are currently under renovations.

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

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

$$\text{AOB} = \frac{40 \times 365}{365} = 40$$

(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.)	Data unavailable	Data unavailable	
Spouse Employment (non-military)	Data unavailable	Data unavailable	
Other	Data unavailable	Data unavailable	
TOTAL			

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

Data unavailable.

(c) BOQ:

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

Type of Quarters	Utilization Rate
Adequate	93%
Substandard	0%
Inadequate	0%

(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?

Yes. The occupancy is under 95% because the Bachelors Officers Quarters is being renovated. Occupancy is expected to be between 95% and 100% when completed.

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

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

$$\text{AOB} = \frac{11 \times 365}{365} = 11$$

(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.)	Data unavailable	Data unavailable	
Spouse Employment (non-military)	Data unavailable	Data unavailable	
Other	Data unavailable	Data unavailable	
TOTAL			

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

Data not available. Only track those that request housing.

Note: After the below threshold is met, there will be a waiting list for geographical bachelors.

- *E5-E6 - 40 beds in building #404.
- *E7-E9 - 40 beds in building #467.
- *Officers - Not to exceed 10 rooms in building 406 (the number could come down to 5 only).

* Once the number of beds are filled, anyone else goes on a waiting list.

(d) BOO/BEQ Housing and Messing.

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

Facility Type, Bldg. # & CCN	Total No. of Beds	Total No. of Rooms	Adequate		Substandard		Inadequate	
			Beds	Sq Ft	Beds	Sq Ft	Beds	Sq Ft
BEQ, #404, CCN 721-11	40	1	40	10,875		0		0
¹ BEQ, #469, CCN 721-11	80	0	0	0	80	20,344		0
BEQ, #1451, CCN 721-11	162	54	162	24,475		0		0
BEQ, #1452, CCN 721-11	149 (R)	54	162	24,475		0		0
¹ BEQ, #1453, CCN 721-11	0	54	0	27,605		0		0
¹ BEQ, #1454, CCN 721-11	0	54	0	27,605		0		0
BEQ, #1455, CCN 721-11	70 (R)	24	72	18,655		0		0
BEQ, #469, CCN 721-12	25	40	25	3,628		0		0
BEQ, #492, CCN 721-12	99	37	99	19,237		0		0
² BEQ, #468, CCN 143-40	69	28	69	23,952		0		0
¹ BEQ, #1453, CCN 721-12	0	0	0	3,130		0		0
¹ BEQ, #1454, CCN 721-12	0	0	0	3,130		0		0

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

Data not available. Only track those that request housing.

Note: After the below threshold is met, there will be a waiting list for geographical bachelors.

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¹ BEQ, #1453, CCN 721-11	0	54	0	27,605	0		0	
¹ BEQ, #1454, CCN 721-11	0	54	0	27,605	0		0	
BEQ, #1455, CCN 721-11	72	24	72	18,655	0		0	
BEQ, #469, CCN 721-12	25	40	25	3,628	0		0	
BEQ, #492, CCN 721-12	99	37	99	19,237	0		0	
² BEQ, #468, CCN 143-40	69	28	69	23,952	0		0	
¹ BEQ, #1453, CCN 721-12	0	0	0	3,130	0		0	
¹ BEQ, #1454, CCN 721-12	0	0	0	3,130	0		0	

Facility Type, Bldg. # & CCN	Total No. of Beds	Total No. of Rooms	Adequate		Substandard		Inadequate	
			Beds	Sq Ft	Beds	Sq Ft	Beds	Sq Ft
BEQ, #1455, CCN 721-12	36	12	36	3,037		0		0
³ BEQ, #464, CCN 721-13	42	42	0	0	42	22,036		0
BEQ, #467, CCN 721-13	40	20	40	10,529		0		0
CIV BARRACKS, #423, CCN 721-30	35	25	35	9,892		0		0
BOQ, #409, CCN 724-11	1	1	1	426		0		0
BOQ, #406, CCN 724-12	90	90	90	68,868		0		0
BOQ, #461, CCN 724-12	1	1	1	1,016		0		0
*BOQ, #972, CCN 724-12	1	1	0	0		0	1	825

- 1 This building is shut down for renovation.
- 2 General purpose Marine barracks.
- 3 Will be renovated in Nov 1994.

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

a. Facility type/code:

* Building #972 CAT Code 724-12 BOQ.

b. What makes it inadequate?

This building is an 825SF BOQ built in 1944 that due to age, and deterioration, (walls, floors, and water leaks) inadequate.

c. What use is being made of the facility?

Building used for temporary assignment of officers for short periods of time.

d. What is the cost to upgrade the facility to substandard?

Cost to upgrade this facility to substandard is \$25K

e. What other use could be made of the facility and at what cost?

Cost to upgrade is approximately \$10K to use as storage facility

f. Current improvement plans and programmed funding:

None.

g. Has this facility condition resulted in c3 or c4 designation on your BASEREP?

No.

(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
BEQ, #404, CCN 721-11	40	1	40	10,875		0		0
BEQ, #468, CCN 143-40	69	23	69	23,952		0		0
BEQ, #1451, CCN 721-11	162	54	162	27,605		0		0
BEQ, #1452, CCN 721-11	162	54	162	27,605		0		0
BEQ, #1453, CCN 721-11	162	54	162	27,605		0		0
BEQ, #1454, CCN 721-11	162	54	162	27,605		0		0
BEQ, #1455, CCN 721-11	72	24	72	18,655		0		0
BEQ, #469, CCN 721-12	40	40	40	23,972		0		0
BEQ, #492, CCN 721-12	37	37	37	19,237		0		0
BEQ, #1455, CCN 721-12	36	12	36	3,037		0		0
BEQ, #464, CCN 721-13	36	36	36	22,306		0		0
BEQ, #467, CCN 721-13	40	20	40	10,529		0		0

Facility Type, Bldg. # & CCN	Total No. of Beds	Total No. of Rooms	Adequate		Substandard		Inadequate	
			Beds	Sq Ft	Beds	Sq Ft	Beds	Sq Ft
CIV BARRACKS, #423, CCN 721-30	35	25	35	9,892		0		0
BOQ, #409, CCN 724-11	1	1	1	426		0		0
BOQ, #406, CCN 724-12	74	74	74	68,868		0		0
²BOQ, #461, CCN 724-12	1	1	1	1,016		0		0
³BOQ, #972, CCN 724-12	1	1		0		1		825

- 1 **General purpose Marine barracks.**
- 2 **One apartment with 4 rooms.**
- 3 **One cottage with 3 rooms.**

(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:

*** Building #972 CAT Code 724-12 BOQ.**

b. What makes it inadequate?

This building is an 825SF BOQ built in 1944 that due to age, and deterioration, (walls, floors, and water leaks) inadequate.

c. What use is being made of the facility?

Building used for temporary assignment of officers for short periods of time.

d. What is the cost to upgrade the facility to substandard?

Cost to upgrade this facility to substandard is \$25K

e. What other use could be made of the facility and at what cost?

Cost to upgrade is approximately \$10K to use as storage facility

f. Current improvement plans and programmed funding:

None.

g. Has this facility condition resulted in c3 or c4 designation on your BASEREP?

No.

(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	
Flight Deck, CCN 724-30, #406	6,787	0	0	125	6,787	0	0	0 ¹
Commissioned Officer Mess, CCN 740-60, #461	18,852	330	18,852	0	0	0	0	175
Enlisted Mess, CCN 740-64, #441	24,774	0	0	1250	24,774	0	0	225 ²
Patuxent Landing, CCN 470-26, #467	25,113	368	25,113	0	0	0	0	325
Golf Club Snack Bar, CCN 740-80, #663	1,300	42	1,300	0	0	0	0	50
McDonalds ³ #3139	2,840	125	2,840	0	0	0	0	550
Mini Mart Pizza, CCN 740-01, #421	620	32	620	0	0	0	0	100
Air Ops Snack Bar, CCN 740- 05, #103	290	12	290	0	0	0	0	58
Test Pilot Snack Bar, CCN 740-05, #157	352	0	352	0	0	0	0	67
AIMD Snack Bar, CCN 740- 05, #301	600	24	600	0	0	0	0	35
Coast Guard Dining Fac., NISE East	500	20	500	0	0	0	0	10

1 Lounge operation - No noon meals served but could serve approximately 200

2 Lounge operation as of April 1994

3 Licensed to be aboard base

(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	
Flight Deck, CCN 724-30, #406	6,787	0	0	125	6,787	0	0	0¹
Commissioned Officers Mess, CCN 740-60, #461	18,852	330	18,852	0	0	0	0	175
Enlisted Mess, CCN 740-64, #441	24,774	0	0	1250	24,774	0	0	225²
Patuxent Landing, CCN 470-26, #467	25,113	368	25,113	0	0	0	0	325
Golf Club Snack Bar, CCN 740-80, #663	1,300	42	1,300	0	0	0	0	50
McDonalds³ #3139	2,840	125	2,840	0	0	0	0	550
Mini Mart Pizza, CCN 740-01, #421	620	32	620	0	0	0	0	100
Air Ops Snack Bar, CCN 740- 05, #103	290	12	290	0	0	0	0	58

Facility Type, CCN and Bldg. #	Total Sq. Ft.	Adequate		Substandard		Inadequate		Avg # Noon Meals Served
		Seats	Sq Ft	Seats	Sq Ft	Seats	Sq Ft	
Test Pilot Snack Bar, CCN 740-05, #157	352	0	352	0	0	0	0	67
AIMD Snack Bar, CCN 740- 05, #301	600	24	600	0	0	0	0	35
Coast Guard Dining Fac., NISE East	500	20	500	0	0	0	0	10
⁴ TTP Cafeteria, CCN 740-05, Bldg 2272	10,000	300	4500	0	0	0	0	1000 ⁴

- 1 Lounge operation - No noon meals served but could serve approximately 200
- 2 Lounge operation as of April 1994
- 3 Licensed to be aboard base
- 4 Planned/Estimated

(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 facilities² available, complete the following table for each separate location. For off-base government owned or leased recreation facilities indicate distance from base. If there are any facilities not listed, include them at the bottom of the table.

LOCATION: NAWCAD PAX

DISTANCE:

Facility	Unit of Measure	Total	Profitable (Y,N,N/A)
Auto Hobby	Indoor Bays	10	N/A
	Outdoor Bays	0	N/A
Arts/Crafts	SF	4,000	Y
Wood Hobby	SF	8,000	Y
Bowling	Lanes	14	Y
Enlisted Club	SF	24,777	Y
Officer's Club	SF	18,852	Y
Library	SF	12,436	N/A
Library	Books	50,000	N/A
Theater	Seats	496	Y
IIT	SF	600	N/A
Museum/Memorial	SF	44,141	N/A
Pool (indoor)	Lanes	10	N/A
Pool (outdoor)	Lanes	8	N/A
Beach	LF	1,000	N/A
Swimming Ponds	Each	0	N/A
Tennis Court	Each	15	N/A
Gear Issue	Each	376	N

²Spaces designed for a particular use. A single building might contain several facilities, each of which should be listed separately.

