

Naval Base Ventura County

CAPT Paul Grossgold
07 July 2005



Naval Base Ventura County



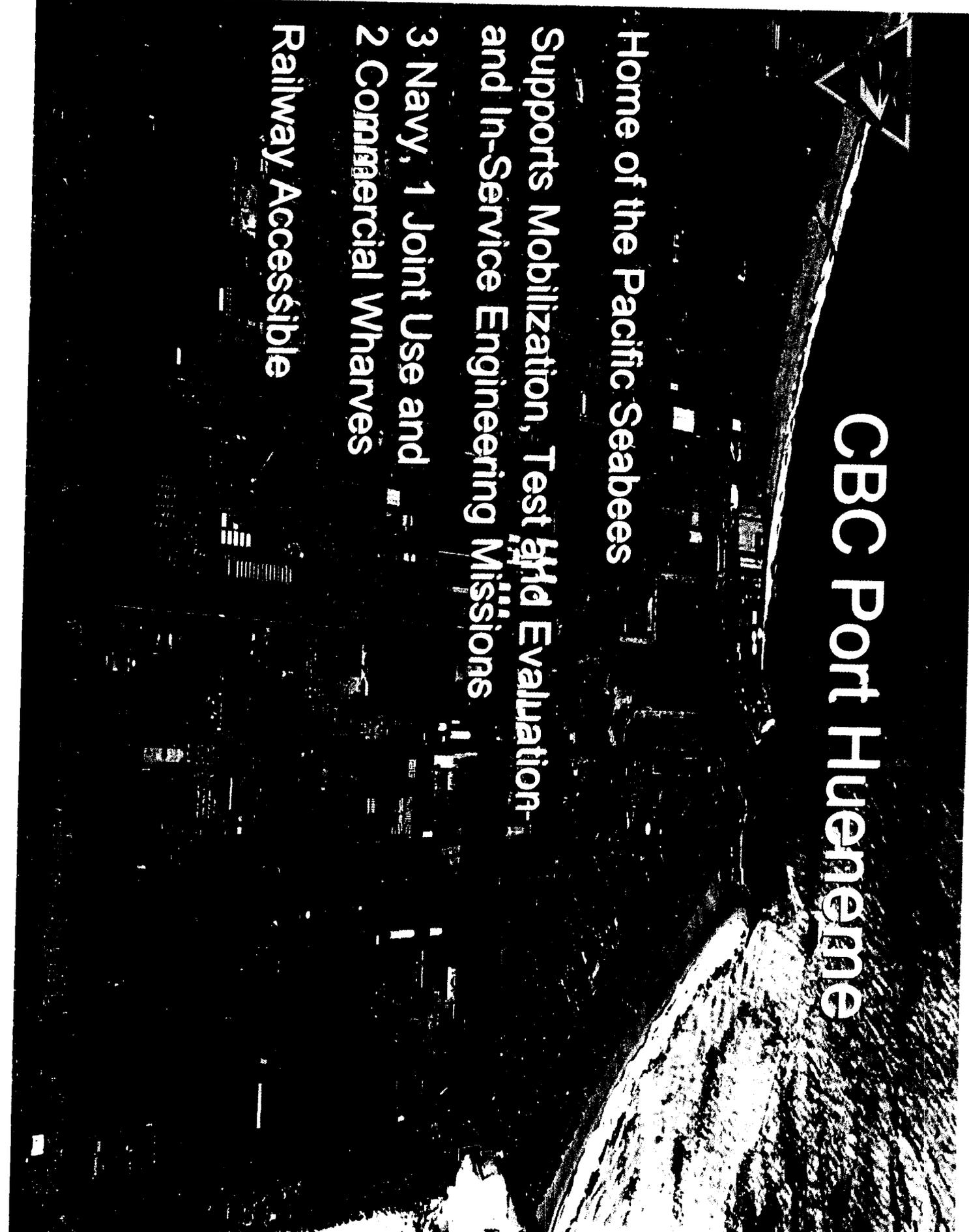
“We are a base team dedicated to providing the highest level of support and quality of service for all operating forces and tenants at Naval Base Ventura County.”





Naval Base Ventura County

- Navy's only deep water port between San Diego and Puget Sound
- Unencroached coastal Air Field
- Navy's West Coast Sea Test Range
- Supports multiple DOD missions
 - Basing and training of active and reserve forces
 - Air and ship weapons and systems development and testing
 - Multi-service mobilization



CBC Port Hueneume

Home of the Pacific Seabees

Supports Mobilization, Test and Evaluation-
and In-Service Engineering Missions

3 Navy, 1 Joint Use and
2 Commercial Wharves

Railway Accessible



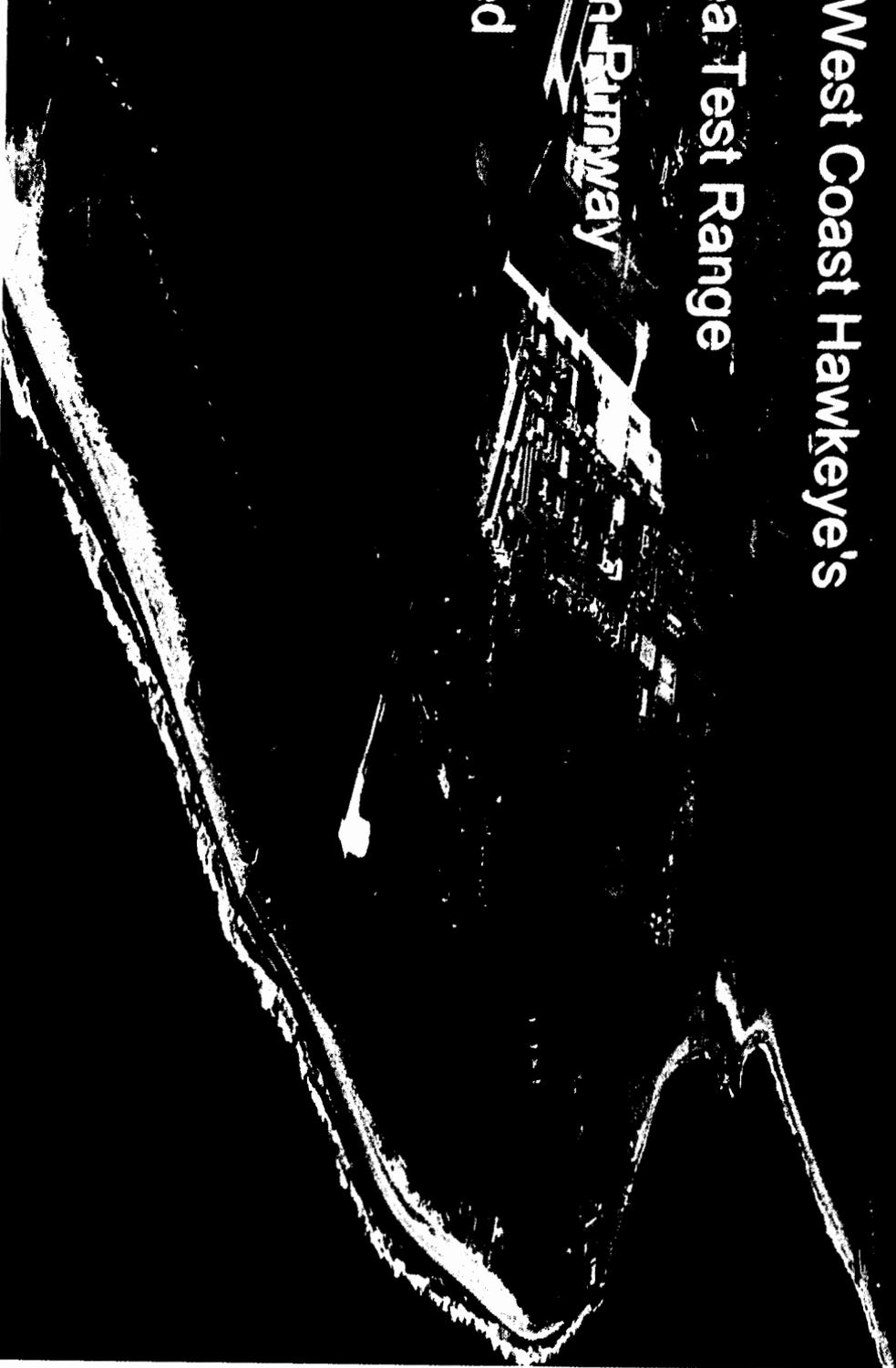
NAS Point Mugu

Home of the West Coast Hawkeye's

Integral to Sea Test Range

11,000 ft Main Runway

Unencroached





San Nicolas Island

Transferred to NBVC 1 Oct 2004

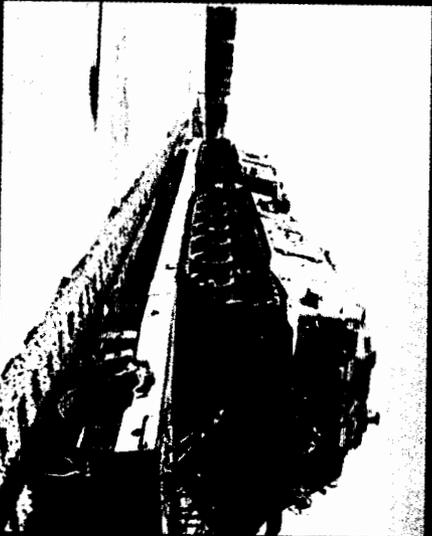
Integral to Sea Test Range

10,000 ft Main Runway, C-57/141 Capable

Unencroached (Air/Sea)



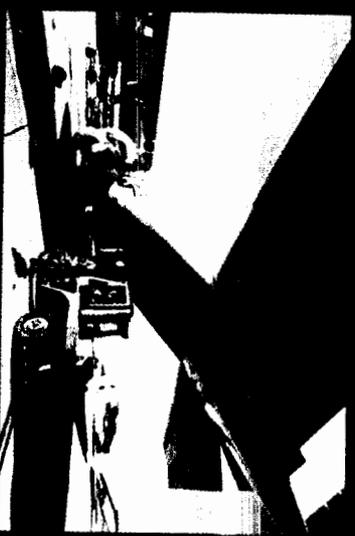
Mobilization Infrastructure



Railhead



Laydown



Air Field



Warehousing



Deep Water Port



Transient
Berthing/Messing



Navy Region Southwest in Ventura County

• VAS Fallon

• Naval Post Graduate School

• VAS Lemoore

• VAS China Lake

• Port Huenehme
• Point Mugu

• NSWC Corona

• VAS Seal Beach

• VAF El Centro

• NB Coronado
• NB San Diego
• NB Point Loma



**Naval Base
Ventura County
\$1.7B Salaries**

***Largest single employer
in Ventura County!***



Navy Region Southwest Ventura County

• NAS Fallon

• Naval Post Graduate School
• NAS Lemoore

• NAS China Lake

• Port Hueneeme
• Point Mugu

• NSWC Corona
• NWS Seal Beach

• NB Coronado
• NB San Diego
• NB Point Loma
• NAF El Centro

Tenants	104
Personnel	17,000
Acres	19,475
Facilities SQ FT	10.1M
Miles of RR	16
Family Housing	1783
BOH/BEQ	3200



Major Missions

- **Fleet Operational Commands**
 - **Airborne Early Warning Wing Pacific**
 - **31st Seabee Readiness Group**

- **RDT&E - ISE**

-  Naval Air Warfare Center
-  Naval Surface Warfare Center
-  Naval Facilities Engineering Service Center

- **Others**

-  Naval Facilities Expeditionary Logistics Center
-  Naval Satellite Operations Center
-  Navy Education and Training Centers
-  Reserve Squadrons / Centers California Air National Guard

Commander

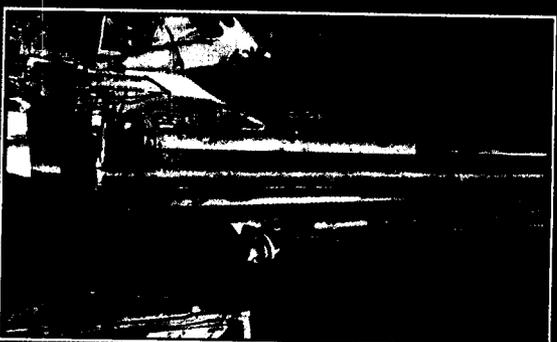
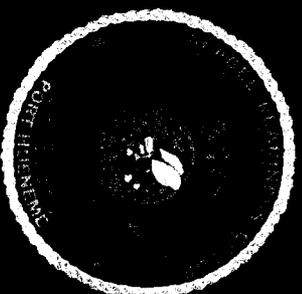
Airborne Early Warning Wing

U.S. Pacific Fleet



- Headquarters of the U.S. Pacific Fleet E-2C Hawkeye community
- 5 E-2C Squadrons (4 at NBVC, 1 in Japan)
- 1 C-2 Squadron at NAS North Island San Diego
- Weapons Tactics Unit
- AIMD/ Sea OPDET
- Simulators

Home of the Pacific Seabees



SEABEES
"We Build, We Fight"

- 31st Seabee Readiness Group
- 4 Naval Mobile Construction Battalions
- 1 Naval Under Water Construction Team
- Homeport Training
- Construction Equipment Depot

Weapons Division

Total-Combat-System
Operational Flight Programs

Electronic and

Information Warfare



RD&E

Systems Test and Evaluation (T&E)

Avionics Hardware

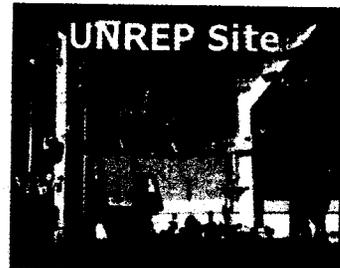


Navy's premier test & evaluation center for Weapons



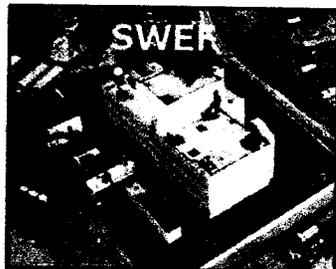
Port Hueneme Division Naval Surface Warfare Center

Keeping America's Navy #1 in the World!



UNREP Site

**Center of Excellence
Unique R&D, Test, and
Training Capability**



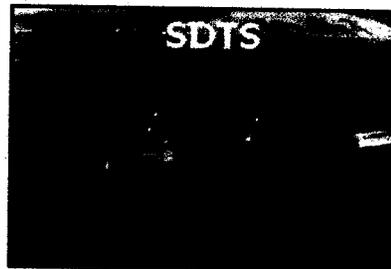
SWER

**Range T&E Asset
Problem Replication and
Resolution Battle Spares**



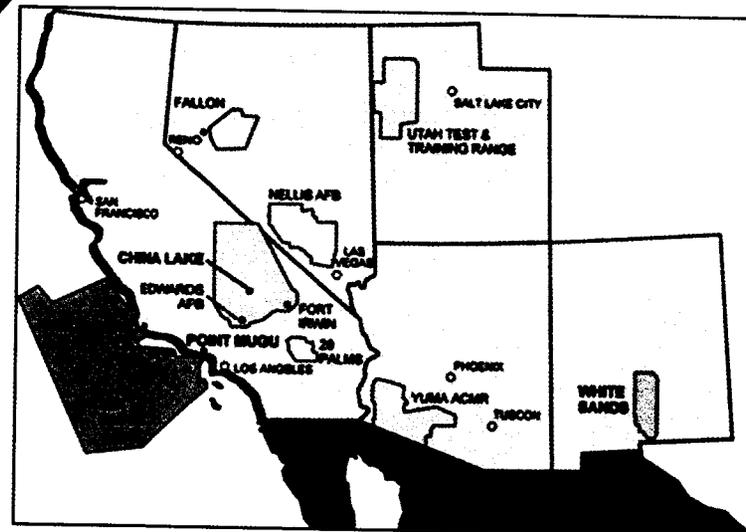
Deep Water Port

**Deep Water Port
Ship Grooms
Adjacent to Test Range**



SDTS

**At Sea T&E, Training
Live Fire Testing**



**Shared
Facilities**

***Mission:* Provide Test and Evaluation, In-Service Engineering, and Integrated Logistics Support for surface warfare combat systems and subsystems, unique equipments, and related expendable ordnance .**

Naval Facilities Engineering Service Center

Ocean Facilities

Environmental Technology



Shore Facilities

Expeditionary Logistics

Energy and
Utilities

The Navy's Center for Specialized Facilities Technology



Naval Facilities Expeditionary Logistics Center



Providing:

- Life Cycle Management of the Naval Construction Force (NCF) and other Expeditionary units Table of Allowance.
- Communication and Information Technology development in support of the NCF and NBG.
- Sealift Support development and products.
- Development of training curriculums in military skills and construction for the NCF and NBG.
- Management of Prepositioned War Reserve Materiel and Stock for the NCF, including MPF assets.
- Primary procurement of the Navy's tactical vehicle and construction equipment fleets.
- Mobile Utilities Support Equipment (MUSE)
- Information Technology support to the Naval Facilities Engineering Command (NAVFAC).



Naval Satellite Operations Center

NAVSOC Satellites Supported



FEP



FLTSAT

SATELLITE CONTACTS

#

MISSION

PER DAY

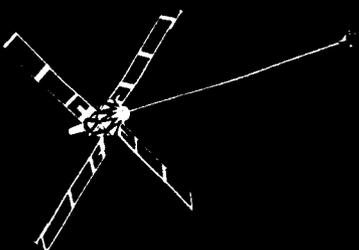
Ultra HF Follow on	10	Ultra HF Communications	254
Fleet Satellites	3	Ultra HF Communications	59
Fleet EHF	2	EHF Communications	40
POLAR	1	EHF Communications	18
Navy Ionosphere Monitoring	6	Research	18
Geodetic Follow on	$\frac{1}{23}$	Radar Altimetry	$\frac{10}{399}$



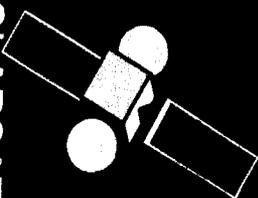
UFO



GFO



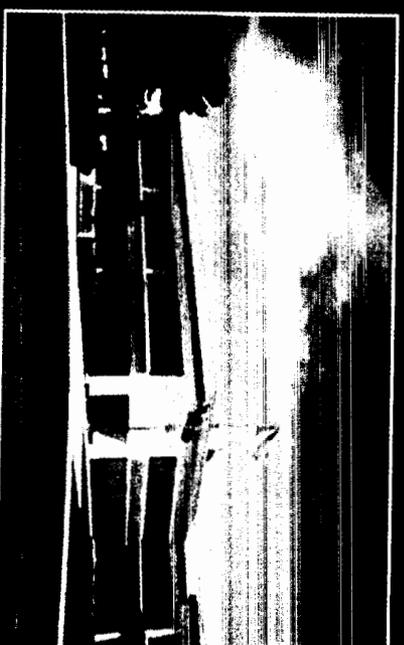
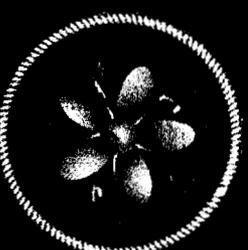
NIMS



POLARSAT

Naval Education and Training

- Center for Seabees and Facilities Engineering
 - Civil Engineer Corps Officer School (CECOS)
 - Naval Construction Training Center (NCTC)
- Engineering Duty Officer (EDO) School
- Naval Facilities Acquisition Training Center (NFACT)

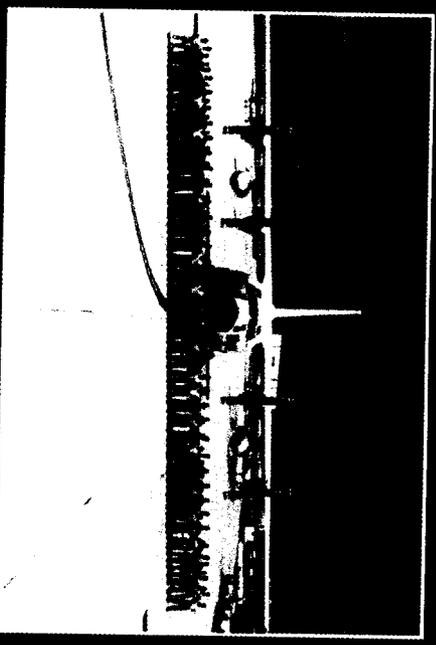


Reserve Squadrons / Centers

- NAVAL AIR RESERVES POINT MUGU
 - VP-65 P-3
 - VR-55 C130
- RESERVE UNITS PORT HUENEME
 - Naval Reserve Center
 - Marine Reserve
 - 1st Naval Construction Regiment



Naval Reserve Force

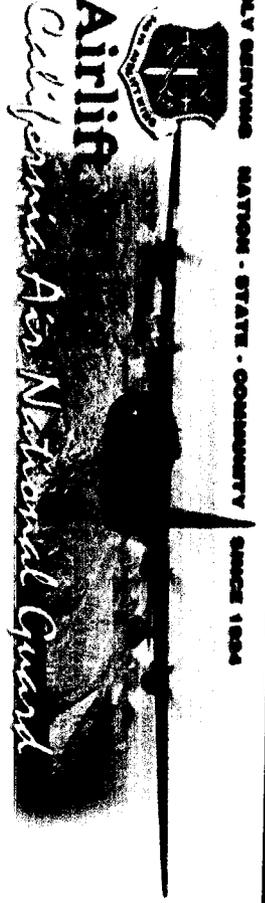


California Air National Guard – 146th Airlift Wing

PROUDLY SERVING NATION - STATE - COMMUNITY SINCE 1954



146th Airlift Wing
California Air National Guard





Value to National Defense

Unique Range Capabilities

- Encroachment Free

- Full Mobilization capabilities

- Synergy Among Fleet, SYCOMS and Active and Reserve

- Expeditionary Operational Forces

- Operating Forced and Training Commands

- Outstanding Community Relationships



BRAC Realignment

<u>Scenario Number</u>	<u>Title</u>
------------------------	--------------

DON-161B	Close NSA Corona
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Action Description: Relocate Naval Surface Warfare Center Corona Division to Naval Base Ventura County, NAS, Point Mugu

Affected Buildings: PM36, PM3008, PM3015, PM512
PM761, PM7020

Gap: Solution as proposed and certified will not meet MS Lab requirements. Proposed solution is to provide new construction for MS Lab instead of renovating PM761 and PM7020, which we believe will be more cost effective.



BRAC Realignment

<u>Scenario Number</u>	<u>Title</u>
TECH 18 (2B)	Create Naval Integrated Weapons & Armaments RDAT&E Center

Action Description: Relocate all NAWC WD, Point Mugu Weapons and Armaments Research, Development & Acquisition and Test & Evaluation (RDAT&E) to China Lake

Affected Buildings: PM36, PM3008, PM3015, PM761, PM7020
PM512, PM372, PM520 thru PM528, PM335,
PM356, PM351, CA240, CA244, CA246,
CA248



BRAC Realignment

<u>Scenario Number</u>	<u>Title</u>
TECH 54	Navy Sensors Electronic Warfare and Electronics RDAT&E

Action Description: Relocate NAWC WD, Point Mugu Sensors, Electronic Warfare (EW), and Electronics Research, Development, Acquisition, Test & Evaluation (RDAT&E) to China Lake

Affected Buildings: PM36, PM3008, PM3009, PM3015



BRAAC Realignment

Scenario Number **Title**

TECH 18 (2A) Create Naval Integrated Weapons & Armaments RDAT&E Center

Action Description: Relocate all PHD NSWC Weapons And Armaments Research, Development & Acquisition And Test & Evaluation to China Lake

Affected Buildings: PM36, PM3008, PM3009, PM3015



BRAC Realignment

Scenario Number Title

IND-101A

Establish Fleet Readiness Centers

Action Description: Realign AEWING Aircraft Intermediate Maintenance Department (AIMD) by transferring all Intermediate maintenance workload capacity to Fleet Readiness Center Southwest Point Mugu

Affected Buildings: None – Change of name/designation



BRAC Realignment

<u>Scenario Number</u>	<u>Title</u>
------------------------	--------------

(Other than Navy)	Realign Reno-Tahoe International Airport Air Guard Station, Nevada
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Action Description: Aviation related Expeditionary Combat Support (ECS) moves to Channel Islands Air National Guard Station

Affected Buildings: NBVC Facilities not affected

Bldg 356
• Missile Prep
Bldg/Communication
Maintenance Shop

Hangar 351
• Aircraft Sys Integration/Missile Lab

CAMARILLO AIRPORT BLDGS
Bldg: 240 Navy Ranges Targets
Bldgs: 244 246 248 Fleet
Weapons Engineering

Hangar 3009
• Aircraft Systems Missile
Support Equip Lab

Hangar 372
• VX-30 Aircraft
Maintenance

Bldg 335
• Missile Prep/Guided
Missile Lab

Bldg 3008
• Electronic Warfare
Systems Lab

Bldgs 520-528
• Missile Test Facilities

Bldg 36
• Admin

Bldg 512
• Component
Test/Optics

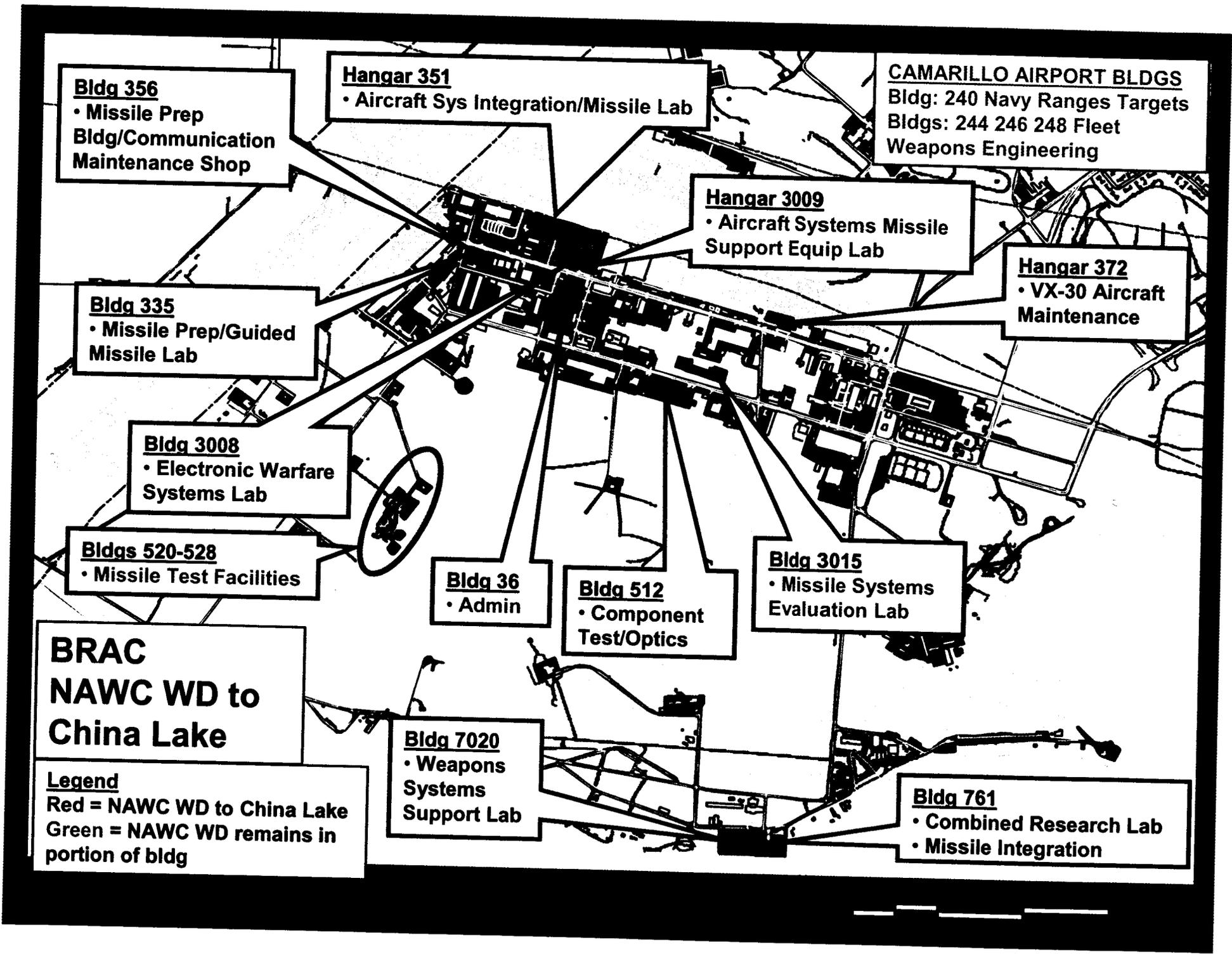
Bldg 3015
• Missile Systems
Evaluation Lab

