

0115

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

**DATA CALL WORK SHEET FOR MILITARY VALUE:**  
**NAVAL SHIPYARDS**  
**and**  
**NAVAL SHIP REPAIR FACILITY**

Category	.....	<b>Industrial Activities</b>
Type	.....	<b>NAVAL SHIPYARDS</b>
	.....	<b>NAVAL SHIP REPAIR FACILITY</b>
Claimant	.....	<b>COMNAVSEASYSKOM (Naval Shipyards)</b>
	.....	<b>CINCPACFLT (Naval Ship Repair Facility)</b>

**Notes:**

In the context of this Data Call:

1. Base your responses for FY 1994 and previous years on executed workload, and for FY 1995 and subsequent years on workload as programmed. Use the workload as programmed in the FY 1995 Budget Submission and POM-96. Unless otherwise specified, use workload mixes as programmed. In estimating projected workload capabilities, use the activity configuration as of completion of all BRAC-88/91/93 actions.
2. "Production" equates to the number of items processed per Fiscal Year (FY), unless otherwise specified.
3. Unless otherwise specified, base your responses single shift operations of an eight hour day/five day notional normal work week (1-8-5). Report Direct Labor Man Years (DLMYs) in thousands of Man Years, to the nearest tenth, e.g. 32.2 K DLMYs.
4. Report workload performed on non-DON vessels (e.g. USCG, MSC) within the workload mission area most consistent with the work performed. Ensure that all workload performed/projected to be performed is reported.

If any responses are classified, so annotate the applicable question and include those responses in a separate classified annex.

This document has been prepared in WordPerfect 5.1/5.2.

**DATA CALL for MILITARY VALUE**  
**Naval Shipyards and Ship Repair Facility**

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**Table of Availability Types**

**Nuclear**

CVN Complex Overhaul	COH
CVN Refueling Complex Overhaul	RCOH
CVN Docking Selected Restricted Availability	DSRA
CVN Extended Docking Selected Restricted Availability	EDSR
CVN Docking Phased Incremental Availability	DPIA
CVN Selected Restricted Availability	SRA
CVN Extended Selected Restricted Availability	ESRA
CVN Phased Incremental Availability	PIA
*CVN Post Overseas Maintenance	POM
*CVN Restricted Availability	RAV
*SSBN Conversion	CN
SSBN Inactivation	INACT
*SSBN Docking Restricted Availability	DRAV
SSBN Extended Refit Period	ERP
SSBN Regular Overhaul / Refueling Overhaul	ROH/RFOH
SSBN Engineered Overhaul / Engineered Refueling Overhaul	EOH/ERO
*SSN Docking Restricted Availability	DRAV
SSN Inactivations	INACT
SSN Regular Overhaul / Refueling Overhaul	ROH / RFOH
*SSN Restricted Availability	RAV
SSN Engineered Overhaul / Engineered Refueling Overhaul	EOH / ERO
SSN Docking Selected Restricted Availability	DSRA
SSN Depot Modernization Period	DMP
CGN Inactivations	INACT
CGN Complex Overhaul / Refueling Complex Overhaul	COH/RCOH
*CGN Regular Overhaul / Refueling Regular Overhaul	ROH/RFOH
CGN Docking and Non-Docking Selected Restricted Availability	DSRA/SRA
*CGN Restricted Availability	RAV

**NonNuclear**

Regular Overhaul	ROH
Complex Overhaul	COH
Docking Phased Maintenance Availability	DPMA
Phased Maintenance Availability	PMA
Docking Selected Restricted Availability	DSRA
Selected Restricted Availability	SRA
Service Craft Overhaul	SCO
Inactivations	INACT
*Docking Inactivation Availability	DIA
*Fitting Out	FO
*Planned Restricted Availability	PRAV
*Post Shakedown Availability	PSA
Other Productive Work	OPW
Restricted Availability/Technical Availability	RA/TA

**NOTE:**

\* ADDITIONS FROM NORFOLK NSYD

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### Table of Acronyms

\$	Dollars
%	Percent
#	Number
ACT	American College Test
AOB	Average on Board
APPN	Appropriation
ARC	Alcohol Rehabilitation Center
Avlb	Availability
BAQ	Basic Allowance for Quarters
BEQ	Bachelor Enlisted Quarters
BOQ	Bachelor Officers Quarters
BQ	Bachelor Quarters
DoD	Department Of Defense
DoDDS	Department of Defense Dependents Schools
DON	Department of the Navy
ESQD	Explosive Safety Quantity Distance
FSC	Family Service Center
FY	Fiscal Year
FYDP	Future Years Defense Plan
HQ	Headquarters
HS	High School
ITT	Information, Tickets and Tours
LF	Linear Feet
MH	Man Hours
MLS	Multiple Listing Service
N / A	Not Applicable
NCIS	Naval Criminal Investigative Service
NM	Nautical Miles
NSYD	Naval Shipyard
OMN	Operations and Maintenance, Navy
POM	Program Objectives Memorandum
PN	Number of personnel accommodated
Qtr	Quarter
SAT	Scholastic Aptitude Test
SCN	Ship Construction, Navy
SF	Square Feet
SRF	Ship Repair Facility
UIC	Unit Identification Code
VHA	Variable Housing Allowance
W/O	Without
WY	Work Years
YR	Year

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**CONSISTENT WITH NAVAL AUDIT SERVICE FINDINGS**

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Table of Ship Types

CVN 68	AD 41	LCC 19	MCM 1 / MCS-
CV 62	AOE 1	LCC 20	12 / MHC 51
CGN 38	AOE 6	LHA 1	AFB / AFDL /
CG 47	ARS 50	LHD 1	AFDM / ARDM
SSBN 726	AS 36/39	LPD 4	NR-1
SSN 688		LPH 2	AGF 3 / AGF 11
SSN 21		LSD 36	
DD 963		LSD 41	
DDG 51			
DDG 993			
FFG 7			

\*ADDITIONS FROM NORFOLK NSYD

A0 178			
AS 11			
AS 31			R
AS 33			
BB 61			
CG 16			
CG 26			
CGN 25			
CGN 36			
CV 43			
CV 65			
CV 63 / 67			
DDG 2			
DDG 37			
LKA 113			R
LPD 1			
SSN 586			
SSN 588			
SSN 594			
SSN 597			
SSN 608			
SSN 637			
Deleted SSN 640			R
SSN 671			
SSBN 616			
SSBN 627			
SSBN 640			

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**Table of Ship Types**

CVN 68	AD 41	LCC 19	MCM 1 / MCS-
CV 62	AOE 1	LCC 20	12 / MHC 51
CGN 38	AOE 6	LHA 1	AFB / AFDL /
CG 47	ARS 50	LHD 1	AFDM / ARDM
SSBN 726	AS 36/39	LPD 4	NR-1
SSN 688		LPH 2	AGF 3 / AGF 11
SSN 21		LSD 36	
DD 963		LSD 41	
DDG 51			
DDG 993			
FFG 7			

**\*ADDITIONS FROM NORFOLK NSYD**

A0 178  
AS 11  
AS 33  
BB 61  
CG 16  
CG 26  
CGN 25  
CGN 36  
CV 43  
CV 65  
CV 63 / 67  
DDG 2  
DDG 37  
LKA 133  
LPD 1  
SSN 586  
SSN 588  
SSN 594  
SSN 597  
SSN 608  
SSN 637  
SSN 640  
SSN 671  
SSBN 616  
SSBN 627  
SSBN 640

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**Data Call for Military Value:  
Naval Shipyards and Naval Ship Repair Facilities**

**Questions for the Activities**

**Mission Area**

**1. Production Workload**

1.1 **Workload Breakout by Availability.** Using the Table of Availability Types, identify the work package and number of availabilities (Avlb) for the types/classes of ships which have been or will be maintained, modernized, or converted at your activity. Include all CNO and non-CNO scheduled shipwork, off-site work, and Other Production Work (OPW). Account for availabilities whose durations exceed one fiscal year by including them in all fiscal years with scheduled work from that availability. Do not include potential guarantee work in your submission.

*Example: NSYD Sample executed:*

- two 12 month duration SSN 688 class DMPs, beginning in September 1990 and in August 1991 respectively;
- two SSN 688 class DSRAs (each of 2 month duration) beginning in December 1991 and March 1992 respectively;
- an SSN 688 class ERO of 22 month duration, beginning in June 1993; and
- two AOE1 class DPMA's, each of 6 month duration, begun in September 1990 and January 1991 respectively.

This workload would be represented as:

Class of Vessel	FY 1990		FY 1991		FY 1992		FY 1993	
	Avlb (#)							
SSN 688	DMP (1)		DMP (2)		DMP (1)	SRA (2)	ERO (1)	
AOE 1	DPMA (1)		DPMA (2)					

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1. Production Workload, continued

Table 1.1.a: Workload Breakout by Type of Availability

Class of Vessel	FY 1990				FY 1991			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
SSBN 726								
SSN 688	ROH (1)	DSRA (2)	DMP (3)	RAV (3)	ROH (1)	DSRA (3)	DMP (1)	RAV (3)
SSN 21								
CVN 68	SRA (1)	POM (1)			SRA (1)	POM (3)	RAV (2)	DSRA (1)
CV 62	DSRA (1)				DSRA (1)			
AD 41	RAV (1)							
AOE 1								
AOE 6								
ARS 50								
AS 36/39	RAV (1)							
LCC 19								
LCC 20	PMA (1)							
LPD 4								
LPH 2								
LSD 36								
LSD 41								

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1. **Production Workload, continued**

**Table 1.1.a: Workload Breakout by Type of Availability**

Class of Vessel	FY 1990				FY 1991			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
SSBN 726								
SSN 688	ROH (1)	DSRA (2)	DMP (3)	RAV (2)	ROH (1)	DSRA (3)	DMP (1)	RAV (3)
SSN 21								
CVN 68	SRA (1)	POM (1)			SRA (2)	POM (3)	RAV (2)	
CV 62	DSRA (1)	RAV (1)			DSRA (1)			
AD 41	RAV (1)							
AOE 1								
AOE 6								
ARS 50								
AS 36/39	RAV (1)							
LCC 19								
LCC 20	PMA (1)							
LPD 4								
LPH 2								
LSD 36								
LSD 41								

1. Production Workload, continued

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Table 1.1.b: Workload Breakout by Type of Availability

Class of Vessel	FY 1990				FY 1991			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
MCM1/MCS12/ MHC51								
AFDB/AFDL/ AFDM/ARDM								
NR-1								
AGF3/AGF11								
CG 47	SRA (1)				DSRA (1)	SRA (1)	DRAV (1)	
DD 963					DRAV (1)	RAV (1)		
DDG 51								
DDG 993								
FFG 7								
LHA 1					SRA (2)			
LHD 1	RAV (1)				RAV (1)	POM (1)		
CGN 38	DSRA (1)				DSRA (1)			

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1. Production Workload, continued

Table 1.1.b: Workload Breakout by Type of Availability

Class of Vessel	FY 1990				FY 1991			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
MCM1/MCS12/ MHC51								
AFDB/AFDL/ AFDM/ARDM								
NR-1								
AGF3/AGF11								
CG 47	SRA (1)				DSRA (1)	SRA (1)	RAV (1)	
DD 963					DRAV (1)			
DDG 51								
DDG 993					RAV (1)			
FFG 7								
LHA 1	RAV (1)				SRA (2)			
LHD 1	RAV (1)				RAV (1)	POM (1)		
CGN 38	DSRA (1)				DSRA (1)			

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1. Production Workload, continued

Table 1.1.b.1 (Norfolk NSY): Workload Breakout by Type of Availability

Class of Vessel	FY 1990				FY 1991			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
AS 11					DIA (1)			
BB 61	SRA (1)				RAV (2)			
CG 16	SRA (1)				SRA (1)			
CG 26					RAV (1)			
CGN 25	DSRA (1)							
CGN 36	SRA (1)				RFOH (1)			
CV 43	RAV (1)				RAV (1)			
CVN 65					RAV (1)			
CV 63 / 67	SRA (1)	POM (1)	RAV (1)		SRA (1)	POM (1)	RAV (1)	
DDG 2	PMA (1)							
DDG 37	RAV (1)	PMA (1)	DPM (1)					
FFG 7					RAV (1)			
Land Base Project	RAV (1)							
LKA 113	RAV (1)				RAV (1)			
SSBN 616	RAV (2)				RAV (2)			
SSBN 627					DRA (1)			
SSN 588	RAV (2)				RAV (1)			
SSN 594					RAV (1)			
SSN 608	DSRA (1)							
SSN 637	ROH (2)	DSRA (4)	RAV (2)		ROH (1)	DSRA (3)		

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1. Production Workload, continued

Table 1.1.b.1 (Norfolk NSY): Workload Breakout by Type of Availability

Class of Vessel	FY 1990				FY 1991			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
AS 11					DIA (1)			
BB 61	SRA (1)				RAV (2)			
CG 16	SRA (1)				SRA (1)			
CG 26					RAV (1)			
CGN 25	DSRA (1)							
CGN 36	SRA (1)				RFOH (1)			
CV 43	RAV (1)							
CVN 65					RAV (1)			
CV 63 / 67	SRA (1)	POM (1)			SRA (1)	POM (1)	RAV (1)	
DDG 2	PMA (1)							
DDG 37	RAV (1)	PMA (1)						
FFG 7					RAV (1)			
Land Base Project	RAV (1)							
LKA 133					RAV (1)			
SSBN 616	RAV (2)				RAV (2)			
SSBN 627					DRA (1)			
SSN 588	RAV (2)				RAV (1)			
SSN 594					RAV (1)			
SSN 608	DSRA (1)							
SSN 637	ROH (2)	DSRA (4)	RAV (2)		ROH (1)	DSRA (3)		

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1. Production Workload, continued

Table 1.1.c: Workload Breakout by Type of Availability

Class of Vessel	FY 1992				FY 1993			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
SSBN 726								
SSN 688	ROH (1)	DSRA (2)	DMP (1)	RAV (3)	DSRA (1)	DMP (1)	RAV (3)	
SSN 21								
CVN 68	DSRA (2)	RAV (1)			DSRA (1)			
CV 62								
AD 41					DPMA (1)			
AOE 1								
AOE 6								
ARS 50								
AS 36/39	SRA (1)				DPMA (1)			
LCC 19								
LCC 20					DPMA (1)			
LPD 4								
LPH 2					RAV (1)			
LSD 36								
LSD 41								

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1. Production Workload, continued

Table 1.1.c: Workload Breakout by Type of Availability

Class of Vessel	FY 1992				FY 1993			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
SSBN 726								
SSN 688	ROH (1)	DSRA (1)	DMP (1)	RAV (3)	DSRA (1)	DMP (1)	RAV (4)	
SSN 21								
CVN 68	SRA (2)	RAV (1)			SRA (2)	DSRA (1)		
CV 62								
AD 41					DPMA (1)			
AOE 1								
AOE 6								
ARS 50								
AS 36/39	SRA (1)				DPMA (1)			
LCC 19								
LCC 20					DPMA (1)			
LPD 4								
LPH 2					RAV (1)			
LSD 36								
LSD 41								

1. Production Workload, continued

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Table 1.1.d: Workload Breakout by Type of Availability

Class of Vessel	FY 1992				FY 1993			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
MCM1/MCS12/ MHC51								
AFDB/AFDL/ AFDM/ARDM								
NR-1								
AGF3/AGF11					ROH (1)			
CG 47	DSRA (1)	RAV (1)			DSRA (1)			
DD 963								
DDG 51								
DDG 993								
FFG 7								
LHA 1	SRA (2)	ROH (1)			ROH (1)			
LHD 1	SRA (1)							
CGN 38	DSRA (1)	SRA (1)						

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1. Production Workload, continued

Table 1.1.d: Workload Breakout by Type of Availability

Class of Vessel	FY 1992				FY 1993			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
MCM1/MCS12/ MHCS1								
AFDB/AFDL/ AFDM/ARDM								
NR-1								
AGF3/AGF11								
CG 47	DSRA (1)	RAV (1)			DSRA (1)			
DD 963								
DDG 51								
DDG 993								
FFG 7								
LHA 1	SRA (3)	ROH (1)			ROH (1)			
LHD 1								
CGN 38	DSRA (1)	SRA (1)						

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1. Production Workload, continued

Table 1.1.d.1 (Norfolk NSY): Workload Breakout by Type of Availability

Class of Vessel	FY 1992				FY 1993			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
LPD 1								
AO 178					RAV (1)			
AS 11	DIA (2)				DIA (2)			
AS 33	DPMA (1)				DPMA(1)			
CG 26	RAV (1)							
CGN 25	SRA (1)				SRA (1)			
CGN 36	RFOH (1)				RFOH (1)			
CV 63 / 67	DSRA (1)	POM (1)			DSRA (1)	RAV(1)		
CVN 65	RAV (1)				RAV (1)			
Land Base Project	RAV (1)							
SGCC barge					RAV (1)			
SSBN (616 class)	RAV (1)				RAV (1)			
SSBN (627 class)	DRAV (1)							
SSBN (640 class)					CN (1)	RAV(1)		
SSN (586 class)					DRAV (1)			
SSN (588 class)					RAV (1)			
SSN (597 class)	RAV (1)				RAV (1)			
SSN (637 class)	RAV (1)				RAV (1)			
SSN (640 class)	Row and class deleted as not accurate. Correctly put with SSBN 640.							

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1. Production Workload, continued

Table 1.1.d.1 (Norfolk NSY): Workload Breakout by Type of Availability

Class of Vessel	FY 1992				FY 1993			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
LPD 1					ROH (1)			
AO 178					RAV (1)			
AS 11	DIA (2)				DIA (3)			
AS 33	DPMA (1)				DPMA(1)			
CG 26	RAV (1)							
CGN 25	SRA (1)				SRA (1)			
CGN 36	RFOH (1)				RFOH (1)			
CV 63 / 67	DSRA (1)	POM (1)			DSRA (1)	RAV(1)		
CVN 65	RAV (1)				RAV (1)			
Land Base Project	RAV (1)							
SGCC barge					RAV (1)			
SSBN (616 class)	RAV (1)				RAV (1)			
SSBN (627 class)	DRAV (1)							
SSBN (640 class)					CN (1)			
SSN (586 class)					DRAV (1)			
SSN (588 class)					RAV (1)			
SSN (597 class)	RAV (1)				RAV (1)			
SSN (637 class)	RAV (1)				RAV (1)			
SSN (640 class)					RAV (1)			

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1. Production Workload, continued

Table 1.1.e: Workload Breakout by Type of Availability

Class of Vessel	FY 1994				FY 1995			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
SSBN 726	RAV (3)				RAV (3)			
SSN 688	RAV (1)				INACT (1)	DSRA (2)	RAV (1)	
SSN 21								
CVN 68	SRA (1)	DSRA (1)			SRA (1)			
CV 62								
AD 41					PMA (1)			
AOE 1								
AOE 6								
ARS 50								
AS 36/39	DPMA (2)	RAV (2)			DPMA (1)			
LCC 19								
LCC 20					PMA (1)			
LPD 4								
LPH 2								
LSD 36								
LSD 41								

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1. Production Workload, continued

Table 1.1.e: Workload Breakout by Type of Availability

Class of Vessel	FY 1994				FY 1995			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
SSBN 726	RAV (3)				RAV (3)			
SSN 688	RAV (2)				INACT (1)	DSRA (2)	RAV (1)	
SSN 21								
CVN 68	SRA (3)	DSRA (1)			SRA (1)			
CV 62								
AD 41					PMA (1)			
AOE 1								
AOE 6								
ARS 50								
AS 36/39	DPMA (2)	RAV (2)			DPMA (1)			
LCC 19								
LCC 20					PMA (1)			
LPD 4								
LPH 2								
LSD 36								
LSD 41								

1. Production Workload, continued

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Table 1.1.f: Workload Breakout by Type of Availability

Class of Vessel	FY 1994				FY 1995			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
MCM1/MCS12/ MHC51								
AFDB/AFDL/ AFDM/ARDM					SCO (1)			
NR-1								
AGF3/AGF11	ROH (1)							
CG 47	DSRA (1)				ROH (1)			
DD 963					ROH (1)			
DDG 51								
DDG 993								
FFG 7								
LHA 1	ROH (1)				ROH (1)	SRA (1)		
LHD 1	PSA (1)	SRA (1)	FO (1)	RAV (1)	PSA (1)			
CGN 38	INACT (1)	RAV (1)			INACT (1)			

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1. Production Workload, continued

Table 1.1.f: Workload Breakout by Type of Availability

Class of Vessel	FY 1994				FY 1995			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
MCM1/MCS12/ MHC51								
AFDB/AFDL/ AFDM/ARDM					SCO (1)			
NR-1								
AGF3/AGF11								
CG 47	DSRA (1)				ROH (1)			
DD 963	ROH (1)				ROH (1)			
DDG 51								
DDG 993								
FFG 7								
LHA 1	ROH (1)				ROH (1)	SRA (1)		
LHD 1	PSA (1)	SRA (1)	FO (1)	RAV (1)	COH (1)	PSA (1)		
CGN 38	INACT (1)	RAV (1)			INACT (1)	RAV (1)		

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1. Production Workload, continued

Table 1.1.f.1 (Norfolk NSY): Workload Breakout by Type of Availability

Class of Vessel	FY 1994				FY 1995			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
LPD 1								
AS 11	DIA (3)				DIA (1)			
AS 31	DIA (1)				DIA (1)			
AS 33	PRAV (1)				PRAV (1)			
CG 26	PRAV (3)							
CGN 36	RFOH (1)	RAV (1)						
CV 63 / 67	SRA (1)	RAV (1)						
CVN 65	RAV (1)							
SGCC barge	RAV (1)				RAV (1)			
SSBN (616 class)	RAV (1)							
SSBN (640 class)	CN (1)							
SSN (588 class)	RAV (1)							
SSN (597 class)	RAV (1)							
SSN (608 class)	RAV (1)							
SSN (640 class)	RAV (1)							
SSN (671 class)					DSRA (1)			

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1. **Production Workload, continued**

Table 1.1.f.1 (Norfolk NSY): **Workload Breakout by Type of Availability**

Class of Vessel	FY 1994				FY 1995			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
LPD 1	ROH (1)							
AS 11	DIA (4)				DIA (2)			
AS 33	PRAV (1)				PRAV (1)			
CG 26	PRAV (3)							
CGN 36	RFOH (1)	RAV (1)						
CV 63 / 67	SRA (1)	RAV (1)						
CVN 65	RAV (1)							
SGCC barge	RAV (1)				RAV (1)			
SSBN (616 class)	RAV (1)							
SSBN (640 class)	CN (1)							
SSN (588 class)	RAV (1)							
SSN (597 class)	RAV (1)							
SSN (608 class)	RAV (1)							
SSN (640 class)	RAV (1)							
SSN (671 class)					DSRA (1)			

R

1. Production Workload, continued

Table 1.1.g: Workload Breakout by Type of Availability

Class of Vessel	FY 1996				FY 1997			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
SSBN 726								
SSN 688	INACT (1)	DSRA (3)			INACT (1)	DSRA (2)		
SSN 21								
CVN 68	SRA (1)	PIA (1)			PIA (1)			
CV 62								
AD 41	PMA (1)	DIA(2)			DIA (1)			
AOE 1								
AOE 6								
ARS 50								
AS 36/39					DIA (1)			
LCC 19								
LCC 20					PMA (1)			
LPD 4								
LPH 2								
LSD 36								
LSD 41								

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1. Production Workload, continued

Table 1.1.g: Workload Breakout by Type of Availability

Class of Vessel	FY 1996				FY 1997			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
SSBN 726								
SSN 688	INACT (1)	DSRA (3)			INACT (1)	DSRA (3)		
SSN 21								
CVN 68	SRA (1)	PIA (1)			PIA (1)			
CV 62								
AD 41	PMA (1)	DIA (1)			DIA (1)			
AOE 1								
AOE 6								
ARS 50								
AS 36/39					DIA (1)			
LCC 19								
LCC 20					PMA (1)			
LPD 4								
LPH 2								
LSD 36								
LSD 41								

1. Production Workload, continued

Table 1.1.h: Workload Breakout by Type of Availability

Class of Vessel	FY 1996				FY 1997			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
MCM1/MCS12/ MHCS1								
AFDB/AFDL/ AFDM/ARDM	SCO (1)							
NR-1								
AGF3/AGF11								
CG 47	ROH (1)				ROH (1)			
DD 963					ROH (2)			
DDG 51								
DDG 993								
FFG 7								
LHA 1	SRA (1)				SRA (2)			
LHD 1	COH (1)	SRA (1)						
CGN 38	RAV (1)				INACT (1)			

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1. Production Workload, continued

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Table 1.1.h.1 (Norfolk NSY): Workload Breakout by Type of Availability

Class of Vessel	FY 1996				FY 1997			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
AS 33					DIA (1)			
CGN 25	INACT (1)				INACT (1)			
CGN 36	SRA (1)							
CV 63/67	INACT (1)				INACT (1)			
SGCC barge	RAV (1)							
SSBN (616 class)	DSRA (1)				DSRA (1)			
SSBN (627 class)					DSRA (1)			
SSN (637 class)	DSRA (1)							
SSN (671 class)	DSRA (1)				DSRA (1)			

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1. **Production Workload, continued**

Table 1.1.h.1 (Norfolk NSY): Workload Breakout by Type of Availability

Class of Vessel	FY 1996				FY 1997			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
AS 11					DIA (1)			
CGN 25	INACT (1)				INACT (1)			
CGN 36	SRA (1)							
CV 63/67	INACT (1)				INACT (1)			
SGCC barge	RAV (1)							
SSBN (616 class)	DSRA (1)				DSRA (1)			
SSBN (627 class)					DSRA (2)			
SSN (637 class)	DSRA (1)							
SSN (671 class)	DSRA (1)				DSRA (1)			

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1. Production Workload, continued

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Table 1.1.i: Workload Breakout by Type of Availability

Class of Vessel	FY 1998				FY 1999			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
SSBN 726								
SSN 688	INACT (1)	DSRA (3)			INACT (1)	DMP (1)		
SSN 21								
CVN 68	DPIA (1)				PIA (1)	DPIA (1)		
CV 62								
AD 41								
AOE 1								
AOE 6								
ARS 50								
AS 36/39	DIA (1)	DPMA (1)			DPMA (1)	DIA (1)		
LCC 19								
LCC 20	DPMA (1)							
LPD 4								
LPH 2								
LSD 36								
LSD 41								

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1. Production Workload, continued

Table 1.1.i: Workload Breakout by Type of Availability

Class of Vessel	FY 1998				FY 1999			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
SSBN 726								
SSN 688	INACT (1)	DSRA (4)			INACT (1)	DMP (1)		
SSN 21								
CVN 68	DPIA (1)				PIA (1)	DPIA (1)		
CV 62								
AD 41								
AOE 1								
AOE 6								
ARS 50								
AS 36/39	DIA (1)	DPMA (1)			DPMA (1)	DIA (1)		
LCC 19								
LCC 20	DPMA (1)							
LPD 4								
LPH 2								
LSD 36								
LSD 41								

1. Production Workload, continued

Table 1.1.j: Workload Breakout by Type of Availability

Class of Vessel	FY 1998				FY 1999			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
MCM1/MCS12/ MHCS1								
AFDB/AFDL/ AFDM/ARDM								
NR-1								
AGF3/AGF11					DSRA (1)			
CG 47	ROH (1)							
DD 963	ROH (2)							
DDG 51								
DDG 993								
FFG 7								
LHA 1	SRA (1)				SRA (1)	ROH (1)		
LHD 1	SRA (2)				SRA (1)			
CGN 38	INACT (1)							

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1. Production Workload, continued

Table 1.1.j.1 (Norfolk NSY): Workload Breakout by Type of Availability

Class of Vessel	FY 1998				FY 1999			
	Avlb/(#)							
AS 33					DIA (1)			
CGN 36					DSRA (1)			
SSBN 627	DSRA (1)							

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1. **Production Workload, continued**

Table 1.1.j.1 (Norfolk NSY): Workload Breakout by Type of Availability

Class of Vessel	FY 1998				FY 1999			
	Avlb/(#)							
AS 33					DIA (1)			
CGN 36					DSRA (1)			
SSBN 627	DSRA (2)							

1. Production Workload, continued

Table 1.1.k: Workload Breakout by Type of Availability

Class of Vessel	FY 2000				FY 2001			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
SSBN 726								
SSN 688	INACT (1)	ERO (1)	DMP (3)		ERO (1)	DMP (3)		
SSN 21								
CVN 68	PIA (3)				PIA (2)			
CV 62								
AD 41								
AOE 1								
AOE 6								
ARS 50								
AS 36/39	DPMA (1)	DIA (1)						
LCC 19								
LCC 20	PMA (1)				PMA (1)			
LPD 4								
LPH 2								
LSD 36								
LSD 41								

1. **Production Workload, continued**

**Table 1.1.1: Workload Breakout by Type of Availability**

Class of Vessel	FY 2000				FY 2001			
	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)	Avlb/(#)
MCM1/MCS12/ MHC51								
AFDB/AFDL/ AFDM/ARDM								
NR-1								
AGF3/AGF11								
CG 47								
DD 963								
DDG 51								
DDG 993								
FFG 7								
LHA 1	ROH (2)				ROH (1)	SRA (1)		
LHD 1	ROH (1)	SRA (1)			ROH (2)			
CGN 38								

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1. **Production Workload, continued**

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Table 1.1.1.1 (Norfolk NSY): **Workload Breakout by Type of Availability**

Class of Vessel	FY 2000				FY 2001			
	Avlb/(#)							
CGN 36	SRA (1)				SRA (1)			
SSBN (616 class)	DSRA (1)				DSRA (1)			

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1. Production Workload, continued

Table 1.1.1.1 (Norfolk NSY): Workload Breakout by Type of Availability

Class of Vessel	FY 2000				FY 2001			
	Avlb/(#)							
CGN 36	SRA (1)							
SSBN (616 class)	DSRA (1)				DSRA (1)			

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1. **Production Workload, continued**

1.2 **DLMY Workload.** Identify the Direct Labor Man Years (DLMYs) expended or projected to be expended in performance of the listed work packages for the period requested.

**Table 1.2.a: Historic/Projected Work Package Performance**

EVENT	FY 1990	FY 1991	FY 1992	FY 1993
CVN COH				
CVN RCOH				
CVN DSRA	0.000	0.040	0.814	1.060
CVN EDSR				
CVN DPIA				
CVN SRA	0.082	0.317		0.013
CVN ESRA				
CVN PIA				
SSBN INACT				
SSBN ERP				
SSBN ROH/RFOH				
SSBN EOH/ERO				
SSN INACT				
SSN ROH/RFOH	1.218	0.652	0.106	
SSN EOH/ERO				
SSN DSRA	0.373	0.584	0.202	0.185
SSN DMP	1.071	0.257	0.573	0.443
CGN INACT				0.044
CGN COH/RCOH	0.192	0.839	2.052	1.032
CGN DSRA/SRA	0.542	0.283	0.824	0.058
Table 1.2.a Total	3.478	2.972	4.571	2.835

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**1. Production Workload, continued**

**1.2 DLMY Workload.** Identify the Direct Labor Man Years (DLMYs) expended or projected to be expended in performance of the listed work packages for the period requested.

