

BVCNB

A Workable Alternative

How to use the existing construct of the Naval Air Warfare Center, Weapons Division to comply with DoD's strategy of establishing centers of technical excellence, while significantly increasing military value, decreasing the cost of realignment and reducing the loss of intellectual capital.

Background

The Naval Air Warfare Center, Weapons Division (NAWCWD) stood up as a command within the Naval Air Systems Command (NAVAIR) claimancy on 1 January 1992. Its planning and legal basis stem from the Navy preparation for BRAC 91 and the subsequent BRAC implementation established by law. While initially encompassing several separate and independent NAVAIR field activities and the prior Naval Weapons Center, China Lake, then a field activity of the Space and Naval Warfare Systems Command (SPAWAR), it quickly evolved to a two-site technical organization at China Lake and Pt. Mugu. At the time of its formation, two other centers under NAVAIR were created, the NAWC Aircraft Division headquartered at Patuxent River, MD, and the Training Systems Division at Orlando, FL. A headquarters for the three centers was established as the NAWC in Washington, D.C. under NAVAIR. At the same time as the NAWC and its divisions were formed, companion centers were created in the Naval Sea Systems Command (NAVSEA), and in SPAWAR.

The Intent

When planning started for BRAC 91, the leadership in the Navy was intent on consolidating the vast systems commands' RDT&E field activities into a much leaner structure. This was to be accomplished through realignments and closures affecting most of the field activities within the three systems commands organizations. NAVAIR leadership had had much earlier visions of a field activity structure with a flag officer in charge on each coast. The focus on the east coast would be airplanes and on the west coast, weapons, although the complexity of activity across all the supporting field structure was far greater than just those two commodities. Where activities were to continue to exist, the command function would vest in the NAWC division commander (a flag officer) and the supporting base function would be a subordinate command.

One very important aspect of this consolidation was the elimination of independent competing technical commands and functions around the country. Because weapons RDT&E functions were performed both at China Lake (more heavily R&D) and Pt. Mugu (more heavily T&E), a primary NAWCWD consolidation goal was to eliminate areas of overlap between the main sites. The new NAWCWD command structure significantly reduced middle management positions and located technical leadership at the site where it made the most sense. For example, Range, Targets, Test Wing, Logistics, Avionics and T&E Engineering leadership was located at Pt. Mugu, while System Engineering and Weapons leadership was located at China Lake. NAWCWD also adopted common systems for major supporting functions (e.g., financial, personnel,

information technology) depending on which site was judged most efficient. These consolidation efficiencies commenced in 1992 and were favorably noted during BRAC 95 site visits.

What followed in NAWCWD was a single command, headquartered first at Pt. Mugu and later at China Lake, commanding all the technical work at both places as an integrated organization, with subordinate Naval Air Weapons Station commands at each location to run the support functions of the bases themselves. Incredibly, there were really only two reasons for even identifying the two NAWCWD sites as separate entities. One involved the US Postal Service and the need to correctly address mail. The other had to do with detailed personnel management within the Department of the Navy and the need to have separate Unit Identification Codes (UIC) at each site.

NAVSEA used a different construct for their consolidated field activities and allowed each of the remaining activities renamed as Divisions, after closures occurred, to continue to exist as separate technical commands, coordinated in their work by a Washington, D.C. based Naval Surface Warfare Center (NSWC) headquarters staff. NSWC Port Hueneme Division (NSWC PHD) remains as one of those technical commands. The NSWC recently adopted a form of competency alignment under Product Area Directors and has significantly reduced redundancy and competition between the separately commanded Surface Warfare Center Divisions.

The Management Imperative

First within the NAWC, then quickly followed by all of NAVAIR, a Competency Aligned Organization (CAO) management paradigm was adopted. This structure of management aligns people by technical function or specialty to provide support for programs without regard to physical location. NAVAIR in many ways ceased being a headquarters organization, which it had to do because of very aggressive mandated downsizing, and adopted a process by which leadership at all management levels was placed where the "center of gravity" for specific functions really existed. In the case of Ranges, Target Systems, Weapons, Electronic Warfare and other technical areas, that meant that the NAWCWD was in charge of those areas for all of NAVAIR. Within NAWCWD, the technical leadership for Weapons R&D is clearly at China Lake with T&E work also being accomplished in that competency at Pt. Mugu and Patuxent River. Technical leadership for Open Air Ranges, of which there are four within NAVAIR, Targets (used at all the ranges), and Electronic Warfare reside at Pt. Mugu. Since, in terms of total workload and people employed, China Lake has always been the larger element of NAWCWD, it was decided that the headquarters (flag pole) for NAWCWD would remain at China Lake, instead of alternating between the two sites, as had been the original concept. However, it is extremely important to understand that the residence of the flag officer and his immediate staff does not create an organization centered at China Lake with a detachment at Pt. Mugu. The commander of NAWCWD maintains offices at Pt. Mugu. He and his staff spend a considerable amount of time there, as they are the only technical command function at both locations.

In contribution to the support of programs, both sites work together in a fully integrated manner and are literally an inseparable team. At every level, management has been flattened and the work fully distributed to the people best suited to perform it. In the flat management chain, it is very common to find workers at one site reporting to a manager at the other site. Modern electronic communications technology, including dedicated fiber optic and microwave links and a network of video teleconference nodes, combined with a regularly scheduled aircraft shuttle service, have been employed to tightly link technical work. For example some electronic warfare and weapons laboratories are connected by fiber optics and literally function as one across the two sites. The NAWC WD infrastructure is transformational in that it adopted these methods more than 10 years ago and has since refined them to achieve greater efficiency and effectiveness.

In 1998, as part of the Navy's shore establishment regionalization initiative, the Air Station at Pt. Mugu was moved from NAVAIR control to the fleet. Additionally, in 2000, the Naval Air Station at Pt. Mugu was merged with the Construction Battalion Center at Port Hueneme to create Naval Base Ventura County (NBVC). The effect at NBVC was to eliminate duplicate base command and support functions at the two proximate bases. That consolidation effort continues to this day. It is important to note that NAWCWD Pt. Mugu and NSWC PHD exist today as technical tenant activities on NBVC. There are dozens of other tenant activities on NBVC. However, the only ones subject to BRAC 2005 realignment are NAWCWD and NSWC PHD.

The Proposed Technical Mega-Centers at China Lake in BRAC 2005

The proposed Weapons and Armament Center and the Sensors, Electronic Warfare, and Electronics Center at China Lake will probably never exist in the final management structure, even if all the BRAC realignments are put into law. In keeping with the CAO management paradigm of NAVAIR those positions would be aligned into existing, or perhaps some new competencies within the overall NAVAIR structure. In a world of industrial funding for program work, management can ill afford to add additional management layers to accommodate BRAC realignment rationale. The resulting management structure will continue to employ people at multiple sites that do not close. In the case of the Pt. Mugu realignment, from a management perspective, literally nothing will be changed except the positions will physically relocate to China Lake under a new mailing address and UIC. Unfortunately, most of the technical experts in their specialties from NBVC will not move and fill those positions. The loss of intellectual capital will be devastating for several years. If the positions are not relocated, they will continue to support programs, through the CAO, and under the technical command of the same flag officer, as they are today joined "at the hip" with their counterparts at China Lake

In the case of the realignment of functions from NSWC PHD, there is a case for consolidating a small part of that work under different systems commands. The weapons management functions at PHD, which are not inextricable to their essential shipboard weapons system integration work, probably could be more efficiently managed within NAWCWD. However the people literally do not have to move to make that happen.

They can realign in place and remain at Port Hueneme as part of the NAWCWD on NBVC, or if NAWC management prefers, move over to the Pt. Mugu side of the base. There are a handful of C4ISR functions at NSWC PHD which more properly align under SPAWAR and should realign and relocate to Pt. Loma.

An Alternative Philosophical Rationale

Given the data provided by the Ventura County BRAC Task Force, it is obvious that the proposed NBVC realignment will trigger a large and painful loss of intellectual capital, perhaps in excess of 80%, will incur costs that are not reasonably recoverable, and have a serious impact on the program customers as well as the effectiveness of our war fighters. Yet the concept of establishing consolidated Weapons and Armament and Sensors, EW, and Electronics centers, if in name only, under one systems command has merit. Therefore the BRAC Commission need only honor the simple fact that the two-site NAWCWD exists as a totally integrated single technical command established by BRAC 91 and that those proposed centers really are to be established at NAWCWD, the command, not the singular location of China Lake. By so doing, (1) the realignment of all functions out of Pt. Mugu would be cancelled, (2) only the appropriate weapons functions at NSWC PHD would be realigned, in place, to NAWCWD and (3) a handful of C4ISR positions would actually move to Pt. Loma. The proposals for other bases to realign functions to the consolidated Weapons and Armament center would be judged on their individual merits under the BRAC process. If they were to be realigned, in keeping with this rationale, the gaining organization would be NAWCWD, and the most relevant site for the relocation would be selected based on the nature of the functions to be realigned.

Following this alternative recommendation would comply with DoD's strategy of establishing centers of technical excellence, while significantly increasing military value, decreasing the cost of realignment and reducing the loss of intellectual capital.

Bldg 1388

• Weapons and Armaments RDAT&E

Bldg 1380

• Weapons and Armaments RDAT&E

Bldg 5

• Weapons and Armaments RDAT&E

Bldg 1387

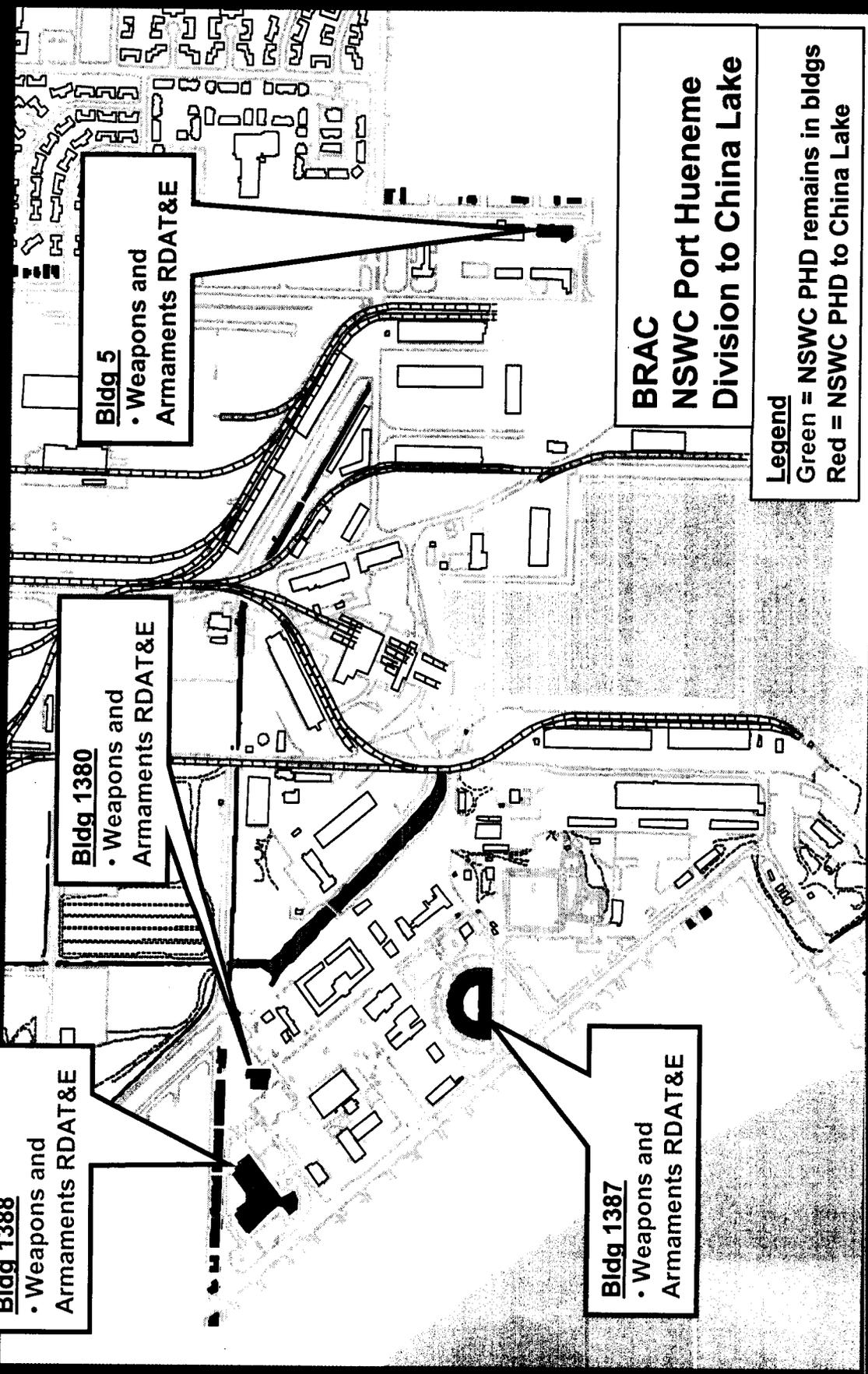
• Weapons and Armaments RDAT&E

**BRAC
NSWC Port Hueneme
Division to China Lake**

Legend

Green = NSWC PHD remains in bldgs

Red = NSWC PHD to China Lake



NSWC PHD/NBVC BRAC Personnel Impacts

Wayne Honea

NSWC PHD BRAC Coordinator

13 July 2005

NSWC PHD/NBVC BRAC Scenarios

- **Weapons & Armaments (Missiles, Guns, Energetics)
to NAWC China Lake
(TECH0002A / TECH0018DR)**
- **C4ISR to SPAWAR San Diego
(TECH 0008B & TECH 0008F / TECH 0042A)**

Weapons & Armament (Missiles, Guns, Energetics) to NAWC China Lake

Scenario Action:

- Realign Port Hueneme Weapons and Armaments (except weapon system integration) and relocate to China Lake

Assumptions:

- Relocate most Weapons and Armaments e.g. missiles, energetics, guns, etc RDAT&E to China Lake

Recommendation:

- Realign Naval Base Ventura County, Port Hueneme, CA, by relocating all Weapons and Armaments Research, Development & Acquisition, and Test & Evaluation, except weapon system integration, to Naval Air Weapons Station China Lake, CA.

Justification:

- Consolidating the Navy's air-to-air, air-to-ground, and surface launched missile RD&A, and T&E activities at China Lake, CA, would create an efficient integrated RDAT&E center.

Weapons & Armament (Missiles, Guns, Energetics) to NAWC China Lake

Surface Combatants



Aircraft Carriers



Amphibious Ships



NSWC PHD Weapons and Armament Programs

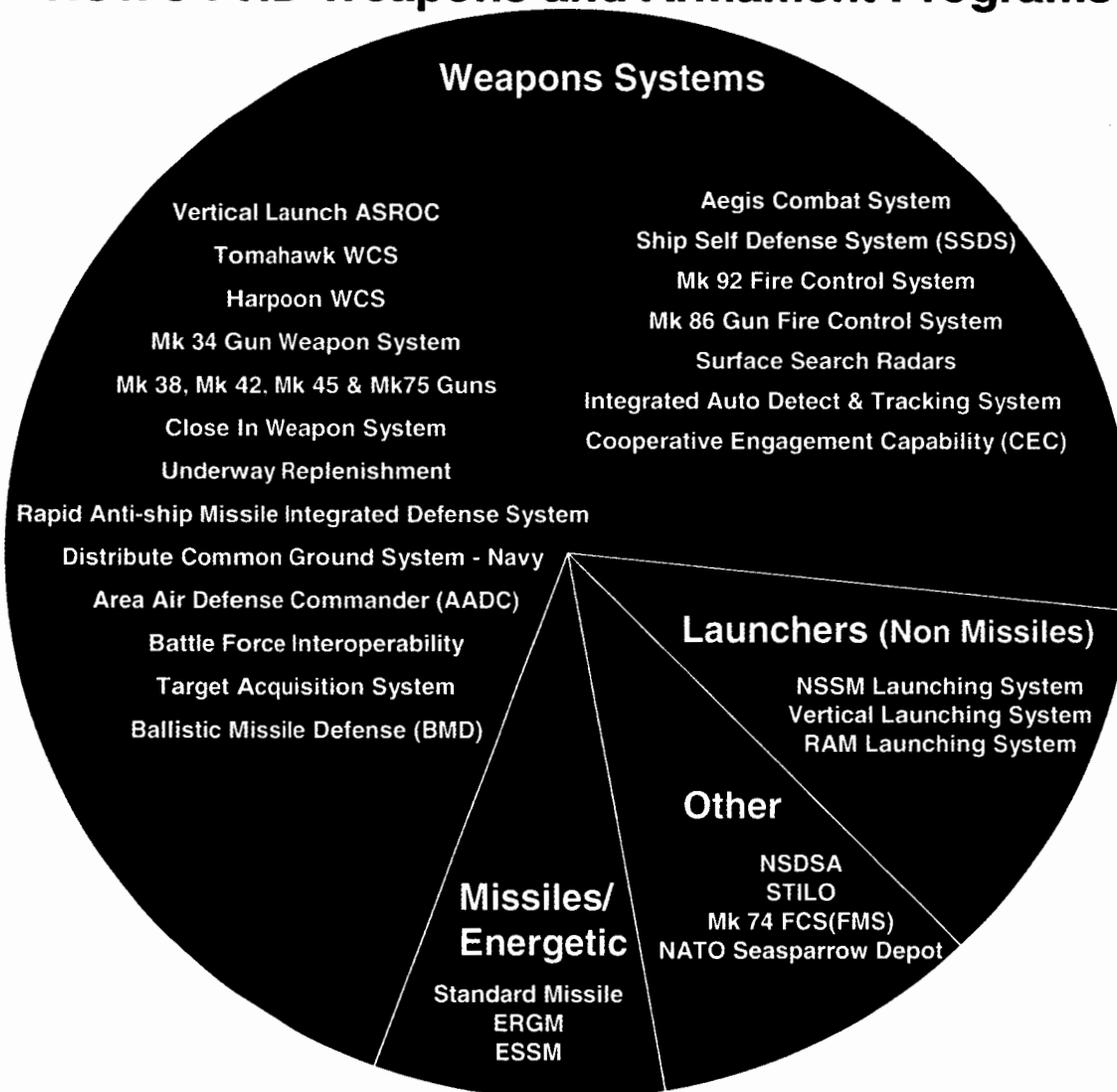
Replenishment Ships



Strike Groups



Allied Forces



NSWC PHD DONBITs Certified Inputs

TECH 0002A Scenario Data Call (Rolled into TECH 0018DR)

SDC Action #	FY 2009 Civilians	Rationale
9	113	“Other” non-Missile, Gun, or Energetic – See Question #47

NSWC PHD DONBITs Certified Inputs

SDC Action #	FY 2009 Civilians	Rationale
[Redacted]		

- Programs **within** Missiles, Guns, or Energetics scope:
 - Standard Missile (SM) - 119
 - Evolved SeaSparrow Missile (ESSM) - 15
 - Extended Range Guided Munitions (ERGM) - 0

NSWC PHD DONBITs Certified Inputs

SDC Action #	FY 2009 Civilians	Rationale
9	113	"Other" non-Missile, Gun, or Energetic – See Question #47

- "Other" Programs **not within** Missiles, Guns, or Energetics scope remaining at PHD:

- Naval Sea Data Support Activity – *Manages NAVSEA/SPAWAR Technical Manuals - 52*
- Scientific Technical Information Liaison Office – *National Intell Info - 9*
- NATO SeaSparrow Depot Management – *Co-located with NATO Program at PHD - 19*
- Mk 74 Fire Control System – *Foreign Military Sales - 9*
- Misc Non-Core Support – *Administrative and Secretarial Support - 24*

NSWC PHD DONBITs Certified Inputs

SDC Action #	FY 2009 Civilians	Rationale

- “System ISE work that is **“Inextricable”** from Weapon Systems Integration.....
 - RAM System (Rolling Airframe Missile System Mk 31) - 72
 - Guided Missile Weapon System Mk 31 includes Mk 49 Guided Missile Launching System. The Mk 31 is an integral part of the SSDS Weapons Systems Integration function which is supported by NSWC PHD. This does not include RAM missile.
 - NSSMS (NATO SeaSparrow Missile System Mk 57) - 67
 - Mk 57 includes the Mk 91 Fire Control System, the Mk 29 Guided Missile Launching System. The Mk 57 is an integral part of the Ship Self Defense System Weapons Systems Integration function which is supported by NSWC PHD. This does not include NATO missile.
 - VLS (Vertical Launch System Mk 41) - 39
 - An integrated Launching System to the Aegis Weapon System - Weapons Systems Integration function which is supported by NSWC PHD.

C4ISR to SPAWAR San Diego

Scenario Action:

- Consolidate Maritime Information Systems RDATE functions at NSWC PHD with SPAWAR San Diego

Assumptions:

- This Scenario intends to consolidate the workload that is common with specific areas of C4ISR.

Recommendation:

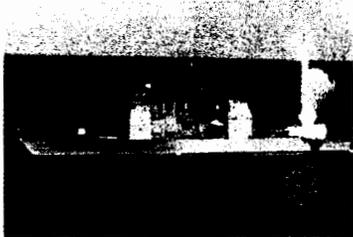
- Realign Naval Base Ventura County, CA, by relocating Maritime Information Systems RDATE to Naval Submarine Base Point Loma, San Diego, CA, and consolidating with the Space Warfare Center to create the new Space Warfare Systems Command Pacific, Naval Submarine Base Point Loma, San Diego, CA.

Justification:

- These recommended realignments and consolidations provide for multifunctional and multidisciplinary Centers of Excellence in Maritime C4ISR.

C4ISR to SPAWAR San Diego

Surface Combatants



Aircraft Carriers



Amphibious Ships



NSWC PHD C4ISR Programs



Replenishment Ships



Strike Groups



Allied Forces



C4ISR to SPAWAR San Diego

C4ISR to SPAWAR San Diego

(TECH 0008B & TECH 0008F / TECH 0042A)

SDC Action #	FY 2009 Civilians	Rationale
[REDACTED]	[REDACTED]	[REDACTED]

C4ISR to SPAWAR San Diego

SDC Action #	FY 2009 Civilians	Rationale

- **“C4ISR that are to be transferred to SPAWAR”**
 - Distributed Common Ground Station – Navy - 6
 - Integrates geospatial information with signal intelligence data
 - AADC - 0

C4ISR to SPAWAR San Diego

DCN:11707

SDC Action #	FY 2009 Civilians	Rationale
[REDACTED]		

- **System ISE work that is “Inextricable” from Weapon Systems Integration.....**
 - Cooperative Engagement Capability – 64
 - Integrates detection information across Battle Group
 - Switchboards – 29
 - Physical connection between detect-control-engage equipment
 - SIAP - 1
 - BG T&E - 2
 - BFTT - 0
 - NTCSS - 0

SUMMARY of PHD at NBVC

Scenario	Civilians in Scope	Civilians Inextricable & Other
China Lake TECH 0002A	134	291
C4ISE-SPAWAR TECH 0008B	6	96
Total	140	387

- 527 total civilians involved in NBVC related recommendations
 - 387 “Inextricable” and “Other” located at NSWC PHD because of physical and functional integrated requirement

BRAC 2005 DOD RECOMMENDATIONS IMPACTING NAVAL SURFACE WARFARE CENTER - PORT HUENEME DIVISION

1. BRAC Report - Naval Integrated Weapons and Armaments RDT&E Center (Page TECH 15)

(Naval Surface Warfare Center, Port Hueneme Division - Missile, Guns, or Energetics to Naval Air Warfare Center, China Lake)

COMMISSION RATIONALE:

After the Naval Surface Warfare Center, Port Hueneme Division site presentation and tour, there were several observations:

A. Naval Surface Warfare Center, Port Hueneme Division certified the relocation and realignment of Standard Missile, Extended Sea Sparrow Missile (excluding launchers), and Extended Range Guided Munition Programs (identified in Question 47 of the Naval Surface Warfare Center, Port Hueneme Division response) as being within the intent of the scenario.