Facility	Unit of Measure	Total	Profitable (Y,N,N/A)
Volleyball CT (outdoor)	Each	2	N/A
Basketball CT (outdoor)	Each	0	N/A
Racquetball CT	Each	3	N/A
Golf Course	Holes	18	Y
Driving Range	Tee Boxes	20	N/A
Gymnasium	SF	54,803	N/A
Fitness Center	SF	1,000	N
Marina	Berths	194	Y
Stables	Stalls	30	N/A
Softball Fld	Each	11	N/A
Football Fld	Each	1	N/A
Soccer Fld	Each	2	N/A
Youth Center	SF	4,034	Y
Patuxent Landing (restaurant)	SF	25,113	Y

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

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

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

Age Category	Capacity (Children)	SF			Number on Wait List	Average Wait (Days)
		Adequate	Substandard	Inadequate		
0-6 Mos	6	390			39	270
6-12 Mos	18	1,170			18	270
12-24 Mos	20	1,300			21	180
24-36 Mos	26	1,690			37	360
3-5 Yrs	96	6,240			52	150

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. **When on base child care facilities are not available active duty members utilize local community services. Quality of care is unknown. In addition to community facilities MWR operates/monitors the Family Child Care program where care is provided in Base Housing.**

d. How many "certified home care providers" are registered at your base? **30**

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). **NO**

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	42,263
Gas Station	SF	5,617
Auto Repair	SF	0
Auto Parts Store	SF	0
Commissary	SF	53,358
Mini-Mart	SF	5,230
Package Store	SF	1,000
Fast Food Restaurants	Each	1
Bank/Credit Union	Each	3
Family Service Center	SF	8,847
Laundromat	SF	2,086
Dry Cleaners	Each	0
ARC	PN	Note 1
Chapel	PN	337
FSC Classrm/Auditorium	PN	50
Navy Lodge	RM/SF	50/30,904
Post Office	EA/SF	1/6,602

Note 1 Red Cross Programs (clients served/trained):

- (1) Health and Safety - 3,000 - 4,000 per year (First Aid and CPR)
- (2) Aquatics 2,000-3,000 per year
- (3) AIDS - 6,000 per year
- (4) Youth Programs - 300 per year
- (5) Casework - 900-1,000 per year
- (6) Financial Assistance - 450-500 per year 150-175 Volunteers including:
 - (1) Blood Drives - Assist DOD every other month (6-7 volunteers)
 - (2) Naval Hospital volunteers (25-30)
 - (3) Disaster Program (30)
 - (4) Charlotte Hall Veterans Home (15)

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

Patuxent River Complex is within 50 miles of the Washington - Baltimore Metropolitan Statistical area.

City	Distance (Miles)
Washington, DC	60
Annapolis, MD	65
Baltimore, MD	75
Richmond VA	120
Philadelphia PA	177
Norfolk, VA	184

16. Standard Rate VHA Data for Cost of Living:

Paygrade	With Dependents	Without Dependents
E1	\$202.84	\$113.49
E2	\$202.84	\$127.56
E3	\$191.91	\$141.41
E4	\$219.11	\$152.92
E5	\$242.71	\$169.46
E6	\$272.88	\$185.76
E7	\$303.72	\$210.98
E8	\$279.93	\$211.62
E9	\$265.98	\$201.91
W1	\$342.34	\$259.99
W2	\$322.64	\$253.06
W3	\$311.04	\$252.85
W4	\$308.98	\$273.95
O1E	\$291.25	\$216.04
O2E	\$318.06	\$253.59
O3E	\$316.87	\$268.08
O1	\$258.78	\$190.69
O2	\$244.08	\$190.78
O3	\$283.90	\$239.02
O4	\$326.87	\$284.25
O5	\$315.59	\$260.99
O6	\$294.40	\$243.68
O7	\$225.70	\$183.38

As of January 1994

17. Off-base Housing Rental and Purchase

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

Type Rental	Average Monthly Rent ¹		Average Monthly Utilities Cost ³
	Annual High	Annual Low	
Efficiency		\$353	Insufficient data
Apartment (1-2 Bedroom)		\$621	\$109.27
Apartment (3+ Bedroom)		\$746 ²	\$155.77
Single Family Home (3 Bedroom)		\$828	\$156.37
Single Family Home (4+ Bedroom)		\$998	\$191.21
Town House (2 Bedroom)		\$720	\$120.70
Town House (3+ Bedroom)		\$786	\$155.77 ⁴
Condominium (2 Bedroom)		\$648	\$120.70
Condominium (3+ Bedroom)		\$803	\$155.77 ⁴

- 1 Not a seasonal market. Average rents are fairly consistent throughout the year. Source: Multiple Listing Services (MLS) - Tri-County.
- 2 MLS data supplemented by Department of Economic and Community Development survey to augment small sample size.
- 3 HUD: Section 8 existing housing allowances for tenant furnished utilities. Tri-County data averaged.
- 4 Same as apartment not differentiated by HUD.

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

Type Rental	Percent Occupancy Rate
Efficiency	72% ¹
Apartment (1-2 Bedroom)	94% ¹
Apartment (3+ Bedroom)	95% ¹
Single Family Home (3 Bedroom)	*no way to quantify market MLS has 80 units (4/26/96)
Single Family Home (4+ Bedroom)	*MLS has 31 units
Town House (2 Bedroom)	98% ¹
Town House (3+ Bedroom)	75% MLS has 57 units ¹
Condominium (2 Bedroom)	*MLS has 3 units
Condominium (3+ Bedroom)	*MLS has 1 unit

¹ Department of Economic and Community Development survey of market rate Apt. and complexes 4/11-4/22 (There are none established in Calvert Co. One is coming on line).

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

Type of Home	Median Cost
Single Family Home (3 Bedroom)	\$123,000
Single Family Home (4+ Bedroom)	\$167,500
Town House (2 Bedroom)	\$97,000
Town House (3+ Bedroom)	\$96,600
Condominium (2 Bedroom)	\$75,000
Condominium (3+ Bedroom)	\$90,000

* Tri-County market. Settled sales (not asking price) 4/1/93 - 3/31/94.

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

Month	Number of Bedrooms		
	2	3	4+
31 January 94	103	480	16
28 February 94	107	493	17
March 94	120	538	18
30 April 93	51	333	15
May 93	55	332	14
June 93	64	366	13
July 93	70	375	15
August 93	77	377	13
September 93	77	402	12
October 93	86	422	13
November 93	92	439	15
December 93	97	450	14

Note: Some listings may have been deleted.

- Assumptions:**
1. 90 - 110% = \$580 - \$708 for P+I.
 2. 8% VA for 30 years.
 3. Home price range \$79,000 - \$96,500.
 4. Tri-County Market.

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

Although there are many factors in St. Mary's County our local Realtors believe there are three major factors:

1. Government regulation i.e., permit process, critical areas of legislation, impact fees, etc.
2. Limited developable land.
3. Economics of the community

With approximately 50% of the county revenue being related to the Naval Air Warfare Center, the communities sense of security as it relates to the stability of the base have been a very large factor in the unchanging and sometimes descending property value over the past several years, even though the supply has been abundant for resales and new developments as well as very low interest rates.

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

Rating (Only 3)	Number Sea Billets in the Local Area	Number of Shore billets in the Local Area
AB	0	69
AME	0	31
AO	0	99

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)
Lexington Park, MD	23.19	1	5
California, MD	10.29	3.5	15
Hollywood, MD	8.20	7	20
Great Mills, MD	5.26	3.5	15
Mechanicsville, MD	4.98	20	30

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
ARCHBISHOP NEALE SCHOOL	PAR	PK-8	N*	Catholic = 1450 NonCath = 1850	N/A	N/A	SO MD RESOURCE GUIDE
FATHER ANDREW WHITE SCHOOL	PAR	K-8	N	In Parish - 1200 Out Parish - 1775	N/A	N/A	" "
HOLY ANGELS SACRED HEART SCHOOL	PAR	K-8	N	\$800	N/A	N/A	" "
LITTLE FLOWER SCHOOL	PAR	K-8	N*	In - 1260 Out - 1884	N/A	N/A	" "
MOTHER CATHERINE SPALDING SCHOOL	PAR	K-8	N*	In - 1200 Out - 1400	N/A	N/A	" "
OUR LADY STAR OF THE SEA SCHOOL	PAR	K-8	N*	In - 1200 Catholic - 1360 NonCath - 1800	N/A	N/A	" "
ST. JOHN'S SCHOOL	PAR	K-8	N*	In - \$975 Out - \$1300	N/A	N/A	" "
ST. MARY'S SCHOOL	PAR	K-8	N*	In - \$1453 Out - \$2185	N/A	N/A	" "
ST. MARY'S STAR OF THE SEA	PAR	K-8	N*	In - 1887 Out - 2887	N/A	N/A	" "
ST. MICHAEL'S SCHOOL	PAR	K-8	N*	In Parish - 1350 Out Parish - 1450	N/A	N/A	" "

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
ST. PETER'S SCHOOL	PAR	K-8	N*	In Parish - 1350 Out Parish - 1450	N/A	N/A	" "
ST. MARY'S RYKEN HIGH SCHOOL	PAR	9-12	N	\$3775	931	98%+	" "
CHRIST CHURCH DAY SCHOOL	PAR	PK-5	N*	Out Parish - 2280 In Parish - 1995	N/A	N/A	" "
FIRST BAPTIST CHURCH OF ST. CHARLES	PAR	PK-K	N*	3 day - 960 5 day - 1140 K - 1200	N/A	N/A	" "
GRACE BRETHREN CHRISTIAN SCHOOL	PAR	PK-5	Limited*	\$2990	N/A	N/A	" "
GRACE LUTHERAN SCHOOL	PAR	PK-5	N*	\$2070	N/A	N/A	" "
LEXINGTON PARK CHRISTIAN SCHOOL	PAR	1-8	Limited	1-5 - 2434 6-8 - 2584	N/A	N/A	" "
POTOMAC HEIGHTS CHRISTIAN SCHOOL	PAR	PK-8	N	\$2218	N/A	N/A	" "
SOUTHERN MARYLAND CHRISTIAN ACADEMY	PAR	PK-12	Y - \$3379	\$2453 yr.	1040	N/A	" "
VICTORY BAPTIST ACADEMY	PAR	K-12	N	K-6 - \$1900 7-12 - \$2150	N/A	N/A	" "
WALDORF BAPTIST KINDERGARTEN & PRE-SCHOOL	PAR	PK-K	N	5 day - \$1056 3 day - \$900	N/A	N/A	" "
WALDORF SEVENTH DAY ADVENTIST SCHOOL	PAR	K-8	N	M - \$1560 NM - \$1800	N/A	N/A	" "

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
THE CALVERTON SCHOOL	PRIV	PK-12	N/A	\$7200	1100	100%	" "
CHESAPEAKE MONTESSORI CENTER	PRIV	PK-1	Y	3-5 - 2200 1-3 - 3100 YRS OLD	N/A	N/A	" "
THE TIDEWATER SCHOOL	PRIV	PK-3	Y	PK - 3130 K - 4100 1-3 - 4350	N/A	N/A	" "
THE BEDDOW SCHOOL	PRIV	PK-5	N	\$3672 YR	N/A	N/A	" "
LEONARD HALL JUNIOR NAVAL ACADEMY	PRIV	5-12	N*	5-8 - \$2375 9-12 - \$2600	N/A	N/A	" "
CHOPTICON HIGH SCHOOL	PUB	9-12	YES	NO COST	910	48.60	MD SCHOOL PERF. RPT.
GREAT MILLS HIGH SCHOOL	PUB	9-12	YES	NO COST	894	44.10	" "
ESPERANZA MIDDLE SCHOOL	PUB	6-8	YES	NO COST	N/A	N/A	" "
LEONARDTOWN HIGH SCHOOL	PUB	9-12	YES	NO COST	924	47.90	" "
MARGARET BRENT MIDDLE SCHOOL	PUB	6-8	YES	NO COST	N/A	N/A	" "
LEONARDTOWN MIDDLE SCHOOL	PUB	6-8	YES	NO COST	N/A	N/A	" "
SPRING RIDGE MIDDLE SCHOOL	PUB	6-8	YES	NO COST	N/A	N/A	" "
BANNEKER-LOVEVILLE ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
CARVER ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
DENT ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
DYNARD ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "

