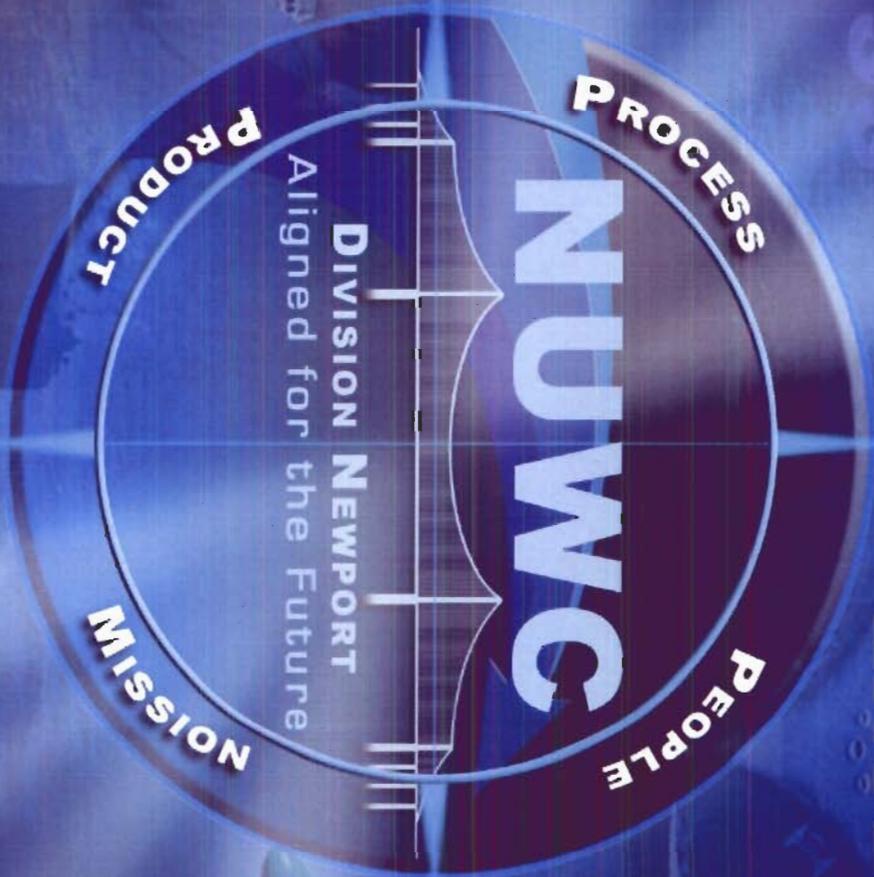


THE  
PROCESS

EXCELLENCE

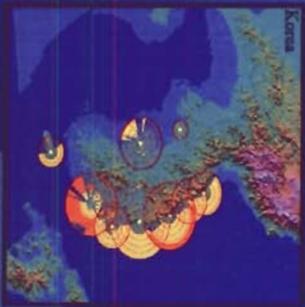


UNDERSEA  
WARFARE

VISION

Approved for Public Release

# Applying Corporate Knowledge Throughout the Entire Life Cycle



**Undersea Warfare Analysis**



**Science & Technology**

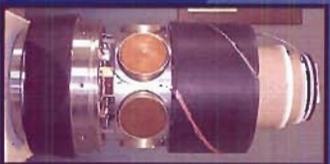


**Acquisition Engineering**



**Production Engineering & Support**

**Advanced Development**

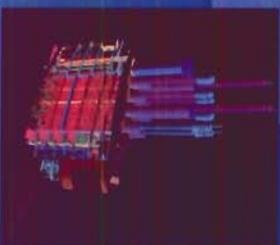