B. The co-location of the integrated systems involved in the detect-control-engage sequence, adjacent to the Pt Mugu Sea Test Range, PHD Test Ship, and Surface Warfare Engineering Facility; combines these assets in a synergistic way that cannot be duplicated at China Lake. These Programs were certified by Naval Surface Warfare Center, Port Hueneme Division as "Inextricable" from the weapons system integration work and are required to perform their weapon system integration mission. Therefore, we believe it is in the Navy's best interest to keep these Programs at Naval Surface Warfare Center, Port Hueneme Division.

C. There were "Other" Programs certified by NSWC PHD as not being within the scope of "Missile, Guns, or Energetics". These Programs provide no direct or indirect support to the intent of the Missile, Guns, or Energetics recommendation. There is no financial benefit in relocating/realigning these Programs and therefore should remain at Naval Surface Warfare Center Port Hueneme Division.

COMMISSION RECOMMENDATION:

Realign Naval Surface Warfare Center, Port Hueneme Division at Naval Base Ventura County, Port Hueneme, CA, by relocating all Weapons & Armaments (Missiles, Guns, or Energetics) Research Development & Acquisition, and Test & Evaluation, except weapon system integration, to Naval Air Weapons Station China Lake, CA. Specifically excluded are those Programs that are certified as "Inextricable In-Service Engineering work from Weapon Systems Integration" and "Other non-Missile, Guns, or Energetics".

COMMISSION JUSTIFICATION COMMENTS:

The Commission Recommendation above clarifies the previously published recommendation and is consistent with the Justification previously published on page 40 of the Technical JCSG Analysis and Recommendations – Technical JCSG, Vol. XII, Part IV (attachment 1).

2. **BRAC Report - Naval Integrated Weapons and Armaments RDAT&E Center (Page TECH 15)**

(Naval Surface Warfare Center, Port Hueneme Division, San Diego, CA Detachment (Integrated Combat System Test Facility) - to Naval Sea Warfare Center, Dahlgren Division.)

COMMISSION RATIONALE:

The Commission concurs with the Naval Surface Warfare Center, Port Hueneme Division, certified response that their San Diego Detachment, Integrated Combat System Test Facility, is within the intent of the scenario.

COMMISSION RECOMMENDATION:

Realign Naval Surface Warfare Center, Port Hueneme Division, San Diego, CA Detachment by relocating all Weapons & Armaments weapon system integration Research, Development & Acquisition, and Test & Evaluation to Naval Surface Warfare Center Dahlgren, VA.

COMMISSION JUSTIFICATION COMMENTS:

The Commission Recommendation above is consistent with the Justification previously published on page 40 of the Technical JCSG Analysis and Recommendations – Technical JCSG, Vol. XII, Part IV (attachment 1).

3. **BRAC Report - Consolidate Maritime C4ISR Research, Development & Acquisition, T&E (Page TECH 9)**

(Naval Surface Warfare Center, Port Hueneme Division C4ISR to Space Warfare Command San Diego CA.)

COMMISSION RATIONALE:

After the Naval Surface Warfare Center, Port Hueneme Division site presentation and tour, there were several observations:

A. The Commission concurs that Naval Surface Naval Surface Warfare Center Port Hueneme Division certified Distributed Common Ground Station – Navy and Area Air Defense Capability Programs are within the scope of this scenario.

B. Realigning/relocating those Programs Naval Surface Naval Surface Warfare Center Port Hueneme Division identified as “C4ISR Inextricable from Weapon Systems Integration” will significantly impact their ability to perform their mission. Therefore, we believe it is in the Navy’s best interest to keep these Programs at Naval Surface Warfare Center, Port Hueneme Division.

COMMISSION RECOMMENDATION:

Realign Naval Surface Warfare Center, Port Hueneme Division at 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.

COMMISSION JUSTIFICATION COMMENTS:

The Commission Recommendation above is consistent with the Justification previously published on page 47 of the Technical JCSG Analysis and Recommendations – Technical JCSG, Vol. XII, Part IV (attachment 2).

4. BRAC Report - Create an Integrated Weapons and Armaments Specialty Site for Guns and Ammunition (Page TECH 19)

(Naval Surface Warfare Center, Port Hueneme Division, Louisville Kentucky Guns Detachment to Picatinny Army Arsenal NJ.)

COMMISSION RATIONALE:

After the Naval Surface Warfare Center, Port Hueneme Division site presentation and tour, there were several discussions and observations:

- A. The Naval Surface Warfare Center, Port Hueneme Division, Louisville Detachment performs weapon systems integration on gun “systems” that are unique to Naval ships.
- B. Louisville Detachment is co-located with the respective OEMs of these Navy gun systems. The relocation/realignment of their weapon system integration functions to Picatinny Arsenal, away from their respective OEMs, does not appear to benefit the Navy.
- C. The Commission understands the benefits created by co-locating functions involved with gun and ammunition RD&A at Picatinny Arsenal, and the benefits already being accrued by being co-located with the OEMs. The SDC did not adequately separate guns and ammunition R, D&A, and T&E functions and should have excluded that work that is involved in weapon systems integration and co-located with the OEMs.

COMMISSION RECOMMENDATION:

Reissue a revised SDC with the functional categories as identified in the Commission Rationale item C above.

Else, modify the recommendation to the following:

Realign the Louisville, KY, detachment of Naval Surface Warfare Center Division Port Hueneme, CA, by relocating gun and ammunition Research to Picatinny Arsenal, NJ.

COMMISSION JUSTIFICATION COMMENTS:

The Commission Recommendation above is consistent with the Justification previously published on page 44 of the Technical JCSG Analysis and Recommendations – Technical JCSG, Vol. XII, Part IV (attachment 3).

Attachment 1

Justification - Page 40 Of The Technical JCSG Analysis And Recommendations – Technical JCSG, Vol. XII, Part IV. Naval Integrated Weapons and Armaments RDAT&E Center

Naval Surface Warfare Center, Port Hueneme Division, San Diego, CA Detachment (Integrated Combat System Test Facility) - to Naval Sea Warfare Center, Dahlgren Division.

“Justification: This recommendation realigns and consolidates those facilities working in Weapons & Armaments (W&A), Research, Development & Acquisition, and Test and Evaluation (RDAT&E) into a Naval Integrated RDAT&E center at the Naval Air Warfare Center, China Lake, CA. Additional synergistic realignments for W&A was achieved at two receiver sites for specific focus. The Naval Surface Warfare Center, Dahlgren, VA, is a receiver specialty site for Naval surface weapons systems integration and receives a west coast site for consolidation. This construct creates an integrated W&A RDAT&E center in China Lake, CA, energetics center at Indian Head, MD, and consolidates Navy surface weapons system integration at Dahlgren, VA. All actions relocate technical facilities with lower overall quantitative Military Value (across Research, Development & Acquisition and Test & Evaluation) into the Integrated RDAT&E center and other receiver sites with greater quantitative Military Value.

Consolidating the Navy’s air-to-air, air-to-ground, and surface launched missile RD&A, and T&E activities at China Lake, CA, would create an efficient integrated RDAT&E center. China Lake is able to accommodate with minor modification/addition both mission and life-cycle/sustainment functions to create synergies between these traditionally independent communities.

During the other large scale movements of W&A capabilities noted above, Weapon System Integration was specifically addressed to preserve the synergies between large highly integrated control system developments (Weapon Systems Integration) and the weapon system developments themselves. A specialty site for Naval Surface Warfare was identified at Dahlgren, VA, that was unique to the services and a centroid for Navy surface ship developments. A satellite unit from the Naval Surface Warfare Center, Port Hueneme, San Diego Detachment will be relocated to Dahlgren.

The Integrated RDAT&E Center at China Lake provides a diverse set of open-air range and test environments (desert, mountain, forest) for W&A RDAT&E functions. Synergy will be realized in air-to-air, air-to-ground, and surface launched mission areas.

This recommendation enables technical synergy, and positions the Department of Defense to exploit center-of-mass scientific, technical and acquisition expertise with weapons and armament Research, Development & Acquisition that currently resides at 10 locations into the one Integrated RDAT&E site, one specialty site, and an energetics site.”

Attachment 2

Justification - Page 47 Of The Technical JCSG Analysis And Recommendations – Technical JCSG, Vol. XII, Part IV. Naval Integrated Weapons and Armaments RDAT&E Center

Naval Surface Warfare Center, Port Hueneme Division, San Diego, CA Detachment (Integrated Combat System Test Facility) - to Naval Sea Warfare Center, Dahlgren Division.

“Justification: These recommended realignments and consolidations provide for multifunctional and multidisciplinary Centers of Excellence in Maritime C4ISR. This recommendation will also reduce the number of technical facilities engaged in Maritime Sensors, Electronic Warfare, & Electronics and Information Systems RDAT&E from twelve to five. This, in turn, will reduce overlapping infrastructure increase the efficiency of operations and support an integrated approach to RDAT&E for maritime C4ISR. Another result would also be reduced cycle time for fielding systems to the warfighter.”

Attachment 3

Justification - Page 44 Of The Technical JCSG Analysis And Recommendations – Technical JCSG, Vol. XII, Part IV. Naval Integrated Weapons and Armaments RDAT&E Center

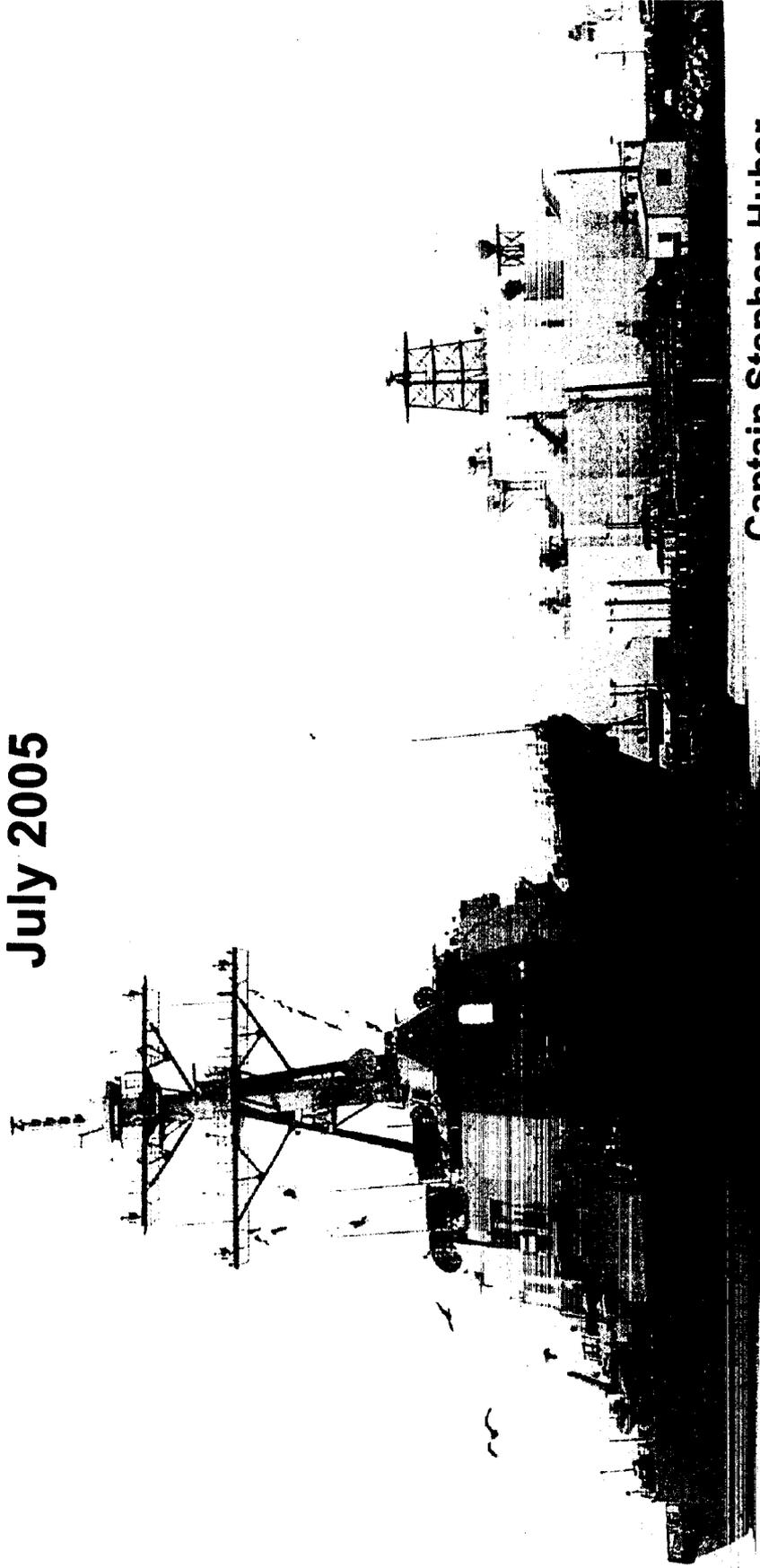
Naval Surface Warfare Center, Port Hueneme Division, Louisville Kentucky Guns Detachment to Picatinny Army Arsenal NJ.

“Justification: This recommendation realigns and consolidates those gun and ammunition facilities working in Weapons and Armaments (W&A) Research (R), Development & Acquisition (D&A). This realignment would result in a more robust joint center for gun and ammunition Research, Development & Acquisition at Picatinny Arsenal, NJ. This location is already the greatest concentration of military value in gun and ammunition W&A RD&A.”

“Picatinny Arsenal is the center-of-mass for DoD’s Research, Development & Acquisition of guns and ammunition, with a workload more than an order of magnitude greater than any other DoD facility in this area. It also is home to the DoD’s Single Manager for Conventional Ammunition. Movement of all the Services’ guns and ammunition work to Picatinny Arsenal will create a joint center of excellence and provide synergy in armament development for the near future and beyond, featuring a Joint Packaging, Handling, Shipping and Transportation (PHS&T) Center, particularly important in this current time of high demand for guns and ammunition by all the services. Technical facilities with lower quantitative military value are relocated to Picatinny Arsenal. This recommendation includes Research, Development & Acquisition activities in the Army and Navy. It promotes jointness, enables technical synergy, and positions the Department of Defense to exploit center-of-mass scientific, technical, and acquisition expertise within the weapons and armament Research, Development & Acquisition community that currently resides at this DoD specialty location.”



NAVSEA Port Hueneme BRAC Overview July 2005



Captain Stephen Huber
Commander Naval Surface
Warfare Center Port Hueneme



Agenda

1100 Introductions

1115 Command Overview with working lunch

SWEF 1384

1300 Site Tours

SWEF 1384

1387

1388

1380

1389

SRB

7

1400 Depart for Point Mugu



NAVSEA Port Hueneme BRAC Overview July 2005

*They're providing
questions they
have not yet gotten
responses to*

*Σ = 804 people
impacted*



**Captain Stephen Huber
Commander Naval Surface
Warfare Center Port Hueneme**



Our Mission

**Our Mission is to Integrate, Test, Evaluate,
and Provide Life Cycle Engineering and
Logistics for Today's and Tomorrow's
Surface Warfare Systems**



**Safe, Effective and Affordable
Warfare Systems**

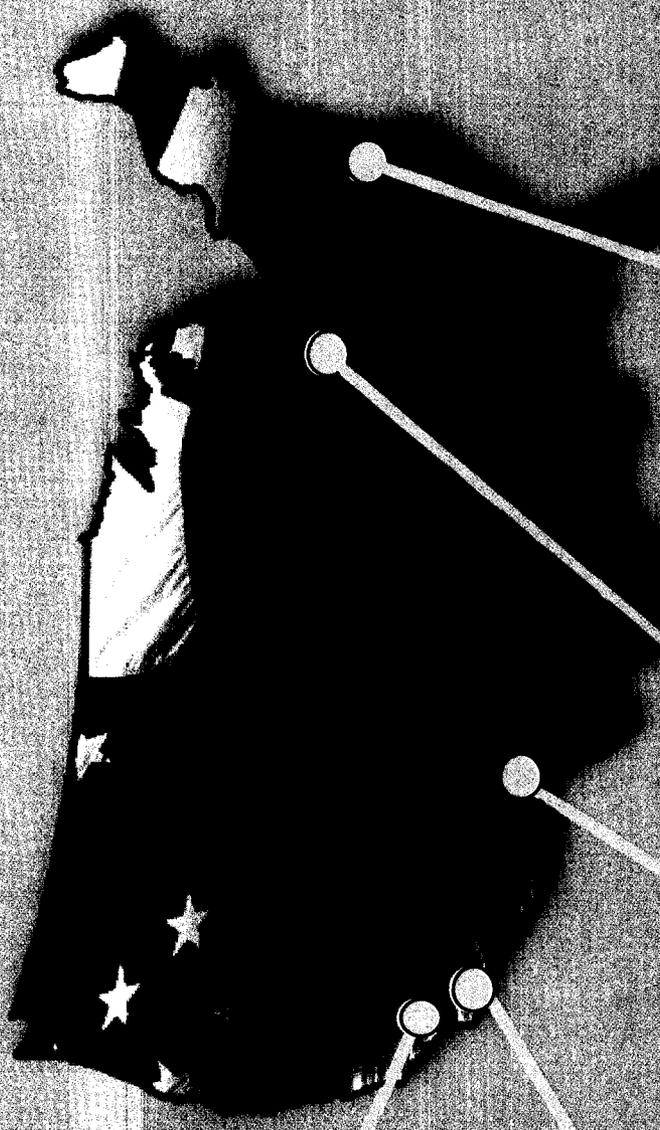
founded 1962

Where We Are



Port Hueneme, CA

- Combat & Weapon Systems
- In-Service Engineering
- Test & Evaluation
- Logistics



San Diego, CA

Combat Systems Integration Test



White Sands, NM

Weapon Systems Test Range
(Desert Ship)



Louisville, KY

Gun Systems



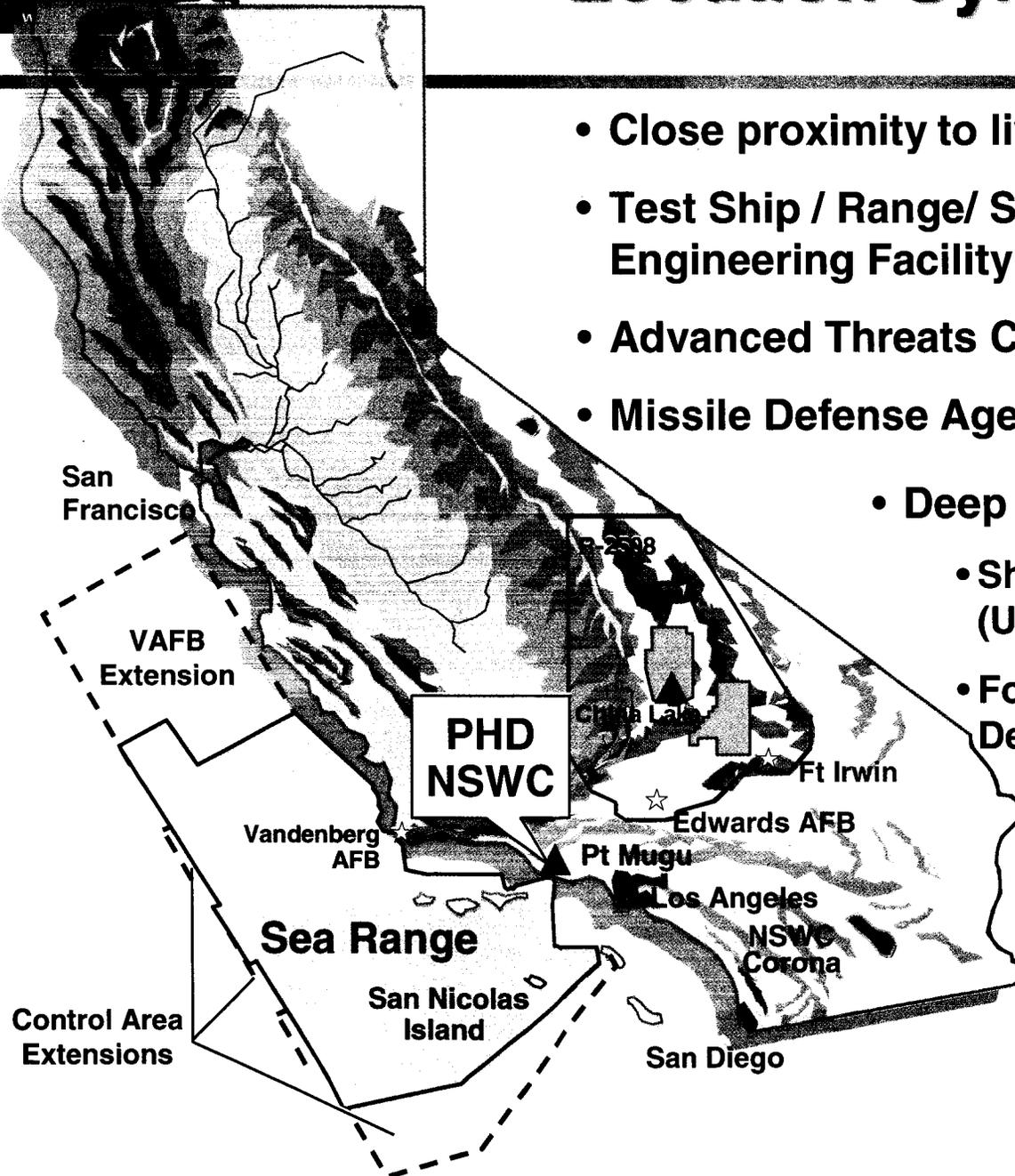
Virginia Beach, VA

Radar Systems

Location Synergy

- Close proximity to live fire at sea range
- Test Ship / Range/ Surface Warfare Engineering Facility Synergy
- Advanced Threats Capability
- Missile Defense Agency System Testing

- Deep Water Port
 - Ship Combat System Assessments (USN/CG/FMS)
 - Force Protection and Homeland Defense Exercises
- Littoral Environment



Workforce Team



ACTIVE DUTY MILITARY

23 Officers, 89 Enlisted

- Bring Fleet perspective and experience
- Gain technical leadership expertise

Largest Mil Lab

INDUSTRY

1,200 People

- Complement government knowledge base
- Critical industrial and product development services

358 contracts

CIVILIANS

2,117 People (PH 1752 - Detachments 365)