**Table 1.2.a: Historic/Projected Work Package Performance**

EVENT	FY 1990	FY 1991	FY 1992	FY 1993
CVN COH				
CVN RCOH				
CVN DSRA	0.000	0.040	0.814	1.060
CVN EDSR				
CVN DPIA				
CVN SRA	0.082	0.317		0.013
CVN ESRA				
CVN PLA				
SSBN INACT				
SSBN ERP				
SSBN ROH/RFOH				
SSBN EOH/ERO				
SSN INACT				
SSN ROH/RFOH	1.218	0.652	0.106	
SSN EOH/ERO				
SSN DSRA	0.373	0.548	0.202	0.185
SSN DMP	1.071	0.257	0.573	0.443
CGN INACT				0.044
CGN COH/RCOH	0.192	0.839	2.052	1.032
CGN DSRA/SRA	0.542	0.283	0.824	0.058
<b>Table 1.2.a Total</b>	<b>3.478</b>	<b>2.936</b>	<b>4.571</b>	<b>2.835</b>

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1. Production Workload, continued

Table 1.2.b: Historic/Projected Work Package Performance

EVENT		FY 1990	FY 1991	FY 1992	FY 1993
Non Nuclear ROH				0.057	1.019
Non Nuclear COH					
Non Nuclear DPMA		0.008		0.065	0.445
Non Nuclear PMA		0.103			
Non Nuclear DSRA		0.028	0.109	0.319	0.197
Non Nuclear SRA		0.386	0.560	0.363	0.005
Non Nuclear SCO					
Other INACTs		0.112	0.148	0.025	0.037
OPW:	Nuclear	0.153	0.174	0.138	0.178
	NonNuclear	0.860	0.794	0.794	0.691
RATA:	Nuclear	0.511	0.474	0.394	0.402
	NonNuclear	0.500	0.389	0.173	0.279
Table 1.2.b Total		2.661	2.648	2.328	3.253
Table 1.2.a Total		3.478	2.972	4.571	2.835
Annual Total		6.139	5.620	6.899	6.088

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1. Production Workload, continued

Table 1.2.b: Historic/Projected Work Package Performance

EVENT		FY 1990	FY 1991	FY 1992	FY 1993
Non Nuclear ROH				0.057	1.019
Non Nuclear COH					
Non Nuclear DPMA		0.008		0.065	0.445
Non Nuclear PMA		0.103			
Non Nuclear DSRA		0.028	0.109	0.319	0.197
Non Nuclear SRA		0.386	0.560	0.363	0.005
Non Nuclear SCO					
Other INACTs		0.112	0.148	0.025	0.037
OPW:	Nuclear	0.153	0.174	0.138	0.178
	NonNuclear	0.860	0.794	0.794	0.691
RATA:	Nuclear	0.511	0.474	0.394	0.402
	NonNuclear	0.500	0.389	0.173	0.279
Table 1.2.b Total		2.661	2.648	2.328	3.253
Table 1.2.a Total		3.478	2.936	4.571	2.835
Annual Total		6.139	5.584	6.899	6.088

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1. Production Workload, continued

Table 1.2.c: Historic/Projected Work Package Performance

EVENT	FY 1994	FY 1995	FY 1996	FY 1997
CVN COH				
CVN RCOH				
CVN DSRA	0.106			
CVN EDSR				
CVN DPIA				
CVN SRA	0.412	0.380	0.387	
CVN ESRA				
CVN PIA			0.163	0.506
SSBN INACT				
SSBN ERP				
SSBN ROH/RFOH				
SSBN EOH/ERO				
SSN INACT	0.013	0.236	0.028	0.043
SSN ROH/RFOH				
SSN EOH/ERO				
SSN DSRA		0.292	0.348	0.344
SSN DMP	0.135			
CGN INACT	0.623	0.444	0.918	0.664
CGN COH/RCOH	0.232			
CGN DSRA/SRA			0.170	
<b>Table 1.2.c Total</b>	<b>1.521</b>	<b>1.352</b>	<b>2.014</b>	<b>1.557</b>

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1. **Production Workload, continued**

Table 1.2.d: **Historic/Projected Work Package Performance**

EVENT		FY 1994	FY 1995	FY 1996	FY 1997	
Non Nuclear ROH		0.847	0.808	0.062	0.213	
Non Nuclear COH			0.024	0.533		
Non Nuclear DPMA		0.220	0.141			
Non Nuclear PMA			0.075	0.008	0.047	
Non Nuclear DSRA		0.094				
Non Nuclear SRA		0.490	0.084	0.192	0.155	
Non Nuclear SCO			0.040	0.116		
Other INACTs		0.053	0.052	0.157	0.477	
OPW:	Nuclear	0.227	0.258	0.258	0.258	
	NonNuclear	0.685	0.989	1.198	1.137	R
RATA:	Nuclear	0.375	0.372	0.354	0.287	
	NonNuclear	0.567	0.451	0.359	0.360	
Table 1.2.d Total		3.558	3.294	3.237	2.934	R
Table 1.2.c Total		1.521	1.352	2.014	1.557	
Annual Total		5.079	4.646	5.251	4.491	R

1. Production Workload, continued

Table 1.2.d: Historic/Projected Work Package Performance

EVENT		FY 1994	FY 1995	FY 1996	FY 1997
Non Nuclear ROH		0.847	0.808	0.062	0.213
Non Nuclear COH			0.024	0.533	
Non Nuclear DPMA		0.220	0.141		
Non Nuclear PMA			0.075	0.008	0.047
Non Nuclear DSRA		0.094			
Non Nuclear SRA		0.490	0.084	0.192	0.155
Non Nuclear SCO			0.040	0.116	
Other INACTs		0.053	0.052	0.157	0.477
OPW:	Nuclear	0.227	0.258	0.258	0.258
	NonNuclear	0.685	0.989	1.134	1.137
RATA:	Nuclear	0.375	0.372	0.354	0.287
	NonNuclear	0.567	0.451	0.359	0.360
Table 1.2.d Total		3.558	3.294	3.173	2.934
Table 1.2.c Total		1.521	1.352	2.014	1.557
Annual Total		5.079	4.646	5.187	4.491

**1. Production Workload, continued**

**1.3 Emergent Repair.** Identify the total Direct Labor Man Years (DLMYs) expended by your activity in providing emergent repair of operational ships. Breakout the annual totals by type of work performed, (not by propulsion system of the originating platform). [For this question, and this question only, nuclear work is to be construed as repair on the reactor plant, including its associated primary systems and those portions of secondary systems whose maintenance is under the technical cognizance of NAVSEA 08. ]

**Table 1.3: Emergent Repairs**

Type of Work	FY 1989	FY 1990	FY 1991	FY 1992	FY 1993	FY 1994 (01 Oct-31 Mar)
Nuclear	0.162	0.174	0.151	0.111	0.121	0.030
Conventional	0.144	0.270	0.142	0.115	0.184	0.144
Total	0.306	0.444	0.293	0.226	0.305	0.174

## 2. Operating Factors

2.1 Special Equipment and Skills. Identify any specialized, unique, or peculiar characteristics about the facilities, equipment, or skills at this activity. Highlight those capabilities that are one of a kind within the DON/DoD.

### 2.1.1 Engineering Design Agent for Large Air Capable Ship Classes

Norfolk NSYD provides full fleet support as the Navy's Principle Engineering Design Agent for Large Air Capable Ships including:

- (a) All USS NIMITZ Class Nuclear Aircraft Carriers (CVN-68 class) Both East and West Coasts
- (b) All East Coast Conventional Aircraft Carriers (CV 60, CV 66, CV 67) East Coast
- (c) All Helicopter Land and "Jump-Jet" Amphibious Assault Craft (LHA 1 class) (East Coast, West Coast, and Sasebo, Japan.
- (d) All Dock Landing and "Jump-Jet" Amphibious Assault Craft (LHD1 Class) both East Coast and West Coast.

### 2.1.2 Lead Design Agent for Ships Solid and Plastic Waste

Norfolk NSYD is the Lead Design Agent for all Surface Ship Solid and Plastic Waste Management Program to ensure Fleet wide compliance with environmental standards. Interface is Navy wide with other Planning Yards, Fleet Commanders, NAVSEA, PERAs, and ships.

### 2.1.3 Nuclear Aircraft Carrier Incremental Maintenance Program

Norfolk NSYD provides the technical content for the new CVN 68 class Life Cycle Maintenance Program termed Incremental Maintenance. This effort includes expansion of the technical and engineering products by providing unique maintenance procedures, maintenance sequencing plans, testing requirements, material support requirements and an Overhaul Maintenance Manual to ensure a 49-year service life without the need for a Service Life Extension Program (SLEP).

### 2.1.4 Amphibious Assault Ship Upgrade/Life Extension

Norfolk NSYD is conducting technical reviews of the Naval Ship Technical Manuals and General Specifications Requirements; service requirements; dry dock work lists; and schedule and critical path drivers, including large modernization Shipalts for incremental execution in order to minimize time in depot availabilities and support incremental maintenance. Technical improvements determined in the above process will be implemented during Mid-Life Upgrade.

### 2.1.5 3-D Modeling for CVN 68, LHD 1, LHA 1, and SSN 688 Classes

Norfolk NSYD is implementing, under JLSC specifications, continuous acquisition and Life-Cycle Support (CALs) compliant 3-D Product Modeling for

CVN 68, LHD 1, LHA 1 class ships and through a Joint Public/Private Partnership (Norfolk NSYD and Newport News Shipbuilding and Drydock Corp.), the SSN 688 class submarines. Product models are being developed in support of design, planning, logistics and Functional Computer Integrated Manufacturing (FCIM).

#### 2.1.6 U.S. Navy's General Overhaul Specifications

Norfolk NSYD has been authorized to develop and publish and is currently the U.S. Navy's Central Technical Control Agent for specification changes, maintenance and distribution of the General Overhaul Specification for Surface Ships, including the Nuclear and Aegis Supplements; and is assigned as the U.S. Navy's technical authority for all repair and modernization accomplished at over 1,400 facilities and ship tenders world wide.

#### 2.1.7 East Coast Antenna Range Support

Norfolk NSYD is certified to operate and provides engineering support and overall management for the U. S. Navy's East Coast Antenna Range located at St. Julien's Creek Annex, the only government owned range on the East Coast. This facility supports the fleet by validating/testing surface ship search radar antennas after overhaul, including: antenna patterns, beam width evaluation, side lobe analysis, azimuth and elevation scan data analysis, antenna feed alignment, antenna polarizer alignment, boresight alignment, gain measurements, and radome loss and boresight error.

#### 2.1.8 Large, Varied Workforce Able to Respond to Fleet Needs At and Away from the Norfolk NSYD

Norfolk NSYD has the ability to respond to nuclear fleet needs away from the Norfolk NSYD, including nuclear training and mockup capabilities. Having a large and varied workforce provides the ability to quickly respond to unique requirements of the fleet, while minimizing impact on ongoing in-yard work. The broad experience base and specific qualifications of engineering, production, and support personnel do not exist at one location elsewhere on the East Coast. Ensuring first time quality in many cases of complex work, hostile environments, or combinations thereof, makes the use of full scale area mockups mandatory to prove equipment, procedures and personnel. Response to unexpected work is extremely rapid and efficient because of Norfolk NSYD's location and ability to rapidly mobilize. Norfolk NSYD has invested in many mockups which are utilized not only by Norfolk NSYD but by others.

Norfolk NSYD's special job teams, trained in the full-size nuclear pressurizer and steam generator mockup training facility, operate wherever required. For example, pressurizers and steam generators are inspected and maintained at remote locations. A barge has been outfitted for this work. The mockups used are maintained by the Norfolk NSYD and are utilized by other shipyards. The mockups have been, and continue to be, used to develop the tooling used by all shipyards for these occasions.

More specifically, the skills and certifications maintained by the Production Resources workforce include those trained and qualified for surface, subsafe, and nuclear work in the following skill areas:

- a. Operation of stress relief furnace utilized for propellers and large structural components.
- b. Qualified personnel in the operation of CAMMANN metal disintegrator (used to remove metal from lead containers; minimizes hazardous waste).
- c. Experienced/certified personnel in handling large major reactor plant components and fuel. Norfolk NSYD is the East Coast storage facility for large nuclear components.
- d. Qualified Diving Services for all class vessels (nuclear/conventional)
- e. Certified personnel in catapult alignment
- f. Tool design for special applications, e.g., RTD cutting machine
- g. Omega seal machine manufacture, RTD weld machine, (both for reactor plants), mechanical weld machining
- h. SMARSE yard for RTD, heavy wall heater well replacement and automatic mech weld of omega seal repairs
- i.. Nuclear special projects mockup for research and development
- j. Applying rubber boots to GRP (glass reinforced plastic) sonar domes (subs)
- k. Manufacturing SPQ-9 Radomes. Only government activity with the skilled workforce and facility certified to manufacture SPQ-9 radomes
- l. O<sub>2</sub>N<sub>2</sub> Plant Repair
- m. Vacuum impregnation process on fire pumps (unique to Navy)
- n. Degaussing installation and repair (Norfolk is the East Coast Facility)
- o. Certified GTA Welding with remote camera and apparatus (unique to DoD)
- p. Certified GTA autogenous welding of tubing (unique to DoD on the East Coast)
- q. DNC thermal cutting center (unique to DoD on the East Coast)
- r. The Crypto Repair Facility is the East Coast depot level repair facility.

### 2.1.9 Nuclear Steam Generator and Pressure Vessel Training Facility (Boiler Shop)

The nuclear steam generator and pressure vessel training facility is maintained by the Boiler Shop (Shop 41); it is unique to the U.S. government. This training facility researches fleet essential nuclear repairs and develops tooling, procedures, and processes to correct the problems in active fleet ships and submarines. The processes and tooling developed by this facility are used to train personnel to perform the repairs aboard ship. These procedures, processes, and tooling are used by all naval and private shipyards for fleet repair of applicable components. This training facility contains a variety of real ship's major components to duplicate actual shipboard conditions found in the fleet. The actual problem in the fleet can be replicated in this facility and pieces of real shipboard components can be removed and researched for underlying causes of the problem. This unique capability ensures accurate procedures, processes, and tooling are developed for first time quality repairs to the fleet.

### 2.1.10 Hydrostatic Test Center for Compressed Gases

This facility utilizes the water jacket volumetric expansion method to hydrostatically test gas cylinders with a rating up to DOT-3A 3500. This process consists of enclosing the cylinder in a vessel that is displaced by expansion of the cylinder when under pressure and after pressure is released. This testing is a requirement of the Department of Transportation (DOT).

Norfolk NSYD consumes large amounts of nitrogen and oxygen in the performance of ship alterations and repairs. Due to the volume of gas used, it has been proven that purchasing gas in the bulk liquid form and filling cylinders is more cost effective than leasing the cylinders. In addition, the need for nuclear grade nitrogen during reactor plant repairs requires Norfolk NSYD to supply this gas a moments notice.

Unique to government, this plant tests, cleans, and fills oxygen, nitrogen, and compressed air gas cylinders and gravity fill liquid argon tanks. Other activities purchase their gases. Norfolk NSYD can perform this function at a cost lower than commercially available.

### 2.1.11 Accredited Environmental Test Laboratory

Norfolk NSYD operates a third party accredited test facility meeting all federal/state tests and quality control requirements. State and Federal environmental compliance requirements must be tested in support of (and in addition to) operational maintenance functions. This test laboratory allows the Norfolk NSYD to control testing costs and meet turn around times without incurring fines.

### 2.1.12 Nuclear Refueling Facility

This is the only DON East coast facility to support CGN refuelings.

### 2.1.13 350-ton Hammerhead Crane

Unique to the government, this crane is on berth 2 on the Elizabeth River and is

used to lift large nuclear components, deck edge elevators of aircraft carriers, and small service craft.

- 2.1.14 Two 100 long ton General Purpose (GPS) Floating Derricks; one 100 ton SPS R

Unique to the East coast, the 100 ton SPS floating derrick is certified to lift special purpose loads. R

- 2.1.15 Propeller Shop

In FY96, the Propeller Shop at Philadelphia NYSD will become a Norfolk NSYD Detachment. It is the only propeller shop in the world which can fabricate and repair certain large, complex propellers.

- 2.1.16 Foundry

In FY96, the Foundry at Philadelphia NYSD will become a Norfolk NSYD Detachment. It provides products for all East Coast naval shipyards.

- 2.1.17 Automated Hazardous Waste Management System

Norfolk NSYD is capable of the pick up, storage, inventory, management, and shipment of hazardous waste. This capability includes a specific Shipment and Technical Section that maintains full compliance with Department of Transportation requirements. Normally this service is provided by contract through Defense Reutilization and Marketing Office.

- 2.1.18 Naval Sea Systems Command Training Information Resources (TIRO)

Moving as a result of BRAC93 from Mare Island, unique human resources and equipment moving to support function at Norfolk NSYD.

- 2.1.19 Naval Shipbuilding Support Office (NAVSHIPSO)

A BRAC93 decision, this unique activity is scheduled to operate its computerized resources as a detachment of Norfolk NYSD.

- 2.1.20 Ship Silencing Test Room

Norfolk NSYD's ship silencing test room allows tests on noise critical motors and can measure low noise levels. This test room is required for depot maintenance to ensure the noise levels of motors are as low as possible or within test criteria. Without this specialized room, these tests would have to be performed onboard ship during installation. Motors which tested outside the limits would then have to be removed, repaired, reinstalled, and tested again. This test room prevents these unnecessary, inefficient steps.

used to lift large nuclear components, deck edge elevators of aircraft carriers, and small service craft.

**2.1.14 Two 100-ton Special Purpose (SPS) Floating Derrick; one 125-ton SPS**

Unique to the East coast, these floating cranes are certified to lift special purpose loads.

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**2.1.21 Nuclear Tender Planning Yard**

From Charleston NSYD as a result of BRAC93, Norfolk NSYD is gaining this unique combination of planning resources for tenders, etc. with unique nuclear requirements.

**2.1.22 Intermediate Maintenance Activity Planning Yard**

As a result of BRAC93 from Charleston NSYD, a hands-on training facility, including full scale mockups for training of military students will be located at Norfolk NSYD..

**2.1.23 Non-Nuclear Tender Planning Yard**

From Charleston NSYD as a result of BRAC93, Norfolk NSYD is gaining a unique combination of planning resources for non-nuclear portions of tenders, etc.

**2.1.24 Shipyard Instructional Design Center**

The Shipyard Instructional Design Center (SIDC) serves customers at all naval shipyards and NAVSEA as well as several other activities. The SIDC is capable of conducting a needs analysis, research, design, and development and production of training materials in-house, delivering finished products ready for classroom use to a wide variety of customers. Central development/production eliminates duplication and replication of efforts bringing significant savings. Since they are a Navy asset, no delays are encountered by SIDC to cover nuclear and/or classified content.

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2.2 Planning Yard Mission. Identify the classes of ships (include one-of-a-kind) for which your activity serves as the planning yard.

CV

USS KENNEDY (CV 67)  
USS AMERICA (CV 66) DECOM FY96  
USS SARATOGA (CV60) DECOM FY94

CVN 68 CL

USS NIMITZ (CVN 68)  
USS EISENHOWER (CVN 69)  
USS VINSON (CVN 70)  
USS ROOSEVELT (CVN 71)  
USS LINCOLN (CVN 72)  
USS WASHINGTON (CVN 73)  
USS STENNIS (CVN 74)  
USS UNITED STATES (CVN 75)

LHA 1 CL

USS TARAWA (LHA 1)  
USS SAIPAN (LHA 2)  
USS BELLEAU WOOD (LHA 3)  
USS NASSAU (LHA 4)  
USS PELELIU (LHA 5)

LHD 1 CL

USS WASP (LHD 1)  
USS ESSEX (LHD 2)  
USS KEARSARGE (LHD 3)  
USS BOXER (LHD 4)  
USS BATAAN (LHD 5)  
USS BON HOMME RICHARD (LHD 6)

CGN's

USS CALIFORNIA (CGN 36)  
USS SOUTH CAROLINA (CGN 37)  
USS VIRGINIA (CGN 38) (FY 94--95 INACT/DEFUEL)  
USS MISSISSIPPI (CGN 40)  
USS ARKANSAS (CGN 41)

AS TENDERS

USS HUNLEY (AS 31)  
USS HOLLAND (AS 32)

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USS SIMON LAKE (AS 33)  
USS CANOPUS (AS 34)  
USS L. Y. SPEAR (AS 36)  
USS DIXON (AS 37)  
USS EMORY S. LAND (AS 39)  
USS FRANK CABLE (AS 40)  
USS MCKEE (AS 41)  
USS ORION (AS 18) (INACT FY94)

"LX" CLASS

LPD 17

AR TENDERS

USS JASON (AR 8)

AD TENDERS

USS YOSEMITE (AD 19)  
USS SAMUEL GOMPERS (AS 37)  
USS PUGET SOUND (AD 38)  
USS YELLOWSTONE (AD 41)  
USS ACADIA (AD 42)  
USS CAPE COD (AD 43)  
USS SHENANDOAH (AD 44)

DRY DOCKS

AFDB 8 MECHINIST  
AFDL 6 DYNAMIC  
AFDL 23 ADEPT  
AFDM 5 RESOURCEFUL  
AFDM 6 COMPETENT  
AFDM 7 SUSTAIN  
AFDM 8 RICHLAND  
AFDM 10 RESOLUTE  
AFDM 14 STEADFAST  
ARD 5 WATERFORD  
ARD 30 SAN ONOFRE  
ARDM 1 OAK RIDGE  
ARDM 2 ALAMOGORDO  
ARDM 4 SHIPPING PORT  
ARDM 5 ARCO

2.3 Reactor Compartment Disposal. Does your activity remove reactor compartments from inactive nuclear powered vessels? No

2.4 Non-Shipwork. Identify the work, in total Direct Labor Man Years (DLMYs), performed by your activity during FY 1993 in support of other DON industrial facilities (e.g. Naval Aviation Depots (NADEPs), Aviation Intermediate Maintenance Departments (AIMDs), Marine Corps Logistics Bases (MCLBs), Shore Intermediate Maintenance Activities (SIMAs), Fleet and Industrial Support Centers (FISCs), etc.).

Non-Shipwork DON Industrial support = 0.224 K DLMYs

2.5 Interservice Workload. Identify the productive work your activity provides to customers other than USN vessels (e.g. nonship work, such as repairables, calibration; non-DON vessels, such as MSC or USCG ships; work for other DoD elements, other agencies of the Federal government or the commercial sector). Specify any related specialized, unique or peculiar capabilities of your activity which support such workload. Highlight those areas where your activity is the only DON/DoD source for that workload.

The Other Productive Work, including the design services work, comprises 0.430 K DLMY's of highly technical work.

## Features and Facilities

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## 3. Facility Measures

3.1 Identify, by three digit Category Code Number (CCN), *all facilities* at this activity, and their current condition and area in thousands of square feet (KSF). Duplicate the table as necessary to report all facilities of any tenants for whom your activity serves as host.

Table 3.1: Facility Conditions\*

CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
131	Communications	3.404**	5.191	0	
137	Oceanographics	0.812	0	0	
143	Ships & Other Oper. Bldgs	0.300	0	0	
151	Piers	5,236	3,084	0	Feet of berthing (FB)
152	Wharves	5,034	790	0	Feet of berthing (FB)
154	Quay walls	945	0	0	Linear Feet (LF)
155	Small Craft Berth	2,812	444	0	Feet of berthing (FB)
159	Other Waterfront	19.000	0	0	Bldg 28 demo; 3.4 ksf not financially complete
171	Training	144.209	32.791	12.656	
213	Maint Ships/Spares	2,622.558	1,040.411	152.756	
214	Auto Maint	14.683	0	2	
218	Equip Maint	0	28.5	0	
219	Repair/Maint	4.136	0	26.58	
310	Science Lab	29.8	0	0	
441	General Whse	1,012.966	259.8	146.926	
451	Open Storage	424.4	0	0	
510	Medical Center	0	0.54	0	
550	Medical Clinic	0	0	4.120	

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Activity Norfolk Naval Shipyard

CONSISTENT WITH NAVAL AUDIT SERVICE FINDINGS

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CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
610	Admin	370.37	113.504	20.6	
721	BEQ's	108.839	148.411	0	
722	Dining Fac	1.077	0	0	
724	BOQ's	55.990	0	0	
730	Pers. Support	40.148	10.239	5.312	
740	Community Fac. MWR-Interior	142.344	38.406	3.762	
750	Community Fac. MWR-Exterior	21 EA	0	4 EA	EACH (EA); playing courts, fields
750	Community Fac. MWR-Exterior	25 ME	50 ME	0	Meters (ME), swimming pool
852	Parking	173,424 SY	0	0	Square Yards (SY)
Activity TOTAL:		4995.036 KSF 13,082 FB 21 EA 25 ME 173,424 SY 945 LF	1677.793 KSF 4,318 FB 50 ME	374.712 KSF 4 EA	

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Notes:

\* Table includes Norfolk Naval Shipyard Main Site and ALL other sites and square footage not specifically assigned to tenants (e.g., St. Helena Annex, South Gate Annex, Scott Center Annex) WITH THE EXCEPTION OF ST. JULIEN'S CREEK ANNEX (where only the ballfields and Waverly Sykes Training Center are included)/

\*\*Includes NCTAMSLANT, N70272, which left Norfolk NSYD after P-164 issued 30 September 1993.

3.2 In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories in Table 3.1, above, where inadequate facilities are identified provide the following information:

- a. Facility type/code:
- b. What makes it inadequate?
- c. What use is being made of the facility?
- d. What is the cost to upgrade the facility to substandard?
- e. What other use could be made of the facility and at what cost?

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722	Dining Fac	1.077	0	0	
724	BOQ's	55.990	0	0	
730	Pers. Support	40.148	10.135	5.308	
740	Community Fac. MWR-Interior	142.344	38.406	3.762	
750	Community Fac. MWR-Exterior	21 EA	0	4 EA	EACH (EA); playing courts, fields
750	Community Fac. MWR-Exterior	25 ME	50 ME	0	Meters (ME), swimming pool
852	Parking	173,424 SY	0	0	Square Yards (SY)
<b>Activity TOTAL:</b>		4,992,396 KSF 13,082 FB 21 EA 25 ME 173,424 SY 945 LF	1,677.679 KSF 4,318 FB 50 ME	374.708 KSF 4 EA	

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- f. Current improvement plans and programmed funding:
- g. Has this facility condition resulted in C3 or C4 designation on your BASEREP?

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- A. ACADEMIC INSTRUCTION BLDG, 171-10, BLDG 400
  - B. E5 - NONEXISTENT FIRE DETECTION SYSTEM  
A3 - HVAC SYSTEM  
B26 - FUNCTIONAL SPACE CONFIG.
  - C. NONE, TEMPORARY SWING SPACE
  - D. 950K
  - E. NONE -
  - F. BLDG ON DEMOLITION LIST - NOT FUNDED
  - G. NO
- 
- A. QUALITY ASSURANCE OFFICE , 213-48,  
BLDG 68  
BLDG 244  
BLDG 1335
  - B. BLDG 68- D30: LOCATION  
BLDG 244- A32: PHYSICAL CONDITION DRAINAGE, A30: DETERIORATED  
BLDG 1335- F30: TOTAL DETERIORATION
  - C. BLDG 68- QA OFFICE  
BLDG 244- QA OFFICE  
BLDG 1335- QA OFFICE
  - D. BLDG 68- 725K  
BLDG 244- 50K  
BLDG 1335- 30K
  - E. BLDG 68- ADMIN SPACE: 730K  
BLDG 244- NO OTHER SUITABLE FUNCTION  
BLDG 1335- NO OTHER SUITABLE FUNCTION
  - F. BLDG 68- ON DEMOLITION LIST, NOT FUNDED  
BLDG 244- ON DEMOLITION LIST, NOT FUNDED  
BLDG 1335- ON DEMOLITION LIST, NOT FUNDED
  - G. BLDG 68- NO  
BLDG 244- NO  
BLDG 1335- NO

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- A. WOOD WORKING , 213-56,  
BLDG 462
- B. B30- FUNCTION SPACE CRITERIA
- C. BATTERY CHARGING/STORAGE
- D. 40K
- E. NONE -
- F. BLDG ON DEMOLITION LIST - NOT FUNDED
- G. NO

- 
- A. RIGGING SHOP, 213-61,  
BLDG 411
  - B. F30- TOTAL DETERIORATION
  - C. RIGGING SHOP/PUBLIC TOILET
  - D. 120K
  - E. NONE -
  - F. BLDG ON DEMOLITION LIST - NOT FUNDED
  - G. NO
-

- A. SHIPS SPARE STORAGE , 213-77
  - BLDG 79
  - BLDG 291
  - BLDG 478
  - BLDG 617 (21,054 SF) OUT GRANT TO NORSHIPCO @ ST HELENA
  - BLDG 618 (21,054SF) OUT GRANT TO NORSHIPCO @ ST HELENA
  
- B. BLDG 79- E5: NON EXISTENT FIRE DET., B30: POOR LAYOUT, A30: TOTAL DETERIORATION.
  - BLDG 291- E5: NON EXISTENT FIRE DET, A27: ROOF, A30: TOTAL DETERIORATION
  - BLDG 478- D30: LOCATION OF BLDG
  - BLDG 617 - A24: ROOF SUPPORT, F30: TOTAL DETERIORATION
  - BLDG 618 - A24: ROOF SUPPORT, F30: TOTAL DETERIORATION
  
- C. BLDG 79- SHIPS SPARES STORAGE
  - BLDG 291- SHIPS SPARES STORAGE
  - BLDG 478- SHIPS SPARES STORAGE
  - BLDG 617- STORAGE
  - BLDG 618- STORAGE
  
- D. BLDG 79- 300K
  - BLDG 291- 300K
  - BLDG 478- 120K
  - BLDG 617- 500K
  - BLDG 618- 500K
  
- E. BLDG 79- SUPPLY STORAGE- 300K
  - BLDG 291- SUPPLY STORAGE - 300K
  - BLDG 478- SUPPLY STORAGE - 120K
  - BLDG 617- SUPPLY STORAGE- 500K
  - BLDG 618- SUPPLY STORAGE- 500K
  
- F. BLDG 79- ON DEMOLITION LIST, NOT FUNDED
  - BLDG 291- ON DEMOLITION LIST, NOT FUNDED
  - BLDG 478- ON DEMOLITION LIST, NOT FUNDED
  - BLDG 617- NONE
  - BLDG 618- NONE
  
- G. BLDG 79- NO
  - BLDG 291- YES
  - BLDG 478- NO
  - BLDG 617- NO
  - BLDG 618- NO

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- A. VEHICLE MAINTENANCE. 214-20  
BLDG 479  
BLDG 480
- B. BLDG 479- D30: LOCATION, F30: TOTAL DETERIORATION  
BLDG 480- D30: LOCATION, F30: TOTAL DETERIORATION
- C. BLDG 479- VEHICLE MAINTENANCE.  
BLDG 480- VEHICLE MAINTENANCE.
- D. BLDG 479- 50K  
BLDG 480- 50K
- E. BLDG 479- NONE  
BLDG 480- NONE
- F. BLDG 479- ON DEMOLITION LIST, NOT FUNDED  
BLDG 480- ON DEMOLITION LIST, NOT FUNDED
- G. BLDG 479- NO  
BLDG 480- NO

- 
- A. PUBLIC WORKS SHOP, 219-10 (2198SF)  
BLDG 403
  - B. E5: FIRE DETER SYSTEM, D30: LOCATION, A30: TOTAL DETERIORATION
  - C. SHOP STORAGE
  - D. 100K
  - E. NONE -
  - F. BLDG ON DEMOLITION LIST - NOT FUNDED
  - G. NO

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Activity Norfolk Naval Shipyard  
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- A. GROUND EQUIP SHED, 219-20 (13,300SF)  
BLDG 15A
- B. E5: FIRE DETER SYSTEM, A2: VENTILATION, A29: WATERPROOFING
- C. GROUND EQUIPMENT STORAGE
- D. 300K
- E. STORAGE- 300K
- F. BLDG ON DEMOLITION LIST - NOT FUNDED
- G. NO

- 
- A. MAINTENANCE. PUBLIC WORKS STORAGE, 219-77  
BLDG 17A (10,800SF)  
BLDG 238 ( 285SF)
  - B. BLDG 17A- E5: FIRE DETERRENT F30: TOTAL DETERIORATION  
BLDG 238- A40: OSHA DEFICIENCY.
  - C. BLDG 17A- PUBLIC WORKS STORAGE  
BLDG 238- PUBLIC WORKS STORAGE
  - D. BLDG 17A- 300K  
BLDG 238- 15K
  - E. BLDG 17A- NONE  
BLDG 238- NONE
  - F. BLDG 17A- ON DEMOLITION LIST, NOT FUNDED  
BLDG 238-- NONE
  - G. BLDG 17A- NO  
BLDG 238- NO

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Activity Norfolk Naval Shipyard  
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- A. GENERAL WAREHOUSE, 441-10  
BLDG 379 SOUTH GATE
- B. A27: ROOF CONDITION., A30: TOTAL DETERIORATION, A40:OSHA
- C. GENERAL WAREHOUSE
- D. 700K
- E. NONE -
- F. BLDG ON DEMOLITION LIST - NOT FUNDED
- G. YES

- A. GENERAL STORAGE SHED, 441-35  
BLDG 375 SOUTH GATE (17,850)  
BLDG 376 SOUTHGATE (21,315 SF)  
BLDG 834 SOUTHGATE (1,342 SF)  
BLDG 835 SOUTHGATE (440 SF)
  
- B. BLDG 375- A23:EXTERIOR WALLS, A24: ROOF, A30: TOTAL DETERIORATION.  
BLDG 376- A23:EXTERIOR WALLS, A24: ROOF, A30: TOTAL DETERIORATION.  
BLDG 834- A30: TOTAL DETERIORATION  
BLDG 835- A30: TOTAL DETERIORATION
  
- C. BLDG 375- GENERAL WAREHOUSE  
BLDG 376- GENERAL WAREHOUSE  
BLDG 834- GENERAL WAREHOUSE  
BLDG 835- GENERAL WAREHOUSE
  
- D. BLDG 375- 175K  
BLDG 376- 200K  
BLDG 834- 15K  
BLDG 835- 5K
  
- E. BLDG 375- NONE  
BLDG 376- NONE  
BLDG 834- NONE  
BLDG 835- NONE.
  