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
GREEN HOLLY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
GREENVIEW KNOLLS ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
HOLLYWOOD ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
LEONARDTOWN ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
LEXINGTON PARK ELEMENTARY	PUB	1-5	YES	NO COST	N/A	N/A	" "
MECHANICSVILLE ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
OAKVILLE ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
PARK HALL ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
PINEY POINT ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
RIDGE ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
TOWN CREEK ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
WHITE MARSH ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
DR. GUSTAVUS BROWN ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
GALE-BAILEY ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "

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
DR. THOMAS HIGDON ELEMENTARY	PUB	1-5	YES	NO COST	N/A	N/A	" "
INDIAN HEAD ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
DANIEL OF ST. THOMAS JENIFER ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
MALCOM ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
T.C. MARTIN ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
MARY MATULA ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
ARTHUR MIDDLETON ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
WALTER J. MITCHELL ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
MT. HOPE/NANJEMOY ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
DR. SMAUEL A. MUDD ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
J.C. PARKS ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
J. P. RYON ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
EVA TURNER ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "

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
WILLIAM B. WADE ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
JOHN HANSON MIDDLE SCHOOL	PUB	6-8	YES	NO COST	N/A	N/A	" "
MATTHEW HENSON MIDDLE SCHOOL	PUB	6-8	YES	NO COST	N/A	N/A	" "
PICCOWAXEN MIDDLE SCHOOL	PUB	6-8	YES	NO COST	N/A	N/A	" "
GENERAL SMALLWOOD MIDDLE SCHOOL	PUB	6-8	YES	NO COST	N/A	N/A	" "
MILTON M. SOMERS MIDDLE SCHOOL	PUB	6-8	YES	NO COST	N/A	N/A	" "
BENJAMIN STODDERT MIDDLE SCHOOL	PUB	6-8	YES	NO COST	N/A	N/A	" "
WESTLAKE HIGH SCHOOL	PUB	6-8	YES	NO COST	N/A	N/A	" "
LACKEY HIGH SCHOOL	PUB	9-12	YES	NO COST	858	43.1	" "
MCDONOUGH HIGH SCHOOL	PUB	9-12	YES	NO COST	871	49.5	" "
LA PLATA HIGH SCHOOL	PUB	9-12	YES	NO COST	876	52.9	" "
THOMAS STONE HIGH SCHOOL	PUB	9-12	YES	NO COST	872	54.2	" "
APPEAL ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
BEACH ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
CALVERT ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
HUNTINGTOWN ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "

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PREDECISIONAL INFORMATION

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
MT. HARMONY ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
MUTUAL ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
PATUXENT ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
PLUM POINT ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
SUNDERLAND ELEMENTARY SCHOOL	PUB	1-5	YES	NO COST	N/A	N/A	" "
CALVERT MIDDLE SCHOOL	PUB	6-8	YES	NO COST	N/A	N/A	" "
NORTHERN MIDDLE SCHOOL	PUB	6-8	YES	NO COST	N/A	N/A	" "
PLUM POINT MIDDLE SCHOOL	PUB	6-8	YES	NO COST	N/A	N/A	" "
SOUTHERN MIDDLE SCHOOL	PUB	6-8	YES	NO COST	N/A	N/A	" "
CALVERT HIGH SCHOOL	PUB	9-12	YES	NO COST	905	36.42	" "
NORTHERN HIGH SCHOOL	PUB	9-12	YES	NO COST	888	54	" "

* Special Education: Use Public School Program

(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	
St. Mary's College	Day	Yes	No	No	Yes	Yes	No
	Night	Yes	No	No	Yes	Yes	No
Charles County Comm. College	Day	Yes	No	Yes	Yes	Yes	No
	Night	Yes	No	Yes	Yes	Yes	No
University of Maryland	Day	Yes	No	No	Yes	Yes	Yes
	Night	Yes	No	No	Yes	Yes	Yes
St. Mary's Technical Center	Day	Yes	No	Yes	No	No	No
	Night	Yes		Yes	No	No	No
H&R Block	Day	Yes	No	Yes	No	No	No
	Night	Yes	No	Yes	No	No	No
Airpack Pilot Training	Day	Yes	No	Yes	No	No	No
	Night	Yes	No	Yes	No	No	No
Navy Flying Coach	Day	No	No	Yes	No	No	No
	Night	Yes	No	Yes	No	No	No
Great Mills High School	Day	Yes	Yes	No	No	No	No
	Night	Yes	Yes	No	No	No	No
Leonardtown High School	Day	Yes	Yes	No	No	No	No
	Night	Yes	Yes	No	No	No	No
Chopticon High School	Day	Yes	Yes	No	No	No	No
	Night	Yes	Yes	No	No	No	No

Institution	Type Classes	Program Type(s)				
		Adult High School	Vocational/ Technical	Undergraduate		Graduate
				Courses only	Degree Program	
St. Mary's Ryken High School	Day Yes		Yes	No	No	No
	Night No	No	No	No	No	No
Aaron's Beauty School	Day Yes	No	Yes	No	No	No
	Night No	No	Yes	No	No	No

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

Institution	Type Classes	Program Type(s)				
		Adult High School	Vocational/ Technical	Undergraduate		Graduate
				Courses only	Degree Program	
Embry Riddle	Day	No	No	No	No	No
	Night	No	No	No	Yes	No
	Correspondence	No	No	No	No	No
Florida Institute of Technology	Day	No	No	No	No	No
	Night	No	No	No	No	Yes
	Correspondence	No	No	No	No	No
Univ. of Tenn. Space Institute	Day	No	No	No	No	No
	Night	No	No	No	No	Yes
	Correspondence	No	No	No	No	Yes
Univ. of Maryland	Day	No	No	No	No	Yes
	Night	No	No	No	No	Yes
	Correspondence	No	No	No	No	No
Charles Co.	Day	No	No	Yes	No	No
	Night	No	No	No	No	No
	Correspondence	No	No	No	No	No
Naval War College	Day	No	No	Yes	No	No
	Night	No	No	No	No	No
	Correspondence	No	No	No	No	No

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21. **Spousal Employment Opportunities.**

Provide the following data on spousal employment opportunities.

Skill Level	Number of Military Spouses Serviced by Family Service Center Spouse Employment Assistance			*Local Community Unemployment Rate
	1991	1992	1993	
Professional	14	25	13	
Manufacturing	1	0	1	
Clerical	196	215	143	
Service	10	7	4	
Other	4	5	4	

* Unemployment rates by skill level not available. Unemployment rates by counties for 1993 are:

St. Mary's	5.8%
Calvert	4.6%
Charles	4.3%
So. MD. Avg.	4.9%

Southern Maryland provides a wide variety of job opportunities for spouses of Navy employees. Over 63,000 people are employed in Southern Maryland. A growing support contractor community provides in excess of 5,000 jobs ranging from clerical through technical positions. Seventy-three percent (73%) of the workers residing in St. Mary's County are employed in St. Mary's County.

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.

Active duty military personnel have access to military medical and dental care on base in addition to the Naval Medical Center in Bethesda, MD and Malcom Grow at Andrews Air Force Base for the most serious and specialty medical cases. There are civilian medical facilities in the local area at St. Mary's Hospital, 10 miles away and Calvert County Memorial Hospital, 30 miles away.

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.

Dependents have access to medical care as stated in 22.a. for active duty personnel. Dental care is provided on a space available basis to dependents.

MILITARY:

The Naval Hospital/Branch Dental Clinic's primary mission is to provide health care services to active duty personnel and to maintain a proper state of material and personnel readiness to fulfill wartime and contingency mission plans. The hospital is equally committed to its peacetime mission to provide maximum health care services to all categories of eligible beneficiaries. The facility provides health care services to an estimated 25,000 beneficiary population. Nineteen (19) physicians provide both inpatient and outpatient services in primary care, emergency medicine, aviation medicine, family practice, general surgery, obstetrics and gynecology, internal medicine, and pediatrics supported by ancillary services. Dental services including dental surgery and limited orthodonture are also provided.

CIVILIAN:

A wide range of medical care, specialists and services are available in Southern Maryland. There are public health departments and full service hospitals in each of the Southern Maryland Counties. Hospitals are: St. Mary's (Co.) Hospital in Leonardtown, Physicians Memorial Hospital in Charles County and Calvert (Co.) Memorial in Prince Frederick. These Southern Maryland hospitals are licensed to accommodate approximately 400 patients. All are accredited by the Joint Commission on Accreditation of Healthcare Organizations, licensed by the Maryland Department of Health and Mental Hygiene and certified for Medicare and Medicaid. Services include 24 hour emergency care, obstetrical care and surgery as well as an array of therapeutic and diagnostic services including CAT scan and MRI equipment, and chemotherapy.

Maryland State Police helicopter MEDEVAC services originate from St. Mary's County Airport and serve not only the local hospitals but also provide critical care enroute to Washington and Baltimore area shock trauma units.

There are 56 physicians and surgeons and 33 dentists practicing in St. Mary's County. Selected specialized medical services available in St. Mary's County include:

Marcey House - State and county funded residential halfway house for recovering substance abusers.

Orthopedic and Sports Medicine Clinic - Three board certified orthopedic surgeons offer a full berth of services including treatment of degenerative disorders of the spine and joint, trauma, and non-surgical and surgical repair of sports injuries. A fully staffed and equipped rehabilitation center is on the premises. Physical therapy facility offers water therapy equipment and a complete gymnasium for patients' use.

Shanti Medical Center - Houses a multispecialty medical group providing comprehensive medical care. Board certified specialties include allergy, cardiology, dermatology, gastroenterology, radiology, pulmonary medicine, internal medicine, ophthalmology, pediatrics, psychiatry and family practice. There is a specific emphasis on early detection, prevention and risk-factor modification programs. Laboratory and radiology procedures are performed on site, using the latest diagnostic technology.

Chesapeake Regional Cancer Center - The Chesapeake Regional Cancer Center works with the Southern Maryland medical community to provide patients with cancer and tumors radiation therapy services. The primary treatment is delivered through a state of the art linear accelerator. A radiation oncologist and a physician trained in treating patients using radiation therapy are on staff. Free van service is offered to all patients.

BMA Dialysis - provides hemodialysis on site in St. Mary's County.

Home Health Agency - The Agency is managed by St. Mary's County Health Department and provides skilled nursing to recovering patients in the home. Services include physician-directed physical, occupational and speech therapy as well as personal care functions.

Hospice of St. Mary's County - Provides support and volunteer caretakers to terminally ill patients in their homes.

All three counties have fully staffed nursing homes providing the full range of resident geriatric care.

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PREDECISIONAL INFORMATION**

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.

This report includes all individuals founded or unfounded. Off-base information for this report is Navy property off-station (i.e. Glenn forest, Solomon's Annex). The numbers of people involved in each incident are included so the total crimes will not agree with number of people. 1991 only includes the total incidents due to records are only kept for two years.