- Long-term technical accountability
- Essential Core skills and expertise

358 contracts

RESERVE MILITARY

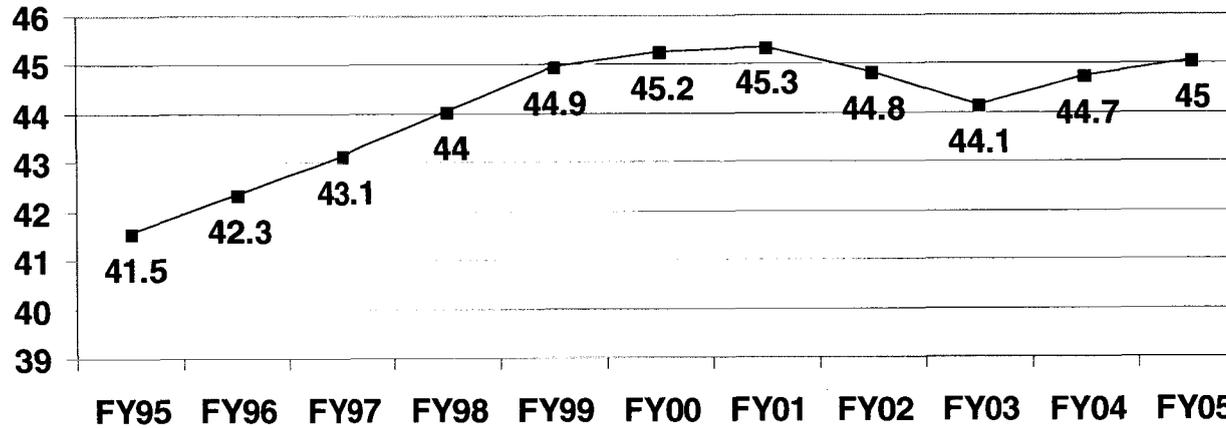
- Unique mix of military and industry skills/experience
- Sustained Warfare Systems expertise



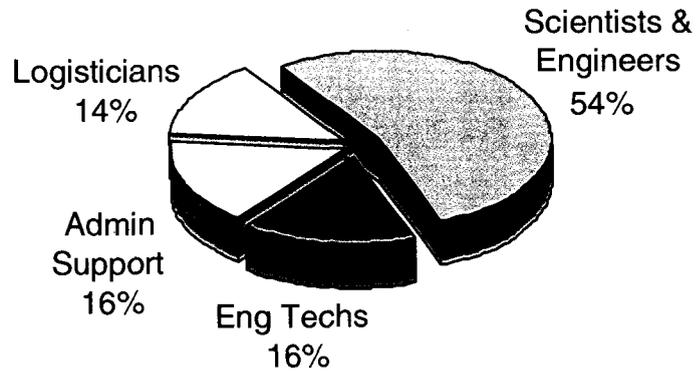


Workforce Profile

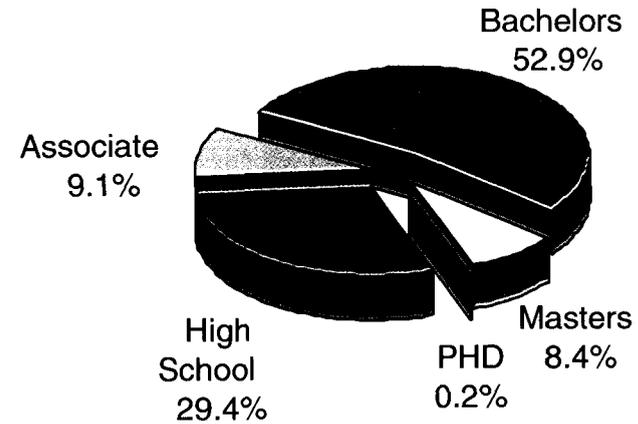
Average Age



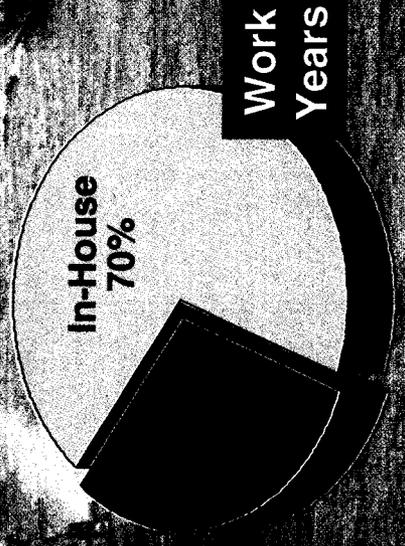
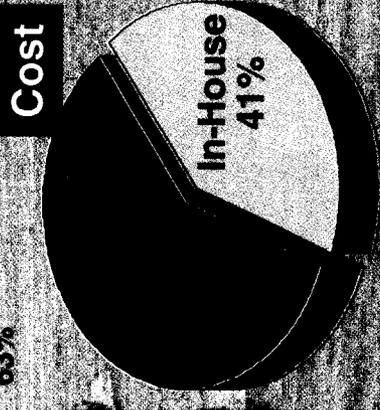
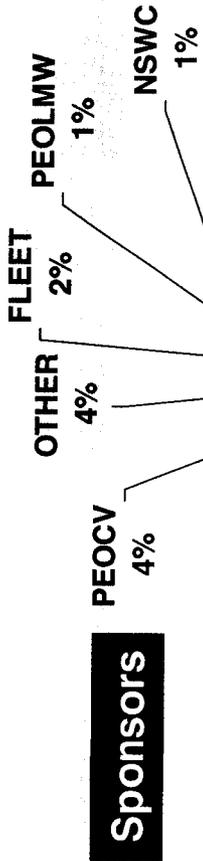
Composition



Education



Business Base FY06 Projected: \$600M



What We Do

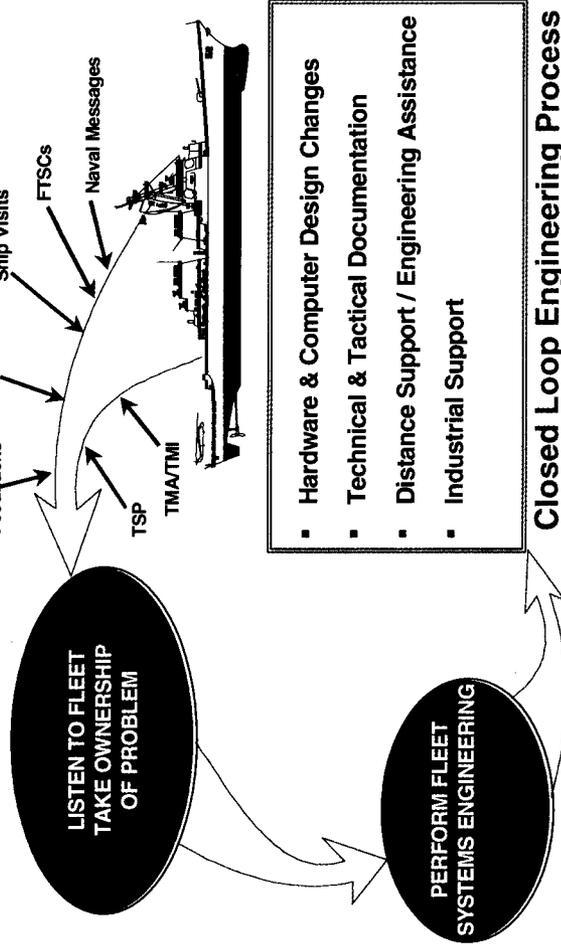
DCN:1177

Combat Systems In-Service Engineering and Test & Evaluation

- Weapon Systems Integration
- Technical Authority
 - κ Safe, Effective, and Reliable Operation
 - κ Accountability and Technical Integrity
 - κ Technical Expertise
 - κ Systems Engineering
 - κ Engineering Stewardship

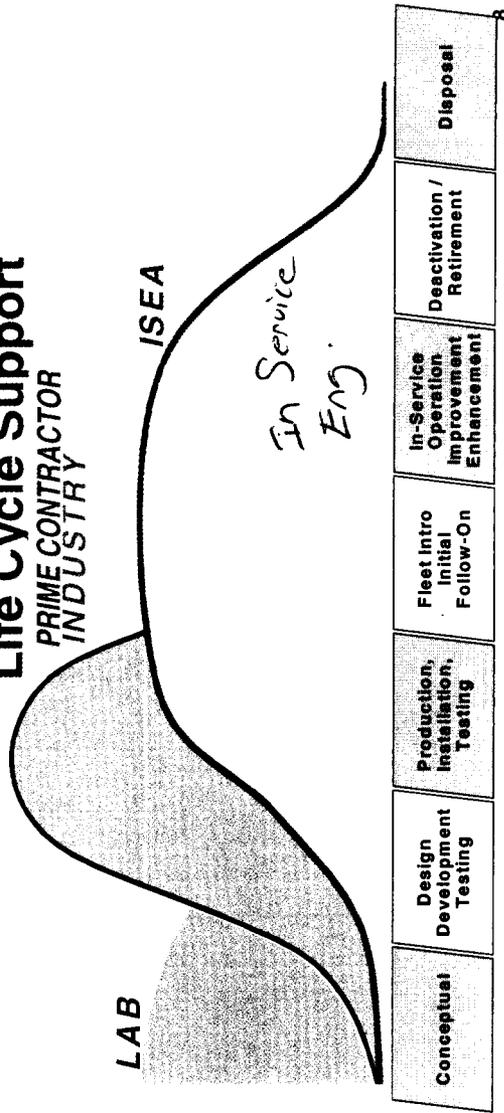
- Engineering and Logistics solutions for Fleet problems

Integrated Fleet Solutions



Life Cycle Support

PRIME CONTRACTOR INDUSTRY





PHD Role

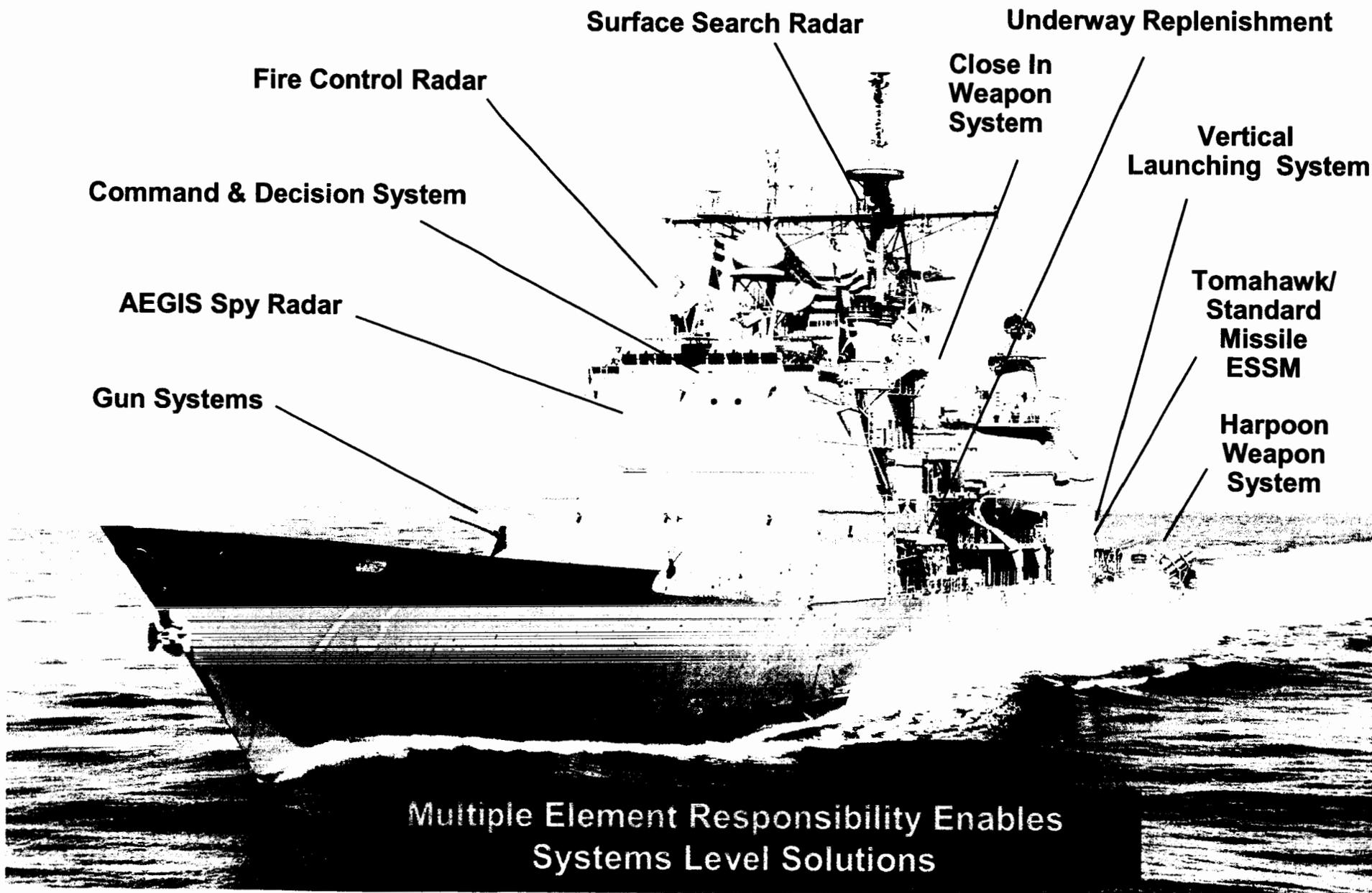
- **PHD Satisfies a Unique Navy Requirement**
 - **Technical Authority for Weapon/Combat Systems ISE and T&E for all Surface Ships**
 - **Single Face to the Fleet for In-Service Combat Systems**
 - **Trusted Agent Throughout In-Service Life Cycle**
 - **Ensure Safe and Effective Operational Capability**
- **By Leveraging**
 - **Equipment to Systems Level Expertise**
 - **People and Unique Facilities Which Match Mission Objectives**
 - **Strategically Located Facilities to Perform Mission**
 - **Partnership Between Industry, Government and Military**

Accountable Weapon/Combat System ISE Agent

DCN:11707



Combat Systems

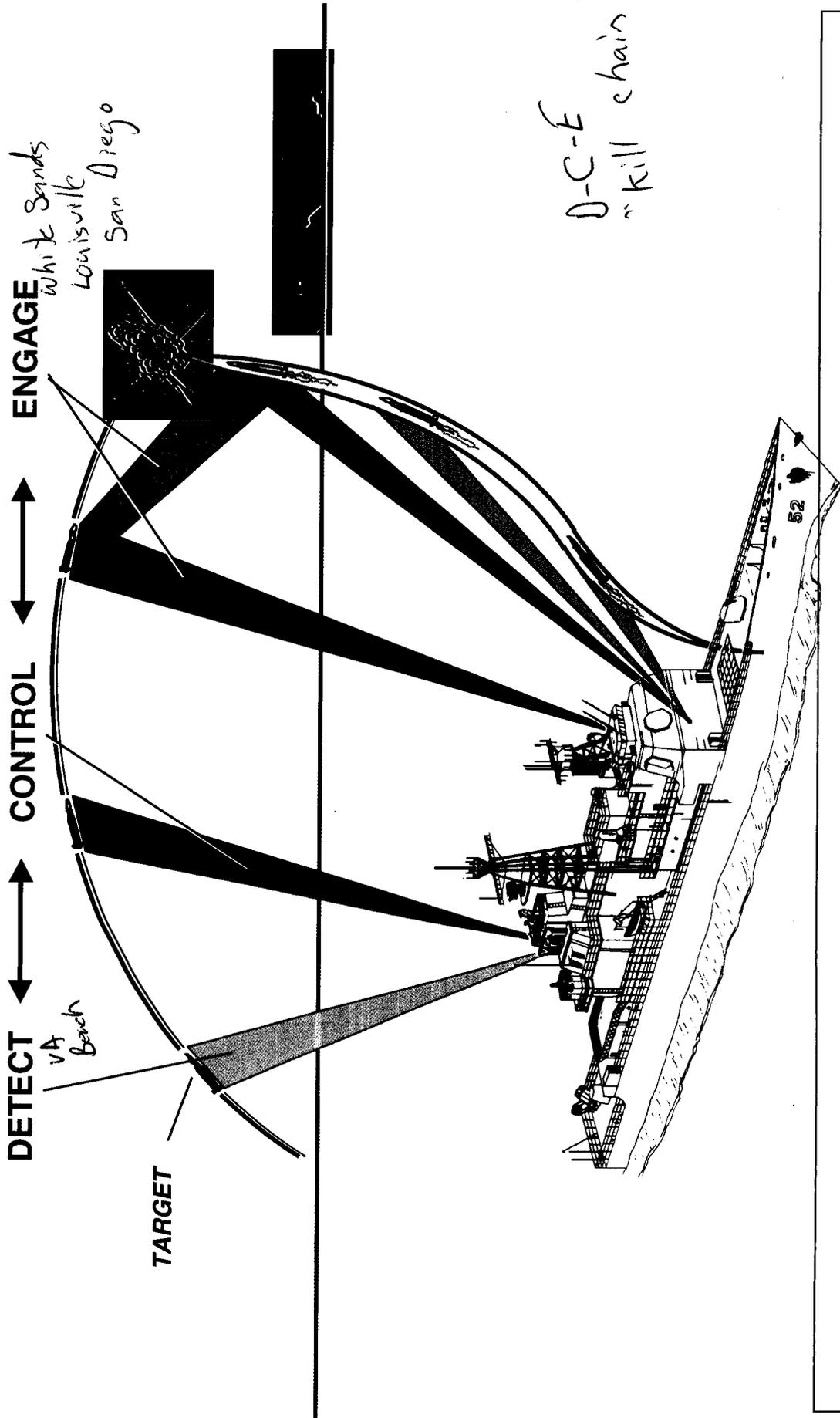


Multiple Element Responsibility Enables
Systems Level Solutions

Surface Ship Combat System Operation



PORT HUENEME

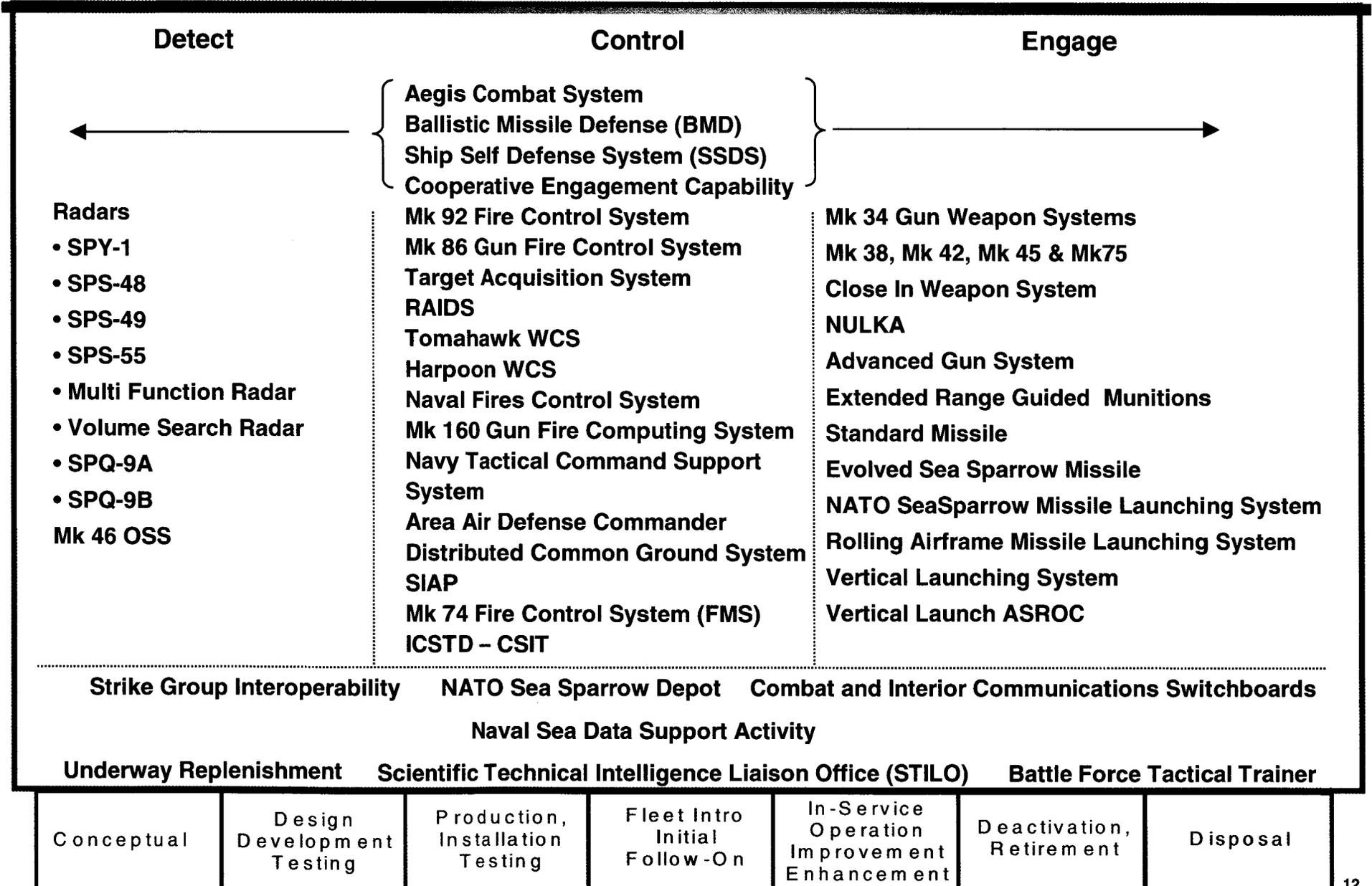


‘PHYSICALLY AND FUNCTIONALLY INTEGRATED’



PORT HUENEME

Combat System Integration





BRAC Scenarios

- **NSWC PHD is involved in 4 Scenarios**
 - Weapons & Armaments (Missiles, Guns, Energetics) to NAWC China Lake (TECH0002 / TECH0018DR)
 - C4ISR to SPAWAR San Diego (TECH 0008B & TECH 0008F / TECH 0042A)
 - Integrated Combat System Test Detachment (ICSTD) to NSWC Dahlgren (TECH0002F & TECH0018DR)
 - Louisville to Picatinny Arsenal (TECH0002E & TECH0017 / TECH 0018B)



Weapons & Armament (Missiles, Guns, Energetics) to NAWC China Lake

Scenario Action:

- Realign Port Hueneme Weapons and Armaments (except weapon system integration) and relocate to China Lake

Assumptions:

- Relocate most Weapons and Armaments e.g. missiles, energetics, guns, etc RDAT&E to China Lake

Recommendation:

- Realign Naval Base Ventura County, Port Hueneme, CA, by relocating all Weapons and Armaments Research, Development & Acquisition, and Test & Evaluation, except weapon system integration, to Naval Air Weapons Station China Lake, CA.

Justification:

- Consolidating the Navy's air-to-air, air-to-ground, and surface launched missile RD&A, and T&E activities at China Lake, CA, would create an efficient integrated RDAT&E center.

NSWC PHD/NBVC BRAC Personnel Impacts

Wayne Honea

NSWC PHD BRAC Coordinator

13 July 2005

NSWC PHD/NBVC BRAC Scenarios

- **Weapons & Armaments (Missiles, Guns, Energetics)
to NAWC China Lake
(TECH0002A / TECH0018DR)**
- **C4ISR to SPAWAR San Diego
(TECH 0008B & TECH 0008F / TECH 0042A)**

Weapons & Armament (Missiles, Guns, Energetics) to NAWC China Lake

DCN:11707

Scenario Action:

- Realign Port Hueneme Weapons and Armaments (except weapon system integration) and relocate to China Lake

Assumptions:

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Recommendation:

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Justification:

- Consolidating the Navy's air-to-air, air-to-ground, and surface launched missile RD&A, and T&E activities at China Lake, CA, would create an efficient integrated RDAT&E center.

