

**ENVIRONMENTAL DATA CALL:
DATA CALL TO BE SUBMITTED TO
ALL NAVY/MARINE CORPS HOST ACTIVITIES**

**DAHLGREN SITE
DAHLGREN DIVISION
NAVAL SURFACE WARFARE CENTER**

20 APRIL 1994

Data Call 33
UIC **N00178**

**BRAC 1995 ENVIRONMENTAL DATA CALL:
All Navy/Marine Corps Host Activities**

INDEX

<u>Section</u>	<u>Page</u>
GENERAL INSTRUCTIONS	2
ENDANGERED/THREATENED SPECIES AND BIOLOGICAL HABITAT	4
WETLANDS	5
CULTURAL RESOURCES	6
ENVIRONMENTAL FACILITIES	7
AIR POLLUTION	11
ENVIRONMENTAL COMPLIANCE	14
INSTALLATION RESTORATION	16
LAND/AIR/WATER USE	21
WRAP-UP	26

ENVIRONMENTAL DATA CALL

Responses to the following questions provide data that will allow an assessment of the potential environmental impact associated with the closure or realignment of a Navy shore activity. This criterion consists of:

- Endangered/Threatened Species and Biological Habitat
- Wetlands
- Cultural Resources
- Environmental Facilities
- Air Pollution
- Environmental Compliance
- Installation Restoration
- Land/Air/Water Use

As part of the answers to these questions, a *source citation* (e.g., 1993 base loading, 1993 base-wide Endangered Species Survey, 1993 letter from USFWS, 1993 Base Master Plan, 1993 Permit Application, 1993 PA/SI, etc.) must be included. It is probable that, at some point in the future, you will be asked to provide additional information detailing specifics of individual characteristics. In anticipation of this request, supporting documentation (e.g., maps, reports, letters, etc.) regarding answers to these questions should be retained. Information needed to answer these questions is available from the cognizant EFD Planning and Real Estate Divisions, and Environment, Safety, and Health Divisions; and from the activity Public Works Department, and activity Health Monitoring and Safety Offices.

For purposes of the questions associated with land use at your base is *defined as land* (acreage owned, withdrawn, leased, and controlled through easements); *air* (space controlled through agreements with the FAA, e.g., MOAs); and *water* (navigation channels and waters along a base shoreline) *under the control of the Navy*.

Provide a list of the tenant activities with UICs that are covered in this response.

Tenant Command Name	UIC	Tenant Command Name	UIC
NAVAL SPACE COMMAND	00046	AEGIS TRAINING CENTER	68724
EXPLOSIVE ORDNANCE DISPOSAL	30703	AEGIS TRAINING CENTER (Average students on board)	45541
NAVAL BRANCH MEDICAL CLINIC	32639	NAVAL INVESTIGATIVE SERVICE	68896

Tenant Command Name	UIC	Tenant Command Name	UIC
NAVAL DENTAL CLINIC	35755	DEFENSE COMMISSARY AGENCY	N/A
DEFENSE PRINTING SERVICE	43630	DEFENSE REUTILIZATION AND MARKETING OFFICE	N/A
PERSONNEL SUPPORT DETACHMENT	44175	NSWSES DET	N/A
NAVAL TELECOMMUNICATIONS CENTER	48388	DOD SECTION 6 SCHOOL	EVADL
NAVAL WARFARE ANALYSIS CENTER	49869	COMSUBLANTREP	N/A
CHESDIV NAVFACENGCOM	62477	DEFENSE INVESTIGATIVE SERVICE	HS1500
NAVY RESALE AND SERVICES SUPPORT OFFICE	63576	DEFENSE FINANCE AND ACCOUNTING SERVICE	N/A
SAN DIEGO DET	66001		

1. ENDANGERED/THREATENED SPECIES AND BIOLOGICAL HABITAT

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

SPECIES (plant or animal)	Designation (Threatened/ Endangered)	Federal/ State	Critical / Designated Habitat (Acres)	Important Habitat (acres)
<i>example: Haliaeetus leucocephalus - bald eagle</i>	<i>threatened</i>	<i>Federal</i>	25	0
Haliaeetus leucocephalus - bald eagle	endangered	Federal	0	952 acres *

*** 6 miles Upper Machodoc Creek shoreline (includes: Gambo Creek Marsh Complex, 547 acres; Wood Island/Pumpkin Neck, 240 acres; Black Marsh Complex/Pumpkin Neck, 165 acres)**

Source Citation: **14 Sep 92 Natural Heritage Resources Inventory of the Naval Surface Warfare Center, Dahlgren Laboratory.**

1b.

Have your base operations or development plans been constrained due to: - USFWS or National Marine Fisheries Service (NMFS)? - State required modifications or constraints? If so, identify below the impact of the constraints including any restrictions on land use.	YES/NO YES
Are there any requirements resulting from species not residing on base, but which migrate or are present nearby? If so, summarize the impact of such constraints.	YES/NO NO

Nesting bald eagles constrained vehicular traffic and influenced development plans and activities for a short period of time in 1992. No eagles have nested on the installation since then.

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

Included in Appendix A as Figures 6 and 8.

1d.

Have any efforts been made to relocate any species and/or conduct any mitigation with regards to critical habitats or endangered/threatened species? Explain what has been done and why.	YES/NO NO
--	--------------

1e.

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

None known.

2. WETLANDS

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

2a.

Does your base possess federal jurisdictional wetlands?	YES/NO YES
Has a wetlands survey in accordance with established standards been conducted for your base?	YES/NO YES
When was the survey conducted or when will it be conducted? ____ / ____ / ____	1992
What percent of the base has been surveyed?	100%
What is the total acreage of jurisdictional wetlands present on your base?	675

Source Citation: **Wetlands Delineation Survey, 1992**

2b. If the area of the wetlands has not been identified on base maps provided in Data Call 1, submit this on an updated version of Data Call 1 map.

Included in Appendix A as NSWCDL, Mainside, Wetland Areas and NSWCDL, Pumpkin Neck, Wetlands.

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

3. CULTURAL RESOURCES

3a.

Has a survey been conducted to determine historic sites, structures, districts or archaeological resources which are listed, or determined eligible for listing, on the National Register of Historic Places? If so, list the sites below.	YES/NO NO
--	--------------

Note: Survey has been started but has not been completed.

3b.

YES/NO

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

Structures 1279 and B-194 mitigated to SHPO and Advisory Council's satisfaction. No further constraints.

3c.

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

4. ENVIRONMENTAL FACILITIES

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

4a.

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

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

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

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

4c.

Does your base have any disposal, recycling, or incineration facilities for solid waste?					YES / NO YES
Facility/Type of Operation	Permitted Capacity	Ave Daily Throughput	Maximum Capacity	Permit Status	Comments
Incinerator	543 tons/yr 665 lbs/hr	796 lbs	2913 tons/yr 665 lbs/hr	active	Type 0 waste - mostly paper

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

No cited violations of permit. Study currently underway to determine type and cost of emission monitoring equipment to meet permit requirements. Consideration is being given to replacing incinerator with disintegrator.

4d.

Does your base own/operate a Domestic Wastewater Treatment Plant (WWTP) ?					YES / NO YES
ID/Location of WWTP	Permitted Capacity (gpd)	Ave Daily Discharge Rate (gpd)	Maximum Capacity (gpd)	Permit Status (gpd)	Level of Treatment/Year Built
VA002167*	400,000	400,000	1,000,000	Permit renewal in progress	Secondary/1948

gpd = Gallons per day

* NOTE: Outfall located at Upper Machodoc Creek; lat 38 deg, 19', 15"; long 77 deg, 01', 42".

List permit violations and discuss any projects to correct deficiencies.

Permitted flow is 0.4 mgd and there have been several exceedances in the past year; however, the Virginia Water Division of Dept. of Environmental Quality has not issued Notice of Violations. They agreed to link them to our corrective action of the STP upgrade described below.

Plant is being upgraded. This upgrade is detailed in the 100% design specification prepared by Hayes, Seay, Mattern and Mattern, Inc. of Roanoke, VA. Contract N6244-91-C-0266, Chesapeake Division. The upgraded plant will have a design average flow of 0.72 MGD with a peak hourly flow of 1.4 MGD. Average daily discharge rate based on monthly logs maintained at the STP for the past 12 months. This upgrade will correct recurring violation of max Allowable Flow Exceedance.

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

N/A.

4f.

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

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

4g. Are there other waste treatment flows not accounted for in the previous tables? Estimate capacity and describe the system.

None.

4h.

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

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

The "Potomac Aquifer" is the source of drinking water on base. Five wells are in operation with a total capacity of 2.4 MGD. The water is chlorinated before distribution. Additionally, at the Explosive Experimental Area (EEA) (Pumpkin Neck), water is untreated. This caused violations for total coliform in FY93. Due to this, NSWCDD is designing a chlorine treatment system to correct the problem. To be installed in FY95.

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

N/A

4j.

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

4k.

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

- VA073636 VPDES permit - a minor industrial permit for stormwater runoff from gun emplacements, parking lots, non-contact cooling water and a boat yard craft area. Effective 8-24-92 through 8-24-97.

- VAR4370079 General construction stormwater permit renewed 5-94 for one year.

4l.

YES/NO

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

Explain: **Oil/water separator at Yardcraft for handling bilge water from our 9 small range boats and one LCM-8. This is a small operation. Oil is then disposed of through contract.**

4m.

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

FedFac Compliance Act (FFCA) calls for Munitions Regs. These will greatly impact our Range Operations.

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

The current environmental facilities do not allow for expansion. The current Waste Water Treatment Plant (WWTP) has a capacity of 400,000 gallons per day and is at maximum capacity. Yes. To accomodate programmed BRAC requirements, increases in housing density, and future expansion, a new WWTP is under construction with a design capacity of 720,000 gallons per day.

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

See answer to question 4n.

5. AIR POLLUTION

5a.

<p>What is the name of the Air Quality Control Areas (AQCAs) in which the base is located? Virginia Air Quality Control Region 4</p>
<p>Is the installation or any of its OLFs or non-contiguous base properties located in different AQCAs? No. List site, location and name of AQCA.</p>

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

Site: **Dahlgren** AQCA: **VA's AQCA 4**

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

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

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

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

Emission Sources (Tons/Year)					
Pollutant	Permitted Stationary	Personal Automobiles ^{1,2}	Aircraft Emissions	Other Mobile	Total
CO	Not Available	16.0	Not Available	Not Available	16.0
NOx	Not Available	4.7	Not Available	Not Available	4.7
VOC	Not Available	1.95	Not Available	Not Available	1.95
PM10	Not Available	Not Available	Not Available	Not Available	Not Available

Source Document: **Maximum 1982 manufacturers standards and CY90 VA Source Registration Update***

¹ Emissions from personal automobiles was estimated as follows:

- 4273 Employees work at the Dahlgren base
- 75% of the employees drive a personal car on base on any given day
- Each employee who drives a car on base drives an average of 3 miles a day on base
- On average an employee who drive a car on base does so 222 days a year

Therefore, the employees drive personal automobiles on base approximately 2.1 million miles per year.

$$4273 \times 75 \times 3 \times 222 \approx 2.1 \text{ million miles per year}$$

Using the maximum 1982 Manufacturer Standards for Automobile

- Hydrocarbons $0.41 \text{ g/mi} \times 2.1\text{E}06 \text{ mi/yr} / 902,200 \text{ g/ton} = 0.95 \text{ tons/yr}$
- CO $3.4 \text{ g/mi} \times 2.1\text{E}06 \text{ mi/yr} / 902,200 \text{ g/ton} = 7.9 \text{ tons/yr}$
- Nox $1.0 \text{ g/mi} \times 2.1\text{E}06 \text{ mi/yr} / 902,200 \text{ g/ton} = 2.3 \text{ tons/yr}$

² The estimates below are for emissions resulting from fuel used by government vehicles (cars and trucks).

*Maximum 1982 Manufacturer Standards for Automobile	Assumed Avg	Gallons/Year ²	Mi/Gal
Hydrocarbons 0.41 g/mi	CY90 127,000 gal/yr x 17 / 902,200 g/ton = 0.98 tons/yr	127,000 gal/yr	17 / 902,200 g/ton = 0.94 tons/yr
CO 3.4 g/mi	CY90 127,000 gal/yr x 17 / 902,200 g/ton = 7.8 tons/yr	127,000 gal/yr	17 / 902,200 g/ton = 2.4 tons/yr
NOx 1.0 g/mi	CY90 127,000 gal/yr x 17 / 902,200 g/ton = 2.4 tons/yr	127,000 gal/yr	17 / 902,200 g/ton = 2.3 tons/yr

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

Emissions Sources (Tons/Year)					
Pollutant	Permitted Stationary	Personal Automobiles	Aircraft Emissions	Other Mobile	Total
CO	Not Available	15.7	Not Available	Not Available	15.7
NO _x	Not Available	4.6	Not Available	Not Available	4.6
VOC	Not Available	1.85	Not Available	Not Available	1.85
PM10	Not Available	Not Available	Not Available	Not Available	Not Available

Source Document: **Maximum 1982 manufacturers standards and CY93 VA Source Registration Update*** See footnotes 1 and 2 for Table 5c for calculations.

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

Accurate data is not available. However, current projections are for the employee population to remain nearly constant through this time period due to increase in tenant population and BRAC-93 realignment of personnel from White Oak to Dahlgren. Therefore, air emissions are expected to remain nearly constant.

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

Yes. There are non-attainment areas within 100 miles of the Dahlgren site. The closest is Charles County, MD, just across the Potomac River from Dahlgren. Charles County is located within the Washington, DC ozone non-attainment area.

5g. Have any base operations/mission/functions (i.e.: training, R&D, ship movement, aircraft movement, military operations, support functions, vehicle trips per day, etc.) been restricted or delayed due to air quality considerations. Explain the reason for the restriction and the "fix" implemented or planned to correct.

No.

5h. Does your base have Emission Reduction Credits (ERCs) or is it subject to any emission offset requirements? If yes, provide details of the sources affected and conditions of the ERCs and offsets. Is there any potential for getting ERCs?

The base has no ERCs and there is no potential for getting ERCs.

6. ENVIRONMENTAL COMPLIANCE

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

Program	Survey Completed?	Costs in \$K to correct deficiencies					
		FY94	FY95	FY96	FY97	FY98-99	FY00-01
Air	June 94	94	50	50	50	Unknown	Unknown
Hazardous Waste	NR ¹	25	0	0	0	Unknown	Unknown
Safe Drinking Water Act	YES	0	0	0	0	Unknown	Unknown
PCBs	On-going	416	0	0	0	Unknown	Unknown
Other (non-PCB) Toxic Substance Control Act	NR	0	0	0	0	Unknown	Unknown
Lead Based Paint	NR	0	0	0	0	Unknown	Unknown
Radon	YES	0	0	0	0	Unknown	Unknown
Clean Water Act	NR	189	0	0	0	Unknown	Unknown
Solid Waste	NR	0	0	0	0	Unknown	Unknown
Oil Pollution Act	NR	0	0	0	0	Unknown	Unknown
USTs	YES	363	150	75	75	Unknown	Unknown
Other (AST)	NR	212	300	200	215	Unknown	Unknown
Total		1,299	500	325	340	Unknown	Unknown

¹ Not Required

Provide a separate list of compliance projects in progress or required, with associated cost and estimated

start/completion date.

PROJECT	COMPLIANCE COST (\$K)	START DATE	COMP. DATE
Air - VOC & Emission Study	94	6/94	9/94
HW - RCRA Closure of sludge drying beds and polishing ponds of STP	10,000 est.	12/89	Unknown
PCB - Transformer change out (7)	416	10/93	3/94
CWA - Rework drainage area at Yardcraft for VPDES permit	189	10/93	5/94
USTs - Site remediations of leakers and UST replacements (21)	850	5/92	9/97
AST - 1.2 Million gallon tank leaker	1,400	6/92	2005

6b.

Does your base have structures containing asbestos? **Yes**. What % of your base has been surveyed for asbestos? **100%**. Are additional surveys planned? **Yes**¹. What is the estimated cost to remediate asbestos (\$K) **\$2,557***. Are asbestos survey costs based on encapsulation, removal or a combination of both?

Both.

¹ Although a "100%" survey was conducted, unsurveyed areas were discovered so additional surveys are planned.

* Dec 90 estimate by survey contractors for remaining all friable asbestos from the Dahlgren site.

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

\$K

Funding Source	FY92	FY93	FY94	FY95	FY96	FY97	FY98-99	FY00-01
O&MN	0	0	0	0	0	0	0	0
HA	0	0	0	0	0	0	0	0
PA	0	0	0	0	0	0	0	0
Other O&MN (specify)	0	0	0	0	0	0	0	0
Other (specify) DBOF	4,500	4,600	4,391	2,500	2,130	2,170	Unknown	Unknown
TOTAL	4,500	4,600	4,391	2,500	2,130	2,170	Unknown	Unknown

6d. Are there any compliance issues/requirements that have impacted operations and/or development plans at your base.

Sewage Treatment Plant

7. INSTALLATION RESTORATION

7a.

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

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

Site # or name	Type site ¹ See Note 1	Groundwater Contaminated?	Extends off base?	Drinking Water Source?	Cost to Complete (\$M)/Est. Compl. Date	Status ² /Comments See Note 1
BLDG 194 AA	SWMU 3	Unknown	No	No	0.08	
AIRPLANE PARK DUMP	SWMU 6	Unknown	No	No	5.00	
BLDG 120B DRMO LOT	SWMU 14	Unknown	No	No	0.40	
BLDG 120B CONTRACTOR STAGING AREA	SWMU 15	Unknown	No	No	0.20	
DISPOSAL/BURN AREA	SWMU 19	Unknown	No	No	3.20	
COMPOST AREA	SWMU 20	Unknown	No	No	0.20	
BLDG 456 OILY WASTE DRUM	SWMU 23	Unknown	No	No	0.02	
TANK 280 CONTRACTOR STAGING AREA	SWMU 27	Unknown	No	No	0.20	
CW EVAPORATION POND	SWMU 28	Unknown	No	No	0.50	
1400 AREA LANDFILL	SWMU 30	Unknown	No	No	3.20	
GAMBO CREEK TRUCK WASH AREA	SWMU 31	Unknown	No	No	0.20	
HIGLEY ROAD LAND APPLICATION AREA	SWMU 35	Unknown	No	No	0.20	
CHEMICAL BURN AREA	SWMU 44	Unknown	No	No	3.00	
JULY 28,1992 LANDFILL B	SWMU 45	Unknown	No	No	3.20	

Site # or name	Type site ¹ See Note 1	Groundwater Contaminated?	Extends off base?	Drinking Water Source?	Cost to Complete (\$M)/Est. Compl. Date	Status ² /Comments See Note 1
FENCED ORDNANCE BURIAL AREA	SWMU 46	Unknown	No	No	3.20	
JULY 28, 1992 LANDFILL A: STUMP DUMP ROAD	SWMU 47	Unknown	No	No	3.20	
GUN BARREL DECOPPERING AREA	SWMU 52	Unknown	No	No	0.20	
GUN BARREL DEGREASING AREA MAIN RANGE	SWMU 53	Unknown	No	No	0.50	
TERMINAL RANGE AIRPLANE PARK	SWMU 54	Unknown	No	No	2.00	
BLDG 445 STAR GAUGE LOADING DOCK	SWMU 57	Unknown	No	No	0.08	
PESTICIDE RINSE AREA	SWMU 66	Unknown	No	No	3.80	
BLDG 448 TAR TANK STORAGE AREA	SWMU 67	Unknown	No	No	0.06	
BLDG 152 TCA AA	SWMU 70	Unknown	No	No	0.08	
BLDG 480 LOT (PCB STORAGE)	SWMU 72	Unknown	No	No	0.50	
BLDG 1329 WASH AREA	SWMU 77	Unknown	No	No	0.08	
BLDG 1121 FORMER WASTE OIL UST	SWMU 78	Unknown	No	No	0.10	
BATTERY SERVICE AREA	SWMU 79	Unknown	No	No	0.50	
ELECTROPLATING LINE AND WWT	SWMU 82	Unknown	No	No	0.20	
FORMER ELECTROPLATING WASTE UST	SWMU 83	Unknown	No	No	0.20	
BATTERY LOCKER ACID DRAINING AREA	SWMU 98	Unknown	No	No	0.10	
BLDG 155 AUTO SHOP WASTE OIL FILTER AND UST	SWMU 101	Unknown	No	No	0.10	
LEAD COMTAMINATION AREA	SWMU 108	Unknown	No	No	5.00	
OWS 107-350	SWMU 125	Unknown	No	No	0.08	

Site # or name	Type site ¹ See Note 1	Groundwater Contaminated?	Extends off base?	Drinking Water Source?	Cost to Complete (\$M)/Est. Compl. Date	Status ² /Comments See Note 1
OVS 207-300	SWMU 126	Unknown	No	No	0.08	
OVS 1121-300, OVS 115-350, OVS 402-1,000, OVS 486-20,000	SWMU 127	Unknown	No	No	0.30	
OVS 1121-OLD	SWMU 128	Unknown	No	No	0.08	
COOLING POND	SWMU 129	Unknown	No	No	3.00	
YARDCRAFT OIL STORAGE AREA	SWMU 130	Unknown	No	No	0.08	
GAMBO CREEK COMPOST AREA	SWMU 131	Unknown	No	No	2.00	
GUN BARREL DEGREASING AREA RAILWAY SPUR	SWMU 132	Unknown	No	No	2.00	
OTTO FUEL SPILL	AOC A	Unknown	No	No	0.10	
FAST COOK-OFF PIT AND POND	AOC F	Unknown	No	No	3.00	
TRANSFORMER DRAINING AREA	AOC G	Unknown	No	No	0.50	
BLDG 1349 PEST CONTROL OUTSIDE AREA	AOC I	Unknown	No	No	0.20	
HIDEAWAY POND	AOC N	Unknown	No	No	2.00	
BLDG 1369 PESTICIDE SPILL AREA	AOC O	Unknown	No	No	0.10	
CLASSIFIED DOCUMENTS INCINERATOR SEWAGE HOLDING TANK	AOC X	Unknown	No	No	0.50	
TERMINAL RANGE BLDG 109	AOC Z	Unknown	No	No	1.00	
DU MOUND PUMPKIN NECK MIXED WASTE	OTHER UNITS C1	Unknown	No	No	1.00	
SCAR AT PHALANX TEST AREA	OTHER UNITS C3	Unknown	No	No	0.50	
DU CONTAMINATED FIRING RANGE MIXED WASTE	OTHER UNITS C4	Unknown	No	No	2.00	
SOUTH HANGAR FORMER TANK AREA	ADDITIONAL AREAS X6	Unknown	No	No	0.20	

Site # or name	Type site ¹ See Note 1	Groundwater Contaminated?	Extends off base?	Drinking Water Source?	Cost to Complete (\$M)/Est. Compl. Date	Status ² /Comments See Note 1
OPEN STORAGE AREA MAIN BATTERY	ADDITIONAL AREAS X7	Unknown	No	No	2.50	
FILL AREA NORTHEAST EEA (OBJECTS)	ADDITIONAL AREAS X9	Unknown	No	No	3.20	

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

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

Note 1. Solid Waste Management Units listed are described in Draft Installation Restoration Site Management Plan and are included in the Federal Facilities Agreement which is presently being negotiated between Navy and EPA.

7c. Have any contamination sites been identified for which there is no recognized/accepted remediation process available? List.

Yes. Unexploded Ordnance Sites.

7d.

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

State scope and expected length of pump and treat operation.

Pump and Treat System in place for AST (1.2 million gallon tank leak). Expect the system to continue at least 10 years.

7e.

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

7f. Does your base operate any conforming storage facilities for handling **hazardous materials**?
If YES, describe facility, capacity, restrictions, and permit conditions.

Yes.

(3) - Hazmat Storage Lockers, 10' x 20' each.

(7) - Hazmat Storage Lockers, 12' x 18' each.

No permits required.

7g. Does your base operate any conforming storage facilities for handling **hazardous waste**? If YES, describe facility, capacity, restrictions, and permit conditions.

Yes.

(2) - Permitted Explosive Waste Magazines - solids only.

(10) - Less than 90-day facilities

(1) - Tank

(5) - Haz Waste

(4) - Explosive Haz Waste

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

Yes. Auto Hobby Shop. Petroleum contamination found; being investigated through VA (state) guidance.

7i.

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

(1) DU Gun Butt - Site contamination from 20 mm rounds at Machine Gun Battery.

(2) DU Mound at EEA - Contaminated site.

7j. Have any base operations or development plans been restricted due to Installation Restoration considerations?

There have been no serious restrictions to base operations or development plans due to Installation Restoration considerations to date. Siting decisions are made with Installation Restoration sites addressed. This does not preclude a change once our Federal Facilities Agreement is signed.

7k. List any other hazardous waste treatment or disposal facilities not included in question 7b. above. Include capacity, restrictions and permit conditions.

None

8. LAND / AIR / WATER USE

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

Parcel Descriptor	Acres	Location
Main Site	2677.67	Dahlgren, VA
Pumpkin Neck	1641.00	Dahlgren, VA
Wallops Island	0.06	Wallops Island, VA
RANGE STATIONS		
Kidd Station 29	0.01	Potomac River Test Range
St. Marys Station 46	0.05	Potomac River Test Range
Copsico Station 37A	0.01	Potomac River Test Range
Cabin Pt. Station 39A	0.01	Potomac River Test Range
Coles Pt. Station 41	0.05	Potomac River Test Range
Colonial Beach	0.61	Potomac River Test Range
Wakefield	0.01	Potomac River Test Range
Muse Beach	1.10	Potomac River Test Range
Stoney Point/Ninde	0.02	Potomac River Test Range
Charles MD	0.01	Potomac River Test Range
Stratford Hall	0.01	Potomac River Test Range
OFFICE BUILDINGS		
Bayberry	6,240 gross sq ft	Dahlgren, VA
Potomac Professional Bldg	2,593 gross sq ft	Dahlgren, VA

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

LAND USE CATEGORY		ACRES
Total Developed: (administration, operational, housing, recreational, training, etc.)		442.9
Total Undeveloped (areas that are left in their natural state but are under specific environmental development constraints, i.e.: wetlands, endangered species, etc.)		Wetlands: 675
		All Others: 191
Total Undeveloped land considered to be without development constraints, but which may have operational/man caused constraints (i.e.: HERO, HERF, HERP, ESQD, AICUZ, etc.) TOTAL		2837
Total Undeveloped land considered to be without development constraints		175
Total Off-base lands held for easements/lease for specific purposes		2.04
Breakout of undeveloped, restricted areas. Some restricted areas may overlap:	ESQD	1000
	HERF	206
	HERP	206
	HERO	206
	AICUZ	0
	Airfield Safety Criteria	107
	Other	2294 ¹

¹ Other consists of 625 acres in a forestry program, 28 acres dedicated to hunting and fishing, and 1641 acres contaminated with unexploded ordnance.

8c. How many acres on your base (includes off base sites) are dedicated for training purposes (e.g., vehicular, earth moving, mobilization)? This does not include buildings or interior small arms ranges used for training purposes. None

8d. What is the date of your last AICUZ update? N/A¹ ___/___/___ Are any waivers of airfield safety criteria in effect on your base? YES Summarize the conditions of the waivers below.

¹ AICUZ study has not been necessary because of limited nature of air operations.

WAIVER NO.