Crime Definitions	FY 1991	FY 1992	FY 1993
1. Arson (6A)	1		1
Base Personnel - military			0
Base Personnel - civilian			1
Off Base Personnel - military			0
Off Base Personnel - civilian			0
2. Blackmarket (6C)			
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			
3. Counterfeiting (6G)			
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			
4. Postal (6L)			
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			

Crime Definitions	FY 1991	FY 1992	FY 1993
5. Customs (6M)			
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			
6. Burglary (6N)	29	9	18
Base Personnel - military		2	16
Base Personnel - civilian		4	14
Off Base Personnel - military		4	1
Off Base Personnel - civilian		1	2
7. Larceny - Ordnance (6R)			
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			
8. Larceny - Government (6S)	61	24	54
Base Personnel - military		10	30
Base Personnel - civilian		17	50
Off Base Personnel - military		1	1
Off Base Personnel - civilian		8	3

Crime Definitions	FY 1991	FY 1992	FY 1993
9. Larceny - Personal (6T)	167	84	98
Base Personnel - military		51	69
Base Personnel - civilian		44	35
Off Base Personnel - military		4	7
Off Base Personnel - civilian		10	7
10. Wrongful Destruction (6U)	150	85	97
Base Personnel - military		49	65
Base Personnel - civilian		45	40
Off Base Personnel - military		6	1
Off Base Personnel - civilian		4	4
11. Larceny - Vehicle (6V)	9	2	3
Base Personnel - military		2	2
Base Personnel - civilian		1	1
Off Base Personnel - military		0	0
Off Base Personnel - civilian		0	3
12. Bomb Threat (7B)	2	3	1
Base Personnel - military		3	1
Base Personnel - civilian		0	1
Off Base Personnel - military		0	0
Off Base Personnel - civilian		0	0

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Crime Definitions	FY 1991	FY 1992	FY 1993
13. Extortion (7E)			
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			
14. Assault (7G)	65	46	78
Base Personnel - military		36	73
Base Personnel - civilian		41	83
Off Base Personnel - military		19	29
Off Base Personnel - civilian		16	28
15. Death (7H)	2	1	1
Base Personnel - military		0	0
Base Personnel - civilian		0	0
Off Base Personnel - military		0	1
Off Base Personnel - civilian		2	0
16. Kidnapping (7K)			
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			

Crime Definitions	FY 1991	FY 1992	FY 1993
18. Narcotics (7N)	2		6
Base Personnel - military			2
Base Personnel - civilian			4
Off Base Personnel - military			0
Off Base Personnel - civilian			0
19. Perjury (7P)	1		
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			
20. Robbery (7R)	1		
Base Personnel - military			
Base Personnel - civilian			
Off Base Personnel - military			
Off Base Personnel - civilian			
21. Traffic Accident (7T)	108	108	159
Base Personnel - military		75	128
Base Personnel - civilian		97	146
Off Base Personnel - military		1	10
Off Base Personnel - civilian		11	13

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

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NAWCAD PATUXENT RIVER
1993
CRIME RATE PER 100,000

Control #: 001

Date sent: 8 September 1994

To: CAPT Doug Cook
Fax: (703) 604-1859

Activity: NAVAIR
Voice: (703) 604-1857

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: Violent Crime Rate for St. Mary's: 445, Calvert: 368; Property Crime Rate for St. Mary's: 2,581, Calvert: 1,926; and Drug Crime Rate for St. Mary's: 414, Calvert: 826. Source: (1) MD UCR Crime Index Report and (2) DECD Calc. by category. Provided by St. Mary's County Department of Economic and Community Development.

Timothy S. Smith
Name

01
Code

(301) 826-1019
Commercial Phone #

9/16/94
Date

Data Call 5 N00421
Page 1 of 1
Control # 001

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

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PREDECISIONAL INFORMATION

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	1. Platforms 1.2 Aircraft

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development	6.9	802.1			
3. Advanced Development	27.3	4,298.6	360.0	3,679.5	
4. Eng. & Mfg. Development	161.2	20,078.2	6,344.4	360.8	
5. RDT&E Management Support		69.9			
6. Operational Systems Development	42.1	6,480.8	2.3		
ACQUISITION					
7. Production					
8. Acceptance Testing	242.9	23,886.7	2,906.4	2,574.3	
9. Modernization	40.5	7,522.1	131.0	1,519.6	
10. Program Support	0.2	2.7			
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing	11.6	1,218.3			
14. In-Service Engineering	10.7	3,309.7		1,384.7	
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support	1.0	877.3			
18. Simulation, Modeling, & Analysis	1.0	224.4			

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Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	2. Weapons Systems 2.2 Guided Missiles

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development		31.6			
4. Eng. & Mfg. Development	1.5	106.9		44.6	
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing	0.4	144.4			
9. Modernization	8.4	1,114.6			
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	0.3	847.3			
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	2. Weapon Systems 2.3 Free Fall Weapons & Rockets

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development					
4. Eng. & Mfg. Development					
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	3.6	527.5			
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	2. Weapons Systems 2.5 Mines

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development					
4. Eng. & Mfg. Development					
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	1.1	122.8		35.0	
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION**

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	3. Combat Systems Integration 3.2 Air

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	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development	14.1	4,697.9		1,487.5	
4. Eng. & Mfg. Development	97.4	10,595.0	1,470.8	1,175.4	
5. RDT&E Management Support					
6. Operational Systems Development	58.1	8,949.8	3.0	385.0	
ACQUISITION					
7. Production					
8. Acceptance Testing	74.6	8,997.5	1,631.6	3,294.8	
9. Modernization	100.9	16,665.9	777.3	200.0	
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	15.7	2,835.2	275.0	335.8	
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	3. Combat System Integration 3.3 Surface

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development	0.3	18.3			
4. Eng. & Mfg. Development					
5. RDT&E Management Support					
6. Operational Systems Development	3.6	370.5			
ACQUISITION					
7. Production					
8. Acceptance Testing	1.6	208.7			
9. Modernization	0.8	76.0			
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	0.9	62.1	5.6		
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION**

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	5. Sensors and Surveillance Systems 5.1 Sonar Systems

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development	1.7	138.2		105.0	
4. Eng. & Mfg. Development	2.4	740.3		25.0	
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing	5.7	386.9	10.0	36.0	
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION**

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	5. Sensors and Surveillance Systems 5.2 Radar Systems

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development					
4. Eng. & Mfg. Development					
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing	1.5	104.5			
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION**

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	5. Sensors & Surveillance Systems 5.3 Special Sensors

	In-House WYS	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development	2.3	427.6			
4. Eng. & Mfg. Development	4.5	757.1	200.0		
5. RDT&E Management Support					
6. Operational Systems Development	1.6	564.2			
ACQUISITION					
7. Production					
8. Acceptance Testing	17.1	5,753.5	1,615.9	786.8	
9. Modernization	0.1	6.9			
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	5. Sensors and Surveillance Systems 5.5 Ocean Surveillance

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development	4.8	1,111.8			
4. Eng. & Mfg. Development					
5. RDT&E Management Support					
6. Operational Systems Development	0.8	125.0			
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION**

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	6. Navigation 6.2 Aircraft Navigation Systems

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development	2.3	232.0	19.4		
4. Eng. & Mfg. Development	18.1	2,166.1			
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing	4.6	659.7			
9. Modernization	1.0	231.5		294.0	
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering		14.6		31.4	
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION**

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	7. Command, Control, Communications & Intelligence 7.2 Airborne

	In-House WYS	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development					
4. Eng. & Mfg. Development	2.5	1,096.7	64.0	240.6	
5. RDT&E Management Support					
6. Operational Systems Development	3.1	276.8			
ACQUISITION					
7. Production					
8. Acceptance Testing	37.7	10,648.6	1,998.9	615.5	
9. Modernization		450.9			
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	7. Command, Control, Communications & Intelligence 7.7 Air Traffic Control System

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development	5.7	623.9			
4. Eng. & Mfg. Development	5.4	1,219.4	97.8		
5. RDT&E Management Support					
6. Operational Systems Development	0.7	57.1			
ACQUISITION					
7. Production					
8. Acceptance Testing	12.2	1,693.1	3.0		
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	10.8	1,319.8	5.6		
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	7. Command, Control, Communication & Intelligence 7.8 Intelligence Information Systems

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development	5.4	635.2			
4. Eng. & Mfg. Development					
5. RDT&E Management Support.					
6. Operational Systems Development	0.7	50.4			
ACQUISITION					
7. Production					
8. Acceptance Testing	5.7	876.6			
9. Modernization	0.1	428.0			
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	1.0	75.7		289.8	
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION**

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	8. Defense Systems 8.2 Countermeasure

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development	7.4	2,526.7			
4. Eng. & Mfg. Development	5.0	807.5			
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION**

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	8. Defense Systems 8.3 Electronic Warfare (EW) Systems

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development	10.9	4,049.4			
4. Eng. & Mfg. Development	4.1	790.7			
5. RDT&E Management Support					
6. Operational Systems Development	1.6	132.4			
ACQUISITION					
7. Production					
8. Acceptance Testing	26.8	5,815.0	272.3	60.0	
9. Modernization	54.3	8,901.2			
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis	27.6	12,785.5	5,884.0		

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PREDECISIONAL INFORMATION

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	9. Strategic Programs 9.1 Navy Strategic Systems

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development					
4. Eng. & Mfg. Development					
5. RDT&E Management Support					
6. Operational Systems Development	4.2	189.1			
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION**

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	9. Strategic Programs 9.2 Nuclear Weapons & Effects

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development	3.2	1,320.2			
4. Eng. & Mfg. Development					
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization		49.7			
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION**

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	10. General Mission Support 10.1.2 Aircraft Related Training Systems

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development					
4. Eng. & Mfg. Development	16.5	3,673.4	96.0		
5. RDT&E Management Support					
6. Operational Systems Development	4.0	784.9			
ACQUISITION					
7. Production					
8. Acceptance Testing	23.4	8,729.3	190.4	10,615.0	
9. Modernization	5.7	502.8		1,950.0	
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	14.5	3,971.9			
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis				1,331.0	

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PREDECISIONAL INFORMATION**

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	10. General Mission Support 10.2 Logistics Planning & Implementation

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development					
4. Eng. & Mfg. Development	12.8	1,512.1			
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing	0.2	48.8			
9. Modernization	13.6	501.9			
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance	0.2	50.9		113.0	
12. Repair					
13. Testing					
14. In-Service Engineering	0.4	364.9		657.8	
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	10. General Missions Support 10.6 Crew Equipment & Life Support

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development	4.0	222.4			
4. Eng. & Mfg. Development	17.1	2,896.7		45.9	
5. RDT&E Management Support					
6. Operational Systems Development	8.1	808.1			
ACQUISITION					
7. Production					
8. Acceptance Testing	9.8	630.6			
9. Modernization	2.9	317.5			
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing	8.1	875.7			
14. In-Service Engineering	0.1	8.9			
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	10. General Mission Support 10.7 Major Range Development & Operation

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development		3,980.0	344.5		
3. Advanced Development	20.9	2,522.0			
4. Eng. & Mfg. Development	41.0	5,567.2	9.6	334.7	
5. RDT&E Management Support	1469.9	26,708.7			R
6. Operational Systems Development	52.1	7,119.6	856.8	1,586.0	
ACQUISITION					
7. Production					
8. Acceptance Testing	121.9	23,622.7	1,543.5	29,803.6	
9. Modernization	26.9	3,296.1	6.0		
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	64.0	19,367.9	824.9	24.0	
15. Program Support	0.6	136.7			
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	10. General Mission Support 10.7 Major Range Development & Operation

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development		3,980.0	344.5		
3. Advanced Development	20.9	2,522.0			
4. Eng. & Mfg. Development	41.0	5,567.2	9.6	334.7	
5. RDT&E Management Support	182.5	12,315.0			
6. Operational Systems Development	52.1	7,119.6	856.8	1,586.0	
ACQUISITION					
7. Production					
8. Acceptance Testing	121.9	23,622.7	1,543.5	29,803.6	
9. Modernization	26.9	3,296.1	6.0		
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	64.0	19,367.9	824.9	24.0	
15. Program Support	0.6	136.7			
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION**