**Fleet Engineering Support**



**Test & Evaluation**

**Platform Engineering**

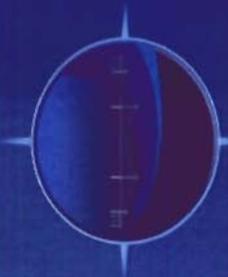


# NUWC's Contribution to Submarine Technology



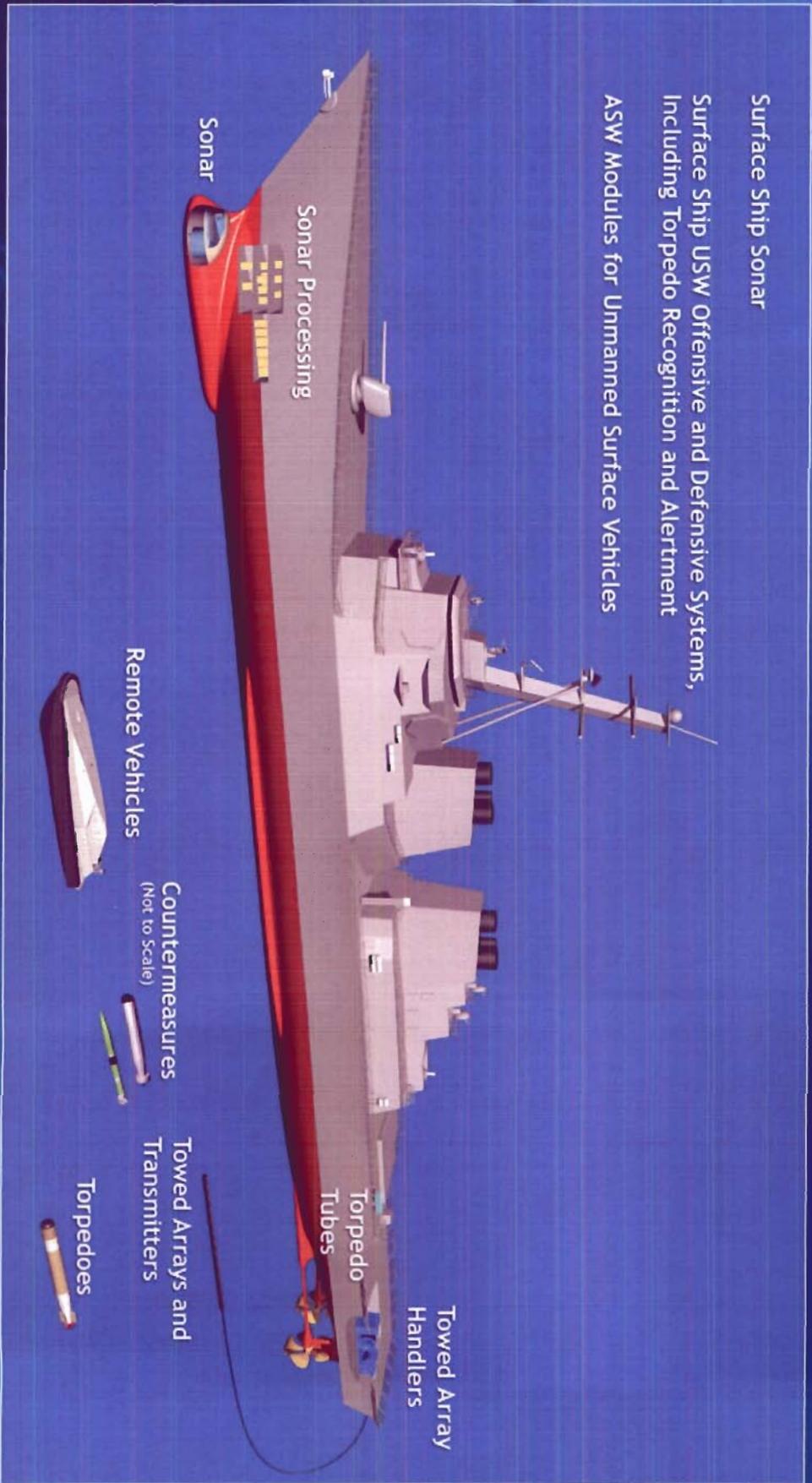
MISSION

# NUWC's Contribution to Surface Ship Technology

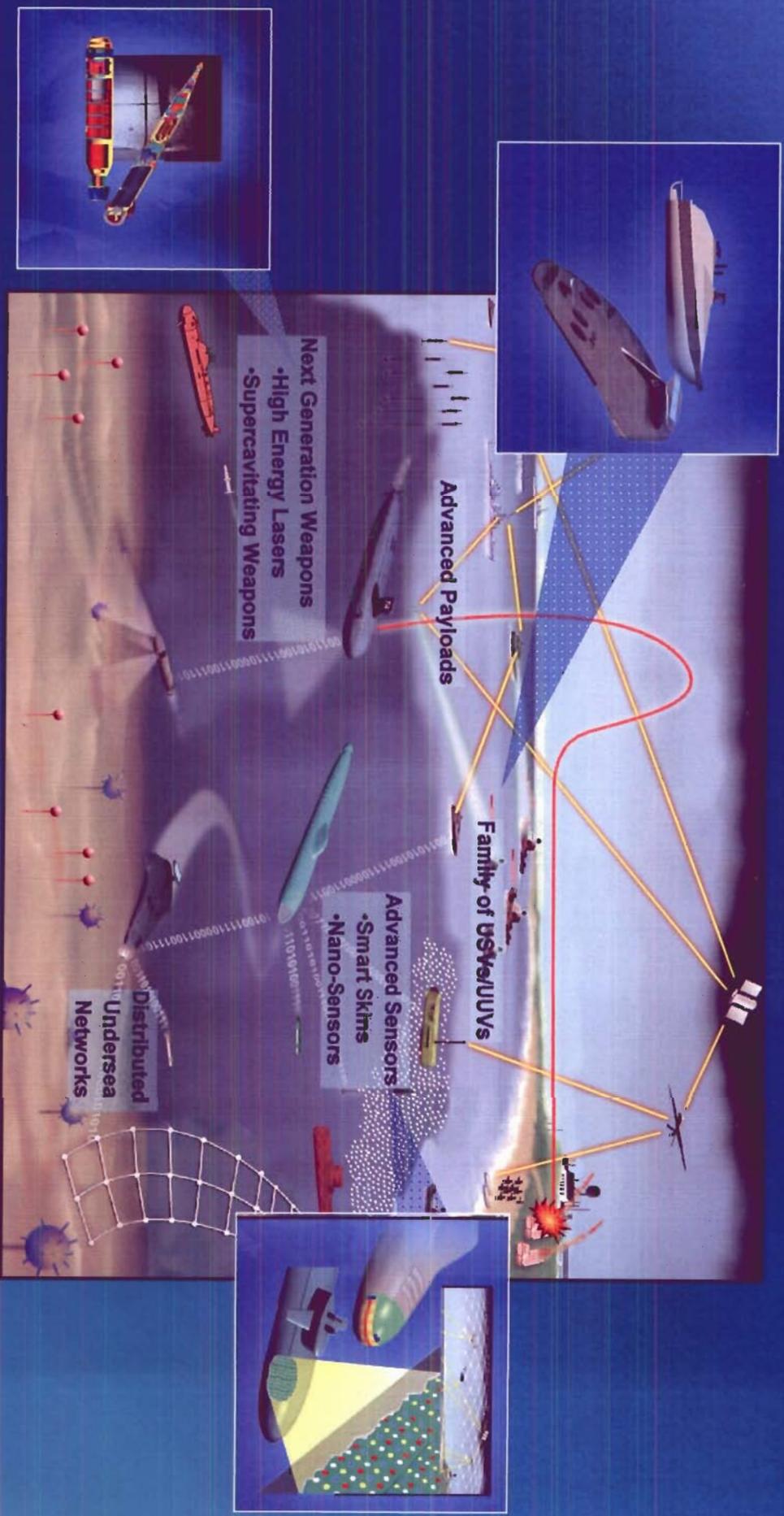


Surface Ship Sonar

Surface Ship USW Offensive and Defensive Systems,  
Including Torpedo Recognition and Alertment  
ASW Modules for Unmanned Surface Vehicles