- F. BLDG 375- NONE  
BLDG 376- NONE  
BLDG 834- ON DEMOLITION LIST, NOT FUNDED  
BLDG 835- NONE
  
- G. BLDG 375- NO  
BLDG 376- NO  
BLDG 834- NO  
BLDG 835- NO

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Activity Norfolk Naval Shipyard  
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- A. MEDICAL CLINIC, 550-10 (4120SF)  
BLDG 401
  - B. A3: HVAC, A4: PLUMBING AND PIPING, A30: TOTAL DETERIORATION
  - C. RADIOLOGICAL HEALTH FACILITY
  - D. 200K
  - E. NONE -
  - F. BLDG ON DEMOLITION LIST - NOT FUNDED
  - G. NO
- 

- A. ADMINISTRATIVE , 610-10  
BLDG 11A (2587SF)  
BLDG 264 (18055SF)
- B. BLDG 11A- B26: POOR LAYOUT, A30: TOTAL DETERIORATION.  
BLDG 264- E5: NON EXISTENT FIRE DETERIORATION, B26: POOR LAYOUT,  
A30: TOTAL DETERIORATION
- C. BLDG 11A- ADMIN/STORAGE  
BLDG 264- VACANT
- D. BLDG 11A- 129K  
BLDG 264- 1.4M
- E. BLDG 11A- NONE  
BLDG 264- NONE
- F. BLDG 11A- ON DEMOLITION LIST, NOT FUNDED  
BLDG 264- ON DEMOLITION LIST, NOT FUNDED
- G. BLDG 11A- NO  
BLDG 264- NO

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Activity Norfolk Naval Shipyard  
UIC 00181

- A. ADMINISTRATIVE , 610-20  
BLDG 65 (416 SF)
- B. B30: FUNCTIONAL SPACE CRITERIA
- C. ADMINISTRATIVE
- D. 30K
- E. NONE
- F. ON DEMOLITION LIST, NOT FUNDED
- G. NO

- 
- A. FIRE STATION, 730-10  
BLDG 403 (1539 SF)  
BLDG 698 (168SF)
  - B. BLDG 403 - E5: FIRE DETERRENT, A30: STRUCTURAL DETERIORATION  
BLDG 698 - E30: NONEXISTENT BLDG OR STRUCTURE
  - C. BLDG 403 -FIRE STATION STORAGE  
BLDG 698- STORAGE
  - D. BLDG 403- 50K  
BLDG 698 - 4K
  - E. BLDG 403-NONE  
BLDG 698 - NONE
  - F. BLDG 403- ON DEMOLITION LIST, NOT FUNDED  
BLDG 698- NONE
  - G. BLDG 403-NO  
BLDG 698-NO

- A. PUBLIC TOILET, 730-75 , BLDG 411 (810 SF)
- B. F30: TOTAL DETERIORATION.
- C. PUBLIC TOILET
- D. 24K
- E. NONE
- F. ON DEMOLITION LIST, NOT FUNDED
- G. NO

- 
- A. EXCHANGE CAFETERIA, 740-04 , BLDG M23 (3278 SF)
  - B. F40: TOTAL DETERIORATION., OSHA DEFICIENCY.
  - C. EXCHANGE CAFETERIA
  - D. 100K
  - E. ADMIN, 100K
  - F. NONE
  - G. NO

- 
- A. AMUSEMENT CENTER, 740-28 , BLDG M23 (484 SF)
  - B. F40: TOTAL DETERIORATION., OSHA DEFICIENCY.
  - C. AMUSEMENT CENTER
  - D. 15K
  - E. STORAGE, \$0.00
  - F. NONE
  - G. NO

- A. PLAYING COURTS , 750-10  
FAC. 1537 (2 EA)  
FAC 1538 (2 EA)
  
- B. FAC 1537- D15: FACILITY LOCATION  
FAC 1538- D15: FACILITY LOCATION
  
- C. FAC 1537- TENNIS COURTS  
FAC 1538 - TENNIS COURTS
  
- D. FAC 1537- INADEQUATE DUE TO LOCATION- N/A  
FAC 1538-INADEQUATE DUE TO LOCATION- N/A
  
- E. FAC 1537- NONE  
FAC 1538- NONE
  
- F. FAC 1537- NONE  
FAC 1538- NONE
  
- G. FAC 1537- NO  
FAC 1538- NO

Features and Facilities

3. Facility Measures

3.1 Identify, by three digit Category Code Number (CCN), *all facilities* at this activity, and their current condition and area in thousands of square feet (KSF). Duplicate the table as necessary to report all facilities of any tenants for whom your activity serves as host.

Table 3.1: Facility Conditions

TENANT:

N00187

PUBLIC WORKS CENTER, PORTSMOUTH, SITE

CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
123	Land/Vehicle Fueling/Disp Fac.	2 OL	0	0	Outlets (OL)
214	Maint.-Tank, Automo.	1.710	64.701	0	
219	Maint.-Install., Repair & Operations	30.497	10.624	0	
441	Storage	0	5.238	0	
510	Admin	10.900	0	0	
<b>Activity TOTAL:</b>		2 OL 43.107	80.563	0	Outlets (OL)

Features and Facilities

3. Facility Measures

3.1 Identify, by three digit Category Code Number (CCN), *all facilities* at this activity, and their current condition and area in thousands of square feet (KSF). Duplicate the table as necessary to report all facilities of any tenants for whom your activity serves as host.

Table 3.1: Facility Conditions

TENANT:

N30018 NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION  
 (Formerly UERD)

CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
313	Ship & Marine Equipment	2.000	28.900	0	
Activity TOTAL:		2.000	28.900	0	

Features and Facilities

3. Facility Measures

3.1 Identify, by three digit Category Code Number (CCN), *all facilities* at this activity, and their current condition and area in thousands of square feet (KSF). Duplicate the table as necessary to report all facilities of any tenants for whom your activity serves as host.

Table 3.1: Facility Conditions

TENANT:  
N32532

BRANCH MEDICAL CLINIC

CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
510	Hospital	0.080	6.610	0	
550	Medical Clinic	0	2.254	19.435	Bldg 277 (Def. codes: C5, C30, C12)
Activity TOTAL:		0.080	8.864	19.435	

3.2 In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories in Table 3.1, above, where inadequate facilities are identified provide the following information:

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

A. MEDICAL CLINIC, 550-10 BLDG 277 (19,435 SF)

B. C05: LACK OF FIRE SYSTEMS, C30: BLDG DESIGN INADEQUATE, C12: INADEQUATE WIRE/FEEDER

C. MEDICAL CLINIC

D. 500K

E. NONE

F. PROJECT R1-93 RENOVATION. IS SCHEDULED FOR FY95

G. NO

Features and Facilities

3. Facility Measures

3.1 Identify, by three digit Category Code Number (CCN), *all facilities* at this activity, and their current condition and area in thousands of square feet (KSF). Duplicate the table as necessary to report all facilities of any tenants for whom your activity serves as host.

Table 3.1: Facility Conditions

TENANT:

N33341

SHORE INTERMEDIATE MAINTENANCE ACTIVITY (SIMA)

CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
213	Maint-Ships & Floating Equipment	0	0	25.760	Bldg 383 (A10, A12, A40)
Activity TOTAL:		0	0	25.760	

3.2 In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories in Table 3.1, above, where inadequate facilities are identified provide the following information:

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

A. MISC. STORAGE , 213-77 , BLDG 383, SOUTH GATE

B. A10: PHYSICAL CONDITION. OF LIGHTING, A12: PHYSICAL. CONDITION. WIRING/FEEDERS, A40: PHYSICAL CONDITION OF OSHA

C. MISC. STORAGE

D. \$ 600K

E. SUPPLY STORAGE - 600K

F. NONE

G. NO

**Features and Facilities**

**3. Facility Measures**

3.1 Identify, by three digit Category Code Number (CCN), *all facilities* at this activity, and their current condition and area in thousands of square feet (KSF). Duplicate the table as necessary to report all facilities of any tenants for whom your activity serves as host.

**Table 3.1: Facility Conditions**

TENANT:

N35045 NAVAL DENTAL CLINIC BRANCH NSYD PORTSMOUTH, VA

CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
540	Dental	0	0	12 OU (6.775 KSF)	Operating Units (OU)
Activity TOTAL:		0	0	12 OU (6.775 KSF)	Operating Units (OU)

3.2 In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories in Table 3.1, above, where inadequate facilities are identified provide the following information:

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

- A. DENTAL CLINIC, 540-10 BLDG 277 (6,775 SF)
- B. C05: LACK OF FIRE SYSTEMS, C30: BLDG DESIGN INAD, C12: INAD WIRE/FEEDER
- C. DENTAL CLINIC
- D. 200K
- E. NONE
- F. PROJECT R1-93 RENOVATION. IS SCHEDULED FOR FY95
- G. NO

Features and Facilities

3. Facility Measures

3.1 Identify, by three digit Category Code Number (CCN), *all facilities* at this activity, and their current condition and area in thousands of square feet (KSF). Duplicate the table as necessary to report all facilities of any tenants for whom your activity serves as host.

Table 3.1: Facility Conditions

TENANT:

N42928

NAVAL CRIMINAL INVESTIGATIVE SERVICE NORFOLK  
DETACHMENT NSYD PORTSMOUTH

CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
610	Admin	4.530	0	0	
Activity TOTAL:		4.530	0	0	

3.2 In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories in Table 3.1, above, where inadequate facilities are identified provide the following information:

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

Not applicable.

Features and Facilities

3. Facility Measures

3.1 Identify, by three digit Category Code Number (CCN), *all facilities* at this activity, and their current condition and area in thousands of square feet (KSF). Duplicate the table as necessary to report all facilities of any tenants for whom your activity serves as host.

Table 3.1: Facility Conditions

TENANT:

N45405 PLANNING, ENGINEERING, REPAIR & ALTERATIONS (SURFACE)  
ATLANTIC OFFICE

CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
610	Admin	0	16.073	0.416	Bldg 65 Inadequate (B30)
Activity TOTAL:		0	16.073	0.416	

3.2 In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories in Table 3.1, above, where inadequate facilities are identified provide the following information:

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

A. DATA PROCESSING 610-20, BLDG 65 (416 SF)

B. B30: FUNCTIONAL/SPACE CRITERIA

C. ADMINISTRATIVE

D. 10K

E. ADMIN, 10K

F. ON DEMOLITION LIST - NOT FUNDED

G. NO

Features and Facilities

3. Facility Measures

3.1 Identify, by three digit Category Code Number (CCN), *all facilities* at this activity, and their current condition and area in thousands of square feet (KSF). Duplicate the table as necessary to report all facilities of any tenants for whom your activity serves as host.

Table 3.1: Facility Conditions

TENANT:

N45807 ATLANTIC DIVISION CONTRACTS DIVISION, NORFOLK, VA

CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
610	Admin	7.800	0	0	Bldgs 491, 492
Activity TOTAL:		7.800	0	0	

3.2 In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories in Table 3.1, above, where inadequate facilities are identified provide the following information:

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

Not applicable.

Features and Facilities

3. Facility Measures

3.1 Identify, by three digit Category Code Number (CCN), *all facilities* at this activity, and their current condition and area in thousands of square feet (KSF). Duplicate the table as necessary to report all facilities of any tenants for whom your activity serves as host.

Table 3.1: Facility Conditions

TENANT:

N47271

INTRA-FLEET SUPPLY SUPPORT OPERATIONS TEAM

CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
441	Storage	0	97.987	0	
610	Admin	0	3.627	0	
Activity TOTAL:		0	101.614	0	

3.2 In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories in Table 3.1, above, where inadequate facilities are identified provide the following information:

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

Not applicable.

## Features and Facilities

## 3. Facility Measures

3.1 Identify, by three digit Category Code Number (CCN), *all facilities* at this activity, and their current condition and area in thousands of square feet (KSF). Duplicate the table as necessary to report all facilities of any tenants for whom your activity serves as host.

Table 3.1: Facility Conditions

TENANT:

N55631 NAVAL SEA SYSTEMS DETACHMENT, NAVAL INACTIVE SHIPS  
MAINTENANCE FACILITY

CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
151	Pier	0	5,090 FB	0	Feet of berthing (FB)
213	Maint.-Ships & Floating Equipment	3.993	22.344	0	
441	Storage	0.988	0	0	
610	Admin	0	6.629	0	
Activity TOTAL:		4.981	28.973 KSF 5,090 FB	0	

3.2 In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories in Table 3.1, above, where inadequate facilities are identified provide the following information:

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

Not applicable.

Features and Facilities

3. Facility Measures

3.1 Identify, by three digit Category Code Number (CCN), *all facilities* at this activity, and their current condition and area in thousands of square feet (KSF). Duplicate the table as necessary to report all facilities of any tenants for whom your activity serves as host.

Table 3.1: Facility Conditions

TENANT:

N62678

SUPERVISOR OF SHIPBUILDING, CONVERSION & REPAIR,  
PORTSMOUTH, VA

CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
171	Training	2.013	1.520	0	
213	Maint.-Ships & Flating Equip.	0	74.369	0	
Activity TOTAL:		2.013	75.889	0	

3.2 In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories in Table 3.1, above, where inadequate facilities are identified provide the following information:

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

Not applicable.

Features and Facilities

3. Facility Measures

3.1 Identify, by three digit Category Code Number (CCN), all facilities at this activity, and their current condition and area in thousands of square feet (KSF). Duplicate the table as necessary to report all facilities of any tenants for whom your activity serves as host.

Table 3.1: Facility Conditions

TENANT:

N62761

NAVAL AUDIT SERVICE SITE DETACHMENT

CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
610	Admin	0	2.100	0	
Activity TOTAL:		0	2.100	0	

3.2 In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories in Table 3.1, above, where inadequate facilities are identified provide the following information:

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

Not applicable.

Features and Facilities

3. Facility Measures

3.1 Identify, by three digit Category Code Number (CCN), *all facilities* at this activity, and their current condition and area in thousands of square feet (KSF). Duplicate the table as necessary to report all facilities of any tenants for whom your activity serves as host.

Table 3.1: Facility Conditions

TENANT:

N65580 NAVAL COMMAND CONTROL OCEAN SURVEILLANCE SERVICE  
ENGINEERING (NISE EAST)

CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
317	Elec, Comm & Elec Equipment	0	33.176	0	
610	Admin	0	0	16.200	Bldg 51
Activity TOTAL:		0	33.176	16.200	

3.2 In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories in Table 3.1, above, where inadequate facilities are identified provide the following information:

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

A. ADMIN. , 610-10 , BLDG 51

B. A30: PHYSICAL CONDITION. OF BLDG, C5: DESIGN CRIT OF FIRE DETERRENT SYSTEMS, D30: LOCATION OF BLDG.

C. ADMIN. OFFIC.

D. \$ 1.0 M

E. NONE / N/A

F. BRAC MILCON RENOVATION P-366, PROGRAMMED

G. NO

Features and Facilities

3. Facility Measures

3.1 Identify, by three digit Category Code Number (CCN), *all facilities* at this activity, and their current condition and area in thousands of square feet (KSF). Duplicate the table as necessary to report all facilities of any tenants for whom your activity serves as host.

Table 3.1: Facility Conditions

TENANT:

N66953

DEFENSE PRINTING SERVICE DETACHMENT BRANCH OFFICE

CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
229	Production	0	24.272	0	
Activity TOTAL:		0	24.272	0	

3.2 In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories in Table 3.1, above, where inadequate facilities are identified provide the following information:

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

Not applicable.

## Features and Facilities

## 3. Facility Measures

3.1 Identify, by three digit Category Code Number (CCN), *all facilities* at this activity, and their current condition and area in thousands of square feet (KSF). Duplicate the table as necessary to report all facilities of any tenants for whom your activity serves as host.

Table 3.1: Facility Conditions

TENANT:

N68551

PERSONNEL SUPPORT ACTIVITY DETACHMENT  
PORTSMOUTH, VA

CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
610	Admin	2.679	0	0	
Activity TOTAL:		2.679	0	0	

3.2 In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories in Table 3.1, above, where inadequate facilities are identified provide the following information:

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

**Not applicable.**

Features and Facilities

3. Facility Measures

3.1 Identify, by three digit Category Code Number (CCN), *all facilities* at this activity, and their current condition and area in thousands of square feet (KSF). Duplicate the table as necessary to report all facilities of any tenants for whom your activity serves as host.

Table 3.1: Facility Conditions

TENANT:  
HQCCBK DEFENSE COMMISSARY AGENCY

CCN	Facility Type	Condition			Comments
		Adequate	Substandard	Inadequate	
740	Community Fac-MWR-Interior	55.152	0	0	
Activity TOTAL:		55.152	0	0	

3.2 In accordance with NAVFACINST 11010.44E, an inadequate facility cannot be made adequate for its present use through "economically justifiable means". For all the categories in Table 3.1, above, where inadequate facilities are identified provide the following information:

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

Not applicable.

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

3.3 Identify any specialized major equipments or facilities (e.g. cranes, centrifuges, autoclaves, wind tunnels, interior and exterior aircraft storage areas) *not previously delineated*, which are unique or peculiar to your activity.

None.

**3. Facility Measures, continued**

3.4 IPE Age. Identify the average age of Industrial Plant Equipment (IPE) at the activity as of 30 September 1994.

IPE Average Age = 21 years

3.5 AIS Backlog. Identify the Annual Inspection Summary (AIS) backlog at the activity in thousands of dollars (\$ K) and percent of total backlog, for the period requested.

**Table 3.5: AIS Backlog**

	FY 1990	FY 1991	FY 1992	FY 1993	FY 1994	Average
Backlog (\$ K)	313,191	301,357	275,333	106,847 Note 1	110,373 Note 2	221,420 Note 3
% Backlog Retired	8.1	6.9	6.5	14.9	14.6	10.2

Note:

1 Total dollar value of deficiencies reported this year is considerably less than prior year submittals as a result of specific initiatives undertaken to improve the accuracy and validity of the database from which the AIS summary is taken.

- (a) All line items in database were reviewed to correct administrative errors, duplications, etc.
- (b) Line items for which specific repairs have not been confirmed and for which a program year could not be determined were deleted.
- (c) Line items for deficiencies related to properties and utilities transferred to Public Works Center (PWC), Norfolk as a result of DRMD 967 were deleted.
- (d) Deleted line items for deficiencies related to properties at St. Julien's Creek Annex targeted for transfer to Naval Command, Control and Ocean Surveillance Center (NCCOSC).

2 3.3 percent inflationary factor used for NAVSEA.

3 Total Critical and Deferable DBOF and O,M&N backlog.

**Features and Facilities**

**4. Support Services**

**The Norfolk Naval Shipyard provides all these functions as host activity, except for utilities. As a result of consolidation requirements under DRMD 967, utilities are operated by the Public Works Center Portsmouth Site; however, liaison between tenants and the shipyard regarding utilities, usage, and billing is provided by Norfolk NSYD's Facilities and Maintenance Division (Staff CEC).**

**4.1 Identify the support (police, fire protection, etc.) now provided by the host Naval or Marine Corps activity or other source. Add any additional applicable factors. Identify what factors would be needed by your activity if the host facility is closed.**

**Table 4.1: Support Facilities**

<b>Support</b>	<b>Currently Obtained from:</b>	<b>Needed if Host Closes?</b>
Police		
Security		
Fire		
Cafeteria		
Parking		
Utilities		
Child Care		
CCPO		

**4.2 If your activity is relocated, what new location(s) (for your activity) most efficiently provides adequate oversight of this support?**

There are several other Navy commands in the area who would have to manage the services from off-site.

**4.3 Other Support. Identify any services or support your activity provides to the community or to other DON/DoD activities. (Include only services to activities which employ 300 or more personnel.)**

Norfolk NSYD and the local communities participate in mutual aid regarding emergency fire suppression services (including tugboats with water cannons), as well as the containment of hazardous materials.

The Waverly E. Sykes Regional Environmental and Emergency Response Fire Training Center is a joint venture of Norfolk NSYD, Tidewater Community College, and several localities contiguous to the Norfolk NSYD, including Chesapeake, Norfolk, Portsmouth, and Suffolk. The Training Center is utilized jointly by all of the participants to provide emergency spill response training to fire department personnel as well as more conventional fire response training. The facility was constructed at St. Julien's Creek Annex (SJCA) by the Norfolk NSYD which participates in this training in exchange for use of the facility. Norfolk NSYD remains the host activity for this property at SJCA.

As host activity, Norfolk NSYD provides police, security, fire, cafeteria, parking, liaison with PWC Norfolk regarding utility operations and needs, child care, Human Resources Office (civilian personnel), as well as necessary monitoring/permitting for environmental and safety issues.. The Norfolk NSYD with its contiguous Scott Center Annex provides significant MWR services to the tenants' military population as well as to the Fifth Coast Guard District Portsmouth (under a Memorandum of Understanding). Child care is also provided for military personnel who are either staff or patients at Naval Hospital, Portsmouth.

As a result of BRAC 91, the Norfolk NSYD will operated a detachment at Philadelphia. Norfolk Detachment will perform building and drydock maintenance, as well as operate the Foundry and Propeller Shop.

**5. Waterfront Support Services**

**5.1 Identify the source(s) of your activity's tugs and pilots, barges, and other harbor services.**

Norfolk NSYD, Code 800, provides all tugs and pilots' services.

Norfolk NSYD, Code 900, provides all barges, YD's, camels, etc.

Supervisor of Shipbuilding, C&R, Portsmouth, VA provides crew berthing barges (APL's).

**5.2 Does your activity provide tugs and pilots, barges, and other harbor services to other (non-NSYD/SRF) activities?**

Yes

If so, please specify what services and to what activities.

MSCTAGOS UNIT ATLANTIC--piloting and small boat services

NISMF, PORTSMOUTH--piloting, tugs, and small boat services

SIMA, PORTSMOUTH--small boat and tug services

SUPSHIP PORTSMOUTH--living barge stowage, tug services

NAVAL SURFACE WARFARE CENTER--module stowage, piloting and tug services

All the following activities receive pilot, tug, and small boat services from the Norfolk NSYD:

SUBLANT, NORFOLK

CNSL, NORFOLK

READINESS SUPPORT GROUP (RSG) NORFOLK

SUPERVISOR OF SHIPBUILDING (NEW CONSTRUCTION), NEWPORT NEWS

SQUADRON 6 AND 8 (SUBMARINES)

NORFOLK NAVAL STATION

NAVAL SPACE CENTER, WALLOPS ISLAND

LITTLE CREEK AMPHIBIOUS BASE

COMNAVAIRLANT

**5.3** If the naval station, base, or other supporting activity in closest proximity is closed, identify all additional annual costs that would accrue to your activity for tugs and pilots, barges, or any other harbor services.

If Naval Station, Norfolk, Virginia closed, all tugs and pilot services would have to be provided by the Norfolk NSYD. Ships arriving and departing Norfolk NSYD and the inactive ships going to NISMF Portsmouth are shared with Naval Station Norfolk. A closing of NAVSTA NORVA would double tug and pilot costs annually.

June 24, 1994

Activity Norfolk Naval Shipyard

**ADDITIONAL INFORMATION FOR TABLE 6.2**

UIC 00181

Features and Facilities

**6. Personnel Experience**

6.1 What is the total number of apprentices trained at this activity over the period FY 1990 through FY 1994?

Total # of apprentices = 1,300

What percentage of those apprentices are still employed at your activity? % = 25

How many apprentices are currently being trained at this activity?

Current # apprentices = 9

6.2 Using the following table, identify the average experience of personnel in the functional areas and their total longevity at your activity.

**Table 6.2: Workforce Longevity and Experience**

Functional Area  Note 1	Years	
	Experience in this Position	Total Longevity
Nuclear Engineers	8	8
Conventional Engineers	9	9
Journeyman/Mechanics	11	14
RADCON Technicians	10.5	14
Quality Assurance Inspector	11	16
Total Shipyard	11	14

R  
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R

Note:

1 The five categories DO NOT cover all Norfolk NSYD employees

Features and Facilities

R

**6. Personnel Experience**

6.1 What is the total number of apprentices trained at this activity over the period FY 1990 through FY 1994?

..... Total # of apprentices = 1100 R

What percentage of those apprentices are still employed at your activity? % = 27 R

How many apprentices are currently being trained at this activity?

Current # apprentices = 9

6.2 Using the following table, identify the average experience of personnel in the functional areas and their total longevity at your activity.

Table 6.2: Workforce Longevity and Experience

Functional Area  Note 1	Years	
	Experience in this Position	Total Longevity
Nuclear Engineers	8	8
Conventional Engineers	9	9
Journeyman/Mechanics	N/A	14
RADCON Technicians	N/A	14
Quality Assurance Inspector	N/A	16
Total Shipyard	N/A Note 2	14

Note:

- 1 The five categories DO NOT cover all Norfolk NSYD employees
- 2 This data is not available.

Revised pg

June 24, 1994

Activity Norfolk Naval Shipyard

ADDITIONAL INFORMATION FOR TABLE 6.2

UIC 00181

Features and Facilities

6. Personnel Experience

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Note:

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Features and Facilities

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Total # of apprentices = 1,300

What percentage of those apprentices are still employed at your activity? % = 25

How many apprentices are currently being trained at this activity?

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Conventional Engineers	9	9
Journeyman/Mechanics	N/A	14
RADCON Technicians	N/A	14
Quality Assurance Inspector	N/A	16
Total Shipyard	N/A <small>Note 2</small>	14

Note:

- 1 The five categories DO NOT cover all Norfolk NSYD employees
- 2 This data is not available.

Costs

7. Investments

7.1 List the project number, description, funding year, and value of the *capital improvements at your base completed (beneficial occupancy) during FY 1988 to FY 1994*. Indicate if the capital improvement is a result of BRAC realignments or closures.

Table 7.1: Capital Improvement Expenditure

Project	Description	Fund Year	Value (\$K)
C3-88	Construct compressed gas storage	FY88	145
C4-88	Construct waterfront restroom Bldg 1570	FY88	188
CE6-88	Construct Racquetball courts, Bldg 310	FY91	165
C1-89	Bldg 9, New Computer Room	FY89	158
C2-89	Bldg 163, Addition	FY90	154
C1-91	Fresh Water Pumping Station	FY91	236
P-407	Ships Services Support Facility	FY91	14,600
p-354	Construct BEQ, Scott Center	FY94	13,400
P-094	Land Acquisition, Scott Center	FY94	540
P-364	Intermediate Maintenance Activity	FY94	8,400
P-356	Renovation of Buildings 19 and 51	FY94	4,700

42.56

7.2. List the project number, description, funding year, and value of the *non-BRAC related capital improvements planned* for years FY 1995 through FY 1997.

Table 7.2: Planned Capital improvements

Project	Description	Fund Year	Value (\$K)
	None.		

7. Investment, continued

7.3 List the project number, description, funding year, and value of the *BRAC related capital improvements planned for FY 1995 through FY 1999.*

Table 7.3: Planned BRAC Capital improvements

Project	Description	Fund Year	Value
	None.		

**7. Investment, continued**

7.4 Identify by Investment Category Code and Name (e.g. 05-Training Facilities; 14-Administration) the actual investment at your activity, to include all MCON, maintenance and repair, installed equipment, and minor construction, in thousands of dollars (\$ K) over the period FY 1990 through FY 1994 for all your facilities. Report separately all other Class 2 equipment investments. The following table should include your responses to questions 7.1-7.3 above.

**Table 7.4: Historic Investment Summary**

Investment Category	\$ K
02-Communication Operational	61
03-Waterfront Operational	15,263
05-Training	6
07-Shipyard Maintenance/Production	41,291
08-Other Maintenance/Production	7,159
10-POL Supply/Storage	220
12-Other Supply/Storage	11,901
13-Medical	194
14-Administrative	19,560
15-Troop Housing/Messing	2,149
16-Other Personnel	13,887
17-Utilities	29,049
18-Real Estate & Ground Structures	11,837
Other (specify)	5,753
Equipment (other than Class 2)	0
<b>Activity TOTAL</b>	<b>158,330</b>

7.5 What is the total planned investment, in thousands of dollars (\$ K), over the period FY 1995 through FY 2001?

Total planned Investments = \$186,535 K

## 7. Investments, continued

7.6 Provide a list of all other documented major facility deficiencies not addressed in 7.1-7.3 (e.g. major repairs) and the estimated cost to rectify each at this activity. Identify the reduction in operating costs anticipated in relation to each deficiency correction.

Table 7.6: Facility Deficiencies

Deficiency	Cost to Correct (\$ K)	Result of Corrections
R16-90 Bldg 30 Total Renovation	3,250	Provide adequate facility space. Reduced operating costs unknown.
R17-90 Bldg 31 Total Renovation	3,250	Provide adequate facility space. Reduced operating costs unknown.
R18-90 Bldg 32 Total Renovation	3,250	Provide adequate facility space. Reduced operating costs unknown.
R62-91 Bldg 510 Electrical/lighting/HVAC repairs	3,000	Provide adequate facility space. Reduced operating costs unknown.
R64-91 Bldg 171 Replace roof/siding/new lighting/upgrade electrical service.	2,500	Provide adequate facility space. Reduced operating costs unknown.
RC 42-91 Bldg 234 Inadequate lighting ventilation and windows	2,500	Install adequate lighting ventilation and windows. Reduced operating costs unknown.
R1-93 Bldg 277 Replace HVAC, electrical wiring, and lighting and exterior repairs	1,500	Install new HVAC, electrical wiring, and lighting. Repair exterior. Reduced operating costs unknown.
RC71-91 Bldg 202 Inadequate lighting	1,000	Install energy efficient shop lighting. Provide adequate facility. Costs reductions unknown.

Costs

8. Labor Rates

8.1 Provide the following actual rates per hour, less direct materials, for your activity for the period requested. Reproduce the table as necessary to report different rate structures for different functional areas, specifying the functional areas represented in each table.

Table 8.1: Labor Rates

Functional Area: CONSTRUCTION & CONVERSION

	Rate (\$/Hour)	
	FY 1993	FY 1994
Direct Labor Rate	26.20	22.61
Production Expense	20.45	11.02
Overhead (G&A)	16.51	11.89
Fully Burdened Rate	63.16	45.42

Table 8.1: Labor Rates

Functional Area: REPAIRS

	Rate (\$/Hour)	
	FY 1993	FY 1994
Direct Labor Rate	23.02	25.48
Production Expense	14.01	13.63
Overhead (G&A)	11.31	14.70
Fully Burdened Rate	48.34	53.81

Table 8.1: Labor Rates

Functional Area: ALTERATIONS

	Rate (\$/Hour)	
	FY 1993	FY 1994
Direct Labor Rate	21.16	26.05
Production Expense	13.64	12.80
Overhead (G&A)	11.01	13.80
Fully Burdened Rate	45.81	52.65

Table 8.1: Labor Rates  
Functional Area: MISCELLANEOUS RA/TA's

	Rate (\$/Hour)	
	FY 1993	FY 1994
Direct Labor Rate	23.17	25.10
Production Expense	14.25	10.17
Overhead (G&A)	11.50	10.97
Fully Burdened Rate	48.92	46.24

Table 8.1: Labor Rates  
Functional Area: INACTIVATIONS

	Rate (\$/Hour)	
	FY 1993	FY 1994
Direct Labor Rate	22.03	24.70
Production Expense	13.37	13.00
Overhead (G&A)	10.79	14.02
Fully Burdened Rate	46.19	51.72

Table 8.1: Labor Rates  
Functional Area: DESIGN/PLANNING YARD

	Rate (\$/Hour)	
	FY 1993	FY 1994
Direct Labor Rate	27.90	28.57
Production Expense	8.29	9.17
Overhead (G&A)	6.69	9.89
Fully Burdened Rate	42.88	47.63

**Table 8.1: Labor Rates**  
 Functional Area: OTHER SHIPWORK

	Rate (\$/Hour)	
	FY 1993	FY 1994
Direct Labor Rate	22.34	27.38
Production Expense	12.71	10.43
Overhead (G&A)	10.26	11.25
Fully Burdened Rate	45.31	49.06

**Table 8.1: Labor Rates**  
 Functional Area: REFIT & RESTORATION

	Rate (\$/Hour)	
	FY 1993	FY 1994
Direct Labor Rate	20.52	24.87
Production Expense	12.15	12.91
Overhead (G&A)	9.81	13.92
Fully Burdened Rate	42.48	51.70

**Table 8.1: Labor Rates**  
 Functional Area: OTHER PRODUCTIVE WORK

	Rate (\$/Hour)	
	FY 1993	FY 1994
Direct Labor Rate	35.53	36.53
Production Expense	7.85	12.13
Overhead (G&A)	6.33	13.08
Fully Burdened Rate	49.71	61.74

*Revised pg*

September 14, 1994

Activity Norfolk Naval Shipyard  
Primary UIC 00181

**DATA CALL for MILITARY VALUE**  
**Naval Shipyards and Ship Repair Facility**  
**Amendment One**

Questions for the Activities

Primary Activity UIC: 00181

(Use this number as the Activity identification at the top of each page.)

Costs

**8. Labor Rates**

8.2 Provide the following actual rates per hour, less direct materials, for your activity for FY 1997. Reproduce the table as necessary to report different rate structures for different functional areas, specifying the functional areas represented in each table.

Table 8.2: Labor Rates

Functional Area: REPAIRS

	Rate (\$/Hour)
	FY 1997
Direct Labor Rate	\$28.70
Production Expense	\$21.22
Overhead (G&A)	\$8.24
Fully Burdened Rate	\$58.16

*Revised pg*

September 14, 1994

Activity Norfolk Naval Shipyard  
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**Table 8.2: Labor Rates**

Functional Area: ALTERATIONS

	Rate (\$/Hour)
	FY 1997
Direct Labor Rate	\$29.35
Production Expense	\$19.78
Overhead (G&A)	\$7.69
Fully Burdened Rate	\$56.82

**Table 8.2: Labor Rates**

Functional Area: REMOTE

	Rate (\$/Hour)
	FY 1997
Direct Labor Rate	\$28.01
Production Expense	\$14.41
Overhead (G&A)	\$5.60
Fully Burdened Rate	\$48.02

**Table 8.2: Labor Rates**

Functional Area: MISCELLANEOUS RA/TA'S

	Rate (\$/Hour)
	FY 1997
Direct Labor Rate	\$30.14
Production Expense	\$18.60
Overhead (G&A)	\$7.24
Fully Burdened Rate	\$55.98

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Activity Norfolk Naval Shipyard  
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Table 8.2: Labor Rates

Functional Area: INACTIVATIONS

	Rate (\$/Hour)
	FY 1997
Direct Labor Rate	\$27.82
Production Expense	\$20.05
Overhead (G&A)	\$7.80
Fully Burdened Rate	\$55.67

Table 8.2: Labor Rates

Functional Area: OTHER SHIPWORK

	Rate (\$/Hour)
	FY 1997
Direct Labor Rate	\$31.69
Production Expense	\$14.46
Overhead (G&A)	\$5.62
Fully Burdened Rate	\$51.77

Table 8.2: Labor Rates

Functional Area: REFIT

	Rate (\$/Hour)
	FY 1997
Direct Labor Rate	\$28.01
Production Expense	\$19.09
Overhead (G&A)	\$7.43
Fully Burdened Rate	\$54.53

*Revised pg*

September 14, 1994

Activity Norfolk Naval Shipyard  
 Primary UIC 00181

Table 8.2: Labor Rates  
 Functional Area: OTHER PRODUCTIVE WORK

	Rate (\$/Hour)
	FY 1997
Direct Labor Rate	\$22.60
Production Expense	\$18.18
Overhead (G&A)	\$7.07
Fully Burdened Rate	\$47.85

Table 8.2: Labor Rates  
 Functional Area: SHIPYARD

	Rate (\$/Hour)
	FY 1997
Direct Labor Rate	\$26.44
Production Expense	\$17.56
Overhead (G&A)	\$6.82
Fully Burdened Rate	\$50.82

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Activity Norfolk Naval Shipyard  
UIC 00181

## Strategic Concerns

### 9. Location Factors

9.1 Strategic Location. Specify any special strategic importance or military value consideration of your activity accruing from its geographical location. Include the number of major customer activities located within a 100 mile radius.