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	10. General Mission Support 10.9 Activity Mission & Function Support

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development					
4. Eng. & Mfg. Development	4.4	1,380.6			A/C Maintenance Support & AIMD
5. RDT&E Management Support	0	0			R
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	1.2	302.4			
15. Program Support	47.6	14,868.6	5,884.0		
16. Retirement					
GENERAL					
17. Training/Operational Support	69.0	10,943.0	6,962.9		
18. Simulation, Modeling, & Analysis					

Technical Center Site:	Flight Test and Engineering Group Naval Air Warfare Center Aircraft Division PAX Patuxent River, Maryland 20670-5304
Functional Support Area:	10. General Mission Support 10.9 Activity Mission & Function Support

	In-House WYs	In-House Expend. (\$K)	Out-Of-House Expend. (\$K)	Direct Cite (\$K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development					
4. Eng. & Mfg. Development	4.4	1,380.6			A/C Maintenance Support & AIMD
5. RDT&E Management Support	1,287.4	14,393.7			
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	1.2	302.4			
15. Program Support	47.6	14,868.6	5,884.0		
16. Retirement					
GENERAL					
17. Training/Operational Support	69.0	10,943.0	6,962.9		
18. Simulation, Modeling, & Analysis					

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Technical Center Site:	Naval Air Warfare Center Aircraft Division Patuxent River, Detachments
Functional Support Area:	N/A

	In-House WYs	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development					
4. Eng. & Mfg. Development					
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

Both the Patuxent River detachments at Warminster and the detachment at Key West operate as service cost centers and do not receive funding separately from outside sponsors. All funding and manpower/workyears are contained in the Pax River Complex data shown in the basic table. The Quarry at Oreland is used as a facility, when required, but receives no separate funding or manpower authorizations.

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Technical Center Site:	Naval Air Warfare Center Aircraft Division Webster Field Annex Patuxent River, Maryland 20670-5304
Functional Support Area:	4. Special Operations Support 4.2 Coastal/Special Warfare Support

	In-House Wys	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development					
4. Eng. & Mfg. Development					
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization	60.1	26,813.0	9,089.0	25,807.0	
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION

Technical Center Site:	Naval Air Warfare Center Aircraft Division Webster Field Annex Patuxent River, Maryland 20670-5304
Functional Support Area:	7. Command, Control, Communications and Intelligence (C3I) 7.3 Shipboard

	In-House WYs	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development					
4. Eng. & Mfg. Development					
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production	25.0	15,380.0	10,164.0	27,715.0	
8. Acceptance Testing	6.0	1,066.0	210.0	3,806.0	
9. Modernization					
10. Program Support	1.0	167.0	105.0	2,058.0	
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	12.0	2,551.0	1,587.0	11,023.0	
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

Technical Center Site:	Naval Air Warfare Center Aircraft Division Webster Field Annex Patuxent River, Maryland 20670-5304
Functional Support Area:	7. Command, Control, Communications and Intelligence (C3I) 7.7 Air Traffic Control Systems

	In-House WYs	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development					
4. Eng. & Mfg. Development					
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing	22.0	3,601.0	2,505.0	5,099.0	
9. Modernization					
10. Program Support	4.0	1,873.0	828.0	1,223.0	
LIFE-TIME SUPPORT					
11. Maintenance	2.0	132.0	136.0	181.0	
12. Repair					
13. Testing	3.0	119.0	118.0	292.0	
14. In-Service Engineering	22.0	4,737.0	2,834.0	5,134.0	
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION

Technical Center Site:	Naval Air Warfare Center Aircraft Division Webster Field Annex Patuxent River, Maryland 20670-5304
Functional Support Area:	5. Sensors and Surveillance Systems 5.2 Radar Systems

	In-House WYs	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development					
4. Eng. & Mfg. Development	7.0	3,679.0	1,307.0	958.0	
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production	4.0	794.0	902.0	240.0	
8. Acceptance Testing	8.0	6,245.0	1,350.0	1,583.0	
9. Modernization					
10. Program Support	2.0	354.0	261.0	410.0	
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing	18.0	3,176.0	3,609.0	957.0	
14. In-Service Engineering	13.0	7,555.0	2,238.0	3,173.0	
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

Technical Center Site:	Naval Air Warfare Center Aircraft Division WAR Warminster, Pennsylvania 18974-5000
Functional Support Area:	1. Platform 1.2 Aircraft

	In-House WYs	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research	2.9	498.8	1.3		
2. Exploratory Development	52.2	9,077.1	6,858.1		
3. Advanced Development	23.4	3,805.0	1,022.8	379.7	
4. Eng. & Mfg. Development	25.6	4,346.0	606.1	133.7	
5. RDT&E Management Support	0.4	54.5			
6. Operational Systems Development	2.3	279.8	20.6	162.6	
ACQUISITION					
7. Production	2.0	304.0	13.1		
8. Acceptance Testing					
9. Modernization	24.1	3,715.1	277.4	300.7	
10. Program Support	2.1	345.3			
LIFE-TIME SUPPORT					
11. Maintenance		7,860.0			
12. Repair					
13. Testing					
14. In-Service Engineering	26.1	4,399.2	96.4	24.0	
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

FOR OFFICIAL USE ONLY
PREDECISIONAL INFORMATION

Technical Center Site:	Naval Air Warfare Center Aircraft Division WAR Warminster, Pennsylvania 18974-5000
Functional Support Area:	3. Combat Systems Integration 3.2 Air

	In-House WYs	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research	1.1	153.5			
2. Exploratory Development	5.6	987.5	790.8		
3. Advanced Development	170.5	20,708.4	2,721.4	12,874.9	
4. Eng. & Mfg. Development	198.0	34,556.0	13,245.3	8,377.7	
5. RDT&E Management Support	0.7	102.1	126.1	364.3	
6. Operational Systems Development	80.4	14,046.4	7,702.1	2,580.2	
ACQUISITION					
7. Production	34.5	6,008.2	1,702.4	1,598.9	
8. Acceptance Testing					
9. Modernization	167.2	27,156.7	9,372.6	15,255.8	
10. Program Support	0.4	52.5	63.9	216.3	
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	77.7	10,361.3	3,551.2	4,946.6	
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION

Technical Center Site:	Naval Air Warfare Center Aircraft Division WAR Warminster, Pennsylvania 18974-5000
Functional Support Area:	5. Sensors and Surveillance Systems 5.1 Sonar Systems

	In-House WYs	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research	0.6	110.0			
2. Exploratory Development	0.4	75.0	6.8		
3. Advanced Development	72.6	12,481.2	4,426.2	2,517.1	
4. Eng. & Mfg. Development	34.8	5,791.7	4,431.8	3,716.4	
5. RDT&E Management Support					
6. Operational Systems Development	5.1	832.9	112.3		
ACQUISITION					
7. Production	13.2	2,985.3	226.0	290.1	
8. Acceptance Testing					
9. Modernization	0.6	77.1	33.8	47.1	
10. Program Support	0.4	73.7		43.7	
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	4.7	770.0	426.3	316.3	
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

Technical Center Site:	Naval Air Warfare Center Aircraft Division WAR Warminster, Pennsylvania 18974-5000
Functional Support Area:	5. Sensors and Surveillance Systems 5.2 Radar Systems

	In-House WYs	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research	0.9	179.7	97.7		
2. Exploratory Development	1.0	178.5	373.4	350.6	
3. Advanced Development	6.1	1,531.7	1,237.7	5,386.5	
4. Eng. & Mfg. Development	7.5	1,187.7	370.1	199.4	
5. RDT&E Management Support					
6. Operational Systems Development	10.3	2,565.0	470.8	2,533.2	
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization	0.9	142.8	6.1		
10. Program Support	0.7	167.0		28.8	
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering				76.9	
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION

Technical Center Site:	Naval Air Warfare Center Aircraft Division WAR Warminster, Pennsylvania 18974-5000
Functional Support Area:	5. Sensors and Surveillance Systems 5.3 Special Sensors

	In-House WYs	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research	0.8	74.3			
2. Exploratory Development	5.4	875.6	37.7	641.1	
3. Advanced Development	16.9	1,854.4	1,499.0	4,441.1	
4. Eng. & Mfg. Development	1.7	74.6	6.0	119.5	
5. RDT&E Management Support	0.4	42.0	98.7		
6. Operational Systems Development	10.7	2,185.2	321.8	281.0	
ACQUISITION					
7. Production	2.6	769.1	1.9	273.0	
8. Acceptance Testing					
9. Modernization	9.2	2,587.5	152.5	2,070.8	
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	5.4	978.0	44.7	799.9	
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION

Technical Center Site:	Naval Air Warfare Center Aircraft Division WAR Warminster, Pennsylvania 18974-5000
Functional Support Area:	5. Sensors and Surveillance Systems 5.5 Ocean Surveillance

	In-House WYs	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development	0.4	74.3			
3. Advanced Development					
4. Eng. & Mfg. Development					
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

Technical Center Site:	Naval Air Warfare Center Aircraft Division WAR Warminster, Pennsylvania 18974-5000
Functional Support Area:	8. Defense Systems 8.2 Countermeasure (CM)

	In-House WYs	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development					
4. Eng. & Mfg. Development					
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production	3.5	1,000.1		39,886.0	
8. Acceptance Testing					
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION**

Technical Center Site:	Naval Air Warfare Center Aircraft Division WAR Warminster, Pennsylvania 18974-5000
Functional Support Area:	8. Defense Systems 8.3 Electronic Warfare (EW) Systems

	In-House WYs	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development	4.4	872.0		67.3	
3. Advanced Development	3.9	578.1			
4. Eng. & Mfg. Development	0.9	265.4	25.1	63.9	
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	0.1	17.6			
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION**

Technical Center Site:	Naval Air Warfare Center Aircraft Division WAR Warminster, Pennsylvania 18974-5000
Functional Support Area:	10. General Mission Support 10.6.2 Crew Equipment and Life Support, Aircraft

	In-House WYs	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development	4.3	880.9	647.7	293.6	
3. Advanced Development	17.2	4,302.4	5,279.0	6,415.9	
4. Eng. & Mfg. Development	28.7	6,539.0	7,439.8	1,235.0	
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production	0.5	87.0	519.5		
8. Acceptance Testing					
9. Modernization	10.4	1,819.2	193.6	307.8	
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering	21.5	4,063.2	1,012.1	697.7	
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION

Technical Center Site:	Naval Air Warfare Center Aircraft Division WAR Warminster, Pennsylvania 18974-5000
Functional Support Area:	10. General Mission Support 10.9 Activity Mission and Function Support

	In-House WYs	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development					
3. Advanced Development					
4. Eng. & Mfg. Development					
5. RDT&E Management Support				6,560.0	
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance	3.9	6,209.8			
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION**

Technical Center Site:	Naval Air Warfare Center Aircraft Division WAR Warminster, Pennsylvania 18974-5000
Functional Support Area:	11. General Technology Base 11.4 Electronic Devices

	In-House WYs	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development	71.3	12,764.7	22,717.2		
3. Advanced Development					
4. Eng. & Mfg. Development					
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION

Technical Center Site:	Naval Air Warfare Center Aircraft Division WAR Warminster, Pennsylvania 18974-5000
Functional Support Area:	11. Generic Technology Base 11.5 Materials and Processes