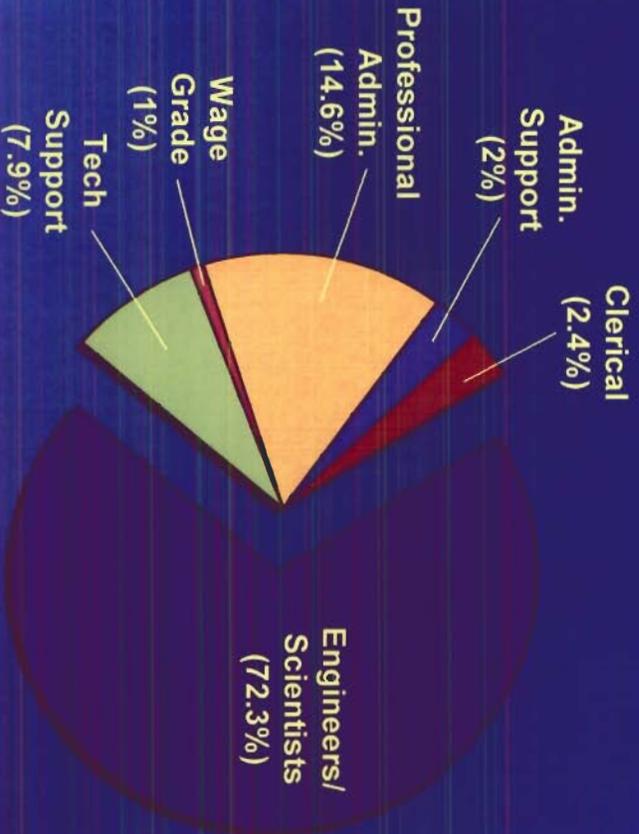


# NUWC's Contribution to the Navy After Next



**SEAPOWER 21 – Transformation for the Navy**

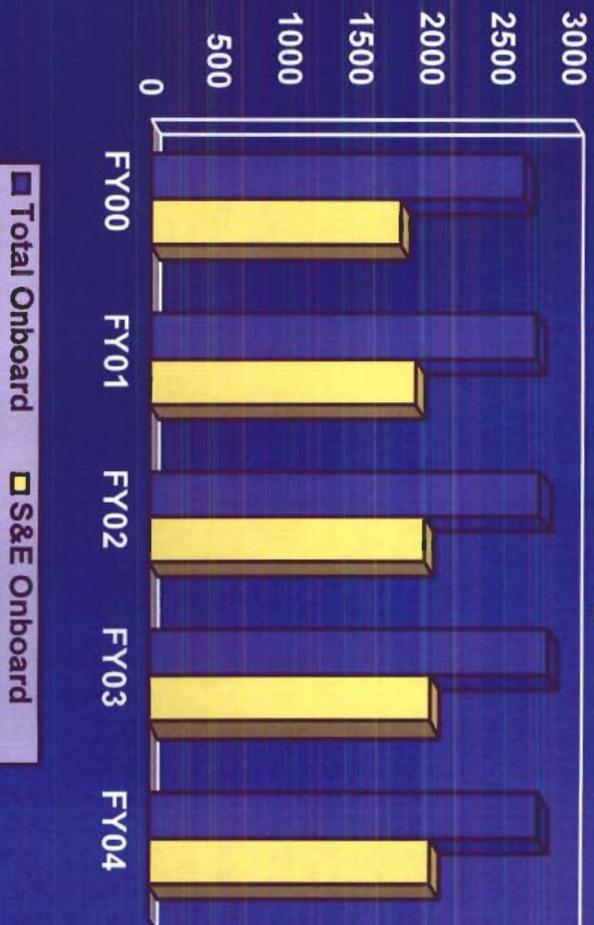
# Our People



FY04	
Civilian	2760
Military	31

## Advanced Degrees

45 % of Our Scientists and Engineering Staff Have Advanced Degrees



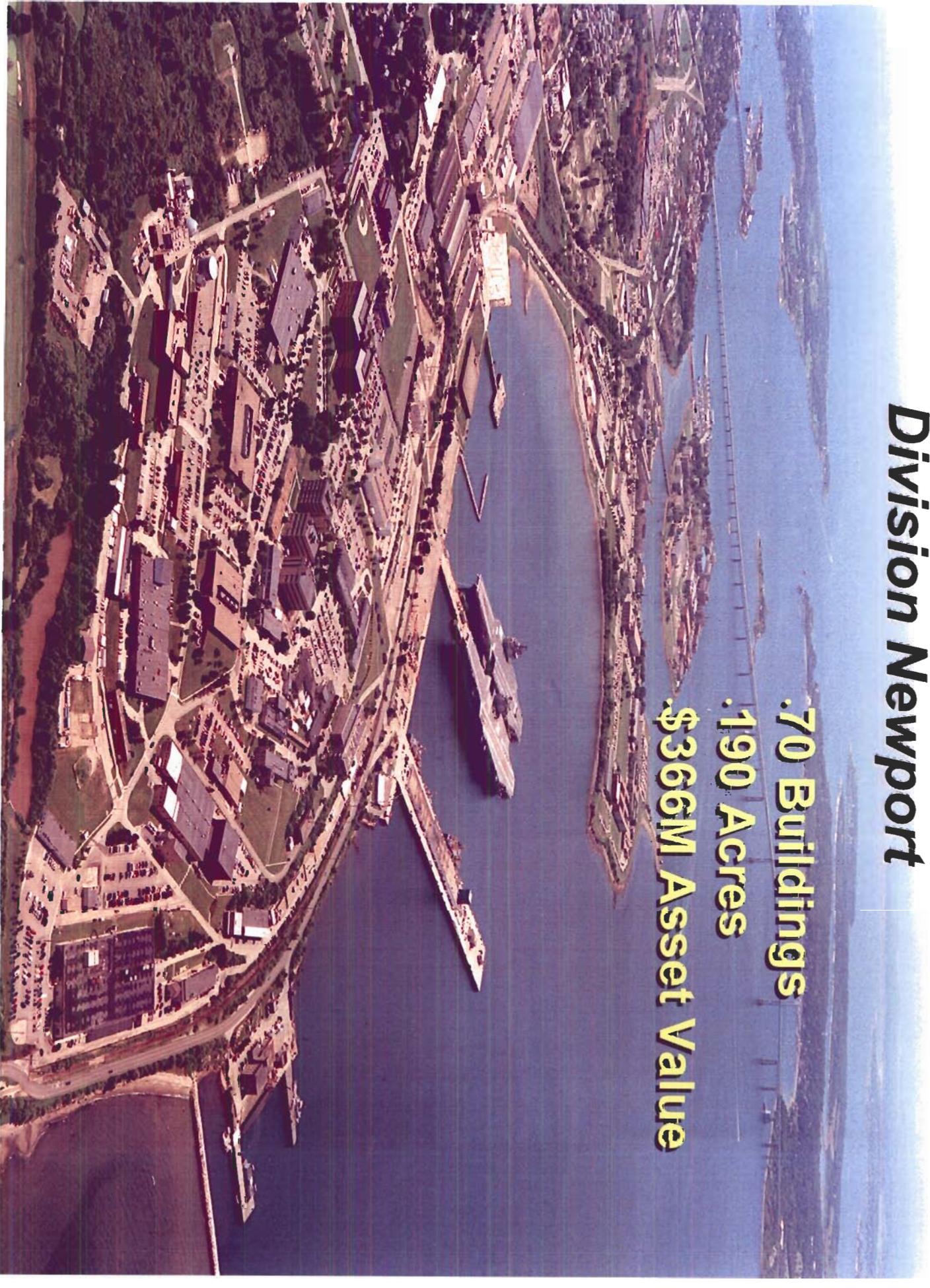
**72% Of Our Workforce are Engineers and Scientists**  
**Advanced Degrees - 159 PHD's (8%) And 735 Master's (37%)**

# Division Newport

**.70 Buildings**

**.190 Acres**

**.\$366M Asset Value**



# Unique USW Facilities

- Are highly specialized for USW
- Have full life cycle application
- Reduce cost, risk, and development time
- Make use of state-of-the-art simulations and networking