DESCRIPTION

D-1

To permit the obstructions of roads, trees, fences, and other facilities to remain in the end and approach zones of R/W 9 (01/10/67)

- D-2** To permit the obstructions of roads, trees, buildings, and other facilities, to remain in the end and approach zones of R/W 27 (01/10/67)
- D-3** To permit the obstructions of roads, trees, parking area, buildings, and other facilities to remain above the horizontal and transitional surfaces along R/W 9-27 (01/10/67)
- D-4** To permit the obstructions of roads, trees, buildings, ammunition and missile preparation areas, railroads, fences, and other facilities to remain in the end and approach zones of R/W 16 (01/10/67)
- D-5** To permit the obstructions of roads, fences, buildings, ammunition storage, railroads, and other facilities to remain in the end and approach zones of R/W 34 (01/10/67)
- D-6** To permit the obstructions of roads, railroads, trees, parking area, buildings, and other facilities to remain above the horizontal and transitional surfaces along R/W 16-34 (01/10/67)
- D-7**
(Temporary) To temporarily permit the obstructions (Temporary) of roads, railroads, trees, building and other facilities to remain above the horizontal and transitional surfaces and the end and approach zones of R/W 18-36 until such time as R/W 18-36 is officially closed (01/10/67 through 01/13/7?) (has been cancelled)
- D-8** To permit Building 9460 (50.5 ft. long, 40 ft. wide, 20 ft. high) to remain in Type I Clear Zone at the Runway 34 end. The building is located 875 ft. (scaled) outboard the Runway 34 end and 255 ft. (scaled) east of the Runway 16-34 centerline. (11/29/79)
- D-8** To permit the conversion of a grassed island in existing parking area north of Building 244, to a paved parking area; to permit the erection of a nine foot high security fence around the parking area; and to permit the mounting of directional security lights on existing buildings. (08/14/89) (NAVAIR to correct dual numbering of waivers)
- D-9** To permit a 57 ft. high AN/SPS-30 radar tower to penetrate the 7:1 transitional surface of Runway 16-34 by 9 feet. The tower is located 2,330 ft. outboard the Runway 34 end and 1,032 ft. southwest of the Runway 16-34 centerline. (04/24/81)
- D-11** To permit the location of an Automated Weather Observation System on the southeastern edge of the clear zone of runway 16 and about 625

feet inboard of the threshold, the applicable requirements of NAVFAC P-80.3 are waived provided the highest point of the equipment is less than thirty feet above ground level. (approved 13 Mar 92)

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

Acreage/Location/ID	Zones 2 or 3	Land Use	Compatible/ Incompatible
None			

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

Not Applicable. We do no maintenance dredging

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

8g. Summarize planned projects through FY 1997 requiring **new channel or berthing area** dredged depths, include location, volume and depth.

None

8h.

Are there available designated dredge disposal areas for maintenance dredging material? List location, remaining capacity, and future limitations.	None
Are there available designated dredge disposal areas for new dredge material? List location, remaining capacity, and future limitations.	None
Are the dredged materials considered contaminated? List known contaminants.	N/A

8.i. List any requirements or constraints resulting from consistency with **State Coastal Zone Management Plans**.

None.

8j. Describe any **non-point source pollution problems affecting water quality** ,e.g.: coastal erosion.

Unknown. Installation Restoration sites under investigation.

8k.

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

8l. List any other areas on your base which are indicated as protected or preserved habitat other than threatened/endangered species that have been listed in Section 1. List the species, whether or not treated, and the acres protected/preserved.

Operations can be impacted seasonally due to nesting season from Migratory Birds Treaty Act.

9. WRAPUP

9a. Are there **existing or potential environmental showstoppers** that have affected or will affect the accomplishment of the installation mission that have not been covered in the previous 8 questions?

Federal Facility Agreement negotiations may include Solid Waste Management Units which are on active Ranges.

9b. Are there any **other environmental permits** required for base operations, include any relating to industrial operations.

R&D sometimes requires other waters and wetlands permits which are coordinated through the VA Marine Resources Commission.

9c. Describe any **other environmental or encroachment restrictions** on base property not covered in the previous 8 sections.

Continued commercial, housing and industrial growth at the base perimeters as well as increased recreational use of the Potomac River are factors to be considered.

9d. List any **future/proposed laws/regulations or any proposed laws/regulations** which will constrain base operations or development plans in any way. Explain.

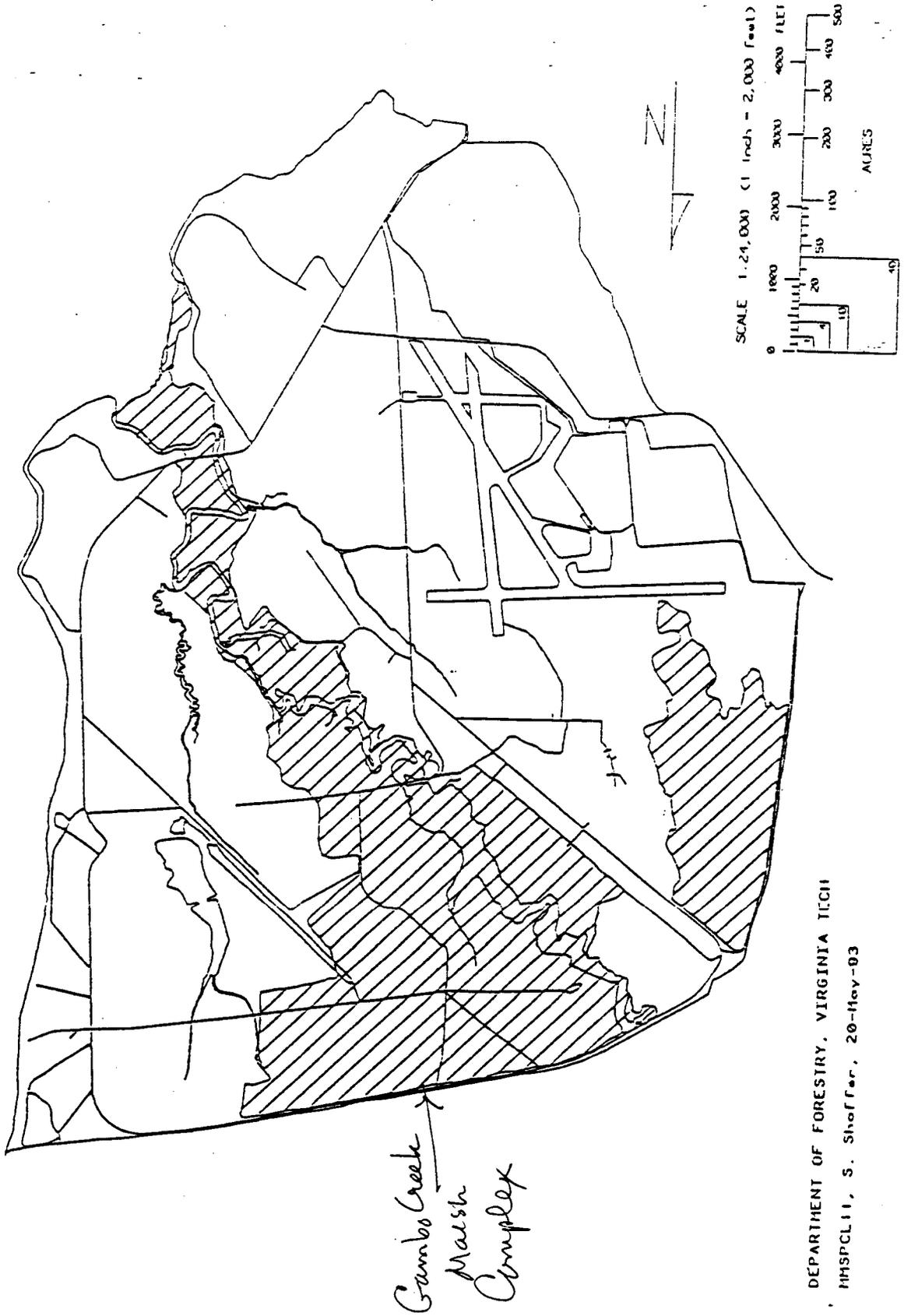
- (1) Federal Facility Compliance Act - Munitions regulations, when published.**
- (2) VA - CAA implementation regs, when published.**

APPENDIX A

Figure 6. NSWCDL, Mainside Special Interest Areas
Figure 8. NSWCDL, Pumpkin Neck Special Interest Areas

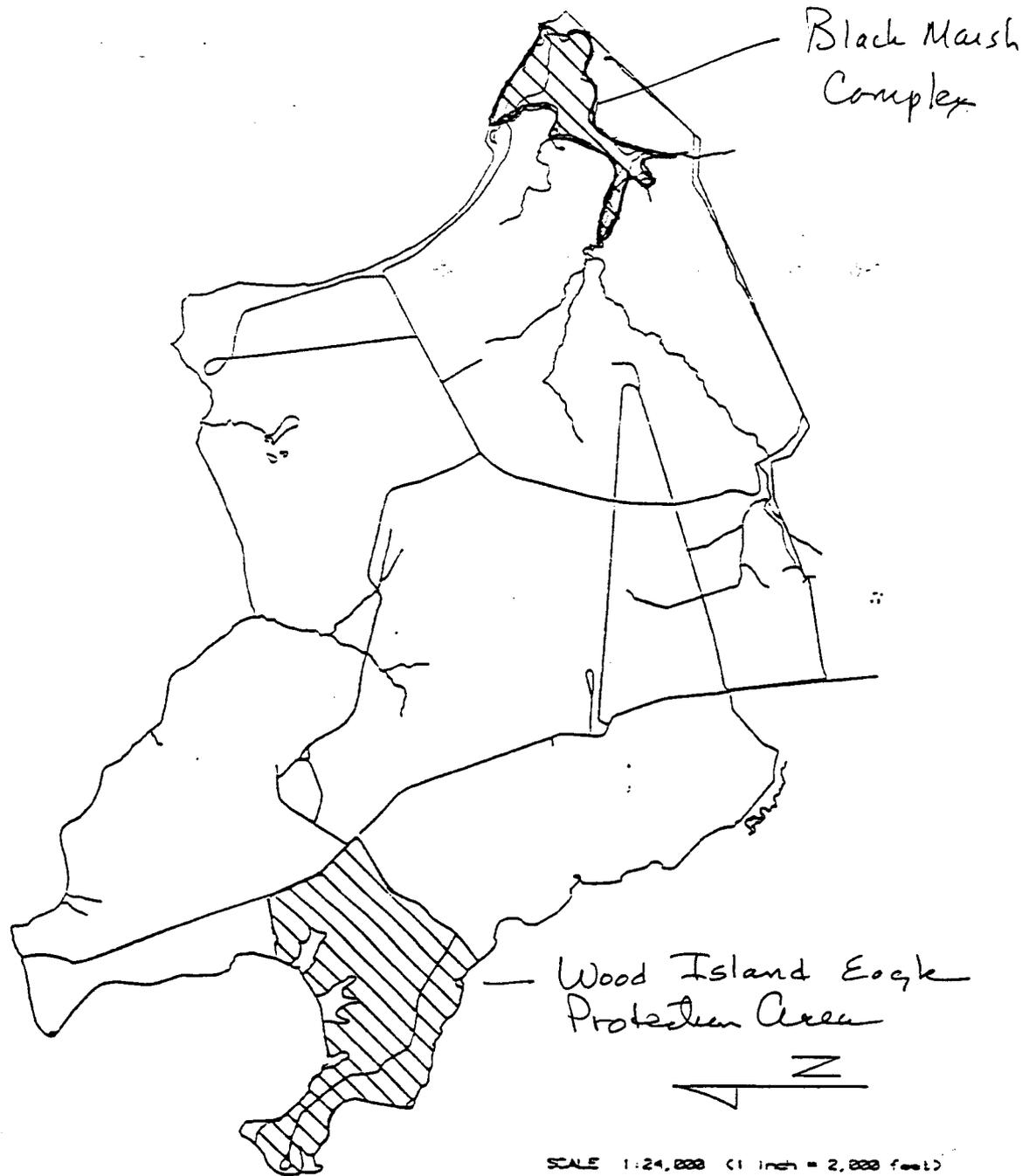
NSWCDL, Mainside Wetland Areas
NSWCDL, Pumpkin Neck Wetlands

Figure 6. NSWCDL, Mainside
Special Interest Areas

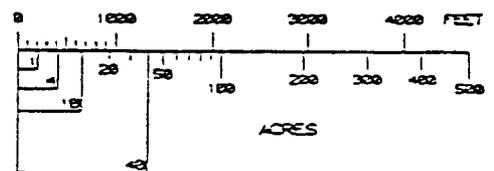


DEPARTMENT OF FORESTRY, VIRGINIA TECH
HMSPCL11, S. Shaffer, 20-May-03

Figure 8. NSWCDL, Pumpkin Neck
Special Interest Areas

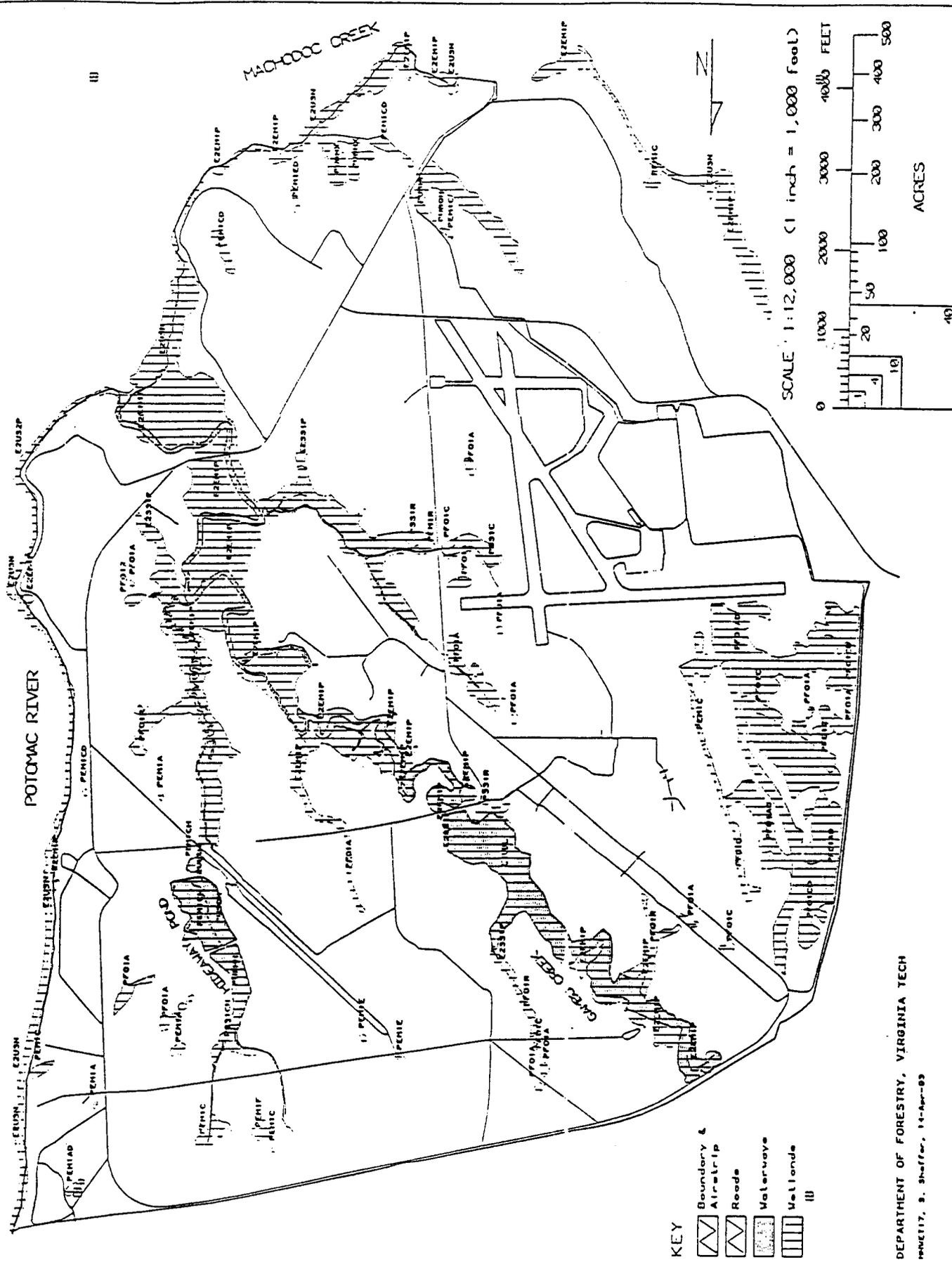


SCALE 1:24,000 (1 inch = 2,000 feet)



DEPARTMENT OF FORESTRY, VIRGINIA TECH
PHSPCL11, S. Sheffer, 21-Nov-93

NSWCDL, Mainside, Wetland Areas

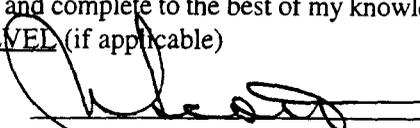


- KEY**
- Boundary & Airstrip
 - Roads
 - Waterways
 - Wetlands III

DEPARTMENT OF FORESTRY, VIRGINIA TECH
 WME117, S. Shaffer, 11-Apr-89

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.
NEXT ECHELON LEVEL (if applicable)

N. S. SCOTT, CAPT. USN
NAME (Please type or print)


Signature

COMMANDER
Title

31 May 94
Date

NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION
Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.
NEXT ECHELON LEVEL (if applicable)

RADM (SEL) D. P. SARGENT, JR.
NAME (Please type or print)

Signature

COMMANDER
Title

Date

NAVAL SURFACE WARFARE CENTER
Activity

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

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

NAME (Please type or print)

Signature

Title

Date

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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

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

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

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

ACTIVITY COMMANDER

N. S. SCOTT, CAPT. USN
NAME (Please type or print)


Signature

COMMANDER
Title
NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION
Activity

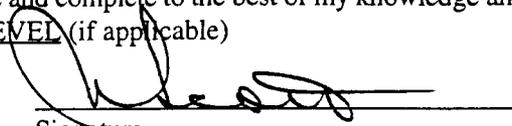
31 May 94
Date

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

NEXT ECHELON LEVEL (if applicable)

N. S. SCOTT, CAPT, USN
NAME (Please type or print)

Signature



COMMANDER
Title

Date

31 May 94

NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION
Activity

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

NEXT ECHELON LEVEL (if applicable)

RADM (SEL) D. P. SARGENT, JR.
NAME (Please type or print)

Signature

COMMANDER
Title

Date

NAVAL SURFACE WARFARE CENTER
Activity

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

MAJOR CLAIMANT LEVEL

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.

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

NAME (Please type or print)

Signature

Title

Date

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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

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

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

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

ACTIVITY COMMANDER

N. S. SCOTT, CAPT. USN
NAME (Please type or print)


Signature

COMMANDER
Title
NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION
Activity

31 May 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)

N. S. SCOTT, CAPT, USN

NAME (Please type or print)

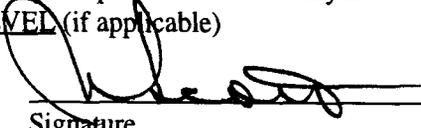
COMMANDER

Title

NAVAL SURFACE WARFARE CENTER

DAHLGREN DIVISION

Activity


Signature

31 May 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)

RADM (SEL) D. P. SARGENT, JR.

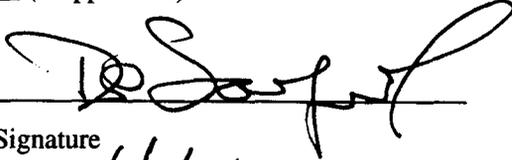
NAME (Please type or print)

COMMANDER

Title

NAVAL SURFACE WARFARE CENTER

Activity


Signature

6/3/94
Date

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

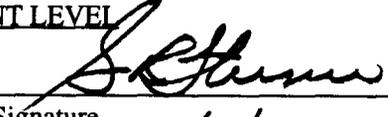
MAJOR CLAIMANT LEVEL

G. R. STERNER

NAME (Please type or print)

Commander
Naval Sea Systems Command

Activity


Signature

6/2/94
Date

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

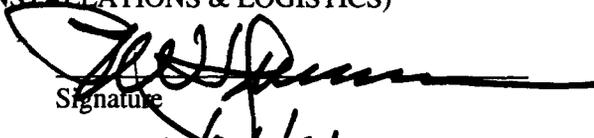
DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

P. W. DRENNON

NAME (Please type or print)

ACTING

Title


Signature

6/24/94
Date

DATA CALL #33
DAHLGREN SITE

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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

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

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

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

ACTIVITY COMMANDER

N. S. SCOTT, CAPT. USN
NAME (Please type or print)


Signature

COMMANDER
Title
NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION
Activity

31 May 94
Date

Document Separator

203

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

NEXT ECHELON LEVEL (if applicable)

NAME (Please type or print)

Signature

Title

Date

Activity

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

NEXT ECHELON LEVEL (if applicable)

Dr. Ira M. Blatstein
NAME (Please type or print)

Ira M Blatstein
Signature

Technical Director
Title

10/28/94
Date

Naval Surface Warfare Center
Activity

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

MAJOR CLAIMANT LEVEL

NAME (Please type or print)

G R Sterner
Signature

G. R. STERNER
Title
Commander
Naval Sea Systems Command

10/28/94
Date

Activity

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

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

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

W A Earner
Signature

Title

11/7/94
Date

DATA CALL #12, AMEND 1
LJCSG PRESENTATION
DAHLGREN
"ENERGETICS"

BRAC-95 CERTIFICATION

Submission of Data Call #12 Amendment #1, Presentation Package for Naval Surface Warfare Center, Dahlgren Division, Dahlgren Site

Reference: SECNAVNOTE 11000 of 08 December 1993

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

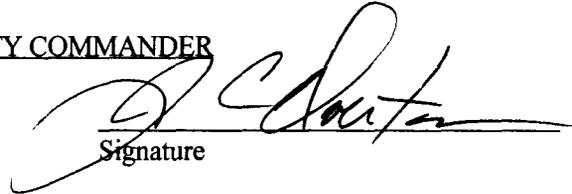
The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

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

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

ACTIVITY COMMANDER

J. C. OVERTON, CAPT, USN
NAME (Please type or print)


Signature

COMMANDER
Title

27 Oct 94
Date

NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION
Activity

NAVAL SEA SYSTEMS COMMAND



NAVAL SURFACE
WARFARE CENTER

DAHLGREN DIVISION



Presented to:

ENERGETICS CROSS-SERVICE ANALYSIS TEAM

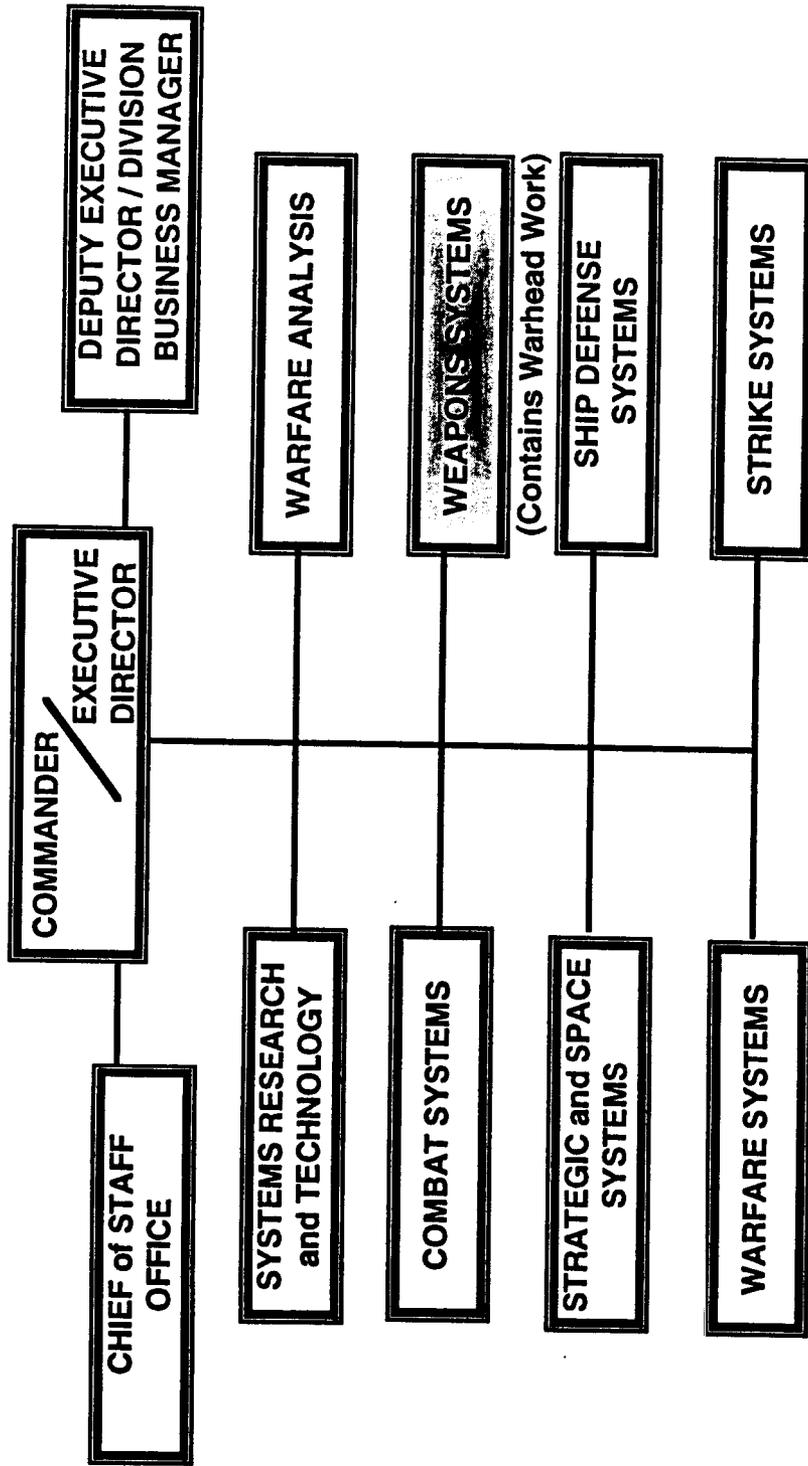
20 OCTOBER 1994



THE MESSAGE

- **DAHLGREN DIVISION CURRENTLY HAS WORLD CLASS CAPABILITY IN**
 - **MISSILE WARHEAD DEVELOPMENT**
 - **TARGET VULNERABILITY/SYSTEM EFFECTIVENESS**
 - **MISSILE WARHEAD TESTING**
- **THIS CAPABILITY CRITICAL FOR COMPLETING DAHLGREN DIVISION *COMPLEX SYSTEMS ENGINEERING* MISSION BY PROVIDING THE NECESSARY *ENGAGE ELEMENT* OF THE SENSE-CONTROL-ENGAGE SYSTEM PARADIGM**
- **1991 NAVY CONSOLIDATION DECISION DIRECTS NAVY MISSILE WARHEAD LEADERSHIP TO DAHLGREN DIVISION**
- **COMPLEMENTS EXPERTISE OF THE INDIAN HEAD AND CRANE DIVISIONS OF NSWC**
- **DAHLGREN DIVISION AVAILABLE FOR EXPANSION OF WARHEADS AND VULNERABILITY EFFORTS**

DAHLGREN SITE



MAJOR TENANTS: AEGIS Training Center 297 WYs
Naval Space Command 342 WYs
Joint Warfare Analysis Center 265 WYs



WARHEADS MAJOR FY93 PROGRAMS

WARHEADS	<u>FUNDING (\$K)</u>
INDEPENDENT RESEARCH	64
SURFACE WEAPONS TECHNOLOGY	1640
MATERIALS TECHNOLOGY	1200
INSENSITIVE MUNITIONS ADV. DEV.	5632
DIRECTIONAL ORDNANCE SYSTEM	1500
PHOENIX	25
SPARROW	10
PATRIOT	365
STANDARD MISSILE	4000
DEFENSE NUCLEAR AGENCY	75
NORWAY (FMS)	15
EVOLVED SEA SPARROW	25
AMRAAM	60
TOMAHAWK	15
OTHER TESTING	300
"SPECIAL" JOINT WARFARE PROGRAMS	CLASSIFIED
SMAW	1600
SRAW	1200
SRAW-MP	3000
JAVELIN	175
DECOYS	<u>3500</u>
	\$24,276