**BRAC
NAWC WD to
China Lake**

Legend
Red = NAWC WD to China Lake
Green = NAWC WD remains in
portion of bldg

Bldg 7020
• Weapons
Systems
Support Lab

Bldg 761
• Combined Research Lab
• Missile Integration



Bldg 3008
• Joint Warfare Assessment Lab
• Quality Assurance Lab

Bldg 36
• Admin
• NAWC WD Admin

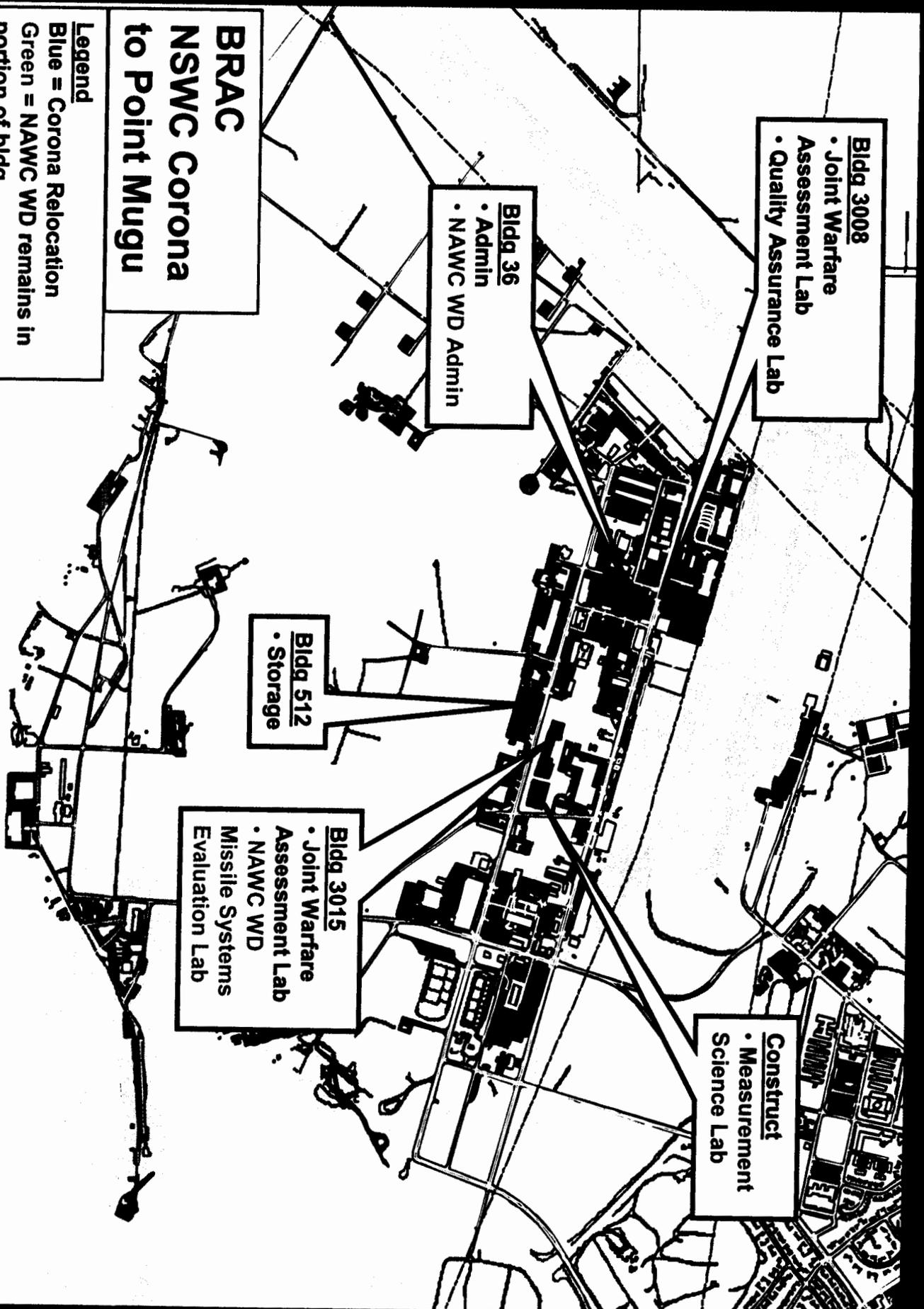
Bldg 512
• Storage

Bldg 3015
• Joint Warfare Assessment Lab
• NAWC WD Missile Systems Evaluation Lab

Construct
• Measurement Science Lab

**BRAC
NSWC Corona
to Point Mugu**

Legend
Blue = Corona Relocation
Green = NAWC WD remains in portion of bldg
Purple = Potential BRAC CON



Bldg 1388

• Weapons and Armaments RDAT&E

Bldg 1380

• Weapons and Armaments RDAT&E

Bldg 5

• Weapons and Armaments RDAT&E

Bldg 1387

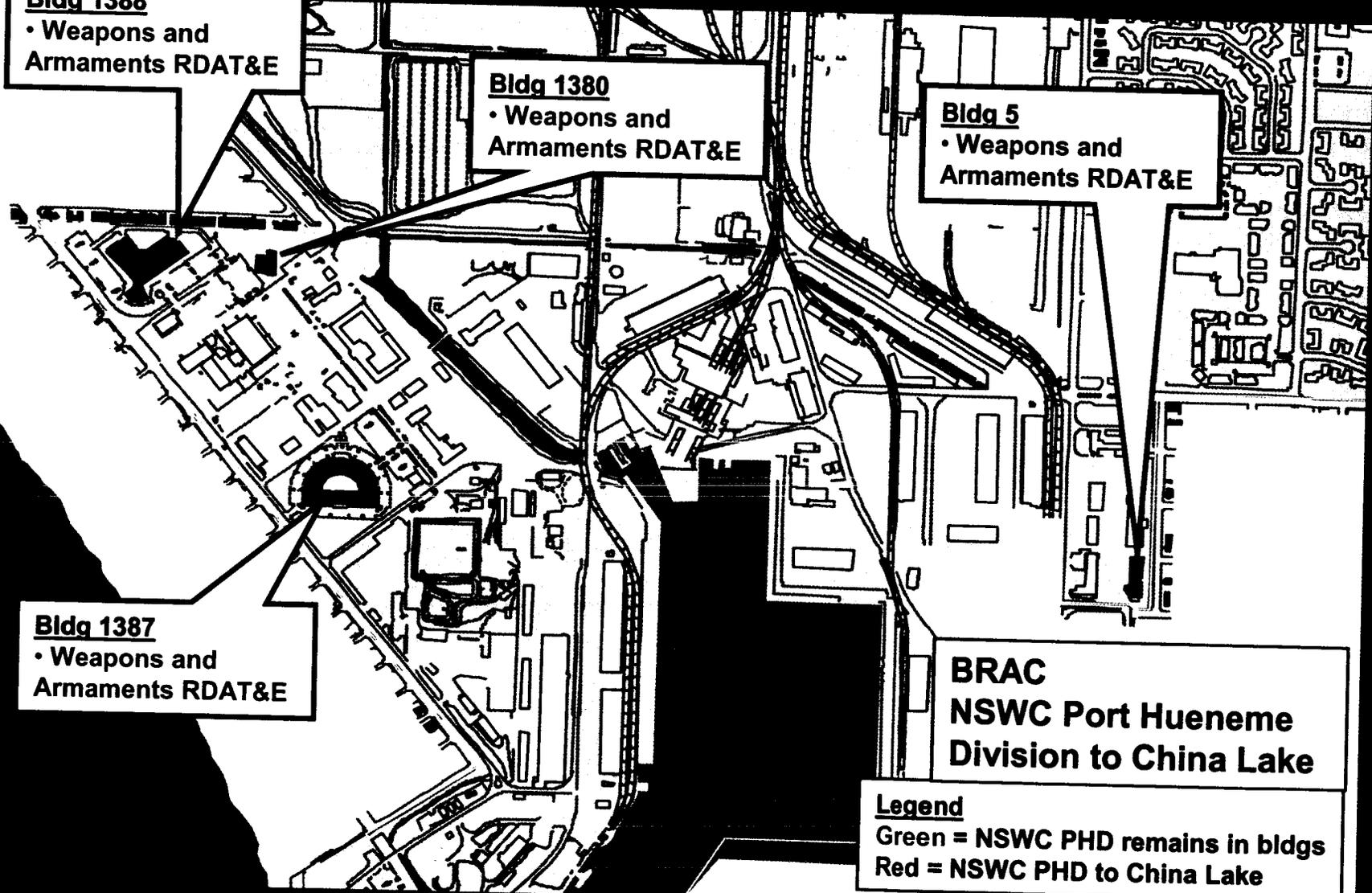
• Weapons and Armaments RDAT&E

BRAC

**NSWC Port Hueneme
Division to China Lake**

Legend

Green = NSWC PHD remains in bldgs
Red = NSWC PHD to China Lake



JOINT AEROSPACE RDT&E CENTER AND
PACIFIC TRAINING AND EXPERIMENTATION COMPLEX

**TRANSFORMING THE WAY
WE ARM AND TRAIN JOINT FORCES
FOR THE 21ST CENTURY**

TRI-COMMUNITY DEFENSE PARTNERSHIP
JULY 2004

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PREFACE: GETTING SERIOUS ABOUT JOINT DEFENSE RDT&E

In Afghanistan and Iraq the military services have demonstrated significant progress in working together effectively as cohesive joint forces. Sharing assets and capabilities is working on the battlefield, but the services have a way to go in carrying this cooperative approach to developing and testing the new and improved weapon systems needed for the future.

In spite of the defense downsizing, each service continues to support its own RDT&E base infrastructure with attendant overhead costs and inability to replace old facilities as they age. The services have been unwilling to merge capabilities. In order to maintain their “independence” from other service interests they have been willing to allocate scarce revenue on duplicative capabilities. This independence wastes precious resources, which could be better spent elsewhere, and runs counter to defense transformation goals.

An unwillingness by the services to seriously consider a different business model contrasts sharply with the aerospace industry, which downsized and made major structural changes when the prospect of reduced defense appropriations became apparent. The defense RDT&E bases are not profit-oriented businesses, and one should be careful in drawing too many parallels. Yet it’s obvious that the military services haven’t accepted the reality that their current RDT&E support model is wasteful and inhibits the best allocation of limited capital investment funds.

Air warfare and related RDT&E support is a particularly egregious example of maintaining duplicate capabilities with an attendant high management load and overhead costs. This paper offers an air warfare RDT&E support model in keeping with BRAC and transformation goals. It proposes consolidating a significant portion of aircraft, weapon and related technology support now distributed across the country to three sites in the West where technical expertise and large land, air and sea space is available unencumbered by encroachment, weather and terrain issues that plague other parts of the country. These sites – Edwards Air Force Base and the Naval Air Warfare Center Weapons Division sites at China Lake and Point Mugu – would be merged into a single Joint Aerospace RDT&E Center.

Edwards, China Lake and Pt. Mugu are electronically linked and currently support numerous cross-service RDT&E and training activities. These three sites already have most of the facilities needed to perform the mission of a joint center, and the costs associated with additional hangars and other support facilities can be amortized quickly from the savings. The joint center would have the added benefits of supporting other technologies and mission areas such as space propulsion, electronic warfare test and training, and providing ranges for use by the many training installations in the Southwest.

Secretary of Defense Rumsfeld stated the objectives for BRAC in his letter to the service and agency chiefs in November 2002. Simply put, BRAC is to be more than a reduction in base infrastructure to save money. Its purpose is to maximize both efficiency and

EXECUTIVE SUMMARY

The 2005 Base Realignment and Closure (BRAC) round is intended to support improved efficiency and warfighting capability, including fostering more joint service activity—in effect to promote the transformation of the armed forces structure.

Systemic management issues in the military services impede transformation, and without specific attention to these issues, BRAC will fail to achieve its goals and transformation will be delayed and cost far more than necessary. BRAC can be used as an instrument to promote transformation if it addresses these inhibitors. However, if BRAC 2005 follows the precedents of previous rounds:

- Bases will be assessed independently, ignoring the potential benefits of capitalizing on the complementary nature afforded by geography and mission;
- Opportunities to combine RDT&E operations at appropriate bases across service lines will be ignored;
- Expensive and inadequate measures to impede encroachment will be carried out although alternative sites are available;
- The old artificial boundaries, which separate Research and Development from Test and Evaluation from Training, will inhibit opportunities to develop innovative base structures that save money and promote improved joint system acquisition and training.

This proposal addresses the problems directly. It consolidates mission areas that would especially benefit by joint service cooperation—**air warfare and related mission RDT&E**. Edwards Air Force Base and the two facilities of the Naval Air Warfare Center Weapons Division at China Lake and Point Mugu would combine to form the **Joint Aerospace RDT&E Center**. Together these bases have the experienced scientific and engineering staff, laboratories, land, sea and air space—the most complete staff and facilities in the world for aircraft, weapons and mission avionics RDT&E.

The staff and laboratories of these three bases continue to demonstrate the **capability to solve problems in real time** as they have in Afghanistan, Iraq, and every conflict since World War II.

PROBLEMS IN ACHIEVING TRANSFORMATION

Transformation is envisioned as a continuing process involving organizational, doctrinal and technological change across all military forces. The Department of Defense Transformation Plan calls for changing how we fight, how we do business and how we work with other government agencies and our allies.

The RDT&E military base infrastructure with American industry is an instrument to: apply technology to develop new systems; develop new joint tactical warfare concepts; and train our forces in joint operations. Our RDT&E capabilities are made available to other agencies and to our allies.

Operations in Afghanistan and Iraq illustrate the value of the transformation concept needed for these and similar scenarios. The use of special forces, the speed and agility of air and ground forces, the ability to bring lethal, standoff weapons rapidly on target, and the cooperative tactics of the Army, Navy, Air Force and Marines, with a major role for Special Forces, are hallmarks of transformation goals.

Much needs to be done before the vision of the transformed force structure is achieved. Systemic management problems that inhibit the transformation process include:

- Precious resources are wasted on duplicative and unnecessary infrastructure, both inter- and intra-service. The services are procuring common or interoperable systems in many cases, but insist on maintaining duplicative research, development, test and evaluation facilities even though fewer joint facilities could do the job better at far less cost.
- Testing and training is inhibited in some areas by encroachment of residential and industrial development and commercial transportation routes. Elaborate and expensive measures are being taken to use these facilities when other facilities not burdened by encroachment are available.
- Lines between testing, training and experimentation are blurring, yet out-of-date laboratory and range funding and use policies prevent efficient use of available assets.
- Research and development laboratories, test and evaluation facilities, and training ranges continue to be viewed as independent entities in spite of today's trend toward iterative development and training.

RECONCILING BASE INFRASTRUCTURE AND TRANSFORMATION FOR AIR WARFARE

In his letter, Secretary Rumsfeld stated clear **goals** for BRAC:

1. Maximize *both* warfighting effectiveness and efficiency;
2. Contribute toward transforming the Defense Department by rationalizing the infrastructure with the national defense strategy;
3. Examine and implement opportunities for greater joint activity.

A **SOLUTION** to the infrastructure problems that inhibit achieving transformation can be implemented in BRAC by:

- Structuring military bases around functional or mission areas **across service lines**;
- Identifying and building on major functional base groupings to make maximum use of compatible functions and operations considering geography, encroachment issues, investment needs, available skill base, theater needs, and other issues.

A **MODEL** for military bases under transformation must include:

- Consolidating research, development, test and evaluation (RDT&E) in appropriate mission areas at **joint service centers**;
- Performing unit and joint military training and experimentation in geographic clusters and aligning these clusters with the joint service RDT&E centers' test facilities to the extent possible;
- Maximizing dialog between operational commands and the technical staffs of the joint RDT&E centers for mutual benefit—incorporation of operational experience and doctrine into development of technology and system concepts and insertion of technical expertise into joint training and experimentation design;
- Selecting RDT&E and training sites that possess expanses of land, sea, and air space, good climate, a broad range of terrain, the most complete set of existing and embedded facilities, a knowledgeable staff, and freedom from encroachment now and into the future.

JOINT AEROSPACE RDT&E CENTER

The proposed Joint Aerospace RDT&E Center consists of Edwards Air Force Base and the Naval Air Warfare Weapons Divisions sites at China Lake and Point Mugu. Their locations are shown in FIGURE 1. There is also an auxiliary site of Edwards Air Force Base located at the Nellis Air Force Base.

These DOD centers of excellence offer the most complete set of facilities in the world for aircraft and weapons RDT&E. By combining the assets of these existing sites, the air warfare research, development, test and evaluation (RDT&E) needs of the services can be met. These bases have laboratories, test facilities, large expanses of land, sea, and air space, and a capable and experienced technical staff. These existing sites also have unmatched capabilities in all aspects of surface weapon RDT&E and space rocketry RDT&E.

Edwards Air Force Base and China Lake are located in the Mojave Desert in isolated areas that permit flight operations and testing of live ordnance in areas far from population centers. The R-2508 airspace, jointly managed by Edwards, China Lake, and the Fort Irwin National Training Center, is the largest restricted airspace in the United States, at 20,000 sq. mi. The management structure for R-2508 is already a recognized model for joint service cooperation and the management agreement for such has been in effect since 1976.

The instrumented Point Mugu Sea Range with its San Nicolas Island facility is located off the coast of Southern California. The Sea Range encompasses 36,000 sq. mi. and is expandable to 125,000 sq. mi. for long-range surface and subsurface launched missile tests. Embedded instrumentation support is provided for space launches at Vandenberg Air Force Base.

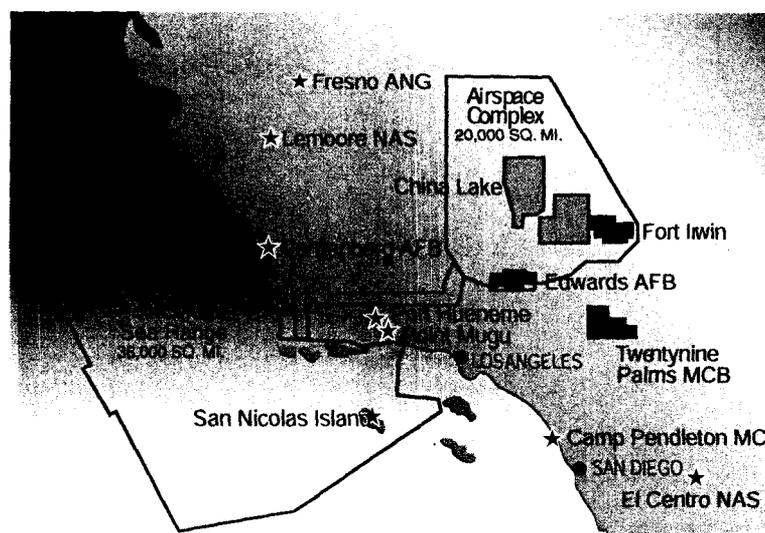


FIGURE 1. Location of the Joint Aerospace RDT&E Center Sites

The huge R-2508 inland air space is restricted to military control above 20,000 feet, and the 2 million acres of ranges within Edwards, China Lake and Fort Irwin are restricted from commercial and general aviation from ground level. FIGURE 3 is a snapshot of commercial airline routes on Thanksgiving Day in 2001 when most military aircraft were not flying, showing the national encroachment pressure on military air space. Air access through R-2508 is under complete joint control of the military.

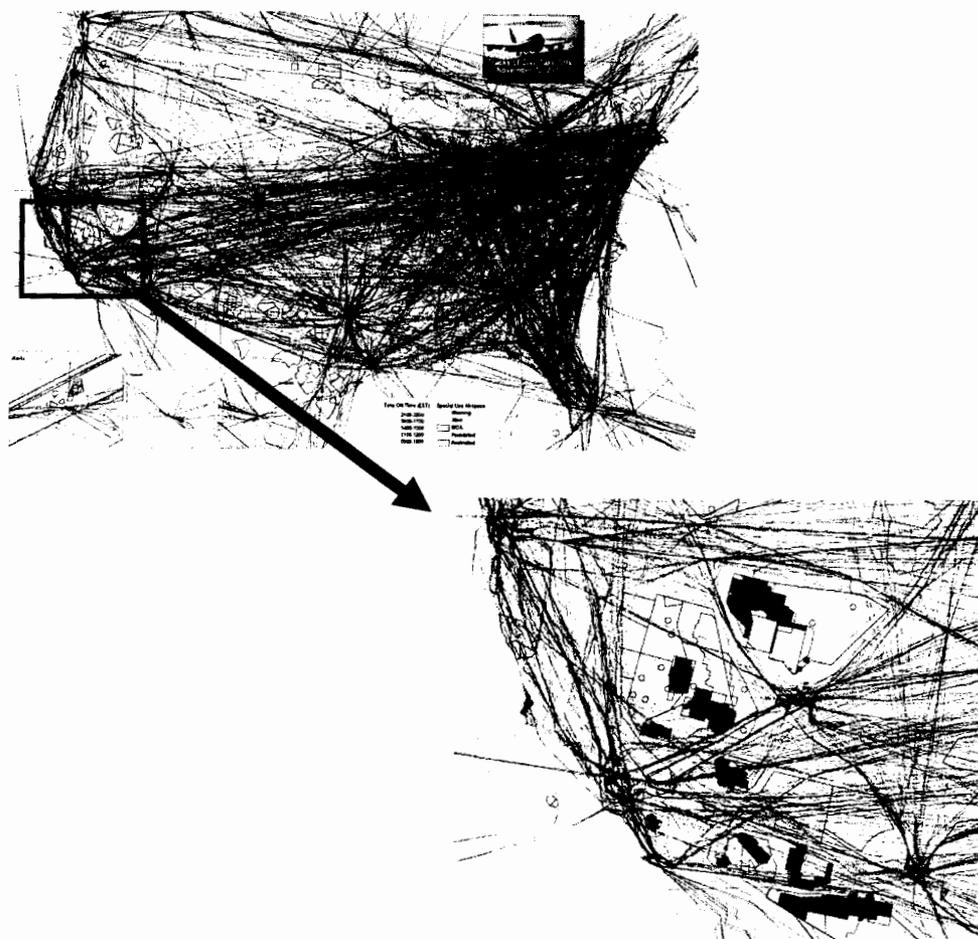


FIGURE 3. United States Commercial Air Traffic Routes on Thanksgiving Day 2001

ASSOCIATED FACILITIES

The Joint Aerospace RDT&E Center has a long-standing relationship with other government and private institutions that mutually benefits the Center and the associated facilities.

Vandenberg Air Force Base. Vandenberg Air Force Base launches military and commercial space vehicles into polar orbits. It is also a primary test site for missile defense testing, and, along with the Naval Air Warfare Center Weapons Division at Point Mugu and other Pacific test sites, serves as a member of the Missile Defense Agency's Extended Test Range. Vandenberg provides launch services for both ballistic missile targets and interceptors.

Air Force Plant 42. Plant 42 and its industrial occupants have developed many of the most advanced aircraft of the past half-century. The Stealth Bomber and F-117 are products that illustrate the value of proximity between Edwards Air Force Base and a first-class aerospace industrial facility. The joint RDT&E aspects of the Joint Aerospace RDT&E Center will enhance a proven capability for the future in upgrading the capability of manned and unmanned aircraft.

NASA Dryden Flight Research Center. The Dryden Flight Research Center, located within the boundaries of Edwards Air Force Base, is dependent for its aeronautical and space flight research on Edwards and R-2508. Its close relationship with the Joint Aerospace RDT&E Center adds another dimension to the capabilities of the center.

Together the Joint Aerospace RDT&E Center and Pacific Training and Experimentation Complex offer a full menu of services to support the joint needs of the armed forces in the 21st Century.

China Lake 1) has a range—Superior Valley—exclusively devoted to live air-ground weapons training by Navy and Marine Corps units; 2) offers use of its electronic warfare range for operational training to all services; and 3) has specialized ground ranges for numerous training needs not met elsewhere in the United States.

The Point Mugu Sea Range provides fixed and mobile sea targets for live air to surface training to Navy, Air Force, Marine Corps and Air National Guard units.

Fort Irwin partners with Edwards Air Force Base and China Lake in managing the R-2508 air space. It works closely in the joint training arena with Nellis Air Force base for air support of ground forces training. Its location and working relationship with China Lake, which has expertise in weaponization of aircraft, and Edwards, which has Air Force lead for UAV RDT&E, offer opportunities for future partnerships in joint development and training for operations involving manned and unmanned aircraft air support of ground forces. Operation Iraqi Freedom's experience with on-the-fly coordination between air and ground forces was a harbinger of the future under transformation. The Pacific Training and Experimentation Complex is an ideal air-ground operations training asset to meet that need.

In transformation military services develop joint tactical concepts and jointly train in their use in major exercises not encompassed on any single base. Very large exercises conducted by the Joint National Training Capability depends upon bases from all the services in a large sea, littoral, land and air arena with space asset support. The Joint Aerospace RDT&E Center and Pacific Training and Experimentation Complex offer an ideal arena for large exercises and experiments which require a large joint battle space with a variety of terrain features and mission capabilities.

SOUTHWEST DEFENSE COMPLEX

The Joint Aerospace RDT&E Center and Pacific Test and Experimentation Complex are part of a larger constellation of major RDT&E and training centers, the Southwest Defense Complex. The Southwest Defense Alliance, a consortium of communities and state and local governments in the Southwest, has identified these centers as providing core capabilities to the armed forces for joint RDT&E or test and training operations. These bases (APPENDIX C) are located in Arizona, California, Nevada, New Mexico, Texas and Utah.

CONCLUSION

The current military service RDT&E and training infrastructure inhibits transformation by:

- Functional duplication by the services in the RDT&E base structure;
- Expensive encroachment workarounds;
- Outdated policies on laboratory and range usage and funding artificially segregating research and development from test and evaluation from training;
- Consideration of RDT&E and training bases as independent, rather than as interdependent entities;
- Making decisions based on individual service interests that can override legitimate joint service interests.

Transformation is facilitated and joint service RDT&E is expedited and made more efficient, by unifying Edwards Air Force Base and the Naval Air Warfare Center Weapons Division facilities at China Lake and Point Mugu into a proposed Joint Aerospace RDT&E Center.

Consolidation of air warfare and related RDT&E missions for all of the services at this Center would promote joint service programs, improve efficiency, and consolidate long-term capital improvements in these mission areas, provide long-term encroachment protection, and promote transformation.

The staff and range resources of the three sites of the proposed Joint Aerospace RDT&E Center already support joint training and exercises for the many military bases in California and adjacent states. These bases, termed the Pacific Test and Experimentation Complex, taken together are major contributors to joint training and tactics development. Direct contact between the military personnel of the Pacific Test and Experimentation Complex and technical personnel of the Joint Aerospace RDT&E Center would facilitate direct input into system concept development and provide technical support to training and exercise design.

It is believed that these proposals directly relate to, and advance the transformation goals of the Department of Defense and, as such, should be carefully considered in all force structure analyses to be conducted in 2004 and 2005.