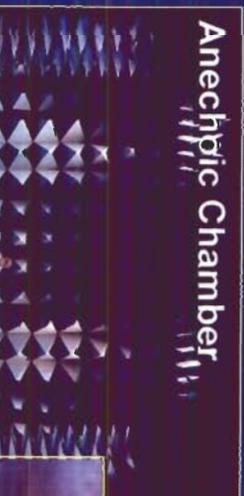
Wind Tunnel



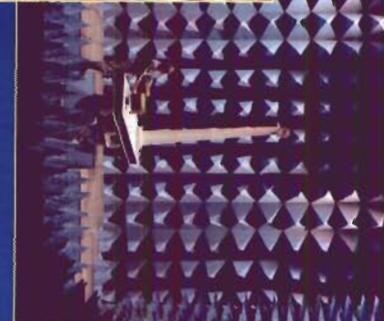
Land-Based  
Integrated Test Site



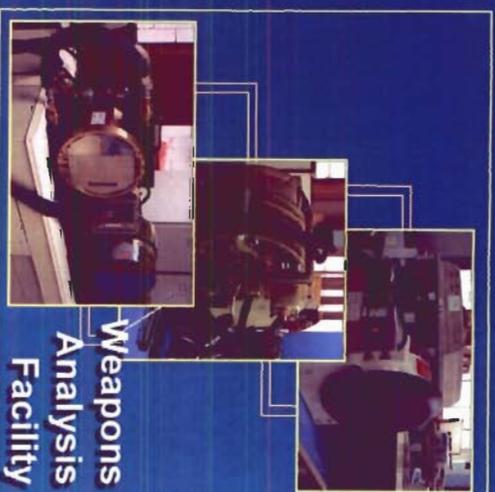
Submarine  
Radio Room



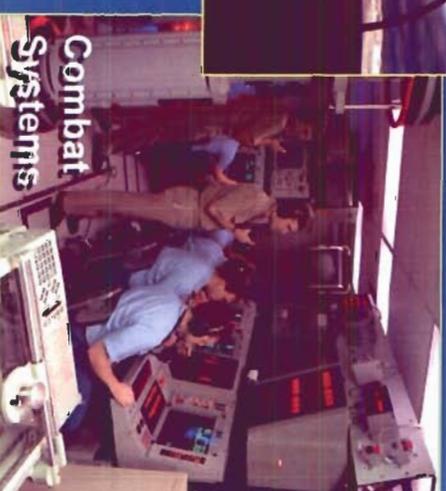
Anechoic Chamber



Over Water  
Antenna Arch



Weapons  
Analysis  
Facility

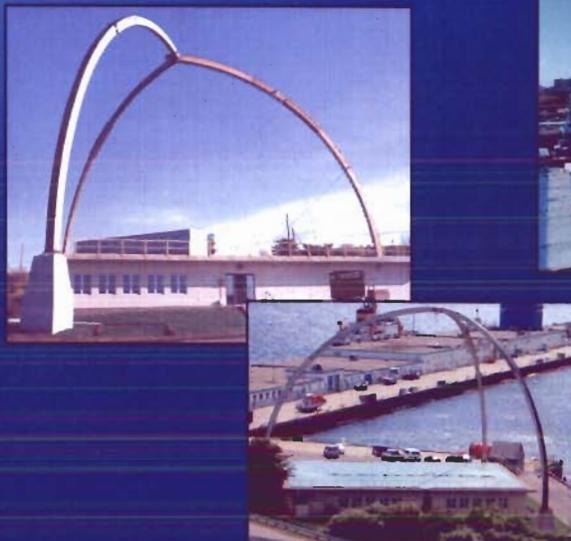


Combat  
Systems

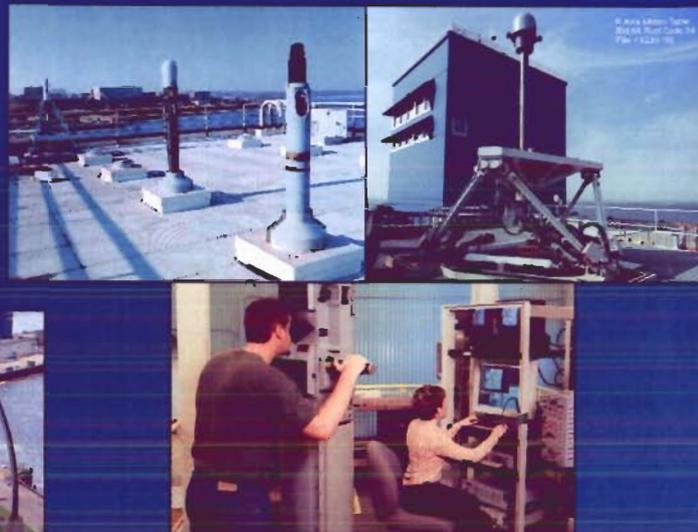
**Undersea Warfare Focus**

# Comms, Imaging & EW Sensors Department Major Facilities

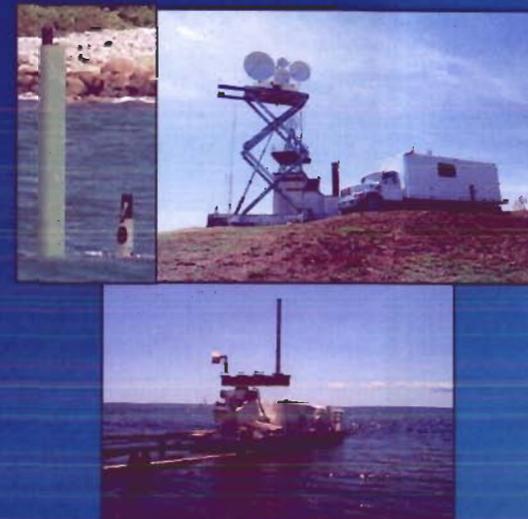
**Overwater Arch**



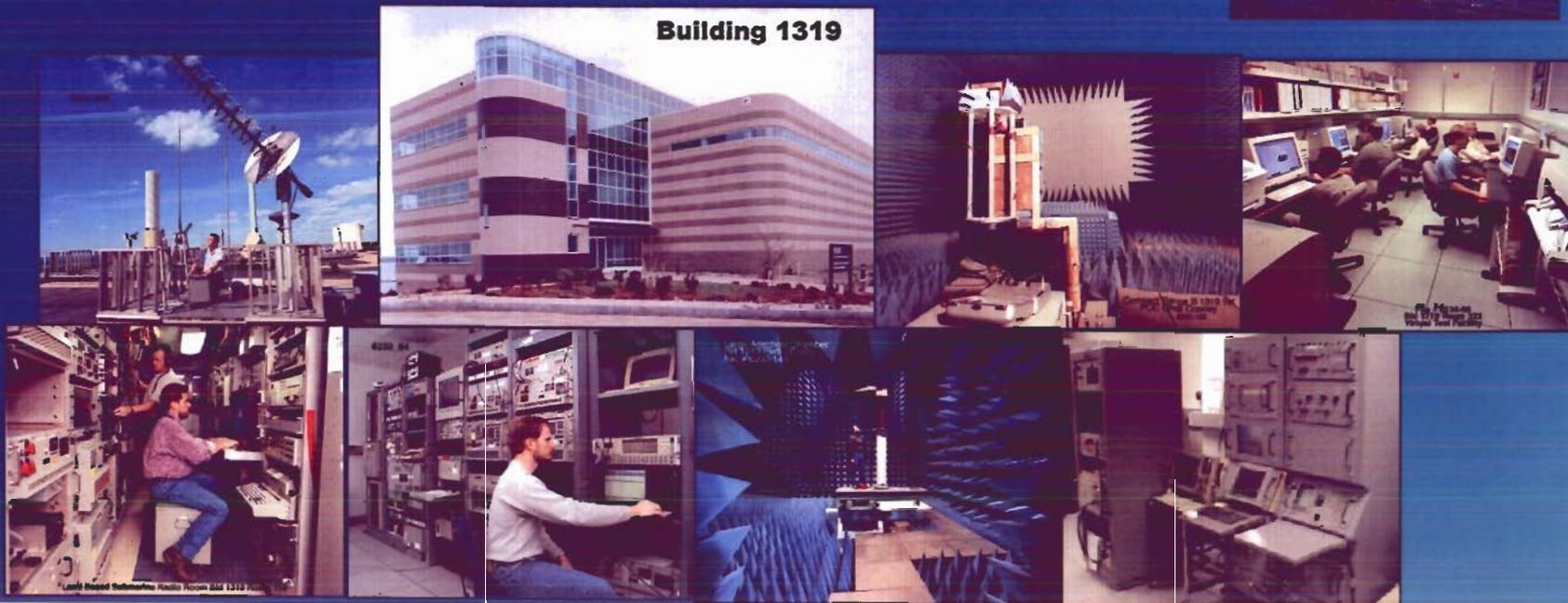
**EM Sensor Facility**



**Fishers Island**



**Building 1319**



**ESM**

- ESM Test Bed
- WUR & w/HPI
- COTS ADF
- BRD-7
- ES Workstation



**B1319**

**Radio Room**

- Land Based Submarine Radio Room (LBSRR) B1319
- Platform Integration & Test Lab B1319
- EMF Interference & Test Lab B99



**B1319**

**Combat Control**

- WSPF
- CCS MK1 / MK2
- AN/BSY1
- Navigation



**Warfare System Presentation Facility**

**B1171 & 1259**

**Antennas & EM Sensors**

Rod Top Antennas:

- OE-538
- BRRA-34
- HDR
- GBS
- Periscopes
- IDA



**B1319**

**B68**

**NUWC Virtual Submarine Warfare System Components**

**Periscopes**

- Type 18
- PERMU
- Photonics Mast



**B1319**

**Sonar**

Advanced Processing & Display Labs

- AN/BSQ-5
- AN/BSQ-6



**B1258**

**B1320**

**Unmanned Undersea Vehicles**

- MTV
- 21" UUV
- REMUS
- HWIL Simulation



**B116**

**Weapons**

Weapons Analysis Facility

- MK48
- ADCAP
- Tomahawk



- Weapons
- CM's
- Storm

**B1346**

**Ships, Ranges, and other Land-Based Facilities**

External Connectivity

- DREN
- SIPRNET
- ISDN
- WAIF
- DEP (Future)