Weapons & Armament (Missiles, Guns, Energetics) to NAWC China Lake

Surface Combatants



Aircraft Carriers



Amphibious Ships



NSWC PHD Weapons and Armament Programs

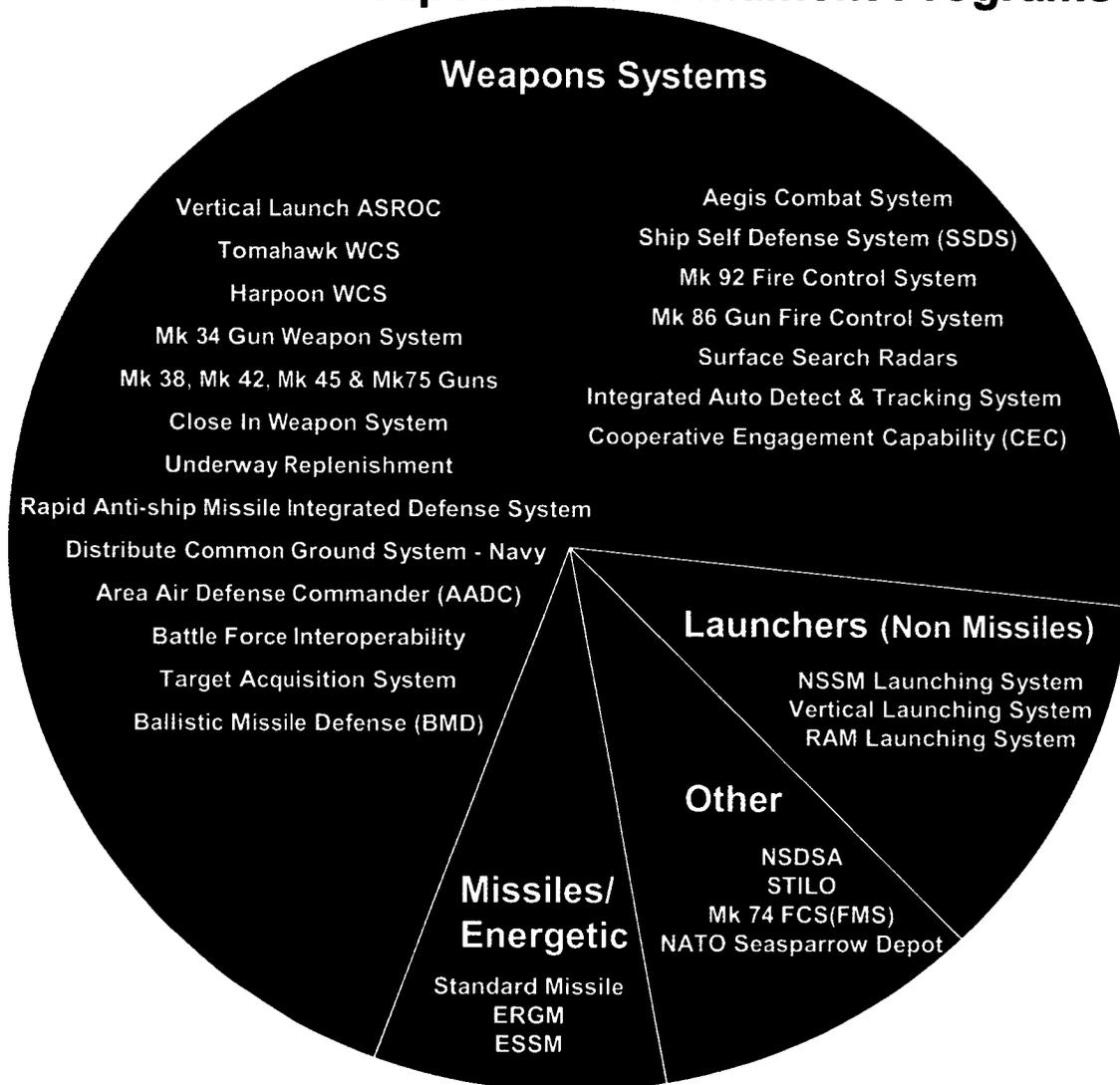
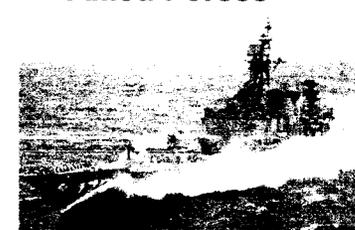
Replenishment Ships



Strike Groups



Allied Forces



NSWC PHD DONBITs Certified Inputs

TECH 0002A Scenario Data Call
(Rolled into TECH 0018DR)

SDC Action #	FY 2009 Civilians	Rationale
9	113	“Other” non-Missile, Gun, or Energetic – See Question #47

NSWC PHD DONBITs Certified Inputs

SDC Action #	FY 2009 Civilians	Rationale
9	113	“Other” non-Missile, Gun, or Energetic – See Question #47

- “Other” Programs **not within** Missiles, Guns, or Energetics scope remaining at PHD:

- Naval Sea Data Support Activity – Manages NAVSEA/SPAWAR *Technical Manuals* - 52
- Scientific Technical Information Liaison Office – *National Intell Info* - 9
- NATO SeaSparrow Depot Management – *Co-located with NATO Program at PHD* - 19
- Mk 74 Fire Control System – *Foreign Military Sales* - 9
- Misc Non-Core Support – *Administrative and Secretarial Support* - 24

NSWC PHD DONBITs Certified Inputs

SDC Action #	FY 2009 Civilians	Rationale

- “System ISE work that is **“Inextricable”** from Weapon Systems Integration.....
 - RAM System (Rolling Airframe Missile System Mk 31) - 72
 - Guided Missile Weapon System Mk 31 includes Mk 49 Guided Missile Launching System. The Mk 31 is an integral part of the SSDS Weapons Systems Integration function which is supported by NSWC PHD. This does not include RAM missile.
 - NSSMS (NATO SeaSparrow Missile System Mk 57) - 67
 - Mk 57 includes the Mk 91 Fire Control System, the Mk 29 Guided Missile Launching System. The Mk 57 is an integral part of the Ship Self Defense System Weapons Systems Integration function which is supported by NSWC PHD. This does not include NATO missile.
 - VLS (Vertical Launch System Mk 41) - 39
 - An integrated Launching System to the Aegis Weapon System - Weapons Systems Integration function which is supported by NSWC PHD.

C4ISR to SPAWAR San Diego

Scenario Action:

- Consolidate Maritime Information Systems RDATE functions at NSWC PHD with SPAWAR San Diego

Assumptions:

- This Scenario intends to consolidate the workload that is common with specific areas of C4ISR.

Recommendation:

- Realign Naval Base Ventura County, CA, by relocating Maritime Information Systems RDATE 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.

Justification:

- These recommended realignments and consolidations provide for multifunctional and multidisciplinary Centers of Excellence in Maritime C4ISR.

C4ISR to SPAWAR San Diego

Surface Combatants



Aircraft Carriers



Amphibious Ships



NSWC PHD C4ISR Programs



Replenishment Ships



Strike Groups



Allied Forces



C4ISR to SPAWAR San Diego

C4ISR to SPAWAR San Diego

(TECH 0008B & TECH 0008F / TECH 0042A)

SDC Action #	FY 2009 Civilians	Rationale
		

C4ISR to SPAWAR San Diego

SDC Action #	FY 2009 Civilians	Rationale
[Redacted Content]		

- **“C4ISR that are to be transferred to SPAWAR”**
 - Distributed Common Ground Station – Navy - 6
 - Integrates geospatial information with signal intelligence data
 - AADC - 0

C4ISR to SPAWAR San Diego

SDC Action #	FY 2009 Civilians	Rationale
[Redacted Content]		

- **System ISE work that is “Inextricable” from Weapon Systems Integration.....**
 - Cooperative Engagement Capability – 64
 - Integrates detection information across Battle Group
 - Switchboards – 29
 - Physical connection between detect-control-engage equipment
 - SIAP - 1
 - BG T&E - 2
 - BFTT - 0
 - NTCSS - 0

SUMMARY of PHD at NBVC

Scenario	Civilians in Scope	Civilians Inextricable & Other
China Lake TECH 0002A	134	291
C4ISE-SPAWAR TECH 0008B	6	96
Total	140	387

- 527 total civilians involved in NBVC related recommendations
 - 387 “Inextricable” and “Other” located at NSWC PHD because of physical and functional integrated requirement

Surface Warfare Systems Integration

“Naval ship borne warfare systems are specifically designed to be fully embedded within the form of a ship’s hull design. The elements of the detect-to-engage sequence are physically and functionally integrated and not separable as independent components.”



PHD PERFORMS WARFARE SYSTEMS INTEGRATION

Scenario Action:

- Realign Port Hueneme (SD) and relocate to NSWC Dahlgren

Assumptions:

- This Scenario intends to consolidate the workload that is common with specific areas of Weapons and Armament.

Recommendation:

- Realign Fleet Combat Training Center, CA (Port Hueneme Detachment, San Diego, CA), by relocating all Weapons and Armaments weapon system integration Research, Development & Acquisition, and Test & Evaluation to Naval Surface Warfare Center Dahlgren, VA.

Justification:

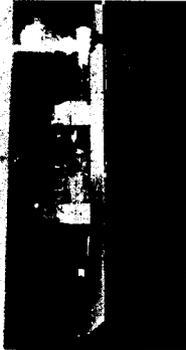
- The Naval Surface Warfare Center, Dahlgren, VA, is a receiver specialty site for Naval surface weapons systems integration and receives a west coast site for consolidation. This construct creates an integrated W&A RDT&E center in China Lake, CA, energetics center at Indian Head, MD, and consolidates Navy surface weapons system integration at Dahlgren, VA.

Programs

- All ICSTD Programs

ICSTD to NSWC Dahlgren

Surface Combatants



Aircraft Carriers



Amphibious Ships



NSWC PHD ICSTD Programs

Non-Aegis Combat Systems Integration
AEGIS BL 6 Phase 3

Replenishment Ships



Strike Groups



Allied Forces



ICSTD to NSWC Dahlgren

7

SDC Action #	FY 2009 Civilians	Rationale
[Redacted]		

- Non-Aegis Combat Systems Integration will be realigned with Dahlgren
Aegis Combat System Integration

Louisville to Picatinny Arsenal

Scenario Action:

- Realign Detachment Louisville Guns/ammo RDATE and relocate to Picatinny Arsenal

Assumptions:

- Definition of Guns & Ammunition: Includes all RDATE associated with small, medium and large caliber gun systems, and any barrel launched ballistic rounds/systems. Includes but is not limited to mortars, tank rounds and systems, artillery, Navy Gun systems. Include all work associated with gun systems, materials and propelling charges, Does not include guidance and control, and rocket motors. Does not include weapon systems integration.

Recommendation:

- Realign the Louisville, KY, detachment of Naval Surface Warfare Center Division Port Hueneme, CA, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.

Justification:

- This recommendation realigns and consolidates those gun and ammunition facilities working in Weapons and Armaments (W&A) Research (R), Development & Acquisition (D&A). This realignment would result in a more robust joint center for gun and ammunition Research, Development & Acquisition at Picatinny Arsenal, NJ.

Programs:

- All Louisville Programs

Louisville to Picatinny Arsenal

Surface Combatants



Aircraft Carriers



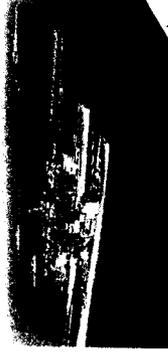
Amphibious Ships



NSWC PHD Louisville Programs

Mk 34 Gun Weapon Systems
Mk 38, Mk 42, Mk 45 & Mk 75 Gun Mount
NULKA
CIWS

Replenishment Ships



Strike Groups



Allied Forces



Louisville to Picatinny Arsenal

SDC Action #	FY 2009 Civilians	Rationale

- Questions on whether Recommendation included T&E

SUMMARY of NSWC PHD

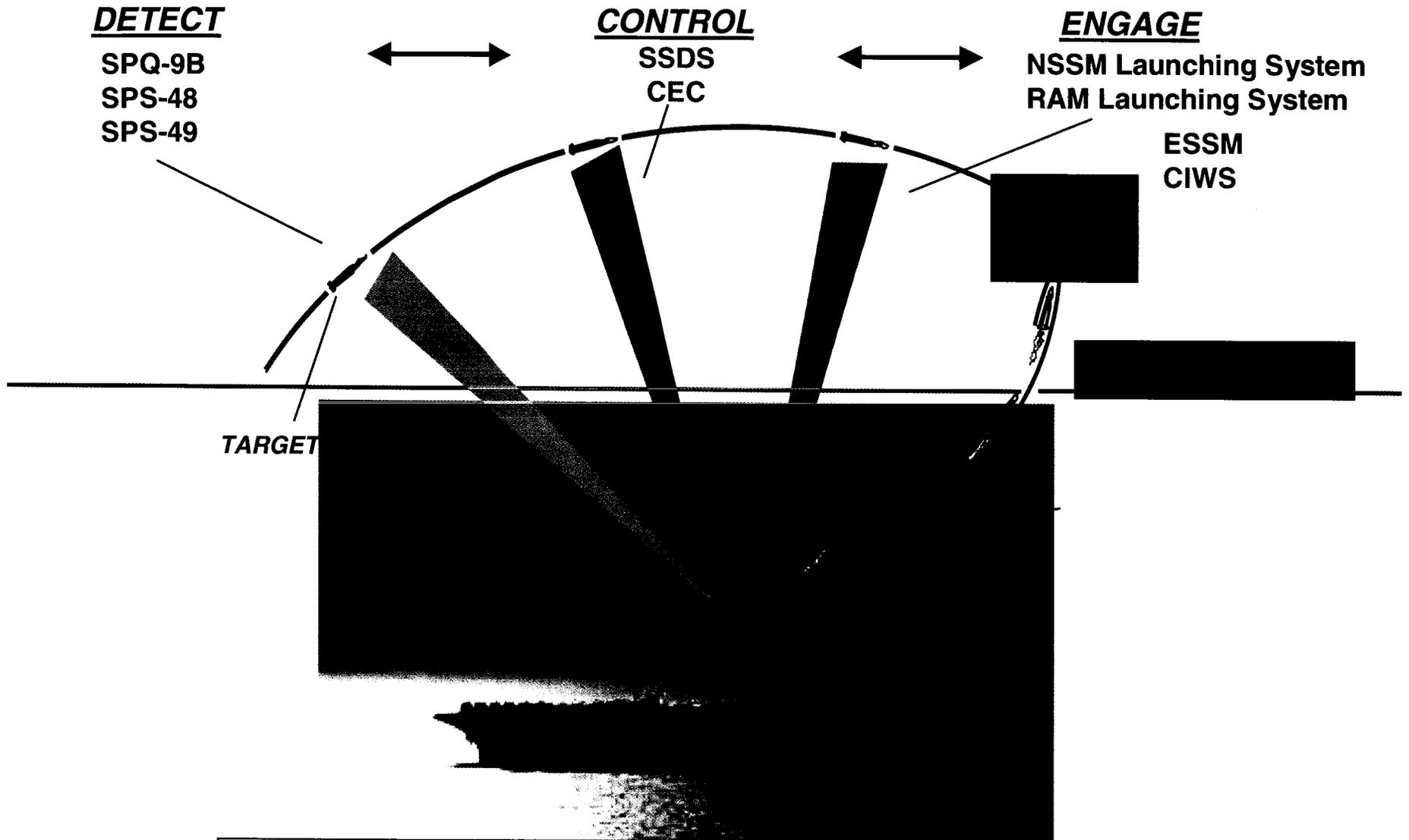
Scenario	Civilians in Scope	Civilians Inextricable & Other
China Lake TECH 0002A	134	291
C4ISE-SPAWAR TECH 0008B	6	96
ICSTD San Diego to Dahlgren	47	0
Louisville Guns to Picatinny	217	0
Total for NSWC PHD	404	387

- 791 total civilians involved in NSWC PHD related recommendations
 - “Inextricable” and “Other” Programs required to perform our Combat Systems In-service Engineering and Test & Evaluation Mission



Backup

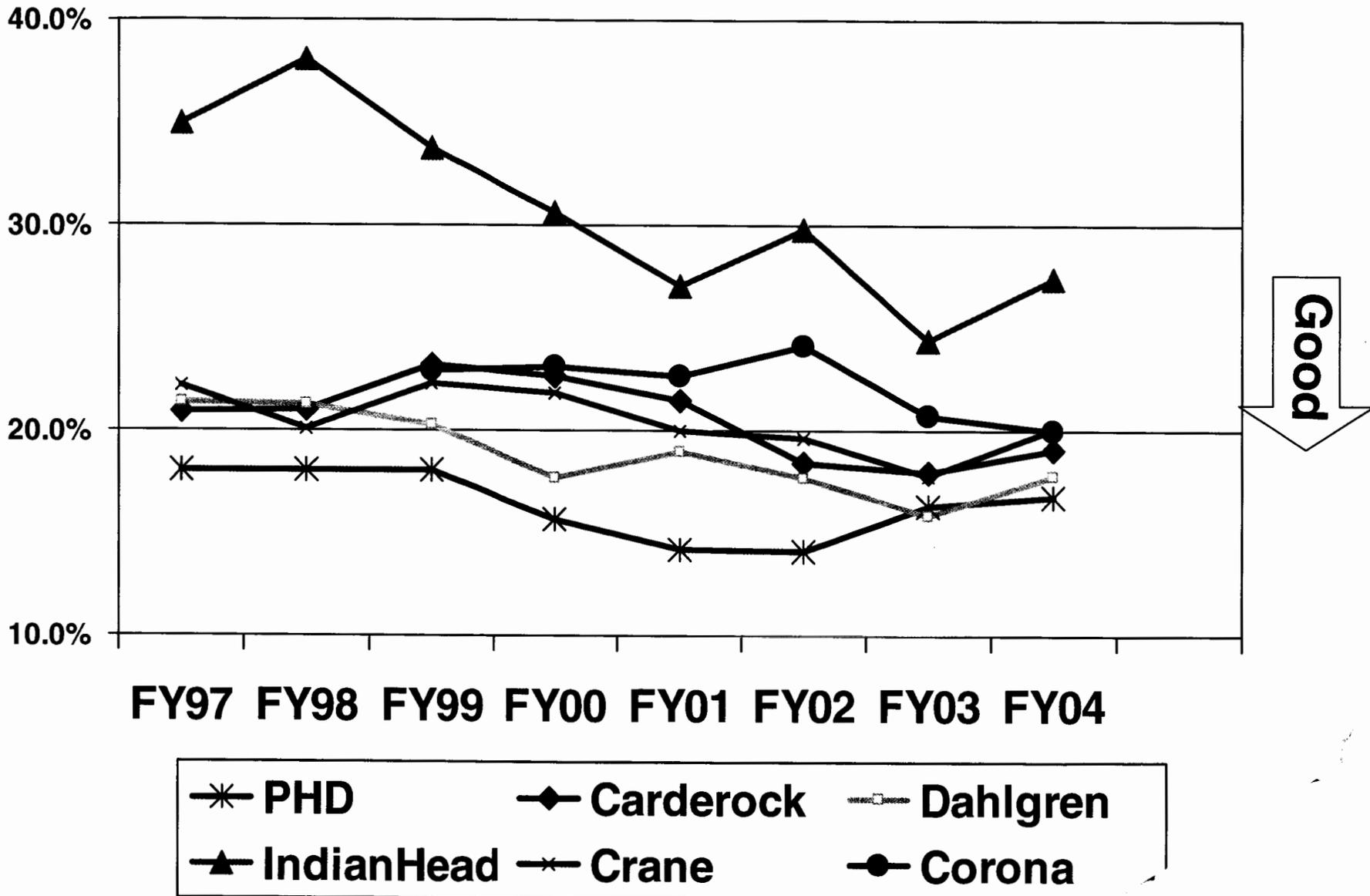
Surface Ship Combat System Operation SSDS Example



“PHYSICALLY AND FUNCTIONALLY INTEGRATED”