Part II: Assets and Facilities (continued)

Aircraft Weapon Integration Laboratories	Edwards Air Force Base
	China Lake
	Point Mugu
Electronic Warfare Ranges	China Lake Echo Range
	Edwards Nellis Air Force Base Annex
Propulsion Static Firing Facilities	Edwards Air Force Base Rocket Lab
	China Lake Sky Top Strategic Rocket Test Sites
	China Lake Ramjet Test Site
	China Lake Hypersonic Rocket Site
Ranges	Point Mugu Sea Range
	China Lake Air and Ground Ranges
	China Lake Aircraft and Weapon Survivability Range
	Edwards AFB ...
	China Lake Etcheron Valley Low Observables Range
	China Lake Etcheron Valley Directed Energy Test Range
	Point Mugu Air-to-Air Missile, F-14, EA-6B, and Tactical Air Warfare Facilities ...
	Edwards Air Force Base Facilities at Nellis Air Force Base
Simulation Facilities	China Lake Integrated Battlespace Arena
	Edwards Integrated Facility for Avionics System Test
	Edwards Benefield Anechoic Facility
Attached Activities	Air Operational Test and Evaluation Squadron VX-9 (China Lake and Point Mugu)
	Marine Corps Helicopter Reserve Squadron (Edwards Air Force Base)
	Navy Pacific E-2 Wing (Point Mugu)
	Channel Islands Air National Guard (Point Mugu)

**APPENDIX B:
PACIFIC TEST AND EXPERIMENTATION COMPLEX BASES
OTHER THAN JOINT AEROSPACE RDT&E CENTER**

Part I: Air Bases

Base	Mission
Lemoore Naval Air Station	Navy's West Coast Home for All Navy Versions of F/A-18 Aircraft
	Proposed West Coast Home for Navy Joint Strike Fighter
Miramar Marine Corps Air Station	West Coast Home of Marine Corps Helicopters and All Versions of Marine Corps F/A- 18 Aircraft
North Island Naval Air Station	West Coast Home for All Navy Antisubmarine Warfare Helicopters
Naval Air Facility, El Centro	Realistic gunnery, Bombing, Carrier Landings and Air Combat Training to Naval Aviation Units
Air National Guard, Fresno	Home of California Air National Guard 144 th Fighter Wing
Air Reserve Air Base, March Field	Home of 452 nd Mobility Wing
Fallon NV Naval Air Station	Naval Strike Warfare Center (Strike U), Naval Fighter Weapons School (Top Gun), Air Wing Training Center
Nellis Air Force Base NV	Fighter Weapons Training, Electronic Combat Training, Tactics Development and Operational Test and Evaluation
Yuma AZ Marine Corps Air Station	Marine Corps Aviation Training Base, Supports 80% of Marine Corps Air-to-Surface Training
Channel Islands Air National Guard (Based at Point Mugu Naval Air Station)	Home of 115 th Airlift Squadron

**APPENDIX C:
SOUTHWEST DEFENSE COMPLEX BASES**

The following major military bases located in six southwestern states have been identified by the Southwest Defense Alliance as providing critically needed broad capabilities for joint RDT&E and training operations:

Arizona

- Army Proving Grounds, Yuma
- Fort Huachuca
- Mesa Research Center

California

- Air Ground Combat Center, Twentynine Palms
- Camp Pendleton
- Edwards Air Force Base
- National Training Center, Fort Irwin
- Naval Air Weapons Warfare Center Weapons Division, China Lake
- Naval Air Weapons Warfare Center Weapons Division, Point Mugu
- Southern California Offshore Range
- Vandenberg Air Force Base

Nevada

- Naval Air Station, Fallon
- Nellis Air Force Base

New Mexico

- Cannon Air Force Base
- Holloman Air Force Base
- Albuquerque Laboratories, Kirtland Air Force Base
- White Sands National Range

Texas

- Fort Bliss

Utah

- Dugway Proving Grounds
- Utah Test and Training Range

missile engagement
simulation
a

NAWCWD Point Mugu Personnel Impacts

kill

log

in

hardware

mechanics

NAVAIRWARCEN_PT_MUGU Scenarios

- TECH2B (Folded into TECH18) – Realign Point Mugu Weapons and Armament RDATE&E and relocate to China Lake
- TECH54 - Consolidate Sensors, EW, and Electronics RDATE&E functions at Point Mugu with China Lake
- DON-162 – Close NAS Point Mugu

NAWCWD Point Mugu Scenarios

	NAWCWD	NOA
Tech-0018D PT 4 Relocate Weapons & Armaments to China Lake	589	0
Tech-0054 Relocate Sensors, electronics, and EW to China Lake	379	0
Total of 2 recommended actions	968	0
DON-162 Close NAS Point Mugu (DON did not support)	919	0

50% reduction since '94
usage in creasing

NAWCWD Point Mugu Scenarios

must fly from here - assemble weapons here

Need site 150 people at St. Nicholas
Name Rodial 130 permut mel pa, etc
for backing

			100 Minutes	1000
Tech-0018D PT 4 Relocate Weapons & Armaments to China Lake	589	0	1625 <i>includes range & targets</i>	287
Tech-0054 Relocate Sensors, electronics, and EW to China Lake	379	0	379	0
Total of 2 recommended actions	968	0	2004	287
DON-162 Close NAS Point Mugu (DON did not support)	919	0	158 <i>leaves</i>	0

Anchorage Chamber ~~FEA~~ move to China Lake

TECH2B (Folded into TECH18) – Realign Point
Mugu Weapons and Armament RDATE&E and
relocate to China Lake

The Meaning of Inextricable

- Guidance was given to the losing activities to include workload and facilities that was inextricable to the mission remaining but to explain these in the Q47 response
- In TECH18 none of the Q47 responses submitted by losing activities appears to be taken into account. The net result is that the personnel movements (and associated 15% savings) are overstated by a factor of 3 and facilities support reductions are overstated
- At NBVC alone, these errors result in approximately \$30M per year in overstated savings.

TECH18D Point Mugu Q47 Certified Response

The following areas would require a reduction in the number of personnel, equipment, and facilities to be relocated to the receiving site: (1) F-14 weapons system support has been terminated, a reduction of 132 civilians and 24 contractors; (2) An error of 33 civilians performing EW support; (3) personnel, mission equipment, and facilities performing outdoor air range operations. These are an integrated, fixed base capability that must remain at the Point Mugu site to continue sea range operations, net reduction of 505 civilians, 153 contractors, 2667 tons of mission equipment, and 1022.4 KSFT of facility space; (4) Retaining the 3 anechoic chambers whose primary customer is the targets range complex, a net reduction of 14 civilians, 3 contractors, 90 tons of support equipment, and 44.2 KSF; (5) Keeping logistical support for targets with the targets hardware, a net reduction of 24 civilians,; and (6) Not moving the general and administrative support that currently services both China Lake and Point Mugu, a net reduction of 143 civilians and 22 contractors.

NAWCWD Certified Inputs

- TECH 0002B Scenario Data Call
(Rolled into TECH 0018DR)

SDC Action #	FY03 Baseline Personnel No.	Rationale
14	246	Weapons Test Squadron (32 Civilian, 214 Military)
14	143	Indirect Personnel Supporting Both Sites
14	543	In-extricable Sea Range work
14	132	Terminated F-14 Support
14	33	EW Support Equipment Incorrectly Identified with Weapons
		(Included in TECH54)

NAWCWMD DONBITs Certified Inputs

SDC Action #	FY03 Baseline	Rationale
14	343	Missile, Gun, or Energetic Personnel

- 343 Missile, Gun, or Energetic Personnel
 - Weapons In service engineering (37)
 - Missile hardware in the loop (HIL) labs (16)
 - Weapons Sustainment Logistics (188)
 - Weapons Support Equipment (39)
 - Installed System Test Engineering (63)
- General First Cut implementation insight
 - Estimated one time unique costs of \$36M to establish Missile HIL.
 - COBRA allowed \$9M

NAWCWMD DONBITS Certified Inputs

SDC Action #	FY03 Baseline	Rationale
14	246	Weapons Test Squadron (32 Civilians, 214 Military)
14	143	Indirect Support Personnel Supporting Both Sites

- **Weapons Test Squadron**

- Cost included:
 - Hanger and ramp MILCON at China Lake
 - Increased recurring operating expenses to transit to Sea Range
- Savings:
 - COBRA calculated 15% savings of Wing and Squadron personnel
- **Indirect personnel**
 - Duplication and redundancy eliminated since 1992
 - Some functions site specific (facilities, security, STILO, IT, HR, etc)

NAWCWMD DONBITS Certified Inputs

- **TECH 0002B Scenario Data Call (Rolled into TECH 0018DR)**

SDC Action #	FY03 Baseline	Rationale
14	543	Inextricable Sea Range work

- **The following Sea Test Range functions were excluded by Q47 response, and no military construction or dynamic data were input as part of this data call:**
 - 505 personnel in the range and targets competencies
 - 24 personnel performing targets logistics
 - 14 personnel operating the radar reflectivity lab supporting range and targets customers for the majority of their work
- **These personnel are an integrated, fixed base capability that must remain at the Point Mugu site to continue sea range operations**
- **DON-162 (Close NAS Point Mugu) evaluated relocating these functions but were not part of the recommendations**

Summary of TECH18 Impacts

	Personnel included in TECH18	Facilities included In TECH18	Inextricable part of sea range ops
Capability	Most	No	Yes
Range	All	No	Yes
Targets	All	No	Yes
RCS Chambers	All	No	Yes
Test Squadron	All	Yes	Yes
Flight Test	Some	Yes	Some
Weapons Sustainment	All	Yes	No

TECH 18 Summary

Weapons and Armament RDATA&E

Take Aways:

- Clearly defined weapons functions included and understood
- Weapons Test Squadron - Realignment
 - Significant MILLCON costs understood
 - Recurring operating cost increase understood
 - Personnel savings not understood
- Indirect support - Realignment
 - Duplication and redundancy eliminated since 1992
- Range and Targets
 - Integrated, fixed base capability that must remain at Point Mugu to continue sea range operations

TECH54 - Consolidate Sensors, EW, and
Electronics RDATE&E functions at Point Mugu
with China Lake

NAWCWD Certified Inputs

- TECH 0054 Scenario Data Call

SDC Action #	FY03 Baseline	Rationale
1	379	Electronic Warfare and related systems

*Point Mugu provides a wide range of synergistic EW support to TACAIR platforms, stand-off jammers (AEA), threat simulation, intelligence/sensor engineering, and jamming technique optimization for Navy, USMC, Air Force, and FMS customers. **This action would most likely result in the loss of significant electronic warfare intellectual capital that could not be replaced.** EW currently shares resources and processes to improve integration efficiency and to reduce duplicative efforts. Point Mugu has worldwide recognition as the leader in EW development, test, evaluation, and in-service engineering, with 15 years per person average EA-6B, AEA, TACAIR EW, and Threat Analysis engineering experience. Over 4500 work-years of EW specialized experience exist at this site. The Point Mugu EA-6B Weapons System Support Laboratory provides real-time operational support to the Fleet during times of war. This capability must be maintained at 24/7/365. When a crisis occurs in the world, the JATO Lab (Jammer Technique team), EWDS Lab (Threat Sensor Engineering team), Mission Planning laboratory, and the Systems Engineering laboratories are required to urgently respond to the Fleet needs. Example of recent Fleet support, (1) pushed reprogrammed User Data Files (UDF) to deployed squadrons on 9/11/2001, (2) 31,900 data requests (sample from June 03 to June 04) with 100% responded in less than 24 hour response time to deployed squadrons.*

NAWCWD DONBITs Certified Inputs

SDC Action #	DEC04 Civilians	Rationale
1	379	Electronic Warfare and related systems

Electronic Warfare personnel perform the following:

EW Systems Engineering (89 civilians)

EW Signal Measurement (18)

EW Data Base Engineering (32)

EW Mission Planning Engineering (37 includes 7 military)

EA-6B/EA-18G Engineering (141 includes 4 military)

EW Support Equipment (20)

Indirect Support of mission (42)

SUMMARY of Certified Data

Scenario	Civilians, Military in Scope	Civilians, Military Inextricable
China Lake TECH 0018 (W&A)		543
China Lake TECH 0054 (EW)		0
Total		543

- We will not be able to execute our assigned outdoor air range mission if relocation/realignment of “Inextricable” functions occur.
- Point Mugu has been Naval Aviation’s EW Center of Excellence for over 50 years; this action would most likely result in significant loss of EW intellectual talent supporting the war on terror and whose replacement would take decades to achieve.

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Congress of the United States
House of Representatives
Washington, DC 20515-0524

July 1, 2005

Anthony Principi, Chairman
Base Realignment and Closure Commission
2521 South Clark Street, Suite 600
Arlington, VA 22202

Dear Chairman Principi and BRAC Commissioners:

As several members of your commission and staff prepare for a site visit to Naval Base Ventura County as well as convening the regional hearing in Los Angeles on July 14, I would like to share a few concerns I have over the original Department of Defense recommendations for Naval Base Ventura County.

Specifically I am concerned with the Technical Joint Cross Service Group (TJCSG) recommendation to: *"Realign Naval Base Ventura County, Point Mugu, CA by relocating all Weapons and Armaments Research, Development & Acquisition, and Test & Evaluation to Naval Air Weapons Station China Lake, CA and 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."*

While I understand the concept of creating a Naval Weapons and Armaments RDAT&E Center, I am troubled that the TJCSG did not take Question #47 into consideration that would have allowed for personnel, equipment and facilities that were within the "Weapons and Armaments" category, but were an inextricable part of the remaining core mission, to be retained. In an attempt to understand the rationale of this decision, I sent an inquiry to Alan Shaffer, Executive Director of the TJCSG and I was even more troubled by his response which read in part, *"Naval Base Ventura County information was reviewed but not included in the final analyses due to expert military judgment."*

If the intended BRAC selection criterion is military value, the decision to ignore the issue of inextricable work in Naval Base Ventura County's case, will have a tremendous impact on operational readiness as well as increase the cost of doing business to the taxpayer. This point is illustrated in two areas, targets and range operations. First, since the airfield at NAS Point Mugu will stay open, why relocate aerial targets and aircraft to China Lake which is 150 miles away from their primary Sea Range operating area? This will surely increase response times to the range and ultimately increase their operating costs. Additionally, operational inefficiencies and operating costs will surely increase for VX-30. This Wing operates P-3, C-130 and F/A 18 Aircraft to provide surveillance, clearance, telemetry and other services to the sea-test range. Recurring costs of flying these aircraft from China Lake to Point Mugu are estimated to be over \$6.9 million per year as well as the wear and tear the additional flight hours will put on these aging airframes.

Second, Point Mugu just upgraded their Range Operations facilities with state of the art equipment at a cost of over \$20 million just a few years ago. Why duplicate this infrastructure at

COMMITTEES:
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- CHAIRMAN, INTERNATIONAL TERRORISM, NONPROLIFERATION AND HUMAN RIGHTS
 - EUROPE

JUDICIARY

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- IMMIGRATION, BORDER SECURITY, AND CLAIMS
 - COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

RESOURCES

- SUBCOMMITTEE:
- NATIONAL PARKS, RECREATION, AND PUBLIC LANDS

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- TECHNICAL AND TACTICAL INTELLIGENCE
 - INTELLIGENCE POLICY AND NATIONAL SECURITY
 - TERRORISM AND HOMELAND SECURITY

Mr. Anthony Principi, Chairman
July 1, 2005
Page two

another location, and how safe and efficient will operating a 36,000 square mile sea test range be from a remote location?

The second DoD recommendation I have a concern with is the TJCSG recommendation to:
"Realign Naval Air Warfare Center, Weapons Division, Point Mugu, CA. Relocate the Sensors, Electronic Warfare (EW) and Electronics Research, Development, Acquisition, Test & Evaluation (RDAT&E) functions to Naval Air Warfare Center, Weapons Division, China Lake, CA."

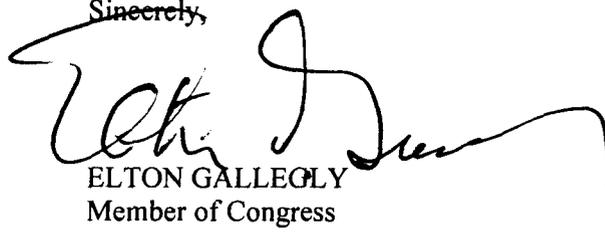
This recommendation simply does not make sense. Point Mugu is the existing recognized Center of Excellence for Electronic Warfare and is currently doing work not only for the Navy but the Air Force as well. The Electronic Warfare community at Point Mugu directly supports the war-fighter in Afghanistan and Iraq on an around the clock basis. Additionally, the Electronic Warfare community is very specialized and while they do work with their aircraft software development counterparts in China Lake, they possess very different skills and expertise.

Since the BRAC list was released over a month ago, numerous individuals who work in this area have contacted my office. Many indicated they would not re-locate to China Lake. Unfortunately, their intellectual capital would be lost and the program would suffer for many years if not decades. Furthermore, the costs and time of reconstituting the laboratories at China Lake would take a tremendous toll on our operational readiness.

Point Mugu is the only un-encroached oceanfront Navy airfield on the West Coast and is contiguous to the largest instrumented Sea Test Range in the world. It is home to the West Coast operational E-2 Wing, Channel Islands Air National Guard and is the optimum location for testing and basing future military weapons systems and unmanned aerial vehicles such as in the Coast Guard's Deep Water Program. With this invaluable DoD asset in place, it does not make operational or economical sense to move programs like targets, range operations and electronic warfare hundreds of miles from the area they primarily serve.

Finally, the Commander of Naval Aviation, Admiral Massenburg has contacted my office in support of keeping these critical activities at Point Mugu. As your Commission reviews the final recommendations submitted by DoD, please reconsider the movement of targets, range operations and electronic warfare out of Point Mugu. It is currently located at a facility that provides the greatest current and future mission capabilities to our nation's operational readiness.

Sincerely,



ELTON GALLEGLY
Member of Congress

**Ventura County, California
Community Report to the
BRAC Commission
Relevant to Naval Base Ventura County
July 14, 2005**

I. Introduction

The Department of Defense (DoD) significantly deviated from Base Realignment and Closure (BRAC) law and from their own internal departmental guidance in performing their analysis and making certain realignment recommendations that affect Naval Base Ventura County (NBVC) and two of its primary tenant commands: Naval Air Warfare Center, Weapons Division, Pt. Mugu (NAWC WD) and Naval Surface Warfare Center, Port Hueneme Division (NSWC PHD).

The deviations in the DoD analysis processes deal with the following Selection Criteria:

- Military Value (Criteria #1 & #2)
- Costs and Savings (Criteria #5)
- Receiving Community Infrastructure (Criteria #7)

Additionally, deviations from Department guidance to enhance Jointness and Transformation, and specific areas of poor execution of basic data analysis and management have been identified.

Several of DoD's realignment recommendations, including those affecting NAWC WD Sea Range, Targets, Range Support Aircraft and Weapons functions and NSWC PHD Weapons and C⁴ISR functions, deviate from BRAC law and DoD guidance and demonstrate poor DoD data analysis and management. Therefore, the discussions of these functions and the imperative to reject/modify the respective DoD recommendations are provided in two different sections of this paper.

This position paper will clearly identify and discuss DoD's deviations and will provide recommendations to the BRAC Commission on changes that should be made prior to the Commission forwarding its report to the President.

DoD's realignment recommendations which apply to NBVC were all originated, staffed and reported by the Technical Joint Cross Service Group (TJCSG). These recommendations, with their respective impacts on the Ventura County community are provided below:

Create a Naval Integrated Weapons & Armaments Research, Development & Acquisition, Test & Evaluation Center

DoD Recommendation: “Realign Naval Base Ventura County, Point Mugu, CA, by relocating all Weapons and Armaments Research, Development & Acquisition, and Test & Evaluation to Naval Air Weapons Station China Lake, CA.”

DoD 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.”

Economic Impact on Communities: “Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 5012 jobs (2250 direct jobs and 2762 indirect jobs) over the 2006-2011 period in the Oxnard-Thousand Oaks-Ventura, CA, Metropolitan Statistical Area.”

Consolidate Maritime C⁴ISR Research, Development & Acquisition, Test & Evaluation

DoD Recommendation: “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.”

Economic Impact on Communities: “Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 286 jobs (127 direct jobs and 159 indirect jobs) over the 2006-2011 period in the Oxnard-Thousand Oaks-Ventura, CA, Metropolitan Statistical Area.”

Navy Sensors, Electronic Warfare, and Electronics Research, Development & Acquisition, Test & Evaluation

DoD Recommendation: “Realign Naval Air Warfare Center, Weapons Division, Point Mugu, CA. Relocate the Sensors, Electronic Warfare (EW), and Electronics Research, Development, Acquisition, Test & Evaluation (RDAT&E) functions to Naval Air Warfare Center, Weapons Division, China Lake, CA.”

Economic Impact on Communities: “Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 1075 jobs (479 direct jobs and 596 indirect jobs) over the 2006-2011 period in the Oxnard-Thousand Oaks-Ventura, CA, Metropolitan Statistical Area economic area.”

The total maximum potential impact to Ventura County would be a reduction of 6373 jobs (2856 direct and 3517 indirect), with 6087 of these jobs slated to move to China Lake.

II. Deviation from Selection Criteria

A. Military Value Criteria

The Department of Defense (DoD) significantly deviated from Base Realignment and Closure (BRAC) law by not adequately considering Military Value criteria. A discussion of these deviations is provided below.

1. Final Selection Criteria Number 1: “The current and future mission capabilities and the impact on operational readiness of the total force of the Department of Defense, including the impact on joint warfighting, training, and readiness.”

Military Value Criteria Number 1 means that no BRAC recommendations should be forwarded that would degrade the operational readiness of our joint warfighters. In recommending that the Pt. Mugu Electronic Warfare Center of Excellence be realigned to China Lake, the TJCSG significantly deviated from BRAC law. A discussion of these deviations is provided below.

a. Electronic Warfare

The Electronic Warfare (EW) Center of Excellence (COE) at Point Mugu includes the Electronic Combat Simulation and Evaluation Laboratory (ECSEL), the EA-6B laboratory, the EA-18G laboratory, the Tactical Electronic Reconnaissance Planning and Exploitation System (TERPES) laboratory, the Threat Simulation group and the Electronic Warfare Software Support Activity (EWSSA). These EW labs provide a wide range of synergistic support to Navy, Marine Corps, Air Force and FMS tactical airborne electronic attack (AEA), threat simulation and electronic threat intelligence customers.

Pt. Mugu has been the Navy’s EW COE for over 50 years. The 368 civilian and 11 military personnel located at Pt. Mugu possess over 4500 collective years of specialized EW experience, with an average of over 15 years per person of EA-6B, AEA and threat analysis engineering experience.

The Pt. Mugu EA-6B Weapons System Support Laboratory provides real-time operational support to the warfighter. This capability is maintained 24/7/365. When a crisis occurs in the world, the lab responds to the urgent needs of the warfighter. Examples of recent support include pushing reprogrammed user data files to all deployed EA-6B squadrons on 9/11/2001 and providing 100% responses to over 31,900 data requests in the June 2003 to June 2004 timeframe.

Based on its resident EW expertise, including its extensive EA-6B experience, Pt. Mugu was chosen by the Navy program manager as the optimum site for the EA-18G Software Support Activity laboratory. This laboratory is currently in development. When complete, Pt. Mugu EW specialists, working in a coordinated technical environment with the F/A-

18 mission systems software specialists at China Lake, will develop the EA-18G EW systems.

The TERPES was developed, tested and is maintained at Pt. Mugu. It depends on the utilization of electronic support measures instrumentation in the EA-6B to capture the electronic signals from a threat. These signals are processed by the TERPES to present the electronic order of battle of enemy forces. The TERPES lab provides operational support to Marine Corps combat operations on a 24 hour a day basis on order to capture, analyze and distribute signals information deployed operational forces.

The Threat Simulation group at Pt. Mugu uses electronic intelligence and research into foreign electronic capabilities to develop systems that stimulate U.S. weapons and sensors in the same manner as the threat. The systems developed in this program have proven invaluable in past conflicts when the enemy employed weapons and sensors that were not countered by our embedded countermeasures in tactical aircraft (TACAIR). These Threat Simulators can be rapidly deployed to our operating forces and have been used tactically in hostile environments.

The EWSSA provides direct new system software builds for U.S. jamming and receiving systems. When new enemy threat systems are introduced, the EWSSA is responsible for developing the new software for existing fleet receiving and jamming systems to counter this threat. This effort entails a highly trained engineering staff to analyze the threat, develop techniques to defeat the threat system and incorporate the new capability into the jamming system software. The EWSSA provides direct support to a wide variety of Navy, Marine Corps, Air Force and Army platforms and EW receiver and jammer systems.

The TJCSG deviated from the Military Value criteria by recommending that the Pt. Mugu Electronic Warfare capability be realigned to China Lake. This recommendation was made in spite of the following facts:

Pt. Mugu is the current EW Center of Excellence. The intellectual center of mass is at Pt. Mugu. Pt. Mugu employs approximately 400 Electronic Warfare personnel, while China Lake employs only about 30 personnel in the same EW disciplines.

Execution of the proposed EW realignment would cause significant disruption to the warfighting capabilities of our deployed forces. By forcing the tear-down, transition and reconstruction of the EW labs, services currently provided 24/7 would be interrupted for months, if not years. Combined with the loss of intellectual capital described below, the down-time would severely impact the nation's ability to counter enemy weapons and electronic warfare systems. As a result, our warfighters would be placed in harm's way.

The Naval Air Systems Command (NAVAIRSYSCOM) recognizes the value of the existing EW COE to the warfighter and the difficulty in reconstituting this capability at another location, and as a result, has recommended establishment of a Joint EW COE at

Pt. Mugu. NAVAIRSYSCOM leadership, service EW program managers and the operational EA-6B wing commander are all opposed to this proposed realignment.

Realignment of EW to China Lake would result in a significant loss in expert personnel and intellectual capital. This intellectual capital has evolved over decades at Point Mugu and cannot be moved without disruption to mission effectiveness. The time period required to train an Electronics Engineer to become a functional EW systems engineer is estimated to be 7-10 years.

As opposed to the DoD justification contained in their recommendations to the Commission, there is no redundant infrastructure between Pt. Mugu and China Lake. Movement of EW to China Lake would not make more efficient use of the Electronic Combat Range. The ECSEL and other Pt. Mugu indoor range facilities provide the preferred methodology for testing, at significantly lower cost and greater fidelity. If the Pt. Mugu EW labs were relocated to China Lake, they would not result in increased use of the ECR.

The proposed realignment decreases Military Value. It would negatively impact warfighter capabilities, it would unnecessarily cost the taxpayers millions of dollars and it would not result in any increased synergy with China Lake. Due to the fact that the TJCSG significantly deviated from the defined selection criteria, the DoD recommendation to realign the Electronic Warfare from Pt. Mugu to China Lake should be rejected.

2. Final Selection Criteria Number 2: "The availability and condition of land, facilities and associated airspace (including training areas suitable for maneuver by ground, naval, or air forces throughout a diversity of climate and terrain areas and staging areas for the use of the Armed Forces in homeland defense missions) at both existing and potential receiving locations."

In his September 3, 2004 Memorandum to DoD leadership, Deputy Secretary of Defense Wolfowitz providing further guidance on "BRAC 2005 Military Value Principles." His guidance included direction that the Military Departments and the Joint Cross-Service Groups should use a number of principles when applying military judgment in their deliberative processes. These principles included:

"The Department needs research, development, acquisition, test, and evaluation capabilities that efficiently and effectively place superior technology in the hands of the warfighter to meet current and future threats and facilitate knowledge-enabled and net-centric warfare."

The combination of Military Value Criteria Number 2 and Mr. Wolfowitz's implementing guidance should have sent a very clear message to the JCSG's. That message was, in order to enhance military value, no BRAC recommendations should be forwarded that would degrade the efficiency or effectiveness of DoD's test and training ranges or their supporting functions.

In recommending that Sea Range, Targets and Range Support Aircraft be realigned from Pt. Mugu to China Lake, the TJCSG significantly deviated from BRAC law and from the above DoD implementing guidance. A discussion of those deviations is provided below.

a. Sea Range

The Pt. Mugu Sea Range, encompassing 36,000 square miles of controlled airspace is DoD's largest and most heavily instrumented sea range. The Sea Range is national range and is designated as a Major Range and Test Facility Base (MRTFB). The Sea Range operates range instrumentation located on coastal mountains and on off-shore islands, including the Navy-owned San Nicolas Island, located 60 miles from the coastline. The Range supports open-ocean and littoral testing of tactical, strategic and missile defense weapons, weapons systems and aircraft systems; Fleet training and joint experimentation. The Pt. Mugu Sea Range provides services to a large number of test and training customers. For example, its FY-04 customer base was 33% Air Force, 26% Navy, 19% Missile Defense Agency, 9% Other DoD, 8% Foreign Military Sales, 3% Commercial and 2% NASA. The Sea Range is one of four open-air ranges operated under a single NAVAIRSYSCOM Ranges Department.