The Norfolk Naval Shipyard is strategically located adjacent to the largest U.S. Fleet homeport concentration, Norfolk NSYD conducts scheduled overhauls, in addition to emergency repairs on ships. Norfolk NSYD has 7 drydocks and 4 piers and a berthing area capable of small craft, e.g., YTB's, YC-YFN's; submarines, and the world's largest aircraft carriers.

Norfolk NSYD is capable of performing any kind of repair or modernization on all platforms in the naval inventory.

Centrally located to provide regional support to numerous Regional DoD activities, Norfolk NSYD provides an inland safe haven for homeported ships, service craft, and barges during destructive weather. Norfolk NSYD is located within 1 mile of Portsmouth Naval Hospital, 2 miles from government housing, 12 nautical miles from Naval Station Norfolk, 20.2 nautical miles from Naval Amphibious Base Little Creek, 3 miles from St. Julien's Creek which hosts the following activities: SIMA, Cryogenic School, Fleet ILO, DRMO, Fleet Technical Support Center Atlantic Detachment, Naval Command Control Ocean Surveillance Service Engineering, and Joint Operation Technical System.

The Norfolk NSYD is an active participant in transitioning both intermediate to depot and depot to intermediate, regional maintenance pilot projects. As the site of the first pilot project under the concept of a Regional Maintenance Center, the Electric Motor Repair has consolidated 61 sailors and civilians and the work formerly performed by the local SIMA's and tenders into the shipyard's Motor Repair Shop. Ships homeported at Norfolk can now have electric motors more efficiently repaired at a single site without inordinate delays and with a higher quality level of repair. Additional efficiencies include the maintenance/repairs required to the pumps attached to these motors also. Norfolk homeported ships are able to send their pumps and electric motors less than 15 miles away for repairs in Norfolk's highly specialized environment, including onsite engineering support and full load past repair testing. This function is not available elsewhere.

On several ships Norfolk NSYD has been the "one-stop-shop" for Type Commanders during CNO availabilities, contracting through SUPSHIP Portsmouth for

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Activity Norfolk Naval Shipyard  
UIC 00181

work temporarily beyond our capacity. Having them resident in-yard makes this public private teaming much more effective.

Norfolk NSYD is close to the headquarters for all 3 Type commanders and CINCLANTFLT, as well as our various customers in D.C. Major customers of Norfolk NSY within 100 mile radius are: COMNAVAIRLANT, COMNAVSURFLANT, COMSUBLANT, Readiness Support Group Atlantic, COMNAVPHIBLANT, CINCLANTFLT, PWC Norfolk, DGSC Richmond

Norfolk NSYD's proximity to Naval Station Norfolk helps in supporting new initiative of performing upkeeps on submarines without a resident submarine tender.

Norfolk NSYD is also in a central location for providing fly-away support for off-yard, and especially overseas, voyage repairs (ready access to air transportation).

Norfolk's location provides a short shipping distance for Readiness Support Group (RSG) to ship motors for rewind to our Center of Excellence.

Norfolk's close proximity to Washington, D.C. is helpful to the Planning Yard function when dealing with the different NAVSEA codes involved in support of the ship classes under Norfolk's cognizance.

9.2 Transportation. List and indicate the distance in road-miles from your activity all Interstate Highways, airports of embarkation, seaports of embarkation, and cargo rail terminals serving your activity.

INTERSTATE HIGHWAYS: I-264 = 1.5 miles; I-64 = 5 miles

AIRPORTS OF EMBARKATION (major): Norfolk International Airport = 13 miles

SEAPORTS OF EMBARKATION: The Norfolk Naval Shipyard is located on the southern branch of the Elizabeth River which provides access to the sea.

Major commercial seaports are:

Portsmouth Marine Terminal -- 5 miles

Lambert Point Docks -- 8 miles

Norfolk International Terminals -- 13 miles

Newport News Marine Terminal - 25 miles

CARGO RAIL TERMINAL: is zero miles. The track runs throughout the shipyard.

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Activity Norfolk Naval Shipyard  
UIC 00181

9.3 Rail Network. Is your activity serviced by rail trackage providing direct access to commercial rail network?

Yes

R

9.4 Regional Maintenance Concept. Has your activity been chosen to be a part of the Navy's Regional Maintenance Concept? If so, provide the details as currently known, and list other DON industrial (both intermediate and depot level) that are located within a 25 mile range of your activity.

NNSY has been a key player in the Fleet Maintenance Officer's development of the Regional Maintenance Concept. This activity is the most capable government ship repair facility in the local geographical area, and as such will provide the most advanced technical ship repair skills, and specialized ship repair facilities the fleet requires. The shipyard has been an active participant in transitioning both intermediate to depot and depot to intermediate, regional maintenance pilot projects. The first pilot project, currently in operation, is the consolidation of electric motor repair from the local SIMA's and tenders into the shipyard's Motor Repair Shop. Forty-four military Electrician Mates (EM's) have joined with 21 civilians to create a work center sized for the actual workload determined by industrial engineering analysis based upon current and projected Norfolk homeported vessels. These 65 individuals are working in a repair shop where only 6 people were working prior to consolidation, a ten fold increase in both manning and the projected volume of electric motors to be repaired. An additional spin off of the electric motor repair consolidation is the associated close coupled pump workload that is now going to the Inside Machine Shop.

This initial phase of pump workload consolidation has led to an additional 5 MPD in our Inside Machine Shop. The total regional consolidation of all pump repairs that is estimated to begin by 15 November will add approximately 530 pumps and 49,794 manhours to Norfolk Naval Shipyard's workload. This is based upon the transfer of workload from the SIMA's and from the local tenders that are being decommissioned. R

Additionally, based upon the higher capability available within our Inside Machine Shop compared to the SIMA's or tenders, 66,445 manhours of machining support workload is projected to begin transitioning to Norfolk Naval Shipyard on 24 October 1994. Final regional maintenance work group approval is anticipated 14 October to begin this transition. R

Another pilot project involves the consolidation of the Materials Testing Laboratories from Norfolk Naval Shipyard and Naval Air Depot Norfolk. An original manning of approximately 90 scientists and engineers will be reduced to about 70. Significant capital equipment reductions, maintenance contract savings, and fewer facility requirements will be realized. Implementation is in the final stages with consolidation targeted for 1 November 1994. R

The largest and most complex regional maintenance consolidation to date involves reducing 31 regional calibration activities to a single Regional Calibration Center. This effort crosses SYSCOM lines, involves over 300 personnel (military and civilian), and will result in major reductions in personnel, equipment, facilities and duplication of effort. Implementation is underway with a target consolidation of 31 March 1995. R

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

9.4 Regional Maintenance Concept. Has your activity been chosen to be a part of the Navy's Regional Maintenance Concept? If so, provide the details as currently known, and list other DON industrial activities (both intermediate and depot level) that are located within a 25 mile range of your activity.

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Additional regional area reviews for potential industrial consolidations are in progress. Norfolk Naval Shipyard cannot identify additional changes in workload based on the Regional Maintenance Concept at this time.

Strategic Concerns

10. Natural Inhibitors to Operations

10.1 Identify the percent of the planned work schedule at this facility (averaged by month) that was interrupted by local weather or climatic conditions for the period FY 1990-1993 (i.e. what percent of man-days were lost annually, by month, because of hurricanes, tornado, earthquake, blizzard, below freezing temperatures, or other performance-impinging natural conditions?).

Table 10.1.a: Impact on Operations (%)

	January	February	March	April	May	June
Average % Schedule Interrupted	0%	0%	0%	0%	0%	0.10%

Table 10.1.b: Impact on Operations (%)

	July	August	September	October	November	December
Average % Schedule Interrupted	0%	0.47%	0.03%	0%	0%	0%

10.2 Identify the total number of Direct Labor Man Years (DLMYs) of planned work lost at your facility due to hurricanes, tornadoes, earthquakes, blizzards, below freezing temperatures, or other performance-impinging natural conditions.

Table 10.2: Impact on Operations (DLMYs)

	FY 1991	FY 1992	FY 1993	FY 1994 (01 Oct-31 Mar)
DLMYs Lost	1.482	0	10.359	0

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Activity Norfolk Naval Shipyard

ADDITIONAL INFORMATION FOR TABLE 11.3

UIC 00181

Strategic Concerns

**11. Contingency and Mobilization Features**

11.1 Identify the covered and uncovered, storage and industrial space at your activity which is currently surplus to the planned need (your current requirement), expressed in thousands of square feet (K SF).

Table 11.1: Surplus Storage

K SF	Covered	Uncovered
Storage (CCN 440)	334	0
Industrial (ccn 213)	394	0

R

11.2 Identify any additional space in these categories programmed to be available by FY 2001.

None.

11.3 Identify the amount of the potentially available other DoD or commercial activity, industrial, space within a one-hour drive of your activity. Include any physical restrictions (e.g. road limitations) that might apply should those facilities be used for facility augmentation or in an emergency.

There are numerous DoD, government, and commercial activities, which have industrial space within one-hour drive of the Norfolk Naval Shipyard. Data Call One's map of activities within a 50-mile radius of the Norfolk Naval Shipyard was reviewed for those having industrial space. Such industrial space is found at the Naval Amphibious Base, Little Creek; Camp Peary; Fort Eustis; Naval Air Station, Oceana; St. Juliens Creek Annex; St. Helena; Naval Weapons Station, Yorktown; Cheatham Annex; Langley Air Force Base; Langley NASA Research Center; Naval Base, Norfolk; and the Coast Guard base at Elizabeth City, North Carolina. The downsizing of the Navy has also resulted in considerable industrial space available in the private/commercial sector. The larger companies with such industrial space dedicated to shipbuilding and repair include: Norfolk Shipbuilding and Drydock Corporation; Metro; Jonathan Corporation; Colonna's Shipyard Inc.; and Moon Engineering Co., Inc.

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Activity Norfolk Naval Shipyard

CONSISTENT WITH NAVAL AUDIT SERVICE FINDINGS

UIC 00181

Strategic Concerns

**11. Contingency and Mobilization Features**

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None.

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Please refer to BRAC data supplied by COMNAVBASE, Norfolk, which consolidated information for the Tidewater/Hampton Roads, Virginia.

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

Strategic Concerns

11. Contingency and Mobilization Features

11.1 Identify the covered and uncovered, storage and industrial space at your activity which is currently surplus to the planned need (your current requirement), expressed in thousands of square feet (K SF).

Table 11.1: Surplus Storage

K SF	Covered	Uncovered
Storage (CCN 440)	334	0
Industrial (ccn 213)	448	0

11.2 Identify any additional space in these categories programmed to be available by FY 2001.

None.

11.3 Identify the amount of the potentially available other DoD or commercial activity, industrial, space within a one-hour drive of your activity. Include any physical restrictions (e.g. road limitations) that might apply should those facilities be used for facility augmentation or in an emergency.

Please refer to BRAC data supplied by COMNAVBASE, Norfolk, which consolidated information for the Tidewater/Hampton Roads, Virginia.

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

## Environment and Encroachment

### 12. Environmental Considerations

#### 12.1 Identify all environmental restrictions to expansion at your activity.

None.

#### 12.2 Describe the undeveloped acreage or waterfront that are available to this activity, including its size, current state, and the amount of development required to make it usable to the industrial facility. Specify any undeveloped acreage that is unique to this activity.

The main source of undeveloped land is at Paradise Creek Annex. Approximately 63 acres are unrestricted and available for development--28 acres of the 63 acres consist of a former landfill. (The Paradise Creek acreage could be developed for any type of use. The former landfill will require a request for formal closeout actions by the Environmental Protection Agency. Closure action requirements are currently unknown--however, significant expenditure of funds is not expected. After closeout action, land should be available for development and unrestricted use.)

14 acres at St. Julien's Creek Annex will be available for development in January 1996. Norfolk NSYD plans to use this land for a softball complex.

South Gate has approximately 10 acres of undeveloped land scattered across annex (not one large area).

Scott Center has approximately 2 acres available for development. The shipyard main site has 5 acres available (adjacent to the Engineering Management Building).

(NAVSEA notes that the P-164 includes 342.67 unimproved acres. As Norfolk NSYD has previously noted, the P-164 includes acreage at the St. Julien's Creek Annex. We did not include information on St. Julien's Creek Annex for that property whose transfer has been agreed upon by another command. In addition, Norfolk's information is based on its digitized station map.)

#### 12.3 Identify any specific facilities, programs, or capabilities in regard to the handling and disposal of hazardous materials / wastes at this activity.

Norfolk NSYD controls entry of all hazardous materials (HM) via an

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Authorized Use List (AUL). Requisitions for HM are screened against the AUL. HM not listed on the AUL are not purchased. Requests to add material to the AUL are submitted to the Occupational Safety, Health and Environment Office (OSHE) where they are reviewed for Safety, Health, and Environmental acceptability. Once HM is received, it is tracked to maintain accountability, to facilitate pollution prevention initiatives (through the use of the Production Process Number (PPN)), and to provide data for EPCRA reporting. Norfolk NSYD has been selected as an Initial Operating Site to be the first Naval Shipyard to implement the DoD Hazardous Material Management System (DM-HMMS). Simultaneously, Norfolk NSYD has also been designated to implement the Navy Hazardous Material Control and Management (HMC&M) System. Norfolk NSYD is in the process of implementing both systems. Norfolk NSYD has already set up a pilot program of using Hazardous Material Control Center (HMCC) to control the issue and use of HM. When both the systems are implemented, Norfolk NSYD will be the only naval shipyard with both systems operational.

Norfolk NSYD controls all hazardous waste (HW) produced at the shipyard. Specific written procedures have been developed for the turn in and disposal of HW. The handling and disposal of HW is by trained and authorized personnel only. The HW storage facility has received its Part B Permit September 1992. Detailed shipment procedures and an aggressive program for recycling and sales with local and regional DRMO's have been established.

Major industrial shops at Norfolk NSYD are directly connected to an on-site Industrial Waste Water Treatment Plant (IWTP) through a shipyard forced main pumping system. This allows treatment and disposal of large quantities of industrial waste water in a cost effective and efficient manner.

Norfolk NSYD IWTP has capacity to treat up to 50,000 gallons per day of generated industrial waste. Industrial waste is treated on both a continuous and batch mode.

Norfolk NSYD has capability (maximum capacity=1,000,000 gallons) for temporary holding and storage of industrial waste, hazardous waste, and ships waste in mobile railroad tanker cars.

Norfolk NSYD utilizes DRMO service contract for normal HW/WHM disposal. These contracts are maintained on a 2-3 year renewable cycle. However, Norfolk NSYD also maintains backup disposal contracts for handling disposal of waste not covered by DRMO services and as a backup to handle surges in order to maintain compliance. A special compressed gas bottle/cylinder disposal contract has been awarded for disposal of unknown and hard to dispose of compressed gases.

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Norfolk also has established special contracts to provide additional capacity for sampling and analysis in order to meet stringent regulatory reporting requirements.

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**13. Encroachment Considerations**

13.1 Identify any ground, industrial noise, approach channel, waterway, harbor, bridge height, turning basin, ESQD, HERO, airspace or other encroachments of record at your activity.

**Table 13.1: Encroachments of Record**

Encroachments	Date Recorded	Current Status
ESQD Arcs: (1) For berths 42/43 (2) Wetslips 3, 4, 5, and (3) Berths 1-8.	23 July 1993	CNO exemption NAVSHIPYD Norfolk E1-93, expires 30 Sept 98 Class 1.4--Load unlimited Class 1.3--1,5000 new net explosive weight

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Customer Support

14. Customer Support

14.1 Homeport Proximity. Identify the distance, by road-miles and by water, to the two closest fleet homeport concentrations.

Table 14.1: Homeport Proximity

Homeport	Distance	
	Road (Miles)	Water (NM)
Naval Station, Norfolk, VA	12	12
Naval Amphibious Base, Little Creek, VA	14	20.2

14.2 Billeting. Identify the billeting support provided to the crews of ships undergoing work at your activity. Provide the total number of individuals within each category for the period requested.

Table 14.2: Billeting Support

	FY 1991	FY 1992	FY 1993	FY 1994 (01 Oct-31 Mar)
Berthed on Barges	1,575	1,775	1,375	525
Retained inboard own vessel	4,261	3,954	2,893	5,034
Billeted ashore (Homeport/own quarters)	507	1,073	1,805	1,260
Billeted ashore (BQs maintained by your activity)	1,294	2,097	1,577	800
Total	7,637	8,899	7,650	7,619

Quality of Life

15. Military Housing - Family Housing

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

Mandatory housing on base is required of the Shipyard Commander of the host activity, Norfolk Naval Shipyard, Portsmouth, Virginia. All on-base housing is the property of the Public Works Center Norfolk---NOT the Norfolk Naval Shipyard or its tenants. PWC Norfolk coordinates all housing assignments throughout this area as required by previous consolidations.

15.2 For military family housing in your locale the following information:

Type of Quarters	Number of Bedrooms	Total number of units	Number Adequate	Number Substandard	Number Inadequate
Officer	4+	199	199	0	0
Officer	3	198	198	0	0
Officer	1 or 2	0	0	0	0
Enlisted	4+	868	868	0	0
Enlisted	3	881	857	24	0
Enlisted	1 or 2	899	676	223	0
Mobile Homes		0	0	0	0
Mobile Home lots		0	0	0	0

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

Facility type/code: Housing at the New Gosport Site, Junior Enlisted, at the Norfolk Naval Shipyard. This housing is the property and under the control of the Public Works Center Norfolk--NOT the Norfolk Naval Shipyard or its tenants.

What makes it inadequate? Size and age.

What use is being made of the facility? Family Housing of Navy Families

What is the cost to upgrade the facility to substandard? \$25 million

What other use could be made of the facility and at what cost? None

Current improvement plans and programmed funding: Demolish in

FY99 (POM'd)

Has this facility condition resulted in C3 or C4 designation on your BASEREP? C-3 on BASEREP of PWC Norfolk

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**15. Military Housing - Family Housing, continued**

15.4 Complete the following table for the military housing waiting list.

Pay Grade	Number of Bedrooms	Number on List <sup>1</sup>	Average Wait
O-6/7/8/9	1	0	0
	2	0	8-10 months
	3	0	8-10 months
	4+	14	12-14 months
O-4/5	1	0	0
	2	1	9-12 months
	3	62	12-15 months
	4+	33	10-16 months
O-1/2/3/CWO	1	0	4-9 months
	2	3	4-9 months
	3	3	6-15 months
	4+	16	12-14 months
E7-E9 and E1-E6 all maintained on the same list	1		2-9 months
	2		6-14 months
	3		7-13 months
	4+		12-24 months
	Total +	3,031	
E1-E6	1	N/A	
	2	N/A	
	3	N/A	
	4+	N/A	

<sup>1</sup>As of 31 March 1994.

15. **Military Housing - Family Housing, continued**

15.5 What do you consider to be the top five factors driving the demand for base housing? Does it vary by grade category? Somewah. If so provide details. See item 1 in table.

**Table 15.5: Housing Demand Factors**

Top Five Factors Driving the Demand for Base Housing	
1	High cost for junior enlisted, 3 or more bedrooms
2	Travel Time/distance
3	Convenience to Base facilities/child care
4	Sense of safety/security (undesirable high crime areas)
5	Area has large deployable sector. Shared comraderie/problems/expenses.

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

32%

15.7 Provide the utilization rate for family housing for FY 1993.

Type of Quarters	Utilization Rate
Adequate	98.2%
Substandard	97.4%
Inadequate	97.0%

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

Yes. Six hundred substandard units in Ben Morrell are being demolished and will be rebuilt. Some quarters have been taken offline in Camp Allen and Torgerson sites, for planned revitalization projects scheduled FY95-97 timeframe. Some units have been taken offline in Carper Housing due to unsafe structural conditions, as identified by engineering structural inspections.

**16. Military Housing - Bachelor Quarters**

R

16.1 Provide the utilization rate for BEQs for FY 1993.

Table 16.1: BEQ Utilization

Type of Quarters	Utilization Rate
Adequate	90%
Substandard	100%
Inadequate	N/A

R

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

As of 31 March 1994, utilization of adequate quarters is 86%.  
Utilization is dependent on ships availabilities.

R

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

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

AOB = 13

16.4 Indicate in the following chart the percentage of Geographic Bachelors (GB) by category of reasons for family separation. Provide comments as necessary.

Table 16.4: Reasons for Geographic Separation (BEQ)

Reason for Separation from Family	Number of GB	Percent of GB	Comments
Family Commitments (children in school, financial, etc.)	3	23%	
Spouse Employment (non-military)			
Other	10	77%	
<b>TOTAL</b>	13	100	

16.5 How many Geographic Bachelors do not live on base?

# GB Off-Base = 0

**16. Military Housing - Bachelor Quarters**

16.1 Provide the utilization rate for BEQs for FY 1993.

Table 16.1: BEQ Utilization

Type of Quarters	Utilization Rate
Adequate	91%
Substandard	100%
Inadequate	N/A

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

As of 31 March 1994, utilization of adequate quarters is 98%. Utilization is dependent on ships availabilities.

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

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

AOB = 13

16.4 Indicate in the following chart the percentage of Geographic Bachelors (GB) by category of reasons for family separation. Provide comments as necessary.

Table 16.4: Reasons for Geographic Separation (BEQ)

Reason for Separation from Family	Number of GB	Percent of GB	Comments
Family Commitments (children in school, financial, etc.)	3	23%	
Spouse Employment (non-military)			
Other	10	77%	
<b>TOTAL</b>	<b>13</b>	<b>100</b>	

16.5 How many Geographic Bachelors do not live on base?

# GB Off-Base = 0

16. Military Housing - Bachelor Quarters, continued

16.6 Provide the utilization rate for Bachelor Officers Quarters (BOQs) for FY 1993.

Table 16.6: BOQ Utilization

Type of Quarters	Utilization Rate
Adequate	71%
Substandard	N/A
Inadequate	N/A

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

As of 31 March 1994, utilization is 93%. Utilization is dependent on ships availabilities.

16.8 Calculate the Average on Board (AOB) for Geographic Bachelors as follows:

$$AOB = \frac{(\# \text{ GB} \times \text{average \# days in barracks})}{365}$$

AOB = 2

16.9 Indicate in the following chart the percentage of Geographic Bachelors (GB) by category of reasons for family separation. Provide comments as necessary.

Table 16.9: Reasons for Geographic Separation (BOQ)

Reason for Separation from Family	Number of GB	Percent of GB	Comments
Family Commitments (children in school, financial, etc.)			
Spouse Employment (non-military)	2	100%	
Other			
<b>TOTAL</b>	<b>2</b>	<b>100</b>	

16.10 How many geographic bachelors do not live on base?

# GB Off-Base = 0

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Quality of Life

17. MWR Facilities

17. For on-base MWR facilities available, complete the following table for each separate location. These are space designed for a particular use. A single building might contain several facilities, each of which should be listed separately.

For off-base government owned or leased recreation facilities indicate distance from base. If there are any facilities not listed, include them at the bottom of the table.

LOCATION Norfolk Naval Shipyard, Portsmouth, VA DISTANCE 0 = ON BASE

TABLE 17.1.a: MWR Facilities Summary

Facility	Unit of Measure	Total	Profitable (Y,N,N/A)
Auto Hobby	Indoor Bays	9	Y
	Outdoor Bays	0	
Arts/Crafts	SF	0	
Wood Hobby	SF	0	
Bowling	Lanes	24	Y
Enlisted Club-----ALL HANDS	SF		
Officer's Club-----CLUB	SF	19,318	N
Library	SF	0	
Library	Books	0	
Theater	Seats	0	
ITT	SF	120	N/A
Museum/Memorial	SF	0	
Pool (indoor)	Lanes	0	
Pool (outdoor)	Lanes	17	N/A
Beach	LF	0	
Swimming Ponds	Each	0	
Tennis CT	Each	10	N/A

17. MWR Facilities, continued

Table 17.1.b: MWR Facilities Summary

Facility	Unit of Measure	Total	Profitable (Y,N,N/A)
Volleyball court (outdoor)	Each	2	N/A
Basketball court (outdoor)	Each	2	N/A
Racquetball court	Each	3	N/A
Golf Course	Holes	0	
Driving Range	Tee Boxes	0	
Gymnasium	SF	6,400	N/A
Fitness Center	SF	9,434	N/A
Marina	Berths	0	
Stables	Stalls	0	
Softball Field	Each	3	N/A
Football Field	Each	1	N/A
Soccer Field	Each	1	N/A
Youth Center	SF	3,110 **700	N/A Community Center; Office

\*\* Currently utilize housing as a Youth Center and one housing unit as the Youth Office.

17.2 Is your library part of a regional interlibrary loan program? Yes / No

Not applicable. No facility dedicated solely to library function.

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Quality of Life

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

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

**Table 18.1: Child Care Availability**

Age Category	Capacity (# of Children)	SF 5,591			Number on Wait List	Average Wait (Days)
		Adequate	Substandard	Inadequate		
0-6 Months	8	560 SF*			27	240
6-12 Months	9				16	240
12-24 Months	10	780 SF			36	240
24-36 Months	10	349 SF			22	240
3-5 Years	20	741 SF			37	240
Other space: admin, restrooms, etc.		3,161				

Note:

\* Data is not available for these groups separately. This space is only the rooms actually utilized by the children.

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

Not applicable. No inadequate facilities listed.

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Facility type/code:

What makes it inadequate?

What use is being made of the facility?

What is the cost to upgrade the facility to substandard?

What other use could be made of the facility and at what cost?

Current improvement plans and programmed funding:

Has this facility condition resulted in C3 or C4 designation on your BASEREP?

**18. Base Family Support Facilities and Programs, continued.**

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

Referrals are made to other civilian and military child care centers. In addition, Norfolk Naval Shipyard has submitted MILCON P-333 which provides an addition to the existing Child Care Center which will then accommodate 110 more children.

18.4 How many "certified home care providers" are registered at your base?# + \_\_\_\_\_

Not applicable at the Norfolk Naval Shipyard. The register is maintained by the Naval Station Norfolk.

18.5 Are there other military child care facilities within 30 minutes of the base? No  
State owner and capacity (i.e., 60 children, 0-5 yrs).

**18. Base Family Support Facilities and Programs, continued.**

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

**Table 18.6: Available Services**

Service	Unit of Measure	Qty
Exchange	SF	52,866*
Gas Station	SF	4,704
<del>Auto Repair</del> AUTO HOBBY	SF	
<del>Auto Parts Store</del> SHOP	SF	5,460
Commissary	SF	55,152
Mini-Mart	SF	0
Package Store	SF	3,000
Fast Food Restaurants	Each	0
Bank/Credit Union	Each	4,142
Family Service Center	SF	190
Laundromat	SF	2,243
Dry Cleaners	Each	1**
ARC	PN	0
Chapel	PN	110
FSC Classrm/Auditorium	PN	0
Post Office	SF	2,968

\* Includes retail, exchange administration, cafeteria, snack stand, service outlets (Barber Shop) in Bldg 1560 and various other shipyard facilities.

\*\* SF included in exchange figure

**19. Metropolitan Areas**

19.1 Identify proximate major metropolitan areas closest to your base (provide at least three):

**Table 19.1: Proximate Metropolitan Areas**

City	Distance (Miles)
Chesapeake, VA	10
Hampton, VA	20
Norfolk, VA	7
Portsmouth, VA	0
Suffolk, VA	15
Virginia Beach, VA	20

## Quality of Life

## 20. VHA Rates.

## 20.1 Identify the Standard Rate VHA Data for Cost of Living in your area:

Table 20.1: VHA Rates

Paygrade	With Dependents	Without Dependents
E1	\$127.43	\$ 71.30
E2	\$116.47	\$ 73.25
E3	\$111.42	\$ 82.10
E4	\$139.18	\$ 97.14
E5	\$155.24	\$108.39
E6	\$175.73	\$119.62
E7	\$191.50	\$133.03
E8	\$176.39	\$133.35
E9	\$165.28	\$125.47
W1	\$281.03	\$213.43
W2	\$242.26	\$193.94
W3	\$240.16	\$195.22
W4	\$176.30	\$156.31
O1E	\$306.00	\$226.98
O2E	\$251.41	\$200.45
O3E	\$238.87	\$202.08
O1	\$181.59	\$133.81
O2	\$186.47	\$145.75
O3	\$228.14	\$192.08
O4	\$205.30	\$178.53
O5	\$222.77	\$184.23
O6	\$228.47	\$189.11
O7	\$158.54	\$128.81

**Quality of Life 21. Off-base Housing Rental and Purchase**

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

**Table 21.1: Recent Rental Rates**

Type Rental	Average Monthly Rent ALL \$409.00		Average Monthly Utilities Cost \$160.00
	High	Low	
Efficiency	\$500	\$358	0 (included with most efficiency rentals)
Apartment (1-2 Bedroom)	\$424	\$380	\$141.00
Apartment (3+ Bedroom)	\$490	\$350	\$201.00
Single Family Home (3 Bedroom)	\$525	\$443	\$213.00
Single Family Home (4+ Bedroom)	\$650	\$578	\$260.00
Town House (2 Bedroom)	\$419	416\$	\$130.00
Town House (3+ Bedroom)	\$500	\$425	\$180.00
Condominium (2 Bedroom)	\$416	\$475	\$123.00
Condominium (3+ Bedroom)	\$500	\$417	\$192.00

21.2 What was the rental occupancy rate in the community as of 31 March 1994?  
96.1%

**Table 21.2: Rental Occupancy Rate**

Type Rental	Percent Occupancy Rate
Efficiency	92.16%
Apartment (1-2 Bedroom)	96.00%
Apartment (3+ Bedroom)	96.00%
Single Family Home (3 Bedroom)	96.00%
Single Family Home (4+ Bedroom)	99.00%
Town House (2 Bedroom)	92.00%
Town House (3+ Bedroom)	92.00%
Condominium (2 Bedroom)	88.00%
Condominium (3+ Bedroom)	88.00%

21. Off-base Housing Rental and Purchase, continued

21.3 What are the median costs for homes in the area? \$121,000

Table 21.3: Regional Home Costs

Type of Home	Median Cost (Monthly)
Single Family Home (3 Bedroom)	\$625.00
Single Family Home (4+ Bedroom)	\$700.00
Town House (2 Bedroom)	\$550.00
Town House (3+ Bedroom)	\$600.00
Condominium (2 Bedroom)	\$550.00
Condominium (3+ Bedroom)	\$626.00

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

Table 21.4: Housing Availability

Month	Number of Bedrooms		
	2	3	4+
January	14	27	4
February	17	26	5
March	20	45	4
April	28	53	9
May	25	49	6
June	49	58	13
July	48	62	8
August	32	69	16
September	56	51	18
October	38	54	12
November	40	61	10
December	37	11	16

The small number of homes available is due to the fact that the E1-E5 rate for this and other large metropolitan areas is too small and makes housing purchases difficult due to monthly payment and utility costs. At E-6 BAQ/VHA rates, more homes are available.

**21. Off-base Housing Rental and Purchase, continued**

R

21.5 Describe the principle housing cost drivers in your local area.

Location, Number of Bedrooms, Siding type (brick, vinyl, wood), School system, Crime rates, BAQ, VHA alignment with payment amount.

**22. Sea-Shore Opportunities**

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

Table 22.1: Sea Shore Opportunities

Rating	Number Sea Billets in the Local Area	Number of Shore billets in the Local Area	
MS	0	33	R
BM	0	7	R
EN	0	9	R
MM	0	5	R
EM	0	7	R

Information is not available until guidance is received from BSAT regarding the definition of "local area." NISE East has less than 20 total military positions. In addition, Norfolk Naval Shipyard serves 3 warfare communities; what is the criterion for "principle"? Even including the tenant population, the total number of military billets at the Norfolk Naval Shipyard is insignificant especially when compared to NAVSTA Norfolk..

**23. Commuting Distances**

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

Table 23.1: Commuting Distances

Location	% Employees	Distance (mi)	Time(min)
Chesapeake, VA	29%	10	10-45
Norfolk, VA	7%	7	10-35
Portsmouth, VA	26%	0	5-25
Suffolk, VA	9%	15	20-60
Virginia Beach, VA	16%	20	20-50

**21. Off-base Housing Rental and Purchase, continued**

21.5 Describe the principle housing cost drivers in your local area.

Location, Number of Bedrooms, Siding type (brick, vinyl, wood), School system, Crime rates, BAQ, VHA alignment with payment amount.