ISDN to:

- Australia
- UK
- Canada

Industry:

- EB
- Raytheon
- Lockheed/Martin
- Sperry Marine

• Northrop Grumman

Underwater Tracking Ranges

- AUTEC
- AFWTF
- SCORE

**Secure Network (Secret System High, OC-3, 155Mbps)**

DS-3 (65 Mbps)  
ISDN & T1

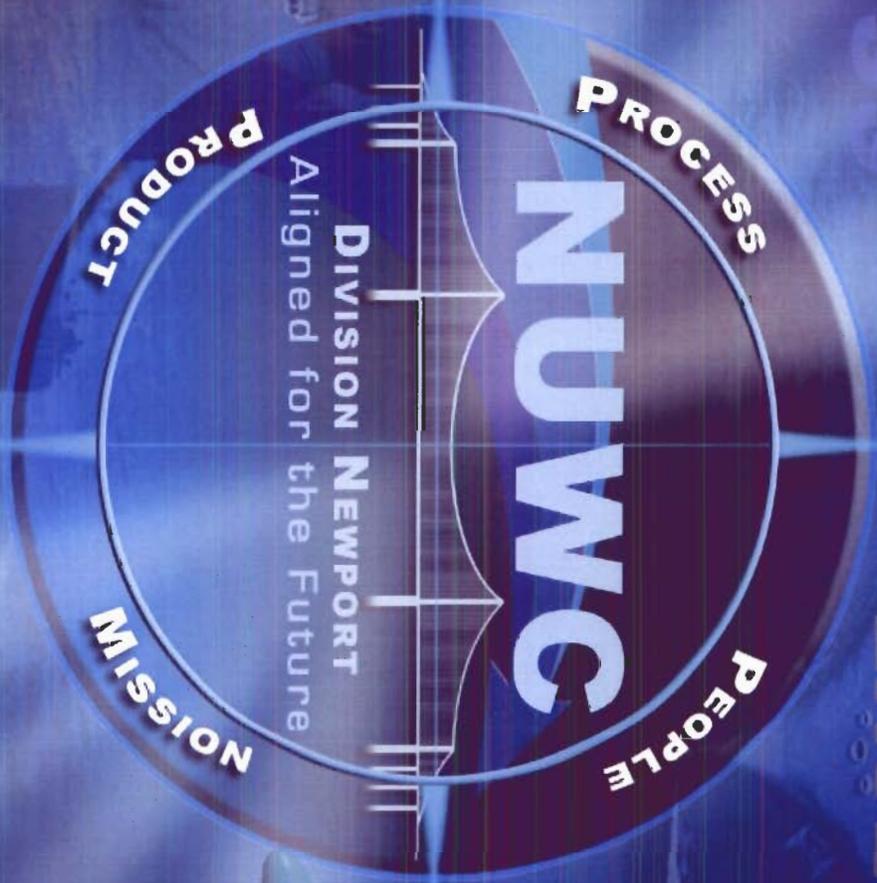
# SUMMARY

## NUWC MISSION

**Operate the Navy's full spectrum research, development, test and evaluation, engineering, and Fleet support center for submarines, autonomous underwater systems, and offensive and defensive weapon systems associated with USW.**

THE  
PROCESS

EXCELLENCE



UNDERSSEA  
WARFARE

VISION

**BRAC 2005 DISCUSSION POINTS  
NUWC DIVISION NEWPORT RI**

**28 JUNE 2005**

# **SOURCE DATA**

- NUWC DIVISION NEWPORT CERTIFIED DATA RESPONSES TO CAPACITY AND MILITARY VALUE DATA CALLS**
- NUWC DIVISION NEWPORT CERTIFIED DATA RESPONSES TO DON SCENARIOS TECH 0008F AND TECH 0008I (SUBSEQUENTLY COMBINED BY TECHNICAL JCSG INTO TECH 0042AR)**
- DEFENSELINK BRAC SITE FILES INCLUDING:**
  - DoD RECOMMENDATION REPORTS**
  - JCSG REPORTS**
  - SERVICE REPORTS**
  - COBRA DATA**
  - DON AND JCSG MEETING MINUTES, WORKSHEETS, CORRESPONDENCE**

## **CONSOLIDATE MARITIME INFORMATION SYSTEMS RESEARCH, DEVELOPMENT & ACQUISITION, TEST & EVALUATION**

Realign Naval Base Ventura County, CA Naval Surface Warfare Center Division, Dahlgren, VA, and Naval Station Newport, RI by relocating Maritime Information Systems Research, Development & Acquisition, and Test & Evaluation to Naval Submarine Base Point Loma, San Diego, CA, and consolidating with the Space Warfare Center to create the new Space Warfare Systems Command Pacific, Naval Submarine Base Point Loma, San Diego, CA.