	In-House WYs	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research	5.0	739.2	602.5		
2. Exploratory Development	2.7	453.1	73.0	536.1	
3. Advanced Development					
4. Eng. & Mfg. Development					
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION

Technical Center Site:	Naval Air Warfare Center Aircraft Division WAR Warminster, Pennsylvania 18974-5000
Functional Support Area:	11. Generic Technology Base 11.10 Other Tech Base Programs

	In-House WYS	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research	2.6	426.2	5.0		
2. Exploratory Development	1.0	175.6	2.0		
3. Advanced Development					
4. Eng. & Mfg. Development					
5. RDT&E Management Support					
6. Operational Systems Development					
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION

Technical Center Site:	Naval Air Warfare Center Aircraft Division TRN Trenton, New Jersey 08628-0176
Functional Support Area:	1. Platforms 1.2 Aircraft

	In-House WYs	In-House Expend. \$(K)	Out-Of-House Expend. \$(K)	Direct Cite \$(K)	Comments
RDT&E					
1. Basic Research					
2. Exploratory Development	47.6	8,533.0		6,567.0	
3. Advanced Development	27.8	2,216.0		535.0	
4. Eng. & Mfg. Development	239.6	22,482.2		685.0	
5. RDT&E Management Support	364.0	26,812.7		1,645.6	
6. Operational Systems Development	10.0	1,000.0			
ACQUISITION					
7. Production					
8. Acceptance Testing					
9. Modernization					
10. Program Support					
LIFE-TIME SUPPORT					
11. Maintenance					
12. Repair					
13. Testing					
14. In-Service Engineering					
15. Program Support					
16. Retirement					
GENERAL					
17. Training/Operational Support					
18. Simulation, Modeling, & Analysis					

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PREDECISIONAL INFORMATION

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)

G. H. Strohsahl
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)

W. C. Bowes
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)

J. B. Greene, Jr
Signature

Acting
Title

19 MAY 1994
Date

DATA CALL 5
BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 8 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

BARTON D. STRONG
NAME (Please type or print)


Signature

COMMANDER
Title

MAY 12 1994
Date

NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION PATUXENT RIVER, MD
Activity

*NAVAIR did not provide data for inclusion in this package.

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

NEXT ECHELON LEVEL (if applicable)

BARTON D. STRONG, RADM, USN
NAME (Please type or print)
ACTING COMMANDER
Title
NAVAL AIR WARFARE CENTER
Activity

Barton D. Strong
Signature
28 June 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)

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
1 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

J. B. Greene, Jr.
Signature
06 JUL 1994
Date

Data Call #5

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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

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

Each individual in your activity generating information for the BRAC-95 process must certify that information. Enclosure (1) is provided for individual certifications and may be duplicated as necessary. You are directed to maintain those certifications at your activity for audit purposes. For purposes of this certification sheet, the commander of the activity will begin the certification process and each reporting senior in the Chain of Command reviewing the information will also sign this certification sheet. This sheet must remain attached to this package and be forwarded up the Chain of Command. Copies must be retained by each level in the Chain of Command for audit purposes.

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

CHANGE II NAWCAD/PAX - 22 JUNE 94 - DATA CALL NUMBER 5

*Revision
pages 14, 18, & 21*

ACTIVITY COMMANDER

BARTON D. STRONG
NAME (Please type or print)


Signature

Commander
Title

22 June 1994
Date

Naval Air Warfare Center Aircraft Division, Patuxent River, MD
Activity

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.


CHANGE I NAWCAD/PR 24 May 94 - DATA CALL NUMBER FIVE

ACTIVITY COMMANDER

BARTON D. STRONG
NAME (Please type or print)

COMMANDER
Title

NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION
PATUXENT RIVER
Activity


Signature
MAY 27 1994
Date

Data Call 5
Change 3
Pax River

163

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
8/18/94
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

DATA CALL 5
BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 8 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

CAPTAIN JOHN B. PATTERSON
NAME (Please type or print)


Signature

ACTING COMMANDER
Title

1/26/94
Date

NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION PATUXENT RIVER, MD
Activity

DATA CALL #5 CHANGE OF 22 SEP 94
BRAC-95 CERTIFICATION

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pg 15

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

NEXT ECHELON LEVEL (if applicable)

WILLIAM E. NEWMAN
NAME (Please type or print)

COMMANDER
Title

NAVAL AIR WARFARE CENTER
Activity

W E Newman
Signature

9/28/94
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

WILLIAM C. BOWES
NAME (Please type or print)

COMMANDER
Title

NAVAL AIR SYSTEMS COMMAND
Activity

W C Bowes
Signature

29 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 Earner
Signature

10/5/94
Date

DATA CALL #5 CHANGE OF 22 SEP 94
BRAC-95 CERTIFICATION

pg 15

Reference: SECNAVNOTE 11000 of 8 December 1993

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

ACTIVITY COMMANDER

CAPTAIN JOHN B. PATTERSON
NAME (Please type or print)


Signature

ACTING COMMANDER
Title

9/22/94
Date

NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION PATUXENT RIVER, MD



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 1991

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 #5 PATUXENT RIVER
BRAC-95 CERTIFICATION**

Reference: SECNAVNOTE 11000 of 8 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

CAPTAIN JOHN B. PATTERSON
NAME (Please type or print)


Signature

ACTING COMMANDER
Title

SEP 16 1994
Date

NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION PATUXENT RIVER, MD

DATA CALL #5
NAWAD Patuxent River

163

RPT
~~CONFIDENTIAL~~

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

22, 23
TAB A

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)

NAME (Please type or print)

Signature

Title

Date

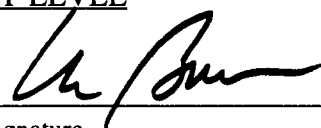
Activity

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

31 Oct 92
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)


Signature

Title

11/2/94
Date

DATA CALL #5
NAWAD Patuxent River

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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

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

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

ACTIVITY COMMANDER

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

Commander
Title

Naval Air Warfare Center
Activity

W E Newman
Signature

10/28/94
Date

163

**DATA CALL 66
INSTALLATION RESOURCES**

Activity Information:

Activity Name:	NAVAL AVIATION MAINTENANCE OFFICE
UIC:	68626
Host Activity Name (if response is for a tenant activity):	Naval Air Warfare Center, Aircraft Division, Patuxent River, MD
Host Activity UIC:	00421

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

**DATA CALL 66
INSTALLATION RESOURCES**

identify any additional cost elements not currently shown). Leave shaded areas of table blank.

Table 1A - Base Operating Support Costs (Other Than DBOF Overhead)			
Activity Name: NAMO		UIC: 68626	
Category	FY 1996 BOS Costs (\$000)		
	Non-Labor	Labor	Total
1. Real Property Maintenance Costs:	0	0	0
1a. Maintenance and Repair	0	0	0
1b. Minor Construction	0	0	0
1c. Sub-total 1a. and 1b.	0	0	0
2. Other Base Operating Support Costs:			
2a. Utilities	130	0	0
2b. Transportation	25	0	0
2c. Environmental	0	0	0
2d. Facility Leases	0	0	0
2e. Morale, Welfare & Recreation	0	0	0
2f. Bachelor Quarters	0	0	0
2g. Child Care Centers	0	0	0
2h. Family Service Centers	0	0	0
2i. Administration	0	0	0
2j. Other (Specify)*	325	0	0
2k. Sub-total 2a. through 2j:	480	0	0
3. Grand Total (sum of 1c. and 2k.):	480	0	0

*TELEPHONE SERVICE, MESSENGER CONTRACT, JANITORIAL SERVICE, CIVILIAN ASSISTANCE PROGRAM

**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>
OM&N Only	

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: NAMO		UIC: 68626	
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)			
1c. Sub-total 1a. through 1d.	0	0	0
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:	0	0	0
3. Depreciation	0	0	0
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: NAMO	UIC: 68626
Cost Category	FY 1996 Projected Costs (\$000)
Travel:	110
Material and Supplies (including equipment):	70
Industrial Fund Purchases (other DBOF (purchases):	8
Transportation:	
Other Purchases (Contract support, etc.):	367
Total:	555

**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: Naval Aviation Maintenance Office	UIC: 68626
Contract Type	FY 1996 Estimated Number of Workyears On-Base
Construction:	0
Facilities Support:	0
Mission Support:	28
Procurement:	0
Other:*	0
Total Workyears:	28

* **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)): 28

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.)
62.6*	ADP and Technical Support

No. of Additional Contract Workyears Which Would Be Relocated	General Type of Work Performed on Contract (e.g., engineering support, technical services, etc.)
77.1**	ADP/Engineering/Technical Support

* If the activity were to be closed these positions would be eliminated.

** If, however, the activity relocated, these positions would then be required at the new location.

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

NEXT ECHELON LEVEL (if applicable)

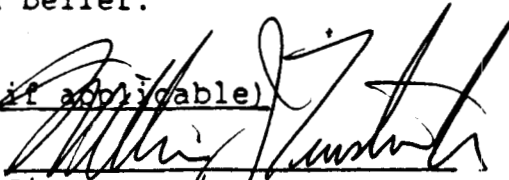
WILLIAM J. TINSTON, JR. RADM USN

NAME (Please type or print)
ASSISTANT COMMANDER FOR
LOGISTICS AND FLEET SUPPORT

Title

NAVAL AIR SYSTEMS COMMAND

Activity


Signature

7/29/94
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)

Signature

Title

Date

Activity

In certify that the information 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

2 JUL 94
Date

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

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)
W. A. EARNER

NAME (Please type or print)


Signature

Title

8/10/94
Date

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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

ACTIVITY COMMANDER

RICHARD D. TIPPS
NAME (Please type or print)

R D Tipps
Signature

Commanding Officer
Title

18 July 1994
Date

Naval Aviation Maintenance Office
Activity

DATA CALL 66
INSTALLATION RESOURCES

Activity Information:

Activity Name:	NADOC
UIC:	68520
Host Activity Name (if response is for a tenant activity):	NAWCAD PAX RIVER
Host Activity UIC:	00421

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: NADOC		UIC: 68520	
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	430		430
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) Communications	211		
Other Eng		240 *	451
2k. Sub-total 2a. through 2j:			
3. Grand Total (sum of 1c. and 2k.):	641	240	881

These costs reflect within CONUS (NADOC Pax River)
vice costs annotated on BS-1 exhibit

* Non-Government Labor

**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:

NOT APPLICABLE

<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) NOT APPLICABLE			
Activity Name:		UIC:	
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)			
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: NADOC	UIC: 68520
Cost Category	FY 1996 Projected Costs (\$000)
Travel:	151
Material and Supplies (including equipment):	128
Industrial Fund Purchases (other DBOF purchases):	2
Transportation:	25
Other Purchases (Contract support, etc.):	79
Total:	385

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3. Contractor Workyears.

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

Table 3 - Contract Workyears	
Activity Name: NADOC	UIC: 68520
Contract Type	FY 1996 Estimated Number of Workyears On-Base
Construction:	
Facilities Support:	8
Mission Support:	
Procurement:	
Other:*	
Total Workyears:	8

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

* Note: Estimated number of workyears based on a cost of \$30,000 per workyear.