The TJCSG deviated from the Military Value criteria by recommending that the Pt. Mugu Sea Range be realigned to China Lake as part of the Weapons and Armaments RDAT&E Center. This recommendation was made in spite of the fact that:

- (1) Over 10 years of internal reorganizations and restructuring have eliminated all duplicative capabilities and management layers between the Pt. Mugu and China Lake ranges
- (2) Movement of Sea Range jobs from Pt. Mugu to China Lake would result in significant loss in intellectual capital
- (3) The Sea Range provides support to a large number of non-Weapons and Armaments customers
- (4) Operation of the Sea Range is inextricably linked to the geography
- (5) No synergy would be gained by realigning the Sea Range to China Lake
- (6) Significant unnecessary non-recurring and recurring costs would be incurred by both the Range and its customers
- (7) The efficiency and effectiveness of the Sea Range would be decreased, and
- (8) Safety risk to both participating and non-participating personnel would be increased by moving control of developmental weapons testing to a location more than 150 miles away from the test venue.

From senior DoD officials involved in both Technical and Education & Training JCSG's, we learned that, since Open Air Ranges and their supporting functions, were under the purview of the E&T JCSG, the TJCSG should not have made realignment recommendations regarding the Pt. Mugu Sea Range. TJCSG personnel exceeded their authority by recommending that Sea Range and associated Targets and Range Support Aircraft personnel be realigned to China Lake.

The proposed realignment decreases Military Value. It would not result in any increased synergy with China Lake W&A programs, but it would negatively impact cost, safety and operational efficiency of Sea Range operations. Due to the fact that the TJCSG significantly deviated from the defined selection criteria and exceeded its authority in making OAR recommendations, the DoD recommendation to realign the Sea Range from Pt. Mugu to China Lake should be rejected.

b. Targets

Pt. Mugu has served for over sixty years as the Navy's premiere aerial and seaborne targets engineering, operations and logistics site. It is the only site that operates all of the Navy's air and surface launched target systems and is the only Center of Excellence for target systems within the Navy. The Pt. Mugu target capability originated as, and remains a natural and necessary extension of the Sea Range.

Aerial targets, maintained, operated and refurbished at Pt. Mugu, are comprised of subscale subsonic targets and full-scale missile targets capable of remote operation by an air or ground-based controller. The seaborne targets, maintained, operated and refurbished at Port Hueneme, consist of a full array of small high speed attack boats, full-sized remotely operated ships and sea-going target launch platforms.

The TJCSG deviated from the Military Value criteria by recommending that Pt. Mugu's targets personnel be realigned to China Lake as part of the Weapons and Armaments RDAT&E Center. This recommendation was made in spite of the fact that an average of 92% of aerial target operations are conducted at the Pt. Mugu Sea Range, while an average of only 8% are conducted at China Lake. 100% of seaborne target operations are conducted at the Sea Range. Moving all target operations from the Sea Range to China Lake and then transporting the people and equipment back to Point Mugu on a daily basis to conduct operations on the Sea Range would result in significant increases in operating and maintenance costs.

The proposed realignment decreases Military Value. It would not result in any increased synergy with any China Lake W&A program, but it would negatively impact Sea Range operations. By degrading the efficiency and effectiveness of Sea Range operations and imposing unnecessary non-recurring and recurring costs, this recommendation significantly deviates from the defined selection criteria. The DoD recommendation to realign the targets organization from Pt. Mugu to China Lake should be rejected.

c. Range Support Aircraft

Air Test and Evaluation Squadron Three Zero (VX-30), a NAVAIRSYSCOM command based at NAS Pt. Mugu, operates P-3, C-130 and F/A-18 aircraft in support of both T&E and Fleet training activities. The P-3 and C-130 aircraft, known as Range Support Aircraft (RSA), perform an average of 86% of their sorties on the Pt. Mugu Sea Range, 13% of their sorties off-range (primarily in support of world-wide MDA and NASA

operations) and only 1% of their sorties on the China Lake land range. The VX-30 aircrew, Sea Range and targets personnel, flying in the RSA, perform range surveillance, clearance, telemetry, flight termination, optics, targets launch and logistics support functions for the Sea Range.

The TJCSG deviated from the Military Value criteria by recommending that VX-30 be realigned to China Lake as part of the Weapons and Armaments RDAT&E Center. This recommendation was made in spite of the fact that VX-30 does not test weapons and armaments, but does support a wide variety of non-weapons customers on the Sea Range. The TJCSG also made this recommendation in spite of the significant additional costs that would have to borne, by both BRAC appropriations and Sea Range customers, as a result. The non-recurring costs to build a new hangar and ramp space at China Lake are estimated at over \$25M. The recurring costs of operations would increase by approximately \$6.8M per year in order to pay for the additional flight time to/from China Lake and the costs of the required maintenance detachments from China Lake. Other unknown costs would accrue as a result of decreased on-station time, higher total flight time, decreased aircraft fatigue life, more frequent depot-level repairs, and loss of Sea Range operational efficiency due to the RSA being based over 150 miles away from the Sea Range.

The proposed realignment decreases Military Value. If VX-30 were realigned from Pt. Mugu to China Lake, the quality of support to the Sea Range would be significantly degraded while increasing the cost to the taxpayer by several millions of dollars per year. By degrading the efficiency and effectiveness of Sea Range operations and imposing unnecessary non-recurring and recurring costs, this recommendation significantly deviates from the defined selection criteria. The DoD recommendation to realign VX-30 from Pt. Mugu to China Lake should be rejected.

B. Other Criteria

DoD significantly deviated from Base Realignment and Closure (BRAC) law by not adequately considering other mandated Selection Criteria. A discussion of these deviations to Criteria #5 (Costs and Savings) and Criteria #7 (Receiving community infrastructure) is provided below.

1. Final Selection Criteria Number 5: “The extent and timing of potential costs and savings, including the number of years, beginning with the date of completion of the closure or realignment, for the savings to exceed the costs.”

The TJCSG did not perform a proper analysis of the costs and savings associated with their recommended realignments. Specifically, extremely poor analyses were performed on the TECH 18 (Weapons and Armaments) and TECH 54 (Electronic Warfare) scenarios. A detailed discussion and a summary of more accurate costs and savings are provided below.

a. Basic TECH 18 Scenario as Submitted in the DoD Recommendations to the BRAC Commission

This scenario realigns all W&A RDAT&E billets from NBVC (and other locations) primarily to China Lake. It fails to include the costs of moving the Range and Targets Functions (facilities and equipment) to China Lake and does not include the additional recurring costs of conducting Range and Target Operations from China Lake vice NBVC. It also assumes an across the board (military, civilian, and contractor) reduction in required billets of 15%.

Summary Results:

Payback Year	:	2015 (7 years)
NPV in 2025 (\$K)	:	-433,404 (negative number = savings, positive = loss)
1-Time Cost (\$K)	:	358,142

b. Basic TECH 18 Scenario Modified to Include Anticipated Actual Costs

The true cost of TECH 18 must include the anticipated actual costs of moving the Range and Target functions from NBVC to China Lake. Additionally, due to over 12 years of consolidation of technical, administrative, and management functions across the single NAWC WD organization, the assumed 15% savings would not occur. The July 2005 GAO report found fault with this 15% savings number used by the TJCSG and stated that a 5.5% savings would be more accurate. Due to the complete lack of redundancy in technical, administrative and management personnel between the NAWC Pt. Mugu and China Lake sites, a more accurate estimate would be zero savings. Using the data taken from the certified responses of NBVC and China Lake to Scenario Data Call DON-0162, January 11, 2005, and making the above two changes to the TECH 18, COBRA analysis results in dramatic changes to the bottom line numbers.

Payback Year	:	100+ Years
NPV in 2025 (\$K)	:	249,094 (loss)
1-Time Cost (\$K)	:	440,497

c. Basic TECH 18 Scenario Modified to Exclude Sea Range, Targets and VX-30 Personnel and Facilities

As discussed in paragraph II.A.2 above, Sea Range, Targets and VX-30 Range Support Aircraft should not be moved to China Lake. By running the COBRA model without the associated MILCON and moving expenses associated with the Sea Range, Targets and VX-30, and eliminating the 15% savings, as discussed above, yields the following bottom line numbers:

Payback Year	:	2037 (29 Years)
NVP in 2025 (\$K)	:	77,811 (loss)
1-Time Cost (\$K)	:	269,727

In summary, the TJCSG can not have it both ways. It should have either included the range and targets costs and incurred a 20 year NPV of +\$249,094,000 or left the Range, Targets and VX-30 activities at Pt. Mugu (the most sensible solution) and incurred a 20 year NPV of +\$77,811,000.

d. Basic TECH 54 Scenario as Submitted in the DoD Recommendations to the BRAC Commission

This scenario relocates the entire Pt. Mugu Electronic Warfare (EW) Center of Excellence from NBVC to China Lake.

Summary Results:

Payback Year	:	2021 (12 Years)
NPV in 2025 (\$K)	:	-16,888 (savings)
1-Time Cost (\$K)	:	72,699

e. Basic TECH 54 Scenario with Unjustified Personnel Savings Removed

The Basic Scenario shows 11 military, 368 civilian, and 100 contractor positions being realigned from NBVC to China Lake with no reductions. However, the Receiving Activity (China Lake) claimed a Miscellaneous Recurring Savings of \$3,010,000 per year. The data call footnote states “Identifies savings attributed to a calculated payroll savings for reduced Technical and Admin personnel. Justification is an un-itemized value. Details in Source file 1.” A review of the source file, and the documentation preceding that source file, revealed that this \$3M/year number was an un-itemized value with no justification. The results of the COBRA model run without this unjustified recurring savings are shown below:

Payback Year	:	2040 (31 Years)
NPV in 2025 (\$K)	:	24,961 (loss)
1-Time Cost (\$K)	:	72,699

f. In summary, both the Weapons and Armaments (TECH 18) and the Electronic Warfare (TECH 54) scenarios recommended by the TJCSG will result in high one-time costs and unacceptable long-term costs to the taxpayer. By not considering these costs in its analysis, DoD significantly deviated from BRAC law.

2. Final Selection Criteria Number 7: “The ability of the infrastructure of both the existing and potential receiving communities to support forces, missions, and personnel.”

The TJCSG significantly deviated from this Selection Criteria by accepting the Bakersfield Metropolitan Statistical Area (MSA) as being an accurate representation of Ridgecrest’s ability to support the potential realignment of personnel.

Bakersfield, located approximately 115 miles west of China Lake, is over two hours away, with almost nothing in between the two cities except mountains and desert. The

only city of any size within 60 miles of Ridgecrest is California City, 35 miles away with a population of 8400.

The relocation of nearly over 6300 positions to Ridgecrest (population approximately 25,000) from all activities would represent a total influx of about 22,000 people (at a 3.5 to 1 ratio) in the 2007-2008 timeframe. This would require essentially doubling the size of the city of Ridgecrest in the next two years.

The June 16, 2005, Multiple Listing Service for available homes, showed 12 houses for sale in the city of Ridgecrest. The MSA data shows 22,912 vacant housing units, but the majority of those are in Bakersfield, 115 miles from China Lake. Housing for an additional 22,000 people could ultimately be constructed in the Ridgecrest area, but it is not likely that this could be accomplished by 2008.

Doubling of the size of Ridgecrest by developing an additional 21 square miles of real estate, raises serious environmental concerns, also. This large influx of people would definitely affect the delicate environmental balance found in the Mojave Desert, including the habitat of the Mojave Ground Squirrel, the Desert Tortoise and the Kangaroo Rat.

The statistics for medical providers are misleading. The Bakersfield MSA shows 1,231 beds, and 937 physicians, but the Ridgecrest Regional hospital only has 80 beds and 65 physicians. When Ridgecrest residents are faced with any significant medical challenges, they invariably leave town to find solutions. This problem would only be exacerbated by the addition of another 22,000 residents.

The city of Ridgecrest could expand its utility services, including power, water, sewage and refuse, but it is doubtful that it could obtain the funding and establish the infrastructure in time for the 2007-2008 influx.

The availability of schools is another serious issue to be considered. With the known extended timeframes associated with passing school bond initiatives, the known state education funding problems and the normal lengths of time required to design, obtain approvals and build new schools, it is unlikely that adequate educational facilities could be available by 2007-2008.

The TJCSG scenario data calls asked China Lake if the Bakersfield MSA could accommodate a number of separate realignment actions. Taken in pieces, perhaps they could be done. But taken in total, especially with the short timeframe in which to accomplish all actions, it is unlikely that Ridgecrest could accommodate the recommended realignments.

DoD deviated from the Selection Criteria guidance by not adequately assessing the total impact of all realignment actions on the city of Ridgecrest and by accepting the Bakersfield MSA as being representative of Ridgecrest.

III. Deviation from Departmental Guidance to Enhance Jointness and Transformation

The TJCSG significantly deviated from Departmental guidance to enhance Jointness and Transformation. A discussion of these deviations is provided below.

In a November 15, 2002 memorandum to his DoD leadership, Secretary of Defense, Donald Rumsfeld provided the following guidance: “A primary objective of BRAC 2005, in addition to realigning our base structure to meet our post-Cold War force structure, is to examine and implement opportunities for greater joint activity...I am confident we can produce BRAC recommendations that will advance transformation, combat effectiveness, and the efficient use of the taxpayer’s money.”

In his September 8, 2004 memorandum for DoD leadership, including the Chairmen of the Joint Cross Service Groups, Under Secretary of Defense Michael Wynne recommended several “Transformational Options” for approval, including: “Establish regional Cross-Service and Cross-Functional ranges that will support Service collective, interoperability and joint training as well as test and evaluation of weapons systems.”

In spite of Mr. Rumsfeld’s and Mr. Wynne’s guidance, it appears that very few DoD recommendations actually enhance jointness and transformation. Most of the recommendations, including those directly affecting NBVC, are service centric, vice joint. This lack of jointness and transformation has been noted by others, also.

In his April 6, 2005 weekly update to SECDEF, Under Secretary Wynne stated that the Navy’s approach “can limit BRAC’s transformational potential.” He further noted that the Navy “Worked closely with joint cross-service groups, but leaned toward service centric rather than joint solutions.”

During Dr. Ronald Sega’s testimony before the BRAC Commission on May 19, 2005, Commissioner Coyle noted: “But from what I can see, you recommended very little in the way of cross servicing or jointness that would bring services together in a technical way. And my question is: Why didn’t you?” Dr. Sega’s response included: “It is our hope that in these areas that are largely co-locating, consolidating at the service level will evolve to more of a joint character.”

In its July 2005 “Analysis of DOD’s 2005 selection Process and Recommendations for Base Closures and Realignment,” the Government Accountability Office (GAO) reported that “Some proposed actions represent some progress in emphasizing transformation and jointness, but progress in these efforts varied without clear agreement on transformational options to be considered, and many recommendations tended to foster jointness by consolidating functions within rather than across military services.” In comments directly aimed at the TJCSG recommendations, GAO stated: “Limited progress was made to foster greater jointness and transformation.”

The TJCSG's deviations from Departmental guidance resulted in recommendations which adversely affect Naval Base Ventura County. These deviations are discussed below.

As discussed above, the Pt. Mugu Sea Range is a national range providing joint services to a large number of test and training customers. For example, its FY-04 customer base was 33% Air Force, 26% Navy, 19% Missile Defense Agency, and 9% Other DoD. In spite of Under Secretary Wynne's recommendation to establish cross-service ranges and a clear opportunity to expand the Sea Range's joint mission, the TJCSG recommended moving all Pt. Mugu Range, Targets and Range Support Aircraft personnel to China Lake as part of a service-centric Naval Integrated Weapons and Armaments RDAT&E Center.

As described above, the EA-6B laboratory directly supports the joint airborne electronic attack missions of the Navy, Marine Corps and Air Force. This capability is an integral part of the larger EW Center of Excellence at Pt. Mugu. Instead of making recommendations that would enhance the value of the joint EA-6B laboratory at Pt. Mugu, the TJCSG recommended tearing it down and moving it to a service-centric Navy Sensors, Electronic Warfare, and Electronics RDAT&E center at China Lake.

The Advanced Medium Range Air-to-Air Missile (AMRAAM) hardware-in-the-loop (HIL) laboratory at Pt. Mugu provides direct support to the AMRAAM joint program office. This is the only AMRAAM HIL in operation and supports both Air Force and Navy RDAT&E and Raytheon, the system contractor. Rather than enhancing the value of this joint laboratory, the TJCSG recommended tearing it down and moving it to China Lake as part of a service-centric Naval Integrated Weapons and Armaments RDAT&E Center.

The Radar Reflectivity Laboratory (RRL) at Pt. Mugu is the only one of its kind in the world. The RRL provides monostatic and bistatic radar cross-section characterization services to a wide variety of joint customers, including Navy and Air Force aircraft programs, UAV and weapons programs, Navy ship and submarine programs, the Missile Defense Agency and DoD sponsored R&D programs. Rather than enhancing the value of this joint laboratory, the TJCSG recommended abandoning and moving the RRL to China Lake as part of a service-centric Naval Integrated Weapons and Armaments RDAT&E Center.

Co-Location \neq Transformation. While the TJCSG made many recommendations which resulted in co-location of similar functions, co-location is not transformational. In fact it is just the opposite. In the business world, the transformation is to more distributed organizations. In this regard, Naval Air Systems Command leadership exhibited great foresight in 1992 by establishing the Naval Air Warfare Center, Weapons Division, with the two campuses at Pt. Mugu and China Lake. NAWC WD was established as, and remains an integrated command with a single management and financial structure. In the recent words of the first NAWC Commander, RADM George Strohsahl (ret): "The technical work at Pt. Mugu since the creation of the Naval Air Warfare Center (NAWC) and the introduction of a competency aligned organization within the Naval Air Systems

Command (NAVAIR) has been totally integrated with related work at other NAWC locations. Management layering and duplicative work has been eliminated. If the work is relocated (realigned in BRAC parlance) little savings will accrue through elimination of jobs. The move will simply attempt to pick up the people and place them in different buildings some 150 miles away.”

RADM Strohsahl goes on to say: “Modern internet, video teleconferences, and other communications capability seamlessly link these physically separated elements to form effective teams. The NAWC and the current NAVAIR management concept were founded on this modern reality. It has worked well for them for over a decade. This proposed costly relocation is a giant step back in time without any tangible benefit. The BRAC recommendation in this instance is attempting to fix something that simply isn’t broken” and summarizes his feelings about the proposed realignment actions by saying: “The BRAC commission must understand the terrible error that has been made and remove this realignment from the final BRAC list.”

Practical examples of the transformational distributed connectivity referenced by RADM Strohsahl can be seen in both the EA-18G and AMRAAM laboratories at Pt. Mugu. The EA-18G airborne electronic attack systems (“EA-18G backseat”), being developed and tested at Pt. Mugu, are electronically linked to the EA-18G mission systems (“EA-18G frontseat”) being developed and tested at China Lake. The AMRAAM systems being developed and tested at Pt. Mugu are electronically linked with the F/A-18 systems being developed and tested at China Lake. None of these labs have to be in the same room, or even on the same base to operate effectively. Both are examples of transformational ways of doing business. The DoD recommendations would result in a big transformational step backwards, while interrupting critical service to the warfighter, unnecessarily spending millions of tax dollars and disintegrating a skilled and motivated workforce.

The TJCSG significantly deviated from Department guidance to enhance jointness and transformation. Instead, it recommended two specific service-centric realignments (W&A and EW) that would significantly damage joint value and would set Weapons and EW transformation back 15 years. At the same time, these DoD recommendations would while result in loss of valuable intellectual capital, would adversely affect our warfighters and would impose significant unnecessary expenses on the taxpayer.

IV. Poor Execution of Basic Data Analysis and Management Functions

The Technical Joint Cross Service Group did an extremely poor job of analyzing and managing the data which was submitted by both NAWC WD and NSWC PHD. The most egregious example of this poor execution was in the TJCSG handling of what has become known as the “Question 47” data. A description of the Question 47 issue is provided below.

Both sites of Naval Base Ventura County responded to scenario data call TECH 2, but TECH 2 was not the implementing action. TECH 2 was translated into TECH 18, which

was used by the TJCSG in its analysis. The TJCSG analyzed TECH 18 without any input from the Point Mugu or Port Hueneme sites.

The COBRA data indicates that the TJCSG analysis used incorrect numbers. Apparently, the TJCSG made the same mistake across the board for all TECH 18 losing activities. This error is particularly significant for Naval Base Ventura County since it is by far the largest contributor to the TECH 18 scenario. The most significant results are that costs associated with this action were grossly understated, and that the savings associated with this action are extremely overstated

When TECH 2 was issued, guidance included “Report FTEs, equipment and facilities that are within this scenario category (W&A) but are an inextricable part of a specific effort performed by your activity that is not Weapons; however, identify and explain in #USN0047 those areas of conflict.”

NBVC personnel argued that it would not be appropriate to include NAWC Sea Range, Targets and NSWC Weapons Systems Integration personnel in this data call response. In particular, the Sea Range personnel spread their work across all Defense Technical Areas, including Air Platforms and Space Systems. Additionally, these personnel do not work on weapons and armaments; they work on range and target systems. In prior scenarios this inseparable work was not included in the personnel and equipment movement, dynamic costing or military construction requirements as they were never intended to be moved by either the gaining or losing activities.

After much discussion between Navy principals, NAWC WD and NSWC PHD were directed to include the higher numbers of personnel, but to describe these “inextricable” personnel in Question 47. The NAWC WD Question 47 wording submitted was:

“The following areas would require a reduction in the number of personnel, equipment, and facilities to be relocated to the receiving site: (1) F-14 weapons system support has been terminated, a reduction of 132 civilians and 24 contractors; (2) An error of 33 civilians performing EW support; (3) personnel, mission equipment, and facilities performing outdoor air range operations. These are an integrated, fixed base capability that must remain at the Point Mugu site to continue sea range operations, net reduction of 505 civilians, 153 contractors, 2667 tons of mission equipment, and 1022.4 KSFT of facility space; (4) Retaining the 3 anechoic chambers whose primary customer is the targets range complex, a net reduction of 14 civilians, 3 contractors, 90 tons of support equipment, and 44.2 KSF; (5) Keeping logistical support for targets with the targets hardware, a net reduction of 24 civilians,; and (6) Not moving the general and administrative support that currently services both China Lake and Point Mugu, a net reduction of 143 civilians and 22 contractors.”

This statement was inclusive of mission equipment and facilities performing outdoor air range operations include both range and target operations.

In the SECDEF recommendation coming from TECH 18 the impact on the community is shown as a total of 2250 direct jobs. It is clear none of the question 47 reductions were applied in the recommendation.

This impact of the ignoring the question 47 reduction in TECH 18 is significant. None of the cost of the mission equipment nor operational considerations to make a mission capable range were included but all of the personnel would be moved to China Lake. Neither the losing nor receiving sites included dynamic or facility costs to relocate the functions identified in question 47. Since the analysis used the full personnel movements without the accompanying costs, the return on investment calculation is incorrect.

A similar problem occurred with the NSWC Port Hueneme in TECH 2A. Mission critical inextricable functions with personnel counts were included in the certified question 47 response but were excluded from the TECH 18 analysis. The certified data indicated a total of approximately 432 direct jobs in the movement tables but indicated only 134 were movable due to the inextricable functions being performed at the Hueneme site. Subsequently, the recommendations stemming from TECH 18 included all the personnel in the move without regard to the input from the site experts.

Since the DoD recommendations were published on May 13th, both the Navy personnel at NBVC and personnel outside the base, including elected officials, have been trying to find out what the TJCSG did with the Question 47 inputs. Answers have included:

From the Lead of the W&A subgroup of the TJCSG: "I don't know."

From the GAO inquiry: "A Navy official said that most Navy activities asked to exclude large numbers of personnel from consideration in recommendations and the technical group was consistent in disregarding these exclusions." (In a telephone conversation with the GAO personnel who researched this subject, we were told that their DoD point of contact told them that the TJCSG analysts did not understand the Question 47 exclusions, so they ignored them.)

In a response to Congressman Gallegly's question on why the TJCSG ignored the Question 47 exclusions, Mr. Alan R. Shaffer, Executive Director of the TJCSG, responded: "Naval Base Ventura County information was reviewed but not included in the final analysis due to expert military judgment."

A summary of the timeline of what we think happened is provided below:

- (1) NBVC personnel who prepared the data call responses identified the inconsistencies and confusion that would result if they lumped all personnel into "W&A" or "C⁴ISR" categories.
- (2) NBVC personnel were directed to include all of the W&A and C⁴ISR personnel, but were told to identify areas of conflict for those personnel considered to be an inextricable part of their activity's mission in their Question 47 inputs.

(3) NBVC operated in good faith by identifying all positions in each category, and also specifically identified those positions considered inextricable in their Question 47 responses.

(4) TJCSG personnel did not understand the Question 47 exclusions, did not ask NBVC personnel for clarification and ignored the data.

(5) DoD rolled up all of the realignment numbers, including those from the TJCSG, and published a recommendation to realign 2250 NBVC personnel, when the correct number, subtracting the Question 47 exclusions, should have been 803.

Bottom line position: Improperly realigning the 1447 inextricable NBVC personnel, with the resulting loss of intellectual capital, adverse effects on the warfighter and unnecessary expense to the taxpayer, due to TJCSG staff incompetence / inattention to detail is an egregious error which should be corrected by the Commission.

VI. Conclusions

The Technical Joint Cross Service Group significantly deviated from BRAC law, specifically in not complying with the defined Selection Criteria.

These deviations resulted in faulty realignment recommendations regarding Electronic Warfare; Range, Targets and Range Support Aircraft; Weapons and Armaments; and C⁴ISR functions at NBVC.

The Technical Joint Cross Service Group significantly deviated from internal DoD guidance to enhance Jointness and Transformation.

These deviations resulted in faulty realignment recommendations regarding Electronic Warfare and Weapons and Armaments functions at NBVC.

The Technical Joint Cross Service Group did a very poor job of basic data analysis and management.

These errors resulted in faulty realignment recommendations regarding Range and Targets, Weapons and Armaments, and C⁴ISR functions at NBVC.

The bottom line is that the Technical Joint Cross Service Group did an extremely poor job of judging military value, considering Jointness and Transformation and analyzing and managing the data. A majority of their realignment recommendations simply do not make sense. Most of the affected positions are not synergistic with the Weapons and Armaments and Electronics Warfare work at China Lake, nor with the C⁴ISR work at Pt. Loma. These jobs are integral to the existing NAWC WD Sea Range and EW Center of Excellence and to the NSWC PHD shipboard combat systems integration laboratory. Realigning these positions to China Lake would result in significant losses of intellectual capital, would adversely affect our warfighting capabilities and would waste hundreds of millions of dollars of taxpayers' money.

VII. Recommendations

Detailed recommendations for changes to be made to the DoD recommendations are provided below:

Modify the DoD Recommendation: “Realign Naval Base Ventura County, Point Mugu, CA, by relocating all Weapons and Armaments Research, Development & Acquisition, and Test & Evaluation to Naval Air Weapons Station China Lake, CA.”

Reduce the number of Range, Targets, Anechoic Chamber, Logistics and G&A positions to be realigned from Naval Air Warfare Center, Point Mugu by the number defined as being inextricable to the command’s core mission. Specifically, reduce the number of positions to be realigned by 851 civilian and 202 contractor positions.

Reject the recommendation to move the VX-30 test squadron from Pt. Mugu to China Lake. Retain the Test Squadron Range Support Aircraft base of operations at Pt. Mugu. Specifically, reduce the number of positions to be realigned by 32 civilian and 214 military positions.

Modify the DoD 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.”

Reduce the number of Weapons and Armament positions to be realigned from Naval Surface Warfare Center, Port Hueneme by the number defined as being inextricable to the command’s core mission. Specifically, reduce the number of positions to by 291 civilian and 6 military positions.

Modify the DoD Recommendation: “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.”

Specifically reduce the number of C⁴ISR jobs to be realigned from Naval Surface Warfare Center, Port Hueneme by the number defined as being inextricable to the command’s core mission. Reduce the number of positions to be realigned by 96 civilian and 1 military positions.

Reject the DoD Recommendation: “Realign Naval Air Warfare Center, Weapons Division, Point Mugu, CA. Relocate the Sensors, Electronic Warfare (EW), and Electronics Research, Development, Acquisition, Test & Evaluation (RDAT&E) functions to Naval Air Warfare Center, Weapons Division, China Lake, CA.” Retain

Electronic Warfare RDATE&E functions at Naval Air Warfare Center, Weapons Division,
Pt. Mugu.