**22. Sea-Shore Opportunities**

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

**Table 22.1: Sea Shore Opportunities**

Rating	Number Sea Billets in the Local Area	Number of Shore billets in the Local Area
MS	0	38
BM	0	13
EN	0	9
MM	0	8
EM	0	6

**23. Commuting Distances**

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

**Table 23.1: Commuting Distances**

Location	% Employees	Distance (mi)	Time(min)
Chesapeake, VA	29%	10	10-45
Norfolk, VA	7%	7	10-35
Portsmouth, VA	26%	0	5-25
Suffolk, VA	9%	15	20-60
Virginia Beach, VA	16%	20	20-50

Quality of Life

**24. Regional Educational Opportunities**

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

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

Table 24.1: Educational Opportunities

Institution	Type	Grade Level(s) Shown by numbers of schools			Special Educa- tion Avail- able Note 1	Annual Enroll- ment Cost per Student Note 2	1993 Avg SAT/ ACT Score (SAT Total)	% HS Grad to Higher Educ Note 3	Source of Info Note 4
		Elem	Middle	High					
Chesapeake, VA	Public	26	7	5	Yes	\$4,589	831	71%	
Hampton, VA	Public	24	5	4	Yes	\$4,498	833	74%	Note 5a
Norfolk, VA	Public	36	8	5	Yes	\$5,164	769	64%	Note 5b
Portsmouth, VA	Public	16	4	4	Yes	\$4,712	744	71%	
Suffolk, VA	Public	10	3	2	Yes	\$4,365	742	44%	Note 5c
Virginia Beach, VA	Public	52	14	10	Yes	\$3,942	889	77%	
Nonpublic schools: Note 6		Grades	Students Enrolled & as % of Total Enrolled in Specified Grades 1992						Note 7
Chesapeake, VA	Private	1-8	1,198 (6%)						
Hampton, Va	Private	1-8	982 (6%)						
Norfolk, VA	Private	1-8	2,173 (8%)						
Portsmouth, VA	Private	1-8	878 (6%)						
Suffolk, VA	Private	1-8	650 (10%)						
Virginia Beach, VA	Private	1-8	2,820 (6%)						

Note 1: Federal law requires accommodation of special needs students. In 1992-93, 2.2% of students in Virginia (22,310 of 1,030,004) were identified with special needs and were accommodated. [Virginia Statistical Series. Projection of Educational Statistics to 2012. Center of Public Service, University of Virginia, September, 1993]

Note 2: Figure is the average expenditure per student found in the 1993-94 Fall Membership in Virginia's Public Schools, Virginia Department of Education, Division of Information Systems.

**24. Regional Educational Opportunities, continued**

- Note 3: The figure for number of students enrolled in college is not an actual count, but rather is the results of a survey completed by each school system prior to graduation.
- Note 4: Each school system was contacted by the Hampton Roads Planning District Commission for the information.
- Note 5a: Published 1992 data is used for Hampton's SAT and % HS grads to higher education.
- Note 5b: Published 1992 data is used for Norfolk %HS grads to higher education.
- Note 5c: Data for Suffolk City School is for the class of 1992.
- Note 6: Data is provided in aggregate for the private schools in the cities most representative of the host, Norfolk Naval Shipyard. Although the private schools account for a relatively small number of students, they provide opportunities for diversity of educational opportunities. Examples of these include: Norfolk Academy (one of the country's oldest private schools, founded in 1728, emphasizes leadership and college preparation skills); Hebrew Academy (offering Judaic education), and the Chesapeake Bay Academy (offering curriculum aimed at student with learning disabilities and attention deficit disorders).
- Note 7: "Input Data: Population Estimates" Center for Public Service, University of Virginia, November 24, 1993

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

**Table 24.2: Off-Base Educational Programs**

Institution	Type Classes	Program Type(s)				
		Adult High School	Vocational/ Technical	Undergraduate		Graduate
				Courses only	Degree Program	
Christopher Newport University	Day	No	No	No	Yes	Yes
	Night	No	No	No	Yes	Yes
College of William & Mary	Day	No	No	No	Yes	Yes
	Night/Weekend	No	No	No	Yes	Yes
Commonwealth College	Day	No	No	Yes	Yes	No
	Night	No	No	Yes	Yes	No
Eastern Virginia Medical School	Day	No	No	No	No	Yes
	Night	No	No	No	No	Yes
Hampton University	Day	No	No	No	Yes	Yes
	Night	No	No	No	Yes	Yes

Institution	Type Classes	Program Type(s)				
		Adult High School	Vocational/ Technical	Undergraduate		Graduate
				Courses only	Degree Program	
Norfolk State University	Day	No	Yes	Yes	Yes	Yes
	Night	No	Yes	Yes	Yes	Yes
Old Dominion University	Day	No	No	No	Yes	Yes
	Night	No	No	No	Yes	Yes
Patrick Henry College	Day	Yes	Yes	Yes	Yes	No
	Night	Yes	Yes	Yes	Yes	No
Regent University	Day	No	No	No	No	Yes
	Night	No	No	No	No	Yes
Thomas Nelson Community College	Day	Yes	Yes	Yes	Yes	No
	Night	Yes	Yes	Yes	Yes	No
Tidewater Community College	Day	Yes	Yes	Yes	Yes	No
	Night	Yes	Yes	Yes	Yes	No
Virginia Wesleyan College	Day	No	No	Yes	Yes	No
	Night	No	No	Yes	Yes	No
<b>Extension Campuses targeting Hampton Roads Large Military Population</b>						
George Washington University	Day	No	No	No	No	No
	Night/ Weekend	No	No	No	No	Yes
Southern Illinois University	Day	No	No	No	No	No
	Night Weekend	No	No	No	Yes	No
St. Leo's College	Day	No	No	Yes	Yes	No
	Night	No	No	Yes	Yes	No

24. Regional Educational Opportunities, continued

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

Table 24.3: On-Base Educational Programs

Institution	Type Classes	Program Type(s)				
		Adult High School	Vocational/ Technical	Undergraduate		Graduate
				Courses only	Degree Program	
Central Michigan University	Day	No	No	No	No	No
	Night/Weekend	No	No	No	No	Yes
	Correspondence	No	No	No	No	No
Old Dominion University	Day	No	No	No	No	No
	Night	No	No	No	No	Yes
	Correspondence	No	No	No	No	No
Tidewater Community College	Day	No	No	No	No	No
	Night	No	No	Yes	Yes	No
	Correspondence	No	No	No	No	No
	Day					
	Correspondence					
	Day					
	Night					
	Correspondence					

Quality of Life

25. Spousal Employment Opportunities

25.1 Provide the following data on spousal employment opportunities.

**Table 25.1: Spouse Employment**

Skill Level	# of Military Spouses Serviced by FSC Spouse Employment Assistance*			Local Community Unemployment Rate [Not available by categories listed]
	1991	1992	1993	
Professional	8	7	0	Not available
Manufacturing	1	3	0	Not available
Clerical	10	8	0	Not available
Service	0	0	0	Not available
Other	1**	0	0	Not available
	0	0	0	Feb, 94 by Community: 5.7 Chesapeake 6.7 Hampton 6.8 Norfolk 9.3 Portsmouth 7.5 Suffolk 4.8 Virginia Beach

\* The host activity, Norfolk Naval Shipyard, does not perform this service through a Family Service Center. The item shows the number of individuals assisted for registration or placement by the Human Resources Office, Norfolk Naval Shipyard, during the reporting period.

The Spousal Employment Opportunities function is administered as the DOD Military Spouse Preference Program (Program S), which is a part of the DPD Priority Placement Program (PPP). The Spouse Preference Program is covered by Appendix I of DOD 1400.20-1-M, DOD Program for Stability of Civilian Employment Policies, Procedures and Programs Manual.

Eligible spouses may be registered by either an A-coded activity in the "losing" or an A-coded activity in the "gaining" area. An "A-coded" activity is a servicing Human Resources Office responsible for effective administration of the Priority Placement Program. The Family Services Center does not administer the Spouse Preference Program in this area.

Program S registrants are offered spousal priority for appropriate vacancies at DOD activities within the commuting area of the duty station of the military sponsor. The job offers also are made by an A-coded activity.

\*\* Supply technician

26. Medical/Dental.

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

MEDICAL: No. The Branch Medical Clinic located inside the Norfolk Naval Shipyard provides a "same day" appointment system for our active duty personnel. Should medical care be beyond the capabilities of the Branch Medical Clinic, active duty personnel are referred to the Naval Medical Center Portsmouth (located within five minutes of the shipyard) for further specialty evaluation. Medical treatment for active duty personnel within the civilian health care system is customary only required on an emergency basis, with no difficulty with access.

DENTAL: Yes, there is a continuing disparity between the number of appointment slots available, due to manpower constraints and the number of requests for dental appointments. The forecasted realignment in homeporting of ships and other activities to Norfolk area may increase the disparity in appointment availability. There is an abundance of civilian dentists in the Tidewater area, however, most active duty seek military care due to the high cost of civilian dental care. Emergency dental care is available 24 hours a day 7 days a week at the Naval Base Norfolk Branch Dental Clinic.

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

MEDICAL: No. Within the past 24 months accessibility to local Military Treatment Facilities (Naval Medical Center Portsmouth, Fort Eustis, and Langley AFB) has dramatically improved. A military dependent needs only to call one phone number for an appointment at one of the three major Medical Treatment Facilities. If an appointment is not available, the dependent is offered an appointment with a civilian "preferred provider" where their cost share is less than the standard CHAMPUS cost share. Dependents have full access to all local civilian health care facilities, but they are strongly encouraged to seek a CHAMPUS participating facility.

DENTAL: Yes, in the military system dental care to dependents is on a space available basis only. The Delta Dental Insurance Program provides dependents with an alternative choice for dental care, on a cost share basis. Dependents presenting themselves at military dental treatment facilities for emergency treatment during normal working hours are screened via the DEERS system for Delta Dental enrollment. If enrolled, they are referred to a civilian provider. If not enrolled, they are treated for their emergency condition. After normal working hours, dependents presenting emergency problems are treated at the Branch Dental Clinic, Naval Base Norfolk. There is an abundance of civilian dentists located in the area with no difficulty to access.

Quality of Life

27. Crime Rate

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

Table 27.1.a: Local Crime Rate

Crime Definitions	FY 1991	FY 1992	FY 1993
1. Arson (6A)	4	4	3
Base Personnel - military	2	3	3
Base Personnel - civilian	2	0	0
Off Base Personnel - military	0	0	0
Off Base Personnel - civilian	0	1	0
2. Blackmarket (6C)	0	0	0
Base Personnel - military	0	0	0
Base Personnel - civilian	0	0	0
Off Base Personnel - military	0	0	0
Off Base Personnel - civilian	0	0	0
3. Counterfeiting (6G)	0	0	0
Base Personnel - military	0	0	0
Base Personnel - civilian	0	0	0
Off Base Personnel - military	0	0	0
Off Base Personnel - civilian	0	0	0
4. Postal (6L)	0	0	0
Base Personnel - military	0	0	0
Base Personnel - civilian	0	0	0
Off Base Personnel - military	0	0	0
Off Base Personnel - civilian	0	0	0

Crime Definitions	FY 1991	FY 1992	FY 1993
5. Customs (6M)	0	0	0
Base Personnel - military	0	0	0
Base Personnel - civilian	0	0	0
Off Base Personnel - military	0	0	0
Off Base Personnel - civilian	0	0	0
6. Burglary (6N)	20	10	12
Base Personnel - military	14	5	10
Base Personnel - civilian	1	5	2
Off Base Personnel - military	2	0	0
Off Base Personnel - civilian	3	0	0
7. Larceny - Ordnance (6R)	0	0	
Base Personnel - military	0	0	
Base Personnel - civilian	0	0	
Off Base Personnel - military	0	0	
Off Base Personnel - civilian	0	0	
8. Larceny - Government (6S)	144	165	219
Base Personnel - military	5	20	17
Base Personnel - civilian	128	142	200
Off Base Personnel - military	0	0	0
Off Base Personnel - civilian	11	3	2

Crime Definitions	FY 1991	FY 1992	FY 1993
9. Larceny - Personal (6T)	215	335	200
Base Personnel - military	103	199	110
Base Personnel - civilian	104	114	70
Off Base Personnel - military	6	16	18
Off Base Personnel - civilian	2	6	2
10. Wrongful Destruction (6U)	165	201	152
Base Personnel - military	75	105	75
Base Personnel - civilian	78	77	60
Off Base Personnel - military	4	17	12
Off Base Personnel - civilian	7	2	5
11. Larceny - Vehicle (6V)	38	38	31
Base Personnel - military	19	22	21
Base Personnel - civilian	15	9	5
Off Base Personnel - military	0	4	4
Off Base Personnel - civilian	4	3	1
12. Bomb Threat (7B)	12	13	8
Base Personnel - military	4	7	4
Base Personnel - civilian	7	6	4
Off Base Personnel - military	0	0	0
Off Base Personnel - civilian	1	0	0

Crime Definitions	FY 1991	FY 1992	FY 1993
13. Extortion (7E)	0	0	0
Base Personnel - military	0	0	0
Base Personnel - civilian	0	0	0
Off Base Personnel - military	0	0	0
Off Base Personnel - civilian	0	0	0
14. Assault (7G)	26	28	25
Base Personnel - military	15	19	14
Base Personnel - civilian	10	7	5
Off Base Personnel - military	1	2	4
Off Base Personnel - civilian	0	0	2
15. Death (7H)	4	3	0
Base Personnel - military	0	1	0
Base Personnel - civilian	1	1	0
Off Base Personnel - military	0	0	0
Off Base Personnel - civilian	3	1	0
16. Kidnapping (7K)	1	0	0
Base Personnel - military	0	0	0
Base Personnel - civilian	0	0	0
Off Base Personnel - military	1	0	0
Off Base Personnel - civilian	0	0	0

Crime Definitions	FY 1991	FY 1992	FY 1993
18. Narcotics (7N)	3	3	0
Base Personnel - military	2	1	0
Base Personnel - civilian	1	2	0
Off Base Personnel - military	0	0	0
Off Base Personnel - civilian	0	0	0
19. Perjury (7P)	0	0	0
Base Personnel - military	0	0	0
Base Personnel - civilian	0	0	0
Off Base Personnel - military	0	0	0
Off Base Personnel - civilian	0	0	0
20. Robbery (7R)	3	3	2
Base Personnel - military	0	1	2
Base Personnel - civilian	0	0	0
Off Base Personnel - military	3	1	0
Off Base Personnel - civilian	0	1	0
21. Traffic Accident (7T)	164	182	194
Base Personnel - military	47	59	61
Base Personnel - civilian	107	120	122
Off Base Personnel - military	5	0	5
Off Base Personnel - civilian	5	3	6

Crime Definitions	FY 1991	FY 1992	FY 1993
22. Sex Abuse - Child (8B)	0	0	1
Base Personnel - military	0	0	1
Base Personnel - civilian	0	0	0
Off Base Personnel - military	0	0	0
Off Base Personnel - civilian	0	0	0
23. Indecent Assault (8D)	1	1	0
Base Personnel - military	0	1	0
Base Personnel - civilian	1	0	0
Off Base Personnel - military	0	0	0
Off Base Personnel - civilian	0	0	0
24. Rape (8F)	2	0	2
Base Personnel - military	0	0	0
Base Personnel - civilian	0	0	0
Off Base Personnel - military	2	0	1
Off Base Personnel - civilian	0	0	1
25. Sodomy (8G)	0	0	0
Base Personnel - military	0	0	0
Base Personnel - civilian	0	0	0
Off Base Personnel - military	0	0	0
Off Base Personnel - civilian	0	0	0

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**DATA CALL FOR MILITARY VALUE ANALYSES**  
**for**  
**NAVAL SHIPYARDS and NAVAL SHIP REPAIR FACILITY**

*Supplement*

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

**TAB B: SPECIAL FACILITIES AND EQUIPMENT**  
**FACILITIES/EQUIPMENT CAPABILITY FORM**

**APPENDIX A:**  
**I. FUNCTIONAL SUPPORT AREAS (PRODUCTS)**  
**II. LIFE-CYCLE WORK AREAS**

**APPENDIX B:**  
**I. FUNCTIONAL SUPPORT AREA DEFINITIONS**  
**II. LIFE-CYCLE WORK AREA DEFINITIONS**

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

**INSTRUCTIONS FOR TAB A**

1. Use Tables 1.a-1.h to identify the Functional Areas in which your facility performs work for the listed functional support areas (products). Appendices A and B define/describe the products and functional areas used in these Tables.
2. Complete the Tables for all categories and all products provided in this Tab.
3. In completing Tab A, provide Direct Labor Man Years of "work years" for DBOF activities.

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TAB A: Table 1.a: TECHNICAL WORKLOAD MATRIX / FUNCTIONAL AREAS

PRODUCTS	Basic Research	Explor. Devel.	Adv. Devel.	Engr & Mfg. Devel	RDT&E Mngt Support	Op Sys Support	Production	Acceptance Testing	Moder-nization
1. Platforms									
1.1 UnderSea									384.781
1.2 Aircraft									
1.3 Surface Ship									1255.418
1.4 Space Satellites									
1.5 Ground Vehicles									
2. Weapons Systems									10.482
2.1 Gun Systems									
2.2 Guided Missiles									0.765
2.3 Freefall Weapons & Rockets									
2.4 Torpedoes									
2.5 Mines									
2.6 Directed Energy Systems									
2.7 Explosives									
2.8 Launchers									0.653
2.9 Fire Control									75.637
2.10 Wpns Data Links									
2.11 Weapons Fuzing									
2.12 Wpns Propulsion									
2.13 Other Ordnance									
3. Combat Systems Integration									
3.1 Subsurface									
3.2 Air									
3.3 Surface									
3.4 Multiplatform									

TAB A: Table 1.b: TECHNICAL WORKLOAD MATRIX / FUNCTIONAL AREAS

PRODUCTS	Program Support	Sched. Maint.	Repair	Testing	In Serv. Engr.	Program Support	Retire- ment	Trng/ Ops Spt	Sim. Model/ Anlys
1. Platforms									
1.1 UnderSea			417.745				45.705		
1.2 Aircraft									
1.3 Surface Ship			3766.259						
1.4 Space Satellites									
1.5 Ground Vehicles									
2. Weapons Systems									
2.1 Gun Systems			6.542	1.857					
2.2 Guided Missiles			4.693	0.610					
2.3 Freefall Weapons & Rockets									
2.4 Torpedoes									
2.5 Mines									
2.6 Directed Energy Systems									
2.7 Explosives									
2.8 Launchers				0.080			0.006		
2.9 Fire Control			1.088	7.896					
2.10 Wpns Data Links									
2.11 Weapons Fuzing									
2.12 Wpns Propulsion									
2.13 Other Ordnance									
3. Combat Systems Integration									
3.1 Subsurface									
3.2 Air									
3.3 Surface			0.781	0.084					
3.4 Multiplatform									

**TAB A: Table 1.c: TECHNICAL WORKLOAD MATRIX / FUNCTIONAL AREAS**

PRODUCTS	Basic Research	Explor. Devel.	Adv. Devel.	Engr & Mfg. Devel	RDT&E Mngt Support	Op Sys Support	Production	Acceptance Testing	Moder-nization
4. Special Ops Spt									
4.1 Landing Force Eqmt & Systems									
4.2 Coastal/Special Warfare Support									
5. Sensors & Surveillance Sys									
5.1 Sonars Systems									
5.2 Radar Systems									14.036
5.3 Special Sensors									
5.4 Space Sensor / Surveillance Sys									
5.5 Ocean Surv.									
6. Navigation									
6.1 Sub. Nav. Sys									28.442
6.2 Aircraft Nav. Sys									
6.3 Surf. Ship Nav.									7.972
6.4 Wpns Nav. Sys									
6.5 Satellite Nav. Sys									
7. C <sup>3</sup> I									
7.1 Submarine									
7.2 Airborne									
7.3 Shipboard									
7.4 Land-Based									
7.5 Space Comm Sys									
7.6 Non-Tact Data									
7.7 Air Traffic Cntrl									14.972
7.8 Intel Info Sys									

TAB A: Table 1.d: TECHNICAL WORKLOAD MATRIX / FUNCTIONAL AREAS

PRODUCTS	Program Support	Sched. Maint.	Repair	Testing	In Serv. Engr.	Program Support	Retirement	Trng/ Ops Spt	Sim. Model/ Anlys
4. Special Ops Spt									
4.1 Landing Force Eqmt & Systems									
4.2 Coastal/Special Warfare Support									
5. Sensors & Surveillance Sys									
5.1 Sonars Systems			0.006	0.002					
5.2 Radar Systems			3.809	1.789					
5.3 Special Sensors									
5.4 Space Sensor / Surveillance Sys									
5.5 Ocean Surv.									
6. Navigation									
6.1 Sub. Nav. Sys			4.948	3.570					
6.2 Aircraft Nav. Sys									
6.3 Surf. Ship Nav.			7.737	1.709					
6.4 Wpns Nav. Sys									
6.5 Satellite Nav. Sys									
7. C <sup>3</sup> I									
7.1 Submarine									
7.2 Airborne									
7.3 Shipboard			4.829	0.518					
7.4 Land-Based									
7.5 Space Comm Sys									
7.6 Non-Tact Data			0.004	0.001					
7.7 Air Traffic Cntrl			3.060	1.932					
7.8 Intel Info Sys									

**TAB A: Table 1.e: TECHNICAL WORKLOAD MATRIX / FUNCTIONAL AREAS**

PRODUCTS	Basic Research	Explor. Devel.	Adv. Devel.	Engr & Mfg. Devel	RDT&E Mngt Support	Op Sys Support	Production	Acceptance Testing	Moder-nization
8. Defense Systems									
8.1 Ballistic Msl Def									
8.2 Countermeasures									
8.3 Electronic Warfare									5.606
9. Strategic Programs									
9.1 Navy Strategic Sys									
9.2 Nuc Wpns/Effects									
10. Gen Mission Spt									
10.1 Personnel/Training									
Sub related Trng Sys									
Air related Trng Sys									
Surf related Trng Sys									
Wpn related Trng Sys									
Human Resrc R&D									
10.2 Log Plng/Implem.									
10.3 Fac Engineering									
10.4 Diving, Salv, O.E.									
10.5 Env Dscrp/Pred									
10.6 Crew Eqmt/ Life Spt									
Submarine									
Aircraft									
Surface Ship									
Med Resr/Cmb Cslty									
Clothing and Textiles									
10.7 Range Dev & Ops									
10.8 Other Subsid Sys									
10.9 Miss/Func Spt									

TAB A: Table 1.f: TECHNICAL WORKLOAD MATRIX / FUNCTIONAL AREAS

PRODUCTS	Program Support	Sched. Maint.	Repair	Testing	In Serv. Engr.	Program Support	Retirement	Trng/ Ops Spt	Sim. Model/ Anlys
8. Defense Systems									
8.1 Ballistic Msl Def									
8.2 Countermeasures			2.155	0.235					
8.3 Electronic Warfare			0.406	0.657					
9. Strategic Programs									
9.1 Navy Strategic Sys									
9.2 Nuc Wpns/Effects									
10. Gen Mission Spt									
10.1 Personnel/Training									
Sub related Trng Sys									
Air related Trng Sys									
Surf related Trng Sys									
Wpn related Trng Sys									
Human Resrc R&D									
10.2 Log Plng/Implem.									
10.3 Fac Engineering									
10.4 Diving, Salv, O.E.									
10.5 Env Dscrp/Pred									
10.6 Crew Eqmt/ Life Spt									
Submarine									
Aircraft									
Surface Ship									
Med Resr/Cmb Csly									
Clothing and Textiles									
10.7 Range Dev & Ops									
10.8 Other Subsid Sys									
10.9 Miss/Func Spt									

TAB A: Table 1.g: TECHNICAL WORKLOAD MATRIX / FUNCTIONAL AREAS

PRODUCTS	Basic Research	Explor. Devel.	Adv. Devel.	Engr & Mnfg. Devel	RDT&E Mngt Support	Op Sys Support	Production	Acceptance Testing	Moder-nization
11. Generic Tech Base									
11.1 Computers									
11.2 Software									
11.3 Comm Network				N/A					
11.4 Electronic Device									
11.5 Matl & Processes									
11.6 Energy Storage									
11.7 Propulsion and Energy Conservation									
11.8 Design Automation									
11.9 Human-System Interfaces									
11.10 Other Tech Base Programs									

R

TAB A: Table 1.g: TECHNICAL WORKLOAD MATRIX / FUNCTIONAL AREAS

PRODUCTS	Basic Research	Explor. Devel.	Adv. Devel.	Engr & Mfg. Devel	RDT&E Mngt Support	Op Sys Support	Production	Acceptance Testing	Moder-nization
11. Generic Tech Base									
11.1 Computers									
11.2 Software									
11.3 Comm Network									
11.4 Electronic Device									
11.5 Matl & Processes									
11.6 Energy Storage									
11.7 Propulsion and Energy Conservation									
11.8 Design Automation									
11.9 Human-System Interfaces									
11.10 Other Tech Base Programs									

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CHANGES CONSISTENT WITH NAS

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TAB A:

Table 1.h: TECHNICAL WORKLOAD MATRIX / FUNCTIONAL AREAS

PRODUCTS	Program Support	Sched. Maint.	Repair	Testing	In Serv. Engr.	Program Support	Retire-ment	Trng/ Ops Spt	Sim. Model/ Anlys
11. Generic Tech Base									
11.1 Computers									
11.2 Software									
11.3 Comm Network				N/A					
11.4 Electronic Device									
11.5 Matl & Processes									
11.6 Energy Storage									
11.7 Propulsion and Energy Conservation.									
11.8 Design Automation									
11.9 Human-System Interfaces									
11.10 Other Tech Base Programs									

R

**TAB A: Table 1.b: TECHNICAL WORKLOAD MATRIX / FUNCTIONAL AREAS**

<b>PRODUCTS</b>	<b>Program Support</b>	<b>Sched. Maint.</b>	<b>Repair</b>	<b>Testing</b>	<b>In Serv. Engr.</b>	<b>Program Support</b>	<b>Retire-ment</b>	<b>Trng/ Ops Spt</b>	<b>Sim. Model/ Anlys</b>
11. Generic Tech Base									
11.1 Computers									
11.2 Software									
11.3 Comm Network									
11.4 Electronic Device									
11.5 Matl & Processes									
11.6 Energy Storage									
11.7 Propulsion and Energy Conservation.									
11.8 Design Automation									
11.9 Human-System Interfaces									
11.10 Other Tech Base Programs									

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	1.1 Undersea
Life Cycle Work Area	9. Modernization

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

**Note:**

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

384.781 WYs

2. **Expenditures.**

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

\$ 45,878.56 K

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

\$ 0 K R

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

\$ 59.04 K

R  
**TAB A: TECHNICAL FUNCTIONS  
FUNCTIONAL SUPPORT AREA - LIFE CYCLE WORK AREA FORM**

Activity Name	Norfolk Naval Shipyard
Functional Support Area	1.3 Surface Ship
Life Cycle Work Area	9. Modernization

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

**Note:**

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

1255.418 WYs

2. **Expenditures.**

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

\$ 149,887.12 K

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

\$ 0 K R

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

\$ 6188.72 K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	1.3 Surface Ship
Life Cycle Work Area	9. Modernization

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

1255.418 WYs

2. **Expenditures.**

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

\$ 149,887.12 K

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

\$ \_\_\_\_\_ K

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

\$ 6188.72 K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2. Weapon Systems
Life Cycle Work Area	9. Modernization

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

10.482 WYs

2. **Expenditures.**

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

\$ 1225.704 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2. Weapon Systems
Life Cycle Work Area	9. Modernization

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

**Note:**

**In-House Expenditures** are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

10.482 WYs

2. **Expenditures.**

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

\$ 1225.704 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.2 Guided Missiles
Life Cycle Work Area	9. Modernization

R

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.765 WYs

2. **Expenditures.**

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

\$ 89.447 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.2 Guided Missiles
Life Cycle Work Area	9. Modernization

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

**Note:**

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.765 WYs

2. **Expenditures.**

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

\$ 89,447 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.8 Launchers
Life Cycle Work Area	9. Modernization

R

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.653 WYs

2. **Expenditures.**

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

\$ 76.403 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.8 Launchers
Life Cycle Work Area	9. Modernization

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.653 WYs

2. **Expenditures.**

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

\$ 76.403 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.9 Fire Control
Life Cycle Work Area	9. Modernization

R

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

**Note:**

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

75.637 WYs

2. **Expenditures.**

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

\$ 8844.542 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.9 Fire Control
Life Cycle Work Area	9. Modernization

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

75.637 WYs

2. **Expenditures.**

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

\$ 8844.542 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	1.1 Undersea
Life Cycle Work Area	12. Repair

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

**Note:**

**In-House Expenditures** are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

417.745 WYs

2. **Expenditures.**

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

\$ 54,152.49 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	1.1 Undersea
Life Cycle Work Area	12. Repair

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

**Note:**  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

417.745 WYs

2. **Expenditures.**

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

\$ 54,152.49 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	1.3 Surface Ship
Life Cycle Work Area	12. Repair

R

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

3766.259 WYs

2. **Expenditures.**

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

\$ 488,221.94 K

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

\$ 0 K R

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

\$ 26322.08 K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	1.3 Surface Ship
Life Cycle Work Area	12. Repair

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

**Note:**

**In-House Expenditures** are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

3766.259 WYs

2. **Expenditures.**

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

\$ 488,221.94 K

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

\$ \_\_\_\_\_ K

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

\$ 26322.08 K

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

R

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.1 Gun Systems
Life Cycle Work Area	12. Repair

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

6.542 WYs

2. **Expenditures.**

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

\$ 830.56 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.1 Gun Systems
Life Cycle Work Area	12. Repair

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

6.542 WYs

2. **Expenditures.**

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

\$ 830.56 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.2 Guided Missiles
Life Cycle Work Area	12. Repair

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

**Note:**

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

4.693 WYs

2. **Expenditures.**

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

\$ 595.856 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.2 Guided Missiles
Life Cycle Work Area	12. Repair

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

4.693 WYs

2. **Expenditures.**

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

\$ 595.856 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

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

R

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.9 Fire Control
Life Cycle Work Area	12. Repair

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

**Note:**

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

1.088 WYs

2. **Expenditures.**

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

\$ 138.09 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.9 Fire Control
Life Cycle Work Area	12. Repair

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

\_\_\_\_\_ 1.088 WYs

2. **Expenditures.**

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

\$ 138.09 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	3.3 Surface
Life Cycle Work Area	12. Repair

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

**Note:**

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.781 WYs

2. **Expenditures.**

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

\$ 99.14 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	3.3 Surface
Life Cycle Work Area	12. Repair

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

**Note:**

**In-House Expenditures** are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.781 WYs

2. **Expenditures.**

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

\$ 99.14 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.1 Gun Systems
Life Cycle Work Area	13. Testing

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

**Note:**

**In-House Expenditures** are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

1.857 WYs

2. **Expenditures.**

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

\$ 235.71 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.1 Gun Systems
Life Cycle Work Area	13. Testing

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

Note:  
 In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

1.857 WYs

2. **Expenditures.**

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

\$ 235.71 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.2 Guided Missiles
Life Cycle Work Area	13. Testing

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.61 WYs

2. **Expenditures.**

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

\$ 77.39 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.2 Guided Missiles
Life Cycle Work Area	13. Testing

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

**Note:**  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.61 WYs

2. **Expenditures.**

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

\$ 77.39 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.8 Launchers
Life Cycle Work Area	13. Testing

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.08 WYs

2. **Expenditures.**

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

\$ 10.12 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.8 Launchers
Life Cycle Work Area	13. Testing

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.08 WYs

2. **Expenditures.**

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

\$ 10.12 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.9 Fire Control
Life Cycle Work Area	13. Testing

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

7.896 WYs

2. **Expenditures.**

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

\$ 1002.54 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.9 Fire Control
Life Cycle Work Area	13. Testing

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

**Note:**

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

7,896 WYs

2. **Expenditures.**

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

\$ 1002.54 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	3.3 Surface
Life Cycle Work Area	13. Testing

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.084 WYs

2. **Expenditures.**

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

\$ 10.62 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	3.3 Surface
Life Cycle Work Area	13. Testing

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.084 WYs

2. **Expenditures.**

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

\$ 10.62 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	1.1 Undersea
Life Cycle Work Area	16. Retirement

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

**Note:**

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

45.705 WYs

2. **Expenditures.**

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

\$ 5566.90 K

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

\$ 0 K R

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

\$ 59.04 K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	1.1 Undersea
Life Cycle Work Area	16. Retirement

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

45.705 WYs

2. **Expenditures.**

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

\$ 5566.90 K

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

\$ \_\_\_\_\_ K

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

\$ 59.04 K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.8 Launchers
Life Cycle Work Area	16. Retirement

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

**Note:**

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.006 WYs

2. **Expenditures.**

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

\$ 0.73 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	2.8 Launchers
Life Cycle Work Area	16. Retirement

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.006 WYs

2. **Expenditures.**

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

\$ 0.73 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	5.2 Radar Systems
Life Cycle Work Area	9. Modernization

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

**Note:**

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

14.036 WYs

2. **Expenditures.**

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

\$ 1641.26 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	5.2 Radar Systems
Life Cycle Work Area	9. Modernization

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

**Note:**  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

14,036 WYs

2. **Expenditures.**

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

\$ 1641.26 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	6.1 Sub. Nav. Sys.
Life Cycle Work Area	9. Modernization

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

28.442 WYs

2. **Expenditures.**

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

\$ 3325.85 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	6.1 Sub. Nav. Sys.
Life Cycle Work Area	9. Modernization

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

28,442 WYs

2. **Expenditures.**

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

\$ 3325.85 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	6.3 Surf. Ship Nav.
Life Cycle Work Area	9. Modernization

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

7.972 WYs

2. **Expenditures.**

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

\$ 932.21 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	6.3 Surf. Ship Nav.
Life Cycle Work Area	9. Modernization