TOTAL FY93 FUNDING: \$29,971K

TARGET VULNERABILITY AND SYSTEM EFFECTIVENESS	<u>FUNDING (\$K)</u>
SURFACE WEAPONS TECHNOLOGY	511
CLOSE IN WEAPON SYSTEM	483
JOINT TECHNICAL COORDINATING GROUP	761
JOINT LIVE FIRE	210
SOVIET SHIP VULNERABILITY	160
PROTEC	210
ETG	160
STANDARD MISSILE	1629
DIRECTIONAL ORDNANCE SYSTEM	100
TACTICAL BALLISTIC MISSILE DEFENSE	425
EVOLVED SEASPARROW MISSILE	216
STANDARD ENGINEERING TEST TARGET	410
OTHER	<u>420</u>
	\$5,695

SPONSORS

- * OFFICE OF NAVAL RESEARCH
- * US MARINE CORPS
- * PEO (TAD)
- * PEO (CU)
- * JOINT WARFARE ANALYSIS CENTER
- * NAVSEA-91WM
- * NAVAIR
- * US ARMY (PATRIOT PROJECT OFFICE)
- * US AIR FORCE (AMRAAM)
- * DEFENSE NUCLEAR AGENCY
- * NORWAY (FMS)



WARHEAD RESEARCH AND DEVELOPMENT FACILITIES

<u>SPACE TYPE</u>	<u>MAJOR EQUIPMENT</u>	<u>SQUARE FEET</u>	<u>ORIGINAL COST</u>	<u>REPLACEMENT COST</u>
LABORATORY				
WARHEAD ASSEMBLY (4)	GENERAL LAB EQUIP CLASSIFIED STORAGE	3238	\$190K	\$460K
WARHEAD STRUCTURAL (2)	BEND TEST FIXTURE	1169	\$80K	\$630K
WARHEAD ANALYSIS	SILICON GRAPHICS WORKSTATIONS IMAGE ANALYZER	293	\$115K	\$250K
GAS GUN	SINGLE STAGE GAS GUN HIGH SPEED INSTRUMENTATION	9000	\$800K	\$2000K
MATERIAL TEST	SCANNING ELECTRON MICROSCOPE OPTICAL MICROCOPY INSTRON TEST MACHINE TINIUS OLSON TEST MACHINE	4495	\$600K	\$955K
SMART MUNITION LAB	RATE TABLE	2715	\$1800K	\$3750K
EXPLOSIVE OPERATION LAB	CLASSIFIED ENERGETIC ASSEMBLY	2006	\$80K	\$2000K
VULNERABILITY ANALYSIS LAB	VAX COMPUTER/WORKSTATIONS	1000	\$300K	\$600K
GENERAL OFFICE		9496		
OTHER				
SUPPORT ENGINEERING (CM, QA, CAD, SAFETY)	SILICON GRAPHICS WORKSTATIONS HEWLETT PACKARD WORKSTATION SUN WORKSTATIONS COMPUTERVISION/PROENGINEER	1775	\$1500K	\$2500K
TOTAL:		35,187 SQ FT	\$5,465K	\$13,145K



WARHEADS WORK YEARS

FY93

TYPE CATEGORY	GOVERNMENT	FFRDC ON-SITE	FFRDC OFF-SITE	CONTRACT SUPPORT ON-SITE	CONTRACT SUPPORT OFF-SITE
S&T	78	0	0	0.5	20
ENGINEERING DEVELOPMENT	92	0	0	2	7
PRODUCTION	25	0	0	0	7
IN-SERVICE ENGINEERING	16	0	0	1	0
OTHER		0	0	0	0
TOTAL	211	0	0	3.5	34



WARHEAD TEST AND EVALUATION FACILITIES

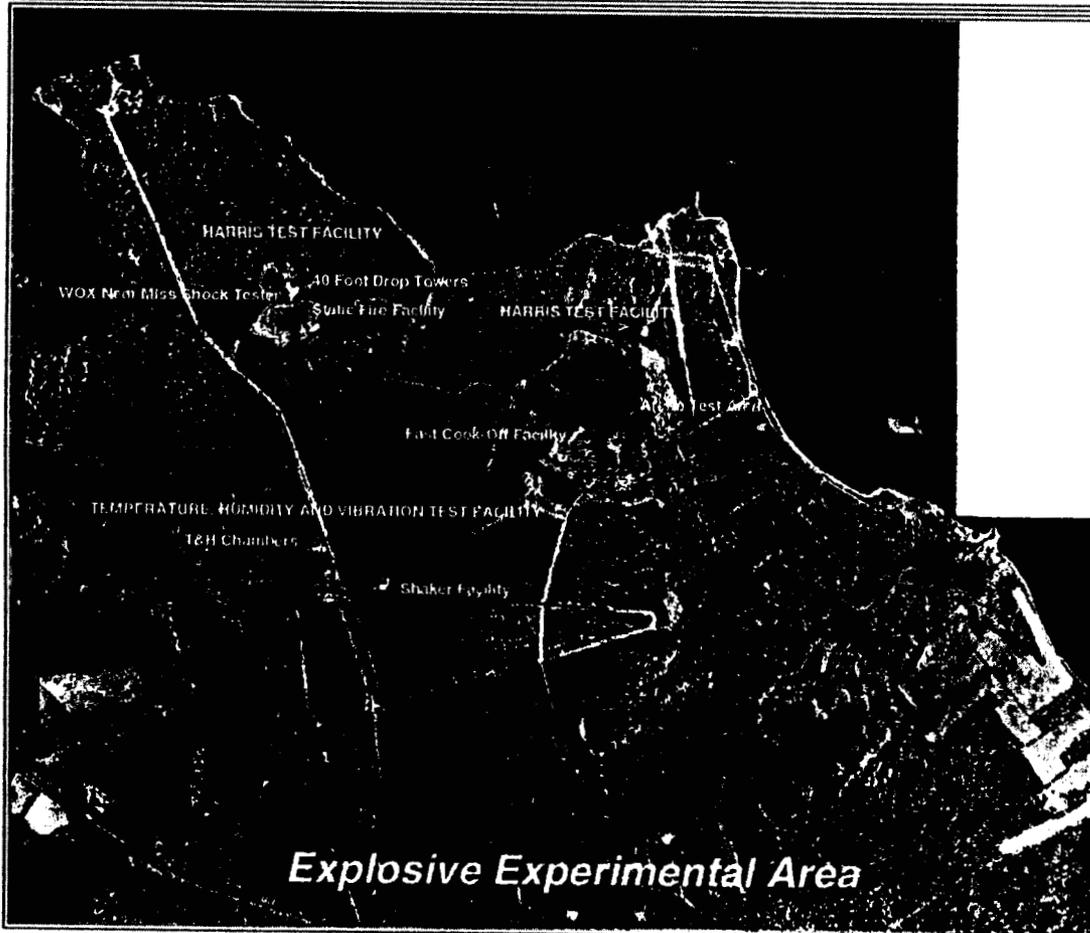
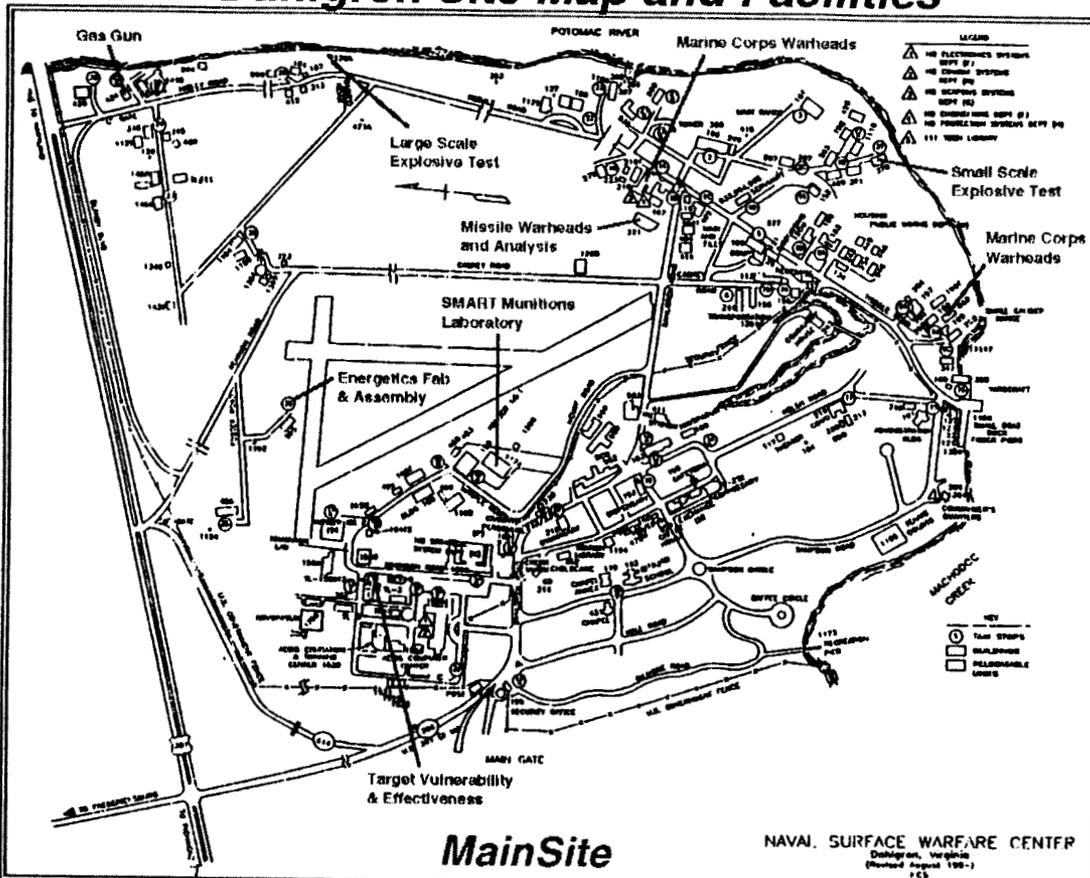
<u>SPACE TYPE</u>	<u>MAJOR EQUIPMENT</u>	<u>SQUARE FEET</u>	<u>ORIGINAL COST</u>	<u>REPLACEMENT COST</u>
LABORATORY				
DESIGN FACILITIES	COMPUTER SYSTEMS AND EQUIP	3487		\$436K
SAFETY BUNKERS	FIRING CONSOLES AND SEQUENCERS	2000		\$1012K
FRAG ANALYSIS FACILITY	CLEANING EQUIP AND PRECISION SCALES	1200		\$150K
SHAKER LABS	CONTROL EQUIP, UD-4000 SHAKER	1482		\$492K
SHOCK LABS	CONTROL AND RECORDERS	1866		\$358K
TEMP & HUMIDITY	4-WALK-IN COMPUTER CONTROLLED	3720		\$1953K
FAST COOK-OFF	30' TEST PAN AND RECORDERS	1600		\$320K
12 METER DROP CAGE	100' DROP TOWER AND CAPTURE CAGES	1600		\$1200K
NEAR MISS SHOCK TEST	SHOCK TESTER AND RECORDERS	750		\$600K
STATIC FIRE ARENA	FULLY INSTRUMENTED ARENA SITE	2000		\$750K
OVERPRESSURE TEST ARENA	FULLY INSTRUMENTED GRID SYSTEM	325		\$100K
STATIC FIRE TEST	100K LBS THRUST STAND	750		\$200K
100 FOOT DROP TOWER	100' DROP TOWER AND IMPACT AREA	900		\$180K
SLOW COOK OFF	COMPUTER CONTROLLED FULLY AUTO	400		\$150K
MULTI BULLET IMPACT	3-50 CAL GUN SPECIAL DESIGN	200		\$160K
MEDIUM WEIGHT SHOCK MACHINE	NEW SYSTEM (TO BE INSTALLED)	200		\$1100K
SUPPORT EQUIPMENT	FIBER OPTIC LINK AND INSTRUMENTATION			\$6925K
ORDNANCE RADIOGRAPHY	INDUSTRIAL X-RAY	1000		\$1000K
SMALL SCALE EXPLOSIVE TEST	FLASH X-RAY	4000		\$1000K
LARGE SCALE EXPLOSIVE TEST	ULTRA HIGH SPEED PHOTO	4000		\$600K
OTHER				\$2237K
GENERAL OFFICE				
		<u>2000</u>		
	TOTAL:	33,480 SQ FT		<u>\$20,923K</u>
OTHER				
EXPLOSIVE EXPERIMENTAL AREA	FULLY INSTRUMENTED SECURE 8,000 FEET AIR SPACE	1642 ACRES		
POTOMAC RIVER TEST RANGE	26 MILES LONG 5 MILES WIDE 60,000 FEET AIR SPACE	41,550 ACRES		

USED FOR CERTAIN OVER WATER
UNIQUE TEST REQUIREMENTS

IRREPLACABLE



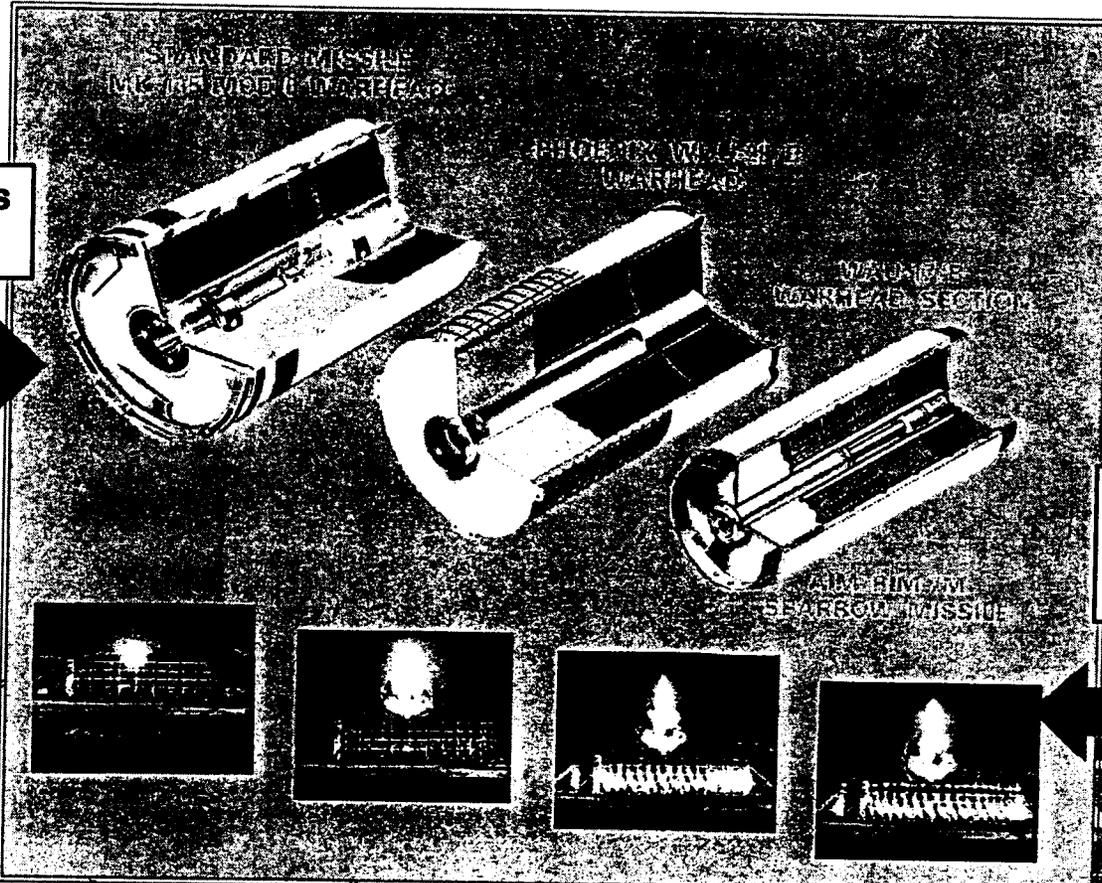
Dahlgren Site Map and Facilities



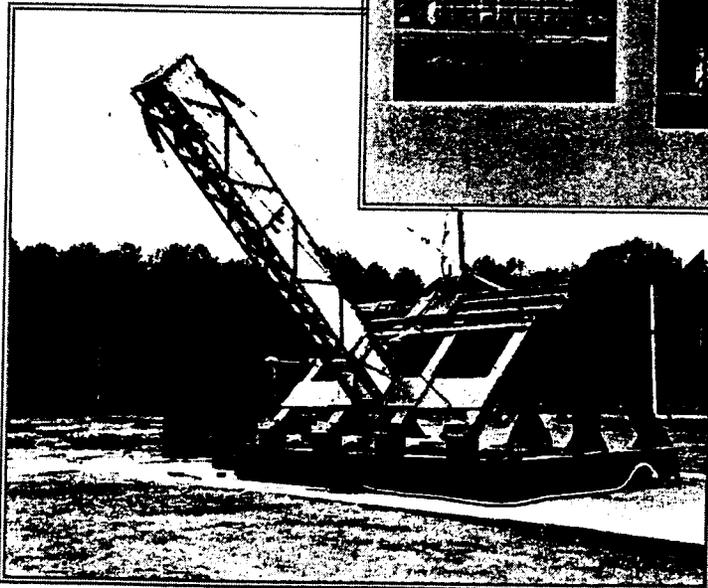


Warhead Programs and Facilities

**Warhead Products
To The Fleet**

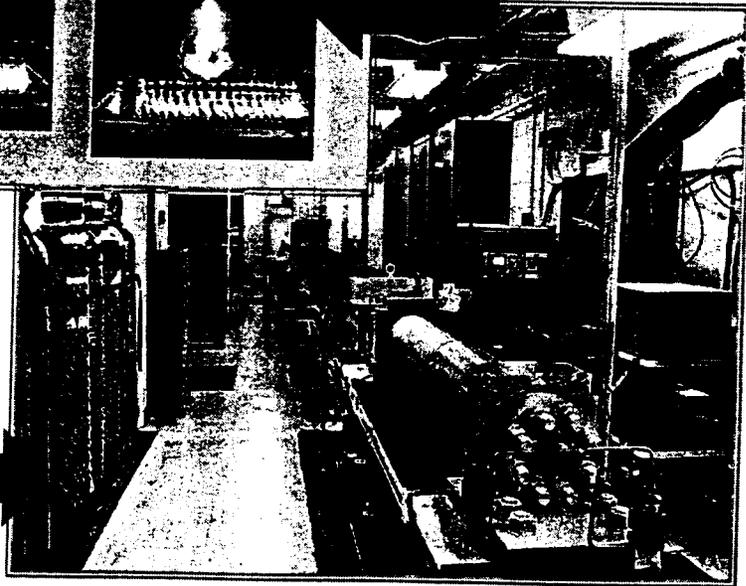


**Arena Testing
For Warhead
Characterization**



**Near Miss Shock
Equipment With Live
Standard Missile in
Canister
Unique vs Capability**

**Gas Gun Research
Facility For Impact
Dynamics Studies**





WORLD CLASS CAPABILITY

- **DAHLGREN DIVISION MAINTAINS A WORLD CLASS CAPABILITY FOR COMBAT SYSTEM ENGAGEMENT RESEARCH AND DEVELOPMENT**
 - WARHEAD SYSTEM DESIGN AND DEVELOPMENT
 - WARHEAD SYSTEM TEST AND EVALUATION
 - TARGET VULNERABILITY EVALUATION AND THREAT MODELING
 - SURFACE SHIP MISSILE SYSTEMS EFFECTIVENESS

- **ENABLING THE CAPABILITY IS EXPERIENCED PERSONNEL BASE**
 - 117 S&E (PHYSICISTS, MECHANICAL ENGINEERS, SYSTEM ANALYSTS)
 - 6 PhD
 - 15 MASTERS
 - SPECIFIC WARHEAD AND INSTRUMENTATION TRAINING AND EXPERTISE (NOT TAUGHT IN ACADEMIA)
 - 1767 WORK YEARS EXPERIENCE

 - 85 ENGINEERING TECHNICIANS SKILLED IN
 - EXPLOSIVE TEST
 - HIGH SPEED INSTRUMENTATION
 - ORDNANCE HANDLING
 - 2206 WORK YEARS EXPERIENCE
 - TERMINAL BALLISTICS

 - 10 SPECIALTY SCIENTISTS AND ENGINEERS
 - CONFIGURATION MANAGEMENT
 - COMPUTER AIDED DESIGN
 - 200 WORK YEARS EXPERIENCE
 - ELECTROMAGNETIC COMPATIBILITY
 - QUALITY ASSURANCE, DRAFTING
 - SAFETY
 - DAHLGREN DIVISION IS CERTIFYING AUTHORITY FOR ALL SHIPBOARD APPLICATION OF ORDNANCE

- **ENABLING FACILITIES**
 - 68,667 SQUARE FEET OFFICE AND LAB SPACE
 - \$34,068K EQUIPMENT REPLACEMENT COST
 - 43,192 ACRES TEST RANGES
 - UNIQUE FACILITIES (RIVER RANGE, SHOCK TEST MACHINE, BARBETTES)



MAJOR FACILITIES AND EQUIPMENT SUMMARY

- **NATIONALLY UNIQUE CAPABILITIES**
 - NEAR MISS SHOCK SIMULATOR
 - BARBETTES FOR WARHEAD TESTS WITHIN BLAST RADIUS
 - 26 MILE OVER WATER POTOMAC RIVER TEST RANGE (60,000 FEET AIR CLEARANCE)

- **MAJOR WARHEAD DEVELOPMENT LABORATORIES**
 - WARHEAD ASSEMBLY AND ANALYSIS
 - MATERIAL TEST FACILITIES
 - GAS GUN
 - SMART MUNITION LABORATORY
 - WARHEAD STRUCTURAL ANALYSIS
 - WEAPON SYSTEM ASSEMBLY (3)
 - CLASSIFIED THREAT MATERIAL STORAGE
 - COMPUTER LABORATORY

- **ENERGETIC AND ORDNANCE HANDLING INFRASTRUCTURE**
 - 53 CERTIFIED STORAGE MAGAZINES
 - EXPLOSIVE SYSTEM FABRICATION AND ASSEMBLY
 - SAFETY AND PERSONNEL CERTIFICATION PROGRAM (>100 TRAINED PERSONNEL)

- **WARHEAD SYSTEM TEST**
 - SMALL SCALE TO LARGE SCALE (1000 LB) ENERGETIC DETONATION CAPABILITY ALLOWS SMALL SCALE TEST THROUGH END ITEM SAFETY QUALIFICATION (1642 ACRES - 8000 FEET AIR CLEARANCE)
 - COMPLETE INSTRUMENTATION SYSTEMS
 - HIGH SPEED PHOTOGRAPHY
 - FLASH X-RAY
 - ARENA TESTING
 - SHAKE TABLES
 - VELOCITY AND PRESSURE SENSORS
 - ENVIRONMENTAL CONDITIONERS
 - TARGET VULNERABILITY TESTING
 - SHOCK MACHINES



EXPANSION CAPABILITY

- **DAHLGREN DIVISION CAN EXPAND TO ABSORB ADDITIONAL WARHEAD AND VULNERABILITY WORK WITH EXISTING FACILITIES**
 - **OFFICE SPACE IS AVAILABLE**
 - **INFRASTRUCTURE CURRENTLY EXISTS**
 - **FOUNDATION OF EDUCATED/TRAINED/SKILLED WORKFORCE**
 - **ENERGETIC MATERIAL TEST AND EVALUATION**
 - **TARGET VULNERABILITY AND PERFORMANCE ASSESSMENT**
 - **SECURITY**
 - **CONTRACTS**
 - **ENERGETIC MATERIAL HANDLING**
 - **SPECIALTY ENGINEERING**
 - **PROXIMITY TO ENERGETIC MATERIAL EXPERTISE AT INDIAN HEAD ENHANCES TECHNICAL SYNERGISM**
 - **COMPLEX SYSTEM MISSION RELEVANCE**

- **DAHLGREN LOCATION EXPERTISE ALREADY SUPPORTS OTHER SERVICE WARHEAD PROGRAMS**
 - **AMRAAM (AIR FORCE/NAVY)**
 - **PATRIOT (ARMY)**
 - **JAVELIN (ARMY)**
 - **SRAW/SMAW (MARINE CORPS)**
 - **PRINCIPAL US GROUP FOR AIR TARGET VULNERABILITY**

- **DAHLGREN DIVISION IS NATIONAL ASSET FOR THREAT CRUISE MISSILE VULNERABILITY DATA**
 - **USED BY NAVY, ARMY, AIR FORCE, BMDO**



DAHLGREN DIVISION IMPACT OF BRAC 91 AND 93 DECISIONS

- **NAVY CONSOLIDATION DECISION OF FY91 DIRECTS MISSILE WARHEAD LEADERSHIP FUNCTIONS TO DAHLGREN DIVISION**
- **BRAC 91 AND 93 HAD NO DIRECT IMPACT ON WARHEAD WORK AT DAHLGREN LOCATION**
- **BRAC 93 MOVE OF EXPLOSIVES AND UNDERWATER WARHEADS TO INDIAN HEAD AFFECTS DAHLGREN FAVORABLY**
 - **GEOGRAPHICALLY 30 MILES SEPARATION**
 - **RIVER AVAILABLE TO TRANSPORT SENSITIVE ORDNANCE**