Reference: DEPARTMENT OF DEFENSE BASE CLOSURE AND REALIGNMENT REPORT VOLUME I PART 2 MAY 2005

**28 JUNE 2005**

**CONSOLIDATE SUBSURFACE MARITIME SENSORS, ELECTRONIC  
WARFARE AND ELECTRONICS RESEARCH, DEVELOPMENT &  
ACQUISITION, TEST & EVALUATION**

Realign Naval Weapons Station Charleston, SC, as follows: relocate Surface Maritime Sensors, Electronic Warfare, and Electronics Research, Development & Acquisition, and Test & Evaluation of the Space Warfare Center to Naval Surface Warfare Center Division, Dahlgren, VA; relocate Subsurface Maritime Sensors, Electronic Warfare, and Electronics Research, Development & Acquisition, and Test & Evaluation of the Space Warfare Center to Naval Station Newport, RI; and relocate the Command Structure of the Space Warfare Center to Naval Amphibious Base, Little Creek, VA, and consolidate it with billets from Space Warfare Systems Command San Diego to create the Space Warfare Systems Command Atlantic, Naval Amphibious Base, Little Creek, VA. The remaining Maritime Information Systems Research, Development & Acquisition, and Test & Evaluation functions at Naval Weapons Station Charleston, SC, are assigned to Space Warfare Systems Command Atlantic, Naval Amphibious Base, Little Creek, VA.

Reference: DEPARTMENT OF DEFENSE BASE CLOSURE AND REALIGNMENT REPORT VOLUME 1 PART 2 MAY 2005

28 JUNE 2005

## **CONSOLIDATE SUBSURFACE MARITIME SENSORS, ELECTRONIC WARFARE AND ELECTRONICS RESEARCH, DEVELOPMENT & ACQUISITION, TEST & EVALUATION**

**Realign Naval Air Station Patuxent River, MD, by relocating Subsurface Maritime Sensors, Electronic Warfare, and Electronics Research, Development & Acquisition, and Test & Evaluation of the Naval Air Warfare Center, Aircraft Division to Naval Station Newport, RI.**

**Realign Naval Submarine Base Point Loma, San Diego, CA, as follows: relocate Surface Maritime Sensors, Electronic Warfare, and Electronics Research, Development & Acquisition, and Test & Evaluation of the Space Warfare Center to Naval Surface Warfare Center Division, Dahlgren, VA; relocate Subsurface Maritime Sensors, Electronic Warfare, and Electronics Research, Development & Acquisition, and Test & Evaluation of the Space Warfare Center to Naval Station Newport, RI; disestablish Space Warfare Systems Center Norfolk, VA, detachment San Diego, CA, and assign functions to the new Space Warfare Systems Command Pacific, Naval Submarine Base Point Loma, San Diego, CA; disestablish Naval Center for**

Reference: DEPARTMENT OF DEFENSE BASE CLOSURE AND REALIGNMENT REPORT VOLUME I PARTS MAY 2005

# GOVERNMENT CIVILIAN REALIGNMENT

SCENARIO	CIVILIANS OUT	CIVILIANS IN
<b>INFORMATION SYSTEMS TO SPAWAR SYSTEMS CENTER, SAN DIEGO</b>	<b>150</b>	
<b>SUBSURFACE SENSOR TO NUWC DIVISION NEWPORT</b>		<b>169</b>

## **CONSOLIDATE MARITIME INFORMATION SYSTEMS R,D&A,T&E TO SPAWAR SYSTEMS CENTER, SAN DIEGO**

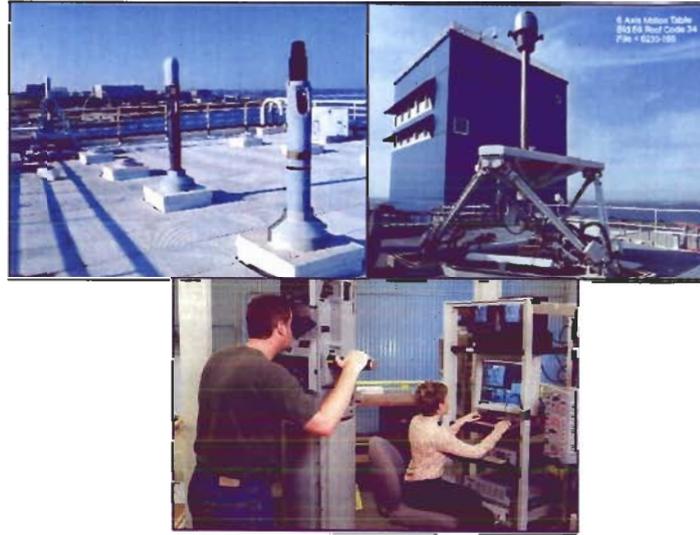
- ❑ JCSG SCENARIO TECH 0042AR**
- ❑ MAJOR NEWPORT WORK CAPTURED IN SCENARIO**
  - ❑ SUBMARINE RADIO ROOM**
  - ❑ COMMUNICATION ANTENNAS**
- ❑ DIVISION NEWPORT'S SUBMARINE COMMUNICATIONS ANTENNA FACILITIES INTERFACE WITH SUBMARINE COMBAT SYSTEM INFRASTRUCTURE INCLUDING PERISCOPES AND ELECTRONIC WARFARE SENSOR SYSTEMS TO ENABLE REAL-TIME END-TO-END OPERATIONAL WARFARE SYSTEM TEST AND EVALUATION.**