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

7,972 WYs

2. **Expenditures.**

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

\$ 932.21 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	7.7 Air Traffic Cntrl
Life Cycle Work Area	9. Modernization

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

14.972 WYs

2. **Expenditures.**

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

\$ 1750.74 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	7.7 Air Traffic Cntrl
Life Cycle Work Area	9. Modernization

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

14.972 WYs

2. **Expenditures.**

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

\$ 1750.74 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	5.1 Sonar Sys
Life Cycle Work Area	12. Repair

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.006 WYs

2. **Expenditures.**

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

\$ .76 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	5.1 Sonar Sys
Life Cycle Work Area	12. Repair

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.006 WYs

2. **Expenditures.**

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

\$ .76 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	5.2 Radar Sys
Life Cycle Work Area	12. Repair

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

**Note:**

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

3.809 WYs

2. **Expenditures.**

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

\$ 227.11 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	5.2 Radar Sys
Life Cycle Work Area	12. Repair

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

**Note:**

**In-House Expenditures** are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

3,809 WYs

2. **Expenditures.**

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

\$ 227.11 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	6.1 Sub Nav Sys
Life Cycle Work Area	12. Repair

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

4.948 WYs

2. **Expenditures.**

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

\$ 453.21 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	6.1 Sub Nav Sys
Life Cycle Work Area	12. Repair

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

**Note:**

**In-House Expenditures** are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

4,948 WYs

2. **Expenditures.**

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

\$ 453.21 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	6.3 Surf Ship Nav
Life Cycle Work Area	12. Repair

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

7.737 WYs

2. **Expenditures.**

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

\$ 216.99 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	6.3 Surf Ship Nav
Life Cycle Work Area	12. Repair

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

**Note:**

**In-House Expenditures** are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

7.737 WYs

2. **Expenditures.**

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

\$ 216.99 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	7.3 Shipboard
Life Cycle Work Area	12. Repair

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

4.829 WYs

2. **Expenditures.**

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

\$ 65.76 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	7.3 Shipboard
Life Cycle Work Area	12. Repair

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

**Note:**  
**In-House Expenditures** are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

4.829 WYs

2. **Expenditures.**

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

\$ 65.76 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	7.6 Non-Tact Data
Life Cycle Work Area	12. Repair

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.004 WYs

2. **Expenditures.**

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

\$ 0.10 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	7.6 Non-Tact Data
Life Cycle Work Area	12. Repair

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

**Note:**

**In-House Expenditures** are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.004 WYs

2. **Expenditures.**

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

\$ 0.10 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	7.7 Air Traffic Cntrl
Life Cycle Work Area	12. Repair

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

**Note:**

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

3.060 WYs

2. **Expenditures.**

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

\$ 245.32 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	7.7 Air Traffic Cntrl
Life Cycle Work Area	12. Repair

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

**Note:**

**In-House Expenditures** are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

3,060 WYs

2. **Expenditures.**

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

\$ 245.32 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	5.1 Sonar Sys
Life Cycle Work Area	13. Testing

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.002 WYs

2. **Expenditures.**

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

\$ 0.25 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	5.1 Sonar Sys
Life Cycle Work Area	13. Testing

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.002 WYs

2. **Expenditures.**

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

\$ 0.25 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	5.2 Radar Sys
Life Cycle Work Area	13. Testing

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

1.789 WYs

2. **Expenditures.**

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

\$ 227.11 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	5.2 Radar Sys
Life Cycle Work Area	13. Testing

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

**Note:**  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

. 1.789 WYs

2. **Expenditures.**

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

\$ 227.11 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	6.1 Sub Nav Sys
Life Cycle Work Area	13. Testing

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

**Note:**

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

3.570 WYs

2. **Expenditures.**

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

\$ 453.21 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	6.1 Sub Nav Sys
Life Cycle Work Area	13. Testing

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

**Note:**

**In-House Expenditures** are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

3,570 WYs

2. **Expenditures.**

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

\$ 453.21 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	6.3 Surf Ship Nav
Life Cycle Work Area	13. Testing

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

1,709 WYs

2. **Expenditures.**

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

\$ 216.99 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	6.3 Surf Ship Nav
Life Cycle Work Area	13. Testing

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

**Note:**  
**In-House Expenditures** are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

**1. In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

1.709 WYs

**2. Expenditures.**

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

\$ 216.99 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	7.3 Shipboard
Life Cycle Work Area	13. Testing

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

**Note:**

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.518 WYs

2. **Expenditures.**

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

\$ 65.76 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	7.3 Shipboard
Life Cycle Work Area	13. Testing

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

**Note:**  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.518 WYs

2. **Expenditures.**

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

\$ 65.76 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K



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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	7.6 Non Tact Data
Life Cycle Work Area	13. Testing

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

**Note:**

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.001 WYs

2. **Expenditures.**

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

\$ 0.10 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	7.6 Non Tact Data
Life Cycle Work Area	13. Testing

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.001 WYs

2. **Expenditures.**

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

\$ 0.10 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	7.7 Air Traf Cntrl
Life Cycle Work Area	13. Testing

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

1.932 WYs

2. **Expenditures.**

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

\$ 245.32 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	7.7 Air Traf Cntrl
Life Cycle Work Area	13. Testing

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

1.932 WYs

2. **Expenditures.**

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

\$ 245.32 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	8.3 Elect Warfare
Life Cycle Work Area	9. Modernization

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

5.606 WYs

2. **Expenditures.**

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

\$ 655.48 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	8.3 Elect Warfare
Life Cycle Work Area	9. Modernization

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

5,606 WYs

2. **Expenditures.**

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

\$ 655.48 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	8.2 Countermeasures
Life Cycle Work Area	12. Repair

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

2.155 WYs

2. **Expenditures.**

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

\$ 273.65 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	8.2 Countermeasures
Life Cycle Work Area	12. Repair

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

Note:  
In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

2.155 WYs

2. **Expenditures.**

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

\$ 273.65 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	8.3 Elect Warfare
Life Cycle Work Area	12. Repair

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.406 WYs

2. **Expenditures.**

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

\$ 51.59 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	8.3 Elect Warfare
Life Cycle Work Area	12. Repair

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

**Note:**

**In-House Expenditures** are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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0.406 WYs

2. **Expenditures.**

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

\$ 51.59 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

K

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	8.2 Countermeasures
Life Cycle Work Area	13. Testing

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

Note:

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.235 WYs

2. **Expenditures.**

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

\$ 29.84 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	8.2 Countermeasures
Life Cycle Work Area	13. Testing

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

**Note:**

**In-House Expenditures** are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

**1. In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.235 WYs

**2. Expenditures.**

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

\$ 29.84 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	8.3 Elect Warfare
Life Cycle Work Area	13. Testing

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

**Note:**

In-House Expenditures are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years ( WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.657 WYs

2. **Expenditures.**

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

\$ 83.46 K

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

\$ 0 K R

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

\$ 0 K R

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

Activity Name	Norfolk Naval Shipyard
Functional Support Area	8.3 Elect Warfare
Life Cycle Work Area	13. Testing

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

**Note:**

**In-House Expenditures** are comprised of the Total Obligation Authority (TOA) for direct labor, direct material, direct travel, direct equipment, direct computer support, other direct support services and all overhead.

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

1. **In-House Work Years.** Provide the total number of in-house government employee (civilian and military) Work Years (WYs) for FY 1993 that were performed by your activity in this functional support area - life cycle work area. Work Years are to be consistent with those used in the preparation of inputs to the President's Budget.

0.657 WYs

2. **Expenditures.**

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

\$ 83.46 K

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

\$ \_\_\_\_\_ K

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

\$ \_\_\_\_\_ K

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM****INSTRUCTIONS FOR TAB B****A. Definitions**

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

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

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

Equipment includes resources used to support the operation of the site with a replacement value of \$500,000 or greater. Do not include land or buildings in this category. In reporting equipment, provide information to indicate the degree of portability of the equipment.

Class 3 Personal Property items ("plant equipment" or "equipment in place") by definition are highly portable and can be moved easily. Some Class 2 Installed Equipment, such as Main-frame computers, test stands and small hyperbaric chambers, require more extensive utilities support and assembly of components, but can be relocated without damage to the facility or equipment, and therefore are considered "moveable" assets. Other Class 2 items are so large and/or integral to the facility that houses them that major demolition and construction would be required to relocate them, and therefore are considered "fixed" assets.

**B. Instructions**

1. Complete Tab B for each piece of identified conventional facilities and equipment (as defined above) supporting all Functional Support Areas (products) marked in the matrix (Tab A, Tables 1.a-1.h).
2. Where appropriate, pieces of equipment may be aggregated for the purposes of completing Tab B. For example, inside shop equipment may be consolidated as a shop facility; cranes, special hull treatment enclosures, portable test equipment, etc.
3. Do not list drydocks as a facility or an equipment.

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

R

EQUIPMENT TITLE: (a) Machine Shop Propulsion Shaft Heavy-Duty Lathe

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

Propulsion shafting repairs for all types of surface ships, including the direct support of nuclear aircraft carrier drydocking work in Norfolk Naval Shipyard..

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable.

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 1,843,962

R

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

Gross Weight = 580,000 lbs.      Cube = 12x12x10'

R

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

"clean" electrical power

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

Special foundation

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

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, Norfolk NSYD is LANTFLT center for this capability.

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (a) Machine Shop Propulsion Shaft Heavy-Duty Lathe**

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

Propulsion shafting repairs for all types of surface ships, including the direct support of nuclear aircraft carrier drydocking work in Norfolk Naval Shipyard..

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

Moveable.

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

Replacement Value = \$ 1,500,000

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

Gross Weight = 300,000 lbs.      Cube = 15x15x100

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

"clean" electrical power

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

Special foundation

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

None

**8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.**

Extremely difficult to relocate, Norfolk NSYD is LANTFLT center for this capability.

June 24, 1994

CHANGES CONSISTENT WITH NAS

Activity Norfolk Naval Shipyard

UIC 00181

EQUIPMENT TITLE: (a) Machine Shop Propulsion Shaft Heavy-Duty Lathe

R

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

Truck delivery, on-site component assembly, 1983

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Surface Ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

1200 hrs/year

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

94: 1200, 95: 1200, 96: 1200, 97: 1200

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

2

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

26 hrs/yr = 0.01 MPD

R

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

Photo A

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (a) Machine Shop Propulsion Shaft Heavy-Duty Lathe

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

Truck delivery, on-site component assembly, 1983

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Surface Ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

1200 hrs/year

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

94: 1200, 95: 1200, 96: 1200, 97: 1200

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

2

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

.1 MPD

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

Photo A

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

R

EQUIPMENT TITLE: (b) Machine Shop Pump Post-Repair Operational Test Center

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

Post-repair full-operational (ships condition) steam, water, pre-heated feedwater, cooling testing of rotating equipment, including large steam driven pumps on nuclear aircraft carriers.

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Fixed

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 1,089,186

R

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

Gross Weight =                      Cube = 120'x160'x10'  
Fixed Facility, Gross Weight Meaningless

R

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

Water, steam, pre-heated feedwater, cooling water

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

Special foundations

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

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Impossible to relocate, lost ability to full load testing of rotating equipment for all type ships

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE:** (b) Machine Shop Pump Post-Repair Operational Test Center

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

Post-repair full-operational (ships condition) steam, water, pre-heated feedwater, cooling testing of rotating equipment, including large steam driven pumps on nuclear aircraft carriers.

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Fixed

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 5,000,000

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

Gross Weight = 500,000 lbs.      Cube = 120x160x10

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

Water, steam, pre-heated feedwater, cooling water

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

Special foundations

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

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Impossible to relocate, lost ability to full load testing of rotating equipment for all type ships

EQUIPMENT TITLE: (b) Machine Shop Pump Post-Repair Operational Test Center R

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

Delivery trucks, on-site assembly, yearly technology upgrades, parallel test stand ability, periodic modernization initiatives, 1994

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface Ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

32,842 hrs/year

R

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

94: 32,842, 95: 32,842, 96: 32,842, 97: 32,842

R

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

4

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

0.224 MPD

R

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

Photo B

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (b) Machine Shop Pump Post-Repair Operational Test Center

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

Delivery trucks, on-site assembly, yearly technology upgrades, parallel test stand ability, periodic modernization initiatives, 1994

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface Ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

2400 hrs/year

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

94: 2100, 95: 2300, 96: 2300, 97: 2300

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

4

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

0.1 MPD

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

Photo B

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

R

EQUIPMENT TITLE: (c) Machine Shop Horizontal Boring/Drilling/Milling Machine Tool

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

Large ship mechanical/structural component longitudinal machining (i.e., catapult components, weapon position railing)

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 1,723,155

R

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

Gross Weight = 195,000 lbs.                      Cube = 51'x25'x20'

R

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

None

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

Special foundation

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

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, LANTFLT component repair response time would decrease

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (c) Machine Shop Horizontal Boring/Drilling/Milling Machine Tool**

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

Large ship mechanical/structural component longitudinal machining (i.e., catapult components, weapon position railing)

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

Moveable

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

Replacement Value = \$ 2,500,000

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

Gross Weight = 134,000 lbs.      Cube = 30x20x15

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

None

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

Special foundation

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

None

**8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.**

Extremely difficult to relocate, LANTFLT component repair response time would decrease

June 24, 1994

CHANGES CONSISTENT WITH NAS

Activity Norfolk Naval Shipyard

UIC 00181

EQUIPMENT TITLE: (c) Machine Shop Horizontal Boring/Drilling/Milling Machine Tool

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

Delivery trucks, on-site assembly, 1944, rebuilt in 1986.

R

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface Ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

2000 hrs/year

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

94: 2000, 95: 2000, 96: 2000, 97: 2000

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

2

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

529.65 hrs/yr = .255 MPD

R

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

Photo C

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (c) Machine Shop Horizontal Boring/Drilling/Milling Machine Tool

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

Delivery trucks, on-site assembly, machine modernized/rebuilt in 1985.

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface Ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

2000 hrs/year

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

94: 2000, 95: 2000, 96: 2000, 97: 2000

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

2

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

0.1 MPD

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

Photo C

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

R

EQUIPMENT TITLE: (d) Machine Shop Surface Grinding Machine

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

Major mechanical propulsion component precision machining of mating surfaces (casings, foundations)

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 1,119,498

R

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

Gross Weight = 79,945 lbs.

Cube = 29'x12'x13'

R

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

None

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

Special foundation

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

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, LANTFLT reduced response time

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (d) Machine Shop Surface Grinding Machine**

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

Major mechanical propulsion component precision machining of mating surfaces (casings, foundations)

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

Moveable

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

Replacement Value = \$1,200,000

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

Gross Weight = 160,000 lbs.      Cube = 12x12x21

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

None

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

Special foundation

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

None

**8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.**

Extremely difficult to relocate, LANTFLT reduced response time

EQUIPMENT TITLE: (d) Machine Shop Surface Grinding Machine

R

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.  
delivery trucks, on-site assembly, 1967

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface Ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

300 hrs/year

R

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

94: 300, 95: 300, 96: 300, 97: 300

R

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

1

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

.014 MPD

R

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

Photo D

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (d) Machine Shop Surface Grinding Machine

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.  
delivery trucks, on-site assembly, 1967

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface Ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

500 hrs/year

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

94: 500, 95: 500, 96: 500, 97: 500

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

1

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

.1 MPD

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

Photo D

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

EQUIPMENT TITLE: (e) Machine Shop Horizontal Boring/Milling/Facing Machine

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

Largest East Coast capability for LANTFLT for machining propulsion shaft couplings, CV/CVN weapons/aircraft elevator doors/rails

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 1,110,588

R

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

Gross Weight = 224,388 lbs.                      Cube = 32'x15'x26'

R

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

None

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

Special foundation

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

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

extremely difficult to relocate, lost capability would directly impact LANTFLT response

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (e) Machine Shop Horizontal Boring/Milling/Facing Machine**

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

Largest East Coast capability for LANTFLT for machining propulsion shaft couplings, CV/CVN weapons/aircraft elevator doors/rails

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 5,000,000

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

Gross Weight = 300,000 lbs.      Cube = 35x10x35

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

None

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

Special foundation

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

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

extremely difficult to relocate, lost capability would directly impact LANTFLT response

R

EQUIPMENT TITLE: (e) Machine Shop Horizontal Boring/Milling/Facing Machine

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

Delivery trucks, on-site assembly, 1957

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface Ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

2033 hrs/year

R

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

94: 2033, 95: 2033, 96: 2033, 97: 2033

R

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

2

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

0.07 MPD

R

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

Photo E

EQUIPMENT TITLE: (e) Machine Shop Horizontal Boring/Milling/Facing Machine

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

Delivery trucks, on-site assembly, 1957

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface Ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

900 hrs/year

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

94: 900, 95: 900, 96: 900, 97: 900

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

2

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

0.1 MPD

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

Photo E

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

R

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

EQUIPMENT TITLE: (f) Machine Shop Vertical Boring Mill

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

Boring Propulsion Component bearings, propeller fits, large bearings, rudder stocks, and large combat system foundations, including nuclear aircraft carrier components worked during drydocking availabilities. East coast (LANTFLT) only capability.

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 722,418

R

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

Gross Weight = 500,000 lbs.      Cube = 22'x43'x31'

R

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

None

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

Special foundation

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

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, lost capability to directly reduce LANTFLT response/repairs

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (f) Machine Shop Vertical Boring Mill**

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

Boring Propulsion Component bearings, propeller fits, large bearings, rudder stocks, and large combat system foundations, including nuclear aircraft carrier components worked during drydocking availabilities. East coast (LANTFLT) only capability.

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

Moveable

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

Replacement Value = \$ 2,000,000

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

Gross Weight = 250,000 lbs.      Cube = 50x40x30

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

None

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

Special foundation

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

None

**8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.**

Extremely difficult to relocate, lost capability to directly reduce LANTFLT response/repairs

R

EQUIPMENT TITLE: (f) Machine Shop Vertical Boring Mill

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

delivery trucks, on-site assembly, 1962

R

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ships

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

244 hrs/year

R

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

94: 244, 95: 244, 96: 244, 97: 244

R

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

1

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

0.08 MPD

R

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

Photo F

EQUIPMENT TITLE: (f) Machine Shop Vertical Boring Mill

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

delivery trucks, on-site assembly, 1957

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ships

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

250 hrs/year

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

94: 250, 95: 250, 96: 250, 97: 250

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

1

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

0.1 MPD

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

Photo F

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

R

EQUIPMENT TITLE: (g) Machine Shop CNC Bar Stock Storage/Sawing Center

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

Storage, retrieval, cut-off, inventory control, inventory management of bar stock in support of machine shop, also storage of emergent bar stock material for LANTFLT emergent response

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 725,000

R

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

Gross Weight = 152,093 lbs      Cube = 90'x40'x15'

R

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

"Clean" electrical power

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

Special foundation

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

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, loss would reduce LANTFLT emergent/normal repair response

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (g) Machine Shop CNC Bar Stock Storage/Sawing Center**

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

Storage, retrieval, cut-off, inventory control, inventory management of bar stock in support of machine shop, also storage of emergent bar stock material for LANTFLT emergent response

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

Moveable

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

Replacement Value = \$ 750,000

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

Gross Weight = 500,000      Cube = 90x25x15

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

"Clean" electrical power

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

Special foundation

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

None

**8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.**

Extremely difficult to relocate, loss would reduce LANTFLT emergent/normal repair response

June 24, 1994

CHANGES CONSISTENT WITH NAS

R

Activity Norfolk Naval Shipyard

UIC 00181

EQUIPMENT TITLE: (g) Machine Shop CNC Bar Stock Storage/Sawing Center

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

delivery trucks, on-site assembly, 1994

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

N/A (installed 1994)

R

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

94: 1700, 95: 1700, 96: 1700, 97: 1700

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

2

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

0.029 MPD

R

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

Photo G

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (g) Machine Shop CNC Bar Stock Storage/Sawing Center

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.  
delivery trucks, on-site assembly, 1994

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

N/A

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

94: 1700, 95: 1700, 96: 1700, 97: 1700

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

2

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

0.1 MPD

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

Photo G

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

June 24, 1994

CHANGES CONSISTENT WITH NAS

Activity Norfolk Naval Shipyard

UIC 00181

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

R

EQUIPMENT TITLE: (h) Machine Shop CNC Vertical Turning Center

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

Machine/repair rotating parts, weight handling parts, precision fit pipe, and integral joint designs

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 960,162

R

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

Gross Weight = 73,870 lbs.      Cube = 20'x20'x16'

R

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

"Clean" electrical power

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

Special foundation

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

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, loss of capability would reduce response time to LANTFLT emergent response and normal repairs/shipalts

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (h) Machine Shop CNC Vertical Turning Center**

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

Machine/repair rotating parts, weight handling parts, precision fit pipe, and integral joint designs

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

Moveable

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

Replacement Value = \$ 1,200,000

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

Gross Weight = 120,000 lbs.      Cube = 10x10x10

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

"Clean" electrical power

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

Special foundation

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

None

**8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.**

Extremely difficult to relocate, loss of capability would reduce response time to LANTFLT emergent response and normal repairs/shipalts

June 24, 1994

CHANGES CONSISTENT WITH NAS

Activity Norfolk Naval Shipyard

UIC 00181

EQUIPMENT TITLE: (h) Machine Shop CNC Vertical Turning Center

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

Delivery trucks, on-site assembly, 1994

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

N/A (installed 1994)

R

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

1200 hrs/year

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

1

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

0.1 MPD (based on similar data from (i) data sheet)

R

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

Photo H

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (h) Machine Shop CNC Vertical Turning Center

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

Delivery trucks, on-site assembly, 1994

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

N/A

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

1200 hrs/year

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

1

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

0.1 MPD

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

Photo H

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard



EQUIPMENT TITLE: (i) Machine Shop CNC Horizontal Boring Multi-tool/programmable Center

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

Precision and critical alignment repairs to major propulsion/mechanical components (pump casings, turbine casings, weld prep joints, CNC contouring surfaces)

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 1,077,211

R

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

Gross Weight = 86,920 lbs.      Cube = 35'x15.3'x14.7' (per mfg. dwg.)

R

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

"Clean" electrical power

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

Special foundation

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

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, loss would reduce capability for LANTFLT emergent repair/normal repair of critical/complex alignment machining

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (i) Machine Shop CNC Horizontal Boring Multi-tool/programmable Center**

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

Precision and critical alignment repairs to major propulsion/mechanical components (pump casings, turbine casings, weld prep joints, CNC contouring surfaces)

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

Moveable

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

Replacement Value = \$ 1,500,000

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

Gross Weight = 180,000 lbs.      Cube = 25x40x25

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

"Clean" electrical power

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

Special foundation

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

None

**8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.**

Extremely difficult to relocate, loss would reduce capability for LANTFLT emergent repair/normal repair of critical/complex alignment machining

June 24, 1994  
CHANGES CONSISTENT WITH NAS

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (i) Machine Shop CNC Horizontal Boring Multi-tool/programmable Center

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

Delivery trucks, on-site assembly, 1994

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

N/A (installed 1994)

R

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

94: 1500, 95: 1500, 96: 1500, 97: 1500 hrs/year

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

1

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

0.1 MPD

R

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

Photo I

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (i) Machine Shop CNC Horizontal Boring Multi-tool/programmable Center

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

Delivery trucks, on-site assembly, 1994

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

N/A

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

94: 1500, 95: 1500, 96: 1500, 97: 1500 hrs/year

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

1

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

0.1 MPD

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

Photo I

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

EQUIPMENT TITLE: (j) Machine Shop Plating Facility

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

Various electrical/mechanical component electroplating including very large chrome plating (propulsion shafts), this is a LANTFLT emergent response/normal repair capability

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Fixed

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 11,588,441

R

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

Gross Weight =                      Cube = 112'x167'x60'  
Fixed Facility, Gross Weight Meaningless

R

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

Rectified power

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

Special foundations, non-ferrous materials, spill containment

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

Industrial Waste Water Treatment Plant (IWTP) must be collocated, air scrubbing. Costs in item #3 exclude the replacement of the IWTP.

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Impossible to relocate

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (j) Machine Shop Plating Facility**

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

Various electrical/mechanical component electroplating including very large chrome plating (propulsion shafts), this is a LANTFLT emergent response/normal repair capability

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

Fixed

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

Replacement Value = \$ 30,000,000

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

Gross Weight = 500,000 lbs.      Cube = 100x100x30

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

Rectified power

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

Special foundations, non-ferrous materials, spill containment

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

Industrial Waste Water Treatment Plant (IWTP) must be collocated, air scrubbing. Costs in item #3 exclude the replacement of the IWTP.

**8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.**

Impossible to relocate

EQUIPMENT TITLE: (j) Machine Shop Plating Facility

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

Delivery trucks, on-site assembly, yearly upgrades, periodic MILCON modernizations, 1994

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ships, gun systems, guide missiles, launchers, fire control, combat systems, sonar, radar, navigation, crew equipment

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

9367 hrs/year

R

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

94: 9367, 95: 9367, 96: 9367, 97: 9367

R

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

5

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

0.27 MPD

R

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

Note that the photo shows the top of a propulsion shaft plating tank. Only one of 25 tanks in the Electroplating facility is shown.

Photo J

**EQUIPMENT TITLE: (j) Machine Shop Plating Facility**

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

Delivery trucks, on-site assembly, yearly upgrades, periodic MILCON modernizations, 1994

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ships, gun systems, guide missiles, launchers, fire control, combat systems, sonar, radar, navigation, crew equipment

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

1700 hrs/year

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

94: 1700, 95: 1700, 96: 1700, 97: 1700

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

5

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

0.5 MPD

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

Note that the photo shows the top of a propulsion shaft plating tank. Only one of 25 tanks in the Electroplating facility is shown.

Photo J

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

EQUIPMENT TITLE: (k) Pipefitting Shop Large (14") Pipe Bender

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

Large pipe/tube bending from 6" to 14", largest LANTFLT support capability

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 220,895

R

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

Gross Weight = 64,000 lbs.      Cube = 28'x10'x6'

R

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

None

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

Special foundation

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

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, loss of capability would directly affect LANTFLT repair (emergent/normal) capability by reduced response time

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (k) Pipefitting Shop Large (14") Pipe Bender**

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

Large pipe/tube bending from 6" to 14", largest LANTFLT support capability

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

Moveable

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

Replacement Value = \$ 1,500,000

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

Gross Weight = 100,000                      Cube = 20x10x30

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

None

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

Special foundation

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

None

**8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.**

Extremely difficult to relocate, loss of capability would directly affect LANTFLT repair (emergent/normal) capability by reduced response time

R

EQUIPMENT TITLE: (k) Pipefitting Shop Large (14") Pipe Bender

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

Delivery truck, on-site assembly, 1948

R

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

38 hrs/year

R

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

94: 38, 95: 38, 96: 38, 97: 38

R

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

2

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

0 MPD

R

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

Photo K

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (k) Pipefitting Shop Large (14") Pipe Bender

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

Delivery truck, on-site assembly, 1983

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

60 hrs/year

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

94: 55, 95: 50, 96: 55, 97: 60

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

2

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

0.1 MPD

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

Photo K

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

R

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

EQUIPMENT TITLE: (I) Pipefitting Shop CNC 3" Pipe Bender

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

Precision repeated pipe bending required from CAD developed data

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 652,776

R

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

Gross Weight = 19,000 lbs.                      Cube = 26'x9.5'x6.5'

R

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

"Clean" electrical power

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

Special foundation

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

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, loss of capability would reduce productivity of repeated precision pipe bends

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

EQUIPMENT TITLE: (1) Pipefitting Shop CNC 3" Pipe Bender

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

Precision repeated pipe bending required from CAD developed data

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 650,000

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

Gross Weight = 75,000 lbs.                      Cube = 10x5x25

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

"Clean" electrical power

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

Special foundation

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

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, loss of capability would reduce productivity of repeated precision pipe bends

June 24, 1994

CHANGES CONSISTENT WITH NAS

R

Activity Norfolk Naval Shipyard

UIC 00181

EQUIPMENT TITLE: (I) Pipefitting Shop CNC 3" Pipe Bender

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

Delivery trucks, on-site assembly, 1990

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

120 hrs/year

R

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

94: 120, 95: 120, 96: 120, 97: 120

R

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

2

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

0.14 MPD

R

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

Photo L

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (I) Pipefitting Shop CNC 3" Pipe Bender

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

Delivery trucks, on-site assembly, 1990

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

800 hrs/year

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

94: 800, 95: 800, 96: 900, 97: 900

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

2

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

0.1 MPD

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

Photo L

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

K

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

EQUIPMENT TITLE: (m) Pipefitting Shop CNC Pipe Tee/Branch Extrusion/Cutting Center (T-Drill)

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

Manufacture of integral pipe branches with the pipe assembly, only east coast (LANTFLT) capability

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 421,549

R

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

Gross Weight = 7,030 lbs.  
(combined)

Cube = 31'x14'x9.8' (facility combined cube)

R

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

"Clean" electrical power

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

Special foundation

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

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, loss of capability reduces emergent/normal LANTFLT response time and quality of product

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE:** (m) Pipefitting Shop CNC Pipe Tee/Branch Extrusion/Cutting Center (T-Drill)

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

Manufacture of integral pipe branches with the pipe assembly, only east coast (LANTFLT) capability

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 500,000

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

Gross Weight = 60,000 lbs.                      Cube = 20x10x10

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

"Clean" electrical power

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

Special foundation

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

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, loss of capability reduces emergent/normal LANTFLT response time and quality of product

June 24, 1994

CHANGES CONSISTENT WITH NAS

K

Activity Norfolk Naval Shipyard

UIC 00181

EQUIPMENT TITLE: (m) Pipefitting Shop CNC Pipe Tee/Branch Extrusion/Cutting Center (T-Drill)

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

Delivery trucks, upgrades in capability, 1989

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

800 hrs/year

R

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

94: 800, 95: 800, 96: 800, 97: 800

R

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

1

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

0.01 MPD

R

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

Photo M

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (m) Pipefitting Shop CNC Pipe Tee/Branch Extrusion/Cutting Center (T-Drill)

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

Delivery trucks, upgrades in capability, 1989

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

600 hrs/year

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

94: 500, 95: 400, 96: 450, 97: 500

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

1

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

0.1 MPD

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

Photo M

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

R

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

EQUIPMENT TITLE: (n) Structural Shop Large Press 750-ton

R

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

Forging of non-stock, unusual structural (hull) components

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Fixed

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 396,317

R

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

Gross Weight = 120,000 lbs.      Cube = 15'x5'x17.7'

R

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

None

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)

Special foundation

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Impossible to relocate, loss would reduce productivity of special component requirements

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (n) Structural Shop Large Press 800-ton**

**1. State the primary purpose(s) of the facility/equipment.**

Forging of non-stock, unusual structural (hull) components

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

Fixed

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

Replacement Value = \$ 500,000

**4. Provide the gross weight and cube of the facility/equipment.**

Gross Weight = 100,000 lbs.                      Cube = 10x10x30

**5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.**

None

**6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)**

Special foundation

**7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).**

None

**8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.**

Impossible to relocate, loss would reduce productivity of special component requirements

June 24, 1994

CHANGES CONSISTENT WITH NAS

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (n) Structural Shop Large Press 750-ton

R

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Delivery trucks, on-site assembly, 1988

R

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

28 hrs/year

R

12. Provide the projected utilization data out to FY-1997.

94: 28, 95: 28, 96: 28, 97: 28

R

13. What is the approximate number of personnel used to operate the facility/equipment.

3

14. What is the approximate number of personnel needed to maintain the equipment.

0.02 MPD

R

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo N

EQUIPMENT TITLE: (n) Structural Shop Large Press 800-ton

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Delivery trucks, on-site assembly, 1983

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

400 hrs/year

12. Provide the projected utilization data out to FY-1997.

94: 400, 95: 300; 96: 300, 97: 300

13. What is the approximate number of personnel used to operate the facility/equipment.

3

14. What is the approximate number of personnel needed to maintain the equipment.

0.1 MPD

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo N

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

R

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

EQUIPMENT TITLE: (o) Structural Shop Large Plate Roll Bender

1. State the primary purpose(s) of the facility/equipment.

Fabrication of emergent LANTFLT hull piece replacement, hull repairs, structural ship alteration fabrication

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 388,175 (Rebuild)

R

4. Provide the gross weight and cube of the facility/equipment.

Gross Weight = 100,000 lbs.      Cube = 56'x22'x18'

R

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

None

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)

Special foundation

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, loss of capability would directly affect LANTFLT capability to make emergent hull repairs

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (o) Structural Shop Large Plate Roll Bender**

**1. State the primary purpose(s) of the facility/equipment.**

Fabrication of emergent LANTFLT hull piece replacement, hull repairs, structural ship alteration fabrication

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

Moveable

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

Replacement Value = \$ 700,000

**4. Provide the gross weight and cube of the facility/equipment.**

Gross Weight = 300,000 lbs.                      Cube = 10x50x20

**5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.**

None

**6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)**

Special foundation

**7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).**

None

**8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.**

Extremely difficult to relocate, loss of capability would directly affect LANTFLT capability to make emergent hull repairs

R

EQUIPMENT TITLE: (o) Structural Shop Large Plate Roll Bender

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Delivery trucks, on-site assembly, 1940, rebuilt 1985

R

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

5 hrs/year

R

12. Provide the projected utilization data out to FY-1997.

94: 5, 95: 5, 96: 5, 97: 5

R

13. What is the approximate number of personnel used to operate the facility/equipment.

3

14. What is the approximate number of personnel needed to maintain the equipment.

0.01 MPD

R

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo O

EQUIPMENT TITLE: (o) Structural Shop Large Plate Roll Bender

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Delivery trucks, on-site assembly, modernized/rebuilt 1985