DAHLGREN DIVISION TECHNOLOGY TO THE FLEET

DELIVERIES

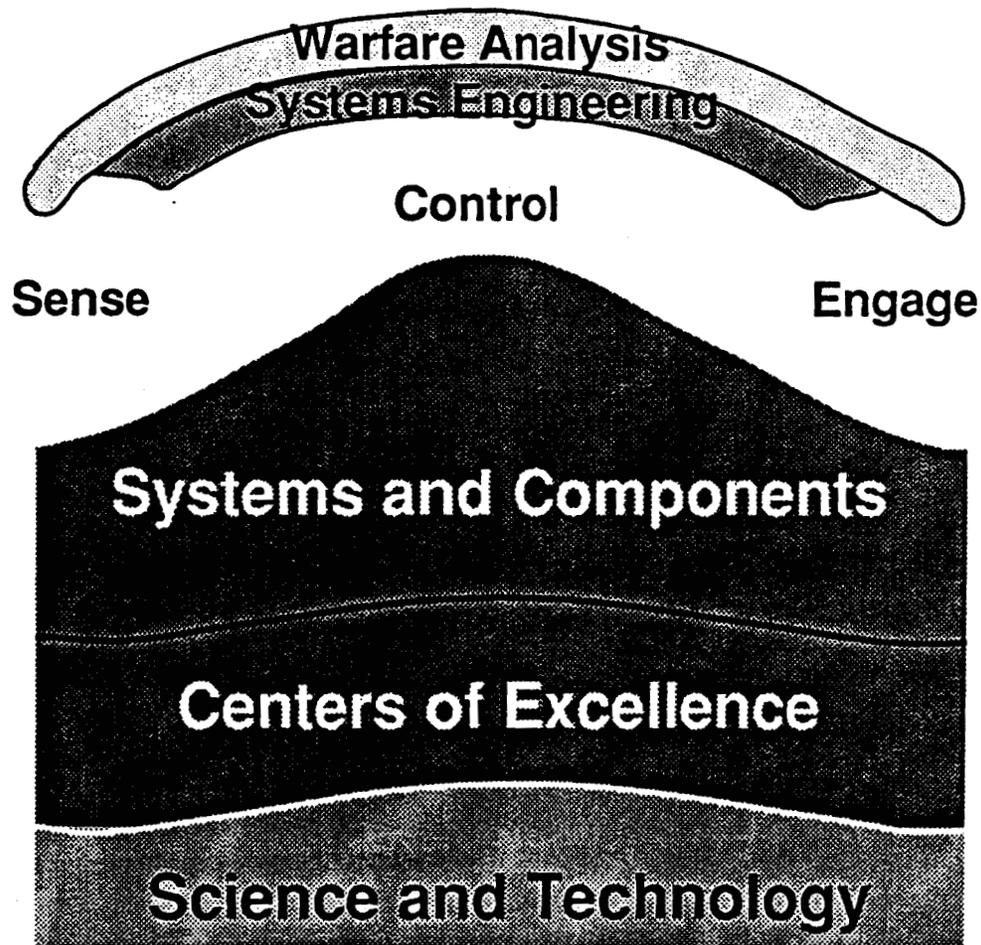
LATE 1950s	MK5 MOD 7 TERRIER FRAGMENTING
LATE 1950s	MK10 MOD 0 TARTAR TERRIER CONTINUOUS ROD
1960	BULLPUP B WARHEAD (LATER USED IN TOMAHAWK)
1962	BULLPUP A WARHEAD (LATER USED IN PENGUIN)
1963	SPARROW M38 MOD 0 CONTINUOUS ROD
1973	PHOENIX MK82 CONTINUOUS ROD
1975	STANDARD MK90 FRAGMENTING
1970s	VULNERABILITY AND 6-DOF FLIGHT SIMULATIONS FOR SS-N-2 AND SS-N-3
1983	SPARROW WAU-17/B FRAGMENTING WARHEAD
1983	SEASPARROW WAU-17/B FRAGMENTING WARHEAD
1980s	VULNERABILITY AND 6-DOF FLIGHT SIMULATIONS FOR SS-N-9, SS-N-12, SILKWORM, AS-4, AS-5, AS-6
1983	SHOULDER LAUNCHED MULTI-PURPOSE ASSULT WEAPON DUAL MODE (SMAW)
1983-1994	JAVELIN - INFANTRY DEFEAT WEAPON
1985	PHOENIX WDU-29B FRAGMENTING WARHEAD
1986	STANDARD MK115 MOD 0 FRAGMENTING WARHEAD
1986	STRATEGIC DEFENSE INITIATIVE DELTA 180 FLIGHT TERMINATION SYSTEM
1987	DRAGON II HIGH EXPLOSIVE ANTI-TANK (HEAT)
1990	STANDARD MK115 MOD 1 FRAGMENTING WARHEAD
1990s	VULNERABILITY AND 6-DOF FLIGHT SIMULATIONS FOR SS-N-22, SS-N-25, ANS, AS-16, AS-17
1993	STANDARD MK125 FRAGMENTING WARHEAD
1992	SHORT RANGE ASSULT WEAPON (SRAW) EXPLOSIVE FORMED PENETRATOR
1993	THREAT CRUISE MISSILE VULNERABILITY DATA TO PATRIOT PROJECT OFFICE
1992-94	PATRIOT FRAGMENTING WARHEAD PROTOTYPE

TECHNOLOGY APPLICATIONS

- DEVELOPED CONTINUOUS ROD TECHNOLOGY
- DEVELOPED FRAGMENTATION CONTROL TECHNIQUES
- DEVELOPED INCENDIARY MATERIAL TECHNIQUES
- DEVELOPED AIMABLE WARHEAD TECHNOLOGY
- TRANSITION OF SLAPPER INITIATOR TECHNOLOGY TO PRODUCTION
- DEVELOPED PENETRATING WARHEAD TECHNOLOGY
- DEVELOPED SHAPED CHARGE AND EXPLOSIVE FORMED PENETRATOR TECHNOLOGY FOR MARINE CORPS APPLICATIONS
- DEVELOPED TERMINAL BALLISTIC TECHNOLOGY
- DEVELOPED VULNERABILITY MODELS FOR NUMEROUS AIR TARGET THREATS
- DEVELOPED 6-DEGREE OF FREEDOM SIMULATIONS FOR NUMEROUS AIR TARGET THREATS
- DEVELOPED END GAME EFFECTIVENESS ANALYSES FOR NUMEROUS MISSILES



MISSION SUMMARY



- Surface Ship Combat and Weapon Systems
- Strategic Weapon Systems
- Mine Warfare Systems
- Amphibious Warfare Systems
- Special Warfare Systems
- Diving Systems



THE MESSAGE

- **DAHLGREN DIVISION CURRENTLY HAS WORLD CLASS CAPABILITY IN**
 - **MISSILE WARHEAD DEVELOPMENT**
 - **TARGET VULNERABILITY/SYSTEM EFFECTIVENESS**
 - **MISSILE WARHEAD TESTING**

- **THIS CAPABILITY CRITICAL FOR COMPLETING DAHLGREN DIVISION *COMPLEX SYSTEMS ENGINEERING* MISSION BY PROVIDING THE NECESSARY *ENGAGE ELEMENT* OF THE SENSE-CONTROL-ENGAGE SYSTEM PARADIGM**

- **1991 NAVY CONSOLIDATION DECISION DIRECTS NAVY MISSILE WARHEAD LEADERSHIP TO DAHLGREN DIVISION**

- **COMPLEMENTS EXPERTISE OF THE INDIAN HEAD AND CRANE DIVISIONS OF NSWC**

- **DAHLGREN DIVISION AVAILABLE FOR EXPANSION OF WARHEADS AND VULNERABILITY EFFORTS**

Document Separator

FOR OFFICIAL USE ONLY

Department of Defense

**1995 Base Realignment and Closure
T&E Joint Cross-Service Group Data
Guidance**

March 31, 1994

**DAHLGREN SITE
DAHLGREN DIVISION
NAVAL SURFACE WARFARE CENTER**

**Submission for
UIC: N00178**

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

T&E JOINT CROSS-SERVICE GROUP DATA GUIDANCE

SECTION 1: GUIDANCE, STANDARDS, AND ASSUMPTIONS

- 1.1 GUIDANCE**
 - 1.1.A Guidance for Identification of Test and Evaluation (T&E) Facilities/Capabilities**
 - 1.1.B Guidance for Military Department Data Collection**
 - 1.1.C Guidance for Military Department Data Analysis**
- 1.2 ASSUMPTIONS**
- 1.3 FUNCTIONAL AREAS**
 - 1.3.A Air Vehicles**
 - 1.3.B Electronic Combat (EC) Systems**
 - 1.3.C Armaments/Weapons**

SECTION 2: CAPACITY & TECHNICAL RESOURCES

- 2.1 WORKLOAD**
 - 2.1.A Historical Workload**
 - 2.1.B Forecasted Workload**
- 2.2 UNCONSTRAINED CAPACITY**
- 2.3 TECHNICAL RESOURCES**

SECTION 3: MEASURES OF MERIT

- 3.1 OVER-ARCHING MEASURES OF MERIT**
 - 3.1.A Interconnectivity**
 - 3.1.B Facility Condition**
 - 3.1.C Environmental and Encroachment Carrying Capacity**
 - 3.1.D Specialized Test Support Facilities and Targets**
 - 3.1.E Expandability**
 - 3.1.F Uniqueness**
 - 3.1.G Available Air, Land, and Sea Space**
 - 3.1.H Geographic/Climatological Features**
- 3.2 AIR VEHICLES**
 - 3.2.A Supersonic Airspace**
 - 3.2.B Airfield and Facility Characteristics**
 - 3.2.C Test Operations**
- 3.3 ELECTRONIC COMBAT**
 - 3.3.A Threat Environment**
 - 3.3.B Test Article Support**
- 3.4 ARMAMENTS/WEAPONS**
 - 3.4.A Directed Energy**
 - 3.4.B Rocket/Missile/Bomb Systems**

Submission for

UIC: N00178

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

T&E JOINT CROSS-SERVICE GROUP

SECTION 1: GUIDANCE, STANDARDS, AND ASSUMPTIONS

The Military Departments will use the following information for data collection on each facility that has performed T&E and is still capable of performing T&E within the three functional areas of air vehicles, electronic combat, and armaments/weapons for any component (hardware or software), subsystem, system, or platform. Guidance is provided on conducting a cross-service analysis.

1.1 GUIDANCE

1.1.A Guidance for Identification of Test and Evaluation (T&E) Facilities / Capabilities

1.1.A.1 Scope

All DoD installations will be examined to identify facilities that have and are still capable of performing T&E within the three functional areas of air vehicles, electronic combat, and armaments/weapons.

All facilities (tenant and host on the installation) owned by DoD are within scope of this examination.

The Military Departments and Defense Agencies are responsible for submitting the data.

The scope of this examination will include T&E facilities that are funded from any funding source and appropriation (RDT&E, procurement, O&M, training, etc.).

FOR OFFICIAL USE ONLY

1.1.A.2 T&E Facilities / Capabilities

The definition of a T&E facility/capability to be used for purposes of data collection will be a set of DoD-owned or controlled property (air/land/sea space) or any collection of equipment, platforms, ADPE or instrumentation that can conduct a T&E operation and provide a deliverable T&E product.

The T&E facility can support T&E of components through systems platforms or missions in the following functional areas: air, land, sea, space, C4I, armaments/weapons, electronic combat, nuclear effects, chem/bio, propulsion, environmental effects, guidance, and materials.

The T&E facilities will be grouped under one of the following test facility categories: modeling and simulation, measurement, integration laboratory, hardware-in-the-loop, installed systems, or open air (See Appendix A for definitions). It will typically consist of all of the following components: data collection sensors and instrumentation, data reception and storage, data processing, and data display and reporting.

The scope will include T&E operations from all funding sources (RDT&E, procurement, O&M, training, etc.).

1.1.B Guidance for Military Department Data Collection

The Military Departments will use the T&E facility/capability definitions included within this data call package. In your descriptions of facility technical capabilities include programmed investments/upgrades in Military Department or Defense Agency 1995 Future Years Defense Plan (FY95 FYDP) in support of the President's Budget (PB95). When calculating capacity data, use the guidelines/definitions included in this package.

Data will be collected on all facilities/capabilities that are within the scope defined in section 1.1.A. Data will be collected using Appendix A, Data Forms and Instructions

FOR OFFICIAL USE ONLY

1.1.C Guidance for Military Department Data Analysis

The Military Departments will use the 95 FYDP as the baseline to calculate costs and savings. Address closure/realignment opportunities at the functional T&E and facility levels. Retain essential technical capabilities for core competencies and technologies. Consider consolidation of subfunctions such as centralized maintenance of common platforms, instrumentation, data processing. Consider retention of difficult-to-replace essential geographic assets (e.g. airspace, ground/terrain, climates, seaports) without regard to "ownership". Recognize adaptability to future technologies. Do not consider environmental cleanup costs/difficulties for closure or downsizing a facility/capability.

1.2 ASSUMPTIONS

Cross-service analyses will use the following assumptions:

1.2.A T&E workload is not a direct function of force structure, but is related to the RDT&E budget and acquisition funding.

1.2.B The FYDP is considered certified data. Information from non-DoD activities will not be used as a basis for analyses.

1.2.C At least one test facility/capability will be required to address any technology in use or nearing maturation. Geographic assets (airspace, ground space, sea space, terrain, climate, physical security) must be adequate. Closure or realignments of laboratories, maintenance depots, and training activities could necessitate consolidation with T&E facilities/capabilities.

1.2.D Evaluation of developing technologies and systems will follow a process that involves a progression of test facilities/capabilities ranging from modeling and simulation, measurements, through hardware-in-the-loop, system integration laboratories, installed-systems, to open air/range testing.

1.2.E Potential for internetting facilities/capabilities can be considered in workload

FOR OFFICIAL USE ONLY

projections if investments to provide internetting capability are programmed.

1.2.F With regard to outsourcing, it will be assumed that work currently performed in-house will remain in-house and that work currently outsourced will remain outsourced.

1.2.G With regard to foreign military sales (FMS), it will be assumed that the FMS workload will continue at FY93 levels into the future (straight-lined).

1.3 FUNCTIONAL AREAS

Three functional areas of T&E facilities/capabilities were selected for specific emphasis during cross-service analyses following analysis of the T&E Reliance study areas. These three areas -- air vehicles, electronic combat, and armament/weapons -- show the greatest potential for cross-service consolidation opportunities; others are predominately or nearly Military Department unique.

Over-arching measures of merit have been developed that are applicable to many T&E facilities/capabilities across the three functional areas. These measures generally relate to the overall demographics of the facility/capability at an installation and are important to evaluating a facility/capability for: overall condition; potential to support current or future contingency, mobilization and future missions; additional workload; and overall Mission Essentiality. Additional data specific to the three functional areas will also be collected. For the purpose of this data collection, the three functional areas are defined as follows:

1.3.A Air Vehicles

This functional area includes facilities involved in the testing of all air vehicles/subsystems/components whether fixed wing or rotary wing and test of major sub-systems (e.g., avionics, engines, and sensors). This includes flight testing and the testing involving pre- and post-flight preparation and processing of the air vehicle. Unmanned air vehicles and cruise missiles are included.

FOR OFFICIAL USE ONLY

1.3.B Electronic Combat (EC) Systems

This functional area includes facilities involved in the testing of stand-alone electronic combat systems and electronic combat subsystems that are normally integrated into other weapon systems. It includes the testing of systems or subsystems that have as their primary mission threat warning, testing of systems that provide countermeasures in the RF (radio frequency) spectrum against radars and other RF sensors, systems that provide countermeasures that are used against sensors in the electro-optical or infrared spectrum as well as testing of electronic and C3 countermeasures.

1.3.C Armaments / Weapons

This functional area includes facilities involved in the testing of the weapons portion of a weapon system. In those cases where the weapon system is composed almost exclusively of the weapon, it may include system-level and platform integration testing. In other cases, it addresses just the weapon subsystem (e.g., guidance and control, propulsion, warheads, and airframe), while the testing of the weapon system's vehicle is in another functional area.

SECTION 2: CAPACITY & TECHNICAL RESOURCES

Use the forms and accompanying instructions in appendix A to provide answers for this section.

The complex of test facilities at the Dahlgren site consists of the following:

- A1. Potomac River Test Range (PRTR) (Open Air Range)**
- A2. Explosive Experimental Area (EEA) (Measurement Facility)**
- A3. Warheads Research Test Facility (WRTF) (Measurement Facility)**
- A4. Electromagnetic Vulnerability Assessment Facility (EMVAF)
(Measurement Facility)**
- A5. Electromagnetic Pluse Test Facilities (EMP) (Measurement
Facility)**
- A6. Search and Track Sensor Test Site (STSTS) (Measurement Facility)**

Submission for
UIC: N00178

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

This complex of facilities was established at NSWCDD to allow us to conduct our mission of weapons systems research and development for the Navy. This complex of unique and interdependent facilities is used for testing weapons systems and components throughout their life cycle however the prime purpose of this complex is to fulfill our research and development mission.

As part of past T&E Reliance Studies, an MOU was signed by the Service Acquisition Executives declaring that all Naval Gun Testing was to be consolidated at Dahlgren. The finding of the most recent Reliance consolidation study found that the technical requirements for fuze and sensor testing as well as the spectrum of EMV testing could not be accomplished at any other DOD range. In addition, the study found that even if technical capabilities were not taken into account that the cost of moving would never be paid back by operational savings.

The majority of the Dahlgren test facilities are unique within the United States. The Potomac River Test Range is unique in that it combines the best aspects of land and sea ranges to provide a controlled maritime environment bounded by land allowing accurate measurements without on onboard instrumentation. There is no other range in the US capable of conducting the required scope of testing of Naval Guns.

The Electromagnetic Vulnerability Assessment Facility (EMVAF) is the only complete test facility able to simulate the high-power full-threat operational electromagnetic environment (EME) in which the DoD must operate. These multipurpose test facilities are designed to generate the complex, modulated, high-power, radiated environments required for far-field evaluation of medium to large scale electronic and weapon systems. NSWCDD is the only organization within DoD that currently maintains all of these facilities at one site.

The combination of the STSTS and PRTR provides an 80,000 yd land

FOR OFFICIAL USE ONLY

free horizon coupled with a littoral environment and extensive infrastructure and ground truth both at the STSTS and downrange. It is the only instrumented overwater range where routine operations involving inbound and outbound aircraft at any altitude and supersonic speed, drones, gun launched projectiles that emulate low altitude, low observable anti-ship cruise missiles and surface craft can track. The STSTS is the only overwater facility developed for large scale multi-sensor system testing.

Closing any one of these interdependent testing facilities would have a direct affect on the operation of the other facilities and in some cases would prevent the continued operation of others. All explosive operations are controlled through the Potomac River Test Range (PRTR), this includes all the measurement facilities. The Search and Track Sensor Test Site uses the same air space as the PRTR and depends on PRTR for target control and tracking. Real time data collection for the Explosive Experimental Area is passed over fiber optic link to PRTR. Also there are direct connections with two non range facilities,(the Warhead Development Facility and the Weapons Systems Safety Analysis and Evaluation Facility) and the Explosive Experimental Area which if closed would eliminate our capability to perform our weapons development mission. All of our test facilities are an essential part of our R&D mission and can not be moved without significantly affecting our research and development capability or in some cases eliminating that capability.

Section 2 is answered for each facility on the forms provided as a separate Appendix A1 - A6 at the end of this call. The questions in section 3 are answered only once. Answers to questions in section 3 address all the facilities where applicable.

2.1 WORKLOAD

**Submission for
UIC: N00178**

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

Annual workload will be reported in units as follows: for open air ranges involving flight testing, report test hours and missions. For all other T&E facilities direct labor hours and test hours must be reported; if available, missions must be reported. If an estimation of test hours based on direct labor hours is necessary, refer to the instructions for Determination of Unconstrained Capacity on page 28.

2.1.A Historical Workload

-2.1.A.1 What amount of workload have you performed each year from FY86-93? Use the Historical Workload Form provided in Appendix A of this package.

2.1.B Forecasted Workload

-2.1.B.1 Identify all appropriations (by program element) that generated a requirement for testing or test support, or are expected to generate a requirement for testing/test support in your Military Department (by functional areas of air vehicles, electronic combat (EC), armament/ weapons, and other test) for FY92, FY93, and each year in the FY95 FYDP. The Military Departments will provide total funding amounts appropriated for all PEs identified in each functional area shown above.

-2.1.B.2 What amount of test work was performed at your facility (in workyears by functional areas of air vehicles, electronic combat, armament/weapons, other tests, and other) in FY92 & FY93?

2.2 UNCONSTRAINED CAPACITY

-2.2.A Unconstrained capacity is the maximum capacity of this facility, assuming manpower and consumable supplies (excluding utilities) are unlimited, but allowing for expected downtime (maintenance, weather, darkness (daylight), holidays, etc.). Provide your response by filling out the Determination of Unconstrained Capacity Form in accordance with the instructions in

FOR OFFICIAL USE ONLY

Appendix A.

-2.2.B Is this capacity limited by the physical characteristics of the facility itself, safety or health considerations, commercial utility availability, etc?

2.3 TECHNICAL RESOURCES

-2.3.A Does the facility have a specified war-time or contingency role established in approved war plans? Yes/no.

No

-2.3.B Does the facility provide a T&E product or service, without which irreparable harm would be imposed on the test mission of the host installation?

Yes

-2.3.B.1 On the test mission of any other activity?

Yes. All ammunition component testing is conducted for Army Single Service Ammunition Manager.

-2.3.B.2 On any other mission deemed critical to the operational effectiveness of the armed forces of the United States?

Yes. We have often served as a ready source of testing of special devices for Desert Storm and other ongoing encounters (eg) special warfare tactic development and testing.

FOR OFFICIAL USE ONLY

SECTION 3: MEASURES OF MERIT

3.1 OVER-ARCHING MEASURES OF MERIT

The over-arching measures of merit are listed with accompanying questions (or data requirements) intended to elicit standard information upon which the cross-service analyses can be based, and on which the Joint Cross-Service Groups can base their reviews of the Military Department analyses. Additional specific measures of merit are shown under individual functional areas. The numbers in parentheses () before each measure of merit indicate the BRAC selection criteria for military value.

3.1.A. Interconnectivity (MV I) - Measure of Merit: *Extent of linkage of this facility with other facilities and assessment of single-node failure potential.*

-3.1.A.1 What percentage of total test workload in FY93 involved the real-time or near real time exchange of data or control with another facility? List the facilities you interconnect to for test and identify how many are simultaneous activities. Identify these as to whether they are internal and external to the site.

The major facilities at the Dahlgren site are all interconnected and real time data exchange is involved in at least 50% percent of our testing.

All explosive operations are controlled through the Potomac River Test Range (PRTR). This includes all the measurement facilities. The Search and Track Sensor Test Site (STSTS) uses the same air space as the PRTR and depends on PRTR for target control and ground truth tracking. Real time data collection for the Explosive Experimental Area is passed over fiber optic link to PRTR. All these sites are internal.

-3.1.A.2 If your facility were to be closed, would there be an impact on other facilities to which you are connected? Yes/no. If yes, explain.

FOR OFFICIAL USE ONLY

Yes The closing any one of the testing facilities would have a direct effect on the operation of the other facilities and in some cases would prevent the continued operation of others. The Search and Track Sensor Test Site could not operate without the range control provided by the Potomac River Test Range as an example. Also there are direct connections with two non range facilities, (the Warhead Development Facility and the Weapons Systems Safety Analysis and Evaluation Facility) and the Explosive Experimental Area which if closed would eliminate our capability to perform our weapons development mission. All of our test facilities are an essential part of our R&D mission and can not be moved without significantly depleting our research and development capability or in some cases eliminating that capability.

Facility Condition (MV II) - Measure of merit: *Current and planned status of the T&E facilities for supporting assigned test missions.*

See Appendix A

3.1.C Environmental and Encroachment Carrying Capacity (MV II) - Measure of Merit: *Extent of current and future potential environmental and encroachment impacts on air, land, and sea space for testing.*

- **3.1.C.1** Do you have limiting (current or future) environmental and/or encroachment characteristics associated with the installation/facility?

Yes In maintaining good relationships with the communities on both sides of the Potomac River, we have a policy of not testing when atmospheric conditions intensify far field noise levels above certain levels.

- **3.1.C.2** How much could workload be increased before this limit would be reached? Express your answer as a percentage of your current workload.

Although this policy delays testing on occasions it very seldom cancels

FOR OFFICIAL USE ONLY

tests. The driver for increased workload is people; we could easily double the workload if the work force was increased.

- 3.1.C.3 Do you currently operate under temporary permits of an environmental nature, or voluntary agreements (including treaties) of any sort that deal with the environment? If so, when do they expire? Please describe.

Yes We have an interim Resource Conservation and Recovery Act (RCRA) permit for our open burn and open detonation facility. The State of Virginia has only granted interim permits to date.

- 3.1.C.4 What is the total population within a 50 mile radius? 100 mile radius? 150 mile radius? 200 mile radius?

Population:

within 50 mile radius - Approximately 3,912,221

Includes the Northern Virginia suburbs of Washington, DC and Richmond, VA.

within 100 mile radius - Approximately 9,027,165

within 150 mile radius - Approximately 10,321,145

within 200 mile radius - Approximately 14,767,442

R

- 3.1.C.5 Identify the commercial air/land/sea traffic routes, public use of air/land/sea space, and frequency of use for each that affects or could affect mission accomplishment in your air, land, or sea space.

There are three restricted air space areas at the Dahlgren site, R6611 and R6613 over the Potomac River Test Range and R6612 over the Explosive Experimental Area. The two over the river are to 60,000 ft and the other is to 7,000 ft. They are controlled by the FAA and we relinquish when not in use.

FOR OFFICIAL USE ONLY

tests. The driver for increased workload is people; we could easily double the workload if the work force was increased.

- **3.1.C.3** Do you currently operate under temporary permits of an environmental nature, or voluntary agreements (including treaties) of any sort that deal with the environment? If so, when do they expire? Please describe.

Yes We have an interim Resource Conservation and Recovery Act (RCRA) permit for our open burn and open detonation facility. The State of Virginia has only granted interim permits to date.

- **3.1.C.4** What is the total population within a 50 mile radius? 100 mile radius? 150 mile radius? 200 mile radius?

Population:

within 50 mile radius - Greater than 1 million.	Includes the Northern Virginia suburbs of Washington, DC and Richmond, VA.
within 100 mile radius -	"
within 150 mile radius -	"
within 200 mile radius -	"

- **3.1.C.5** Identify the commercial air/land/sea traffic routes, public use of air/land/sea space, and frequency of use for each that affects or could affect mission accomplishment in your air, land, or sea space.

There are three restricted air space areas at the Dahlgren site, R6611 and R6613 over the Potomac River Test Range and R6612 over the Explosive Experimental Area. The two over the river are to 60,000 ft and the other is to 7,000 ft. They are controlled by the FAA and we relinquish when not in use.

FOR OFFICIAL USE ONLY

The Potomac River Range is divided into three danger zones in the Federal Code of Regulations, upper, middle and lower. During normal working hours oyster, fishing and pleasure boats are restricted and commercial traffic can proceed with permission. The river is controlled by range patrol boats under authorization of Commander, Naval Surface Warfare Center.

- 3.1.C.5.A How many test missions per year are canceled due to commercial or public use?

There are no test missions canceled due to commercial or public use of either water or air space. There are sometime delays, usually of less than one half hour due to commercial river traffic.

- 3.1.C.6 What is the number of test missions that have been canceled due to encroachment in each of the last two years?

Far field noise levels in most cases cause delays but do not cancel test programs. A total of five test programs were delayed due to potential noise levels in the last two years.

3.1.D Specialized Test Support Facilities and Targets (MV I) - Measure of Merit: *Extent to which specialized test support facilities and targets are available.*

-3.1.D.1 Do you have specialized facilities are required to support you in conducting your test operations at your facility (e.g. Aerial delivery load build-up facilities; parachute drying towers/packing facilities; paratroop support facilities; specialized fuel storage and delivery systems; mission planning facilities; corrosion control, painting, washing facilities; and specialized maintenance facilities such as avionics intermediate shops)?

Yes **Ordnance shipping, receiving and storage; assembly and disassembly of bombs, missiles and projectiles; demil of ordnance devices; temperature conditioning of ordnance devices. Aviation support in terms of a lighted runway; hangar with limited maintenance and servicing capability:**

FOR OFFICIAL USE ONLY

fuel storage and refueling capability; ground handling and emergency equipment.

-3.1.D.2 Are specialized targets required to support this facility? Yes/no. If yes, explain.

Yes Specially configured jet engines and propane burners are used as stationary targets for fuze testing. Remotely piloted vehicles, towed targets and projectiles are used for dynamic sensor tracking tests. Remotely operated boats are used for gunfire test targets.

-3.1.D.2.A Have the specialized targets been validated? Yes/no. If yes, by whom?

No, but our targets, although not subject now to official certification, conform closely in all necessary aspects to valid threat characteristics.

3.1.E Expendability (MV III) - Measure of Merit: *Extent to which an installation/facility is able to expand to accommodate additional workload or new missions.*

-3.1.E.1 Other than the expendability inherent in unconstrained capacity, discussed earlier, are there any special aspects of this facility that enhance its ability to expand output within each T&E functional area?

Yes NSWCDD at the Dahlgren site has a large complex of computers including a super computer as well as expertise in developing models in all disciplines of weapons development. These resources could easily be used in the Digital Modeling and Computer Simulation Area.

-3.1.E.1.A Can you accept new T&E workload different from what you are currently performing? Yes/no. If yes, identify by T&E functional area and test type.

Yes Many of our measurement facilities could be converted into

NR

FOR OFFICIAL USE ONLY

-3.1.E.2 Are airspace, land, and water areas--adjacent to areas under DoD control--available and/or suited for physical expansion to support new missions or increased footprints?