# COMMS, IMAGING & EW SENSORS MAJOR FACILITIES

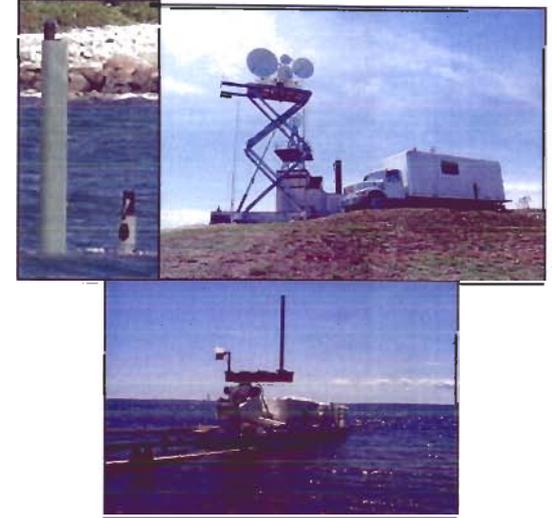
Overwater Arch



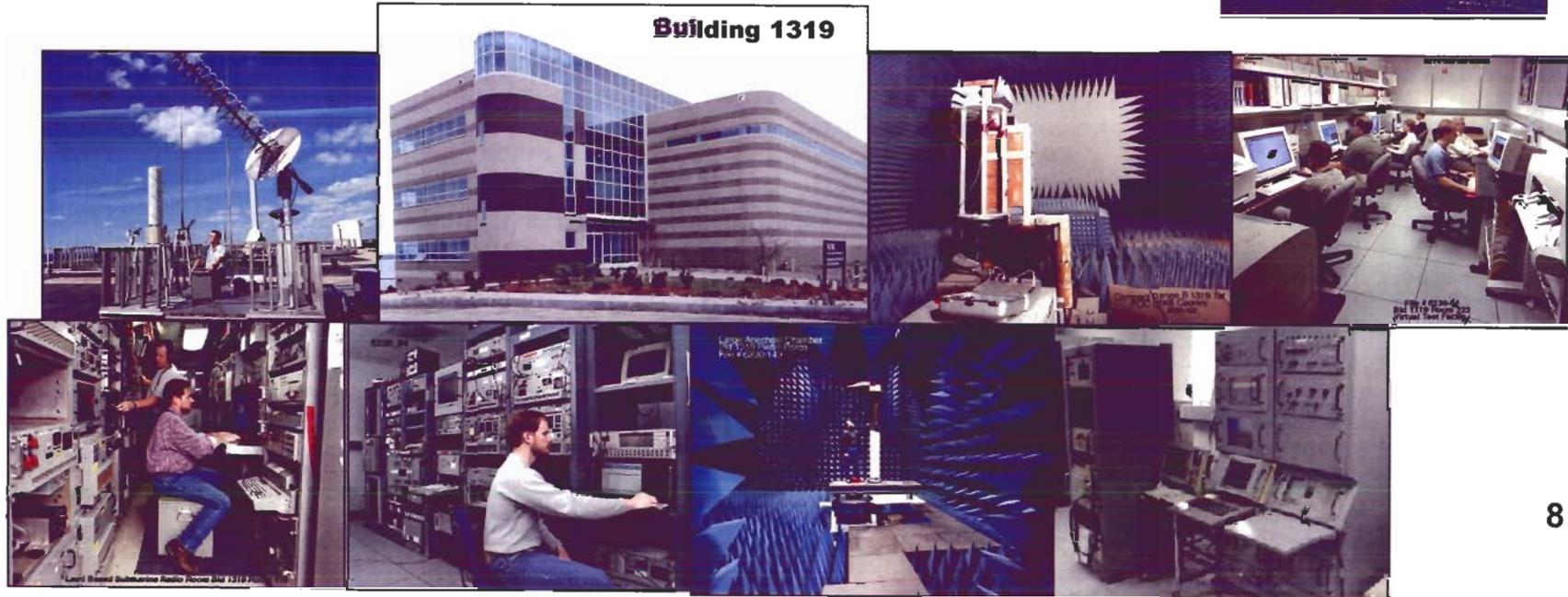
EM Sensor Facility



Fishers Island



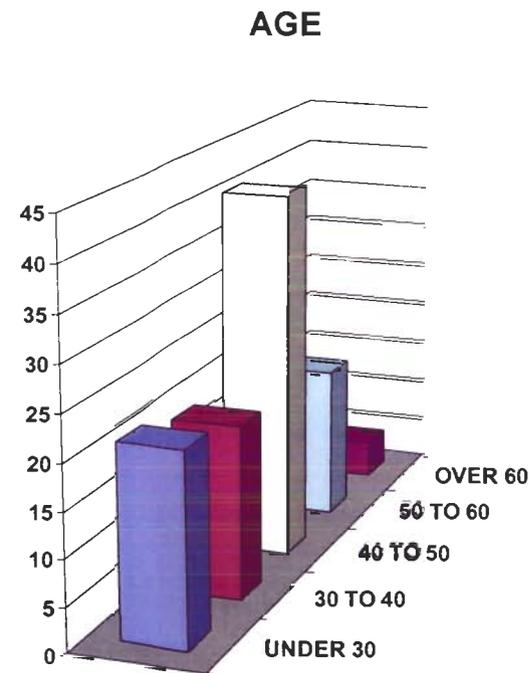
Building 1319



# CONSOLIDATE MARITIME INFORMATION SYSTEMS R,D&A,T&E TO SPAWAR SYSTEMS CENTER, SAN DIEGO

## PERSONNEL DEMOGRAPHICS

- ❑ COMMUNICATION ANTENNAS AND RADIO ROOM EXPERTISE TO REALIGN
  - ❑ 5 PhD
  - ❑ 29 MASTERS
  - ❑ 63 BACHELOR
  - ❑ 13 TECHNICAL
- ❑ SUBMARINE COMMUNICATIONS IS HIGHLY ESOTERIC DISCIPLINE
  - ❑ OVER 2000 YEARS OF EXPERIENCE



**CONSOLIDATE SUBSURFACE MARITIME SENSORS, ELECTRONIC  
WARFARE AND ELECTRONICS R, D&A, T&E TO NUWC DIVISION  
NEWPORT**

- JCSG SCENARIO TECH 0042AR
- 8 ACTIONS IN ORIGINAL SCENARIO DATA CALL:

	ACTIVITY	GOVT CIVILIANS	RECOMMENDED IN DoD REPORT?
1			
2	SPAWAR SAN DIEGO	118	YES
3	NAS PAX RIVER	32	YES
4	NWS CHARLESTOWN, SC	19	YES
5			
6			
7			
8			

# RATE SHEET

Included in rental fee:

## Audio/Visual Equipment

- ◆ Computers for presentations such as Power Point & Excel (Windows XP)
- ◆ Document camera
- ◆ Electronic print board
- ◆ Flip chart easel with markers
- ◆ Internet access via dial-up modem
- ◆ LCD projectors, with large 12' x 12' image
- ◆ Lecterns with touch-screen panel
- ◆ Microphones, gooseneck & wireless
- ◆ Panel discussion table-top microphones
- ◆ Transparency overhead projectors
- ◆ Video cassette recorder
- ◆ Wireless mouse and laser pointer for walk-around ease during presentation
- ◆ Video-taping capabilities with portable camera/TV

## Video-Teleconferencing

- ◆ Tandberg Vision 5000, Codec type
- ◆ H.320 Standard ISDN, T1-112K
- ◆ 6 channels, 384 speed

## Administrative Resource Office

- ◆ Fax, Copier, Shredder
- ◆ Admin desk/work station with telephone, computer & laser printer
- ◆ Computer room with 4 computer stations, each with modem & printer capabilities
- ◆ Internet access via dial-up modem

## Small Break-Out Rooms

- ◆ Available for a nominal fee, with conference room rental

## Lounge Area

- ◆ Cable Television, couches & chairs, local visitor information

## Complimentary Coffee, etc.

- ◆ Coffee, decaf, tea, espresso & spring water
- ◆ Provided from no-cost vending machines