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

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

8

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

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

NOT APPLICABLE

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

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

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

R.L. JORDAN
NAME (Please type or print)
AIR-43
Title
NAVAIRSYS COM HQ
Activity

NEXT ECHELON LEVEL (if applicable)

[Signature]
Signature
7/13/94
Date

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

WILLIAM J. TINSTON, JR. RADM USN
NAME (Please type of print)
ASSITANT COMMANDER FOR
LOGISTICS AND FLEET SUPPORT
Title
NAVAL AIR SYSTEMS COMMAND
Activity

NEXT ECHELON LEVEL (if applicable)

[Signature]
Signature
7/22/94
Date

In certify that the information 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]
Signature
22 JUL 94
Date

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

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)
W. A. EARNER

W. A. EARNER
NAME (Please type of print)
Title

[Signature]
Signature
8/10/94
Date

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

DONALD A. SCHRAMM, CAPT, USN
NAME (Please type of print)

Commanding Officer
Title

Naval Aviation Depot Operations Center
Activity


Signature

12 July 1994
Date

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Activity Information:

Activity Name:	Naval Air Warfare Center Aircraft Division (NAWCAD) Patuxent River
UIC:	N00421
Host Activity Name (if response is for a tenant activity):	Not Applicable
Host Activity UIC:	Not Applicable

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.

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Table 1A - Base Operating Support Costs (Other Than DBOF Overhead)			
Activity Name: NAWCAD PATUXENT RIVER		UIC: N00421	
Category	FY 1996 BOS Costs (\$000)		
	Non-Labor	Labor	Total
1. Real Property Maintenance Costs:			
1a. Maintenance and Repair	7,343	1,572	8,915
1b. Minor Construction	990	0	990
1c. Sub-total 1a. and 1b.	8,333	1,572	9,905
2. Other Base Operating Support Costs:			
2a. Utilities	2,082	0	2,082
2b. Transportation	19	0	19
2c. Environmental	2,097	3	2,100
2d. Facility Leases	0	0	0
2e. Morale, Welfare & Recreation	1,587	992	2,579
2f. Bachelor Quarters	943	21	964
2g. Child Care Centers	258	751	1,009
2h. Family Service Centers	174	204	378
2i. Administration	0	0	0
2j. Other (Specify)*			
Project Unit 171AWC	1,421	8,632	10,053
Project 17AWC Utilities	140	0	140
Project Unit 17AFW Base Communications	675	83	758
2k. Sub-total 2a. through 2j.:	9,396	10,686	20,082
3. Grand Total (sum of 1c. and 2k.):	17,729	12,258	29,987**

* 2j includes Galley/Messing, Office Equipment Maintenance, Photo Lab, Printing, Laundry, Legal Services, Air Operations/Firefighters, Aircraft Intermediate Maintenance, Safety, Security, and Common Support provided by HRO, Supply, Comptroller, etc. (G&A Cost Centers).

** This includes \$22K for Indy under 17AWC and \$29K for Warminster under 17ABQ.

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NAWCAD TRENTON BRAC 91 INFLUX

Table 1A - Base Operating Support Costs (Other Than DBOF Overhead)			
Activity Name: NAWCAD PATUXENT RIVER (TRENTON INFLUX)		UIC: N00421	
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.	0	0	0
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

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NAWCAD WARMINSTER BRAC 91/93 INFLUX

Table 1A - Base Operating Support Costs (Other Than DBOF Overhead)			
Activity Name: NAWCAD PATUXENT RIVER (WARMINSTER INFLUX)			UIC: N00421
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.	0	0	0
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:	0	0	0
3. Grand Total (sum of 1c. and 2k.):	0	0	0

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

Appropriation Amount (\$000)

All data is O&MN

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

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

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Table 1B - Base Operating Support Costs (DBOF Overhead)			
Activity Name: NAWCAD PATUXENT RIVER		UIC: N00421	
Category	FY 1996 Net Cost From UC/FUND-4 (S000)		
	Non-Labor	Labor	Total
1. Real Property Maintenance Costs:			
1a. Real Property Maintenance (>\$25K)	2,253	0	2,253
1b. Real Property Maintenance (<\$25K)	8,926	0	8,926
1c. Minor Construction (Expensed)	661	0	661
1d. Minor Construction (Capital Budget)	[548]	0	[548]*
1e. Sub-total 1a. through 1d.	11,840	0	11,840
2. Other Base Operating Support Costs:			
2a. Command Office	2,558	2,630	5,188
2b. ADP Support	2,471	1,988	4,459
2c. Equipment Maintenance	1,616	0	1,616
2d. Civilian Personnel Services	473	1,533	2,006
2e. Accounting/Finance	247	2,858	3,105
2f. Utilities	4,407	0	4,407
2g. Environmental Compliance	2,992	599	3,591
2h. Police and Fire	313	942	1,255
2i. Safety	60	304	364
2j. Supply and Storage Operations	850	1,797	2,647
2k. Major Range Test Facility Base Costs	[21,520]	[10,408]	[31,928]**
2l. Other (Specify)			
Printing and Duplication	529	0	529
Travel and Training	623	398	1,021
Janitorial	1,425	0	1,425
Audiovisual	755	221	976
Headquarters	572	0	572
Public Works	1,679	603	2,282
Communications	848	28	876
Awards	0	800	800
Military	0	373	373
Other G&A Cost Center Support	714	3,537	4,251
2m. Sub-total 2a. through 2l:	23,132	18,611	41,743
3. Depreciation	4,477	0	4,477
4. Grand Total (sum of 1c., 2m., and 3.):	39,449	18,611	58,060***

* Minor Construction (Capital Budget) is provided as a non-add; this is an obligational number; total expenses for Minor Construction in the Capital Budget are covered in the Depreciation Line.

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**** MRTFB costs are shown as a non-add; the MRTFB is charged an assessment amount which is a share of total G&A costs; therefore the MRTFB costs are included as a share of the other line items. The amount in 2k. is shown to illustrate the Labor/Non-Labor split of MRTFB costs.**

***** Total agrees with NAWCAD Patuxent River FUND-4 submission of June, 1994.**

NOTE: Since FECA costs are not part of base operations, those are not included.

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NAWCAD TRENTON BRAC 91 IMPACTS

Table 1B - Base Operating Support Costs (DBOF Overhead)			
Activity Name: NAWCAD PATUXENT RIVER (TRENTON INFLUX)		UIC: N00421	
Category	FY 1996 Net Cost From UC/FUND-4 (\$000)		
	Non-Labor	Labor	Total
1. Real Property Maintenance Costs:			
1a. Real Property Maintenance (>\$25K)	190	0	190
1b. Real Property Maintenance (<\$25K)	745	0	745
1c. Minor Construction (Expensed)	54	0	54
1d. Minor Construction (Capital Budget)	0	0	0
1e. Sub-total 1a. through 1d.	989	0	989
2. Other Base Operating Support Costs:			
2a. Command Office	214	220	434
2b. ADP Support	205	165	370
2c. Equipment Maintenance	136	0	136
2d. Civilian Personnel Services	39	128	167
2e. Accounting/Finance	21	237	258
2f. Utilities	371	0	371
2g. Environmental Compliance	248	50	298
2h. Police and Fire	26	78	104
2i. Safety	5	27	32
2j. Supply and Storage Operations	71	150	221
2k. Major Range Test Facility Base Costs	[2,980]	[1,539]	[4,519]*
2l. Other (Specify)	655	484	1,139 **
2m. Sub-total 2a. through 2l:	1,991	1,539	3,530
3. Depreciation	0	0	0
4. Grand Total (sum of 1c., 2m., and 3.):	2,980	1,539	4,519 ***

*MRTFB costs are shown as a non-add; 100% of Trenton's overhead is MRTFB funded.

** Other includes the cost of Military Labor and all other Cost Center Support including Procurement, Air Operations, Security, Administration, Aircraft Maintenance, Technical Information, Public Works, Communication, Transportation, etc.

*** Grand Total does not agree with Trenton's FUND-4 exhibit since the costs above represent only the G&A support costs for the 130 engineers scheduled to relocate to Pax River as a result of BRAC 91. People relocating as a result of BRAC 93 will not become part of NAWCAD PAX until the FY97 time period.

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NAWCAD WARMINSTER BRAC 91 IMPACTS

Table 1B - Base Operating Support Costs (DBOF Overhead)			
Activity Name: NAWCAD PATUXENT RIVER (WARMINSTER INFLUX)			UIC: N00421
Category	FY 1996 Net Cost From UC/FUND-4 (\$000)		
	Non-Labor	Labor	Total
1. Real Property Maintenance Costs:			
1a. Real Property Maintenance (>\$25K)	520	0	520
1b. Real Property Maintenance (<\$25K)	1,084	2,145	3,229
1c. Minor Construction (Expensed)	0	0	0
1d. Minor Construction (Capital Budget)	0	0	0
1e. Sub-total 1a. through 1d.	1,604	2,145	3,749
2. Other Base Operating Support Costs:			
*2a. Command Office	9,323	2,005	11,328
2b. ADP Support	0	0	0
2c. Equipment Maintenance	126	223	349
2d. Civilian Personnel Services	1,632	863	2,495
2e. Accounting/Finance	5,020	2,914	7,934
2f. Utilities	3,089	318	3,409
2g. Environmental Compliance	358	307	665
2h. Police and Fire	1,128	1,690	2,818
2i. Safety	9	146	155
2j. Supply and Storage Operations	1,927	2,364	4,291
2k. Major Range Test Facility Base Costs	0	0	0
2l. Other (Specify) Engineering Support	5,152	1,770	6,922
Military Labor	0	418	418
2m. Sub-total 2a. through 2l:	27,764	13,018	40,784
3. Depreciation	1,118	0	1,184
4. Grand Total (sum of 1c., 2m., and 3.):	30,486	15,163	45,649

* Since FECA and B&P/MSI costs are not part of base operations, those are not included. 2a includes the following: Comptroller, Human Resources, Command Administration, Staff Assistants, Supply and Test & Evaluation costs.

Note: The sum of the Grand Totals on the three Warminster Table 1B submissions ties back to the Warminster FUND-4. The 1B does not necessarily tie back by line item since the BRAC call was approached from a different angle.

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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: NAWCAD PATUXENT RIVER	UIC: N00421
Cost Category	FY 1996 Projected Costs (\$000)
Travel:	6,677
Material and Supplies (including equipment):	97,838
Industrial Fund Purchases (other DBOF purchases):	5,194
Transportation:	6,152
Other Purchases (Contract support, etc.):	233,534
Total:	349,395

NOTE: Total ties to Patuxent River's IF-4 submission as follows:

Total IF-4	512,917
Less: Civ Pers Cost (158,672)	
Mil Pers Cost (373)	(373)
Depreciation (4,477)	(4,477)
Total	349,395

*** TRANSPORTATION INCLUDES: Freight and express, trucking and other local transportaiton, mail transportation and transportation of household goods related to permanent change of station.**

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NAWCAD TRENTON BRAC 91 IMPACTS

Table 2 - Services/Supplies Cost Data	
Activity Name: NAWCAD PATUXENT RIVER (TRENTON INFLUX)	UIC: N00421
Cost Category	FY 1996 Projected Costs (\$000)
Travel:	60
Material and Supplies (including equipment):	337
Industrial Fund Purchases (other DBOF purchases):	0
Transportation:	5
Other Purchases (Contract support, etc.):	228
Total:	630

NAWCAD WARMINSTER BRAC 91 IMPACTS

Table 2 - Services/Supplies Cost Data	
Activity Name: NAWCAD PATUXENT RIVER (Warminster INFLUX)	UIC: N00421
Cost Category	FY 1996 Projected Costs (\$000)
Travel:	17,537
Material and Supplies (including equipment):	15,194
Industrial Fund Purchases (other DBOF purchases):	9,634
Transportation:	255
Other Purchases (Contract support, etc.):	133,568
Total:	176,188

Note: The sum of Warminster's three pieces tie to Warminster's portion of the NAWCAD NAV submit as follows:

IF4 Total Costs	299,542
Less: Civ Pers	104,605
Mil pers	2,213
Depreciation	14,560
 Total	 178,164

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3. Contractor Workyears.