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

400 hrs/year

12. Provide the projected utilization data out to FY-1997.

94: 400, 95: 400, 96: 400, 97: 400

13. What is the approximate number of personnel used to operate the facility/equipment.

3

14. What is the approximate number of personnel needed to maintain the equipment.

0.1 MPD

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo O

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

R

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

EQUIPMENT TITLE: (p) Structural Shop Anchor Chain Tumbler (Surface Preparation) Machine

1. State the primary purpose(s) of the facility/equipment.

Tumble blast the surface of all fleet types of anchor chain, LANTFLT capability

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 302,015

R

4. Provide the gross weight and cube of the facility/equipment.

Gross Weight = 127,000 lbs.      Cube = 25'x15'x30'

R

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

None

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)

Special foundation

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, loss would reduce response time to LANTFLT repairs

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE:** (p) Structural Shop Anchor Chain Tumbler (Surface Preparation) Machine

1. State the primary purpose(s) of the facility/equipment.

Tumble blast the surface of all fleet types of anchor chain, LANTFLT capability

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 500,000

4. Provide the gross weight and cube of the facility/equipment.

Gross Weight = 100,000 lbs.      Cube = 10x20x40

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

None

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)

Special foundation

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, loss would reduce response time to LANTFLT repairs

June 24, 1994  
CHANGES CONSISTENT WITH NAS

R

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (p) Structural Shop Anchor Chain Tumbler (Surface Preparation) Machine

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Delivery trucks, on-site assembly, 1967

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

51 hrs/year

12. Provide the projected utilization data out to FY-1997.

94: 51, 95: 51, 96: 51, 97: 51

R

13. What is the approximate number of personnel used to operate the facility/equipment.

3

14. What is the approximate number of personnel needed to maintain the equipment.

0.026 MPD

R

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo P

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (p) Structural Shop Anchor Chain Tumbler (Surface Preparation) Machine

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Delivery trucks, on-site assembly, 1967

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

400 hrs/year

12. Provide the projected utilization data out to FY-1997.

94: 400, 95: 400, 96: 400, 97: 400

13. What is the approximate number of personnel used to operate the facility/equipment.

3

14. What is the approximate number of personnel needed to maintain the equipment.

0.1 MPD

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo P

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

June 24, 1994

CHANGES CONSISTENT WITH NAS

R

Activity Norfolk Naval Shipyard

UIC 00181

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

EQUIPMENT TITLE: (q) Structural Shop CNC Plasma-Oxy Plate Cutting Center

1. State the primary purpose(s) of the facility/equipment.

Small to large detail plate layout, cutting for all structural fabrications (repairs/ship alterations)

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 1,217,249

R

4. Provide the gross weight and cube of the facility/equipment.

Gross Weight = 8,000 lbs.      Cube = 60'x25'x6'  
Empty (no fluid); 93,656 lbs. full (with fluid)

R

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

None

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)

Special foundation

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, loss of capability would reduce emergent/normal repair response to LANTFLT

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (g) Structural Shop CNC Plasma-Oxy Plate Cutting Center**

1. State the primary purpose(s) of the facility/equipment.

Small to large detail plate layout, cutting for all structural fabrications (repairs/ship alterations)

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 1,100,000

4. Provide the gross weight and cube of the facility/equipment.

Gross Weight = 100,000 lbs.      Cube = 30x30x10

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

None

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)

Special foundation

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, loss of capability would reduce emergent/normal repair response to LANTFLT

June 24, 1994  
CHANGES CONSISTENT WITH NAS

R

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (q) Structural Shop CNC Plasma-Oxy Plate Cutting Center

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Delivery trucks, on-site assembly, 1990

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

1700 hrs/year

12. Provide the projected utilization data out to FY-1997.

94: 1700, 95: 1700, 96: 1700, 97: 1700

13. What is the approximate number of personnel used to operate the facility/equipment.

1

14. What is the approximate number of personnel needed to maintain the equipment.

0.028 MPD

R

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo Q

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (q) Structural Shop CNC Plasma-Oxy Plate Cutting Center

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Delivery trucks, on-site assembly, 1990

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

1700 hrs/year

12. Provide the projected utilization data out to FY-1997.

94: 1700, 95: 1700, 96: 1700, 97: 1700

13. What is the approximate number of personnel used to operate the facility/equipment.

1

14. What is the approximate number of personnel needed to maintain the equipment.

0.1 MPD

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo Q

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

EQUIPMENT TITLE: (r) Drydock Service SSN-Type Drydock Enclosure

1. State the primary purpose(s) of the facility/equipment.

Submarine drydock work enclosure with controlled humidity/temperature

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 26,190,402

R

4. Provide the gross weight and cube of the facility/equipment.

Gross Weight = 462,000      Cube = 41'x65'x63' times 9 units  
(times 9 units)

R

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

None

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)

None

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (r) Drydock Service SSN-Type Drydock Enclosure**

**1. State the primary purpose(s) of the facility/equipment.**

Submarine drydock work enclosure with controlled humidity/temperature

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

Moveable

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

Replacement Value = \$ 20,000,000

**4. Provide the gross weight and cube of the facility/equipment.**

Gross Weight = 500,000      Cube = 60x60x300

**5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.**

None

**6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)**

None

**7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).**

None

**8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.**

Extremely difficult to relocate

EQUIPMENT TITLE: (r) Drydock Service SSN-Type Drydock Enclosure

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Delivery trucks, on-site assembly, 1988

R

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

1700 hrs/year

12. Provide the projected utilization data out to FY-1997.

94: 300, 95: 300, 96: 300, 97: 300

13. What is the approximate number of personnel used to operate the facility/equipment.

1

14. What is the approximate number of personnel needed to maintain the equipment.

0.0 MPD

R

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo R

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (r) Drydock Service SSN-Type Drydock Enclosure

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Delivery trucks, on-site assembly, 1989

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

1700 hrs/year

12. Provide the projected utilization data out to FY-1997.

94: 300, 95: 300, 96: 300, 97: 300

13. What is the approximate number of personnel used to operate the facility/equipment.

1

14. What is the approximate number of personnel needed to maintain the equipment.

0.1 MPD

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo R

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

R

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

EQUIPMENT TITLE: (s) Laboratory Analysis 200-ton Tensile/Analysis Test Machine

1. State the primary purpose(s) of the facility/equipment.

Laboratory materials testing/certification

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 225,934

R

4. Provide the gross weight and cube of the facility/equipment.

Gross Weight = 20,000 lbs.      Cube = 4'x5'x21'

R

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

"Clean" electrical power

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)

Special foundation, special installation

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

Temperature

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate, loss of capability would affect ship product quality and ship work safety

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (s) Laboratory Analysis 200-ton Tensile/Analysis Test Machine**

**1. State the primary purpose(s) of the facility/equipment.**

Laboratory materials testing/certification

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

Moveable

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

Replacement Value = \$ 500,000

**4. Provide the gross weight and cube of the facility/equipment.**

Gross Weight = 50,000 lbs.      Cube = 10x10x20

**5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.**

"Clean" electrical power

**6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, shielding, hardening, etc.)**

Special foundation, special installation

**7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).**

Temperature

**8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.**

Extremely difficult to relocate, loss of capability would affect ship product quality and ship work safety

June 24, 1994

CHANGES CONSISTENT WITH NAS

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (s) Laboratory Analysis 200-ton Tensile/Analysis Test Machine

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Delivery trucks, on-site difficult installation and assembly, 1994

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

N/A (installed 1994)

R

12. Provide the projected utilization data out to FY-1997.

300 hrs/year

13. What is the approximate number of personnel used to operate the facility/equipment.

1

14. What is the approximate number of personnel needed to maintain the equipment.

0.009 MPD

R

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo S

**EQUIPMENT TITLE: (s) Laboratory Analysis 200-ton Tensile/Analysis Test Machine**

**9. Indicate how and when the facility/equipment was transported and/or constructed at the site.**

**Delivery trucks, on-site difficult installation and assembly, 1994**

**10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).**

**Undersea, Surface ship**

**11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.**

**N/A**

**12. Provide the projected utilization data out to FY-1997.**

**300 hrs/year**

**13. What is the approximate number of personnel used to operate the facility/equipment.**

**1**

**14. What is the approximate number of personnel needed to maintain the equipment.**

**0.1 MPD**

**15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.**

**Photo S**

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

K

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

EQUIPMENT TITLE: (t) Rigging Shop Cable/Pendent Pull Test Machine

1. State the primary purpose(s) of the facility/equipment.

Cable/pendent pull testing/certification for ship cable product quality and ship work safety, LANTFLT capability for carrier and amphibious type elevator cable testing/certification

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 115,706

R

4. Provide the gross weight and cube of the facility/equipment.

Gross Weight = 10,000 lbs. Cube = 60'x6'x6'

R

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

None

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)

Special foundation

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Difficult to relocate, loss of capability would be loss of LANTFLT emergent/normal cable repairs

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (t) Rigging Shop Cable/Pendent Pull Test Machine**

**1. State the primary purpose(s) of the facility/equipment.**

**Cable/pendent pull testing/certification for ship cable product quality and ship work safety, LANTFLT capability for carrier and amphibious type elevator cable testing/certification**

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

**Moveable**

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

**Replacement Value = \$ 500,000**

**4. Provide the gross weight and cube of the facility/equipment.**

**Gross Weight = 30,000 lbs. Cube = 5x5x40**

**5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.**

**None**

**6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)**

**Special foundation**

**7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).**

**None**

**8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.**

**Difficult to relocate, loss of capability would be loss of LANTFLT emergent/normal cable repairs**

EQUIPMENT TITLE: (t) Rigging Shop Cable/Pendent Pull Test Machine

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Delivery trucks, on-site assembly, 1979

R

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

240 hrs/year

R

12. Provide the projected utilization data out to FY-1997.

94: 240, 95: 240, 96: 240, 97: 240

R

13. What is the approximate number of personnel used to operate the facility/equipment.

1

14. What is the approximate number of personnel needed to maintain the equipment.

0.05 MPD

R

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo T

EQUIPMENT TITLE: (t) Rigging Shop Cable/Pendent Pull Test Machine

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Delivery trucks, on-site assembly, 1980

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

800 hrs/year

12. Provide the projected utilization data out to FY-1997.

94: 700, 95: 600, 96: 600, 97: 700

13. What is the approximate number of personnel used to operate the facility/equipment.

1

14. What is the approximate number of personnel needed to maintain the equipment.

0.1 MPD

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo T

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

EQUIPMENT TITLE: (u) Crane Shop Hammerhead-Type Waterfront Crane

1. State the primary purpose(s) of the facility/equipment.

Hammerhead crane weight handling capability consists of two main hoist systems that can lift and accurately position loads of up to 350 long tons, with a 50 long ton auxiliary hoist, and a 15 ton portal crane atop, and a 20 ton bridge crane. This crane provides the following capability: Receipt, storage, and shipout of large naval special purpose components, (b) Special underwater explosive R&D project support, (c) Commercial shipyard lifting requirements, (d) Commercial shipyard special purpose lifting requirements, (e) Aircraft elevator work, (f) Naval supply center lift requirements, (g) Military Sealift Command lift requirements. LANTFLT capability.

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Fixed

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 50,000,000

4. Provide the gross weight and cube of the facility/equipment.

Gross Weight = 5,098,000 lbs.      Cube = 250x210x210

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

Rectified power

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)

Special foundation

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

None

June 24, 1994

Activity Norfolk Naval Shipyard

UIC 00181

EQUIPMENT TITLE: (u) Crane Shop Hammerhead-Type Waterfront Crane

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

This crane is the largest crane of this type on the east coast and can work both waterborne and land based requirements. Impossible to relocate, extremely difficult to replicate.

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Multiple delivery trucks and waterborne delivery, on-site piece by piece assembly, yearly upgrades, interim modernization initiatives, 1940

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, surface ship

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

1600 hrs/year

12. Provide the projected utilization data out to FY-1997.

94: 1600, 95: 1600, 96: 1600, 97: 1600

13. What is the approximate number of personnel used to operate the facility/equipment.

4

14. What is the approximate number of personnel needed to maintain the equipment.

1 MPD

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo U

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (v) Industrial Laboratory**

**1. State the primary purpose(s) of the facility/equipment.**

**Largest Naval Shipyard material test Laboratory in the Navy. Only accredited facility for performing metals, oils, mechanical property and environmental testing on the East Coast. Recently recommended as the Regional Test Laboratory for the eastern Virginia region.**

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

**Fixed**

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

**Replacement Value = \$ 25,000,000**

**4. Provide the gross weight and cube of the facility/equipment.**

**Gross Weight = 1,000,000 lbs.      Cube = 120x60x45**

**5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.**

**Surge protection**

**6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)**

**Special foundations, shielding, exhaust hoods.**

**7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).**

**Regulated temperature and humidity. Air exhaust systems required to support analysis and testing.**

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (v) Industrial Laboratory

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Impossible to relocate. Great expense involved, loss of accreditations and certifications. Major test labs are a national asset. Loss of NAVSEA's largest environmental test lab would result in greatly increased cost of testing for many years.

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Constructed in the fifties.

Modernization 1994.

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface Ships, Weapons systems, Environmental programs

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

Facility utilized 363 days/year, by an average of 55 persons. Seventy-five percent of utilization is day shift. Twenty percent second shift and five percent third shift.

12. Provide the projected utilization data out to FY-1997.

94: 363 days, 95: 363 days, 96: 363 days, 97: 363 days

13. What is the approximate number of personnel used to operate the facility/equipment.

50

14. What is the approximate number of personnel needed to maintain the equipment.

1 MPD

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo V (The structure and the modern equipment within it are shown.)

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

EQUIPMENT TITLE: (w) Industrial Waste Water Treatment Plant (IWTP)

1. State the primary purpose(s) of the facility/equipment.

Treatment to destruction of chemical waste waters.

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Fixed.

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 10,000,000

4. Provide the gross weight and cube of the facility/equipment.

Gross Weight = N/A

Cube = 320'x220'x24'

R

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

None

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)

Special foundations, corrosion-resistant materials, spill containment

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

Meets requirements of Virginia Pollution Discharge Elimination System (VPDES) permit onsite Industrial Waste Water Treatment Plant capability, air emission controls, SPCC.

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (w) Industrial Waste Water Treatment Plant (IWTP)**

**1. State the primary purpose(s) of the facility/equipment.**

Treatment to destruction of chemical waste waters.

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

Fixed.

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

Replacement Value = \$ 10,000,000

**4. Provide the gross weight and cube of the facility/equipment.**

Gross Weight = 10,000,000 lbs.      Cube = 150x150x50

**5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.**

None

**6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)**

Special foundations, corrosion-resistant materials, spill containment

**7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).**

Meets requirements of Virginia Pollution Discharge Elimination System (VPDES) permit onsite Industrial Waste Water Treatment Plant capability, air emission controls, SPCC.

June 24, 1994

CHANGES CONSISTENT WITH NAS

R

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (w) Industrial Waste Water Treatment Plant (IWTP)

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Impossible to relocate.

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

The facility was built in 1977. Delivery trucks, on-site assembly, yearly upgrades, periodic modernizations.

R

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ships, gun systems, guided missiles, launchers, fire control, combat systems, sonar, radar, navigation, crew equipment

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

8,736 hrs/year (24 hours/day, 7 days/week, 52 weeks/year)

R

12. Provide the projected utilization data out to FY-1997.

94: 8736, 95: 8736, 96: 8736, 97: 8736

13. What is the approximate number of personnel used to operate the facility/equipment.

14

14. What is the approximate number of personnel needed to maintain the equipment.

3.0 MPD

R

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo W (The two photos illustrate the extensive equipment required outside the building as well as one of the several tanks on the interior).

EQUIPMENT TITLE: (w) Industrial Waste Water Treatment Plant (IWTP)

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Impossible to relocate.

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Delivery trucks, on-site assembly, yearly upgrades, periodic modernizations.

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface ships, gun systems, guided missiles, launchers, fire control, combat systems, sonar, radar, navigation, crew equipment

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

8,736 hrs/year

12. Provide the projected utilization data out to FY-1997.

94: 8736, 95: 8736, 96: 8736, 97: 8736

13. What is the approximate number of personnel used to operate the facility/equipment.

14

14. What is the approximate number of personnel needed to maintain the equipment.

6.0 MPD

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo W (The two photos illustrate the extensive equipment required outside the building as well as one of the several tanks on the interior).

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

 TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard

EQUIPMENT TITLE: (x) Hazardous Waste Storage/Disposal Facility

1. State the primary purpose(s) of the facility/equipment.

To store hazardous waste greater than 90 days but less than 1 year.

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Fixed.

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 1,000,000

R

4. Provide the gross weight and cube of the facility/equipment.

Gross Weight = N/A                      Cube = 120'x83'x24'

R

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

Security entry and exit; communication to entry ways and throughout the site.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)

Permitted by the state; 5 year process. \$50K/yr maintenance.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

Building design with sloping, elevation, permit/regulations driven

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Extremely difficult to relocate. Increase in labor and material cost to remove waste within 90 days, increased disposal cost, transportation cost. Would also impact activities (tenants) which we support; would be unable to store and then dispose of their wastes.

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Facility constructed in 1951. In 1987 NNSY began using it for HW storage as stated in HW Management facility permit; upgrade for permit 1992 complete. R

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

St. Julien's Creek activities: SIMA, Cryogenic, Inactive Ships, Surface Ships, Subs; Shop support; large unit generation from contractors.

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (x) Hazardous Waste Storage/Disposal Facility**

**1. State the primary purpose(s) of the facility/equipment.**

To store hazardous waste greater than 90 days but less than 1 year.

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

**Fixed.**

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

Replacement Value = \$ 100,000,000

**4. Provide the gross weight and cube of the facility/equipment.**

Gross Weight = 10,000,000 lbs.      2400 sq. ft.

**5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.**

Security entry and exit; communication to entry ways and throughout the site.

**6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)**

Permitted by the state; 5 year process. \$50K/yr maintenance.

**7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).**

Building design with sloping, elevation, permit/regulations driven

**8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.**

Extremely difficult to relocate. Increase in labor and material cost to remove waste within 90 days, increased disposal cost, transportation cost. Would also impact activities (tenants) which we support; would be unable to store and then dispose of their wastes.

**9. Indicate how and when the facility/equipment was transported and/or constructed at the site.**

Original site 1987; upgrade for permit 1992 complete.

**10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).**

St. Julien's Creek activities: SIMA, Cryogenic, Inactive Ships, Surface Ships, Subs; Shop support; large unit generation from contractors.

June 24, 1994

CHANGES CONSISTENT WITH NAS

R

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (x) Hazardous Waste Storage/Disposal Facility

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

680 drums/month for 1992-1994

R

12. Provide the projected utilization data out to FY-1997.

750 drums/month (permit increase to 750 drums of storage capability for the facility.

R

13. What is the approximate number of personnel used to operate the facility/equipment.

2.0

14. What is the approximate number of personnel needed to maintain the equipment.

0.1 MPD

R

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo X (Depicts the covered drum storage area.)

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (x) Hazardous Waste Storage/Disposal Facility

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

500 dms/month

12. Provide the projected utilization data out to FY-1997.

750 dms/month

13. What is the approximate number of personnel used to operate the facility/equipment.

2.0

14. What is the approximate number of personnel needed to maintain the equipment.

2.0 MPD

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo X (Depicts the covered drum storage area.)

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE:** (y) Bridge Cranes (5)  
Bldg. #163, 80 Ton Bridge Crane  
Bldg. #171, 150 Ton Bridge Crane  
Bldg. #171, 80 Ton Bridge Crane  
Bldg. #268, 60 Ton Bridge Crane  
Bldg. #1539, 50 Ton Bridge Crane

1. State the primary purpose(s) of the facility/equipment.  
To provide weight handling capability to various shops located throughout the shipyard. Bridge cranes provide diverse capabilities such as: assistance in pouring of molten metals, positioning of precision equipment, lifting and placement of propulsion shafts, and handling of radioactive materials. They range in capacity from 50 to 150 tons.

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Fixed

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 500,000 to \$1,500,000 (each, dependent on size)

4. Provide the gross weight and cube of the facility/equipment.

Gross Weight = 112,000 lbs. to 600,000 lbs      Cube = 95x24x12 (largest)

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

None

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)

None

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Crane would be extremely difficult to relocate due to the fixed bridge span dimensions; it would not be difficult to replicate. However, it would be very expensive to replace at today's price.

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Transported by contractor to NNSY from 1917 through 1986..

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (y) Bridge Cranes (5)

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Nuclear Refueling Center and various support shops.

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

1500 hrs/yr

12. Provide the projected utilization data out to FY-1997.

94: 1500 days, 95: 1500 days, 96: 1500 days, 97: 1500 days

13. What is the approximate number of personnel used to operate the facility/equipment.

3 (including riggers)

14. What is the approximate number of personnel needed to maintain the equipment.

.5 MPD

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo Y (Norfolk's largest bridge crane is in Building 171 and is photographed to show it relative to the equipment it supports.)

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE: (z) Stiff Leg Derrick**

**1. State the primary purpose(s) of the facility/equipment.**

Provides increased handling capability to Drydock #4 area for refueling/defueling of both undersea and surface ships. The SLD's capability enables the crane to make lifts that would not be possible with the existing dock cranes located at Drydock #4. The crane also supports associated nuclear SPS lifts at the refueling complex (Bldg. 1539). The capacity of this crane is rated at 165 tons.

**2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.**

Fixed

**3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.**

Replacement Value = \$ 5,000,000

**4. Provide the gross weight and cube of the facility/equipment.**

Gross Weight = 546,000 lbs.      Cube = 305x82x305

**5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.**

Backup Motor/Generator Set

**6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)**

Special foundation

**7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).**

Regulated temperature and humidity.

**8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.**

Derrick would be impossible to relocate and difficult to replicate.

**9. Indicate how and when the facility/equipment was transported and/or constructed at the site.**

Derrick was erected on site by contractor in 1985.

**10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).**

Undersea, Surface Ships.

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (z) Stiff Leg Derrick

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

1600 hrs/yr

12. Provide the projected utilization data out to FY-1997.

94: 1600 days, 95: 1600 days, 96: 1600 days, 97: 1600 days

13. What is the approximate number of personnel used to operate the facility/equipment.

3 (including riggers)

14. What is the approximate number of personnel needed to maintain the equipment.

.5 MPD

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo z (A view of the crane from one side of the building)

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE:** (aa) Mobile truck cranes (7)  
3 - 125 ton lattice boom cranes  
2 - 75,000 lb crawler/wheel puller  
1 - 140 ton hydraulic truck crane  
1 - 67 ton hydraulic rough terrain

1. State the primary purpose(s) of the facility/equipment.

Mobile cranes provide weight handling capability to all areas of the shipyard and also remote locations such as Norfolk Naval Base. These cranes support NAVSEA's storage efforts at NNSY. They provide the only means of support for submarines at wet slips at NNSY and at many of the work/storage areas throughout the shipyard and nuclear lifts at Norfolk Naval Base. They range in capacity from 40 to 140 tons.

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = From \$ 500,000 to \$1,000,000

4. Provide the gross weight and cube of the facility/equipment.

Gross Weight = From 135,000 to 189,000 lbs. Cube = 36x10x200

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

None

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)

None

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

None

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Mobile cranes are readily available to relocate wherever needed. The crane would not be difficult to replicate.

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Delivered to NNSY by contractor from 1980 to 1992.

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (aa) Mobile truck cranes (7)

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface Ships, various support shops.

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

400 hrs/yr

12. Provide the projected utilization data out to FY-1997.

94: 400 days, 95: 400 days, 96: 400 days, 97: 400 days

13. What is the approximate number of personnel used to operate the facility/equipment.

3 (including riggers)

14. What is the approximate number of personnel needed to maintain the equipment.

.5 MPD

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo aa (The two photos show the Linkbelt 125 ton lattice boom truck crane and the 75,000 pound Crawler/Wheel Puller.)

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE:** (bb) Portal cranes (19)  
15 - 60 ton Amclydes  
3 - 75 long ton Weldmans  
1 - 50 ton Star Iron

1. State the primary purpose(s) of the facility/equipment.

Portal cranes provide weight handling capability to all piers and drydocks at NNSY. These cranes support both undersea and surface ships weight handling of both nuclear and nonnuclear equipment/components. They range in capacity from 20 to 75 tons.

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 7,000,000

4. Provide the gross weight and cube of the facility/equipment.

Gross Weight = From 1,200,000 to 1,800,000 lbs.      Cube = 65x45x195

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

None.

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)

Shielding of power supply panels from electromagnetic interface (EMI).

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

Regulated temperature.

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Portal cranes are relocatable to all areas of the shipyard that have existing crane trackage of compatible gage. Cranes are difficult but not impossible to replicate.

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Transported and erected on site by contractor from 1942 to 1992..

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface Ships

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (bb) Portal cranes (19, etc.)

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

2100 hrs/yr

12. Provide the projected utilization data out to FY-1997.

94: 2100 days, 95: 2100 days, 96: 2100 days, 97: 2100 days

13. What is the approximate number of personnel used to operate the facility/equipment.

3 (including riggers)

14. What is the approximate number of personnel needed to maintain the equipment.

.5 MPD

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.

Photo bb (Amclyde 60 ton portal crane is shown.)

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

**TAB B: SPECIAL FACILITIES AND EQUIPMENT  
FACILITIES/EQUIPMENT CAPABILITY FORM  
ACTIVITY NAME: Norfolk Naval Shipyard**

**EQUIPMENT TITLE:** (cc) Floating Derrick  
2 - 100 long ton floating derrick

1. State the primary purpose(s) of the facility/equipment.

The YD-255 and YD-257 are 100 long ton floating derricks. These cranes were designed and built to meet current weight handling requirements for undersea and surface ships, both nuclear and nonnuclear. The crane's capacity and reach allow it to perform lifts on areas of aircraft carrier flight decks that was not possible with previous floating cranes. These cranes can also support weight handling requirements on piers and in floating drydocks located at Norfolk Naval Base.

2. Indicate whether the facility/equipment is portable, moveable, or fixed as defined by the definitions provided on the first page of this Tab.

Moveable

3. Provide the replacement value of the facility/equipment. Report the facility/equipment cost separate from any building and utilities that may be integral to the facility/equipment.

Replacement Value = \$ 7,000,000

4. Provide the gross weight and cube of the facility/equipment.

Gross Weight = unknown      Cube = 75x75x250

5. Indicate any "special" utility support required by this facility/equipment other than normal electrical power.

None

6. Indicate any special budget requirements for the facility/equipment (i.e., special foundations, non-ferrous materials, sheilding, hardening, etc.)

None.

7. State any environmental control requirements for the facility/equipment (i.e., temperature, humidity, air scrubbing).

None.

8. Indicate if this facility/equipment would be extremely difficult or impossible to replicate or relocate at another site and the impact to the Department Of Navy if this facility/equipment were lost. Consider existing Government-wide and commercial capabilities as the replication and impact statements are formulated.

Floating cranes are readily available to relocate wherever needed. Crane would be difficult to replicate.

9. Indicate how and when the facility/equipment was transported and/or constructed at the site.

Crane was delivered to NNSY by contractor in late 1993. Crane was delivered by towing with oceangoing tug.

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

EQUIPMENT TITLE: (cc) Floating Derrick

10. List the functional support areas (previously provided in Tab A) that this facility/equipment support. (Refer to Appendix A for the list of functional support areas).

Undersea, Surface Ships.

11. Provide the historical utilization average for the past five fiscal years (FY89-93). Define the unit of measure used.

Crane was delivered new in late 1993.

12. Provide the projected utilization data out to FY-1997.

94: 1700 days, 95: 1700 days, 96: 1700 days, 97: 1700 days

13. What is the approximate number of personnel used to operate the facility/equipment.

3 (including riggers)

14. What is the approximate number of personnel needed to maintain the equipment.

.5 MPD

15. Provide one 8-1/2 x 11 black and white photo of the facility/equipment.  
Photo cc (YD-255 floating derrick is shown.)

**PHOTO BEING FORWARDED WITH SEPARATE CERTIFICATION**

**APPENDIX A**

**I. FUNCTIONAL SUPPORT AREAS (PRODUCTS)**

**1. PLATFORMS**

- 1.1 Undersea
- 1.2 Aircraft
- 1.3 Surface Ship
- 1.4 Space Satellites
- 1.5 Ground Vehicles

**2. WEAPONS SYSTEMS**

- 2.1 Gun Systems
- 2.2 Guided Missiles
- 2.3 Free Fall Weapons and Rockets
- 2.4 Torpedoes
- 2.5 Mines
- 2.6 Directed Energy Systems
- 2.7 Explosives
- 2.8 Launchers
- 2.9 Fire Control
- 2.10 Weapons Data Links
- 2.11 Weapons Fuzing
- 2.12 Weapons Propulsion
- 2.13 Other Ordnance
- 2.14 Explosive Ordnance Disposal

**3. COMBAT SYSTEM INTEGRATION**

- 3.1 Subsurface
- 3.2 Air
- 3.3 Surface
- 3.4 Multiplatform

**4. SPECIAL OPERATIONS SUPPORT**

- 4.1 Landing Force Equipment and Systems
- 4.2 Coastal/Special Warfare Support

**5. SENSORS & SURVEILLANCE SYSTEMS**

- 5.1 Sonar Systems
- 5.2 Radar Systems
- 5.3 Special Sensors
- 5.4 Space Sensor/Surveillance Systems
- 5.5 Ocean Surveillance

APPENDIX A, continued

I. FUNCTIONAL SUPPORT AREAS (PRODUCTS), continued

6. NAVIGATION

- 6.1 Submarine Navigation Systems
- 6.2 Aircraft Navigation Systems
- 6.3 Surface Ship Navigation Systems
- 6.4 Weapons Navigation Systems
- 6.5 Satellite Navigation Systems

7. COMMAND, CONTROL, COMMUNICATIONS AND INTELLIGENCE (C<sup>3</sup>I)

- 7.1 Submarine
- 7.2 Airborne
- 7.3 Shipboard
- 7.4 Land-Based
- 7.5 Space Communications Systems
- 7.6 Non-Tactical Data Systems
- 7.7 Air Traffic Control Systems
- 7.8 Intelligence Information Systems

8. DEFENSE SYSTEMS

- 8.1 Ballistic Missile Defense
- 8.2 Countermeasures (CM)
- 8.3 Electronic Warfare (EW) Systems

9. STRATEGIC PROGRAMS

- 9.1 Navy Strategic Systems
- 9.2 Nuclear Weapons and Effects

10. GENERAL MISSION SUPPORT

- 10.1 Personnel and Training
  - 10.1.1 Submarine-Related Training Systems
  - 10.1.2 Aircraft-Related Training Systems
  - 10.1.3 Surface Ship-Related Training Systems
  - 10.1.4 Weapons-Related Training Systems
  - 10.1.5 Human Resources Research and Development
- 10.2 Logistics Planning and Implementation
- 10.3 Facilities Engineering
- 10.4 Diving, Salvage and Ocean Engineering
- 10.5 Environmental Description, Prediction, and Effects
- 10.6 Crew Equipment and Life Support
  - 10.6.1 Submarine
  - 10.6.2 Aircraft
  - 10.6.3 Surface Ship
  - 10.6.4 Medical Research and Combat Casualty Care
  - 10.6.5 Clothing and Textiles
- 10.7 Major Range Development and Operation
- 10.8 Other Subsidiary Systems or Components
- 10.9 Activity Mission and Function Support

APPENDIX A, continued

**I. FUNCTIONAL SUPPORT AREAS (PRODUCTS), continued**

**11. GENERIC TECHNOLOGY BASE.**

[Includes basic research and exploratory development (Budget Categories 6.1 & 6.2) projects that do not fit under the more warfare-focused functional support areas.]

- 11.1 Computers.
- 11.2 Software.
- 11.3 Communications Networking.
- 11.4 Electronic Devices.
- 11.5 Materials and Processes.
- 11.6 Energy Storage.
- 11.7 Propulsion and Energy Conversion.
- 11.8 Design Automation.
- 11.9 Human-System Interfaces.
- 11.10 Other Technology Base Programs.

**II. LIFE-CYCLE WORK AREAS**

**RDT&E**

- 1. BASIC RESEARCH
- 2. EXPLORATORY DEVELOPMENT
- 3. ADVANCED DEVELOPMENT
- 4. ENGINEERING AND MANUFACTURING DEVELOPMENT
- 5. RDT&E MANAGEMENT SUPPORT
- 6. OPERATIONAL SYSTEMS DEVELOPMENT

**ACQUISITION**

- 7. PRODUCTION
- 8. ACCEPTANCE TESTING
- 9. MODERNIZATION
- 10. PROGRAM SUPPORT

**LIFE -TIME SUPPORT**

- 11. MAINTENANCE
- 12. REPAIR
- 13. TESTING
- 14. IN-SERVICE ENGINEERING
- 15. PROGRAM SUPPORT
- 16. RETIREMENT

**GENERAL**

- 17. TRAINING/OPERATIONAL SUPPORT
- 18. SIMULATION, MODELING AND ANALYSIS

## APPENDIX B

## I. FUNCTIONAL SUPPORT AREA DEFINITIONS

**1. PLATFORMS.** Those self-propelled, boosted or towed conveyances used for the strategic and tactical deployment of forces, weapons, materials and supplies in support of naval warfare. Projects within this area are limited to those in which the principal objective is to provide technological wherewithal to develop Navy aerospace craft, ships, submarines, boats, and amphibians.