<b>CONTACT:</b> <i>Dave Mower, Manager</i> <i>Tel. (401) 841-3420</i> <i>Fax. (401) 841-2612</i>		<b>DAILY RATE*</b> <i>8:00 am - 4:00 pm</i>	<b>Prorated based on multiple days</b>			
			<b>2 days</b>	<b>3 days</b>	<b>4 days</b>	<b>5 days</b>
			<i>save 10%</i>	<i>save 15%</i>	<i>save 20%</i>	<i>save 25%</i>
<b>GRAND ISLANDER: Rooms A, B</b>	<i>150 ppl</i>	\$ 594.00	\$ 535.00	\$ 505.00	\$ 475.00	\$ 445.00
Room A only	<i>80 ppl</i>	\$ 352.00	\$ 317.00	\$ 299.00	\$ 282.00	\$ 264.00
Room B only	<i>48 ppl</i>	\$ 242.00	\$ 218.00	\$ 206.00	\$ 194.00	\$ 181.00
Room C only	<i>14 ppl</i>	\$ 88.00	\$ 79.00	\$ 75.00	\$ 70.00	\$ 66.00
<b>The BOARDROOM: Suites A, B</b>	<i>40 ppl</i>	\$ 198.00	\$ 178.00	\$ 168.00	\$ 158.00	\$ 148.00
Suite A only	<i>20 ppl</i>	\$ 110.00	\$ 99.00	\$ 93.00	\$ 88.00	\$ 82.00
Suite B only	<i>12 ppl</i>	\$ 88.00	\$ 79.00	\$ 75.00	\$ 70.00	\$ 66.00

\* Daily rate is for an 8-hour conference from 8am to 4pm, plus a half hour each for set-up & breakdown. Each additional hour or portion thereof is \$40. An additional charge of \$100 per day for the Grand Islander and \$50 per day for the Boardroom applies on holidays & weekends. Prices subject to change without notice.

## Catering

- ◆ Can be arranged via the Commissioned Officers' Club. (401) 846-2515.
- ◆ You may opt to use any outside caterer, with management approval. Catering recommendations available upon request.

## Hotel Accommodations

- ◆ For on-base accommodations, contact the Combined Bachelors Quarters Reservations Office at (401) 841-7900.

Naval Station Newport ~ Harbor Island Conference Center ~ 684 Perry Road ~ Newport, RI 02841-1107 (Effective 04/01/04)

Source: Conference Center

#3

**From:** Mower, David B CIV 54, Conf Center  
**Sent:** Tuesday, November 09, 2004 11:26 AM  
**To:** Coston, Rachel O CIV N73, CBH  
**Subject:** RE: CONFERENCE CENTER OCCUPANCY

Rachel,  
The occupancy figure for 2004 is 41.2%  
V/R  
Dave

-----Original Message-----

**From:** Coston, Rachel O CIV N73, CBH  
**Sent:** Monday, November 08, 2004 8:41  
**To:** Mower, David B CIV 54, Conf Center  
**Subject:** RE: CONFERENCE CENTER OCCUPANCY

Thanks Dave

Rachel

-----Original Message-----

**From:** Mower, David B CIV 54, Conf Center  
**Sent:** Friday, November 05, 2004 15:42  
**To:** Coston, Rachel O CIV N73, CBH  
**Subject:** CONFERENCE CENTER OCCUPANCY

Rachel,  
The conference center occupancy figures from FY 1999 - 2003 are as follows:

1999	29 %
------	------

2000	31.1 %
------	--------

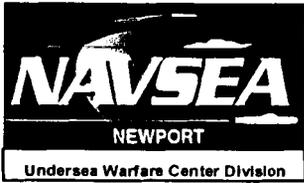
2001	25.7 %
------	--------

2002	36.1 %
------	--------

2003	39.5 %
------	--------

I'll have the 2004 figure for you on Tuesday.  
V/R  
Dave

#3  
p. 2



Submarine Communications  
Tour Itinerary for

**Mr. David Epstein, BRAC staff**

**Tuesday, June 28, 2005**

Naval Undersea Warfare Center Division, Newport

- 0800 B1319/321 Opening Discussion (Racette, Molino)
- 0830 B1319 Anechoic Chamber (Swiatowski)
- 0835 B1319 LBSRR ← Land-based Sub Radio Room (Sullivan)
- 0900 B1259 Combat Systems (Sullivan, McLaughlin)
- 0920 B1258 SSGN/SSBN CSRR ← Common Sub Radio Room (Sullivan, Warner)
- 0935 B1258 SSBN Combat System (Sullivan, Pereira)
- 0950 B112 Receiving Facility (DRIVE BY) (Racette)
- 1000 B116 MANTA Demo (DRIVE BY) (Racette)
- 1010 B1318 Arch (DRIVE BY) (McMillian/Stefanowicz)
- 1015 Pier Iridium Cable (DRIVE BY) (McMillian/Stefanowicz)
- 1025 B68 SESIF, ESM, Periscopes (Sullivan, McMillian, Britton, Miller)

↑ Electronic Support Measures  
- Sub EHF System Integration Facility

NUWC BRAC Billet/Personnel/Savings Summary

BRAC	Losing/Gaining	Baseline	Savings FTE/MIL	Billets Transferred	FY	Personnel Transferred	Empty Billet Transfer
II	Newport	-	6/0	-	92-96	-	-
II	New London/NPT	895	110/7	785 (1)	92-96	540	245
II	CSS/NPT	140	0	140	92-94	2	138
II	NSWC CRANE/NPT	72	0	72	92-94	0	72
II	NCCOSC-NRad/NPT	188	0	188	92-94	13	175
II	Seabav/NPT	*	30/1	*		*	0
II	TRICOM/NPT	191	20/2	191 (3)	92	182	9 (6)
II	NSWC <sup>local</sup> / local	184	0	(184)	92	(184)	0
II	NPT/NCCOSC	66	0	(66)	92	(66)	0
II	ASMK/NPT	55	15/0	55 (3)	92	42	23
III	NOC/NPT	12	0	12 (2)	94	12	0
III	NUWCDETNO/NPT	651	95/2	433 (4)	94-97	76	357
IV	NUWCDETNLON/NPT	595	56/0	539	96-97	390	149
IV	NUWCDETORL/NPT	100	45/0	55	96/97	22	33
			362/12	2,415 (5)		1,237 (5)	1,178 (5)

- Notes
- (1) After savings
  - (2) Transfer in place
  - (3) Savings taken after billet transfer
  - (4) After BRAC II mission purification
  - (5) Excludes billets transferred out of Newport or to Keyport (shaded area)
  - (6) Eleven extra billets with personnel transferred prior to achieving all savings
- \* Counted in BRAC III

New London/NPT  
 CRANE TO NPT  
 SAN DIEGO TO NPT  
 New VA to NPT  
 MOVE IN PLACE  
 New VA to NPT  
 New London to NPT  
 NPT ORLANDO to NPT

San Diego - Key  
 $76/651 = 12\%$   
 $390/595 = 66\%$   
 $22/100 = 22\%$