No

-3.1.E.3 Is the facility equipped to support secure operations?

<u>FACILITY</u>	<u>ROUTINE SECURE OPERATIONS LEVEL</u>
POTOMAC RIVER TEST RANGE	SECRET
EXPLOSIVE EXPERIMENTAL AREA	SECRET ¹
ELECTROMAGNETIC VULNERABILITY ASSESSMENT FACILITY	SECRET ¹
ELECTROMAGNETIC PULSE TEST FACILITIES	SECRET ¹
SEARCH AND TRACK SENSOR TEST SITE	SECRET ¹

R

¹ These facilities are capable of conducting secure operations at the Top Secret and Special Access levels by implementing special procedures and precautions.

-3.1.E.4 Are there any capital improvements underway or programmed in the 95 FYDP, that would change your capacity/capability? Yes/no. If yes, explain.

No

3.1.F Uniqueness (MV D) - Measure of Merit: *Extent to which the facility is one-of-a kind.*

-3.1.F.1 Is this a one-of-a-kind facility within the DoD? Yes/no. If yes, describe.

Yes The Potomac River Test Range is unique in that it combines the best aspects of land and sea ranges to provide a controlled maritime environment bounded by land allowing accurate measurements without onboard instrumentation. There is no other range in the US capable of conducting the required scope of testing of Naval Guns. As part of past Reliance Studies, an MOU was signed by the Service Acquisition Executives declaring that all Naval Gun Testing was to be consolidated at Dahlgren. The finding of the most recent Reliance consolidation study found that the technical requirements for fuze and sensor testing could not be accomplished at any other DOD range. In addition, the study found that even if technical capabilities were not taken into account that the cost of moving would never be paid back by operational savings.

Submission for
UIC: N00178

FOR OFFICIAL USE ONLY

16-R (9/6/94)

FOR OFFICIAL USE ONLY

integration facilities. For example, coupling the fire control system to the gun mount to do a systems test vis-a-vis component testing.

-3.1.E.2 Are airspace, land, and water areas--adjacent to areas under DoD control--available and/or suited for physical expansion to support new missions or increased footprints?

No

-3.1.E.3 Is the facility equipped to support secure operations?

We have supported all levels of classification on our ranges, however not every function can be conducted at the highest levels at all times.

-3.1.E.4 Are there any capital improvements underway or programmed in the 95 FYDP, that would change your capacity/capability? Yes/no. If yes, explain.

No

3.1.F Uniqueness (MV I) - Measure of Merit: *Extent to which the facility is one-of-a kind.*

-3.1.F.1 Is this a one-of-a-kind facility within the DoD? Yes/no. If yes, describe.

Yes The Potomac River Test Range is unique in that it combines the best aspects of land and sea ranges to provide a controlled maritime environment bounded by land allowing accurate measurements without onboard instrumentation. There is no other range in the US capable of conducting the required scope of testing of Naval Guns. As part of past Reliance Studies, an MOU was signed by the Service Acquisition Executives declaring that all Naval Gun Testing was to be consolidated at Dahlgren. The finding of the most recent Reliance consolidation study found that the

FOR OFFICIAL USE ONLY

technical requirements for fuze and sensor testing could not be accomplished at any other DOD range. In addition, the study found that even if technical capabilities were not taken into account that the cost of moving would never be paid back by operational savings.

The Electromagnetic Vulnerability Assessment Facility (EMVAF) is the only complete test facility able to simulate the high-power full-threat operational electromagnetic environment (EME) in which the DoD must operate. The EMVAF consists of ground plane test facilities, anechoic chamber, mode-stirred chamber, and state-of-the-art telemetry collection and data reduction laboratories. These multipurpose test facilities are designed to generate the complex, modulated, high-power, radiated environments required for far-field evaluation of medium to large scale electronic and weapon systems. NSWCDD is the only organization within DoD that currently maintains all of these facilities at one site.

The combination of the STSTS and PRTR provides an 80,000 yd land free horizon coupled with a littoral environment and extensive infrastructure and ground truth both at the STSTS and downrange. It is the only instrumented overwater range where routine operations involving inbound and outbound aircraft at any altitude and supersonic speed, drones, gun launched projectiles that emulate low altitude, low observable anti-ship cruise missiles and surface craft can be tracked. The STSTS is the only overwater facility developed for large scale multi-sensor system testing. It has a dedicated multi-sensor integration and staging room that allows overwater testing of brassboard systems while protected from the weather.

-3.1.F.1.A Within the US Government?

Yes See above.

-3.1.F.1.B Within the US?

FOR OFFICIAL USE ONLY

Yes These facilities are unique within both government and private sectors and the construction of such facilities would not be cost effective for any private sector company in the future.

-3.1.F.2 Are you currently providing support to DoD users outside your Military Department? Yes/no. If yes, indicate percentage of total workload in FY92 and FY93 by Military Department.

Yes For both FY 92 and FY93 approximately 24% of the workload was for the Army Single Service Manager for Ammunition and with the exception of another 1 to 2% each from the Army and Air force, the rest was from the Navy.

3.1.G Available Air, Land, and Sea Space (MV II) - Measure of Merit: *Extent to which controlled test ranges satisfy weapon system test requirements.*

-3.1.G.1 How many square miles of air, land, and sea space are available to support test operations?

The Potomac River Test Range is approximately 3 nautical miles wide and 16 nautical miles long and 60,000 ft high over water and approximately four square miles over land.

-3.1.G.2 Who owns and or controls the land under the restricted airspace you use?

All over land air space is owned by the Navy and the Potomac River is owned by the State of Maryland.

-3.1.G.3 How much of this is Restricted Airspace, and what altitude limits are associated with the restricted areas?

All of the range air space is restricted. All of the over water air space (R6611 and R6613) is restricted to 60,000 ft. The restricted air space over the Explosive Experimental area (R6612) is to 7,000 ft.

FOR OFFICIAL USE ONLY

-3.1.G.4 Do you have special use airspace other than supersonic airspace? Yes/no. If yes, for what types of test (e.g. terrain following radar)? Dimensions? Will it support simultaneous users? Yes/no.

No

-3.1.G.5 Is the airspace over land or water? List the number of square miles over each.

The water range under restricted air space R6611 and R6613 is 48 square miles and the land area under restricted air space R6612 is 3 square miles.

-3.1.G.6 Identify known or projected airspace problems that may prevent accomplishing your mission.

There are no known air space problems.

-3.1.G.7 What is the maximum straight line segment in your airspace in nautical miles?

16 nautical miles for gun firing and 80,000 yards clear over water tracking of air targets with 16 nautical miles of restricted air space.

-3.1.G.8 What public airspace have you used for overflight of weapons systems in the past? What was the nature of those tests? Do you anticipate being able to use that same public airspace for similar tests in the future? Yes/no.

Have not used public air space.

3.1.H Geographic/Climatological Features (MV II) - Measure of Merit: *Extent to which types of climatic/geographic conditions represent world-wide operational conditions.*

FOR OFFICIAL USE ONLY

-3.1.H.1 Describe the topography and ground cover/vegetation within your test airspace (include nap-of-the-earth capability). Identify all of the following that apply: mountains, forest/jungle, cultivated lowland, swamp/riverine, desert, and sea. State the area of each in square miles.

Over water, 48 square miles.

-3.1.H.2 Are there features of the local geology or soil conditions that enhance or inhibit any types of test?

No

-3.1.H.3 Did you have to go to other geographical locations to satisfy test requirements? Yes/no and explain. If yes, provide as a percent of overall workload per year for the past 8 years.

Yes For tests that exceed PRTR's maximum range capability, testing has been performed at White Sands Missile Range, Yuma Proving Ground or NAWC, China Lake. Test requiring this capability have not exceeded 5% of total over the last eight years.

-3.1.H.4 What is the number of days per year the average temperature is below 32 degrees F? Between 32 and 95 degrees? Above 95 degrees?

Average Temperature Below 32 degrees:	11
Average Temperature Between 32 & 95 degrees:	334
Average Temperature Above 95 degrees:	0

Remaining days: no data

FOR OFFICIAL USE ONLY

-3.1.H.5 What is the number of days per year the average relative humidity is below 30%? Between 30 and 80%? Above 80%?

Average Humidity Below 30%:	15
Average Humidity Between 30% and 80%:	271
Average Humidity Above 80%:	59

Remaining days: no data

-3.1.H.6 What is the number of test missions per year (1985 - 1993) canceled due to weather?

No aircraft missions were canceled due to weather.

-3.1.H.7 What is the number of test days per year (1985 - 1993) canceled due to weather?

Open air range testing is canceled on the average of 45 days a year.

-3.1.H.8 What is the number of days per year the visibility is less than 1 mile? Between 1 and 3 miles? Greater than 3 miles?

Visibility less than 1 mile:	27
Visibility between 1 and 3 miles:	21
Visibility greater than 3 miles:	196

Remaining days: no data

-3.1.H.9 What is the average number of flying days available per year for flight test? Provide historical average from the past eight years.

The PRTR does not usually use aircraft in testing.

FOR OFFICIAL USE ONLY

-3.1.H.10 What percentage of the time are your test operations restricted due to weather?

Test operations are restricted by weather approximately 3% of the time.

3.2 AIR VEHICLES

This functional area includes facilities involved in the testing of all air vehicles/subsystems/components whether fixed wing or rotary wing and test of major subsystems (e.g., avionics, engines, and sensors). This includes flight testing and the testing involving pre- and post-flight preparation and processing of the air vehicle. Unmanned air vehicles and cruise missiles are included.

The Site at Dahlgren is not used for testing Air Vehicles except for electromagnetic vulnerability tests on the ground plane at the EMVAF. Air vehicles are also used sometimes as targets for sensor testing at STSTS, but no air vehicle open air (air combat) tests are conducted at Dahlgren.

3.2.A Supersonic Airspace (MV II) - Measure of Merit: *Extent of range size to support weapon system requirements.*

-3.2.A.1 Do supersonic corridors or areas exist? Yes/no.

-3.2.A.2 Where are they located relative to your airfield?

-3.2.A.3 At what altitude (upper and lower altitude)?

-3.2.A.4 Over land or water? What size and shape (length and width)?

-3.2.A.5 Are there restrictions you must observe to use this space? Yes/no. If yes, explain.

-3.2.A.6 What is the maximum number of simultaneous users?

FOR OFFICIAL USE ONLY

- 3.2.B Airfield and Facility Characteristics (MV II) - Measure of Merit: *Extent of air vehicle infrastructure to support T&E operations.*

-3.2.B.1 Provide a brief description of your airfield and support facilities, to include the following: number and azimuth of runways, elevation, runway length (excluding overrun), overrun length, terminal and/or landing aids, arresting cable (yes/no, type), ramp area (in square feet), construction material (runway and ramps), load capability, and hangar space.

-3.2.B.2 How close and how many emergency runways or airfields are in your area of operation?

-3.2.B.3 Where is your airfield situated relative to working areas (airspace) for supporting test operations?

-3.2.B.4 What makes your airfield unique or at least suited for supporting test operations?

-3.2.B.5 Is there a size, weight, maintenance or mission limitation that would affect test operations? If so, describe the limitation(s).

-3.2.B.6 Including hangers and ramp space, how many fighter size aircraft could you support? Large multi-engine aircraft? Rotary wing? UAV? Cruise missiles?

-3.2.C Test Operations (MV II) - Measure of Merit: *Extent of T&E operations that the airspace can accommodate.*

-3.2.C.1 What types of air vehicle testing (fixed wing, rotary wing, unmanned vehicles, and cruise missiles) can be supported? (e.g. performance, handling qualities, fatigue life, static, wheels and brakes, physical integration with external stores or avionics)

FOR OFFICIAL USE ONLY

-3.2.C.2 Do ground support facilities exist for pre-flight checkouts or rehearsal of test missions?

-3.2.C.3 What kinds, numbers of aircraft and mix can be supported (manned and unmanned)?

-3.2.C.4 Does UAV and or rotary wing operations pose any limitation on other types of missions? If yes, explain.

-3.2.C.5 What sorts of missions (e.g. air-to-air, air-to-ground and refueling) can be flown within local airspace?

-3.2.C.6 What is the maximum number of simultaneous missions you can support that require telemetry?

-3.2.C.7 What is the largest number of simultaneous test missions you have supported in your airspace?

-3.2.C.8 Identify the number, types, and owners of aircraft at your installation.

3.3 ELECTRONIC COMBAT

This functional area includes facilities involved in the testing of stand-alone electronic combat systems and electronic combat subsystems that are normally integrated into other weapon systems. It includes the testing of systems or subsystems that have as their primary mission threat warning, testing of systems that provide countermeasures in the RF (radio frequency) spectrum against radars and other RF sensors, systems that provide countermeasures that are used against sensors in the electro-optical or infrared spectrum as well as testing of electronic and C3 countermeasures.

The site at Dahlgren is not used for open air electronic combat testing.

FOR OFFICIAL USE ONLY

3.3.A Threat Environment (MV I) - Measure of Merit: *Extent to which the capability satisfies weapon system requirements.*

-3.3.A.1 What is the number of threats simulated?

-3.3.A.2 How many simultaneous threats can be simulated? What type (e.g. AI, AAA, SAM)? What is maximum signal density? Average density? What power level? What band? Radiated or injected?

-3.3.A.3 Are the threat software models and simulators (software/hardware) validated? Yes/no. If yes, by whom?

-3.3.A.4 Do you conduct open loop testing? Reactive? Closed loop? Yes/no for each.

-3.3.A.5 What is the threat representation (fidelity) and density?

-3.3.A.6 Are you capable of simulating land threats? Sea threats? Combined land/sea threats? Yes/no. If yes, describe.

-3.3.A.7 What geographic dispersion can be simulated?

-3.3.A.7.A Threat lay down?

-3.3.A.7.B Representative distance?

-3.3.A.8 Are the threats moveable (i.e.dynamic) within a test scenario? relocatable to new scenarios? yes/no

-3.3.A.9 Is the facility interlinked with off-site threats? Yes/no. If yes, how are you linked?

-3.3.A.10 Is there a limit on simultaneous users? Yes/no. If no, explain.

FOR OFFICIAL USE ONLY

3.3.B Test Article Support (MV II) - Measure of Merit: *Extent to which test support satisfies weapon system test requirements.*

-3.3.B.1 Is there a size, weight, or other limitation on test operations the facility can support? Yes/no. If so, identify the limits and measures to remove them.

-3.3.B.2 What is the number of simultaneous countermeasures that can be evaluated?

-3.3.B.3 What range of spectra can be tested and evaluated?

-3.3.B.4 What are the available spectra?

-3.3.B.5 Do you have a scene generation capability? Yes/no. If yes, describe.

3.4 ARMAMENTS / WEAPONS

This functional area includes facilities involved in the testing of the weapons portion of a weapon system. In those cases where the weapon system is composed almost exclusively of the weapon, it may include system-level and platform integration testing. In other cases, it addresses just the weapon subsystem (e.g., guidance and control, propulsion, warheads, and airframe), while the testing of the weapon system's vehicle is in another functional area.

3.4.A Directed Energy (MV II) - Measure of Merit: *Extent to which the facility satisfies directed energy weapon system test requirements.*

This includes testing of all types of directed energy weapons.

-3.4.A.1 Do you currently test directed energy weapon systems? Yes/no.

No

If yes, explain. Describe the power source(s) you have available. What is your

FOR OFFICIAL USE ONLY

maximum downrange distance?

3.4.B Rocket / Missile / Bomb Systems (MV II) - Measure of Merit: *Extent capability satisfies weapon system test requirements.*

This includes the testing of all types of rocket, missile, and bomb systems at the system/subsystem/component level, both stand alone and integrated into the launch platform. This includes testing of air-to-air, air-to-surface, and surface-to-air missiles.

-3.4.B.1 Ground Space

-3.4.B.1.A What is the area in square miles of the land and water space which you can use to conduct tests of live rocket, missile, or bomb systems?

48 square miles over water.

-3.4.B.1.B How many separate and distinct land and water test areas are available to conduct tests of live weapons? List them and the size of each in acres.

One over water range 3X16 nautical miles with 43 permanent gun emplacements and launch sites available for other weapons. And, a 1641 acre site for ordnance safety and environmental tests and explosive dynamics testing.

-3.4.B.1.C What are the maximum ranges (nautical miles) you can test, by type weapon?

Guns up to sixteen inch to 16 nautical miles.

3.4.B.2 Test Operations

-3.4.B.2.A For each of your land and water ranges, how many test missions were scheduled in FY92 and FY93 that were required to use safety footprints

FOR OFFICIAL USE ONLY

comparable to those required for the following types of weapons:

- Unguided 2000 pound-class ballistic weapon
 - live?
 - inert?
- Guided weapon (e.g., GBU-24 class)
 - live?
 - inert?
- Stand-off weapon (e.g., AGM-130 class)
 - live?
 - inert?
- Short-range missile (e.g., AIM-9)
 - below 5000 feet MSL
 - between 5000 and 20,000 feet MSL
 - above 20,000 feet MSL
- Long-range missile (e.g., AIM-120)
 - below 5000 feet MSL
 - between 5000 and 20,000 feet MSL
 - above 20,000 feet MSL

None of the above.

-3.4.B.2.B Were flight termination systems required? Yes/no.

No.

-3.4.B.2.C If no missions were scheduled in a category, give the reason(s).

The Potomac River Test Range is a gun and ammunition test facility that does not possess sufficient real estate to conduct tests on guided missiles.

-3.4.B.2.D Were any scheduled missions canceled before the mission, or terminated/aborted during the mission because of encroachments into the safety footprint? Yes/no. If yes, how many per year.

FOR OFFICIAL USE ONLY

No.

**Submission for
UIC: N00178**

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

APPENDIX A

FACILITY CONDITION

FACILITY/CAPABILITY TITLE: Potomac River Test Range

AGE: 76 years REPLACEMENT VALUE: \$250M

MAINTENANCE AND REPAIR BACKLOG:

DATE OF LAST UPGRADE: Began FY85, completed FY90

NATURE OF LAST UPGRADE: **A wide-band multi-fiber data communication system was installed which links remote test sites to a central location. Additional upgrades in areas of tracking and range surveillance systems as well as general instrumentation.**

MAJOR UPGRADES PROGRAMMED

1. UPGRADE TITLE: **Overhaul of Automatic Gun Mounts**

TOTAL PROGRAMMED AMOUNT: **\$3.66M**

SUMMARY DESCRIPTION: **Overhaul of 5"/54 MK 45 and MK 42 plus MK 75 76mm gun mounts**

2. UPGRADE TITLE:

TOTAL PROGRAMMED AMOUNT:

SUMMARY DESCRIPTION:

HISTORICAL WORKLOAD

FACILITY/CAPABILITY TITLE: **Potomac River Test Range**

T&E FUNCTIONAL AREA		FISCAL YEAR							
		86	87	88	89	90	91	92	93
AIR VEHICLES	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								
EC	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								
ARMAMENT/WEAPONS	DIRECT LABOR	Data	Not	Avail	153K	136K	139K	111K	126K
	TEST HOURS				1264	1048	1112	1080	968
	MISSIONS								
OTHER T&E	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								
OTHER	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								

DETERMINATION OF UNCONSTRAINED CAPACITY

FACILITY/CAPABILITY TITLE: Potomac River Test Range

ANNUAL HOURS OF DOWNTIME	1 <u>6960</u>
AVERAGE DOWNTIME PER DAY (LINE 1 ÷ 365)	2 <u>19</u>
AVERAGE HOURS AVAILABLE PER DAY (24 - LINE 2)	3 <u>5</u>

TEST TYPES	TESTS AT ONE TIME	WORKLOAD PER TEST PER FACILITY HOUR	WORKLOAD PER FACILITY HOUR	UNCONSTRAINED CAPACITY PER DAY (LINE 3 X TOTAL Σ)
4	5	6	7	8 <u>270</u>
<u>Gun</u>	<u>1</u>	<u>18</u>	<u>18</u>	
<u>Ammo</u>	<u>1</u>	<u>18</u>	<u>18</u>	
<u> </u>				
<u> </u>				
<u> </u>				
<u>"TYPICAL"</u>	<u>1</u>	<u>18</u>	<u>18</u>	
			TOTAL Σ	<u>54</u>
				ANNUAL UNCONSTRAINED CAPACITY 9 <u>98,550</u>

TECHNICAL INFORMATION

Facility/Capability Title: Potomac River Test Range

Facility Description; Including mission statement: **Naval Surface Warfare Center, Dahlgren Division maintains a complex of land and water ranges at the Dahlgren site known as the Potomac River Test Range (PRTR) for the test and evaluation of live or inert ordnance, weapon systems, and weapons system components. The water range is approximately three nautical miles wide and sixteen nautical miles long. Restricted air space over the test range can be obtained to an altitude of 60,000 feet. A gunnery complex facing down the river has 42 gun emplacements for firing all types of Naval guns up to and including 16 inch caliber. Included is a small caliber indoor range with multiple test bays.**

Interconnectivity/Multi-Use of T&E Facility: **The PRTR also supports the Search and Track Sensor Test Site (STSTS) which supports developmental sensors, multisensor integration, and sensor integration to gun systems. Current test capabilities at the STSTS are centered around Radio Frequency (RF) and Electro-Optical (EO) sensors offering horizon limited water background. The over water range provides tracker and sensor testing with low over water targets with background clutter, reflectivity, multipath conditions, and wave height conditions.**

Type of Test Supported: **Gun interior and exterior ballistics (pressure, velocity, range, action time, acceleration, fuze, function over water, etc.). Gun system accuracy. Smart munitions integration. Fire control integration.**

Summary of Technical Capabilities: **The PRTR has a comprehensive instrumentation system, both fixed and mobile. A telemetry receiving system is available as well as a wide band multi-fiber data communications system at numerous test ranges and instrumentation sites. This system can pass simultaneous video and data. The Range Control and Analysis Center is the hub of this system allowing data to be passed from remote sites to a central location or from site to site. Six down-river sites to 21K yards are connected in to this link. Survey land stations along the PRTR provide for accurate instrumentation sites to support range table testing, fuze function (burst height), target miss distance over water, and over water targets.**

Keywords: **Integration, Range Table, Vulnerability, Sensor Test, Tracking, Fire Control**

GENERAL INFORMATION

Facility/Capability Title: Potomac River Test Range

Origin Date: 4/22/94

Service: <u>Navy</u> Organization/Activity: <u>NSWCDD</u> Location: <u>Dahlgren, VA</u>						
T&E Functional Area: <u>Armament/Weapons</u> UIC = <u>00178</u>						
T&E Test Facility Category <u>Open Air Range</u>						
	<u>T&E</u>	<u>S&T</u>	<u>D&E</u>	<u>IE</u>	<u>T&D</u>	<u>OTHER = 100 %</u>
PERCENTAGE USE:	<u>40</u>	<u>20</u>	<u>40</u>	_____	_____	_____
BREAKOUT BY T&E FUNCTIONAL AREA (%)						
Air Vehicles	_____	_____	_____	_____	_____	_____
Armament/Weapons	<u>40</u>	<u>20</u>	<u>40</u>	_____	_____	_____
EC	_____	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____
Total in Breakout Must Equal "Percentage Use" On First Line						

ADDITIONAL INFORMATION

Facility/Capability Title: Potomac River Test Range

PERSONNEL

	FY93	FY94	FY95	FY96	FY97	FY98	FY99
Officer	2	2	1	1	1	1	1
Enlisted	32	32	4	4	4	4	4
Civilian	94	89	85	85	85	85	85
Contractor	0	0	9	9	9	9	9
Total	128	123	99	99	99	99	99

Total Square Footage: 267,000 sq ft

Test Area Square Footage: 246,000 sq ft

Office Space Square Footage: 21,000 sq ft

Tonnage of Equipment: 4,670 tons

Volume of Equipment: 1,012,000 cu ft

Annual Maintenance Cost: \$1,390,500

Estimated Moving Cost: \$52M

CAPITAL EQUIPMENT INVESTMENT NONE

FY93	FY94	FY95	FY96	FY97	FY98	FY99

FACILITY CONDITION

FACILITY/CAPABILITY TITLE: Explosive Experimental Area (EEA)

AGE: 46 Years

REPLACEMENT VALUE: Approx \$25M

MAINTENANCE AND REPAIR BACKLOG: Minimal - less than \$500K

DATE OF LAST UPGRADE: **FY90**

NATURE OF LAST UPGRADE: **Upgraded vibration analysis capability cost - approximately \$242.6K**

MAJOR UPGRADES PROGRAMMED

1. UPGRADE TITLE: **Installation of new shaker system.**

TOTAL PROGRAMMED AMOUNT: **Approximately \$500K**

SUMMARY DESCRIPTION: **Replace existing shaker (approx 16 years old) with a new shaker. Cost for equipment has been ordered and paid. Replacement/installation is all that is necessary.**

2. UPGRADE TITLE: _____

TOTAL PROGRAMMED AMOUNT: _____

SUMMARY DESCRIPTION: _____

HISTORICAL WORKLOAD

FACILITY/CAPABILITY TITLE: **Explosive Experimental Area (EEA)**

T&E FUNCTIONAL AREA		FISCAL YEAR							
		86	87	88	89	90	91	92	93
AIR VEHICLES	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								
EC	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								
ARMAMENT/WEAPONS	DIRECT LABOR	N/A	58,700	53,300	54,900	69,800	63,100	52,600	42,300
	TEST HOURS	N/A	3,100	2,700	2,800	3,600	3,300	2,800	2,200
	MISSIONS								
OTHER T&E	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								
OTHER	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								

N/A - Not Available

DETERMINATION OF UNCONSTRAINED CAPACITY

FACILITY/CAPABILITY TITLE: Explosive Experimental Area (Destructive Testing)

ANNUAL HOURS OF DOWNTIME	1 <u>6771</u>
AVERAGE DOWNTIME PER DAY (LINE 1 ÷ 365)	2 <u>18.5</u>
AVERAGE HOURS AVAILABLE PER DAY (24 - LINE 2)	3 <u>5.5</u>

TEST TYPES	TESTS AT ONE TIME	WORKLOAD PER TEST PER FACILITY HOUR	WORKLOAD PER FACILITY HOUR	UNCONSTRAINED CAPACITY PER DAY (LINE 3 X TOTAL Σ)
4	5	6	7	8 <u>70.4</u>
_____	_____	_____	_____	
_____	_____	_____	_____	ANNUAL UNCONSTRAINED CAPACITY
_____	_____	_____	_____	9 <u>25,696</u>
_____	_____	_____	_____	
<u>"TYPICAL"</u>	<u>1</u>	<u>12.8*</u>	<u>12.8</u>	
			TOTAL <u>12.8</u>	

***Based on a typical cost estimate to perform actual fast cook tests. Testing only. Test set up & prep: 32 hrs; firing officer: 8 hrs; instrumentation: 16 hrs; cleanup: 16 hrs; fab high temperature TCs: 24 hrs; Misc: .8 hr.**