Department of the Navy
DON Analysis Group

Close NAS Point Mugu Discussion

Close NAS Point Mugu. Relocate operating squadrons to NAS North Island. Relocate the surface launch test facility to Vandenberg AFB. Relocate RDAT&E for weapons and armaments, sensors, electronics, and EW to China Lake.

Scenario	One-Time Costs	Steady-State Savings	ROI Years	20 Year NPV
TECH-0018D	130.6	-42.5	3	-409.2
TECH-0054	72.7	-6.6	13	-13.1
DON-0162	370.9	-64.6	4	-393.2
Combined	574.2	-113.6	3	-815.5

- DON leadership reviewed closure/retention issue
 - Capacity reductions vs. unencumbered flexibility
- Determined retention was preferred option
- Issue: utilize capacity as receiver site

- Corona
- Others ?



Department of the Navy

DON Analysis Group

Naval Air Station Pt. Mugu, CA

DON-0161B Receiving Installation (Naval Support Activity Corona Closed)

General Environmental Issues:

- Air- Installation is in Severe non attainment for Ozone 1 hr. No Air Conformity determination is required.
- Cultural – Historic property and archeological exists that restrict current construction and operations; consideration for new MILCON.
- TES - Federally-listed TES and critical habitat are present which restrict operations. BIOP places restrictions on operations; consideration for MILCON.
- Waste – No permitted RCRA TSDF or RCRA Part X facility.
- Wetlands – 46% wetlands; consideration for new MILCON.
- No Criterion 8 Environmental Impact from other areas.
 - Refer to SSEI for specifics

7 Apr 2005

*The Lake Norconian Club Historic district covers an area of approximately 75 acres and consists of Lake Norconian and nine buildings and features listed on the National Register of Historic Places. The preservation of the Lake Norconian Club historic district includes the restoration, repair, and preservation of the existing buildings and elements within the district. Lake Norconian is a 55-acre lake with a watershed of approximately 179 acres and supports approximately 20 acres of wetlands. The lake is primarily recharged with piped water maintained by the Navy. Lake Norconian's wildlife diversity consists of at least 126 bird species, 8 species of reptiles and amphibians, 15 mammal species, and 6 fish species making Lake Norconian a highly valued water refuge in the desert environment of Riverside County. In addition, Lake Norconian serves as a winter resting spot for 160 species of migrating birds, including sensitive, rare, and federally listed species. It is important that cultural resource management and natural resource management issues on the installation are maintained throughout the transition of the installation and it is incumbent on the Navy to maintain the caretaker status until the Navy has properly turned over the property to a responsible party.

General Environmental Impacts (Receiving Installations)
(DON Installations only)

Environmental Resource Area	Naval Air Station Point Mugu, CA (Receiving Installation)
Air Quality	Installation is in Severe Non Attainment for Ozone (1 hr). It holds a CAA Major Operating Permit. No SIP growth allowance has been allocated for this installation. No Air Conformity determination is required.
Cultural/ Archeological/ Tribal Resources	Archeological and historical sites exist which restrict current construction or operations. The installation has potential archeological restrictions to future construction.
Dredging	No impact.
Land Use Constraints/Sensitive Resource Areas	Installation reports 174 unconstrained acres are available for development out of 4567 total acres. Installation has Explosive Safety Quantity Distance Arcs, some of which require safety waivers, and some with the potential for expansion.
Marine Mammals/Marine Resources/ Marine Sanctuaries	Installation is impacted by laws and regulations pertaining to Marine Mammal Protection Act, Essential Fish Habitats & Fisheries and Marine Sanctuaries, which may adversely restrict navigation and operations. No impact anticipated for this action.
Noise	No impact.
Threatened& Endangered Species/Critical Habitat	Installation reports that federally-listed TES and critical habitat are present. Installation has a Biological Opinion that places restrictions on operations. Potential impact for new MILCON.
Waste Management	Installation does not have a permitted RCRA Treatment Storage and Disposal Facility (TSDF) or an interim or final RCRA Part X facility.
Water Resources	No impact.
Wetlands	46% restricted wetlands on the installation. Potential impact for new MILCON.



Department of the Navy
DON Analysis Group

Fenceline Closure NAVSUPPACT Corona

- Close Naval Support Activity Corona, CA. Relocate Naval Surface Warfare Center Corona to March ARB or Pt MUGU, CA

SDC#	Closes/Realigns	Billets Elim	Billets Moved	One-Time Costs	Steady-State Savings	ROI Years	20 Year NPV (\$M)
TECH-0060	Closes NAVSUPACT Corona Relocate NSWC to March ARB, CA	139	849	94	-13	6	85
TECH-0060A	Closes NAVSUPACT Corona Relocate NSWC to Pt MUGU, CA	139	849	80.4	-18	3	139

- TJCSG sending CR forward on TECH-0060, MARCH ARB, CA
- DON decision to keep open NAS Pt Mugu should redirect Corona to Pt Mugu as receiver site

IEG Decision:

DON request Pt Mugu as receiver site

**Naval Base Ventura County BRAC Facilities Visit
7 July 2005**

NAWC WD Point Mugu						
Building	Tenant	Out-going Facility Space	Building Area (SF)	BRAC #	BRAC #	NOTES
36	NAWC WD	General Administrative Building	141,292	TECH 18(2B)	TECH 54	Vacating a portion of building
356	NAWC WD	Missile Prep Building and Communication Maint Shop	27,386	TECH 18(2B)		
335	NAWC WD	Missile Preparation Building Guided Missile Lab	3,593	TECH 18(2B)		
3008	NAWC WD	Electronic Warfare Systems Laboratory	79,242		TECH 54	
3009	NAWC WD	Hangar/Missile Support Equipment Laboratory	29,041		TECH 54	
3015	NAWC WD	Missile Systems Evaluation Laboratory	122,986	TECH 18(2B)	TECH 54	
512	NAWC WD	Component Test Building/Optics Laboratory	79,769	TECH 18(2B)		
7020	NAWC WD	Weapons System Support Facility - Computation/Analysis	40,416	TECH 18(2B)		
761	NAWC WD	Combined Research Lab - Missile Systems Integration	60,936	TECH 18(2B)		
372	NAWC WD	VX-30 Maintenance Hangar	55,292	TECH 18(2B)		
351	NAWC WD	Aircraft Systems Integration/Missile Laboratory	82,361	TECH 18(2B)		
520	NAWC WD	Missile Test Cell Control	920	TECH 18(2B)		
521	NAWC WD	Missile Assembly Building	2,932	TECH 18(2B)		
522	NAWC WD	Missile Test Cell	726	TECH 18(2B)		
523	NAWC WD	Control Building	925	TECH 18(2B)		
524	NAWC WD	Missile Test Cell	790	TECH 18(2B)		
525	NAWC WD	Equipment Building	960	TECH 18(2B)		
526	NAWC WD	Missile Test Cell	782	TECH 18(2B)		
527	NAWC WD	Missile Test Cell	726	TECH 18(2B)		
528	NAWC WD	Control Building	925	TECH 18(2B)		
240 (Camarillo)	NAWC WD	Navy Ranges Target Offices/Administrative Building	10,410	TECH 18(2B)		
244 (Camarillo)	NAWC WD	Fleet Weapons Engineering/Administrative Space	10,410	TECH 18(2B)		
246 (Camarillo)	NAWC WD	Fleet Weapons Engineering/Administrative Building	25,764	TECH 18(2B)		
248 (Camarillo)	NAWC WD	Fleet Weapons Engineering/Administrative Building	16,080	TECH 18(2B)		
Incoming NSWC Corona						
Building (Point Mugu)	Incoming Tenant	In-coming Facility Space	In-coming Area (SF)	BRAC #		NOTES
36	NSWC Corona	Administrative Building	33,252	DON 161B		
3008	NSWC Corona	RDT&E Lab Rehab	74,568	DON 161B		
3015	NSWC Corona	RDT&E Lab Space, Rehab	111,530	DON 161B		
512	NSWC Corona	SE Range Instr Lab Storage Rehab	8,745	DON 161B		
7020	NSWC Corona	RDT&E Lab/MS Rehab	40,416	DON 161B		Unable to Retrofit. Area includes FAC 3151 .
761	NSWC Corona	RDT&E Lab/Storage Rehab	49,249	DON 161B		Unable to Retrofit. Area includes FAC 3151 (11,829 SF) and FAC 3191 (37,420 SF)
New Construction (Proposed)	NSWC Corona	RDT&E MS Lab/Storage Rehab	89,665	DON 161B		MS Lab Site Requirements: Away from Ocean Breakers due to vibration, humidity, salinity. Unable to retrofit B761 and B7020 due to environmental controls and certification requirements.
NSWC PHD						
Building (Port Hueneme)	Tenant	Out-going Facility Space	Building Area	BRAC #		NOTES
5	NSWC PHD	Engineering/Administrative Building	8,760	TECH 18(2A)		2nd Deck would be vacated (8,760 SF)
1380	NSWC PHD	Engineering/Administrative Building	15,749	TECH 18(2A)		Small area vacated
1387	NSWC PHD	Weapons Integration Laboratory	112,184	TECH 18(2A)		Small area vacated
1388	NSWC PHD	Engineering Center	107,368	TECH 18(2A)		Small area vacated

**Naval Base Ventura County BRAC Facilities Visit
7 July 2005**

NAWC WD Point Mugu						
Building	Tenant	Out-going Facility Space	Building Area (SF)	BRAC #	BRAC #	NOTES
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3015	NAWC WD	Missile Systems Evaluation Laboratory	122,986	TECH 18(2B)	TECH 54	
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525	NAWC WD	Equipment Building	960	TECH 18(2B)		
526	NAWC WD	Missile Test Cell	782	TECH 18(2B)		
527	NAWC WD	Missile Test Cell	728	TECH 18(2B)		
528	NAWC WD	Control Building	925	TECH 18(2B)		
240 (Camarillo)	NAWC WD	Navy Ranges Target Offices/Administrative Building	10,410	TECH 18(2B)		
244 (Camarillo)	NAWC WD	Fleet Weapons Engineering/Administrative Space	10,410	TECH 18(2B)		
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Building (Point Mugu)	Incoming Tenant	In-coming Facility Space	In-coming Area (SF)	BRAC #		NOTES
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NSWC PHD						
Building (Port Hueneme)	Tenant	Out-going Facility Space	Building Area	BRAC #		NOTES
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1387	NSWC PHD	Weapons Integration Laboratory	112,184	TECH 18(2A)		Small area vacated
1388	NSWC PHD	Engineering Center	107,368	TECH 18(2A)		Small area vacated

Reference #DON033_PM: Military Construction Requirements - Receiving								
SCENARIO DON-0161B DDC SERT772 18Mar05								
Action # (-)numeric	FAC CODE (-)string50	FAC DESCRIPTION (Text) string50	Unit of Measure (Text) string50	QTY (based on UM) (#) numeric	Revised QTY	Rehab (based on UM) (#) numeric	Type (List) multiple choice	Rationale (Text) string4000
2	6100	General Administration Building	SF	28000	33,252	33,252	default	Admin Space, Rehab PM36
2	3151	Weapons Support Laboratory	SF	3220	Delete			Weapons Support Lab
2	3191	Miscellaneous Item and Equipment RDT&E Facility	SF	29840	Delete			Technical Storage/Library
2	3191	Miscellaneous Item and Equipment RDT&E Facility	SF	37420	Delete			Metrology/Calibration Engineering Lab
2	3151	Weapons RDT&E Facility	SF	55400	52,245	52,245	default	RDT&E Lab MS, Rehab PM7020
2	3151	Weapons RDT&E Facility	SF	46400	Delete			Lab Office Space (Joint Warfare Assessment Lab) Secure Level II
2	6100	General Administration Building	SF	390				Secure Storage (Joint Warfare Assessment Lab)
2	6100	General Administration Building	SF	450	Delete			Secure Conference Room (Joint Warfare Assessment Lab)
2	6104	Automated Data Processing Center	SF	2100	Delete			Secure VTC (Joint Warfare Assessment Lab)
2	3121	Missile and Space RDT&E Facility	SF	20300	Delete			SCIF - Secure Level III Lab (Joint Warfare Assessment Lab)
2	3171	Electronic and Communication RDT&E Facility	SF	24075	74,568	74,568	Amber	RDT&E Lab, Rehab PM3008
2	7431	Auditorium and Theater Facility	SF	6075	Delete			Secure Auditorium (Joint Warfare Assessment Lab)
2	3121	Missile and Space RDT&E Facility	SF	12480	Delete			Quality Assessment Integration Lab
2	3121	Missile and Space RDT&E Facility	SF	1300	Delete			Quality Assessment Integration Lab Secure Level II
2	3121	Missile and Space RDT&E Facility	SF	53800	70,534	70,534	Amber	RDT&E Lab Space, Rehab PM3015
2	3171	Electronic and Communication RDT&E Facility	SF	35200	Delete			Lab Office Space (Systems Integration & Testing Lab)
2	6100	General Administration Building	SF	7110	Delete			Conference Rooms
2	7431	Auditorium and Theater Facility	SF	7480	Delete			Academic Instruction Lab
2	6104	Automated Data Processing Center	SF	9230	Delete			Data Processing Center, Rehab PM3015
2	3171	Electronic and Communication RDT&E Facility	SF	1980	Delete			Data Distribution Lab/Shop
2	3171	Electronic and Communication RDT&E Facility	SF	4210	Delete			Telemetry Network Lab
2	3191	Miscellaneous Item and Equipment RDT&E Facility	SF	13110	78,416	40,996	Amber	RDT&E Lab/Storage Rehab PM3015
2	3191	Miscellaneous Item and Equipment RDT&E Facility	SF	13110	78,416	37,420	Red	RDT&E Lab/Storage Rehab PM761
2	3191	Tactical Range Systems Storage	SF	33150	Delete			Tactical Range Systems Storage
	4421	Covered Storage Building, Installation	SF		8,745	8,745	Red	SE Range Instr Lab Storage, Rehab PM512
2	8521	Vehicle Parking, Surfaced	SY	19250	1920	Delete		Vehicle Parking

Deletes are by NAVSEA

Department of the Navy



INFRASTRUCTURE ANALYSIS TEAM

ODASN (IS&A), 2221 South Clark Street, Suite 900, Arlington, VA 22202

(703)-602-6500

RP-0575

IAT/JAN

11 April 2005

MEMORANDUM FOR THE INFRASTRUCTURE EVALUATION GROUP (IEG)

Subj: REPORT OF IEG DELIBERATIONS OF 31 MARCH 2005

Encl: (1) DON Analysis Group Brief to IEG of 31 March 2005.

1. The forty-second deliberative session of the Department of the Navy (DON) Infrastructure Evaluation Group (IEG) convened at 1004 on 31 March 2005 in room 4D447 at the Pentagon. The following members of the IEG were present: Ms. Anne R. Davis, Co-Chair; VADM Justin D. McCarthy, USN, Member; VADM Kevin J. Cosgriff, USN, Member; LtGen Richard L. Kelly, USMC, Member; LtGen Michael A. Hough, Member; Mr. Nicholas J. Kunesh, alternate for Dr. Michael F. McGrath, Member; Mr. Robert T. Cali, Member; Mr. Ronnie J. Booth, Navy Audit Service, Representative; and, Mr. Thomas N. Ledvina, Navy Office of General Counsel (OGC), Representative. The following members of the DON Analysis Group (DAG) were present: RADM Christopher E. Weaver, USN; Mr. Thomas R. Crabtree; Ms. Ariane Whitemore; Ms. Carla Liberatore; and, Mr. Paul Hubbell. The following members or representatives of the Functional Advisory Board (FAB) were present: RADM(sel) Alan S. Thompson, SC, USN; Ms. Susan C. Kinney; Mr. George Ryan; CAPT Nancy Hight, MSC, USN; Mr. Stephen G. Krum; and, Mr. Thomas Grewe. The following members of the IAT were also present: Mr. Dennis Biddick, Chief of Staff; Mr. David W. LaCroix, Senior Counsel; Col Walter B. Hamm, USMC; CAPT Gene A. Summerlin, USN; CAPT Jan G. Rivenburg, USN; Mr. Robert G. Graham; CDR Judith D. Bellas, NC, USN; LCDR Paul V. Neuzil, USN; LCDR Vincent J. Moore, JAGC, USNR; and, Capt James A. Noel, USMC. All attendees were provided enclosure (1).

2. Ms. Davis used slide 3 of enclosure (1) to update the IEG concerning the status of DON Candidate Recommendation package 4 (CR4). She noted that on 30 March 2005, DON senior leadership approved the following candidate recommendations: DON-0133 (close Naval Ship Yard (NSYD) Portsmouth, ME), DON-0157 (close Marine Corps Support Activity (MCSA) Kansas City, MO), DON-0158A (close Naval Support Activity (NSA) New Orleans, LA) and DON-0168A (relocate Naval Warfare Development Center (NWDC) from NAVSTA Newport, RI to Hampton Roads, VA). Ms. Davis noted that

NSWC PHD Description of Categorization of Civilians in TECH 0002A and 0008B/F SDC

NSWC PHD DONBITS Certified Information:

Action # (List)	FY 2009 (Pers)	Rationale (Text)
9	134	Missile, Gun, or Energetic
9	113	"Other" non Missile, Gun, or Energetic - See Question #47

Discussion: NSWC PHD identified the following 3 categories of Programs in the rationale of Action 9 that were involved in "Weapons and Armament (W&A) excluding Weapon Systems Integration (WSI)" scenario.

- Missile, Guns, or Energetic
- "Other" non Missile, Gun, or Energetic
- In-extricable ISE work from WSI

Here is the rationale used to create these categories:

1. NSWC PHD considered and reconciled our response against all Weapon & Armaments civilians/Programs that were reported in the Capacity Data Call.
2. Programs involved in Weapon Systems Integration (WSI) were eliminated as Action 9 stipulated.
3. Programs that were clearly part of **Missiles, Guns, and Energetics** scope were identified and reported. (Standard Missile (SM), Evolved SeaSparrow Missile (ESSM), and Extended Range Guided Munitions (ERGM).
4. The balance of Programs that were not part of WSI and not part of Missiles, Guns, and Energetics were discussed with NSWC and categorized as follows.
5. Programs that had launchers were to be included within Missiles, Guns, or Energetics scope as **"Inextricable"** In-Service Engineering work from Weapon system Integration. This included RAM System, Vertical Launching System, and NATO SeaSparrow Missile System. Note: these NSWC PHD supported Programs are the launching systems, not the missiles.
6. The remaining Programs clearly were not part of Missiles, Guns, or Energetics; and not part of Weapon Systems Integration; they were **"Other"**. As stated in the rationale and clarified in question 47:
 ""Other" Programs not with in Missiles, Guns, or Energetics scope: NSDSA, STILO, NSPO, Mk74, and Misc Non-Core Support remaining at PHD. "

Therefore NSWC PHD entered three Action 9 responses in DONBITS to illustrate the differences between the three categories and provided additional amplification in question 47.

Reconciling NAWC WD Pt. Mugu and NSWC PHD numbers with BRAC Recommendation:

Adding the three Action 9 entrees above (134+113+178) equals 425 Civilians and follows the requirement for Action 9 to represent "all" Civilians involved. The 425 Civilians above plus 6 Enlisted (no contractors) in the NSWC PHD certified response to DoD38703 equals the 431 that combined with NAWC WD Pt. Mugu's 1817 Officers/Enlisted/Civilians/Contractors (431+1817=2248) appears to be the 2250 direct jobs in the BRAC Recommendation.

TECH 0008B/0008F similarly identified the following NSWC PHD certified information in DONBITS:

Action # (List)	FY 2006 (Pers)	Rationale (Text)
7	6	C4ISR that are to be transferred to SPAWAR

6 Civilians in DCGS-N were certified as "C4ISR that are to be transferred to SAPWAR". 96 civilians were not intended to be part of the C4ISR relocation/realignment, and were certified as "Inextricable" from our In-Service Engineering Weapon System Integration mission. Inextricable Programs include CEC, SIAP, BG T&E, BFTT, NTCSS, and Switchboards. Only Switchboards and CEC have significant numbers of civilians involved.

Summary: Relocation/Realignment of those Programs identified as "Other" and "Inextricable" will critically damage NSWC PHDs ability to perform its mission. If relocated, these resources must be reconstituted for NSWC PHD to perform its mission.

Our response intended to identify only the 134 civilians as being within the scope of Missiles, Guns or Energetics in Scenario TECH 0002A; and 6 civilians within the scope of C4ISR Scenario TECH 0008B/F.

***Commissioner's
Base Visit Book***



**Naval Base Ventura County
(NBVC) Point Mugu, CA**

***The Honorable James H. Bilbray
The Honorable Philip E Coyle III***

July 13, 2005



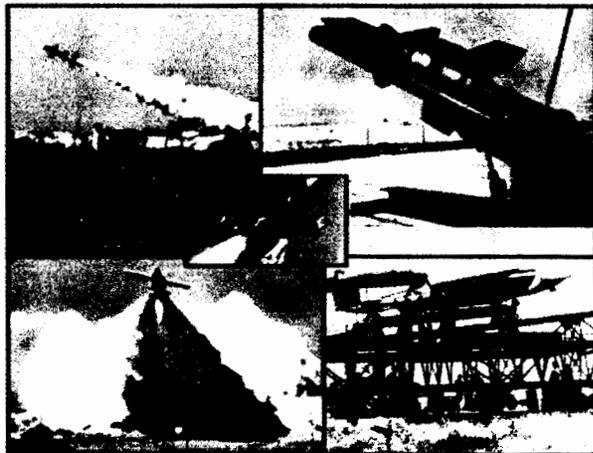
Point Mugu - 60 Years as the Navy's Premiere Target Operating Site



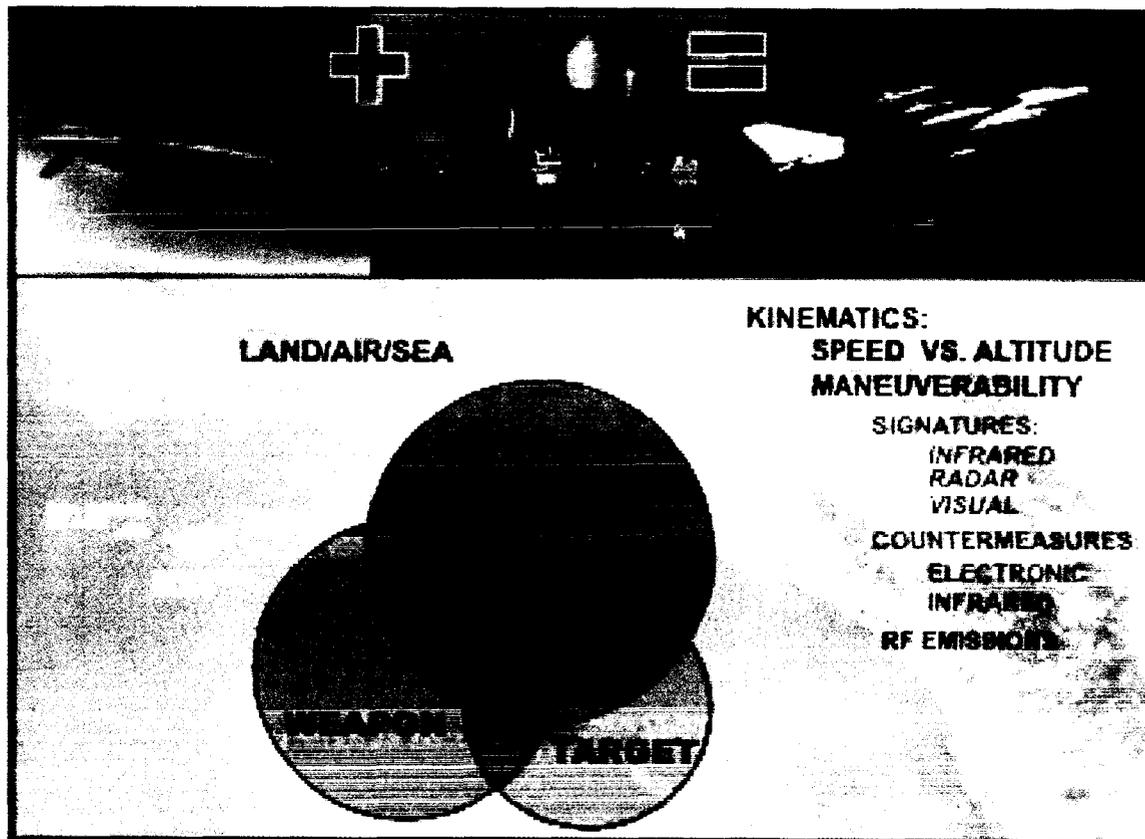
**1945 CNO establishes requirement for missile test center.
Navy pilotless aircraft unit based in Mojave CA**

**1946 PAU moves to Point Mugu
December 13, 1952 first direct hit intercept of Navy Sparrow missile against QB-17 on Sea Range.**

1991 NAVAIR consolidates target development/test at WD.



**OUR MISSION IS TO EMULATE THREATS FOR WEAPONS
AND EW SYSTEMS, TEST AND EVALUATION AND TO
SUPPORT EXPERIMENTATION AND FLEET TRAINING**



UNDERSTANDING THE CRITICAL MASS
Generic/Surrogate/Validated/Replicatable
(Cost Effective Fidelity for T&E)



Military Value of Point Mugu Targets is High

● Test & Evaluation

- Combat Ship Trials (CSSQTs)

- Low altitude cruise and supersonic stream raid presentations to determine readiness for deployment

- Spanish and German AEGIS ship trials

- Low altitude cruise and supersonic stream raid presentations to demonstrate successful integration of systems for US allies

- F-22

- Missile firings required high speed dual and quad target raids as well as a large range area (supported major acquisition milestone)

- GQM-163

- Developmental test of urgently required supersonic sea skimming target (acquisition program milestones)

- Classified Programs

- San Nicolas Island attracts classified programs requiring Target presentations

● Training

- 24 aerial target presentations, 602 seaborne operations, 347 threat aircraft flights with threat pods.



From COMTHIRDFLT:

Please extend my sincere appreciation to the Captains and crews of Atlas, Swiss Ladder 120, Diane G and FACTIHSMTS for their outstanding support during the Carl Vinson Carrier Strike Group PAC JTFEX 05-2. Your enthusiasm, work ethic and can-do attitude were key to ensuring realistic opposing forces support. We could not have conducted this critical exercise without your outstanding efforts. I look forward to working with you and your crews again in the future.