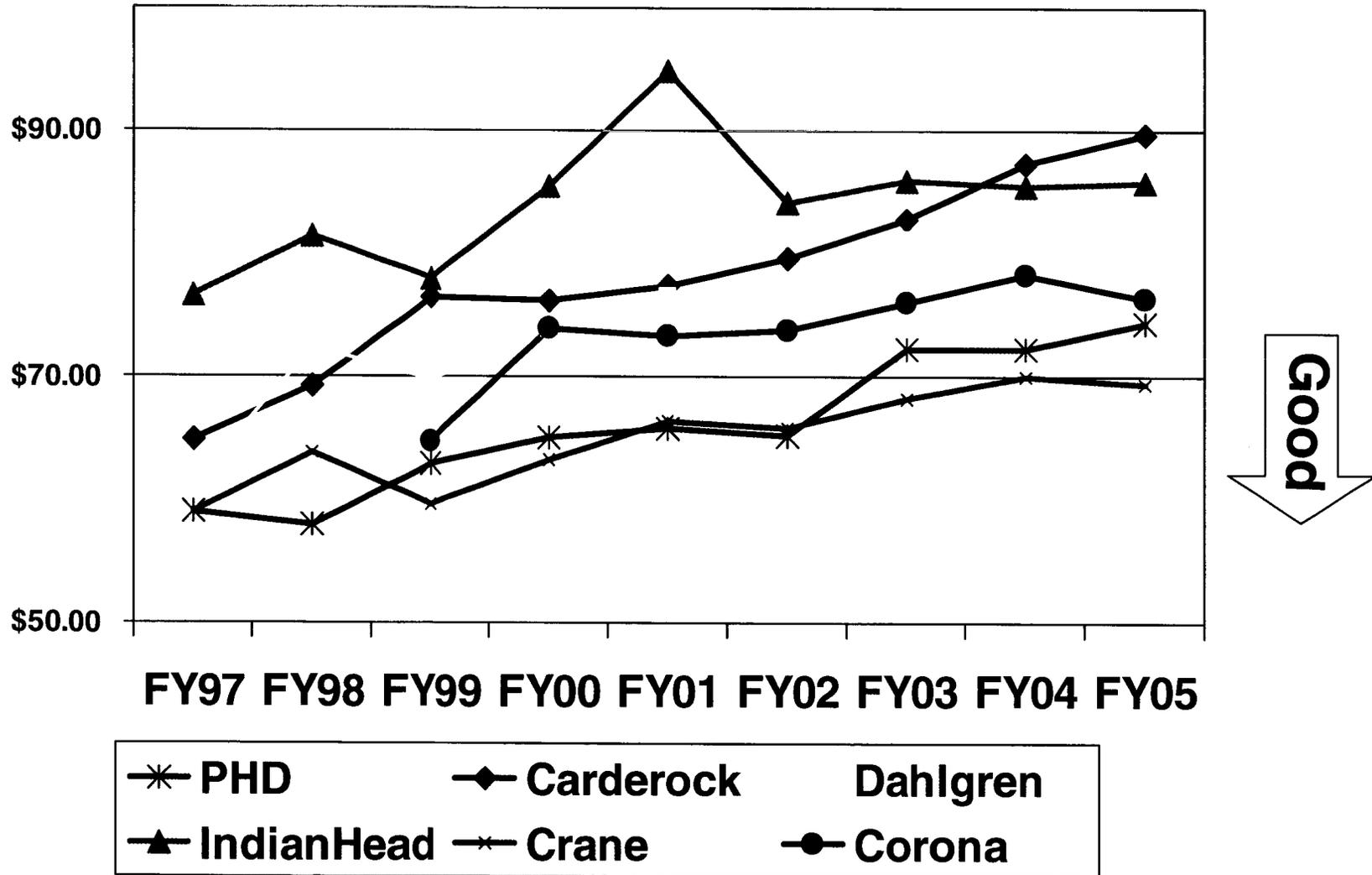


OVERHEAD COST AS A % OF TOTAL COST BY NSWC DIVISION





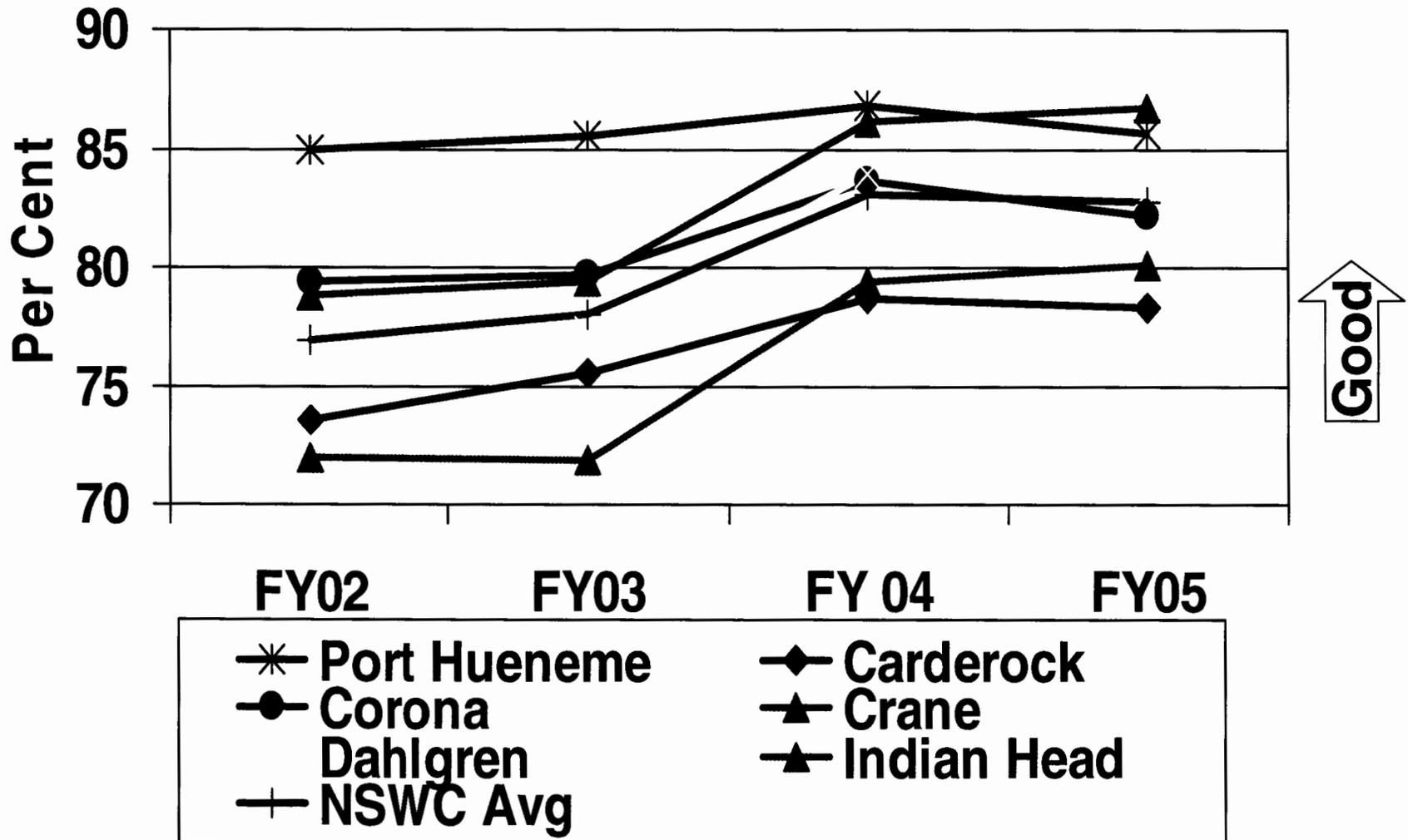
STABILIZED BILLING RATES BY NSWC DIVISION





NSWC DIVISION

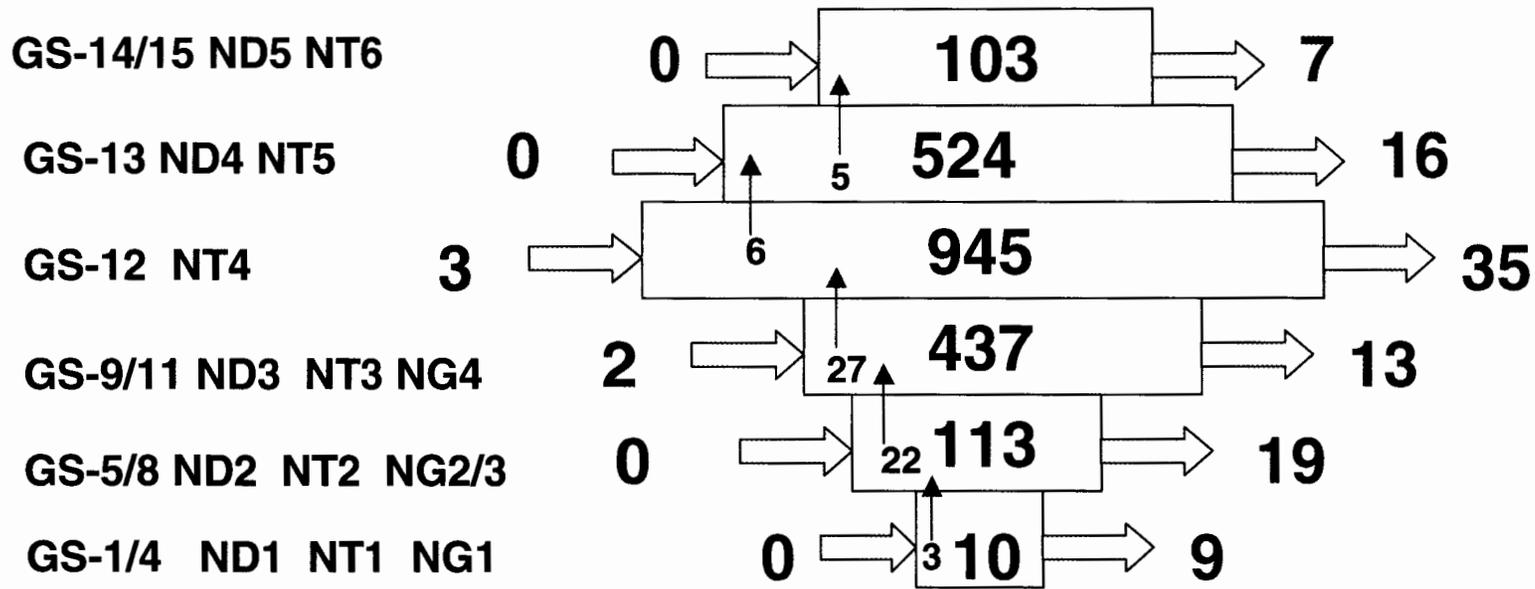
Productivity Ratio





Workforce Demographics

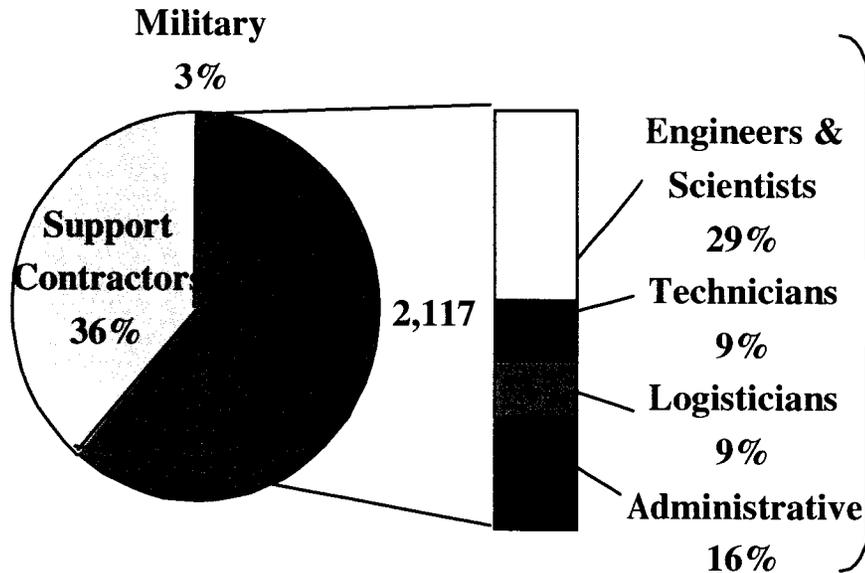
Internal Labor Map – Total Workforce March 05





NSWC PHD

2,117 Civilians



	FY 00	FY 02	FY 05
Caucasians	68.6%	64.7%	62.4%
Asians	12.3%	15.4%	17.8%
Hispanics	12.9%	14.2%	14.3%
African-American	5.4%	4.9%	4.8%
American-Indian	.8%	.8%	.7%
Female % of Total	29.5%	26.4%	25.5%

Bargaining Units (80% of employees)
 Nat'l Assoc. of Government Employees (40%)
 Federal Union of Scientists & Engineers (40%)

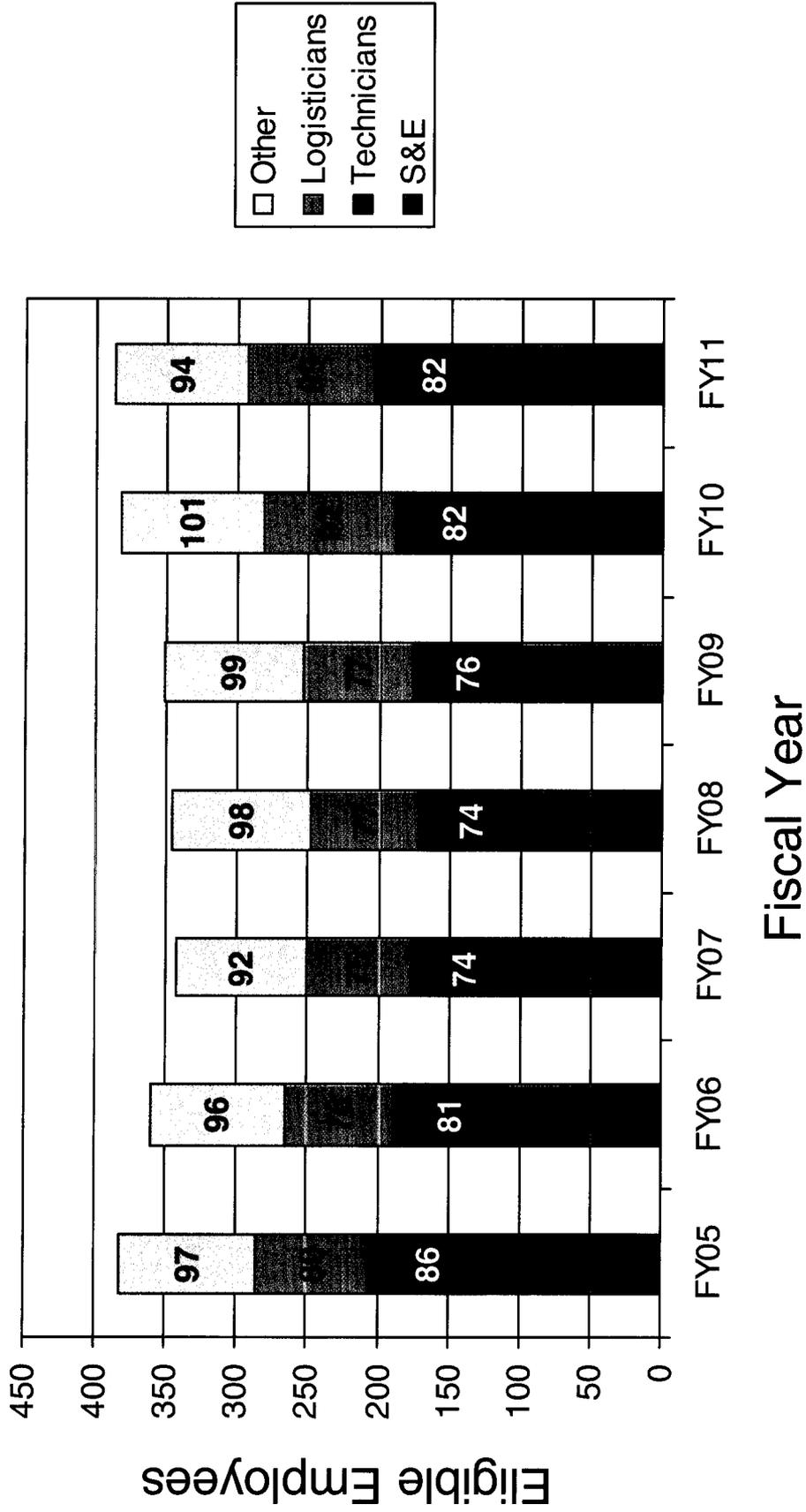
Doctorate	5
Masters	201
Bachelors	1110
High School	828

Military
 Officers -- 23
 Enlisted -- 86



Workforce Demographics Retirement Eligibility Projection by Skills Set

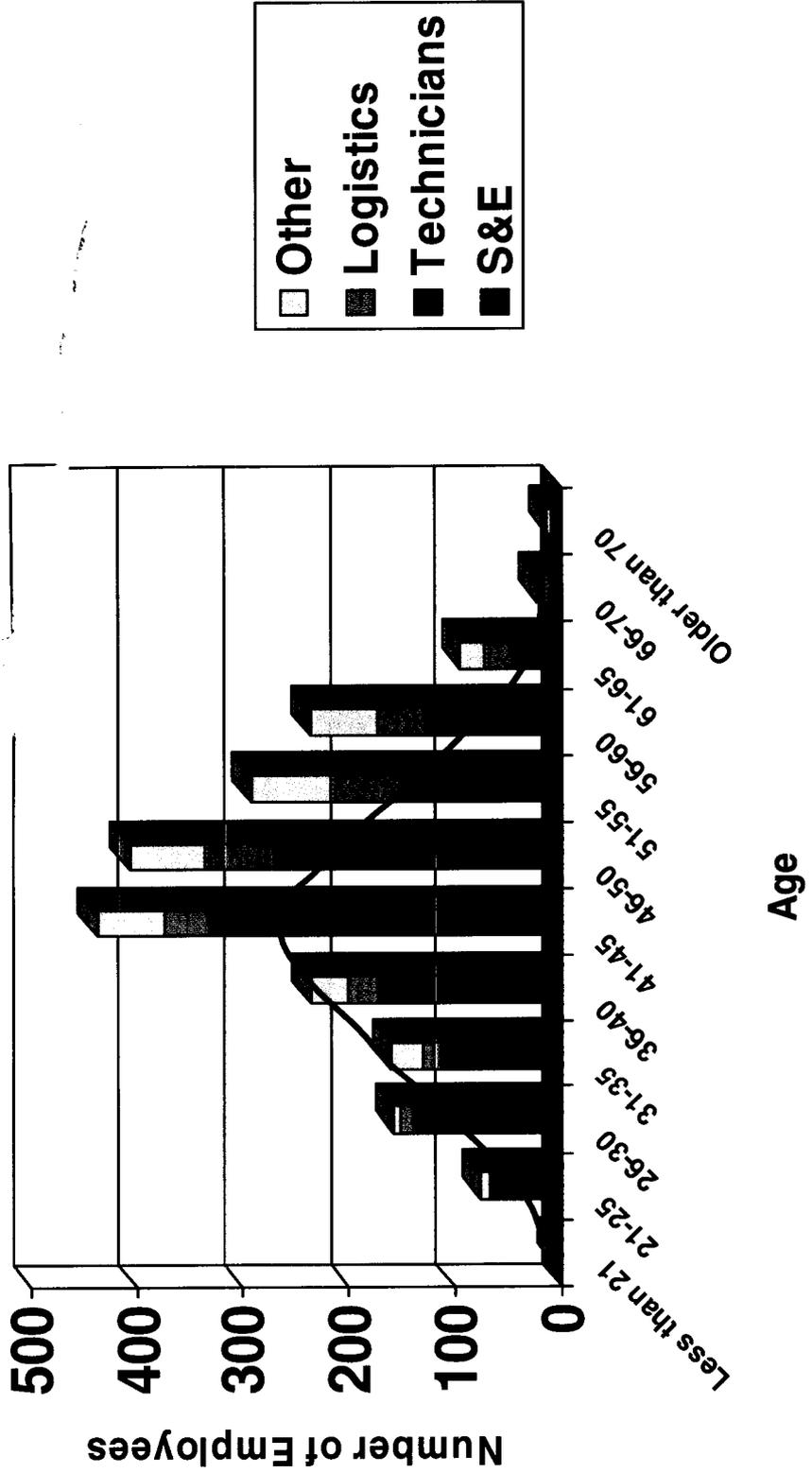
DCN:11 07





Workforce Demographics Age by Skills Set

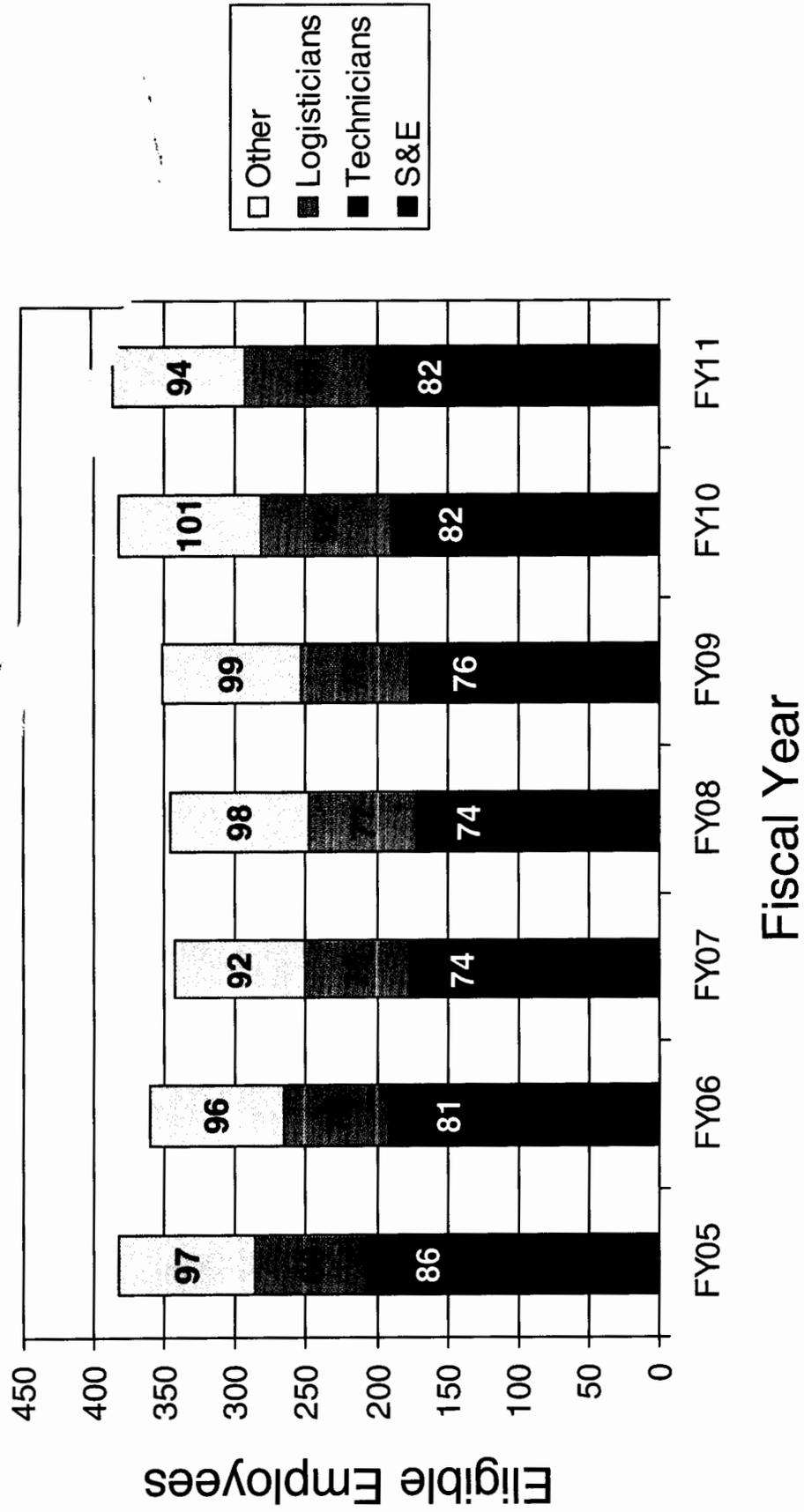
Mean Age of S&E Workforce = 41.6





Workforce Demographics Retirement Eligibility Projection by Skills Set

DCN:11707





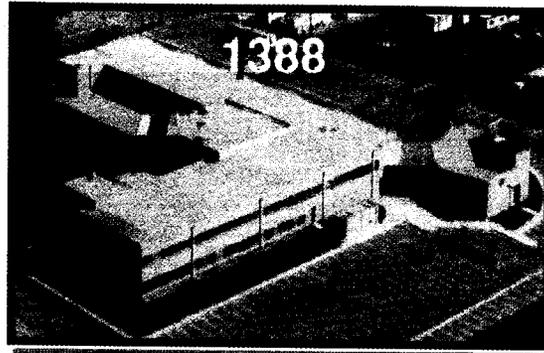
PORT HUENEME

Impacted Facilities – (cont)

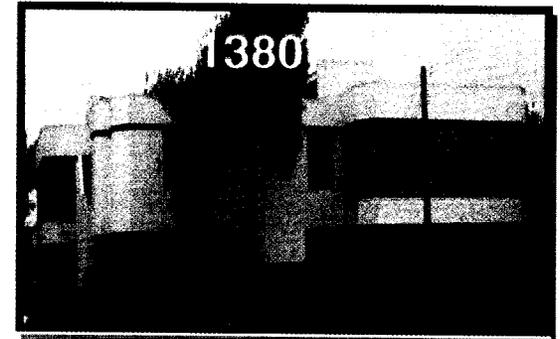
going thru phased modern program



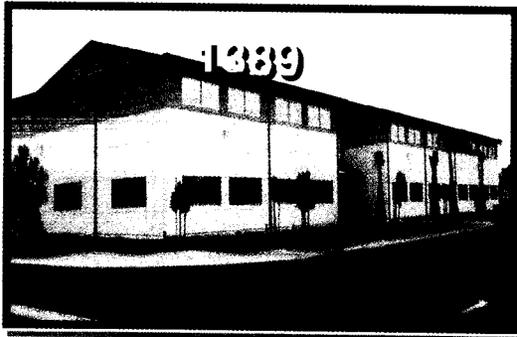
**CEC
Mk 74
ESSM
Standard Missile
VLS
ERGM
AADC**



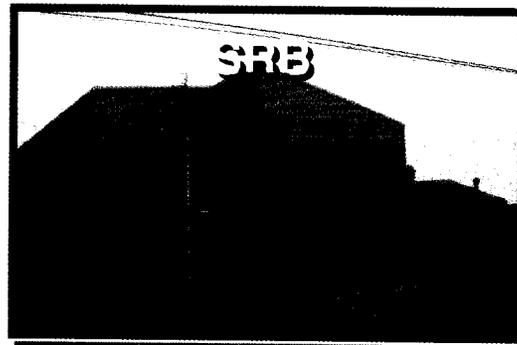
**NSDSA
VLS
DCGS-N**



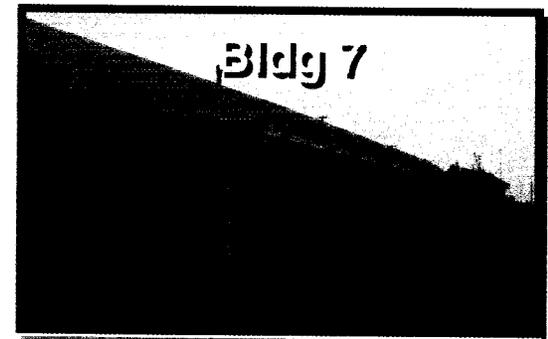
**Scientific Technical
Intelligence Liaison Office
(STILO)**