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

Table 3 - Contract Workyears	
Activity Name: NAWCAD PATUXENT RIVER	UIC: N00421
Contract Type	FY 1996 Estimated Number of Workyears On-Base
Construction:	2087.2
Facilities Support:	370
Mission Support:	1604.7
Procurement:	0
Other:*	679.9
Total Workyears:	4741.8

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

(36 WYs) Technical and administrative services to support Technical Information Department customers in the following areas: Graphics arts, audiovisual, technical reports, forms management, photography and photographic processing. Naval Air Systems Command Contracts supporting (3 WYs) RDT&E and laboratory technical support services; (320 WYs) engineering manufacturing and development (EMD) of the F/A-18E/F; (8 WYs) F-14 information/instruction and training in the installation and operation, modification of maintenance automation systems equipment; (27 WYs) T-45 aircraft maintenance support; (4 WYs) F/A-18 C/D information/instruction and training; (12.9 WYs) engineering support for F/A-18 aircraft maintenance; (65 WYs) Navair contract for Bell Boeing. (204 WYs) Naval Air Station contracts which support the following: Admin Support, Public Affairs Office, Religious Program, Financial Support, Family Service Center, Counseling and Assistance Center, MWR, Physical Security (Pass Office), Hazmat Program, Fuel, Laundry and Office Moving Services.

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NAWCAD TRENTON BRAC 91 IMPACTS

Table 3 - Contract Workyears	
Activity Name: NAWCAD PATUXENT RIVER (TRENTON INFLUX)	UIC: N00421
Contract Type	FY 1996 Estimated Number of Workyears On-Base
Construction:	0
Facilities Support:	0
Mission Support:	10
Procurement:	0
Other:*	0
Total Workyears:	10

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

NAWCAD WARMINSTER BRAC 91 IMPACTS

Table 3 - Contract Workyears	
Activity Name: NAWCAD PATUXENT RIVER (WARMINSTER INFLUX)	UIC: N00421
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.

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

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

1673 WORKYEARS FROM NAWCAD PATUXENT RIVER

10 WORKYEARS FROM NAWC AD TRENTON

2) Estimated number of workyears which would be eliminated:

102 WORKYEARS

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):

All NAS contracts (except AIMD which are included in technical) will remain:

204 (NAS) + 364 (Facilities/NAS) + (56) CSD = 624

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

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

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DATA CALL 66
INSTALLATION RESOURCES**

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

DATA CALL 66

NAWCAD

Pax River

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

~~3/18/94~~ WEI
Date 8/24/94

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

NEXT ECHELON LEVEL (if applicable)

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)

COMMANDER

Title

NAVAL AIR SYSTEMS COMMAND

Activity

W C Bowes
Signature

2 AUG 92
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

2/1/94
Date

DATA CALL 66
BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 8 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

BARTON D. STRONG
NAME (Please type or print)

Barton D. Strong
Signature

COMMANDER
Title

11 July 1994
Date

NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION PATUXENT RIVER, MD
Activity

DATA CALL 63
FAMILY HOUSING DATA

163

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

Installation Name:	NAWCAD Pax River MD
Unit Identification Code (UIC):	00421
Major Claimant:	NAVAIR

Percentage of Military Families Living On-Base:	44%
Number of Vacant Officer Housing Units:	0
Number of Vacant Enlisted Housing Units:	0
FY 1996 Family Housing Budget (\$000):	1,888.8
Total Number of Officer Housing Units:	29
Total Number of Enlisted Housing Units:	304

Note: All data should reflect figures as of the beginning of FY 1996. If major DON installations share a family housing complex, figures should reflect an estimate of the installation's prorated share of the family housing complex.

Enclosure (1)

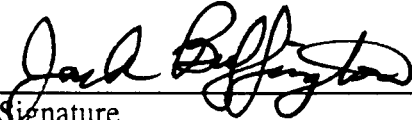
I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

J. E. BUFFINGTON, RADM, CEC, USN
NAME (Please type or print)

COMMANDER
Title

NAVAL FACILITIES ENGINEERING COMMAND
Activity


Signature
7/20/94
Date


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

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

W. A. EARNER 

NAME (Please type or print)

Title


Signature
7/25/94
Date

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

W.A. Waters, CAPT, CEC, USN
NAME (Please type of print)

Commanding Officer
Title

NORTHNAVFACENGCOM
Activity


Signature
7/7/94
Date

163

DATA CALL 66
INSTALLATION RESOURCES

Activity Information:

Activity Name:	Morale, Welfare and Recreation Training Unit
UIC:	N00022
Host Activity Name (if response is for a tenant activity):	Naval Air Station, Patuxent River
Host Activity UIC:	N00421

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

**DATA CALL 66
INSTALLATION RESOURCES**

lines to the table (following line 2j., as necessary, to identify any additional cost elements not currently shown). Leave shaded areas of table blank.

Table 1A - Base Operating Support Costs (Other Than DBOF Overhead)			
Activity Name: Morale, Welfare and Recreation Training Unit		UIC: N00022	
Category	FY 1996 BOS Costs (\$000)		
	Non-Labor	Labor	Total
1. Real Property Maintenance Costs:			
1a. Maintenance and Repair	0	0	0
1b. Minor Construction	0	0	0
1c. Sub-total 1a. and 1b.	0	0	0
2. Other Base Operating Support Costs:			
2a. Utilities	80	0	80
2b. Transportation	0	0	0
2c. Environmental	0	0	0
2d. Facility Leases	0	0	0
2e. Morale, Welfare & Recreation	0	0	0
2f. Bachelor Quarters	0	0	0
2g. Child Care Centers	0	0	0
2h. Family Service Centers	0	0	0
2i. Administration	0	0	0
2j. Other (Specify) Grounds Maintenance/Janitorial	25	0	25
2k. Sub-total 2a. through 2j.:	105	0	105
3. Sub- Total (sum of 1c. and 2k.):	105	0	105

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>
Non-Appropriated	\$ 25
O&M,N	\$ 80
Total	\$105

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: Morale, Welfare and Recreation Training Unit		UIC: N00022	
Category	FY 1996 Net Cost From UC/FUND-4 (\$000)		
	Non-Labor	Labor	Total
1. Real Property Maintenance Costs:			
1a. Real Property Maintenance (> \$15K)	0	0	0
1b. Real Property Maintenance (< \$15K)	0	0	0
1c. Minor Construction (Expensed)	0	0	0
1d. Minor Construction (Capital Budget)	0	0	0
1c. Sub-total 1a. through 1d.	0	0	0
2. Other Base Operating Support Costs:			
2a. Command Office	0	0	0
2b. ADP Support	0	0	0
2c. Equipment Maintenance	0	0	0
2d. Civilian Personnel Services	0	0	0
2e. Accounting/Finance	0	0	0
2f. Utilities	0	0	0
2g. Environmental Compliance	0	0	0
2h. Police and Fire	0	0	0
2i. Safety	0	0	0
2j. Supply and Storage Operations	0	0	0
2k. Major Range Test Facility Base Costs	0	0	0
2l. Other (Specify)	0	0	0
2m. Sub-total 2a. through 2l:	0	0	0
3. Depreciation	0	0	0
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: Morale, Welfare and Recreation Training Unit	UIC: N00022
Cost Category	FY 1996 Projected Costs (\$000)
Travel:	223
Material and Supplies (including equipment):	0
Industrial Fund Purchases (other DBOF purchases):	0
Transportation:	0
Other Purchases (Contract support, etc.):	22,840
Total:	23,063

**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: Morale, Welfare and Recreation Training Unit	UIC: N00022
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)):

N/A

2) Estimated number of workyears which would be eliminated:

N/A

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):

N/A

**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	N/A

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

**DATA CALL 66
INSTALLATION RESOURCES**

Activity Information:

Activity Name:	Navy Motion Picture Service
UIC:	N00022
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

**DATA CALL 66
INSTALLATION RESOURCES**

lines to the table (following line 2j., as necessary, to identify any additional cost elements not currently shown). Leave shaded areas of table blank.

Table 1A - Base Operating Support Costs (Other Than DBOF Overhead)			
Activity Name: Navy Motion Picture Service		UIC: N00022	
Category	FY 1996 BOS Costs (\$000)		
	Non-Labor	Labor	Total
1. Real Property Maintenance Costs:			
1a. Maintenance and Repair	0	0	0
1b. Minor Construction	0	0	0
1c. Sub-total 1a. and 1b.	0	0	0
2. Other Base Operating Support Costs:			
2a. Utilities	32	0	32
2b. Transportation	6	0	6
2c. Environmental	0	0	0
2d. Facility Leases	50	0	50
2e. Morale, Welfare & Recreation	0	0	0
2f. Bachelor Quarters	0	0	0
2g. Child Care Centers	0	0	0
2h. Family Service Centers	0	0	0
2i. Administration	0	0	0
2j. Other (Specify)	79	0	79
2k. Sub-total 2a. through 2j:	167	0	167
3. Sub- Total (sum of 1c. and 2k.):	167	0	167

**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>
Non-Appropriated	\$ 34
O&M,N	\$133
Total	\$167

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: Navy Motion Picture Service			UIC: N00022
Category	FY 1996 Net Cost From UC/FUND-4 (\$000)		
	Non-Labor	Labor	Total
1. Real Property Maintenance Costs:			
1a. Real Property Maintenance (> \$15K)	0	0	0
1b. Real Property Maintenance (< \$15K)	0	0	0
1c. Minor Construction (Expensed)	0	0	0
1d. Minor Construction (Capital Budget)	0	0	0
1c. Sub-total 1a. through 1d.	0	0	0
2. Other Base Operating Support Costs:			
2a. Command Office	0	0	0
2b. ADP Support	0	0	0
2c. Equipment Maintenance	0	0	0
2d. Civilian Personnel Services	0	0	0
2e. Accounting/Finance	0	0	0
2f. Utilities	0	0	0
2g. Environmental Compliance	0	0	0
2h. Police and Fire	0	0	0
2i. Safety	0	0	0
2j. Supply and Storage Operations	0	0	0
2k. Major Range Test Facility Base Costs	0	0	0
2l. Other (Specify)	0	0	0
2m. Sub-total 2a. through 2l:	0	0	0
3. Depreciation	0	0	0
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: Navy Motion Picture Service	UIC: N00022
Cost Category	FY 1996 Projected Costs (\$000)
Travel:	0
Material and Supplies (including equipment):	0
Industrial Fund Purchases (other DBOF purchases):	0
Transportation:	0
Other Purchases (Contract support, etc.):	9,991
Total:	9,991

**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: Navy Motion Picture Service	UIC: N00022
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)):

N/A

2) Estimated number of workyears which would be eliminated:

N/A

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):

N/A

**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	N/A

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

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)

NAME (Please type or print)

Signature

Title

Date

Activity

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

MAJOR CLAIMANT LEVEL

R. J. ZLATOPER, VADM

NAME (Please type or print)

Signature

CHIEF OF NAVAL PERSONNEL

Title

Date

BUREAU OF NAVAL PERSONNEL

Activity

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

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

W. J. EARNER

NAME (Please type or print)

Signature

Title

Date

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

J. K. FYFE
NAME (Please type of print)

ACTING HEAD, FINANCIAL MANAGEMENT
Title BRANCH

MORALE, WELFARE AND RECREATION
Activity


Signature

7-11-94
Date