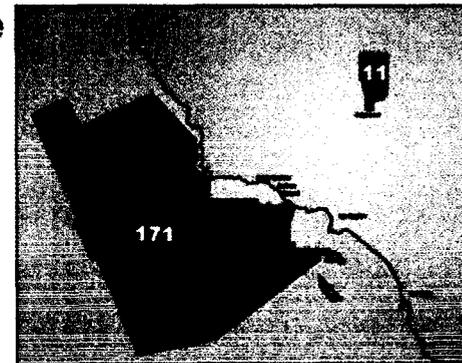
Thank you for a job well done. VADM MCCABE

The Navy's Full Life Cycle Support Activity for Targets and Electronic Threat Systems

- **Only site for:**
 - **T&E of Navy targets**
 - **GQM-163 Supersonic Sea Skimming Target**
 - **BQM-74F Subsonic Aerial Target**
 - **Operates all Navy target and threat systems**
 - **9 Surface**
 - **2 Subsonic**
 - **3 Supersonic**
 - **Develops and exports target configuration/performance enhancements to other operating sites**
 - **OPNAVINST 8000.16B**
 - **Examples (seaborne target swarm capability, LAC,)**
 - **Develops seaborne targets**
 - **Develops airborne electronic threat systems**
- **Technical and logistics support to all Navy operating activities**
- **Navy representative to Targets Reliance Panel**
 - **Navy leadership in 7 of 13 Reliance areas**

Targets are Integral to the Sea Range

- **Sea Range requires aerial target ground launch capability**
 - **Supersonic targets from San Nicolas Island**
 - **Many subsonic configurations require ground launch**
- **Subscale target decontamination and engine run facilities**
 - **Decontamination of salt water from engine and engine run within 4 (for BQM-74) and 6 (for BQM-34) hours from splash down**
 - **Requires disassembly of BQM-34**
- **RCS Chamber**
 - **Customers demand validated Signature information**
- **Seaborne Targets operate from Port Hueneme**
 - **Capabilities support range surveillance and clearance**
 - **Aerial and seaborne engineering and operations personnel shared**
- **Integration and test of aerial and seaborne target control, threat system and other equipments requires proximity to land and sea targets, their unique test equipment and Range instrumentation.**
- **171 aerial target operations at Point Mugu, 11 at China Lake (FY04 to May 05)**



Knowledge and Experience of Our Workforce is Critical to Navy T&E

- **Expertise in foreign threats and electronic emissions**
- **Ability to develop high fidelity simulators**
 - **Some ahead of target vehicles**
 - **Validated through a formal DoD Process**
- **Expertise in electronic miniaturization technology**
 - **To integrate threat systems into anti-ship cruise and supersonic targets**
- **Target system and range integration expertise**
 - **Harpoon seeker integration in subsonic target**
 - **Swarm capability for seaborne targets**
 - **Development of Common Digital Architecture for avionics integration**
 - **Classes for industry and government**
 - **CDA adopted for Army Targets**
 - **Used in Navy vertical take-off UAV**
- **Target Operations expertise**
 - **On NAVAIR ranges and deployments**
- **Target failure engineering investigation expertise and process**



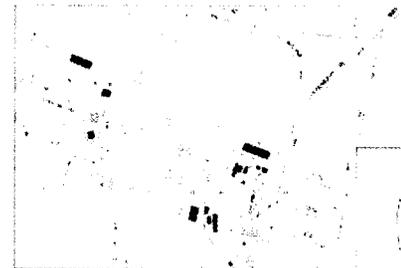
Our Workforce Is Educated, Dedicated, Capable and Experienced

● Human Capital of Threat/Targets Department

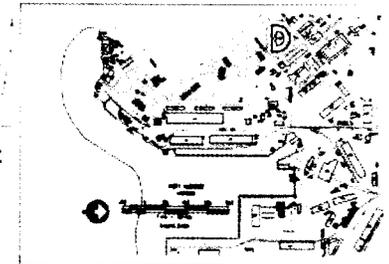
- No of personnel impacted: 167 (Civil Service)
- Avg Years of Expertise in this area: 19.4
- % of FERS employees: 59.3%
- % of civilians with 4 year degrees: 61%
 - 25% of these with advanced degrees

● Impact of Move

- Civil Service: 167 at Pt Mugu
- Facility needs 243K sq ft of:
 - Shop/hanger/Decontamination/Engine run (with access to runway): 61,986 sq ft
 - Office: 41,535 sq ft
 - Labs/Secure facilities: 62,403 sq ft
 - Spares storage: 77,755 sq ft

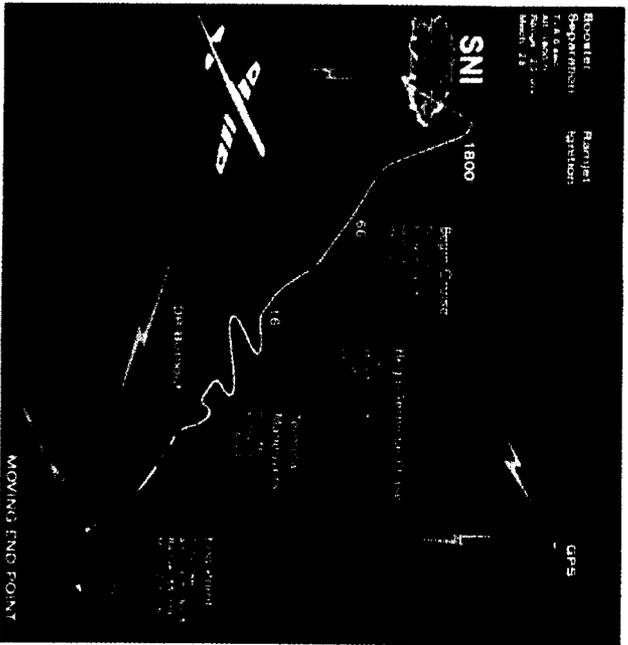
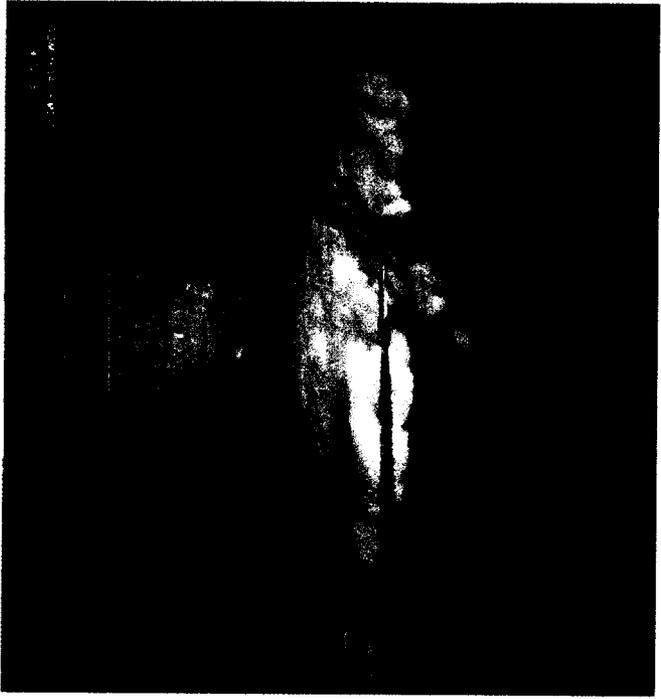


Aerial Targets, Threat Simulators, Pt Mugu

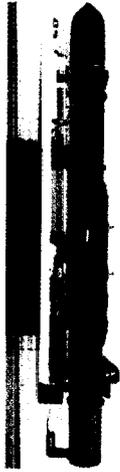


Seaborne Targets, Port Hueneme

Testing and Evaluation of a Sea Skimming Supersonic Target



Threat Simulation



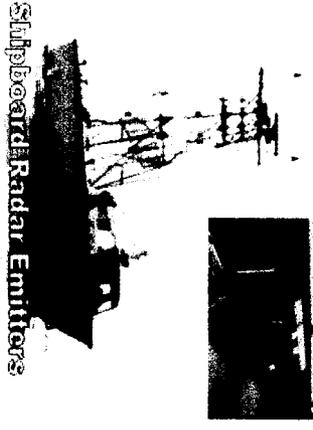
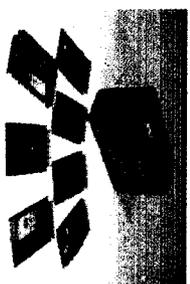
Radar Simulator



Ground Based Simulator

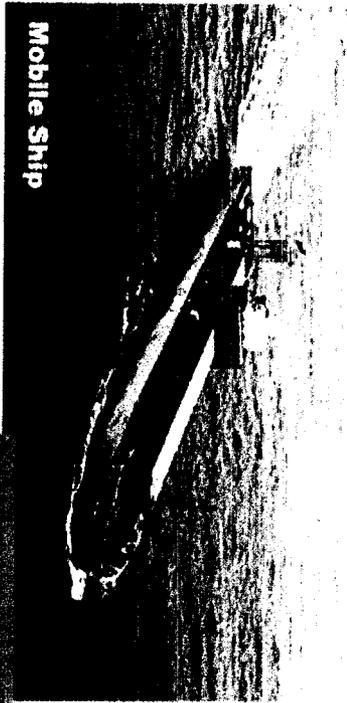


Antennas

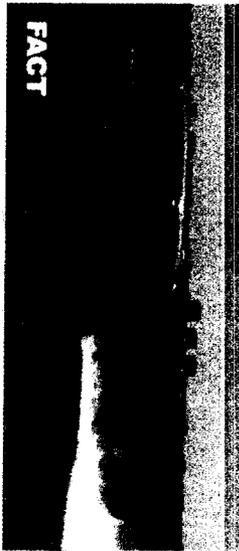


Shipboard Radar Emitters

Seaborne Targets



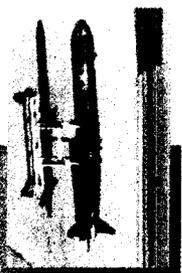
Mobile Ship



FACT



Aerial Targets



BQM-74



MA-51 SSST



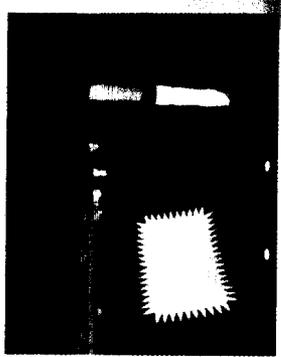
BQM-34



BQM-163 SSST



AQM-37



Summary

- **Threat/Target Systems Department (TTSD) mission requires co-location with the Pt. Mugu Sea Range and RCS facility**
- **TTSD Pt Mugu is the consolidated center for Navy Target/Threat development, test, evaluation, training and operations**
- **Current location of TTSD at NAWC WD Pt Mugu provides critical support to Joint/Allied warfighter readiness, training, homeland security exercises & range surveillance required by customers of the Pt Mugu Sea Test Range**



The War fighter Says Our Value Is High

From COMCARGRU ONE:



Please extend my sincere appreciation to your outstanding cadre of surface units who formed the SUW Opposition Forces and provided target vessels in support of the USS JOHN C. STENNIS carrier Strike Group Comptuex. Surface Warfare Training was significantly enhanced by the support of MIV ATLAS, SL-120, and the HSMSTS. Their deft handling of scenario play exposed the strike group to realistic contacts of interest and was essential to integrated multi-mission training.

Furthermore, the Electronic Warfare Team...essential in providing realistic Electronic Surveillance Training to the strike group. Their flexibility in loading new, theater specific signals into the simulator pods loaded on OPFOR aircraft and the SL-120, as well as maintaining these pods, allowed the Stennis Strike Group uninterrupted signal training throughout multiple SOE events and all scenario play.

Thank you for a job well done. RDML C. B. Jewett

✓

Commission Briefing

BRAC 2005

Radar Reflectivity Laboratory

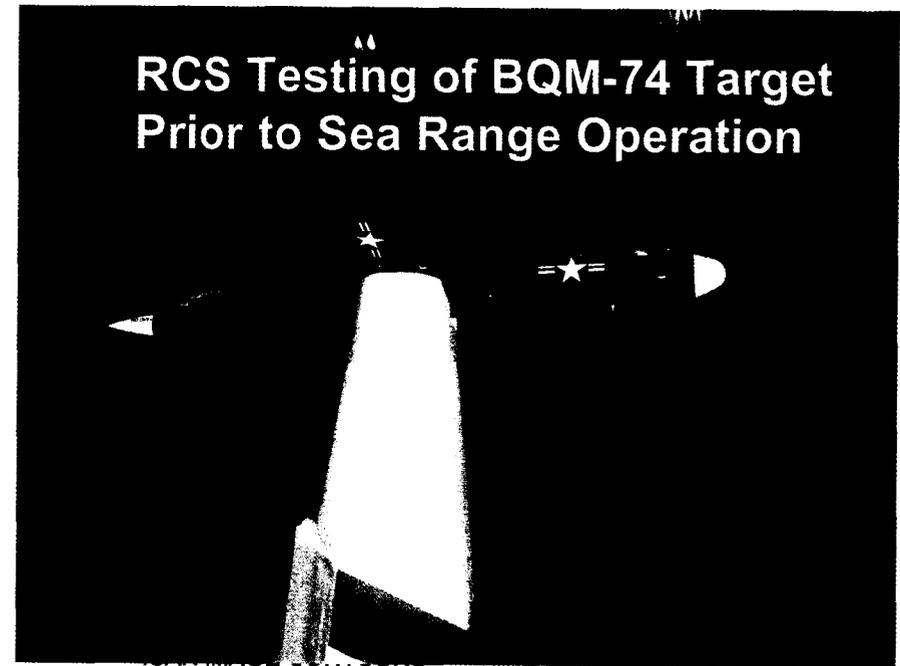
Don Hilliard

805-989-9370

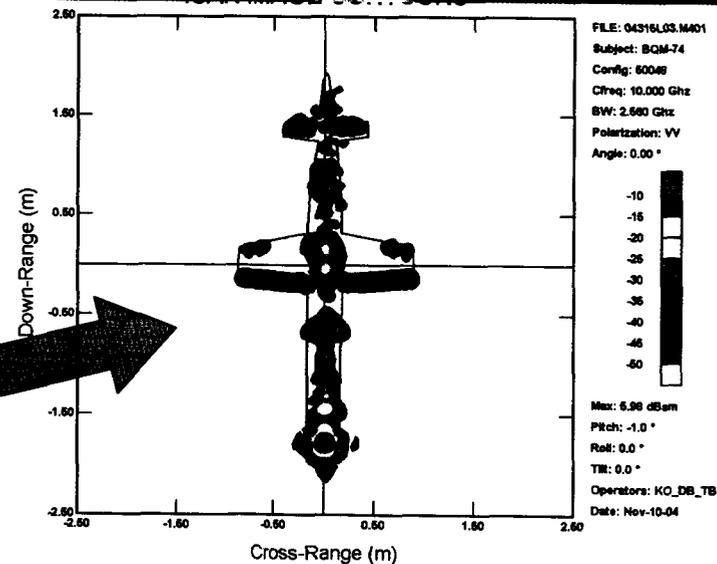
donald.p.hilliard@navy.mil

RADAR REFLECTIVITY LABORATORY

- **Why is the Radar Reflectivity Laboratory at Point Mugu?**
 - **Targets Operations** is the principle reason for having the Radar Reflectivity Laboratory (RRL) at Point Mugu
 - The RRL provides critical Monostatic and Bistatic Radar Cross Section (**RCS**) measurements of targets that accurately replicate threat systems in flight on the Sea Range
 - **Over 50%** of the RRL work supports the Point Mugu Targets Department



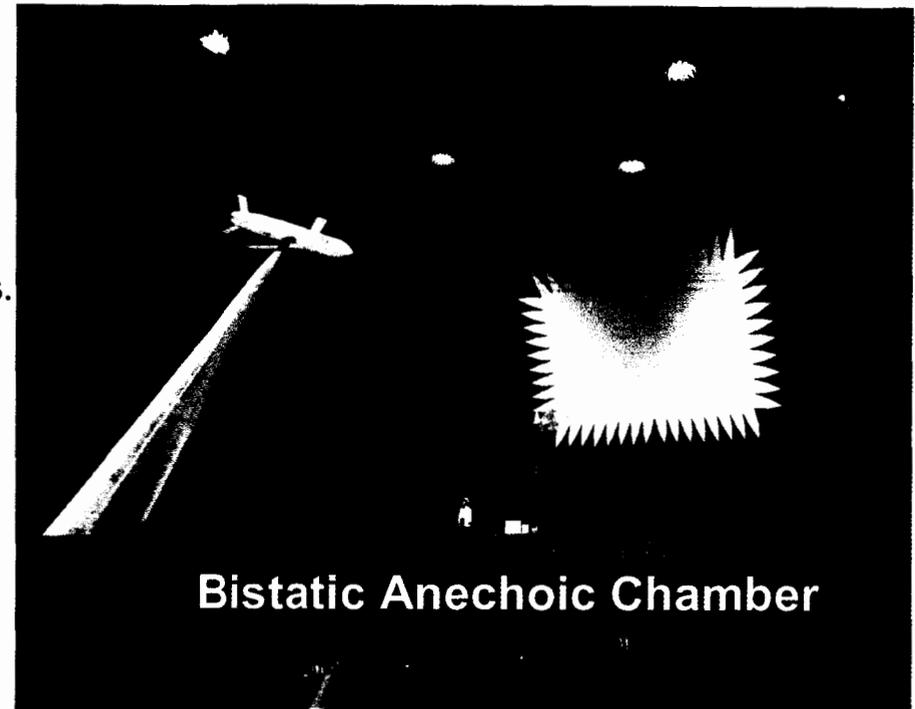
**RCS Analysis of BQM-74 Target
Ensuring Proper Radar Signature
Prior to Sea Range Operational Flight**



RADAR REFLECTIVITY LABORATORY

- **FUNCTION**
 - Characterize Monostatic and Bistatic Radar Cross Sections (**RCS**) of U.S. and Foreign weapon systems and surrogate Threat Targets.
- **CAPABILITY**
 - Highly secure indoor TS/SAR Facilities
 - **Bistatic Anechoic Chamber**
 - Size: 150' (W) x 150' (L) x 60' (H)
 - Frequency ranges: 100 MHz to 100 GHz
 - Full Bistatic Angular Coverage: 0 – 180 degrees (Horz.), 0 – 90 degrees (Vertical)
 - *No other facility like this in DOD or private industry*
 - **Large Monostatic Anechoic Chamber**
 - Size: 40' (W) x 100' (L) x 40' (H)
 - Frequency Range: 800 Mhz to 100GHz
 - **Monostatic Anechoic Chamber**
 - Size: 27' (W) x 57' (L) x 17' (H)
 - Frequency Range: 1 – 100 GHz

***Over 76,000 square feet
of facility space***



Bistatic Anechoic Chamber



**Large Monostatic
Anechoic Chamber**

RADAR REFLECTIVITY LABORATORY

- **SIGNIFICANT ISSUES**

- Unique ***DOD national assets*** and ***highly specialized expertise*** in RCS RDAT&E
- Broad Customer base: **Tri-services**, Private Industry, Foreign Countries
- DOD Programs cannot cope with significant downtime in RCS testing
 - RCS testing and analysis for customer requirements is **constant all year** round with about **110+ DOD Programs supported** annually
- Close proximity to related laboratories, Test Ranges, Target Systems and Local Weapon Developers.
 - Synergy and operational efficiency provided by co-location with Target Systems Department and Sea Test Range at Point Mugu in support of DT and OT missions
- The high precision RCS test equipment in the anechoic chambers requires mild temperatures to function

RADAR REFLECTIVITY LABORATORY

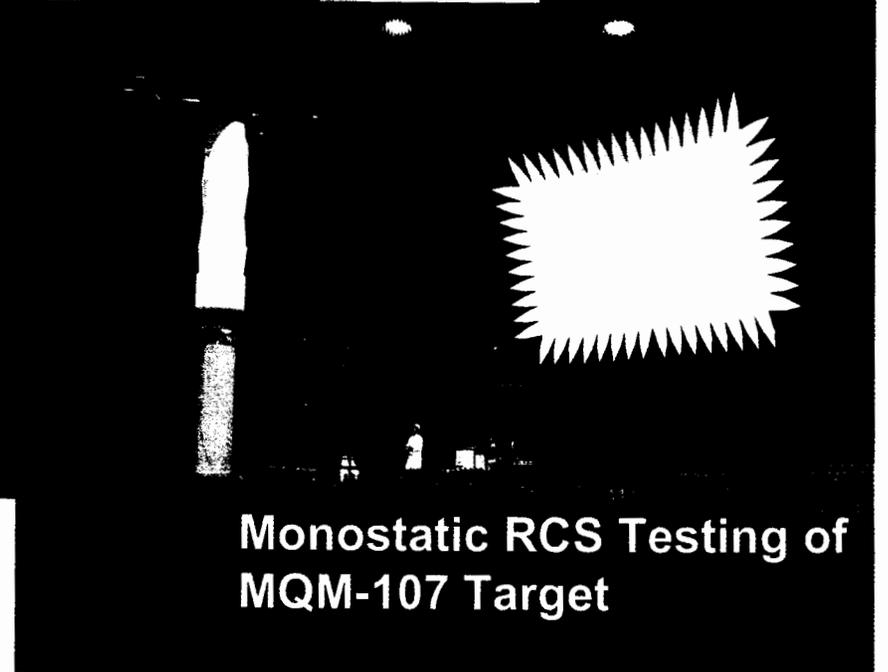
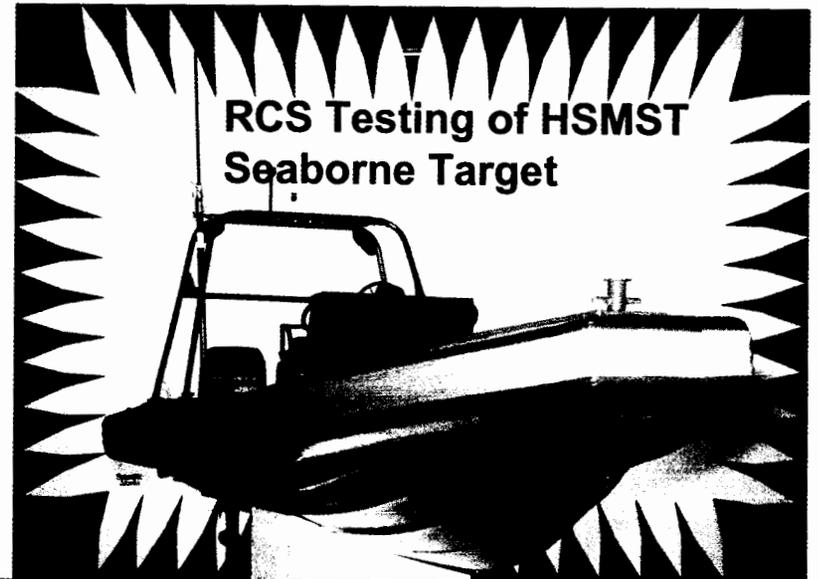
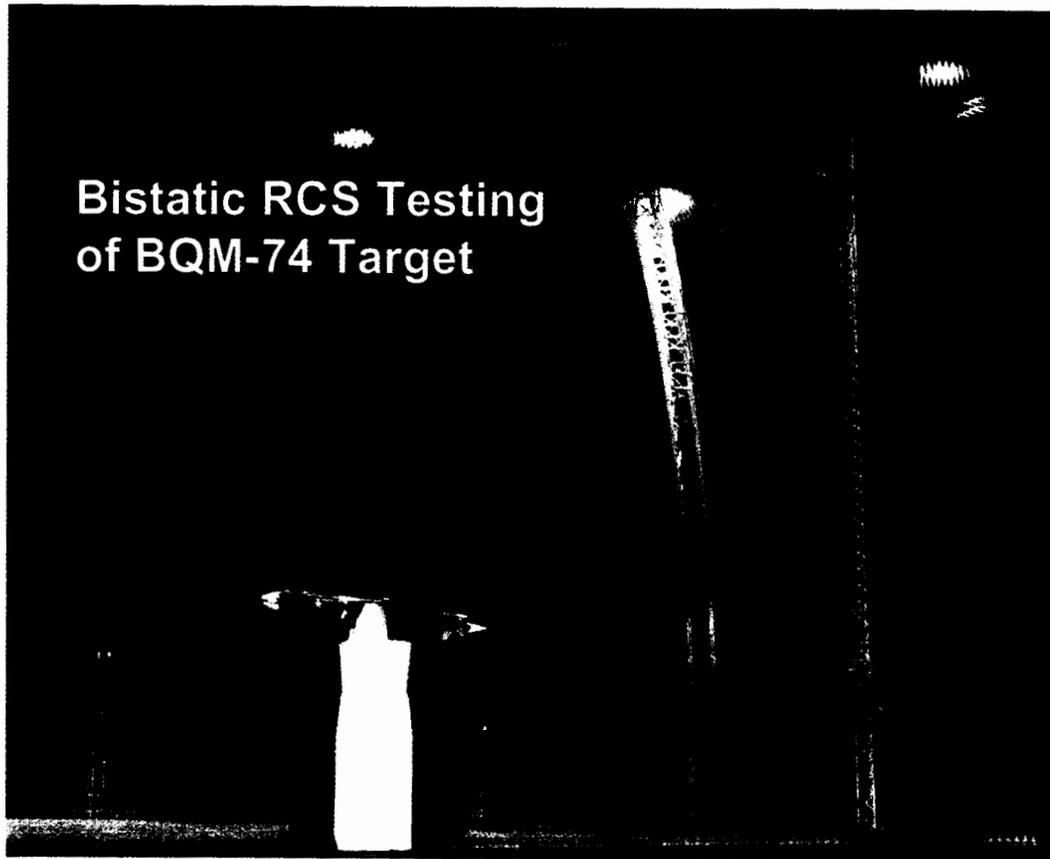
- **MAJOR DOD PROGRAMS IMPACTED BY MOVE**
 - **National Ballistic and Cruise Missile Defense**
 - Characterize Actual Threats and Develop **Target Systems** with Accurate Radar Signature for DT and OT Flight Testing on **Sea Range**
 - **Navy stealth ship development**
 - DDX
 - Current DDG's
 - Littoral Combatant's
 - **Stealth Air Platforms**
 - Joint Strike Fighter, F-22, others
 - Combat UAV
 - **Network Centric Warfare/C4IR/Intelligence**
 - Threat Signature Characterization
 - **Advanced Weapons**
 - JSOW and others
 - **Home Land Defense**
 - Special Projects

RADAR REFLECTIVITY LABORATORY

- **EXAMPLE CUSTOMERS**
 - **Targets Department**
 - **Target systems** are RCS tested and analyzed prior to launch on **Sea Range**
 - **Missile Defense Agency**
 - **MDA** depends heavily on Point Mugu RCS Laboratory for characterizing the radar signature of **ballistic missile threats** and high-value **ballistic surrogate targets** that accurately emulate these threats in developmental and operational testing on national test ranges.
 - **Navy**
 - **Cruise Missile Defense** programs depend on Point Mugu RCS Lab for same type of function as MDA applied to cruise missile threats
 - **Stealth Weapons (e.g. JSOW)**
 - **Stealth Ships** (DDX, LPD-17, Littoral Combatant)
 - **Air Force**
 - **JSF, F-22, F-117, AMRAAM**
 - **Intelligence Agencies**
 - **Threat Characterization**
 - **Home Land Defense**
 - **Counter Terrorism**

RADAR REFLECTIVITY LABORATORY

RCS Testing of Targets Prior to Sea Range Operations is the Major Function of the RRL (>50% of the Work)



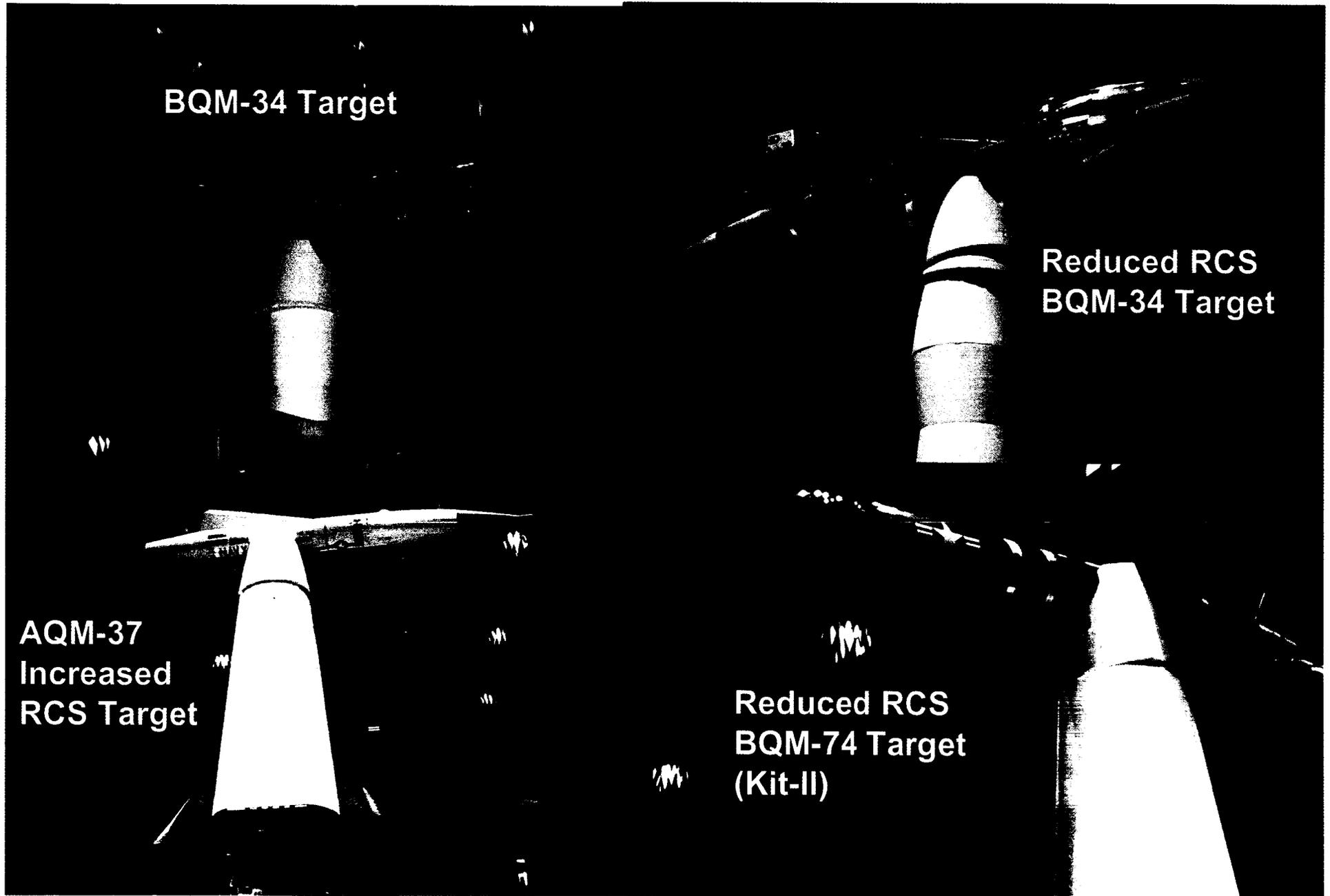
*RRL Ensures that Target RCS Properly Emulates the
Threat Prior to Sea Range Tests*