TECHNICAL INFORMATION

Facility/Capability Title: Explosive Experimental Area Test Facility NSWCDD #2

<p>Facility Description; Including mission statement: The Naval Surface Warfare Center, Dahlgren Division maintains an Explosive Experimental Area (EEA) which consists of 1640 acres. The site includes an extensively instrumented site for conducting explosive tests as blast measurements, target lethality testing, arena testing, and live fire tests. Instrumentation includes high speed photography, pressure gages, flash X-ray, data reduction (optical and computer) facilities. In addition, the site is capable of various safety testing such as: bullet and fragment impact, slow cook-off, and sympathetic detonation testing. Also conducted in this area are environmental tests such as: temperature and humidity, salt, fog, and MIL-STD-901C vibration and shock testing. These facilities are capable of testing full-up missiles including the Navy STANDARD missile. The facility possesses unique equipment to conduct near miss shipboard shock tests on full-up missile systems.</p>
<p>Interconnectivity/Mult-Use of T&E Facility: The EEA is data linked with the Potomac River Test Range (PRTR) via fiber optics. Restricted air space is also shared with the PRTR and all daily operations are controlled through a central Range Control Center. Under construction in the EEA is the Naval Ordnance Transient Electromatic Simulator (NOTES). This facility will consist of a bounded wave electromagnetic pulse (EMP) generator that will be operated in the EEA. The simulator will be used to assess the susceptibility of Navy electronics and ordnance to EMP exposure.</p>
<p>Type of Test Supported: Explosive Airblast Testing and Analysis: pressure-time histories and determination of blast parameters. Explosive Warhead Performance characterization: fragment spatial distribution, fragment masses, fragment velocity, and presented areas/shape factors. Safety testing: vibration, shock, sympathetic detonation, temperature and humidity, fast cook-off, bullet impact fragment impact, salt, fog, and static firing.</p>
<p>Summary of Technical Capabilities: The testing facility has a central control complex that is connected via fiber optic link. The static fire blast arena is fully instrumented with camera coverage located at 22.5 degree intervals around the perimeter. High speed camera coverage (20K images/sec.) is provided. Complete instrumentation is provided (pressure, velocity, etc.) A UD4000 vibration system provides sine random, sine on random, sine on sine, and random on random testing capabilities. Five temperature and humidity chambers are available for testing between the limits of minus 65 to plus or minus 65 degrees F.</p>
<p>Keywords:</p>

GENERAL INFORMATION

Facility/Capability Title: Explosive Experimental Area

Origin Date: 4/20/94

Service: Navy Organization/Activity: NSWCDD Location: Dahlgren, Va

T&E Functional Area: Armaments/Weapons UIC = 00178

T&E Test Facility Category Measurement Facility (MF) | **R**

T&E S&T D&E IE T&D OTHER =100%

PERCENTAGE USE: 15 50 30 5

BREAKOUT BY T&E FUNCTIONAL AREA (%)

Air Vehicles

Armanent/Weapons 15 50 30 5

EC

Other

Total in Breakout Must Equal "Percentage Use" On First Line

Submission for
UIC: N00178

FOR OFFICIAL USE ONLY

APPENDIX A2

A2-5-R (9/9/94)



GENERAL INFORMATION

Facility/Capability Title: Explosive Experimental Area

Origin Date: 4/20/94

Service: <u>Navy</u>		Organization/Activity: <u>NSWCDD</u>		Location: <u>Dahlgren, Va</u>			
T&E Functional Area: <u>Armaments/Weapons</u>		UIC = <u>00178</u>					
T&E Test Facility Category <u>S&T</u>							
	<u>T&E</u>	<u>S&T</u>	<u>D&E</u>	<u>IE</u>	<u>T&D</u>	<u>OTHER</u>	=100%
PERCENTAGE USE:	<u>15</u>	<u>50</u>	<u>30</u>	---	---	<u>5</u>	
BREAKOUT BY T&E FUNCTIONAL AREA (%)							
Air Vehicles	---	---	---	---	---	---	
Armanent/Weapons	<u>15</u>	<u>50</u>	<u>30</u>	---	---	<u>5</u>	
EC	---	---	---	---	---	---	
Other	---	---	---	---	---	---	
Total in Breakout Must Equal "Percentage Use" On First Line							

ADDITIONAL INFORMATION

Facility/Capability Title: **Explosive Experimental Area**

PERSONNEL	FY93	FY94	FY95	FY96	FY97	FY98	FY99
Officer							
Enlisted							
Civilian	32	32	32	32	32	32	32
Contractor							
Total	32	32	32	32	32	32	32

Total Square Footage: **32,037 (buildings)**

Test Area Square Footage: **(1640 acres)** Office Space Square Footage: **2,666**

Tonnage of Equipment: **850 tons** Volume of Equipment: **100,000 cu ft**

Annual Maintenance Cost: **\$550K** Estimated Moving Cost: **\$6M**

CAPITAL EQUIPMENT INVESTMENT

FY93	FY94	FY95	FY96	FY97	FY98	FY99
	\$180K					

FACILITY CONDITION

FACILITY/CAPABILITY TITLE: Warheads Research Test Facility

AGE: 35 years

REPLACEMENT VALUE: \$5M

MAINTENANCE AND REPAIR BACKLOG: _____

DATE OF LAST UPGRADE: FY93

NATURE OF LAST UPGRADE: **Added 150 KV rod anode x-ray system. Added prototype tangential digital x-ray scanning system. Upgrade improved capability for radiographic inspection of ordnance items.**

MAJOR UPGRADES PROGRAMMED - **None**

1. UPGRADE TITLE:

TOTAL PROGRAMMED AMOUNT:

SUMMARY DESCRIPTION:

2. UPGRADE TITLE:

TOTAL PROGRAMMED AMOUNT:

SUMMARY DESCRIPTION:

HISTORICAL WORKLOAD

FACILITY/CAPABILITY TITLE: Warhead Research Test Facility

T&E FUNCTIONAL AREA		FISCAL YEAR							
		86	87	88	89	90	91	92	93
AIR VEHICLES	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								
EC	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								
ARMAMENT/WEAPONS	DIRECT LABOR	11,180	10,485	10,600	7,680	9,920	7,296	6,208	3,096
	TEST HOURS	2,236	2,097	2,121	1,536	1,984	1,824	1,552	1,032
	MISSIONS								
OTHER T&E	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								
OTHER	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								

DETERMINATION OF UNCONSTRAINED CAPACITY

FACILITY/CAPABILITY TITLE: Warhead Research Test Facility

ANNUAL HOURS OF DOWNTIME	1 <u>300</u>
AVERAGE DOWNTIME PER DAY (LINE 1 ÷ 365)	2 <u>0.82</u>
AVERAGE HOURS AVAILABLE PER DAY (24 - LINE 2)	3 <u>23.18</u>

TEST TYPES	TESTS AT ONE TIME	WORKLOAD PER TEST PER FACILITY HOUR	WORKLOAD PER FACILITY HOUR	UNCONSTRAINED CAPACITY PER DAY (LINE 3 X TOTAL Σ)
4	5	6	7	8 <u>231</u>
<u>Explosive Detonation</u>	<u>1</u>	<u>4</u>	<u>4</u>	
<u>Ordnance Radiograph</u>	<u>1</u>	<u>2</u>	<u>2</u>	ANNUAL UNCONSTRAINED CAPACITY
_____	_____	_____	_____	9 <u>84,607</u>
_____	_____	_____	_____	
_____	_____	_____	_____	
<u>"TYPICAL"</u>	<u>1</u>	<u>4</u>	<u>4</u>	
			TOTAL Σ <u>10</u>	

TECHNICAL INFORMATION

Facility/Capability Title: Warheads Research Test Facility

Facility Description; Including mission statement: **The warheads research test facility includes areas for testing explosive devices up to 100 pounds of net explosive weight. Unique instrumentation includes flash x-ray and ultra high speed framing cameras . A nationally unique steel barrette test fixture allows the instrumentation to operate within the blast radius of the explosive device. The facility also has an installation for radiographic inspection of ordnance items.**

Interconnectivity/Multi-Use of T&E Facility: **The ordnance radiography facility is operated as part of the warhead research test facility. Ordnance radiography conducts pre-test and post-test radiographic inspections of ordnance. This capability is critical to all explosive and weapons development operations at NSWCCD.**

Type of Test Supported: **Detonations of explosive devices up to 100 pounds net explosive weight. Measurement of fragment velocity and dispersion via flash x-ray. Measurement of detonation properties of explosives. Photography of explosive devices during detonations. Radiographic inspection of ordnance and inert hardware.**

Summary of Technical Capabilities: **The warheads research test facility operates ultra high speed framing cameras capable of providing 2.5 million frames per second. The facility has over twenty channels of flash x-ray equipment with energy levels up to 1000 KV. The ordnance radiography facility has constant potential x-ray machines in 150 KV, 320 KV and 4 MeV energy levels. The facility also has a prototype digital tangential x-ray scanning system.**

Keyword: **Ordnance radiography, flash x-ray, ultra high speed photography**

GENERAL INFORMATION

Facility/Capability Title: Warheads Research Test Facility

Origin Date: 4/22/94

Service: <u>Navy</u>		Organization/Activity: <u>NSWCDD</u>		Location: <u>Dahlgren, VA</u>		
T&E Functional Area: <u>Armament/Weapons</u>		UIC = <u>N00178</u>				
T&E Test Facility Category		<u>Measurement Facility (MF)</u>				
PERCENTAGE USE:	T&E	S&T	D&E	IE	T&D	OTHER = 100%
	<u> </u>	<u>50</u>	<u>50</u>	<u> </u>	<u> </u>	<u> </u>
BREAKOUT BY T&E FUNCTIONAL AREA (%)						
Air Vehicles	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Armament/Weapons	<u> </u>	<u>50</u>	<u>50</u>	<u> </u>	<u> </u>	<u> </u>
EC	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Other	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Total in Breakout Must Equal "Percentage Use" On First Line						

ADDITIONAL INFORMATION

Facility/Capability Title: WARHEADS RESEARCH TEST FACILITY

PERSONNEL

	FY93	FY94	FY95	FY96	FY97	FY98	FY99
Officer							
Enlisted							
Civilian	5	4	3	3	3	3	3
Contractor							
Total	5	4	3	3	3	3	3

Total Square Footage: 5,100

Test Area Square Footage: 4,400

Office Space Square Footage: 700

Tonnage of Equipment: 660

Volume of Equipment: 25,000 CU FT

Annual Maintenance Cost: \$10K

Estimated Moving Cost: \$660K

CAPITAL EQUIPMENT INVESTMENT

FY93	FY94	FY95	FY96	FY97	FY98	FY99
55K	35K	20K	15K	15K	15K	15K

FACILITY CONDITION

FACILITY/CAPABILITY TITLE: ELECTROMAGNETIC VULNERABILITY ASSESSMENT FACILITY (EMVAF)

AGE: 35 YEARS REPLACEMENT VALUE: \$20.6M (equipment only, does not include building)

MAINTENANCE AND REPAIR BACKLOG: \$200K

DATE OF LAST UPGRADE: 1984

NATURE OF LAST UPGARDE: CONSTRUCTION OF MODE-STIRRED CHAMBER

MAJOR UPGRADES PROGRAMMED

1. UPGRADE TITLE: EMVAF RENOVATION

TOTAL PROGRAMMED AMOUNT: \$250K

SUMMARY DESCRIPTION: MODIFICATION OF TELEPHONES; COMMUNICATIONS; DATA PROCESSING; LIBRARY (ELECTRONIC AND PAPER); AND DATA ACCESS AND PROCESSING TO STATE-OF-THE-ART CAPABILITIES.

2. UPGRADE TITLE: N/A

TOTAL PROGRAMMED AMOUNT: _____

SUMMARY DESCRIPTION: _____

HISTORICAL WORKLOAD

FACILITY/CAPABILITY TITLE: ELECTROMAGNETIC VULNERABILITY ASSESSMENT FACILITY (EMVAF)

		FISCAL YEAR							
		86	87	88	89	90	91	92	93
T&E FUNCTIONAL									
AIR VEHICLES	DIRECT LABOR	148K	174K	148.4K	131.3KK	103.2K	86K	64.8K	42.6K
	TEST HOURS	3080	3450	3080	2795	2400	2000	1560	1140
	MISSIONS								
EC	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								
ARMAMENT/WEAPONS	DIRECT LABOR	63.6K	58K	63.6K	70.7K	68.8K	86K	97.2K	99.4K
	TEST HOURS	1320	1150	1320	1505	1600	2000	2340	2660
	MISSIONS								
OTHER T&E	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								
OTHER	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								

DETERMINATION OF UNCONSTRAINED CAPACITY

FACILITY/CAPABILITY TITLE: ELECTROMAGNETIC VULNERABILITY ASSESSMENT FACILITY (EMVAF)

ANNUAL HOURS OF DOWNTIME	1 <u> 0 </u>
AVERAGE DOWNTIME PER DAY (LINE 1 ÷ 365)	2 <u> 0 </u>
AVERAGE HOURS AVAILABLE PER DAY (24 - LINE 2)	3 <u> 24 </u>

TEST TYPES	TEST AT ONE TIME	WORKLOAD PER TEST PER FACILITY HOUR	WORKLOAD PER FACILITY HOUR	UNCONSTRAINED CAPACITY PER DAY (LINE 3 X TOTAL)
4	5	6	7	8 <u> 1200 </u>
<u>HERO</u>	<u> 3 </u>	<u> 10 </u>	<u> 30 </u>	
<u>EMV</u>	<u> 2 </u>	<u> 10 </u>	<u> 20 </u>	
<u>SHIELDING EFFECTIVENESS</u>	<u> 1 </u>	<u> 5 </u>	—	ANNUAL UNCONSTRAINED CAPACITY
<u>ANTENNA MEASUREMENTS</u>	<u> 1 </u>	<u> 4 </u>	—	9 <u> 438,000 </u>
<u>RADIATED EMISSIONS</u>	<u> 1 </u>	<u> 3 </u>	—	
<u>"TYPICAL"</u>	—	—	—	
		TOTAL	<u> 50 </u>	

TECHNICAL INFORMATION

Facility/Capability Title: **ELECTROMAGNETIC VULNERABILITY ASSESSMENT FACILITY (EMVAF)**

<p>Facility Description; Including mission statement: Complete electromagnetic test facility used to simulate the high-power full-threat operational electromagnetic environment (EME) in which the Armed Forces must operate. Evaluation of the effects of a joint U.S. Armed Forces tactical EME upon electro-explosive, electronic, electrical, and electro-mechanical systems.</p> <p>Mission Statement (Partial): Plan, initiate, and conduct research, development, test, and evaluation to determine and prevent Hazards of Electromagnetic Radiation to Ordnance (HERO). Also address Electromagnetic Vulnerability (EMV) of aircraft, missiles, missile launchers, ground support equipment, gun mounts, and other shipboard/shorebased equipments. Recommend procedures for safe handling of ordnance systems in electromagnetic environments.</p>
<p>Interconnectivity/Multi-Use of T&E Facility: Facility used to evaluate U.S. Navy, Army, and Air Force aircraft and weapon systems. Also used to evaluate NASA and commercial aviation aircraft.</p>
<p>Type of Test Supported: Hazards of Electromagnetic Radiation to Ordnance (HERO); Electromagnetic Vulnerability (EMV); Shielding Effectiveness; Antenna Measurements; and Radiated Emissions (RE).</p>
<p>Summary of Technical Capabilities: Evaluation of the effects of joint U.S. Armed Forces tactical electromagnetic environment (EME) upon electro-explosive, electronic, electrical, and electro-mechanical systems. Perform electromagnetic (EM) susceptibility and Hazards of Electromagnetic Radiation to Ordnance (HERO) in a simulated "real world" near-field environment. Conduct missile electromagnetic vulnerability (EMV) to the intended launch-to-target operational (friendly and hostile) EME.</p>
<p>Keywords: Hazards of Electromagnetic Radiation to Ordnance (HERO); Electromagnetic Vulnerability (EMV); Radiated Emissions (RE); Electromagnetic Environment (EME); Mode-Stirred Chamber, Anechoic Chamber, Ground Plane.</p>

GENERAL INFORMATION

Facility/Capability Title: ELECTROMAGNETIC VULNERABILITY ASSESSMENT FACILITY (EMVAF)

Origin Date: 04/21/94

Service: NAVY Organization/Activity: NSWCDD Location: DAHLGREN, VA

T&E Functional Area: ARMAMENT/WEAPONS UIC = 60921

T&E Test Facility Category: MF

	<u>T&E</u>	<u>S&T</u>	<u>D&E</u>	<u>IE</u>	<u>T&D</u>	OTHER	= 100%
PERCENTAGE USE:	<u>59</u>	<u>2</u>	<u>6</u>	<u>33</u>	---	---	
BREAKOUT BY T&E FUNCTIONAL AREA (%)							
Air Vehicles	<u>35</u>	---	<u>1.2</u>	---	---	---	
Armament/Weapons	<u>24</u>	<u>2</u>	<u>4.8</u>	<u>33</u>	---	---	
EC	---	---	---	---	---	---	
Other	---	---	---	---	---	---	
Total in Breakout Must Equal Percentage Use on First Line							

Submission for
UIC: N00178

FOR OFFICIAL USE ONLY

APPENDIX A4

A4-5

ADDITIONAL INFORMATION

Facility/Capability Title: **ELECTROMAGNETIC VULNERABILITY ASSESSMENT FACILITY (EMVAF)**

PERSONNEL

	FY93	FY94	FY95	FY96	FY97	FY98	FY99
Officer							
Enlisted							
Civilian	26	26	26	26	26	26	26
Contractor	45	45	45	45	45	45	45
Total	71	71	71	71	71	71	71

Total Square Footage: **129,096**

Test Area Square Footage: **119,096** Office Space Square Footage: **10,000**

Tonnage of Equipment: **360 TON** Volume of Equipment: **173K CUBIC FEET**

Annual Maintenance Cost: **\$200K** Estimated Moving Cost: **\$2M**

CAPITAL EQUIPMENT INVESTMENT

FY93	FY94	FY95	FY96	FY97	FY98	FY99
\$600K						

FACILITY CONDITION

FACILITY/CAPABILITY TITLE: ELECTROMAGNETIC PULSE TEST FACILITIES

AGE: 22 YEARS REPLACEMENT VALUE: \$3M

MAINTENANCE AND REPAIR BACKLOG: 0

DATE OF LAST UPGRADE: 1994

NATURE OF LAST UPGARDE: CONVERT FROM RADIATING EMPRESS I ANTENNA AND PULSES TO NOTES
BONDED WAVE TRANSMISSION LINE AND PULSES.

MAJOR UPGRADES PROGRAMMED

1. UPGRADE TITLE: NONE

TOTAL PROGRAMMED AMOUNT: _____

SUMMARY DESCRIPTION: _____

2. UPGRADE TITLE: _____

TOTAL PROGRAMMED AMOUNT: _____

SUMMARY DESCRIPTION: _____

HISTORICAL WORKLOAD

FACILITY/CAPABILITY TITLE: ELECTROMAGNETIC PULSE TEST FACILITIES

		FISCAL YEAR							
T&E FUNCTIONAL		86	87	88	89	90	91	92	93
AIR VEHICLES	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								
EC	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								
ARMAMENT/WEAPONS	DIRECT LABOR	800	800	0	0	0	400	1,600	800
	TEST HOURS	100	100	0	0	0	50	200	100
	MISSIONS								
OTHER T&E	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								
OTHER	DIRECT	1,000	3,500	0	0	0	1,100	4,400	3,700
	TEST HOURS	125	375	0	0	0	150	600	400
	MISSIONS								

DETERMINATION OF UNCONSTRAINED CAPACITY

FACILITY/CAPABILITY TITLE: ELECTROMAGNETIC PULSE TEST FACILITIES

ANNUAL HOURS OF DOWNTIME	1 <u>6132</u>
AVERAGE DOWNTIME PER DAY (LINE 1 ÷ 365)	2 <u>16.8</u>
AVERAGE HOURS AVAILABLE PER DAY (24 - LINE 2)	3 <u>7.2</u>

TEST TYPES	TEST AT ONE TIME	WORKLOAD PER TEST PER FACILITY HOUR	WORKLOAD PER FACILITY HOUR	UNCONSTRAINED CAPACITY PER DAY (LINE 3 X TOTAL)
4	5	6	7	8 <u>59</u>
<u>EMP</u>	<u>1</u>	—	—	
—	—	—	—	ANNUAL UNCONSTRAINED CAPACITY
—	—	—	—	9 <u>21,535</u>
—	—	—	—	
<u>"TYPICAL"</u>	<u>1</u>	<u>8.2</u>	<u>8.2</u>	
		TOTAL	<u>8.2</u>	

TECHNICAL INFORMATION

Facility/Capability Title: ELECTROMAGNETIC PULSE TEST FACILITIES

<p>Facility Description; Including mission statement:</p> <p>This is a free-field electromagnetic pulse (EMP) facility that simulates the waveform of MIL-STD-461D RS-105. It is used to conduct research to determine the effects of EMP to fleet electronic systems and assess system survivability. Also includes an 8 channel data acquisition and processing system (DAAPS).</p>
<p>Interconnectivity/Multi-Use of T&E Facility: None</p>
<p>Type of Test Supported: EMP Survivability</p>
<p>Summary of Technical Capabilities:</p> <p>Simulates MIL-STD-461D RS-105 EMP free-field waveform. DAAPS - transient data acquisition, recording, and processing.</p>
<p>Keywords: Electromagnetic Pulse (EMP), Data Acquisition and Processing System (DAAPS).</p>

GENERAL INFORMATION

Facility/Capability Title: ELECTROMAGNETIC PULSE TEST FACILITIES

Origin Date: 04/21/94

Service: NAVY Organization/Activity: NSWCDD Location: DAHLGREN, VA

T&E Functional Area: ARMAMENT/WEAPONS UIC = 60921

T&E Test Facility Category: MF

	<u>T&E</u>	<u>S&T</u>	<u>D&E</u>	<u>IE</u>	<u>T&D</u>	<u>OTHER</u>	= 100%
PERCENTAGE USE:	<u>25</u>	---	<u>75</u>	---	---	---	

BREAKOUT BY T&E FUNCTIONAL AREA (%)

Air Vehicles	---	---	---	---	---	---
Armament/Weapons	<u>10</u>	---	<u>25</u>	---	---	---
EC	---	---	---	---	---	---
Other	<u>15</u>	---	<u>50</u>	---	---	---

Total in Breakout Must Equal Percentage Use on First Line

ADDITIONAL INFORMATION

Facility/Capability Title: **ELECTROMAGNETIC PULSE TEST FACILITIES**

PERSONNEL

	FY93	FY94	FY95	FY96	FY97	FY98	FY99
Officer							
Enlisted							
Civilian	5	3	3	3	3	3	3
Contractor	6						
Total	11	3	3	3	3	3	3

Total Square Footage: **120,000**

Test Area Square Footage: **39,927** Office Space Square Footage: **200**

Tonnage of Equipment: **15 TON** Volume of Equipment: **3000 CUBIC FEET**

Annual Maintenance Cost: **\$20K** Estimated Moving Cost: **\$300K**

CAPITAL EQUIPMENT INVESTMENT

FY93	FY94	FY95	FY96	FY97	FY98	FY99
\$70K	\$60K					

FACILITY CONDITION

FACILITY/CAPABILITY TITLE: Search and Track Sensor Test Site (STSTS)

AGE: 19 Years REPLACEMENT VALUE: \$23.2M

MAINTENANCE AND REPAIR BACKLOG: \$570K (space/refurb elect power/refurb pavement/refurb & paint towers.

DATE OF LAST UPGRADE: **August 1992**

NATURE OF LAST UPGRADE: **Adjacent unused building (originally used as an ordnance magazine mockup) was refurbished and added to the STSTS. Addition of this building added capability to install/operate sensor integration and combat system equipment in the proximity of supporting sensors and weapons.**

MAJOR UPGRADES PROGRAMMED: **None**

1. UPGRADE TITLE: _____

TOTAL PROGRAMMED AMOUNT: _____

SUMMARY DESCRIPTION: _____

2. UPGRADE TITLE: _____

TOTAL PROGRAMMED AMOUNT: _____

SUMMARY DESCRIPTION: _____

HISTORICAL WORKLOAD

FACILITY/CAPABILITY TITLE: Search and Track Sensor Test Site (STSTS)

T&E FUNCTIONAL AREA		FISCAL YEAR							
		86	87	88	89	90	91	92	93
AIR VEHICLES	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								
EC	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								
ARMAMENT/WEAPONS	DIRECT LABOR								
	TEST HOURS								
	MISSIONS								
OTHER T&E (Sensors)	DIRECT LABOR	7.6K	14.7K	14.7K	14.7K	16.3K	17.3K	19.2K	19.2K
	TEST HOURS	640	1400	1700	1400	1800	2000	2200	2200
	MISSIONS								
OTHER	DIRECT								

	TEST HOURS												
	MISSIONS												

Submission for
UIC: N00178

FOR OFFICIAL USE ONLY

APPENDIX A6

A6-3

DETERMINATION OF UNCONSTRAINED CAPACITY

FACILITY/CAPABILITY TITLE: Search and Track Sensor Test Site (STSTS)

ANNUAL HOURS OF DOWNTIME	1 2900
AVERAGE DOWNTIME PER DAY (LINE 1 ÷ 365)	2 8
AVERAGE HOURS AVAILABLE PER DAY (24 - LINE 2)	3 16

TEST TYPES	TESTS AT ONE TIME	WORKLOAD PER TEST PER FACILITY HOUR	WORKLOAD PER FACILITY HOUR	UNCONSTRAINED CAPACITY PER DAY (LINE 3 X TOTAL Σ)
4	5	6	7	8 <u>416</u>
<u>Sensor/System Field Test</u>	<u>1</u>	<u>10</u>	<u>10</u>	
<u>Sensor/System R&D Development Testing</u>	<u>4</u>	<u>4</u>	<u>16</u>	ANNUAL UNCONSTRAINED CAPACITY
_____	_____	_____	_____	9 <u>151,840</u>
_____	_____	_____	_____	
_____	_____	_____	_____	
<u>"TYPICAL"</u>	_____	_____	_____	
			TOTAL Σ <u>26</u>	

TECHNICAL INFORMATION

Facility/Capability Title: Search and Track Sensor Test Site (STSTS)

Facility Description; Including mission statement: **The Search and Track Sensor Test Site (STSTS) located on the Potomac River Test Range (PRTR) at the Naval Surface Warfare Center Dahlgren Division (NSWCDD), Dahlgren, Virginia, allows over water testing of individual Radio Frequency (RF) and Electro-Optical (EO) sensors or complex sensor systems during and/or at the completion of their development. This facility, used in conjunction with the PRTR facilities, can provide an 80,000 yard over water, instrumental range capability. The STSTS provides the ability to fly subsonic manned and towed targets at altitudes down to the surface for sensor performance evaluations.**

Interconnectivity/Multi-Use of T&E Facility: **The STSTS, due to its unique location, can support test and evaluation for, in addition to RF/EO sensors, gun systems, security surveillance systems, special warfare systems, above-on-below-surface sensors/weapons and other specialty sensor/weapon related equipments. The EO ground truth sensors at the STSTS are interconnected with ground truth radars/theodolites of the PRTR, providing a unique high accuracy capability.**

Type of Test Supported: **Target detection and track range; sensor sensitivities, in clutter performance, low elevation/low altitude target detection and track; multisensor integration.**

Summary of Technical Capabilities: **The STSTS is fully instrumented including a wideband RF/EO LAN which provides for the distribution of sensor data including analog and digital video through the test site. Instrumentation assets includes: VHS, PAL, and other video format recorders, digital data recording system, differential GPS, meteorological stations and IRIG time distribution. Data reduction capabilities are available via a VAX computer.**

Keyword: **over water, low elevation, low observable, multi-sensor, integration, radar, RF, infrared, IR, EO**

GENERAL INFORMATION

Facility/Capability Title: Search and Track Sensor Test Site (STSTS)

Origin Date: 21 April 1994

Service: Navy Organization/Activity: NSWCDD Location: Dahlgren, VA

T&E Functional Area: Electronic Combat Systems UIC = N00178

T&E Test Facility Category OAR

	<u>T&E</u>	<u>S&T</u>	<u>D&E</u>	<u>IE</u>	<u>T&D</u>	<u>OTHER</u>	=100%
PERCENTAGE USE:	<u>5</u>	<u>35</u>	<u>60</u>	_____	_____	_____	

BREAKOUT BY T&E FUNCTIONAL AREA (%)

Air Vehicles	_____	_____	_____	_____	_____	_____
Armament/Weapons	<u>5</u>	<u>35</u>	<u>60</u>	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____

Total in Breakout Must Equal "Percentage Use" On First Line

ADDITIONAL INFORMATION

Facility/Capability Title: Search and Track Sensor Test Site (STSTS)

PERSONNEL

	FY93	FY94	FY95	FY96	FY97	FY98	FY99
Officer							
Enlisted							
Civilian	10	7	8	8	7	7	7
Contractor							
Total	10	7	8	8	7	7	7

Total Square Footage: 307,800

Test Area Square Footage: 21,780 Office Space Sq Footage: 0

Tonnage of Equipment: 96 tons (includes vans) Volume of Equipment: 4,800 cu ft.