**NATO SeaSparrow
RAM System
CS/IC Switchboards
NSPO Depot**



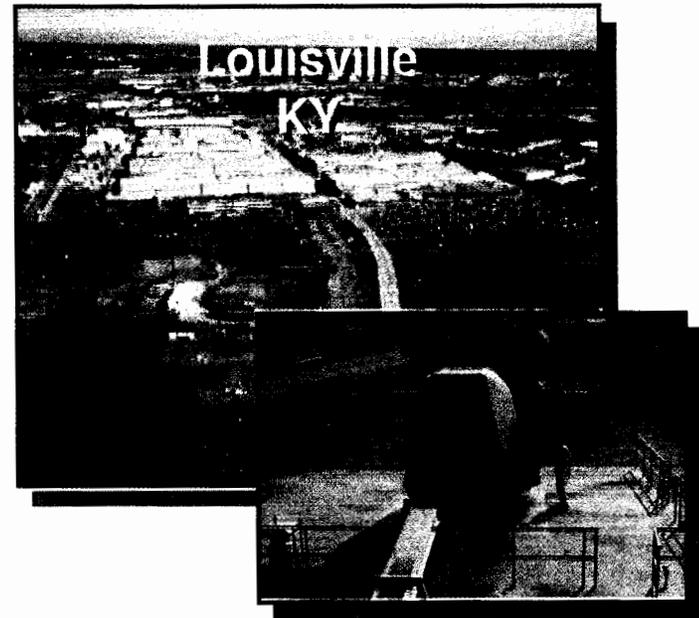
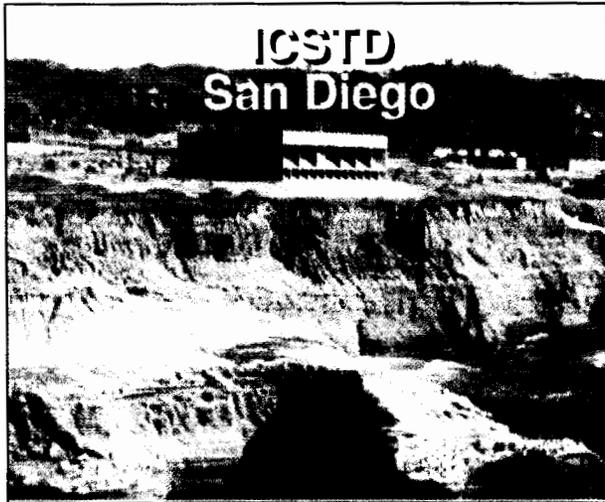
**VLS Canister
Missile Maintenance**



**Combat and IC Switchboards
Laboratory**



Impacted Facilities - Detachments



- Conduct Independent Combat System Computer Program Certification
- Provide Distributed Engineering Plant Node for Hardware/ Software Integration

- Provides Acquisition, Production & Operational Support of In-Service and Emerging Naval Gun Weapon Systems

DCN:11707



PORT HUENEME

Take Away

“Naval shipborne warfare systems are specifically designed to be fully embedded within the form of a ship’s hull design. The elements of the detect-to-engage sequence are physically and functionally integrated and not separable as independent components.”



PHD PERFORMS WARFARE SYSTEMS INTEGRATION



C4ISR to SPAWAR San Diego

Scenario Action:

- Consolidate Maritime Information Systems RDAT&E functions at NSWC PHD with SPAWAR San Diego

Assumptions:

- This Scenario intends to consolidate the workload that is common with specific areas of C4ISR.

Recommendation:

- Realign Naval Base Ventura County, CA, by relocating Maritime Information Systems RDAT&E 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.

Justification:

- These recommended realignments and consolidations provide for multifunctional and multidisciplinary Centers of Excellence in Maritime C4ISR.



ICSTD to NSWC Dahlgren

DCN:1177

Scenario Action:

- Realign Port Hueneeme (SD) and relocate to NSWC Dahlgren

non-Aegis gets combined w/ Aegis 47 to Bldg people

Assumptions:

- This Scenario intends to consolidate the workload that is common with specific areas of Weapons and Armament.

Recommendation:

- Realign Fleet Combat Training Center, CA (Port Hueneeme Detachment, San Diego, CA), by relocating all Weapons and Armaments weapon system integration Research, Development & Acquisition, and Test & Evaluation to Naval Surface Warfare Center Dahlgren, VA.

Justification

- The Naval Surface Warfare Center, Dahlgren, VA, is a receiver specialty site for Naval surface weapons systems integration and receives a west coast site for consolidation. This construct creates an integrated W&A RDAT&E center in China Lake, CA, energetics center at Indian Head, MD, and consolidates Navy surface weapons system integration at Dahlgren, VA.

Programs

- All ICSTD Programs

ICSTD to NSWC Dahlgren

NSWC PHD ICSTD Programs



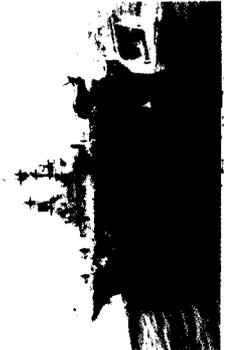
Surface Combatants



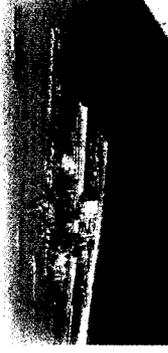
Aircraft Carriers



Amphibious Ships



Replenishment Ships



Strike Groups



Allied Forces





PORT HUENEME

C4ISR to SPAWAR San Diego

Surface Combatants



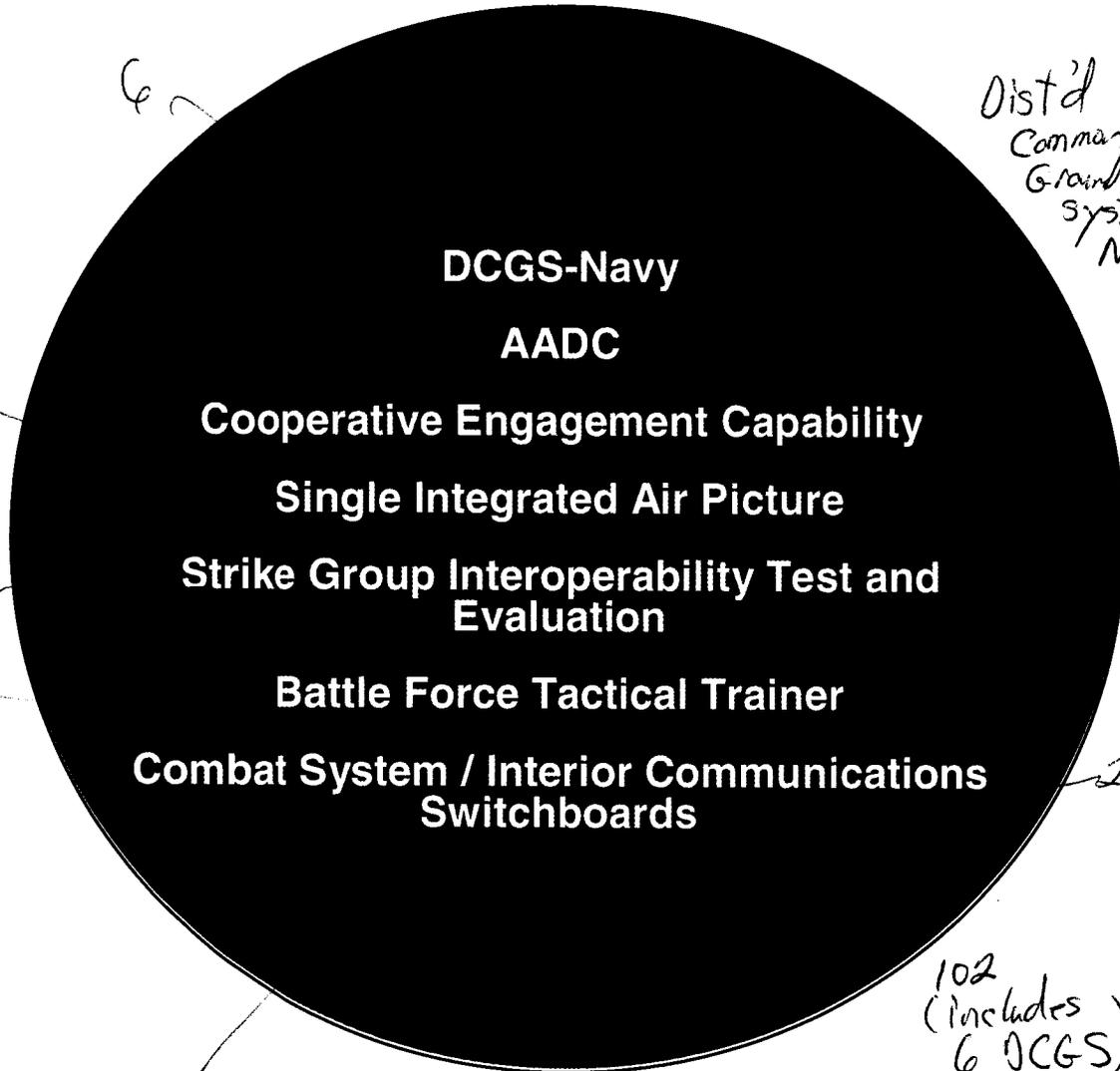
Aircraft Carriers



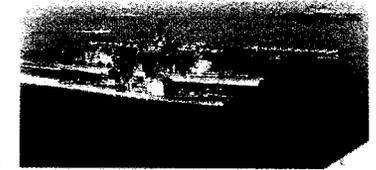
Amphibious Ships



NSWC PHD C4ISR Programs



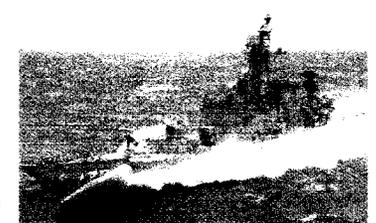
Replenishment Ships



Strike Groups



Allied Forces



*Dist'd
Comms
Group
systems
Navy*

*102
(includes
6 DCGS)*

(TECH 0008B & TECH 0008F / TECH 0042A)

why interior communications?



Weapons & Armament (Missiles, Guns, Energetics) to NAWC China Lake

Surface Combatants



Aircraft Carriers

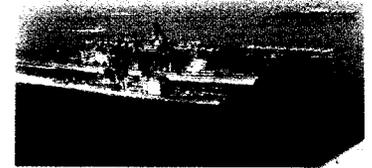


Amphibious Ships



NSWC PHD Weapons and Armament Programs

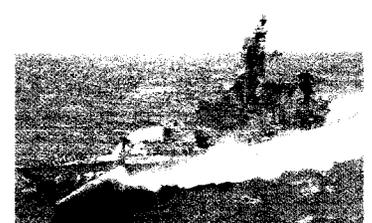
Replenishment Ships



Strike Groups



Allied Forces



178 = 425

113 ~~is~~ meant
what write question

(TECH0002 / TECH0018DR)

Japan
Dutch 15
German
Spanish



Louisville to Picatinny Arsenal

Scenario Action:

- Realign Detachment Louisville Guns/ammo RDAT&E and relocate to Picatinny Arsenal

223
(6 mil #
217 civ.)

Assumptions:

- Definition of Guns & Ammunition: Includes all RDAT&E associated with small, medium and large caliber gun systems, and any barrel launched ballistics rounds/systems. Includes but is not limited to mortars, tank rounds and systems, artillery, Navy Gun systems. Include all work associated with gun systems, materials and propelling charges, Does not include guidance and control, and rocket motors. Does not include weapon systems integration.

Thinks
T&E
should
likely
not
move

Do they
mean
everyone
or just
RD

Recommendation:

- Realign the Louisville, KY, detachment of Naval Surface Warfare Center Division Port Hueneme, CA, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.

Wateruliet
not moving
to Picatinny

25 if
just
RD

Justification:

- This recommendation realigns and consolidates those gun and ammunition facilities working in Weapons and Armaments (W&A) Research (R), Development & Acquisition (D&A). This realignment would result in a more robust joint center for gun and ammunition Research, Development & Acquisition at Picatinny Arsenal, NJ.

Some gun
work remains
at Louisville & Crane

other
services
resisting

Programs:

- All Louisville Programs

Doesn't
know
what AF
is doing

Army now
uses Navy
SeaWiz

McConnell
Tech. Center

(TECH0002E & TECH0017 / TECH 0018B)

United
Defense ← oversight for
contractors



Louisville to Picatinny Arsenal

Doc ID: 11707
6 people

Surface Combatants



Aircraft Carriers

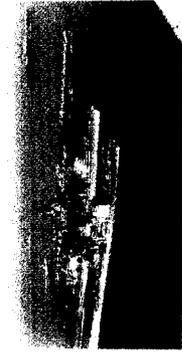


Amphibious Ships



NSWC PHD Louisville Programs

(guns made here)



Replenishment Ships

Gun Bar Mounts

Strike Groups



Advanced Gun System

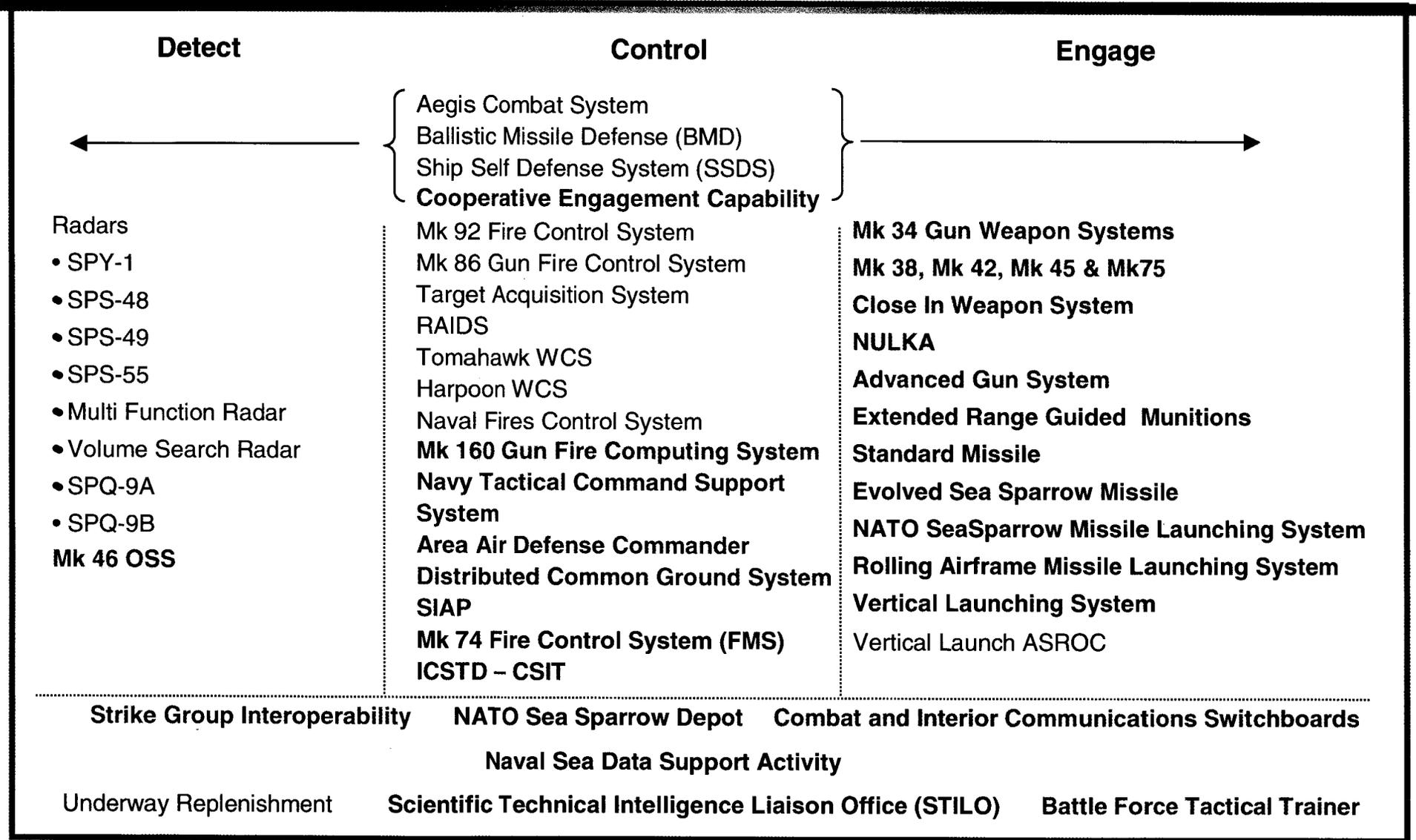
Allied Forces





PORT HUENEME

Potential Impacts



Picatinny



China Lake



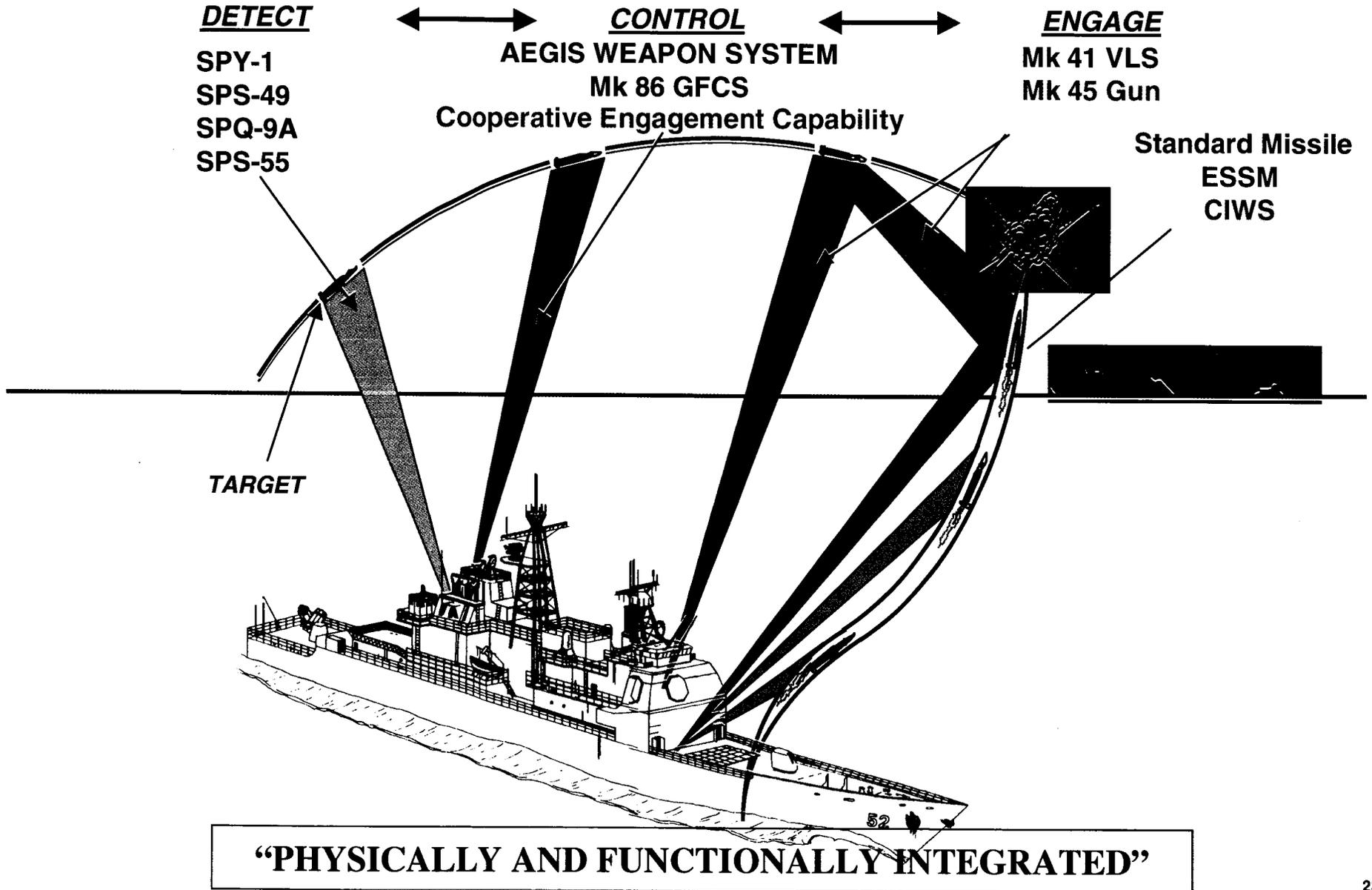
SPAWAR



Dahlgren

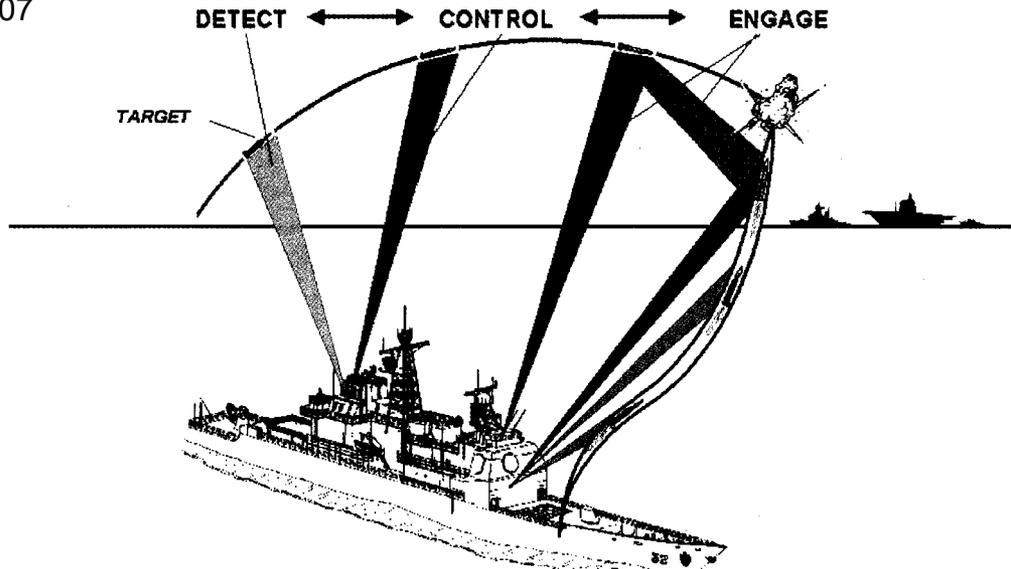


Surface Ship Combat System Operation AEGIS Example





Q & A



“PHYSICALLY AND FUNCTIONALLY INTEGRATED”

This slide, depicting a cruise missile attack against a surface combatant, illustrates the concept of the "detect to engage" sequence, which is integral to the ship's combat system.

Every combat system integrates the basic element functions of – detect, control and engage.

When we say *combat system* we mean an end-to-end system comprised of many weapon elements and components.

These weapon elements and components range from simple manually operated devices that perform one specific function, to a complex array of weapon elements that perform multiple automated functions simultaneously.