BQM-34 Target

Reduced RCS
BQM-34 Target

AQM-37
Increased
RCS Target

Reduced RCS
BQM-74 Target
(Kit-II)

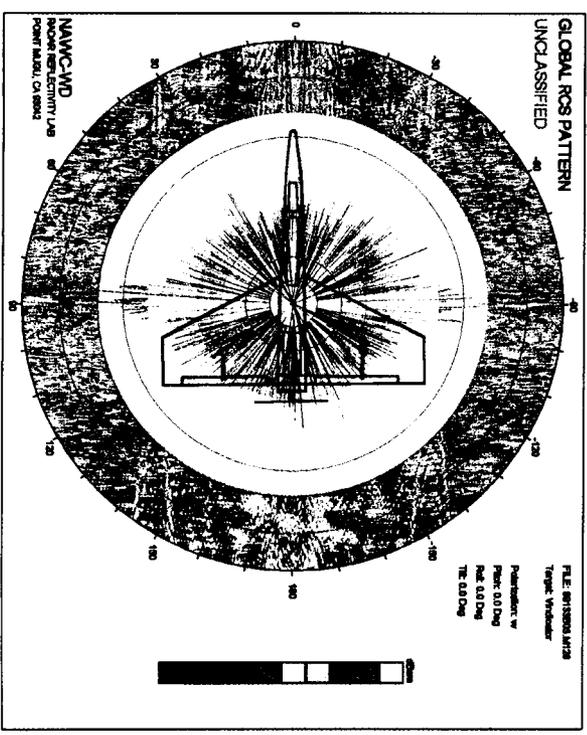
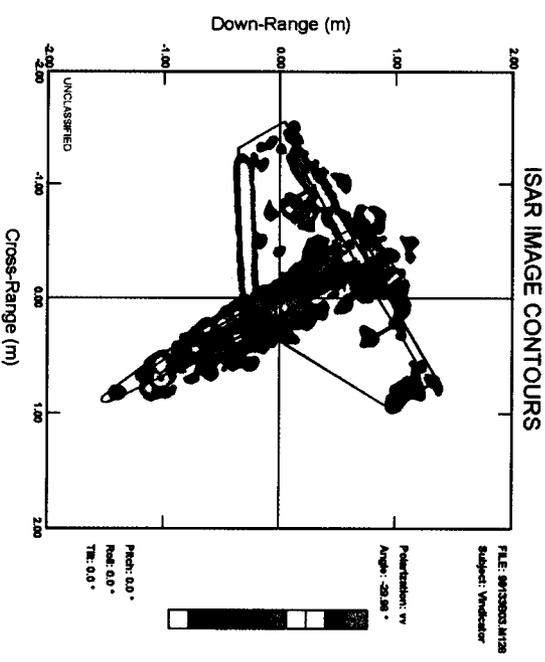


RADAR REFLECTIVITY LABORATORY

RCS testing and analysis of Vindicator UAV used as a target against the Aegis Combat System on the Point Mugu Sea Range



UNCLASSIFIED



RADAR REFLECTIVITY LABORATORY

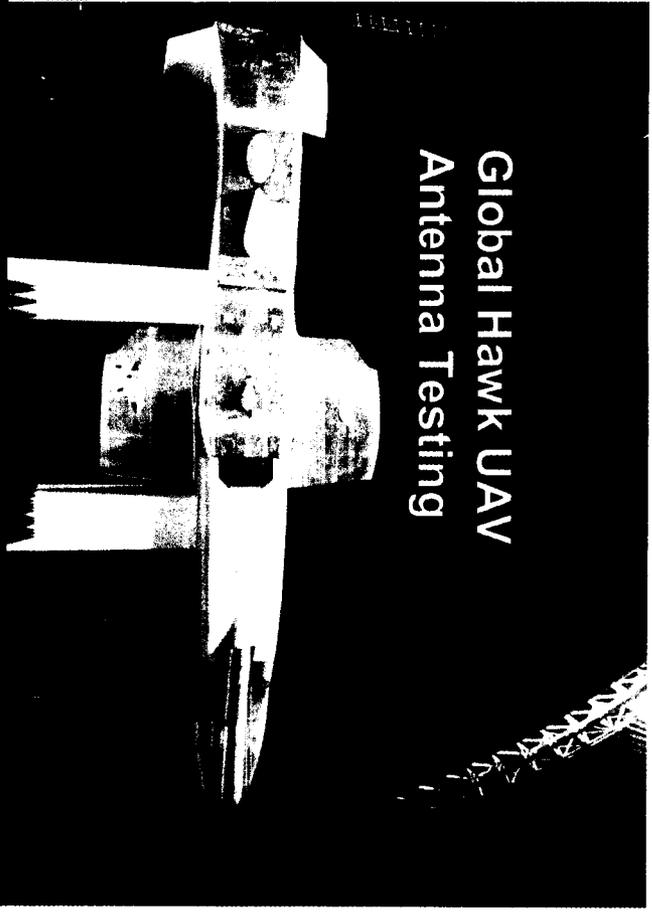
JSOW Stealth Missile



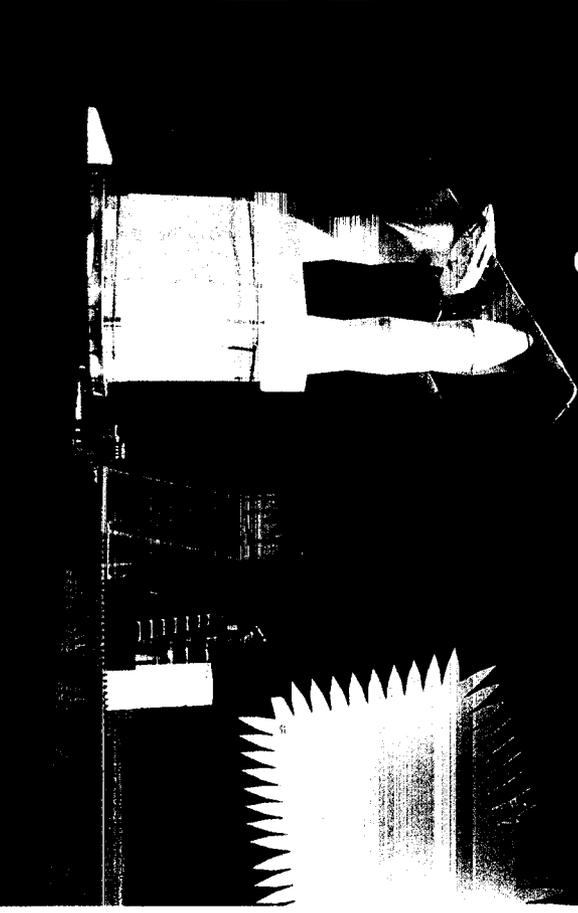
Ballistic Missile Target for THAAD Flight Test



Global Hawk UAV Antenna Testing



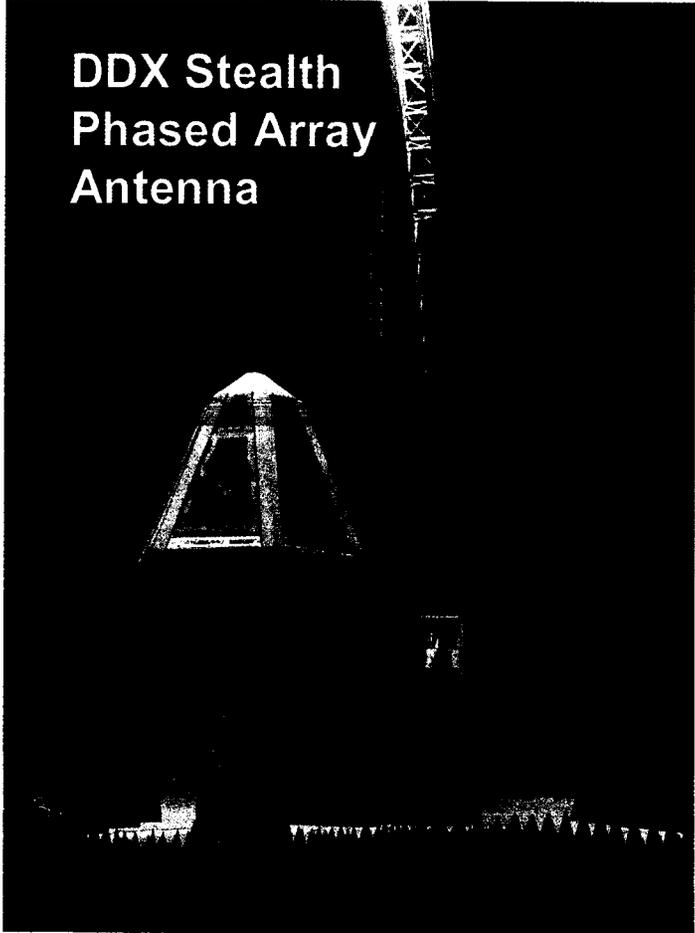
Ultra-Light Aircraft / Counter Terror



RADAR REFLECTIVITY LABORATORY



Navy Stealth Ship Developments



Threat Simulation Overview

- **FUNCTION**
 - **Dod Project Reliance Lead** for the complete Life-Cycle support (RDAT&E), technical development, acquisition, demonstration and operational use of Airborne Electronic Attack and Threat Radar Transmission Simulators.
 - Provide the NAVAIR Enterprise and tri-services with an integrated representation of air-land and seaborne threats (i.e. Radar cross-section, RF emitters, Electronic Attack) to include **all target vehicles** and their associated electronic payloads.
 - As Navy's lead activity provides a complete **turnkey program** to ensure that US Weapon Systems are tested and operators are trained in a complete, high fidelity RF environment.
 - Support Fleet / Joint Force /FMS **pre-deployment** preparations
 - CSSQTs
 - Fleet Exercises
 - Fleet Experiments

Threat Simulation Overview

- **CAPABILITY**
 - **Singular site** for the definition, development, integration and employment of electronic simulators into all platforms, including aerial and seaborne targets (manned/unmanned) as well as land based, laboratory and littoral environments.
 - Complete inventory of **high fidelity**, validated simulations of Threat EA and Radar systems.
 - Development, production support and employment of airborne electronics
 - AN/AST-5 Range Control Pod
 - Range Aircraft Integration
 - Flight Certification

Threat Simulation Overview

- **ADVANTAGES OF CURRENT LOCATION**
 - Access to the **ocean / littoral environment** required for the development, demonstration and operation of specific over water/low altitude countermeasures techniques (San Nicholas Island, Laguna Peak)
 - Co-Location with **Aerial/Seaborne Targets Engineering** required for payload integration and demonstration
 - Local access to NSWCPHD Surface Warfare Evaluation Facility (**SWEF**), Self Defense Test Ship (**SDTS**), **Fleet Units** significantly enhances efficiency
 - Co-Location with the **Tactical Electronic Attack** community provides synergy in developmental technology.
 - Pt. Mugu is the singular location where all of these vehicles/environments are available.

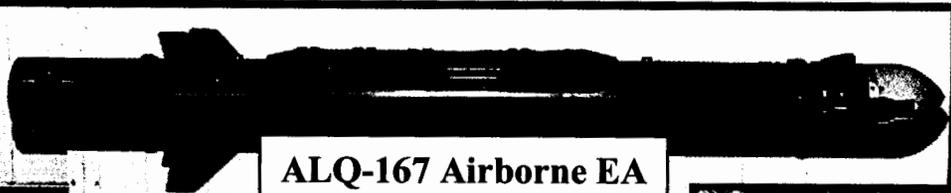
Threat Simulation Overview

Implementation Planning Challenges

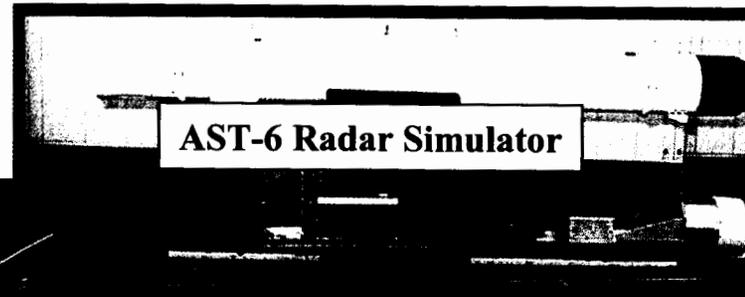
- **Geographic dislocation between threat/targets and primary operating range**
 - impact on operational scheduling, resource allocation, cost, range integration & personnel support of missions.
 - Lack of a local littoral environment impacts on ability to develop and test systems used in operational support to the Navy.
 - Potential loss of core personnel/expertise

Threat Simulation Overview

Threat Simulators Airborne Application / Vehicle Integration



ALQ-167 Airborne EA



AST-6 Radar Simulator



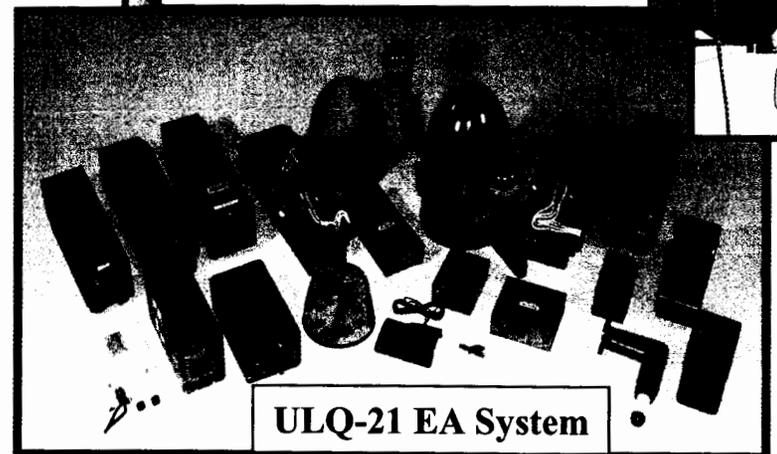
Electronic Target Simulator



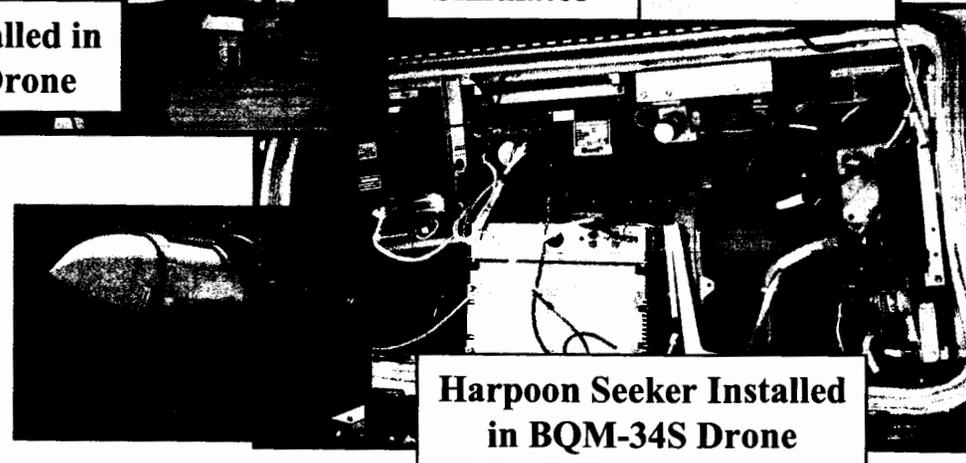
**ULQ-21 Installed in
BQM-34S Drone**



**AST-9 Radar
Simulator**



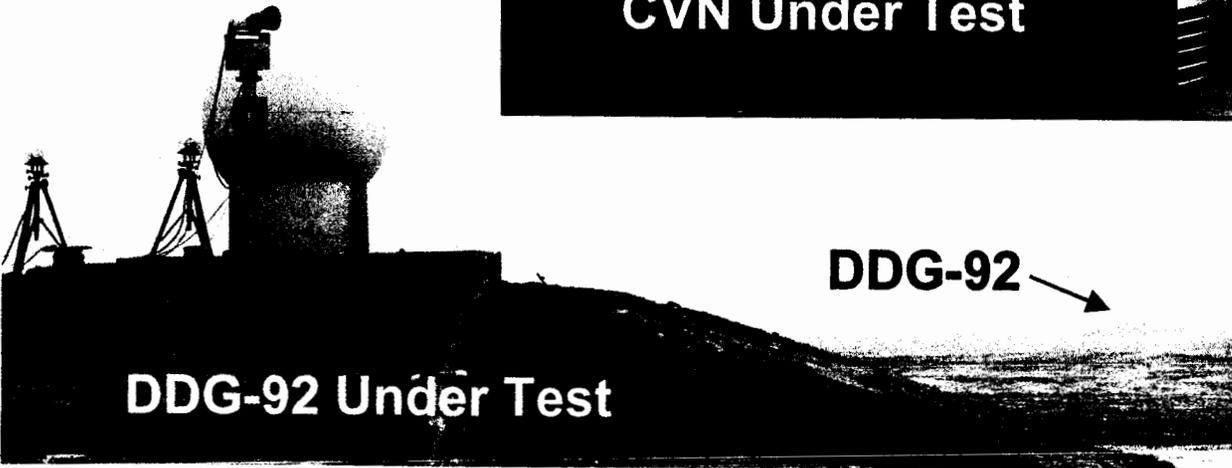
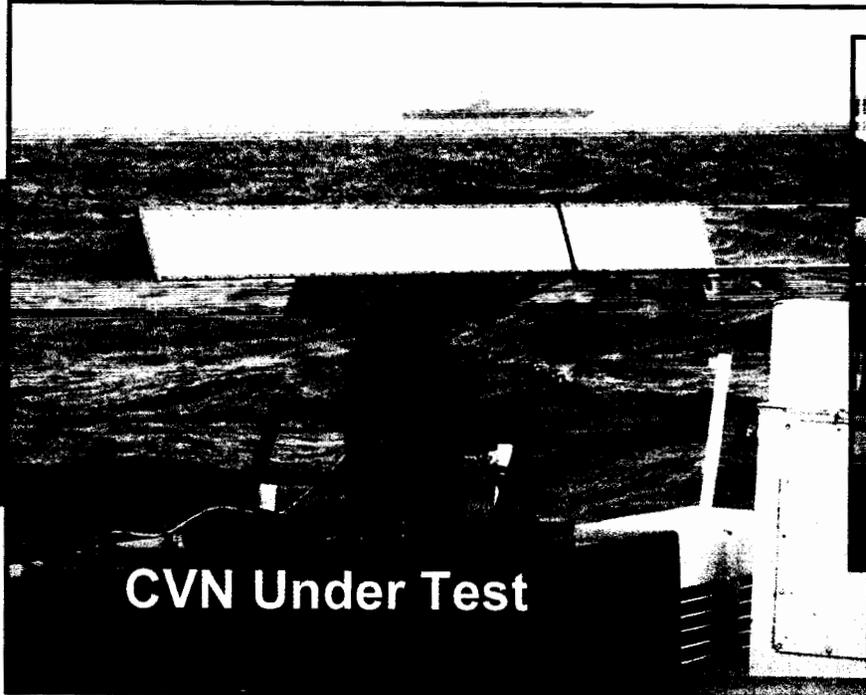
ULQ-21 EA System



**Harpoon Seeker Installed
in BQM-34S Drone**

Threat Simulation Overview

Threat Simulators Littoral Environment / Fleet Interaction



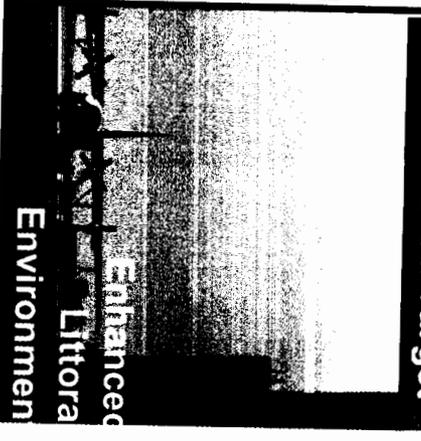
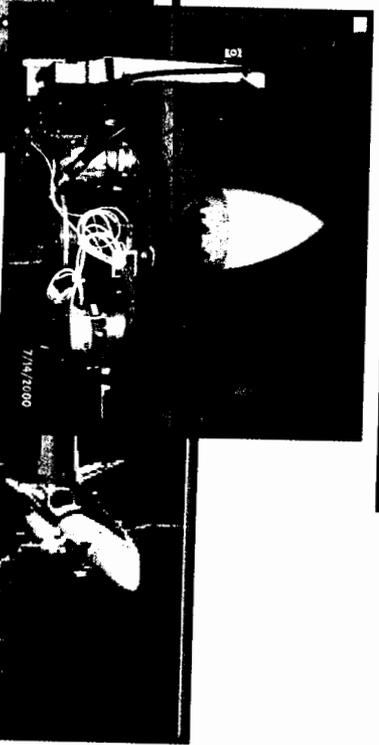
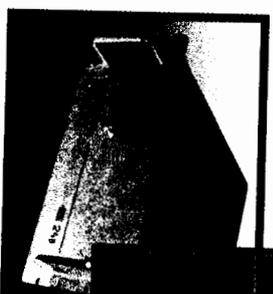
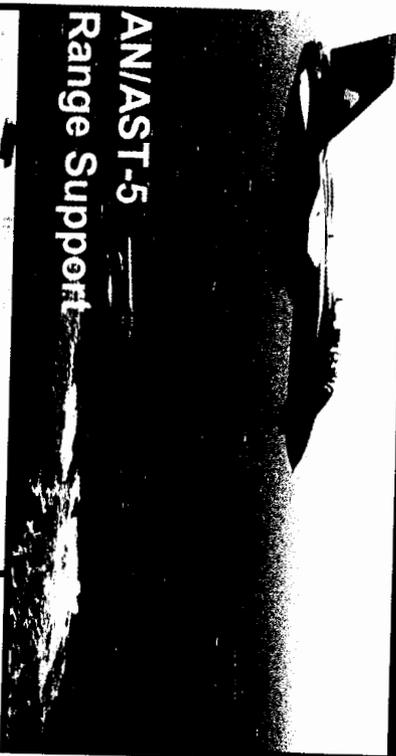
DDG-92 →



Threat Simulation Overview

Threat Simulators

Range Support/ Ground based / Laboratory Applications



Threat Simulation Overview

Electronic Attack & Threat Radar Simulation Mission Summary (FY-04 through May, 2005)

Mission Category	Number of Missions
Test and Evaluation Operations	467
Training Operations	347
Grand Total	814

Threat Simulation Overview

Airborne Threat Simulation / Vehicle Efficiencies

- Local facilities/expertise for integration/modification of aerial vehicles to meet the evolving threat capabilities.
- Local access to Seaborne vehicles facilities and unique expertise (Naval Architecture) for integration/operation in the littoral/open ocean environments.
- Littoral / Blue Water environment for experimentation, development, demonstration and operational use of sea-skimming countermeasures techniques and radar simulations

Threat Simulation Overview

Local Interaction Efficiencies

- **Co-Located with the Radar Cross Section Laboratory**
- **Adjoining NAVSEA Facilities**
 - **Surface Warfare Evaluation Facility**
 - **Self Defense Test Ship**
- **Easy access to Fleet Units**
 - **“No-cost” experimentation**

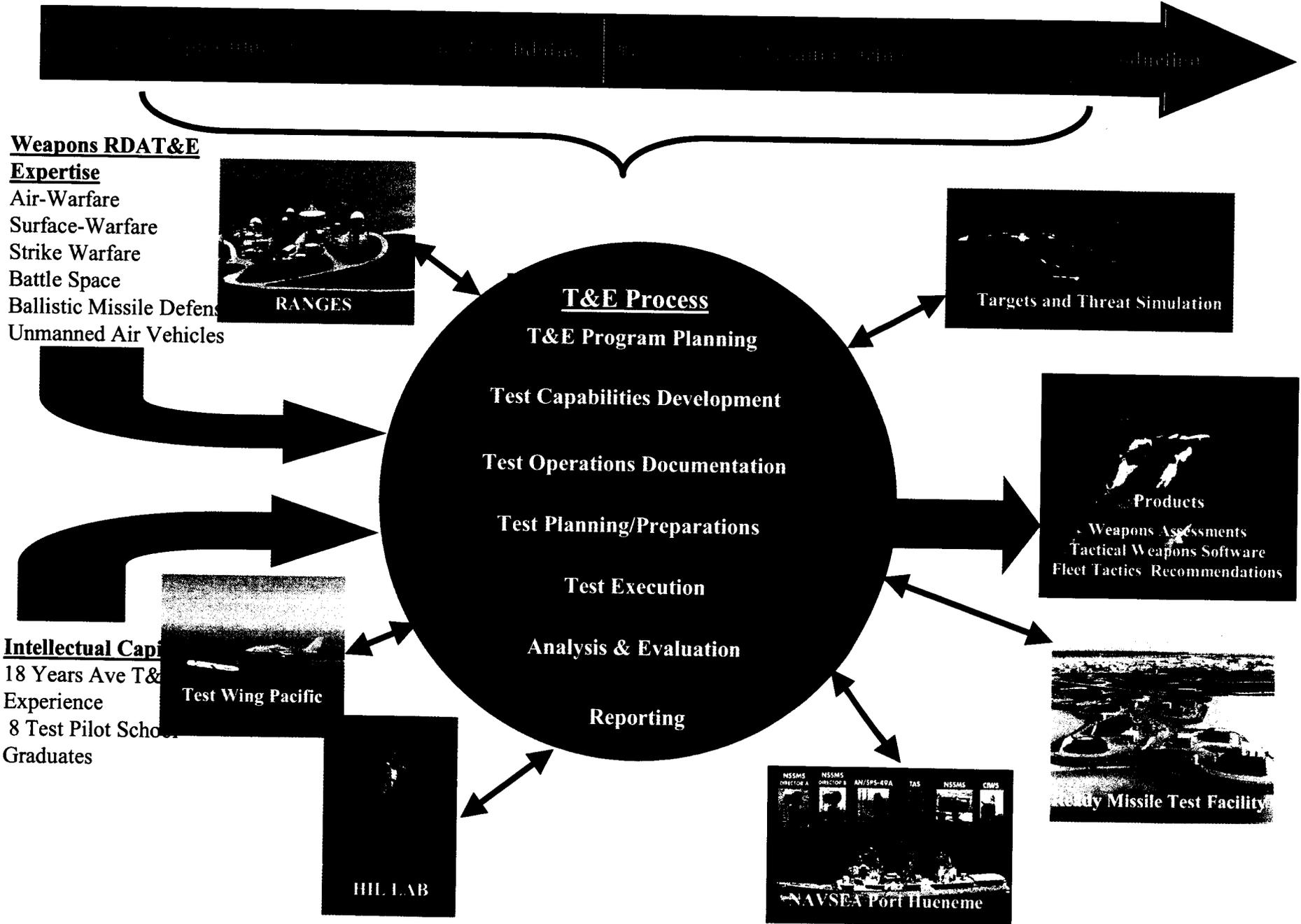
Threat Simulation Overview

Summary

- The Threat Simulation capability at NAWCWD Point Mugu is the singular source of Airborne Threat Simulators throughout DoD.
 - Electronic Attack (Jammers)
 - Active Emitter (Threat Radars, Aircraft & Missiles)
 - Airborne Support Electronics (AST-5, ...)
- Threat Simulation efficiencies are maintained in the current location:
 - Synergy with the vehicle developers and operators
 - Ready access to the littoral / Blue Water environment
 - Ready access to NSWCPHD assets and Fleet units
- This capability is a core component of Navy and DoD readiness.