Annual Maintenance Cost: \$ 115K Estimated Moving Cost: \$920K

CAPITAL EQUIPMENT INVESTMENT

FY93	FY94	FY95	FY96	FY97	FY98	FY99

Note: estimates on this page DO NOT include project-related equipment.

FOR OFFICIAL USE ONLY
CONTROL # EC-02A

R 203

Global

T&E JCSG CLARIFICATION - FORM #3
Armament/Weapons (MF)

Activity Title: Dahlgren Site, NSWCDD

UIC: N00178

Facility/Capability Title: Explosive Experimental Area (EEA)

T&E Test Facility Category: Measurement Facility (MF)

Utilize the following table to indicate which of the indicated T&E testing can be conducted by this Measurement Facility.

Spectra	Yes	No
Environmental T&E	X	
Safety T&E	X	
Warhead Performance T&E	X	
Fuze T&E	X	
Seeker, sensor and guidance/control performance and target/background signature characterization		X
Propulsion Performance T&E	X	
Airframe/aerodynamic/aerothermal performance T&E across subsonic, transonic, and hypersonic regimes		X
Gun Performance T&E	X	
Electromagnetic Environmental Effects	X	
Directed Energy		X

Is this Facility/Capability equipped to support Top Secret or Special Access required work? Yes X No .

FOR OFFICIAL USE ONLY

R

FOR OFFICIAL USE ONLY
CONTROL # EC-02A

T&E JCSG CLARIFICATION - FORM #3
Armament/Weapons (MF)

Activity Title: Dahlgren Site, NSWCDD

UIC: N00178

Facility/Capability Title: Warheads Research Test Facility

T&E Test Facility Category: Measurement Facility (MF)

Utilize the following table to indicate which of the indicated T&E testing can be conducted by this Measurement Facility.

Spectra	Yes	No
Environmental T&E		X
Safety T&E	X	
Warhead Performance T&E	X	
Fuze T&E		X
Seeker, sensor and guidance/control performance and target/background signature characterization		X
Propulsion Performance T&E		X
Airframe/aerodynamic/aerothermal performance T&E across subsonic, transonic, and hypersonic regimes		X
Gun Performance T&E		X
Electromagnetic Environmental Effects		X
Directed Energy		X

Is this Facility/Capability equipped to support Top Secret or Special Access required work? Yes ___ No X

R

**FOR OFFICIAL USE ONLY
CONTROL # EC-02A**

**T&E JCSG CLARIFICATION - FORM #3
Armament/Weapons (MF)**

Activity Title: Dahlgren Site, NSWCDD

UIC: N00178

Facility/Capability Title: Electromagnetic Vulnerability Assessment Facility (EMVA)

T&E Test Facility Category: Measurement Facility (MF)

Utilize the following table to indicate which of the indicated T&E testing can be conducted by this Measurement Facility.

Spectra	Yes	No
Environmental T&E	X	
Safety T&E	X	
Warhead Performance T&E		X
Fuze T&E		X
Seeker, sensor and guidance/control performance and target/background signature characterization		X
Propulsion Performance T&E		X
Airframe/aerodynamic/aerothermal performance T&E across subsonic, transonic, and hypersonic regimes		X
Gun Performance T&E		X
Electromagnetic Environmental Effects	X	
Directed Energy		X

Is this Facility/Capability equipped to support Top Secret or Special Access required work? Yes X No _____.

FOR OFFICIAL USE ONLY

R

**FOR OFFICIAL USE ONLY
CONTROL # EC-02A**

**T&E JCSG CLARIFICATION - FORM #3
Armament/Weapons (MF)**

Activity Title: Dahlgren Site, NSWCDD

UIC: N00178

Facility/Capability Title: Electromagnetic Pulse Facilities

T&E Test Facility Category: Measurement Facility (MF)

Utilize the following table to indicate which of the indicated T&E testing can be conducted by this Measurement Facility.

Spectra	Yes	No
Environmental T&E	X	
Safety T&E	X	
Warhead Performance T&E		X
Fuze T&E		X
Seeker, sensor and guidance/control performance and target/background signature characterization		X
Propulsion Performance T&E		X
Airframe/aerodynamic/aerothermal performance T&E across subsonic, transonic, and hypersonic regimes		X
Gun Performance T&E		X
Electromagnetic Environmental Effects	X	
Directed Energy		X

Is this Facility/Capability equipped to support Top Secret or Special Access required work? Yes X No .

NSWC DAHLGREN, DAHLGREN

JL
SEA 09X
5/13/94

DATA CALL #13

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

NEXT ECHELON LEVEL (if applicable)

N. S. SCOTT, CAPT. USN

NAME (Please type or print)

[Signature]
Signature

COMMANDER

Title

10 May 94
Date

NAVAL SURFACE WARFARE CENTER

DAHLGREN DIVISION

Activity

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

NEXT ECHELON LEVEL (if applicable)

RADM (SEL) D. P. SARGENT, JR.

NAME (Please type or print)

[Signature]
Signature

COMMANDER

Title

5/11/94
Date

NAVAL SURFACE WARFARE CENTER

Activity

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

MAJOR CLAIMANT LEVEL

G. R. STERNER

NAME (Please type or print)

[Signature]
Signature

Commander
Naval Sea Systems Command

Activity

5-13-94
Date

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

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

J. B. Greene, Jr

NAME (Please type or print)

[Signature]
Signature

Acting

Title

20 MAY 1994
Date

NSWC DAHLGREN, DAHLGREN

JL
SEA09X
5/13/94

DATA CALL #13

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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

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

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

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

ACTIVITY COMMANDER

N. S. SCOTT, CAPT. USN
NAME (Please type or print)


Signature

COMMANDER
Title
NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION
Activity

10 May 94
Date

Submission of revised page, Data Call #13, Naval Surface Warfare Center, Dahlgren Division, Dahlgren Site

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

NEXT ECHELON LEVEL (if applicable)

J. C. OVERTON, CAPT, USN
NAME (Please type or print)

J. C. Overton
Signature

COMMANDER
Title

25 Aug 94
Date

NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION

Activity

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

NEXT ECHELON LEVEL (if applicable)

RADM (SEL) D. P. SARGENT, JR.
NAME (Please type or print)

D. P. Sargent
Signature

COMMANDER
Title

8/26/94
Date

NAVAL SURFACE WARFARE CENTER
Activity

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

MAJOR CLAIMANT LEVEL

NAME (Please type or print)

G. R. Sterner
Signature

G. R. STERNER
Title
Commander
Naval Sea Systems Command

8/29/94
Date

Activity

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

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

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

W. A. Earner
Signature

Title

9/1/94
Date

BRAC-95 CERTIFICATION

**Submission of revised page, Data Call #13, Naval Surface Warfare Center, Dahlgren Division,
Dahlgren Site**

Reference: SECNAVNOTE 11000 of 08 December 1993

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

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

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

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

ACTIVITY COMMANDER

J. C. OVERTON, CAPT, USN
NAME (Please type or print)


Signature

COMMANDER
Title
NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION
Activity

25 Aug 94
Date

Footnote:

This is the revised page of Data Call #13 in response to the further guidance provided by the BSAT facsimile of 22 August 1994.

Document Separator

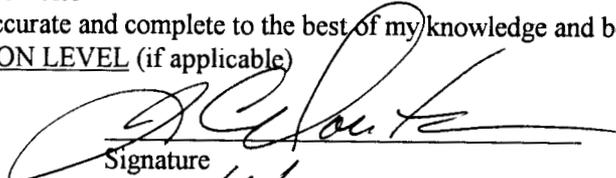
revision ~~EA 111~~

pg 16

**Submission of revised page, Data Call #13, Naval Surface Warfare Center, Dahlgren Division,
Dahlgren Site**

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.
NEXT ECHELON LEVEL (if applicable)

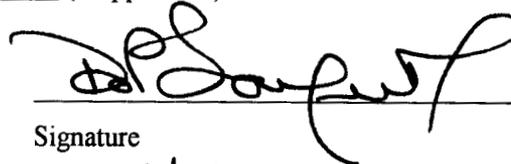
J. C. OVERTON, CAPT, USN
NAME (Please type or print)
COMMANDER
Title


Signature
9/6/94
Date

NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION
Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.
NEXT ECHELON LEVEL (if applicable)

RADM (SEL) D. P. SARGENT, JR.
NAME (Please type or print)
COMMANDER
Title


Signature
9/7/94
Date

NAVAL SURFACE WARFARE CENTER
Activity

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

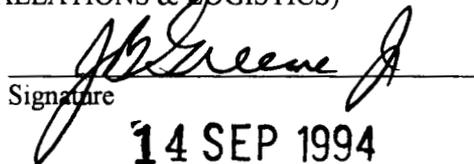
G. R. STERNER
NAME (Please type or print)
Commander
Title
Naval Sea Systems Command


Signature
9-9-94
Date

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.
DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

J. B. GREENE, JR.
NAME (Please type or print)
ACTING
Title


Signature
14 SEP 1994
Date

BRAC-95 CERTIFICATION

**Submission of revised page, Data Call #13, Naval Surface Warfare Center, Dahlgren Division,
Dahlgren Site**

Reference: SECNAVNOTE 11000 of 08 December 1993

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

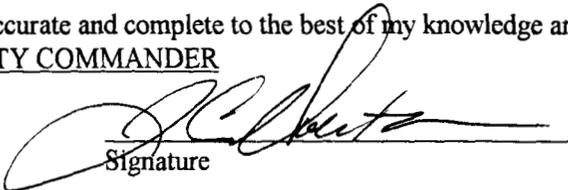
The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

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

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

ACTIVITY COMMANDER

J. C. OVERTON, CAPT, USN
NAME (Please type or print)


Signature

COMMANDER
Title
NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION
Activity

9/6/94
Date

Footnote:

This is the revised page of Data Call #13 in response to the further guidance provided by the BSAT facsimile of 1 September 1994.

**Submission of revised page and clarification, Data Call #13, Naval Surface Warfare Center,
Dahlgren Division, Dahlgren Site**

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.
NEXT ECHELON LEVEL (if applicable)

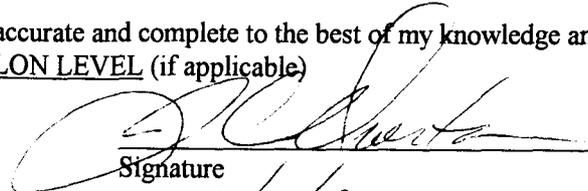
J. C. OVERTON, CAPT, USN
NAME (Please type or print)

COMMANDER
Title

NAVAL SURFACE WARFARE CENTER

DAHLGREN DIVISION

Activity


Signature
9/9/94
Date

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

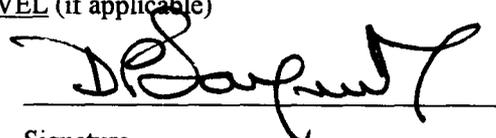
NEXT ECHELON LEVEL (if applicable)

RADM (SEL) D. P. SARGENT, JR.
NAME (Please type or print)

COMMANDER
Title

NAVAL SURFACE WARFARE CENTER

Activity


Signature
9/14/94
Date

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

MAJOR CLAIMANT LEVEL

~~NAME (Please type or print)~~
~~Commander~~
~~Naval Sea Systems Command~~
Title

Activity

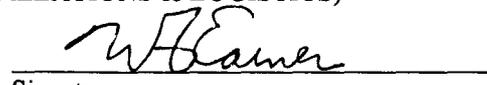

Signature
9-22-94
Date

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

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

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

Title


Signature
9/29/94
Date

BRAC-95 CERTIFICATION

Submission of revised page and clarification pages for Data Call #13, Naval Surface Warfare Center, Dahlgren Division, Dahlgren Site

Reference: SECNAVNOTE 11000 of 08 December 1993

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

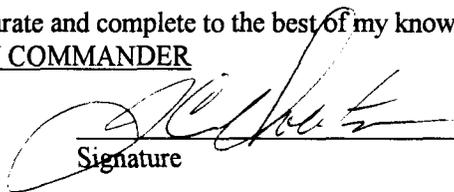
The signing of this certification constitutes a representation that the certifying official has reviewed the information and either (1) personally vouches for its accuracy and completeness or (2) has possession of, and is relying upon, a certification executed by a competent subordinate.

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

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

ACTIVITY COMMANDER

J. C. OVERTON, CAPT, USN
NAME (Please type or print)


Signature

COMMANDER
Title
NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION
Activity

9/9/94
Date

Footnote:

This is the revised page and clarifications for Data Call #13 in response to the further guidance provided by the BSAT facsimile of 8 September 1994.

Document Separator

**CAPACITY ANALYSIS:
DATA CALL #4 WORK SHEET FOR
TECHNICAL CENTER or LABORATORY: DAHLGREN SITE**

Table of Contents

<u>Section</u>	<u>Page</u>
1. Historical and Projected Workload	1
2. Current Class 2 Assets	6
3. Class 2 Space Available for Expansion	16
4. Class 1 Space Available for Expansion	20
5. Base Infrastructure Capacity	22
6. Ship Berthing Capacity	26
7. Operational Airfield Capacity	26
8. Depot Level Maintenance Capacity	26
9. Ordnance Storage Capacity	26

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 DAHLGREN SITE
(UIC N00178)

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	259,800	255,500	129,800	3142.9	3151.9	135
87	307,500	226,700	158,200	3220.5	3028.2	221
88	215,200	256,000	210,500	3099.9	3159.9	230
89	255,800	279,900	194,400	3207.8	3139.5	242
90	303,400	336,700	187,800	3196.3	3234.3	251
91	346,600	392,900	206,300	3271.8	3339.8	260
92	396,400	434,800	181,500	3429.2	3355.1	271
93	449,500	553,500	157,400	3242.4	3186.4	281
94	471,500			3301.2		
95	407,100			2795.3		
96	428,000			2767.9		
97	431,000			2860.0		

* Includes A-76 Contracts beginning in 1987; workyears are estimates.

Table 1.2 Historical and Projected Workload for Detachments of DAHLGREN SITE

(UIC N00178)

Not applicable. Detachment responding separately to data call.

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						

TABLE 1.3 FY 1993 BREAKOUT OF FUNDS BUDGETED for DAHLGREN SITE
(UIC N00178) \$ M

SPONSOR	RDT&E(N)							Other RDT&E	Other Appropriation						
	6.1	6.2	6.3 a	6.3b	6.4	6.5	6.6		OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVSEA			2.8	65.4	35.1	0.7	19.4	14.2	35.7		49.2	9.1	61.0	0.3	8.1
SPAWAR			0.2	0.6	4.4	1.6	1.0	1.7	1.4		0.7		0.2		0.5
NAVAIR			0.5	2.7	0.9	0.2	2.0	3.5	12.6	0.7	7.8	1.8	10.1		0.1
ONR	2.5	12.4	0.9		0.1	0.6	2.3	1.1							
SSPO					6.0	0.1	0.6	9.7	25.4		1.4	0.8	5.4		4.0
NELO				50.6											
OTHER NAVY		1.9		4.0	5.9	0.2	1.4		11.0		1.4	9.2		13.6	
ARMY								3.1							4.0
AIR FORCE								1.5							0.4
OTHER DOD								11.1							1.8
OTHER GOV'T															0.7
PRIVATE															1.2

**TABLE 1.3 FY 1995 BREAKOUT OF FUNDS BUDGETED for DAHLGREN SITE
(UIC N00178) \$ M**

SPONSOR	RDT&E(N)							Other RDT&E	Other Appropriation						
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVSEA		2.6	15.8	36.0	25.1	0.9	5.0	5.3	34.9		22.9	12.3	54.7	0.6	11.3
SPAWAR		0.7	0.1	0.1	2.8	0.9		0.5	1.0		0.3			0.3	
NAVAIR				8.9	0.4	0.1	6.0	0.1	12.9	1.1	3.1	0.7	11.6		1.5
ONR	0.6	5.0	0.1	0.3		0.8	1.2	0.4	0.3						
SSPO						0.1	3.1	1.6	30.2		0.3	0.7	4.9		3.7
NELO				25.1					1.1						
OTHER NAVY		0.7		4.0	3.5		0.5		10.0			10.0		8.3	
ARMY								0.2							
AIR FORCE								0.8							0.1
OTHER DOD								5.8							2.0
OTHER GOV'T															0.9
PRIVATE															0.3

**TABLE 1.3 FY 1996 BREAKOUT OF FUNDS BUDGETED for DAHLGREN SITE
(UIC N00178) \$ M**

SPONSOR	RDT&E(N)							Other RDT&E	Other Appropriation						
	6.1	6.2	6.3	6.3	6.4	6.5	6.6		OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVSEA		1.4	15.0	34.5	23.2	0.9	4.7	9.4	41.5		24.5	10.3	55.0	0.4	12.0
SPAWAR		0.9	0.1		1.7	0.9			0.4		0.2				0.3
NAVAIR				9.1	0.4	0.2	7.0	0.1	14.2	1.1	3.1	0.7	12.1		2.0
ONR	0.6	9.9	0.1	0.3		0.8	3.0	0.5	0.2						
SSPO						0.1	4.8	0.7	31.1			0.4			4.3
NELO				28.8					1.1						
OTHER NAVY		0.6		4.0	3.0				11.0		1.0	13.0	2.0	9.0	
ARMY								0.2							
AIR FORCE								0.7							0.2
OTHER DOD								6.0							1.7
OTHER GOV'T															1.1
PRIVATE															0.5

**TABLE 1.3 FY 1997 BREAKOUT OF FUNDS BUDGETED for DAHLGREN SITE
(UIC N00178) \$ M**

SPONSOR	RDT&E(N)							Other RDT&E	Other Appropriation						
	6.1	6.2	6.3	6.3	6.4	6.5	6.6		OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVSEA		1.4	15.0	46.0	23.4	0.9	5.0	10.0	38.0		22.9	8.0	53.7	0.5	12.0
SPAWAR		0.5			1.2	0.9			0.5		0.3				0.1
NAVAIR				9.3	0.4	0.2	7.0	0.1	14.1	1.1	2.9	1.3	12.1		2.4
ONR	2.7	10.0	0.1	0.1		0.8	3.0	0.2	0.3						
SSPO						0.1	3.9	0.7	29.5						4.5
NELO				29.5					1.2						
OTHER NAVY		0.6		4.0	3.0				12.0		1.0	12.0	2.0	8.0	
ARMY								0.2							
AIR FORCE								0.7							0.2
OTHER DOD								6.0							1.7
OTHER GOV'T															1.2
PRIVATE															0.5

**TABLE 1.4 FY 199_ BREAKOUT OF FUNDS BUDGETED for DETACHMENTS of DAHLGREN SITE
(UIC N00178)**

NOT APPLICABLE, THERE WERE NO DETACHMENTS THAT DID NOT RECEIVE THIS DATA CALL

SPONSOR	RDT&E(N)							Other RDT&E	Other Appropriation						
	6.1	6.2	6.3a	6.3b	6.4	6.5	6.6		OMN	APN	OPN	WPN	SCN	Other Navy	All Other
NAVSEA															
SPAWAR															
NAVAIR															
ONR															
SSPO															
NELO															
OTHER NAVY															
ARMY															
AIR FORCE															
OTHER DOD															
OTHER GOV'T															
PRIVATE															

2. Current Class 2 Assets. Complete Tables 2.1 thru 2.6 below as directed. Tables 2.1, 2.2 & 2.3 will define the Class 2 property owned or leased by your activity (less Detachments). Tables 2.4, 2.5 & 2.6 will define the combined Class 2 assets owned or occupied at your Detachment sites which did not receive this Data Call directly. Report space holdings and assignments as of 31 March 1994. Provide numbered notes to explain imminent changes, additions & deletions such as previous BRAC realignments, MILCON (including BRAC related MILCON) & Special Projects that are currently programmed in the FYDP. Give the project number & title, cost, short description, quantity of additional square footage, award date, estimated/actual construction start date and estimated BOD. Square footage of space is to be reported in "Gross Floor/Building Area" (GF/BA) as defined in NAVFAC P-80. Many of the P-80 Category Code Numbers (CCN's) have assets that are reported in units of measure other than square feet (SF). The only unit of measure desired for this Data Call is SF. Only report the assets in each CCN that are normally reported in SF.

For your Site:

- a. Use Table 2.1 below to indicate the total amount of Class 2 space at your site for which you are the plant account holder as of 31 March 1994.
- b. Use Table 2.2 below to indicate the total amount of your Class 2 space reported in Table 2.1 that is assigned to your tenant commands and/or independent activities at your site as of 31 March 1994.
- c. Use Table 2.3 below to indicate the total amount of Class 2 space, for which you are not the plant account holder, but which is utilized/leased by you (less Detachments). Provide numbered notes to identify the title and UIC of the plant account holder/lessor, quantity of leased space and the associated lease cost.

Table 2.1 Main Site Class 2 Assets of DAHLGREN SITE (UIC N00178)

Building type	NAVFA C (P-80) category code	Gross Floor/Building Area (KSF)			
		Adequate	Substandard	Inadequate	Total
Operational & Training	100	248.5	3.1	0.0	251.6
Maintenance & Production	200	117.0	7.4	0.0	124.4
Science labs	310	638.9	25.7	4.0	668.6
Aircraft labs	311	1.6	0.0	0.0	1.6
Missile and Space labs	312	33.9	0.0	0.0	33.9
Ship and Marine labs	313	0.0	0.0	0.0	0.0
Ground Transportation labs	314	0.0	0.0	0.0	0.0
Weapon and Weapon Systems labs	315	93.4	0.0	0.0	93.4
Ammunition, Explosives, & Toxics labs	316	78.5	30.3	3.5	112.3
Electrical Equip. labs	317	81.0	3.6	1.3	85.9
Propulsion labs	318	0.0	0.0	0.0	0.0
Miscellaneous labs	319	97.2	4.4	3.0	104.6
Underwater Equip. labs	320	0.0	0.0	0.0	0.0
Technical Services labs	321	22.7	0.1	4.5	27.3
Supply Facilities	400	76.1	23.4	6.1	105.6
Hospital & other Medical	500	10.3	0.0	0.0	10.3
Administrative Facilities	600	214.7	42.5	0.6	257.8
Housing & Community	700	550.1	46.6	2.3	599.0
Utilities & Grounds	800	17.5	0.0	0.2	17.7
Other					
Totals		2,281.4	187.1	25.5	2,494.0

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:

SCIENCE LABS/310

(2) WHAT MAKES IT INADEQUATE?

Buildings 462 and 932 are inadequate due to physical condition of buildings. Building 181 is inadequate due to total deterioration of building.

(3) WHAT USE IS BEING MADE OF THE FACILITY?

Building 462 is being used as a lab. Building 932 is being used for storage. Building 181 is being used for storage.

(4) WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?

It has been determined that it is not economically feasible to upgrade these buildings.

(5) WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?

Building 462 could be used for tech storage. Buildings 932 and 181 should be demolished.

(6) CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:

There are no current plans to upgrade these facilities.

(7) HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?

No

(1) FACILITY TYPE/CODE:

AMMUNITION, EXPLOSIVES, AND TOXICS LABS/316

(2) WHAT MAKES IT INADEQUATE?

Buildings 370A and 428 are inadequate due to deterioration of buildings. Building 490 is

Page 12 of 38
UIC N00178

Buildings 370A and 428 are inadequate due to deterioration of buildings. Building 490 is inadequate due to physical condition of the building. Building 990 is inadequate due to the physical condition/waterproofing and design criteria/wiring and feeders.

(3) WHAT USE IS BEING MADE OF THE FACILITY?

Building 370A is being used as a lab (316-10). Building 428 is awaiting demolition. Building 490 is being used for lab and storage. Building 990 is being used as a lab; this building is planned to be vacated in 8/95 and will be demolished.

(4) WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?

It has been determined that it is not economically feasible to upgrade these facilities.

(5) WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?

These facilities should be demolished.

(6) CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:

There are no plans to upgrade these facilities.

(7) HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?

No

(1) FACILITY TYPE/CODE:

ELECTRICAL EQUIPMENT LABS/317

(2) WHAT MAKES IT INADEQUATE?

These facilities are inadequate due to physical condition of these buildings.

(3) WHAT USE IS BEING MADE OF THE FACILITY?

These facilities are being used as labs.

(4) WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?

It has been determined that it is not economically feasible to upgrade these facilities.

Page 13 of 38
UIC N00178

(5) WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?

These facilities should be demolished.

(6) CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:

There are no plans to upgrade these facilities.

(7) HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?

No

(1) FACILITY TYPE/CODE:

MISCELLANEOUS LABS/319

(2) WHAT MAKES IT INADEQUATE?

These facilities are inadequate due to physical condition of these buildings.

(3) WHAT USE IS BEING MADE OF THE FACILITY?

These facilities are being used as labs.

(4) WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?

It has been determined that it is not economically feasible to upgrade these facilities.

(5) WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?

These facilities should be demolished.

(6) CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:

There are no plans to upgrade these facilities.

(7) HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?

No

(1) FACILITY TYPE/CODE:

TECHNICAL SERVICE LABS/321

(2) WHAT MAKES IT INADEQUATE?

This facility is inadequate due to the physical condition of the building.

(3) WHAT USE IS BEING MADE OF THE FACILITY?

This facility is being used as a lab.

(4) WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?

It has been determined that it is not economically feasible to upgrade this facility.

(5) WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?

This facility should be demolished.

(6) CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:

There are no plans to upgrade this facility.

(7) HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?

No

(1) FACILITY TYPE/CODE:

SUPPLY FACILITIES/400

(2) WHAT MAKES IT INADEQUATE?

These facilities are inadequate due to physical condition of these buildings.

(3) WHAT USE IS BEING MADE OF THE FACILITY?

These facilities are being used as warehouses.

(4) WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?

It has been determined that it is not economically feasible to upgrade these facilities.

(5) WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?

These facilities should be demolished.

(6) CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:

There are no plans to upgrade these facilities.

(7) HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?

No

(1) FACILITY TYPE/CODE:

ADMINISTRATIVE FACILITIES/600

(2) WHAT MAKES IT INADEQUATE?

This facility is inadequate due to the physical condition of the building.

(3) WHAT USE IS BEING MADE OF THE FACILITY?

This facility is being used mostly as lab space with some space allocated for office.

(4) WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?

It has been determined that it is not economically feasible to upgrade this facility.

(5) WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?

This facility should be demolished.

(6) CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:

There are no plans to upgrade this facility.

(7) HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?

No

(1) FACILITY TYPE/CODE:

HOUSING AND COMMUNITY/700

(2) WHAT MAKES IT INADEQUATE?

These facilities are inadequate due to the total deterioration of these buildings.

(3) WHAT USE IS BEING MADE OF THE FACILITY?

These facilities are vacant and awaiting demolition per MILCON P-269.

(4) WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?

It has been determined that it is not economically feasible to upgrade these facilities.

(5) WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?

These facilities should be demolished.

(6) CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:

There are no plans to upgrade these facilities.

(7) HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?