**1.1 *Undersea.*** Self-propelled, boosted, or towed conveyances for transporting a burden under the sea. The vehicle package includes the design, structures, materials, non-nuclear propulsion, power and auxiliary equipment, transmissions and propulsors, fuels and lubricants, energy conservation and pollution abatement equipment, control systems, and silencing inherent in its construction and operation, but excluding mission oriented systems. Included are submarines and other submersibles including their application as unmanned autonomous vehicles (UAV) and targets.

**1.2 *Aircraft.*** Self-propelled, boosted, or towed conveyances for transporting a burden through the air. The vehicle package includes the design, structures, materials, non-nuclear propulsion, power and auxiliary equipment, transmissions and propulsors, fuels and control systems and silencing inherent in its construction and operation, but excluding mission oriented systems. Included are all air vehicles including their application as UAVs and targets.

**1.3 *Surface Ship.*** Self-propelled, boosted, or towed conveyances for transporting a burden on land or sea. The vehicle package includes the design, structures, materials, non-nuclear propulsion, power and auxiliary equipment, transmissions and propulsors, fuels and lubricants, energy conservation and pollution abatement equipment, control systems, and silencing inherent in its construction and operation, but excluding mission oriented systems. Included are ships and craft including their application as UAVs and targets.

**1.4 *Space Satellites.*** A device or spacecraft in orbit. The vehicle package includes the design, structures, materials, non-nuclear propulsion, power and auxiliary equipment, and control systems, inherent in its construction and operation.

**1.5 *Ground Vehicles.*** Self-propelled, boosted, or towed conveyances for transporting a burden on land. The vehicle package includes the design, structures, materials, non-nuclear propulsion, power and auxiliary equipment, transmissions and propulsors, fuels and lubricants, energy conservation and pollution abatement equipment, control systems, and silencing inherent in its construction and operation, but excluding mission oriented systems.

## APPENDIX B

## I. FUNCTIONAL SUPPORT AREA DEFINITIONS, continued

**2. WEAPONS SYSTEMS.** A system that provides the capability to defeat naval and military targets by destructive means. Included are counter-countermeasures and other design features to reduce the susceptibility of the weapon to counter actions, but excluded are those projects in which the principal objective is to counter a weapons system or those efforts to make a system (other than weapons) less vulnerable to enemy weapons.

**2.1 Gun Systems.** Ordnance which fires projectiles; includes related ammunition (guided projectiles are included in "guided missiles". Included are gun systems aboard aircraft and ships, and gun systems used by personnel.

**2.2 Guided Missiles.** Weapons, either self-propelled, (i.e., reaction launched) or impulse driven (i.e. gun/tube impulse launched) capable of homing on, or following a beam or command signals through the air to a target (includes guided projectiles). Included are missiles that are launched by submarine, aircraft, and ship.

**2.3 Free Fall Weapons and Rockets.** Free fall weapons are those air-delivered weapons, including components and subsystems, which follow a ballistic trajectory after gravity launch without any guidance other than that from the initial orientation and velocity of the launching aircraft. A rocket is a self-propelled airborne vehicle whose trajectory or course, while in flight, cannot be controlled.

**2.4 Torpedoes.** Self-propelled, guided or unguided underwater weapons. Included are torpedoes launched by submarine, aircraft, and ship.

**2.5 Mines.** Self-activating standoff or contact explosive devices that are designed to destroy or damage ground vehicles, boats, ships, or aircraft, or designed to wound, kill, or otherwise incapacitate personnel.

**2.6 Directed Energy Systems.** Devices and techniques for generating and focusing high-intensity beams of electromagnetic energy or charged particles upon targets with lethal effects.

**2.7 Explosives.** Metastable compounds which can rapidly release large quantities of energy mostly in the form of hot, high-pressure gases. Explosives are used in naval munitions such as mines, torpedoes, missiles, etc., and also in other Navy products such as aircraft escape systems, fuse trains, etc.

**2.8 Launchers.** That group of devices, components, or subsystems needed to support, hold, and launch expendable weapons, countermeasure devices, or other stores; the control systems for managing these systems and the stores they carry.

**2.9 Fire Control.** Those platform-based systems which provide data for and/or control the launch platform/weapon/weapon-target interaction in all phases required by a weapons system (e.g., acquisition, track, commit-to-fire-pre-launch, post-launch, mid-course, terminal intercept, and assessment). Included are systems that are based undersea, aboard aircraft, shipboard, and on land.

**2.10 Weapons Data Links.** Efforts include the data links that are part of the weapon's command, control and communications systems.

## APPENDIX B

## I. FUNCTIONAL SUPPORT AREA DEFINITIONS, continued

2.11 *Weapons Fuzing*. Efforts leading to the design of systems to sense a target or the result of other prescribed conditions such as time, barometric pressure, command, etc., and initiate a train of fire. Safing and arming are primary functions performed by a fuse to preclude initiation of the ammunition before the desired position or time.

2.12 *Weapons Propulsion*. Included are propellants, subsystems and systems that comprise the means by which a weapons system moves through the air or sea.

2.13 *Other Ordnance*. Includes efforts that do not fit in the above categories (e.g., pyrotechnics, gas generators, CAD/PAD/AEPS).

2.14 *Explosive Ordnance Disposal*. Efforts relating to the technical support of explosive ordnance disposal technology and training.

**3. COMBAT SYSTEM INTEGRATION.** That effort required to introduce a new system into the operating forces. It involves the integration and evaluation of a new hardware or software subsystem installed in a Navy platform. It includes the mating, installation, and operational support of the resulting higher level system to ensure optimum operating performance.

3.1 *Subsurface*. The integration and evaluation of the various hardware and software subsystems that make up a higher level system, and the mating, installation, and operational support of this higher level system, including its operational software and training systems into undersea platforms.

3.2 *Air*. The integration and evaluation of the various hardware and software subsystems that make up a higher level system, and the mating, installation, and operational support of this higher level system, including its operational software and training systems into air platforms.

3.3 *Surface*. The integration and evaluation of the various hardware and software subsystems that make up a higher level system, and the mating, installation, and operational support of this higher level system, including its operational software and training systems into surface platforms.

3.4 *Multiplatform*. The integration of multiplatform hardware and software subsystems to make up a higher level system, including the mating, installation, and operational support (including training systems) of this higher level system.

APPENDIX B

I. FUNCTIONAL SUPPORT AREA DEFINITIONS, continued

**4. SPECIAL OPERATIONS SUPPORT.** Those efforts which are in support of amphibious landing, Marine Corps operations, special warfare and other unique operations. It includes weapons, countermeasures, surveillance and a command support which are developed specifically for the projection of forces ashore and that do not have an application by the Navy general forces in the role of sea control.

4.1 *Landing Force Equipment and Systems.* Involved is that RDT&E effort which is not functionally a part of the amphibious platform. Specifically, this includes reconnaissance of amphibious objective areas, environmental support of amphibious operations, amphibious logistics and the integration of the amphibious and Marine Corps systems required to land amphibious forces on a hostile shore and establish a beachhead. (Contingency facilities in support of forces ashore are included in "facilities".)

4.2 *Coastal/Special Warfare Support.* Techniques and systems required to defend coastal, inshore and harbor facilities as well as those needed to conduct operations such as reconnaissance, deception, coastal or offshore interdiction and assault, counterinsurgency, intelligence gathering, remote sensor operation and waterborne intrusion detection. Special warfare systems include systems, techniques, and concepts utilized by specifically cross-trained personnel in unconventional warfare and coastal/riverine operations.

**5. SENSORS & SURVEILLANCE SYSTEMS.** Those systems used to systematically observe air, space, surface and subsurface areas to detect, classify, localize and identify real or potential military targets. Excluded are those projects in which the principal objective is navigation, weapon fire control or broadbased investigation of the properties of the media or the propagation of energy therein.

5.1 *Sonar Systems.* Those sonar systems and devices used to conduct search, reconnaissance, and surveillance operations to detect, classify, locate, and/or track targets. Included are those systems and devices that are mobile aboard undersea, air, and surface platforms, and those that are fixed.

5.2 *Radar Systems.* Those radar systems and devices used to conduct search, reconnaissance, or surveillance operations to detect, classify, locate, and/or track targets. Included are those systems and devices that are mobile aboard undersea, air, and surface platforms, and those that are fixed.

5.3 *Special Sensors.* Those systems and devices which utilize unique phenomena or methods or combinations of methods to conduct search, reconnaissance, or surveillance operations to detect, classify, locate, and/or track targets. Included are active sensors, passive sensors (e.g., thermal imagers, low light level TV, and infrared search and track systems), and the associated signal and image processing.

5.4 *Space Sensor/Surveillance Systems.* Those devices and systems in Earth orbit that are used to conduct search, reconnaissance, or surveillance operations to detect, classify, locate and/or track targets.

5.5 *Ocean Surveillance.* Systems and equipment for systematic observation of ocean areas for identification and localization of ships, submarines, and aircraft from fixed and mobile platforms including operational software development, and integration of multi-sensor, coordinated detection data and its display at appropriate sites.

APPENDIX B

I. FUNCTIONAL SUPPORT AREA DEFINITIONS, continued

**6. NAVIGATION.** Those systems which utilize electromagnetic, acoustic, or inertial means to guide or navigate surface, subsurface, or aerospace platforms. Included are those systems deployed aboard submarines, aircraft, surface ships and satellites, as well as those used in weapons systems.

6.1 *Submarine Navigation Systems.* Navigation systems deployed aboard submarines, or other undersea vehicles.

6.2 *Aircraft Navigation Systems.* Navigation systems deployed aboard aircraft.

6.3 *Surface Ship Navigation Systems.* Navigation systems deployed aboard surface ships.

6.4 *Weapons Navigation Systems.* Navigation systems installed within weapon systems, such as guided missiles.

6.5 *Satellite Navigation Systems.* Navigation systems deployed aboard satellites.

**7. COMMAND, CONTROL, COMMUNICATIONS AND INTELLIGENCE (C<sup>3</sup>I).** The acquisition, processing and dissemination of information required to plan, direct, and control operations. Included are those projects in command and control, communications and intelligence. Excluded are surveillance systems, and guidance and control of vehicles and weapons. These C<sup>3</sup> systems may be internal or external to submarine, airborne, surface, and land-based platforms.

7.1 *Submarine.* C3 systems deployed aboard submarines, or other undersea vehicles.

7.2 *Airborne.* C3 systems deployed aboard aircraft.

7.3 *Shipboard.* C3 systems deployed aboard surface ships.

7.4 *Land-Based.* C3 systems deployed at shore facilities.

7.5 *Space Communications.* Communications systems in Earth orbit used to convey information.

7.6 *Non-Tactical Data Systems.* Data systems utilized aboard the Navy's operating forces and at shore sites that support ship, submarine and aircraft maintenance, configuration and asset management, supply, inventory, finance, medical, dental, manpower management, administration, food services (ship's mess), and resale operations (ship's stores).

7.7 *Air Traffic Control Systems.* Systems used to promote the safe, orderly, and expeditious movement of air traffic.

7.8 *Intelligence Information Systems.* The systems necessary to conduct the naval warfare task of intelligence. This task involves the assessment and management of information obtained via surveillance, reconnaissance, and other means to produce timely indications and warning, location, identification, intentions, technical capabilities, and tactics of potential enemies and other countries of interest.

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

## APPENDIX B

### I. FUNCTIONAL SUPPORT AREA DEFINITIONS, continued

**8. DEFENSE SYSTEMS.** Those systems that are principally designed to defeat a particular weapon system; those systems that are designed to reduce the effectiveness of an enemy's surveillance, communications, navigation and command and control; as well as those efforts directed toward gathering information on the emissions of enemy systems. It does not include those projects in which the principal objective is to incorporate design features in vehicles, surveillance, communication, navigation and other support systems which reduce their vulnerability to enemy action. It also does not include chemical/biological defense for personnel.

**8.1 *Ballistic Missile Defense.*** Systems designed to protect civilian population centers, military forces, and territory from ballistic missile attack.

**8.2 *Countermeasures (CM).*** Those systems that are principally designed to defeat a particular weapon system; reduce the effectiveness of an enemy's surveillance, communications, navigation and command and control; as well as gather information on the emissions of enemy systems. Included are those projects to develop systems deployed aboard submarine, aircraft, and surface ship, and those for countering enemy mine warfare through the destruction or neutralization of minefields.

**8.3 *Electronic Warfare (EW) Systems.*** Those systems, techniques, and devices utilized to determine, exploit, reduce, or prevent hostile use of the electromagnetic spectrum. Included are those projects to develop systems deployed aboard submarine, aircraft, and surface ship, as well as those to develop EW simulators.

**9. STRATEGIC PROGRAMS.** Programs conducted to support the deployment and use of the Navy's strategic deterrence force, as well as those programs conducted on nuclear weapons and effects.

**9.1 *Navy Strategic Systems.*** Those ships and weapon systems, subsystems, devices, techniques, trainers and facilities required specifically for the deployment and use of the Navy's strategic deterrence force.

**9.2 *Nuclear Weapons and Effects.*** Nuclear weapons effects and countermeasures, including thermal and nuclear radiation effects and the hardening of components and of weapons systems both nuclear and non-nuclear.

## APPENDIX B

## I. FUNCTIONAL SUPPORT AREA DEFINITIONS, continued

**10. GENERAL MISSION SUPPORT.** Those major areas of support required by Navy general forces that are not included under platforms, weapons systems, combat system integration, special operations support, sensors and surveillance systems, navigation, C<sup>3</sup>I, defense systems, strategic programs, and technology base programs.

**10.1 *Personnel and Training.*** Human resources research and development for the areas of manpower, personnel, education, and training and its support and service functions for human factors effort in system design, development and acquisition. Included are those systems related to submarine, aircraft, surface ship and weapons training, as well as human resources research.

- 10.1.1 Submarine-Related Training Systems
- 10.1.2 Aircraft-Related Training Systems
- 10.1.3 Surface Ship-Related Training Systems
- 10.1.4 Weapons-Related Training Systems
- 10.1.5 Human Resources Research and Development

**10.2 *Logistics Planning and Implementation.*** Projects for those aspects of military operations which deal with the movement, maintenance, supply, and support of Naval forces afloat and ashore, including underway replenishment, warehousing and mobile logistics maintenance and repair activities; material acquisition, control, handling, distribution and disposal processes; and logistics planning, control, and information processing functions.

**10.3 *Facilities Engineering.*** Products for (a) ocean facilities including the siting, design, construction/implant, and maintenance of facilities attached to the sea floor such as cable structures, pipelines, communications/power cables and Fleet moorings; (b) contingency facilities and equipment to support Navy and Marine Corps forces ashore in amphibious objective areas and at advanced naval bases; (c) permanent shore facilities such as buildings, piers, drydocks, airfields, POL and weapons storage, and utilities; (d) energy systems ashore including conservation, synthetic fuels, energy self-sufficiency; and (e) environmental protection systems ashore such as industrial wastewater treatment plants, air and noise pollution control devices, and solid waste management systems.

**10.4 *Diving, Salvage and Ocean Engineering.*** Those support systems and equipment that are required by the Navy in the performance of ocean bottom search, diving, rescue, recovery, salvage operations, and siting, design, construction/implantment, inspection, maintenance and recovery of underwater facilities and associated systems.

**10.5 *Environmental Description, Prediction, and Effects.*** The study, modeling, and simulation of atmospheric, oceanic, terrestrial, and space environmental effects, both natural and man-made, including the interaction of a weapon system with its operating medium and man-produced phenomena such as obscurants found on the battlefield.

**10.6 *Crew Equipment and Life Support.*** Techniques, equipment and devices to provide protection for and support of Navy operating personnel, including chemical/biological defense. Included are systems aboard submarines, aircraft, and surface ships, as well as medical research and combat casualty care, and clothing and textiles.

- 10.6.1 Submarine
- 10.6.2 Aircraft
- 10.6.3 Surface Ship
- 10.6.4 Medical Research and Combat Casualty Care
- 10.6.5 Clothing and Textiles

APPENDIX B

I. FUNCTIONAL SUPPORT AREA DEFINITIONS, continued

10. GENERAL MISSION SUPPORT, continued

10.7 *Major Range Development and Operation.* The design, equipping, and operation of ranges offering diverse and accurate measurement and reconstruction capabilities to establish performance profile data on newly designed, as well as existing, naval vehicles and systems operating in a realistic environment.

10.8 *Other Subsidiary Systems or Components.* Subsidiary systems or components that do not fit within the above product areas (e.g., batteries).

10.9 *Activity Mission and Function Support.* Efforts that clearly support the Activity's responsibilities but which cannot be uniquely assigned to a specific functional area.

11. **GENERIC TECHNOLOGY BASE.** Includes basic research and exploratory development (Budget Categories 6.1 & 6.2) projects that do not fit under the more warfare-focused functional support areas. These areas include computers, software, communications networking, electronic devices, materials and processes, energy storage, propulsion and energy conversion, design automation, human-system interfaces, and other technology base areas.

11.1 *Computers.* High performance computing systems (and their software operating systems) providing orders-of-magnitude improvements in computational and communications capabilities as a result of improvements in hardware, architectural designs, networking, and computational methods.

11.2 *Software.* The tools and techniques that facilitate the timely generation, maintenance, and enhancement of affordable and reliable applications software, including software for distributed systems, data base software, artificial intelligence, and neural nets.

11.3 *Communications Networking.* The timely, reliable, and secure production and worldwide dissemination of information, using shared communications media and common hardware and applications software from originators to DoD consumers, in support of joint-Service mission planning, simulation, rehearsal, and execution.

11.4 *Electronic Devices.* Ultra-small (nanoscale) electronic and optoelectronic devices, combined with electronic packaging and photonics, for high speed computers, data storage modules, communications systems, advanced sensors, signal processing, radar, imaging systems, and automatic control.

11.5 *Materials and Processes.* Development of man-made materials (e.g., composites, electronic and photonic materials, smart materials) for improved structures, higher temperature engines, signature reduction, and electronics, and the synthesis and processing required for their application.

11.6 *Energy Storage.* The safe, compact storage of electrical or chemical energy, including energetic materials for military systems.

11.7 *Propulsion and Energy Conversion.* The efficient conversion of stored energy into usable forms, as in fuel efficient aircraft turbine engines and hypersonic systems.

APPENDIX B

I. FUNCTIONAL SUPPORT AREA DEFINITIONS, continued

11. GENERIC TECHNOLOGY BASE, continued.

11.8 *Design Automation.* Computer-aided design, concurrent engineering, simulation, and modeling; including the computational aspects of fluid dynamics, electromagnetics, advanced structures, structural dynamics, and other automated design processes.

11.9 *Human-System Interfaces.* The machine integration and interpretation of data and its presentation in a form convenient to the human operator; displays; human intelligence emulated in computational devices; and simulation and synthetic environments.

11.10 *Other Technology Base Programs.* All technology base programs (Budget Categories 6.1 and 6.2 only) that do not fit into the above warfare-focused functional support areas (#1 - #10), or within the above generic technology base areas (#11.1 - #11.9).

II. LIFE-CYCLE WORK AREA DEFINITIONS

RDT&E

1. **BASIC RESEARCH.** (Budget Category 6.1 only) This area includes scientific study and experimentation to increase knowledge and understanding in the physical, engineering, environmental and life sciences related to long-term national security needs.

2. **EXPLORATORY DEVELOPMENT.** (Budget Category 6.2 only) This area includes efforts to solve specific military problems, short of major development. Exploratory development may vary from fairly fundamental applied research to sophisticated breadboard hardware, study programming and planning efforts.

3. **ADVANCED DEVELOPMENT.** (Budget Category 6.3 only) This area includes efforts on projects which have moved into the development of hardware for test. The prime objective is proof of design concept rather than the development of hardware for service use.

4. **ENGINEERING AND MANUFACTURING DEVELOPMENT.** (Budget Category 6.4 only) This area includes programs in full scale development, but which have not received approval for production or had production funds included in the DoD budget submission for the budget or subsequent fiscal year.

5. **RDT&E MANAGEMENT SUPPORT.** (Budget Category 6.5 only) This area includes support of installations or operations required for general research and development use. Included would be test ranges, military construction, maintenance support of laboratories, operations and maintenance of test aircraft and ships, and studies and analyses in support of the R&D program.

6. **OPERATIONAL SYSTEMS DEVELOPMENT.** (Budget Category 6.6 only) This area includes projects still in full-scale development, but which have received approval for production through Defense Acquisition Board or other action, or for which production funds have been included in the DoD budget submission for the budget or subsequent fiscal year. All work in this area is identified by major line item projects that appear as "RDT&E Costs of Weapon System Elements" in other programs.

WORK AREA DEFINITIONS, continued

During this phase, the system, including training equipment, spares, etc., is  
al use.

**TESTING.** This phase involves the test and evaluation of production items  
items procured fulfill the requirements and specifications of the procuring

**N.** This phase of the work involves the modification, upgrade, or improvement  
m.

**SUPPORT.** This phase involves al work not fully under the category of production  
(#8), or modernization (#9), that occurs during the acquisition of new systems

T

**E.** This phase of work involves the maintenance of systems and subsystems.

phase of work involves the repair of systems or subsystems.

is phase is typically funded from Budget Category 6.5 or procurement program  
is area supports developmental and/or operational testing and focuses on the  
safety, technical performance, environmental (climatic, electromagnetic, etc.)  
and operational suitability, maturity of production processes, and compliance with  
quality standards.

**ENGINEERING.** This phase is typically funded from Budget Category 6.6 or  
ance (O&M) program elements. In-service engineering tends to focus on system  
order to conduct check-out of the system and/or subsystem after they have  
on, upgrade or improvement.

**SUPPORT.** This phase involves all work ant falling under the categories of  
air (#12), testing (#13), in-service engineering (#14) and retirement (#16) that  
me support of new systems and/or subsystems.

This phase includes the retirement and disposal of obsolete systems and/or

June 24, 1994

Activity Norfolk Naval Shipyard  
UIC 00181

**APPENDIX B**

**II. LIFE-CYCLE WORK AREA DEFINITIONS, continued**

**GENERAL**

17. **TRAINING/OPERATIONAL SUPPORT.** Efforts in this area, involve the training of operational forces in the use of new techniques, equipment and systems, tactics or doctrine. Training and operational support is typically funded from O&M program elements.

18. **SIMULATION, MODELING AND ANALYSIS.** This phase of work provides a simulated test environment or representation of systems, components and platforms. This work can be carried out throughout the development and test process as analytical tools, as well as tools to drive or control electronic and other environmental stimuli.

**ACTIVITY LISTING:**

Type	Title	Location
Naval Shipyard	NSYD LONG BEACH	Long Beach CA
Naval Shipyard	NSYD NORFOLK	Portsmouth VA
Naval Shipyard	NSYD PEARL HARBOR	Pearl Harbor HI
Naval Shipyard	NSYD PORTSMOUTH	Kittery ME
Naval Shipyard	NSYD PUGET SOUND	Bremerton WA
Naval Ship Repair Facility	SRF GUAM	Guam

Data Being Certified: BRAC 95 Data Call Number 42, Norfolk Naval Shipyard

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

William H. Ryzewic

W. H. Ryzewic  
Signature

NAME (Please type or print)

Executive Director for Naval Shipyard  
and SUPSHIP Management and Field  
Activity Support Directorate

Title

Date

6/27/94

Naval Sea Systems Command

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

S. R. Stamer

Title

Date

7-5-94

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)  
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)  
W. A. EARNER

NAME (Please type or print)

Signature

W. A. Earner

Title

Date

8/10/94

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.

Data Being Certified: DATA CALL NUMBER 42: MILITARY VALUE DATA CALL

ACTIVITY COMMANDER

RADM J. L. TAYLOR  
NAME (Please type or print)

J. L. Taylor  
Signature

SHIPYARD COMMANDER  
Title

6/24/94  
Date

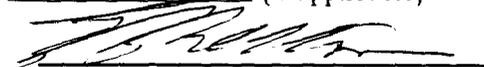
NORFOLK NAVAL SHIPYARD  
Activity

Data Being Certified: BRAC 95 Data Call Number 42 Amendment 1, Norfolk Naval Shipyard

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

Edward L. Shelton



NAME (Please type or print)

Signature

Deputy Commander for Naval Shipyard  
and SUPSHIP Management and Field  
Activity Support Directorate  
(Acting)

9/15/94

Title

Date

Naval Sea Systems Command

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL



NAME (Please type or print)

Signature

G. R. STERNER  
Commander

Naval Sea Systems Command

9/15/94

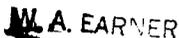
Title

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)

 M. A. EARNER



NAME (Please type or print)

Signature

9/20/94

Title

Date

September 14, 1994

Activity Norfolk Naval Shipyard  
Primary UIC 00181

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

Data Being Certified: DATA CALL NUMBER FORTY-TWO: AMENDMENT ONE

ACTIVITY COMMANDER

CAPT W.R. KLEMM  
NAME (Please type or print)

WR Klemm  
Signature

SHIPYARD COMMANDER  
Title

9/14/94  
Date

NORFOLK NAVAL SHIPYARD  
Activity

Data Being Certified: BRAC 95 Data Call Number 42, Revision, Norfolk Naval Shipyard

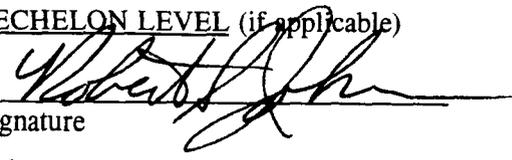
I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

Robert S. Johnson

NAME (Please type or print)

Signature



Deputy Commander for Naval Shipyard  
and SUPSHIP Management and Field  
Activity Support Directorate  
(Acting)

Title

Date

16 Sept 94

Naval Sea Systems Command

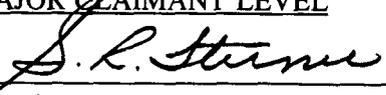
Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

NAME (Please type or print)

Signature



G. R. STERNER  
Commander  
Naval Sea Systems Command

Title

Date

9/19/94

Activity

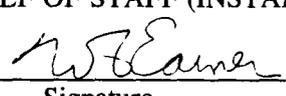
I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)  
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

**W. A. EARNER**

NAME (Please type or print)

Signature



Title

Date

9/20/94

BRAC-95 CERTIFICATION

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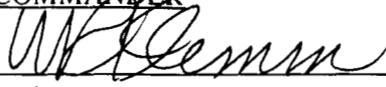
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I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

Data Being Certified: DATA CALL NUMBER FORTY-TWO REVISION THREE  
TO PROVIDE ADDITIONAL INFORMATION FOR TABLE 6.2  
DATED 16 SEPTEMBER 1994

ACTIVITY COMMANDER

CAPT W.R. KLEMM  
NAME (Please type or print)

  
Signature

SHIPYARD COMMANDER  
Title

9/16/94  
Date

NORFOLK NAVAL SHIPYARD  
Activity

113

UIC N00181

Data Being Certified: BRAC 95 Data Call Number 42, Revision, Norfolk Naval Shipyard

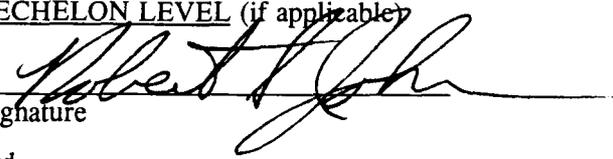
I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

Robert S. Johnson

NAME (Please type or print)

Signature



Deputy Commander for Naval Shipyard  
and SUPSHIP Management and Field  
Activity Support Directorate  
(Acting)

Title

Date

16 Sept 94

Naval Sea Systems Command

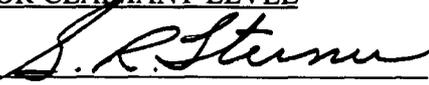
Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

NAME (Please type or print)

Signature



G. R. STERNER

Commander

Naval Sea Systems Command

Date

9-21-94

Activity

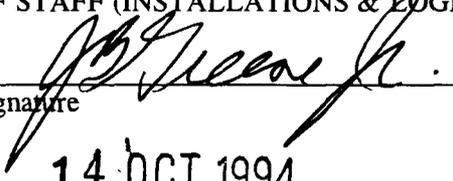
I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)  
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

J. B. GREENE, JR.

NAME (Please type or print)

Signature



ACTING

14 OCT 1994

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."

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I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

Data Being Certified: DATA CALL NUMBER 42: MILITARY VALUE DATA CALL; REVISION TO SUBSTITUTE PAGES 4R, 6R-15R, 17R-18R, 20R, 23R, 38R-39R, 74R, 87R, 96R, 107R, TAB A: PAGES 8R-51R, AND TAB B: PAGES 53R-92R AND 97R-100R OF JULY 21, 1994 FOR PAGES 4, 6-15, 17-18, 20, 23, 38-39, 74, 87, 96 AND 107, TAB A: PAGES 8-51, AND TAB B: PAGES 53-92, AND 97-100 IN ORDER TO RECORD CALCULATIONS FOR 1992, BASELINE YEAR

ACTIVITY COMMANDER

RADM J. L. TAYLOR

NAME (Please type or print)

SHIPYARD COMMANDER

Title

NORFOLK NAVAL SHIPYARD

Activity

J L Taylor  
Signature

8/9/94  
Date

Data Being Certified: BRAC 95 Data Call Number 42, Norfolk Naval Shipyard, Revisions

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

William H. Ryzewic

NAME (Please type or print)

W. H. Ryzewic  
Signature

Executive Director for Naval Shipyard  
and SUPSHIP Management and Field  
Activity Support Directorate

Title

Date

9/19/94

Naval Sea Systems Command

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  
Commander

Title

Signature

G. R. Sterner

9/21/94

Naval Sea Systems Command

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)

P. W. DRENNON

Title

Signature

P. W. Drennon

12 OCT 1994

Date

Acting

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.

Data Being Certified: DATA CALL NUMBER FORTY-TWO REVISION FOUR  
TO PROVIDE ADDITIONAL INFORMATION FOR QUESTION 11.3  
DATED 17 SEPTEMBER 1994

ACTIVITY COMMANDER

CAPT W.R. KLEMM  
NAME (Please type or print)

  
Signature

SHIPYARD COMMANDER  
Title

9/17/94  
Date

NORFOLK NAVAL SHIPYARD  
Activity

113

UIC N00181

Data Being Certified: BRAC 95 Data Call Number 42, Revisions, Norfolk Naval Shipyard  
Includes 8/17/94 and 10/2/94 Activity Revisions

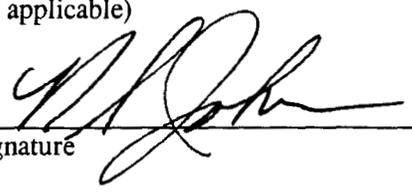
I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

Robert S. Johnson

NAME (Please type or print)

Signature



Director, Field Activity Support Group  
Naval Shipyard and SUPSHIP Management  
and Field Activity Support Directorate

10/2/94

Title

Date

Naval Sea Systems Command

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

NAME (Please type or print)

Signature



G. R. STERNER

Commander  
Naval Sea Systems Command

10-4-94

Date

Activity

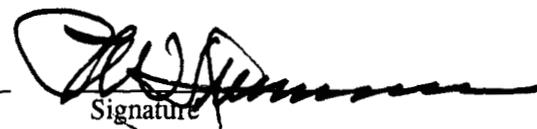
I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)  
DEPUTY CHIEF OF STAFF (INSTALLATIONS & LOGISTICS)

NAME (Please type or print)

Signature

P.W. DRENNON



Acting

18 OCT 1994

Title

Date

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

Data Being Certified: BRAC 95 DATA CALL FORTY-TWO: MILITARY VALUE  
REVISION THREE (TABLE 1.2.a, 1.2.b, 1.2.d DATED 2 OCTOBER 1994

ACTIVITY COMMANDER

CAPT W.R. KLEMM  
NAME (Please type or print)

W.R. Klemm  
Signature

SHIPYARD COMMANDER  
Title

10/2/94  
Date

NORFOLK NAVAL SHIPYARD  
Activity

BRAC-95 CERTIFICATION

Reference: SECNAVNOTE 11000 of 08 December 1993

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I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

Data Being Certified: DATA CALL NUMBER 42: MILITARY VALUE DATA CALL; REVISION TWO TO SUBSTITUTE PAGE 33R OF AUGUST 15, 1994 FOR PAGE 33 OF JUNE 24, 1994 IN ORDER TO RECORD CALCULATIONS FOR 1992, BASELINE YEAR

ACTIVITY COMMANDER

CAPT W.R. KLEMM  
NAME (Please type or print)

W.R. Klemm  
Signature

SHIPYARD COMMANDER  
Title

8/17/94  
Date

NORFOLK NAVAL SHIPYARD  
Activity

Data Being Certified: BRAC 95 Data Call Number 42, Norfolk Naval Shipyard,  
Question 9.4, Revision.

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

NEXT ECHELON LEVEL (if applicable)

William H. Ryzewic

NAME (Please type or print)

Signature W. H. Ryzewic

Executive Director for Naval Shipyard  
and SUPSHIP Management and Field  
Activity Support Directorate

Title

Date 10/11/94

Naval Sea Systems Command

Activity

I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

MAJOR CLAIMANT LEVEL

G. R. STERNER  
NAME (Please type or print)

Signature G. R. Sterner

Naval Sea Systems Command

Title

Date 10/13/94

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

Signature J. B. Greene Jr.  
Date 14 OCT 1994

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.

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I certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

Data Being Certified: DATA CALL NUMBER 42: MILITARY VALUE DATA CALL; REVISION SIX, QUESTION 9.4 DATED 6 OCTOBER 1994

ACTIVITY COMMANDER

CAPT W.R. KLEMM  
NAME (Please type or print)

  
Signature

SHIPYARD COMMANDER  
Title

10/6/94  
Date

NORFOLK NAVAL SHIPYARD  
Activity