Although each weapon element is specifically designed to contribute a unique function to the ship's overall combat system, it is the effective interlacing of all these elements that enable the ship's combat system to respond to missile threats in fractions of seconds.

To accomplish this, the ship requires the seamless integration of numerous, diverse elements that must continuously interoperate - from the initial detection to final threat neutralization – for the combat system to achieve its goal of threat neutralization. Thus, these physically distributed elements with complex interdependencies operate as a single entity.

Weapon elements are independently specified, acquired, developed, and then afterward integrated into the combat system. The design engineers and developers from separate contractors commonly implement their weapon element functions using different architectures, non-standardized algorithms and incompatible computer languages.

This situation requires government and commercial activities (combat system technical agents) that understand, from an integrated overall combat system perspective, the combat system interface requirements, integration schemes, testing requirements, life cycle maintenance as well as modernization.

These combat system technical agents optimize the overall combat system performance and possess a thorough understanding of how the weapon elements fit together, how changes in one weapon element affect the overall combat system, and how to avoid an emphasis on one element that may increase the performance of that element but at a negative effect on the end to end system (sub-optimization).

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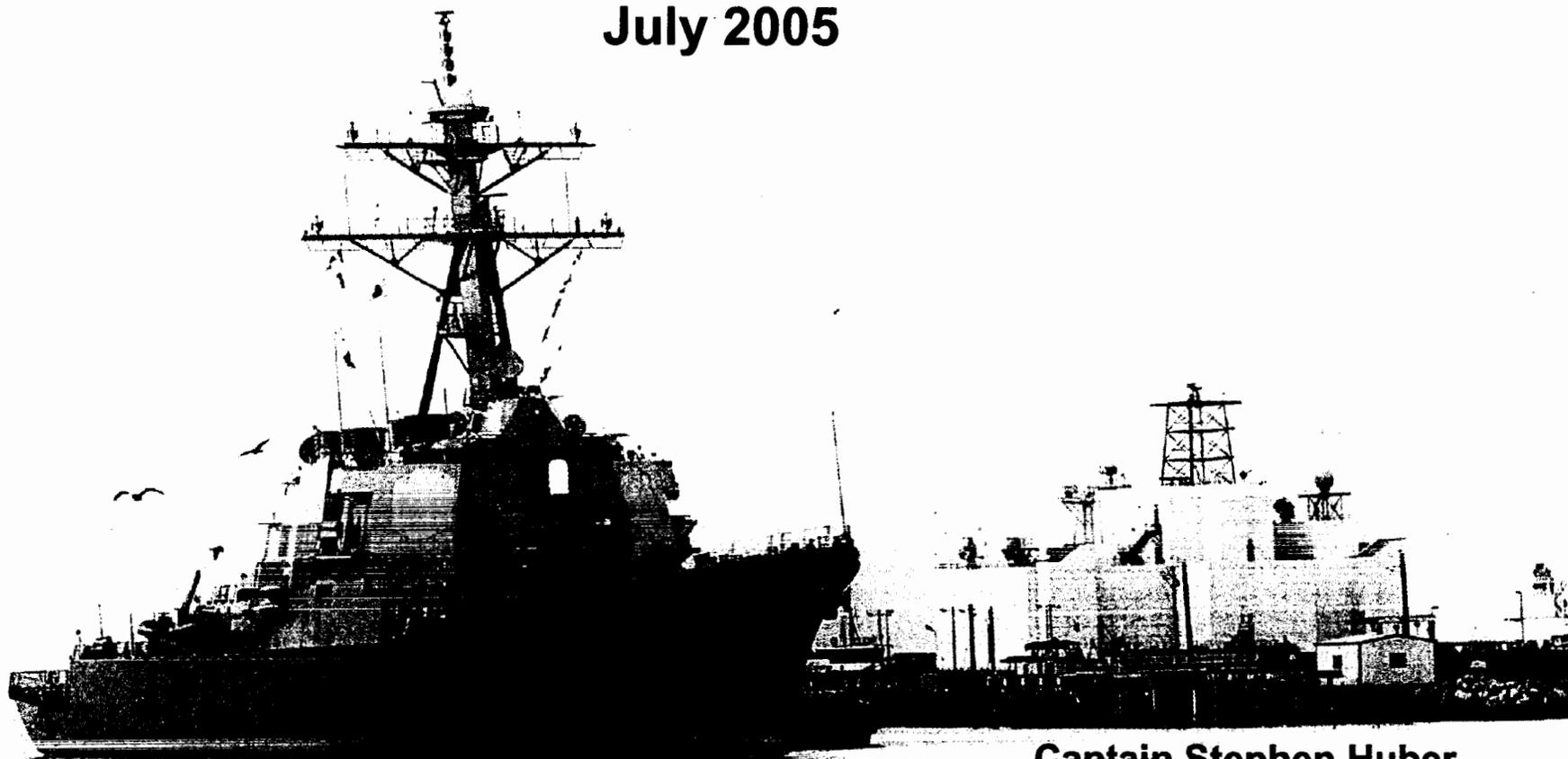


PORT HUENEME

NAVSEA Port Hueneme

BRAC Overview

July 2005



**Captain Stephen Huber
Commander Naval Surface
Warfare Center Port Hueneme**

DCN:11707

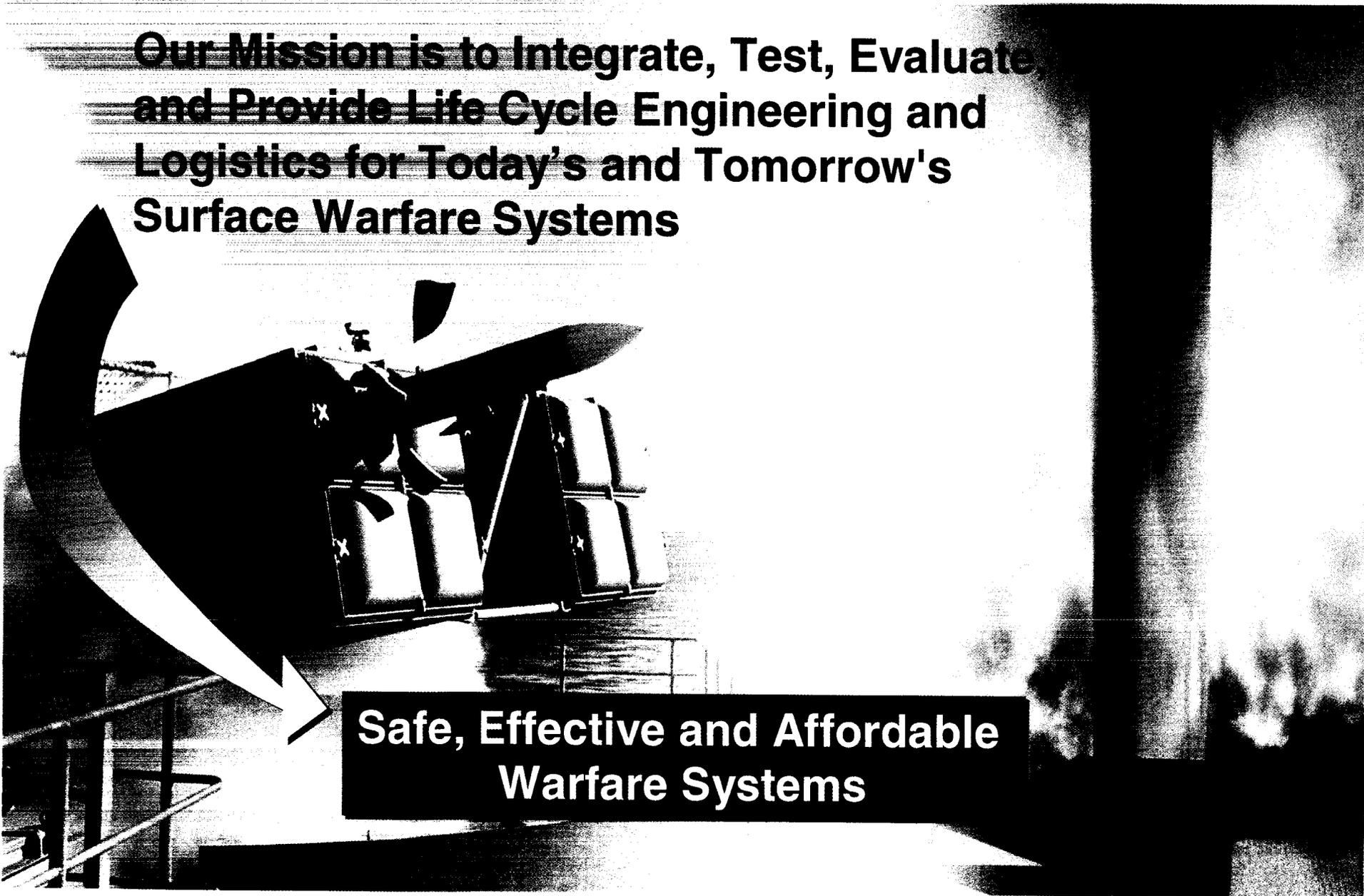
NAVSEA

WARFARE CENTERS

PORT HUENEME

Our Mission

**Our Mission is to Integrate, Test, Evaluate
and Provide Life Cycle Engineering and
Logistics for Today's and Tomorrow's
Surface Warfare Systems**

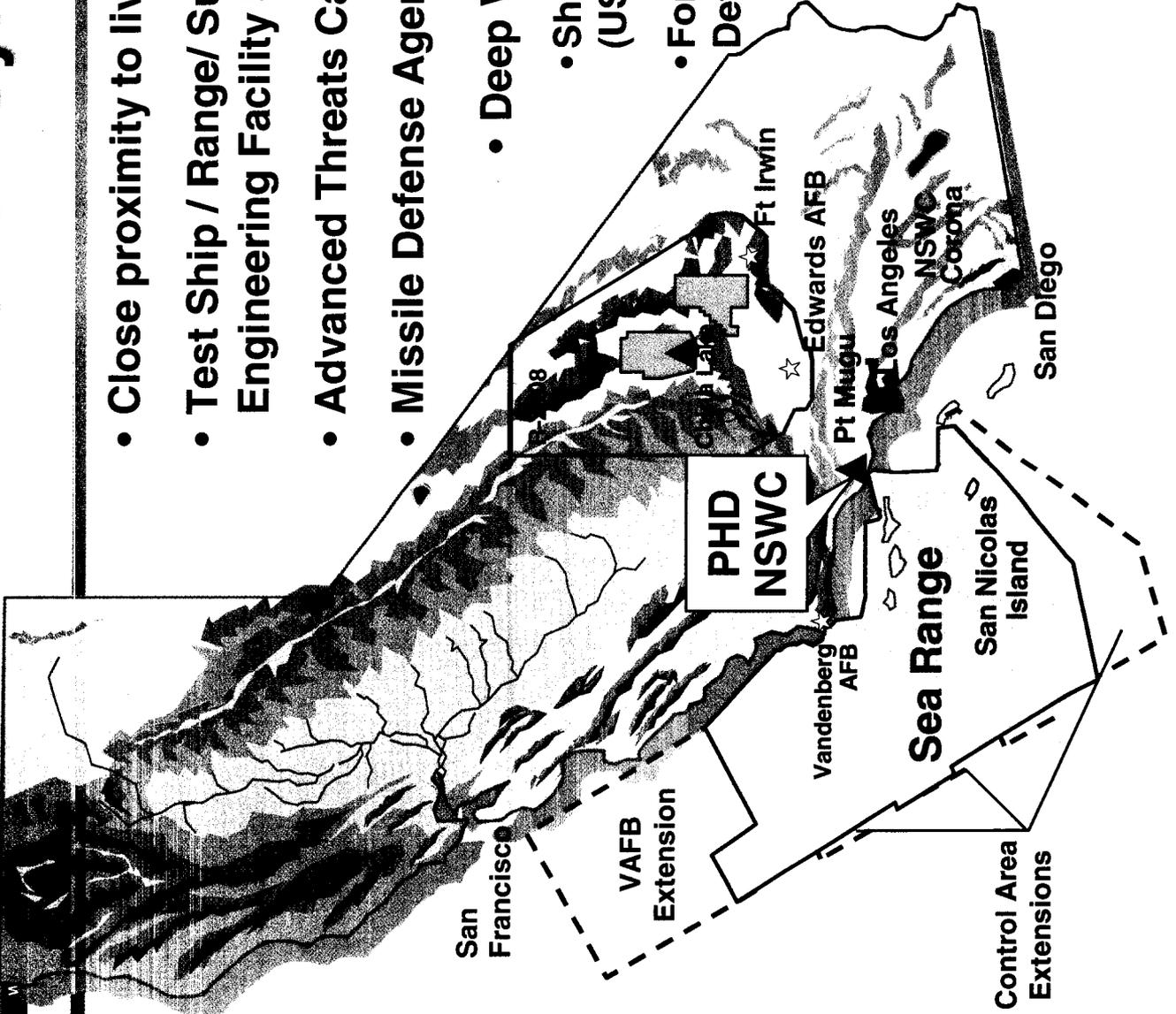


**Safe, Effective and Affordable
Warfare Systems**



Location Synergy

- Close proximity to live fire at sea range
- Test Ship / Range/ Surface Warfare Engineering Facility Synergy
- Advanced Threats Capability
- Missile Defense Agency System Testing
- Deep Water Port
- Ship Combat System Assessments (USN/CG/FMS)
- Force Protection and Homeland Defense Exercises
- Littoral Environment





Workforce Team

ACTIVE DUTY MILITARY

23 Officers, 89 Enlisted

- Bring Fleet perspective and experience
- Gain technical leadership expertise

CIVILIANS

2,117 People (PH 1752 - Detachments 365)

- Long-term technical accountability
- Essential Core skills and expertise

INDUSTRY

1,200 People

- Complement government knowledge base
- Critical industrial and product development services

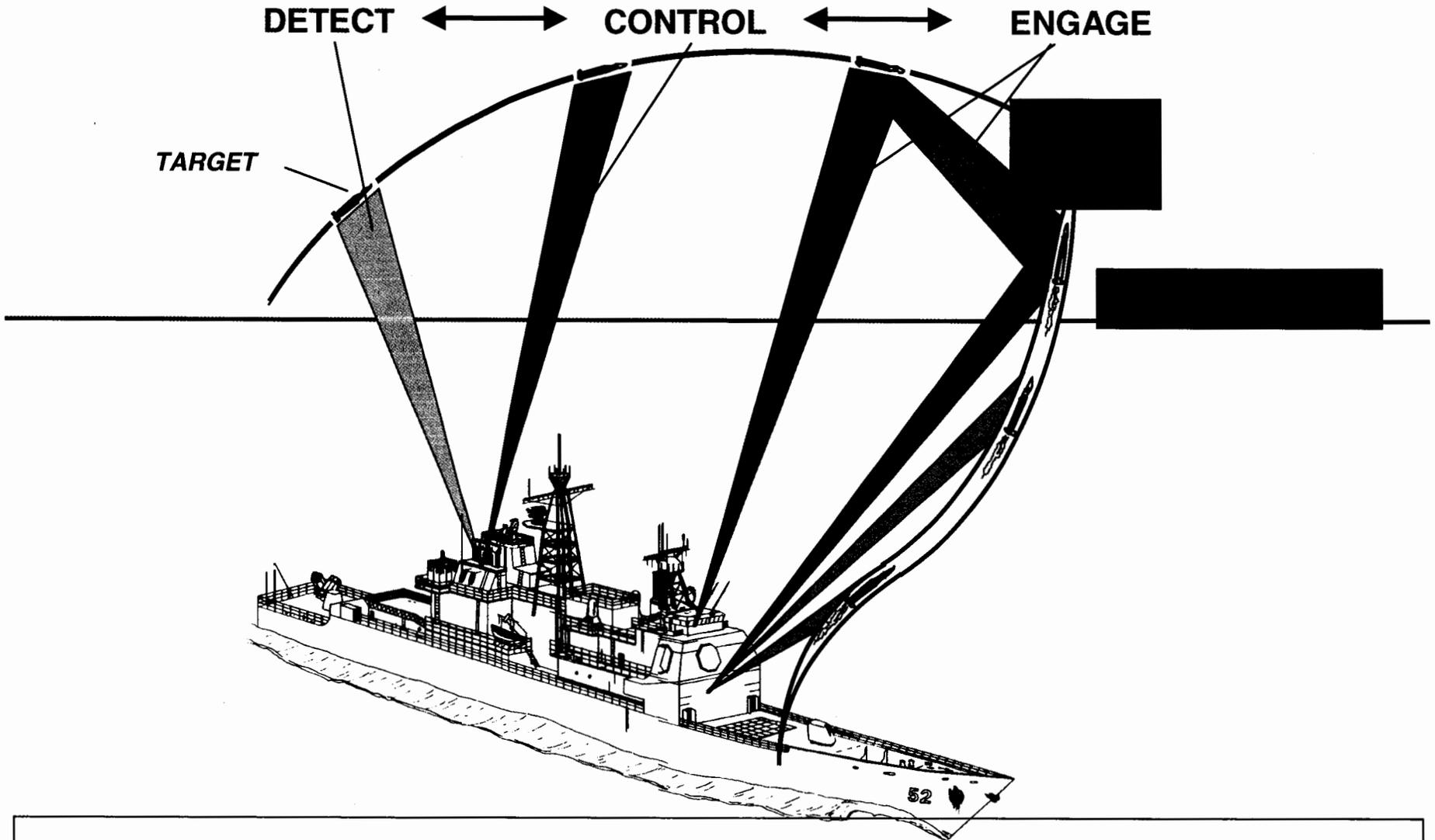
RESERVE MILITARY

- Unique mix of military and industry skills/experience
- Sustained Warfare Systems expertise





Surface Ship Combat System Operation

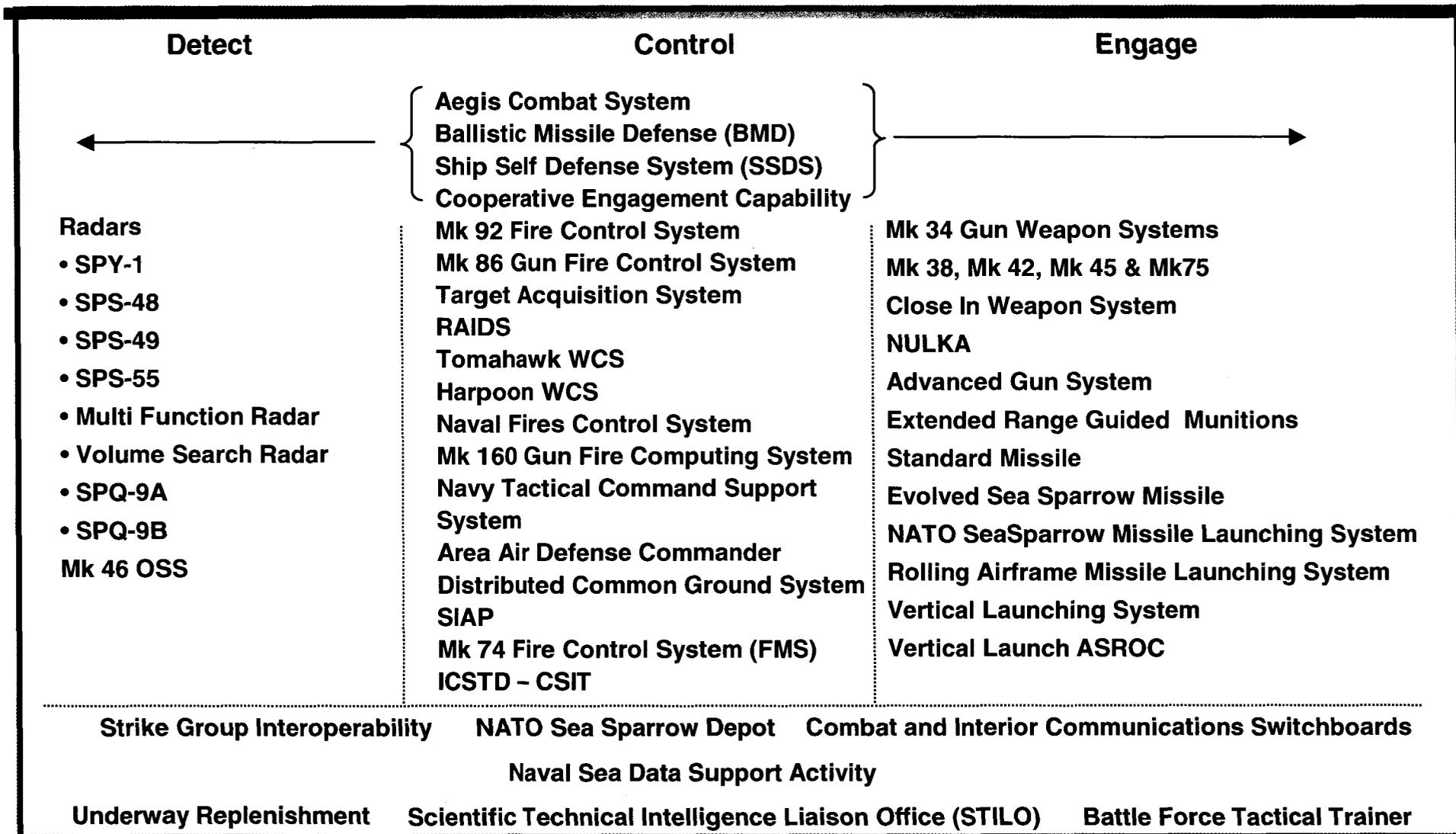


“PHYSICALLY AND FUNCTIONALLY INTEGRATED”



PORT HUENEME

Combat System Integration



Conceptual	Design Development Testing	Production, Installation Testing	Fleet Intro Initial Follow-On	In-Service Operation Improvement Enhancement	Deactivation, Retirement	Disposal
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BRAC Scenarios

DCN:11707

- NSWC PHD is involved in 4 Scenarios
 - Weapons & Armaments (Missiles, Guns, Energetics) to NAWC China Lake (TECH0002 / TECH0018DR)
 - C4ISR to SPAWAR San Diego (TECH 0008B & TECH 0008F / TECH 0042A)
 - Integrated Combat System Test Detachment (ICSTD) to NSWC Dahlgren (TECH0002F & TECH0018DR)
 - Louisville to Picatinny Arsenal (TECH0002E & TECH0017 / TECH 0018B)



Weapons & Armament (Missiles, Guns, Energetics) to NAWC China Lake

DCN:11707

Scenario Action:

- Realign Port Hueneme Weapons and Armaments (except weapon system integration) and relocate to China Lake

Assumptions:

- Relocate most Weapons and Armaments e.g. missiles, energetics, guns, etc RDAT&E to China Lake

Recommendation:

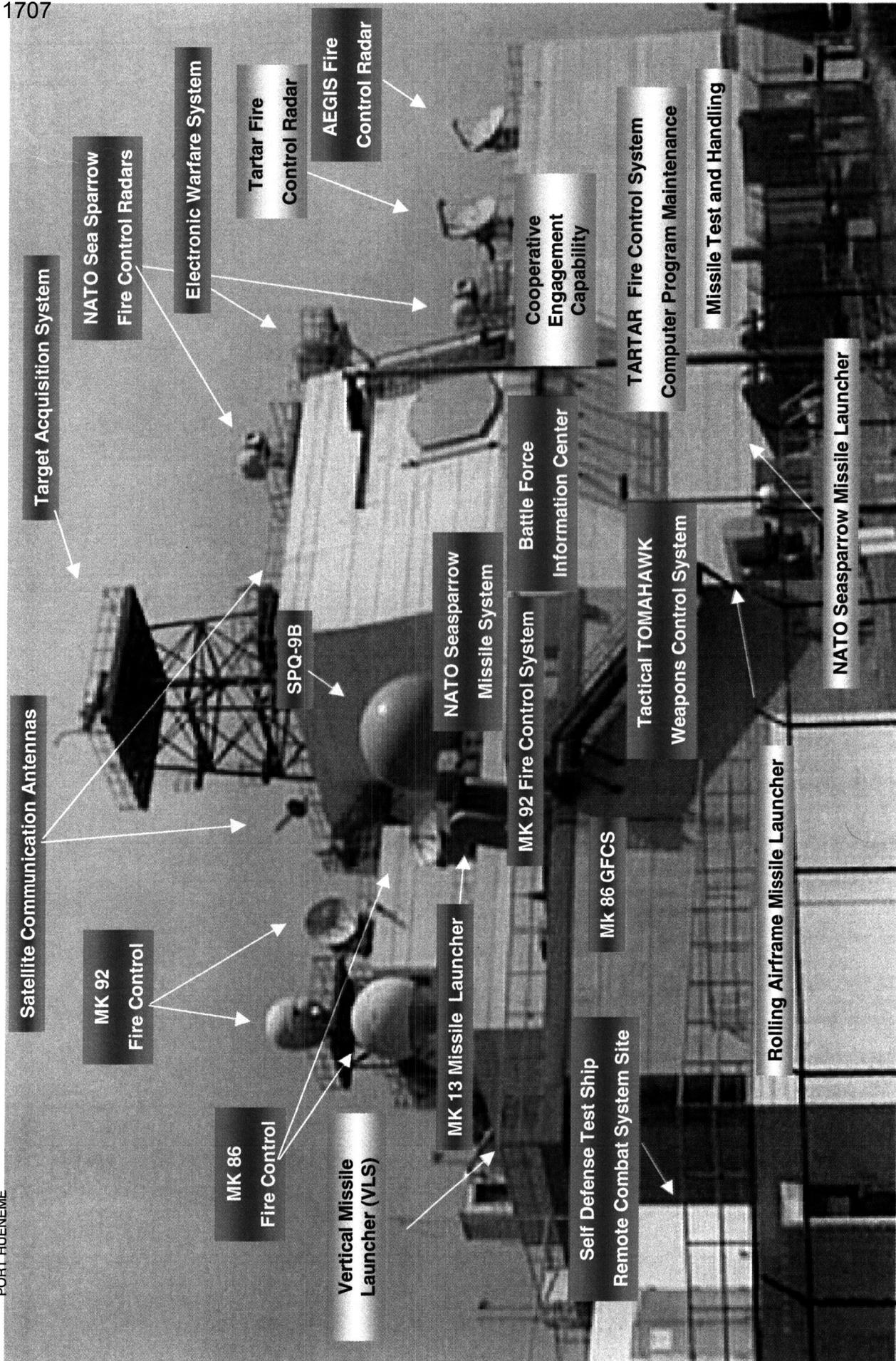
- Realign Naval Base Ventura County, Port Hueneme, CA, by relocating all Weapons and Armaments Research, Development & Acquisition, and Test & Evaluation, except weapon system integration, to Naval Air Weapons Station China Lake, CA.