No

(1) FACILITY TYPE/CODE:

UTILITIES AND GROUNDS/800

(2) WHAT MAKES IT INADEQUATE?

This facility is inadequate due to the physical condition of the building.

Page 17 of 38
UIC N00178

(3) WHAT USE IS BEING MADE OF THE FACILITY?

This facility is being used for tech storage.

(4) WHAT IS THE COST TO UPGRADE THE FACILITY TO SUBSTANDARD?

It has been determined that it is not economically feasible to upgrade this facility.

(5) WHAT OTHER USE COULD BE MADE OF THE FACILITY AND AT WHAT COST?

This facility should be demolished.

(6) CURRENT IMPROVEMENT PLANS AND PROGRAMMED FUNDING:

There are no plans to upgrade this facility.

(7) HAS THIS FACILITY CONDITION RESULTED IN C3 OR C4 DESIGNATION ON YOUR BASEREP?

No

**Table 2.2 Main Site Class 2 Space of DAHLGREN SITE (UIC N00178)
Assigned to Tenants**

TENANT		NAVFAC (P-80) Category Code	GF/BA Assigned (KSF)
Name	UIC		
NAVWAC	498698	310	23.8
		319	3.8
		610	11.4
NAVSPACOM	N00046	131	1.8
		141	1.2
		143	61.5
		217	0.7
		310	6.8
		317	0.8
		610	40.6
		730	1.3
NAVCOMM DET	N00788	319	0.2
EOD DET	N30703	143	2.0
		610	1.0
BRMEDCLINIC	N32639	143	0.7
		550	8.2
NAVDENCLBR	N35755	540	2.1
NPPSBROFF	N43630	229	2.7
PER SUP DET	N44175	610	2.3
NTCC	N48388	131	2.4
ENGFLDACT	N62477	610	2.3
NEX DET	N63576	730	0.2
COMMISSARY		740	24.0
AEGIS TRACEN	N68724	171	139.7
		610	2.4
		Total:	343.9

Table 2.3 Class 2 Space Utilized/Leased by DAHLGREN SITE (UIC N00178)

Building type	NAVFAC (P-80) category code	GF/BA (KSF)			
		Adequate	Substandard	Inadequate	Total
Operational & Training	100	6.2		6.2	6.2
Maintenance & Production	200				
Science labs	310				
Aircraft labs	311				
Missile and Space labs	312				
Ship and Marine labs	313				
Ground Transportation labs	314				
Weapon and Weapon Systems Labs	315	0.2			0.2
Ammunition, Explosives, and Toxics labs	316	2.1			2.1
Electrical Equip. labs	317				
Propulsion labs	318				
Miscellaneous labs	319				
Underwater Equip. labs	320				
Technical Services labs	321				
Supply Facilities	400				
Hospital & other Medical	500				
Administrative Facilities	600	0.8			0.8
Housing & Community	700				
Utilities & Grounds	800				
Other					
Totals		9.3		6.2	9.3

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 DAHLGREN SITE Occupied by Detachments

Not applicable. Detachment responding separately to data call.

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

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 2.6 Class 2 Space Utilized/Leased by Detachments of DAHLGREN SITE (UIC N00178)
Not applicable, there were no detachments that did not receive this data call

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

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.

858,500 SQFT.

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

0 SQFT.

c. Use Table 3.1 below to indicate the constrained growth opportunities for accepting expanded or new roles. Constrained growth is defined as growth limited to buildings and structures currently on your Class 2 plant account. Add numbered notes to highlight and explain opportunities that require remediation or waiver of a restriction or encumbrance as part of the expansion. Provide lettered notes to clearly identify each opportunity with the title & UIC of the site it refers to. The "Current NFA (KSF)" column total should match the quantity provided in question #3.a. above. Annotate those opportunities that were used to obtain the answer to question #3.b. above. Report space once, do not use the same space for different expansion opportunities. Include in this table space that will become available once planned downsizing (separate from BRAC realignments) has been completed, provide the estimated completion date of the downsizing effort.

d. Use Table 3.2 below to indicate additional unconstrained growth opportunities for accepting expanded or new roles. Unconstrained growth allows for construction of new facilities on existing buildable Class 1 property. The only constraint being that the land must currently be on your plant account holdings as of 31 March 1994 and free of existing land use constraints. Limit new buildings to three stories. Add numbered notes to highlight and explain additional opportunities that would require

Page 26 of 38
UIC N00178

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 DAHLGREN SITE
(UIC N00178)**

Building # / Category Code (3 digit)	Current NFA (KSF)	Additional Capacity Provided By Expansion		Height of High Bay (FT)	Estimated Cost of Rehab (\$K)
		NFA (KSF)	# of Personnel		
300 ¹		656.5	2184		
600 ²		202.0	1008		
Totals		858.5	3192		

All these building require new construction.

¹ Represents an aggregate for 13 buildable sites.

² Represents an aggregate for 4 buildable sites.

4. Class 1 Space Available for Expansion.

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

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

No

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

Constraints:

- 1. Not meeting the HERO, HERP and HERF restrictions.**
- 2. Some frequencies absolutely can not be used in this area (for example: non-government agencies have the use of specific frequencies). The complete list of these frequencies is in the Manual of Regulations and Procedures for Federal Radio Frequency Management (NTIA) Manual.**
- 3. Frequencies that interfere with existing systems or operations (range control, security, and others).**
- 4. Time requirements for the allocation of frequency assignments and other approvals are lengthy.**
- 5. Newly developed experimental systems may not be operated without a radio frequency allocation request. This is a complex procedure which would take up to one year to complete.**

Opportunities:

- 1. International distress and emergency do not require frequency coordination if used as specified in the Specific Management Manual (NTP 6(D)).**
- 2. NSWCDL can give on the spot authorization for frequency usage if the following requirements are met: a) falls within the parameters of the base, b) for short or intermittent periods, c) no known harmful interference, and d) limited to experimental operations. Specific frequency bands are excluded from this authorization they are listed in the NTIA Manual (Chapter 7 Article 11).**

Table 4.1 Class 1 Resources of DAHLGREN SITE (UIC: N00178)
 Site Location: DAHLGREN, VA

Land Use	Total Acres	Developed Acreage	Available for Development	
			Restricted	Unrestricted
Maintenance	41	41	0	0
Operational ¹	1948	1830	118	0
Training	10	10	0	0
R & D	367	159	44	164
Supply & Storage	1007	1007	0	0
Admin	12	1	0	11
Housing	149	149	0	0
Recreational	81	81	0	0
Navy Forestry Program ²	625	417	208	0
Navy Agricultural Outlease Program		N/A	0	0
Hunting/Fishing Programs	28	28	0	0
Other wetlands	259	259	0	0
Total:	4527	3982	370	175

d. Of the total Unrestricted Acres reported above, how much of it has existing roads and/or utilities that could support expansion efforts? 11 Acres.³

¹ Includes 207 acres at the main site and 1,641 acres at the Pumpkin Neck Site (located downriver from the main site.)

² Forested areas outside Explosive Safety Quantity Distance acres.

³ The remaining unrestricted acreage exists in remote forest areas.

operations.

No

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

N/A

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

Right hand pattern for runway 16; left hand pattern for runway 34 due to restricted areas. Approach to runway 34 requires 150 ft threshold crossing height due to proximity of public roadway.

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?)

Runway length and load bearing capabilities limit daily operation to light multiengine aircraft and helos. The runway can handle large prop aircraft on an infrequent basis (ie. C130, P3, etc.).

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	2	6	Taxiway/ATC Restrictions
Auxiliary			
Auxiliary			
Auxiliary			

TAB B
Page 2 of 15
UIC N00178

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		Auxiliary Field		Auxiliary Field	
	# Ops	# Days	# Ops	# Days	# Ops.	# Days	# Ops.	# Days
1991	4390	276						
1992	1199	203						
1993	2422	244						

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

0%

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

No

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**?

85%

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.

None.

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.

No

TAB B
Page 3 of 15
UIC N00178

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
Currently Not Applicable	
Projected Airfield Upgrade	
Brooke Vortac (BRV)	38°20.2'N 77°21.2'W

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
N/A							

It is the amount of funds spent on or budgeted for maintenance and repair of real property assets to maintain the facility in satisfactory operating condition. For purposes of this Data Call MRP includes all M1/R1 and M2/R2 expenditures.

Current Plant Value (CPV) of Class 2 Real Property: The hypothetical dollar amount to replace a Class 2 facility in kind with today's dollars. Example: the cost today to replace a wood frame barracks with a wood frame barracks.

Acquisition Cost of Equipment (ACE): The total cumulative acquisition cost of all "personal property" equipment maintained at your activity which includes the cost of installed equipment directly related to mission execution, such as lab test equipment. Class 2 installed capital equipment that is an integral part of the facility will not be reported as ACE.

**Table 5.2 Maintenance, Repair & Equipment Expenditure Data
for DAHLGREN SITE (UIC: N00178)**

Fiscal Year	MRP (\$M)	CPV (\$M)	ACE (\$M)¹
1985	7.1	375.7	31.8
1986	7.5	398.3	17.7
1987	7.9	403.7	22.2
1988	7.8	429.3	26.2
1989	8.7	455.9	28.9
1990	9.5	461.1	15.0
1991	9.2	531.8	36.8
1992	12.0	545.0	26.9
1993	11.1	566.4	11.1
1994	13.0	594.8	4.8
1995	12.6	675.9	7.5
1996	13.2	698.8	5.5
1997	13.9	734.2	6.7

¹ The ACE is combined with the White Oak, MD site UIC N60921. The Dahlgren and White Oak sites are combined financial systems and one set of general ledger accounts and financial statements are prepared and maintained under UIC N60921.

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	1993			2001		
			A	B	C	A	B	C
171-20	ATC	PCO/PXO TRK1	25	200	5,000	21	200	4,200
171-20	ATC	PCO/PXO TRK2	22	200	4,400	65	200	1,300
171-20	ATC	CSO TRK1	45	200	9,000	52	200	10,400
171-20	ATC	CSO TRK2	36	200	7,200	163	200	32,600
171-20	ATC	AWS TK1	10	640	6,400	28	640	17,920
171-20	ATC	AWS TK1	17	600	10,200	81	600	48,600
171-20	ATC	SPY TK1	24	960	23,040	51	960	48,960
171-20	ATC	SPY TK2	62	960	59,520	175	960	168,000
171-20	ATC	FCS TK1	27	1,160	31,320	67	1,160	77,720
171-20	ATC	FCS TK2	52	800	41,600	133	800	106,400
171-20	ATC	DISP TK1	9	1,000	9,000	17	1,000	17,000
171-20	ATC	DISP TK2	25	1,040	26,000	82	1,040	85,280
171-20	ATC	COMP TK1	14	1,000	14,000	25	1,000	25,000
171-20	ATC	COMP TK2	17	800	13,600	72	800	57,600
171-20	ATC	FUNDAMENTALS	230	80	18,400	622	80	49,760

Type of Training Facility/CCN	School	Type of Training	1993			2001		
			A	B	C	A	B	C
171-10 Professional Development	Various Vendors	On-Site Courses	1,125	22.7	25,538	1,000	20.0	20,000
171-10 Graduate Academic	See Note 1	Graduate level credit courses	401	47.5	19,048	350	45.0	15,750

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

Note 1: Virginia Polytechnic Institute and State University (VPI), George Mason University, Mind Extension University, National Technological University, and the Virginia Cooperative Graduate Engineering Program.

(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 171-20, 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)
171-20 (AEGIS TRAINING CENTER UIC N68724)²	42	504	1,210,000
Bayberry Training Facility³	7	150	294,000
Satellite Training Classroom	1	40	53,900

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

AEGIS
42 Classrooms
12 Students per classroom
300 days per year
50 days of week-ends not used
15 days of shutdown for Christmas/New Years
8 hours per day

42 X 12 X 300 X 8 = 1,209,600

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

² Technical document storage requirements necessitate that classrooms be dedicated to a single class 24 hours a day. This results in the appearance of excess capacity when man hours of instruction are compared to hours of available classroom time.

Bayberry Training Facility (leased):³

Available 8hrs/day for 245 days per year -- $1960 \times 150 = 294,000$

Satellite Training Classroom:

Available 5.5hrs/day for 245 days per year -- $1347.5 \times 40 = 53,900$

³ NOTE: Both the Bayberry and Satellite facilities are multi-use and are scheduled for other purposes in addition to traditional classroom style instruction. Facility capacity for both Bayberry and the Satellite classroom is misleading when compared to student usage. The leased Bayberry facility is scheduled to be replaced in FY95 with an on-base, multi-use facility.

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

SEE TAB A

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

SEE 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.

NOT APPLICABLE

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.

SEE TAB D

TAB A

SHIP BERTHING CAPACITY

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

SHIP BERTHING CAPACITY

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

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.
#177 75	15120	394	Water depth avg. 10'	average (varies) 20	113	N	N/A	none
#1106 41	15120	1188 ⁸	Water depth avg. 10'	20	16	N	N/A	none
#9415 50	15120	335	Water depth avg. 10'	20	3	N	N/A	none
#1175 51	15150	610	Water depth avg. 10'	20	82	N	N/A	none
#178 75	15160	335	Water depth avg. 10'	20	20	N	N/A	none

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.

⁶Describe the additional controls for the pier.

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

⁸ The 1188 feet mooring length is made up of a series of small finger berths for tying up small range boats (less than 40' long).

R

TAB A

Page 1-R of 5

UIC N00178

JZ 6/13/44

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.
#177 75	15120	394	Water depth avg. 10'	average (varies) 20	113	N	N/A	none
#1106 41	15120	1188	Water depth avg. 10'	20	16	N	N/A	none
#9415 50	15120	335	Water depth avg. 10'	20	3	N	N/A	none
#1175 51	15150	610	Water depth avg. 10'	20	82	N	N/A	none
#178 75	15160	335	Water depth avg. 10'	20	20	N	N/A	none

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.

⁶Describe the additional controls for the pier.

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

TAB A
Page 1 of 5
UIC N00178

2. [12.] For each Pier/Wharf at your facility list the following ship support characteristics:
Table 12.1

The piers do not provide any ship berthing "Hotel" services. See 5. [15.a.].

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
#177								
#1106								
#9415								
#1175								
#178								

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

The piers are not designed to support ship berthing, weapons handling or IMA facilities. See 5. [15.a.].

Pier/Wharf	Typical Steady State Loading ¹	Ship Berthing Capacity	Ordnance Handling Pier Capacity ²	IMA Maintenance Pier Capacity ³
#177				
#1106				
#9415				
#1175				
#178				

- ¹ Typical pier loading by ship class with current facility ship loading.
- ² List the maximum number of ships that can be moored to conduct ordnance handling evolutions at each pier/berth without berth shifts. Consider safety, ESQD and access limitations.
- ³ List the maximum number of ships that can be serviced in maintenance availabilities at each pier without berth shifts because of crane, laydown or access limitations.

Our piers are not designed to support ship berthing, weapons handling or IMA facilities.

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

NOT APPLICABLE

Pier/ Wharf	Typical Steady State Loading ¹	Ship Berthing Capacity	Ordnance Handling Pier Capacity ²	IMA Maintenance Pier Capacity ³
#177				
#1106				
#9415				
#1175				
#178				

- ¹ Typical pier loading by ship class with current facility ship loading.
- ² List the maximum number of ships that can be moored to conduct ordnance handling evolutions at each pier/berth without berth shifts. Consider safety, ESQD and access limitations.
- ³ List the maximum number of ships that can be serviced in maintenance availabilities at each pier without berth shifts because of crane, laydown, or access limitations.

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

Yardcraft berthing facilities are essentially equivalent to civilian marinas. Piers listed are equipped with 220VAC shore power and an average water depth of ten feet. Ancillary craft are used in the Potomac River Testing Range operations and clearance. Craft berthed range in size from 18' to 74' with "Guest" craft such as USOG cutters or bouy tenders (@120') on occassion. Piers are not equipped with potable water, CHT facilities, compressed air, oily water disposal, steam or permanent fendering facilities. Ships are not berthed here, we do not conduct ordnance handling at the piers and we have no IMA.

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.

Not applicable.

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.

Not applicable.

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

None.

TAB A
Page 5 of 5
UIC N00178

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 **Dahlgren Division, Naval Surface Warfare Center, Dahlgren, VA**

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	
16-34	4200	150	35,000 lbs* to 108,000 lbs		X			N/A

*** depending on aircraft landing gear type**

F -- Full lighting (runway edge, center, and threshold)

P -- Partial lighting (less than full)

C -- Carrier deck lighting simulated

N -- No lighting

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

Apron/ramp/taxiway Location - ID	SF	Comp.	Load Bearing Capacity	Comments
Taxiway	19,926	Asphalt	35,000-108,000 lbs*	
Parking Apron	66,339	Asphalt	35,000-108,000 lbs*	
Access Apron	37,908	Asphalt	35,000-108,000 lbs*	

*** depending on aircraft landing gear type**

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

TAB B
Page 1 of 15
UIC N00178

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	Avg length of stay
N/A				

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

Flight operations consists of contracted Logistic Support, Military VIP Traffic, Electromagnetic Vulnerability Testing, and Military Flight Training by non NSWCCD activities.

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							

TAB B
Page 5 of 15
UIC N00178

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
N/A							

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
Flying Club	1	SEL/EXMIL/T34	1	1	1	1	1
Flying Club	1	SEL/CESSNA/150	1	1	1	1	1
Flying Club	1	SEL/PIPER/J3	1	1	1	1	1

TAB B
Page 6 of 15
UIC N00178

22. [9a.] List other **operational command or support units** (ie. 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.

No changes expected.

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						

TAB B
Page 7 of 15
UIC N00178

5. Base Infrastructure Capacity. Provide base infrastructure data as of 31 March 1994. Provide numbered notes to explain imminent changes, additions & deletions driven by previous BRAC realignments, MILCON (including BRAC related MILCON) & Special Projects that are currently programmed in the FYDP. Give the project number & title, cost, short description, quantity of additional square footage, award date, estimated/actual construction start date and estimated BOD.

a. Utilize Table 5.1 below to provide information on your activity's base infrastructure capacity and load. Do not report this information if you are a tenant activity.

Table 5.1 Base Infrastructure Capacity & Load

	On Base Capacity	Off base long term contract	Normal Steady State Load	Peak Demand
Electrical Supply (KWH)	53,870 ¹	54,000 ²	9,763	24,377
Natural Gas (CFH)	0	0	0	0
Sewage (GPD) ³	NOTE ⁴	0	364,000	1,010,000
Potable Water (GPD)	2.4M	0	.523M	.868M
steam (PSI & lbm/Hr)	NOTE ⁵	N/A	N/A	N/A
Long Term Parking	2500 vehicles	0	2250 vehicles	2500 vehicles
Short Term Parking	2500 vehicles	0	2250 vehicles	2500 vehicles

¹ Transformer capacity in KW not GEN capacity

² Power company capacity on the circuit in KW

³ New plant at 720,000 average with 1,400,000 peak

⁴ Existing plant at 400,000 average with 700,000 peak

⁵ Small system that produces 55,258 MBTU

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.

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 Limitation s ²
					# Hours	# Hours	
N/A				1991			
				1992			
				1993			
				1991			
				1992			
				1993			
				1991			
				1992			
				1993			

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

² Provide any comments on operating limitations.

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.

N/A

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.

N/A

TAB B
Page 9 of 15
UIC N00178

9. [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
N/A					

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.

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
Bldg 194	II	1942	120'x130'	30'	EMW Test A/C MWR A/C	15600			15600

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.

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 ¹	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.
N/A							
TOTAL							

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)

TAB B

Page 11 of 15

UIC N00178

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		

34. [18h.] Using the types (and mix) of **aircraft** currently stationed at your installation, project the maximum additional number of these aircraft (maintain approximate current mix/ratio of A/C) that could be housed and maintained in **your current hangars**. Provide two estimates:

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

Aircraft Type	Current # of Aircraft Parked/Stationed	Maximum Additional Capacity (# of Aircraft)		Total (Current + Additional)	
		NAVFAC	Surge	NAVFAC	Surge
N/A					

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.

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

CCN	Type of Facility	In SF				# of Units	Year Built
		Adequate	Substandard	Inadequate	Total		
211-01	Aircraft Acoustical Enclosure				NONE		
211-02	Nose Hangar				NONE		
211-03	Corrosion Control Hangar				NONE		
211-75	Parachute/Survival Equipment Shop				NONE		
211-81	Engine Test Cell				NONE		
211-88	Power Check Pad with Sound Suppression				NONE		
211-89	Power Check Pad without Sound Suppression				NONE		
211-96	Maintenance, Aircraft Spares Storage				NONE		
116-10	Airfield Washrack Pavement				NONE		
116-15	Aircraft Rinse Facility				NONE		
214-30	Refueling Vehicle Shop				NONE		
218-60	Aircraft Ground Support Equipment				NONE		
	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 B
Page 14 of 15
UIC N00178

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				None	
121-10	Direct Fueling	OL/GM				None	
124-30	Fuel Storage	GA	25,000			25,000	
421-xx	Ammunition Storage	CF/TONS				None	
425-xx	Open Ammunition Storage	SF				None	
113-20	Parking Aprons	SF	66,339			66,339	
113-40	Access Aprons	SF	37,908			37,908	
116-56	Combat Aircraft Ordnance Loading Area	SF				None	
	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 B
Page 15 of 15
UIC N00178

TAB C

DEPOT LEVEL MAINTENANCE CAPACITY

The Dahlgren Site (UIC N00178) does not perform any Depot Level Maintenance.

Thus, this tab is not applicable.

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 commodities types:

ORDNANCE COMMODITY TYPES		
Mines	Expendables	LOE: Rockets
Torpedoes	INERT	LOE: Bombs
Air Launched Threat	CADS/PADS	LOE: Gun Ammo (20mm-16")
Surface Launched Threat	Strategic Nuclear	LOE: Small Arms (up to 50 cal.)
Other Threat	Tactical Nuclear	LOE: Pyro/Demo Grenades/Mortars/Projectiles

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

Facility Number	PRESENT INVENTORY		PREDICTED INVENTORY FY 2001		MAXIMUM RATED CAPABILITY	
	TONS ¹	SQ FT	TONS	SQ FT	TONS	SQ FT
Magazine area #1	749.7	48,000	726.7	48,000	2,435.0	48,000
Magazine area #2	304.2	29,000	278.2	29,000	1,320.0	29,000
Magazine area #3	19.3	2,840	21.4	2,840	600.0	2,840
Magazine area #4	264.6	20,000	239.4	20,000	530.0	20,000

TAB D
Page 1 of 5
UIC: N00178

Magazine area #5	57.0	5,000	54.0	5,000	150.0	5,000
Magazine area #6	698.0	24,200	648.0	24,200	848.0	24,200
TOTAL	2,092.8	129,040	1,967.7	129,040	5,883.0	129,040

¹ Weight includes weapon casings

1.2 For each Stowage facility identified in question 1.1 above, identify the type of facility (specify if "igloo", "box", etc.). Identify the type 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
Magazine Area #1* (8 Magazines)	Smokeless Powder Primers, Cartridges	Operational Stock	All in accordance with OP5 & SW020-AC-SAF- 010, 020, 030
Magazine Area #2* (7 Magazines)	Cartridges, Fuzes, Warheads, Projectiles	Operational Stock	"
Magazine Area #3* (7 Magazines)	Initiating Warheads	Operational Stock	"

TAB D
Page 2 of 5
UIC: N00178

Magazine Area #4* (4 Magazines)	Bulk HE Rocket Motors, Cartridges, Projectiles	Operational Stock	"
Magazine Area #5* (10 Magazines)	Fuzes, Detonators, Black Powder, Demo Explosives	Operational Stock	"
Inert Storage*	Projectile Bodies, Cases, Empty Missiles, Rockets	Operational Stock	"

Additional comments:

***See Below for types of magazines:**

- Area #1 - Triple Arch Earth Covered**
- Area #2 - Earth Covered Box 50' x 100'**
- Area #3 - Earth Covered Box**
- Area #4 - Earth Covered Box 50' x 100'**
- Area #5 - Barricaded, each Earth Covered Arch**
- Inert Storage - Warehouse**

TAB D
Page 3 of 5
UIC: N00178

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 (lbs)	ESQD Arc		
			Established (Y/N)	Waiver (Y/N)	Waiver Expiration Date
Magazine Area #1 (8 Magazines) (1.1 - 1.4)	1.1	70,000	YES	N	-
Magazine Area #1 (8 Magazines) (1.1 - 1.4)	1.3	3,800,000	YES	N	-
Magazine Area #2 (7 Magazines) (1.1 - 1.4)	1.1	140,000	YES	N	-
Magazine Area #2 (7 Magazines) (1.1 - 1.4)	1.3	500,000	YES	N	-
Magazine Area #3 (7 Magazines)	1.1	120,000	YES	N	-
Magazine Area #4 (4 Magazines) (1.1 - 1.4)	1.1	200,000	YES	N	-
Magazine Area #4 (4 Magazines) (1.1 - 1.4)	1.3	200,000	YES	N	-
Magazine Area #5 (10 Magazines)	1.1	300,000	YES	N	-

TAB D
Page 4 of 5
UIC: N00178

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.

Inhabited building encroachment of explosive safety quantity distance arc (ESQD).

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)	Yes	Ammunition Inventory Maintenance	8,875
Testing	Yes	R&D and Lot Acceptance	15,087
Manufacturing	No		
Outload	No		
Technical Support	Yes	R&D and Lot Acceptance Testing of Ordnance	2,662

TAB D
Page 5 of 5
UIC: N00178

NSWC DAHLGREN, DAHLGREN
DATA CALL #4

JL
SEA OX
5/13/94

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

NEXT ECHELON LEVEL (if applicable)

N. S. SCOTT, CAPT. USN
NAME (Please type or print)

[Signature]
Signature

COMMANDER
Title

10 May 94
Date

NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION

Activity

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

NEXT ECHELON LEVEL (if applicable)

RADM (SEL) D. P. SARGENT, JR.
NAME (Please type or print)

[Signature]
Signature

COMMANDER
Title

5/11/94
Date

NAVAL SURFACE WARFARE CENTER
Activity

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

MAJOR CLAIMANT LEVEL

G. R. STERNER
NAME (Please type or print)

[Signature]
Signature

Commander
Naval Sea Systems Command

5-13-94
Date

Activity

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

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

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

[Signature]
Signature

ACTING
Title

20 MAY 1994
Date

NSWC DAHLGREN, DAHLGREN
DATA CALL #4

JL
SEAOGX
5/13/94

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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

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

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

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

ACTIVITY COMMANDER

N. S. SCOTT, CAPT. USN
NAME (Please type or print)


Signature

COMMANDER
Title
NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION
Activity

10 May 94
Date

Document Separator

Data Call #4, Naval Surface Warfare Center, Dahlgren Division, Dahlgren Site

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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

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

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

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

ACTIVITY COMMANDER

N. S. SCOTT, CAPT. USN
NAME (Please type or print)


Signature

COMMANDER
Title

June 94
Date

NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION
Activity

Footnote:

Revision to the Dahlgren Division, Dahlgren Site BRAC-95 Data Call #4, Tab A page 1-R. Additional details of changes described in attached Errata sheet.

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

NEXT ECHELON LEVEL (if applicable)

NAME (Please type or print)

Signature

Title

Date

Activity

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

NEXT ECHELON LEVEL (if applicable)

RADM (Sel) D. P. Sargent, Jr.
NAME (Please type of print)

Signature

Commander

Title

Date

Naval Surface Warfare Center
Activity

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

MAJOR CLAIMANT LEVEL

G. D. STERNER
NAME (Please type or print)

Signature

Commander
Title Sea Systems Command

Date

Activity

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

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)
J. B. GREENE, JR.

NAME (Please type of print)
ACTING

Signature

Title

Date

08 JUL 1994