Justification:

- Consolidating the Navy's air-to-air, air-to-ground, and surface launched missile RD&A, and T&E activities at China Lake, CA, would create an efficient integrated RDAT&E center.



Impacted Facilities - SWEF



red = affected systems

DCN:11707



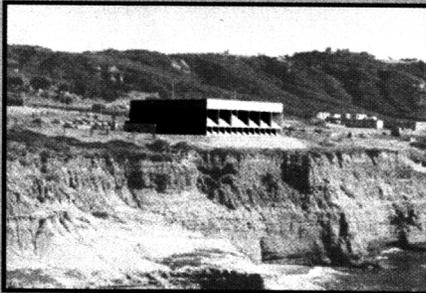
PORT HUENEME

Where We Are



Port Hueneme, CA

- Combat & Weapon Systems
- In-Service Engineering
- Test & Evaluation
- Logistics



San Diego, CA

Combat Systems Integration Test



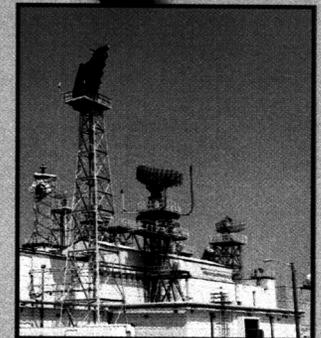
White Sands, NM

Weapon Systems Test Range
(Desert Ship)



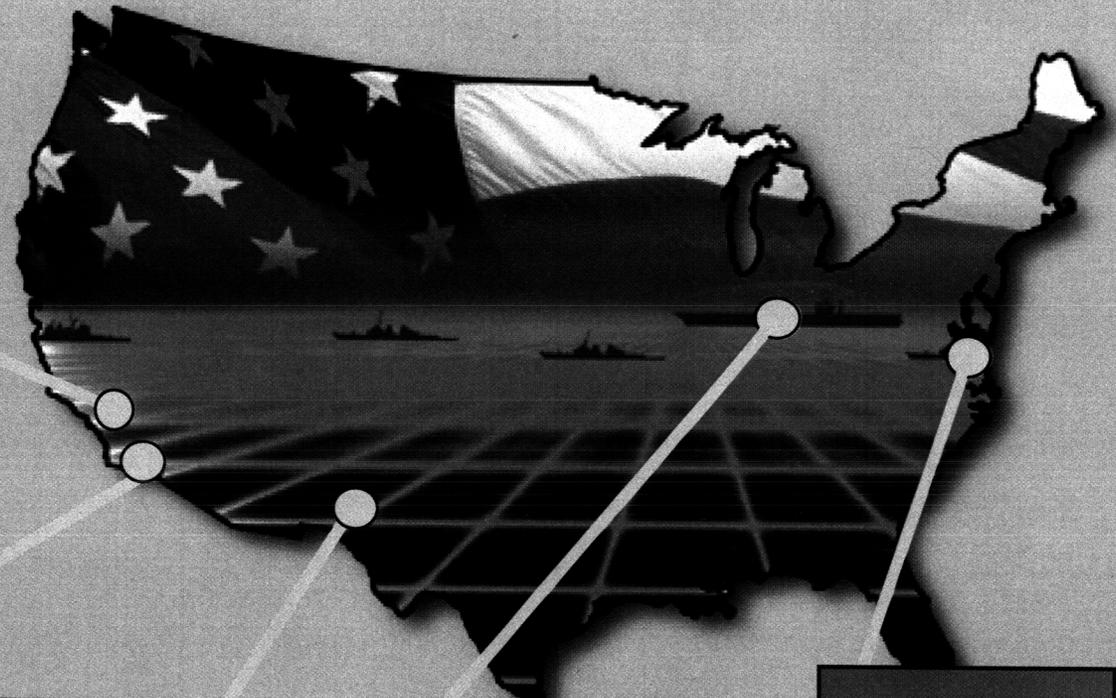
Louisville, KY

Gun Systems



Virginia Beach, VA

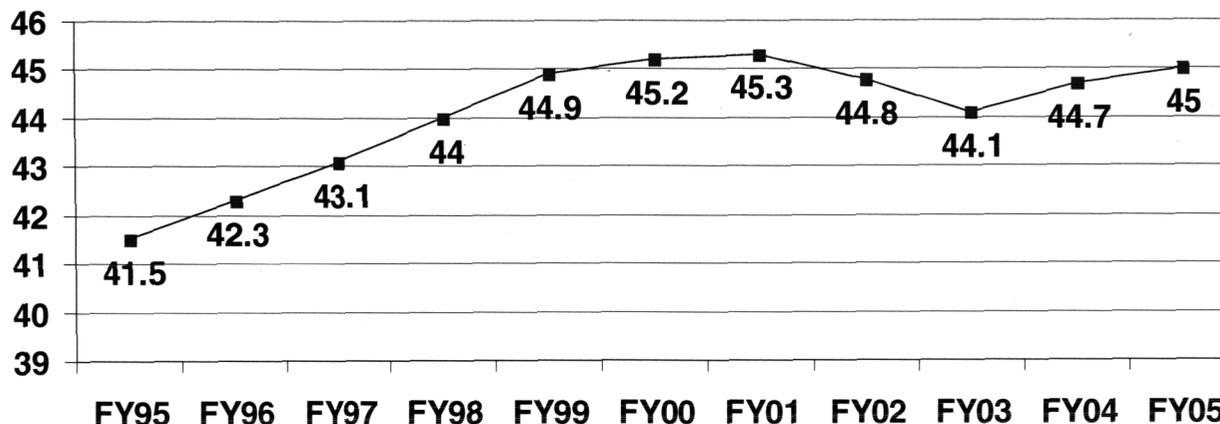
Radar Systems



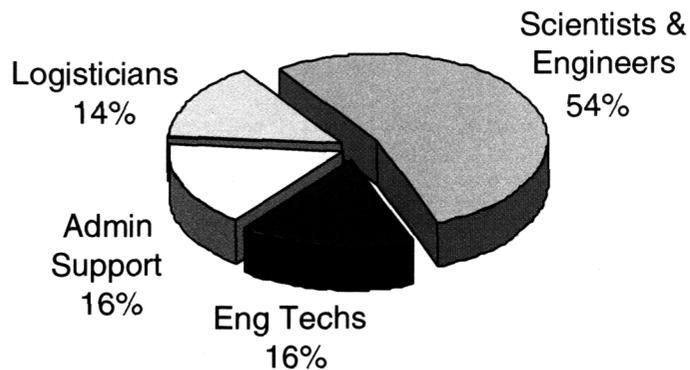


Workforce Profile

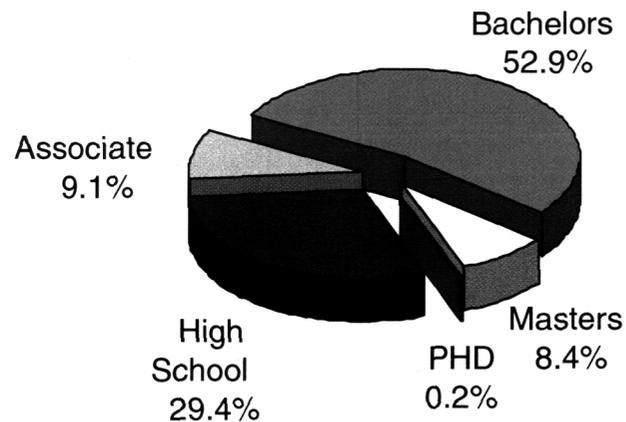
Average Age



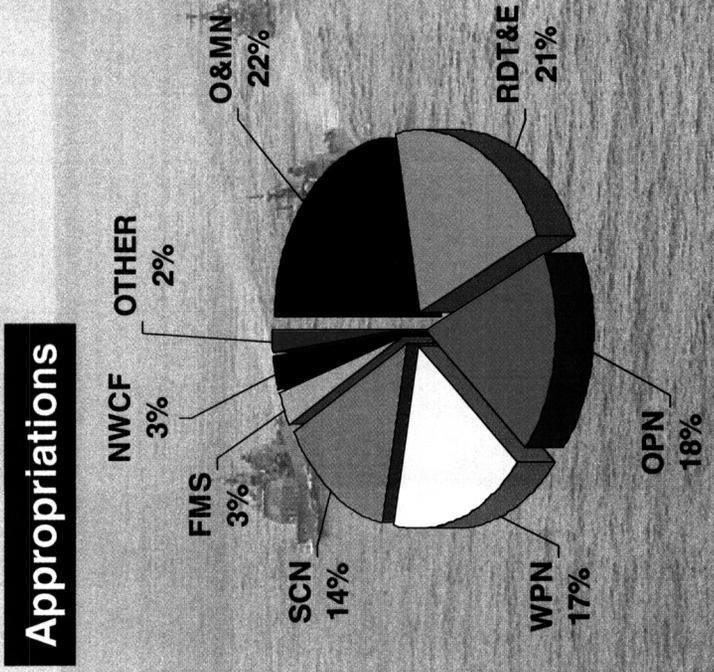
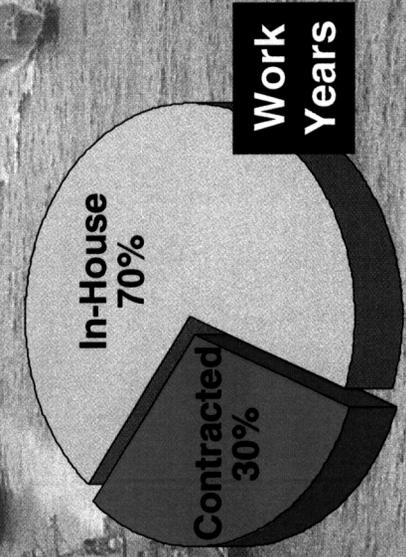
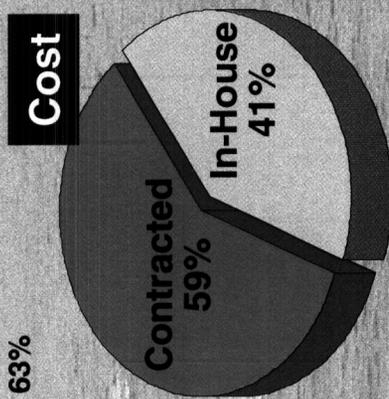
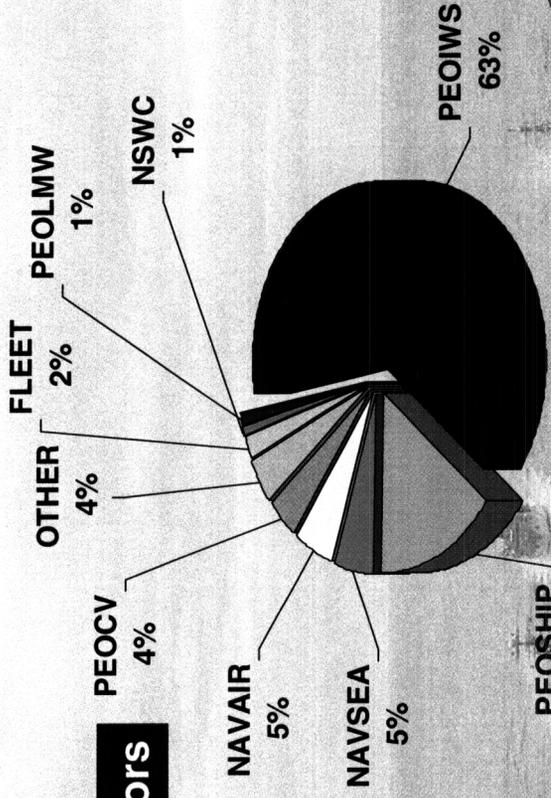
Composition



Education



Business Base FY06 Projected: \$600M



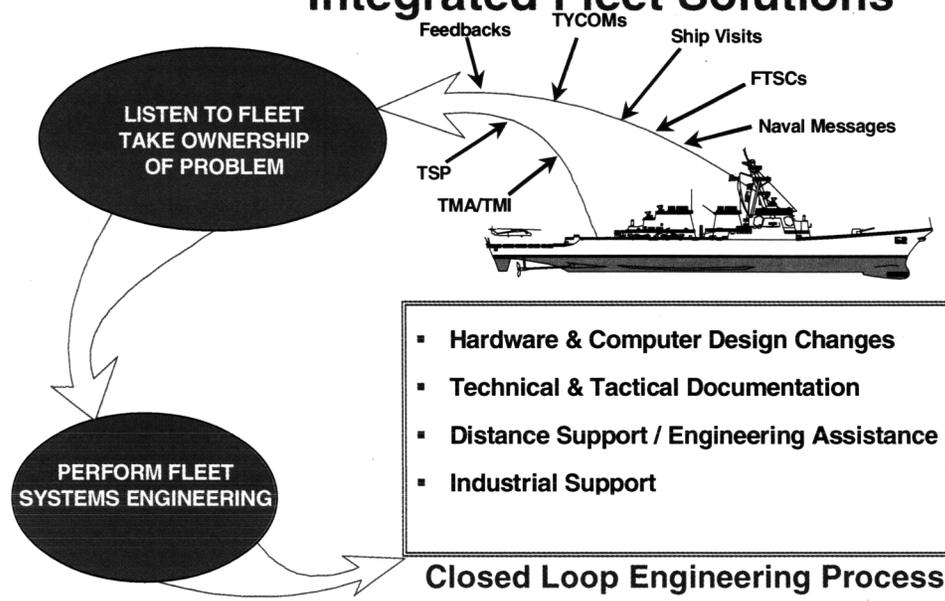


What We Do

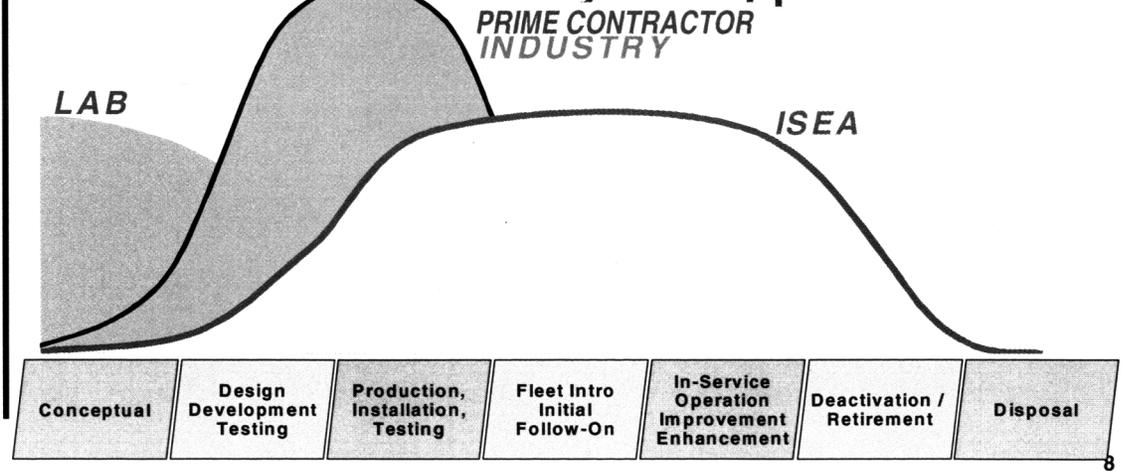
Combat Systems In-Service Engineering and Test & Evaluation

- **Weapon Systems Integration**
- **Technical Authority**
 - ⌞ Safe, Effective, and Reliable Operation
 - ⌞ Accountability and Technical Integrity
 - ⌞ Technical Expertise
 - ⌞ Systems Engineering
 - ⌞ Engineering Stewardship
- **Engineering and Logistics solutions for Fleet problems**

Integrated Fleet Solutions



Life Cycle Support





PHD Role

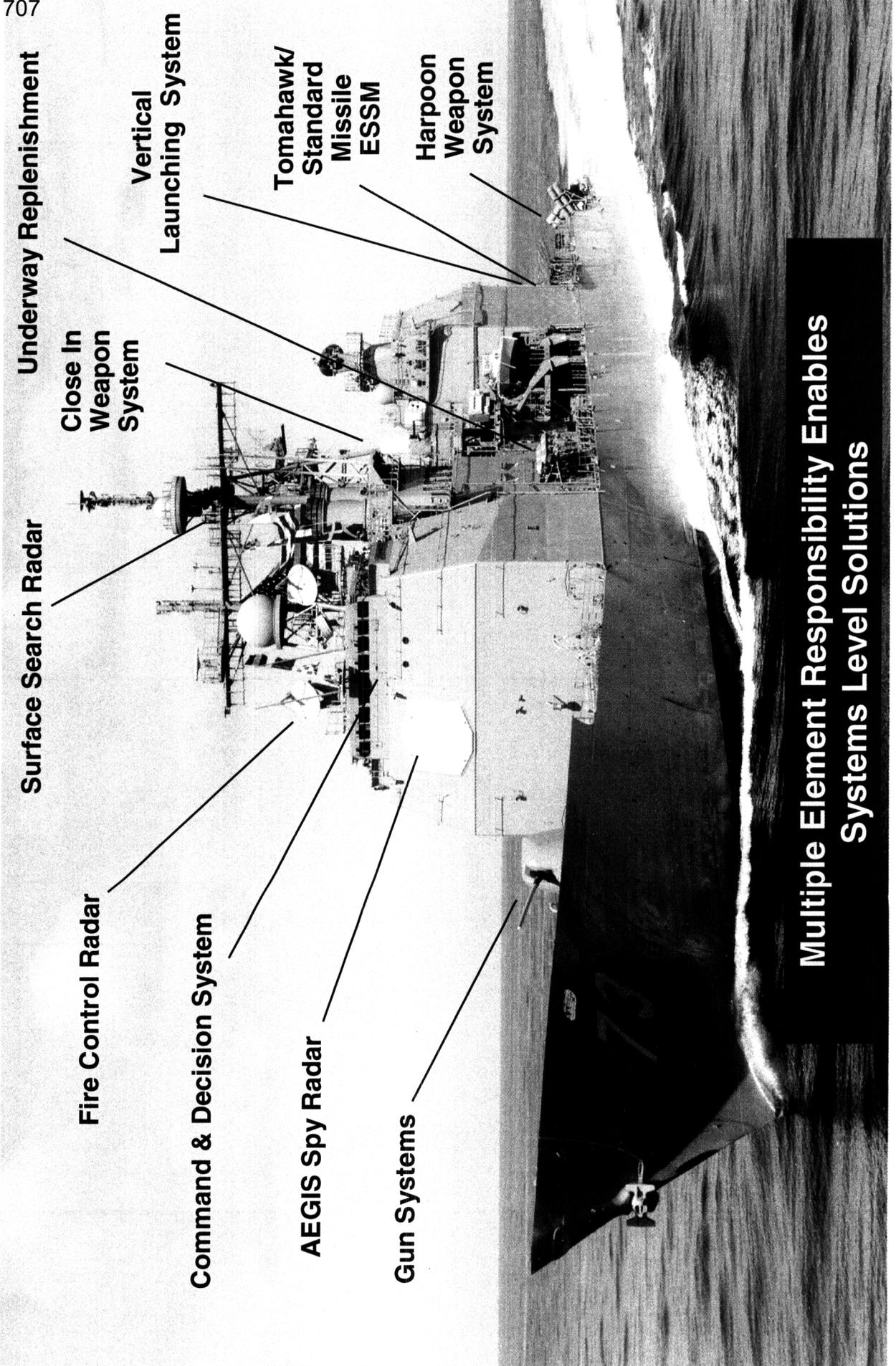
- **PHD Satisfies a Unique Navy Requirement**
 - **Technical Authority for Weapon/Combat Systems ISE and T&E for all Surface Ships**
 - **Single Face to the Fleet for In-Service Combat Systems**
 - **Trusted Agent Throughout In-Service Life Cycle**
 - **Ensure Safe and Effective Operational Capability**
- **By Leveraging**
 - **Equipment to Systems Level Expertise**
 - **People and Unique Facilities Which Match Mission Objectives**
 - **Strategically Located Facilities to Perform Mission**
 - **Partnership Between Industry, Government and Military**

Accountable Weapon/Combat System ISE Agent



Combat Systems

DCN:11707



Surface Search Radar

Underway Replenishment

Close In
Weapon
System

Vertical
Launching System

Tomahawk/
Standard
Missile
ESSM

Harpoon
Weapon
System

Fire Control Radar

Command & Decision System

AEGIS Spy Radar

Gun Systems

Multiple Element Responsibility Enables
Systems Level Solutions