Weapons Test & Evaluation



Weapons Systems T&E Intellectual Capital

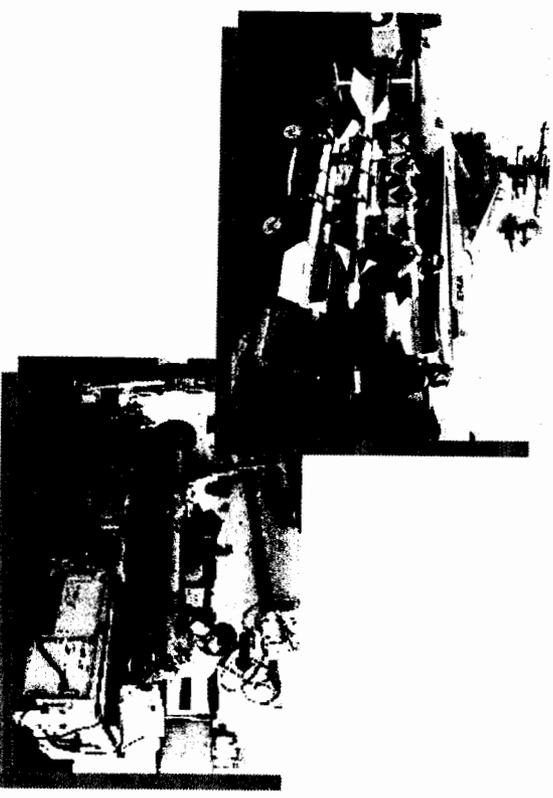
- The Test and Evaluation discipline is gained by a combination of mentoring by senior test engineers and working side-by-side with other test engineers.
- On average it takes five to seven years to be a Flight Test Engineer.
- There are eight Weapons Lead Test Engineers with an average of 23.9 years experience, all located at Pt. Mugu.
- There's only one Chief Test Engineer at Pt Mugu.
- Our Intellectual Capital is the foundation that makes our process safe and efficient.

Weapons Sustainment

WEAPONS SYSTEMS RDATE&E

WEAPONS SUSTAINMENT SERVICES

- Insure Weapons Readiness
 - Sustain knowledge of the condition of systems in operation
 - Modify logistics elements to assure safety, reliability and readiness is achieved at an affordable cost
- Provide and maintain liaison with Fleet TYCOM and functional wing commanders for weapons problem resolution
- Provide Weapons maintenance management and technical support to Naval Weapons Stations and Navy, Air Force, Army and commercial Depot maintenance facilities
- Implement Cost Wise Readiness
- Maintain, update and revise technical data.
- Provide Weapons Information Management Systems



Support Equipment / Ready Missile Test Facility

WEAPONS SYSTEMS RDT&E SUPPORT EQUIPMENT SERVICES

- Direct fleet support with Engineering investigations into failed weapons test sets (including Sparrow, Harpoon, HARM, JSOW, AMRAAM, and Sidewinder).
- Direct fleet support with software and hardware updates to test equipment as well as developing new test sets.
- FMS support with software and hardware updates to test equipment as well as developing new test sets.
- Direct fleet support with Gun prototype and Linkless Ammunition testing.

WEAPONS SYSTEMS RDAT&E READY MISSILE TEST FACILITY SERVICES

- Direct fleet support with Engineering investigations into failed weapons (including Sparrow, Harpoon, SLAMER, HARM, and AMRAAM).
- Direct fleet and FMS support with training in the use of test sets.
- Co-location with weapons test allows for rapid configuration of weapons for captive flight and launch tests.
- Co-location with Sea Test Range allows for buildup of special test sets for FMS customers.
- Provide more weapons for the fleet through AMRAAM Inventory Assessment.



DEMOGRAPHICS

- 343 TOTAL PEOPLE
- EDUCATION
 - 67.7% have a Bachelors or higher degree
 - 10.5% have a Masters degree
 - 8 Test Pilot School Graduates
- AVERAGE AGE OF CIVILIANS IS 49
- CIVILIAN RETIREMENT OPTIONS
 - 19.5% could retire today.
 - 39.1% could retire within 5 years
 - 56.6% could retire within 10 years
 - 62.2% are in FERS retirement system

SUMMARY

- Flight testing is an inherently complex, expensive, and potentially hazardous process that requires a highly trained and experienced workforce.
- The HIL Labs are an expensive, unique, complex and capable tool that requires two shifts per day to support multiple users.
- RMTF is integral to the testing of instrumented captive and all-up-round missiles.
- A Majority of the missile flight test operations are conducted on the Sea Test Range at Point Mugu.
 - 70% AMRAAM
 - 50% SLAMER*
 - 90% HARPOON
 - 100% TOMAHAWK**
- We have been operating for over a decade under a single management structure for China Lake and Point Mugu.

Insuring Weapons W



The logo for NAV AIR, featuring the word "NAV" on the left, a stylized checkmark or arrow symbol in the center, and the word "AIR" on the right. The background of the entire slide is a high-contrast, grainy black and white image of a person's face wearing a headset with a microphone, looking towards the right.

NAV AIR

Point Mugu Seaborne Targets Overview

BRAC 05

7-8 July 2005

Jeffrey Blume

Seaborne Targets Overview

- **FUNCTION**

- DoD Lead for Life-Cycle support (RDAT&E) for technical development and operational use of Seaborne Target Systems used world wide.
- Provides seaborne targets and marine resources to support DoD weapons T&E, force training
- As Navy's lead activity supports field activities worldwide
- Support Aerial Target Missions at Sea Test Range

- **CAPABILITY**

- DoD (Project Reliance) singular site for development, acquisition, and life-cycle support of Seaborne Targets
- Singular site operating all Navy's Seaborne targets
- Navy's only site for
 - Mobile Ship Target
 - Aerial Target Launch Ship
 - Fast Attack Craft Target
- Other marine resources to support mission

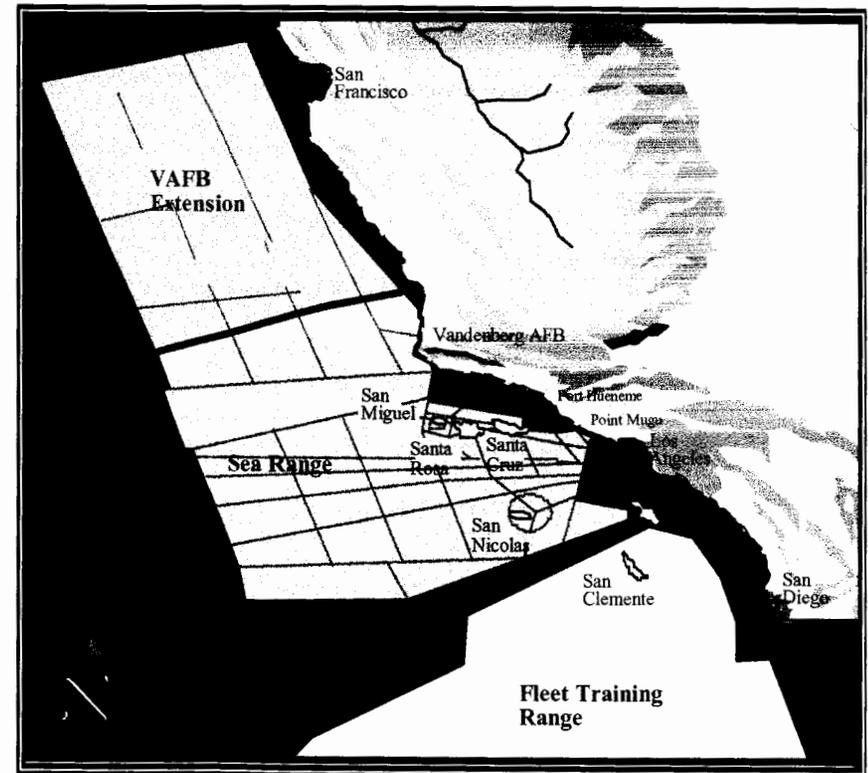
- **SIGNIFICANT ISSUES**

- Seaborne Targets capability is integral to weapons systems testing and training on the Sea Range
- Requires deep-water port with direct access to Sea Range to support Navy and Tri-Service test events
- Cannot be moved as Port Hueneme offers the only seaborne target harbor facility suitable for Sea Range operations.

Seaborne Targets Overview

NAWCWD Pt. Mugu Environment

- 36000 sq. mi. (92000 Km²) adjacent sea range
- Offshore islands
- Adjacent onshore peaks to 500m
- Fully instrumented for surface and aerial TM
- Minimum civilian/commercial interference
- Pt Hueneme critical to mission execution



Seaborne Targets

Mobile Ship Target
80 Meter-15 Knots

Pt. Mugu
Only

ATLS
SSST Launch

FACT
50 feet - 50 knots

HSMST
40 knot hi-density

QST-35

56 feet - 20 knots

Seaborne Targets Overview

Singular Capabilities

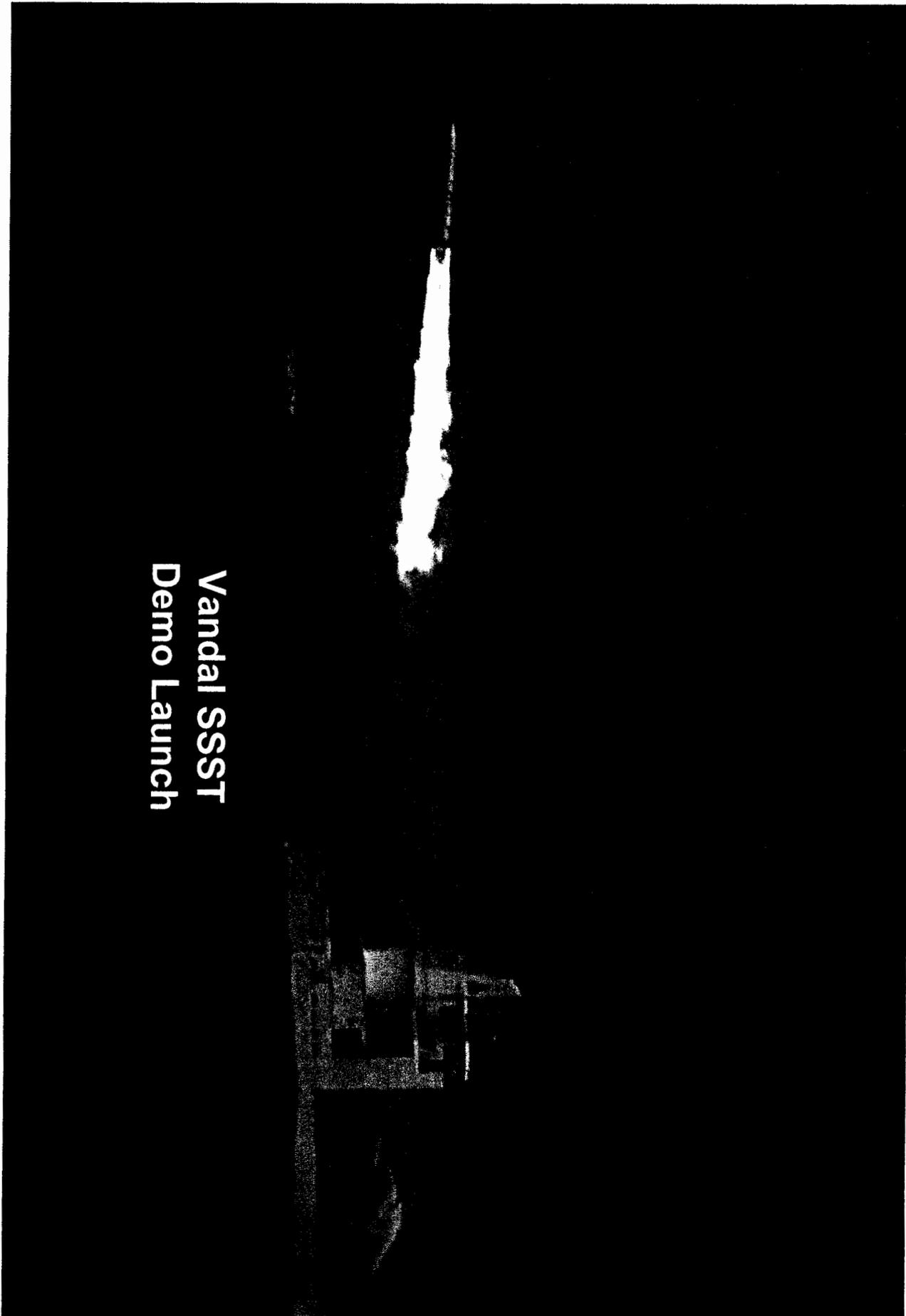
- Life cycle engineering and logistic support to *all* Seaborne Target Operating Activities (10 Sites)
- Operational support to all operating activities
- Hi-density target raids (15 simultaneous targets)
- Development and operation of DoD's only Self-Propelled Target Ship
- Development and operation of Fast-Attack Craft Target
- Development and operation of Aerial Target Launch Ship

Seaborne Targets Overview

Mobile Ship Target



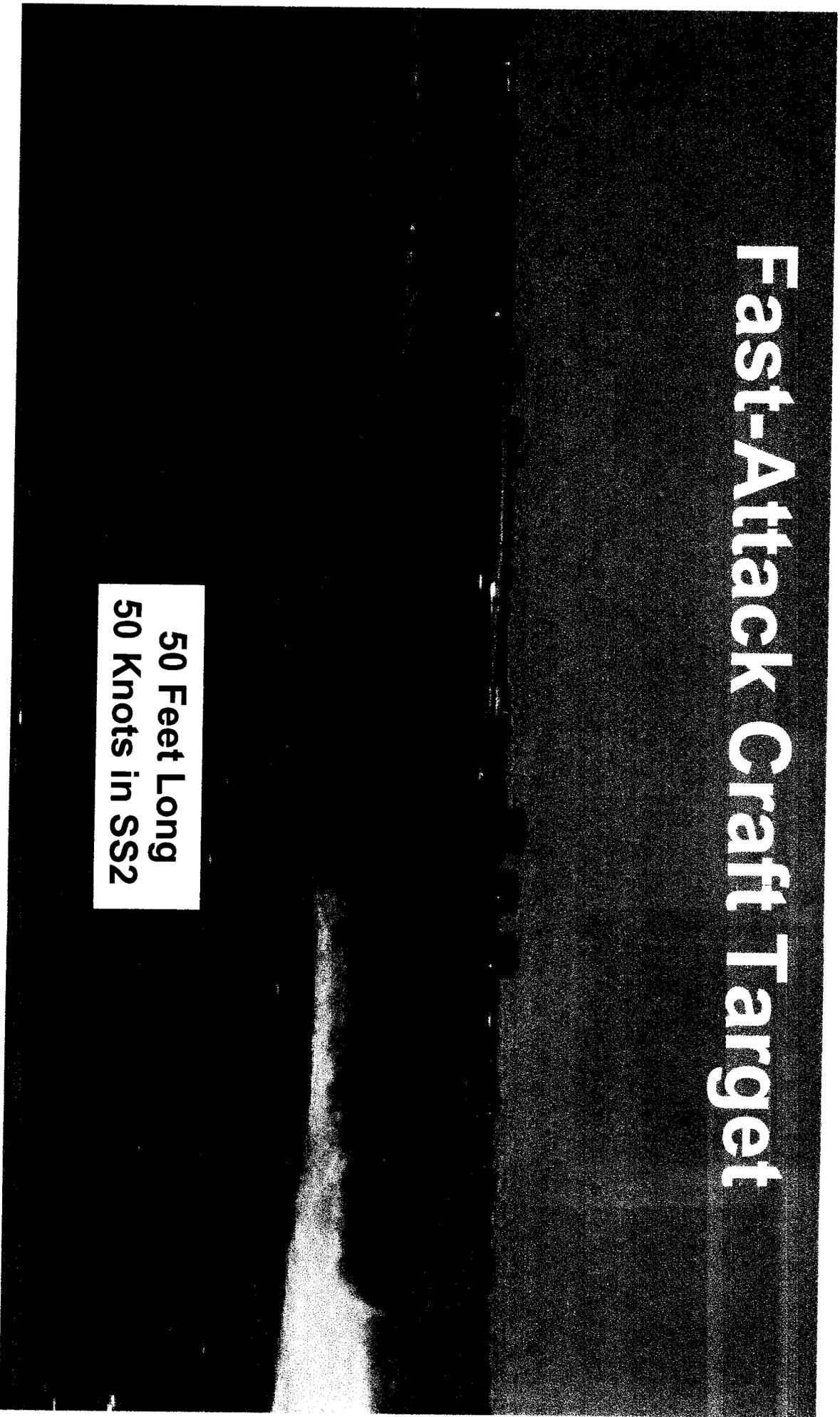
80 Meters long
15 Knots
Variable superstructure



**Vandal SSST
Demo Launch**

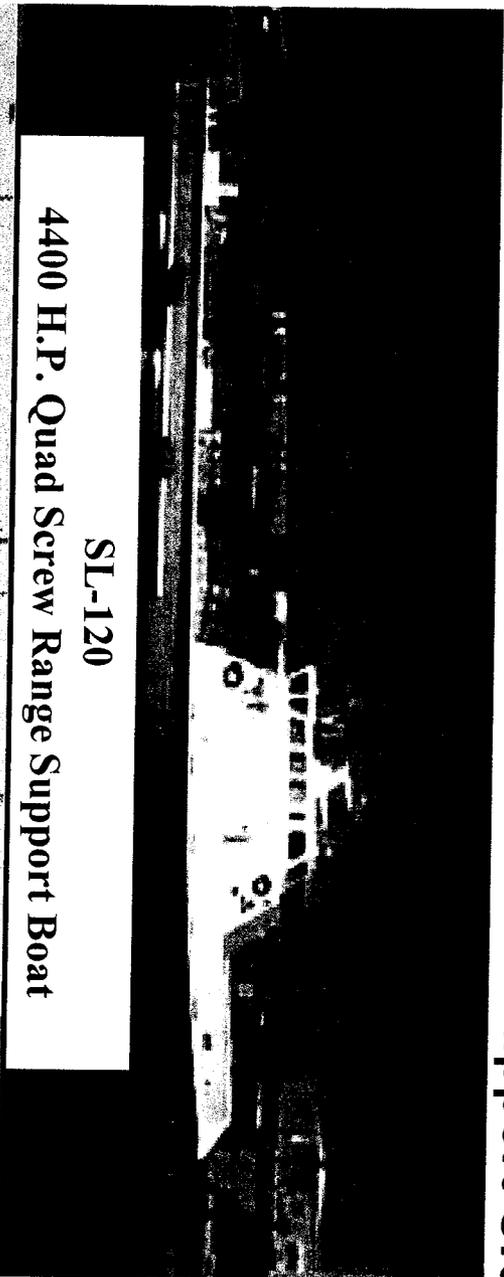
Fast-Attack Craft Target

50 Feet Long
50 Knots in SS2



Seaborne Targets Overview

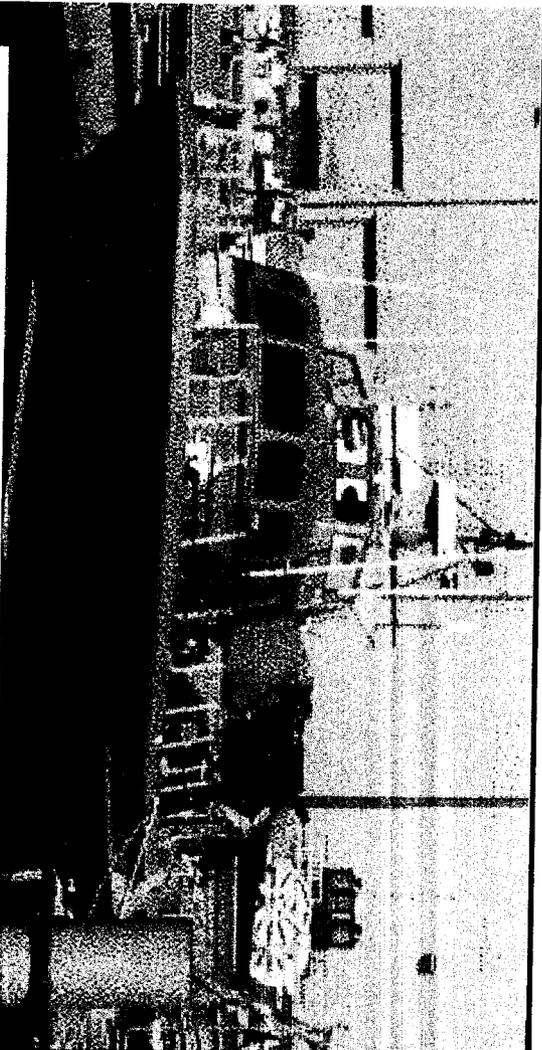
NAWCWD Support Craft



SL-120

4400 H.P. Quad Screw Range Support Boat

Missions Supported
Aerial and Seaborne Target Recovery
Target towing
VBSS
MIO
T&E
Boundary



HM-08

900 H.P. Twin Screw Range Support Boat



M/V Diane G

M/V Diane G

900 H.P. Twin Screw Range Support Boat

Seaborne Targets Overview

Surface Targets Team Mission Summary (Sea Range) (FY-04 through May, 2005)

Mission Category	Number of Missions
NOLO Target Operations	57
Manned Target Operations	691
Other (Maritime support missions)	506
Grand Total	1254

Seaborne Targets Overview

Seaborne/Aerial Target Efficiencies

- Post-operational retrieval of Aerial Targets
- At-sea launch capability of Aerial Targets
- Range Surveillance/Clearance
- Navy's lowest operational aerial target loss

Seaborne Targets Overview

Summary

- The Seaborne Target capability at NAWCWD Point Mugu is the singular source of Seaborne Targets throughout DoD.
- The Seaborne Target mission requires the deep-water facilities of Port Hueneheme.
- This capability is of unquestionably high value to Navy and DoD readiness.

NAVVAIR Sea Range

at

Point Mugu

for

BRAC Commission Staff

Mr. Steve Mendonca

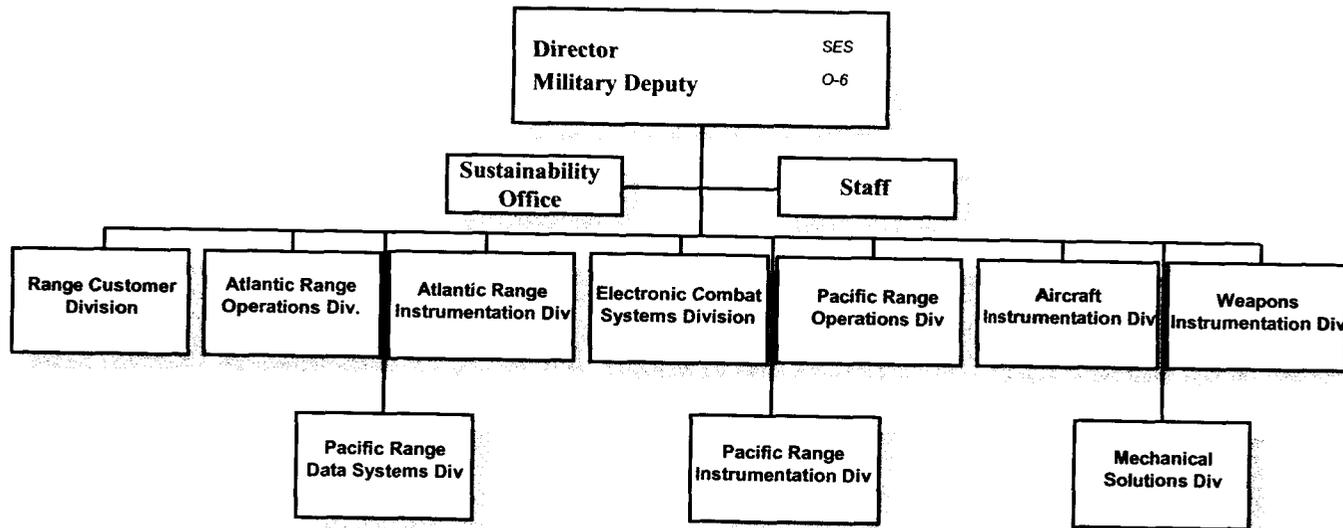
Director for NAVVAIR Ranges

China Lake, Point Mugu, and Patuxent River

8 July 2005

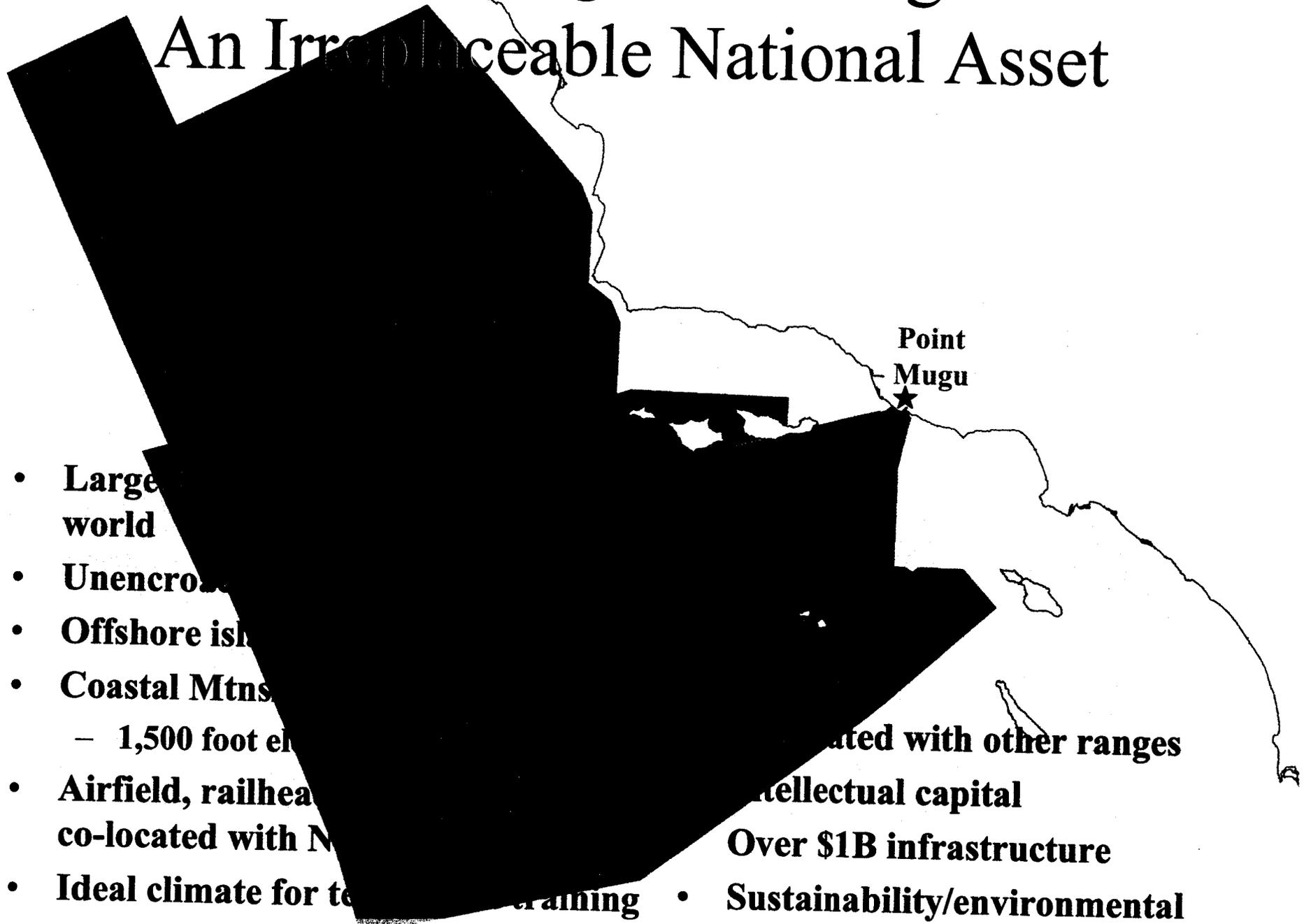
Ranges Department

China Lake, Point Mugu & Patuxent River



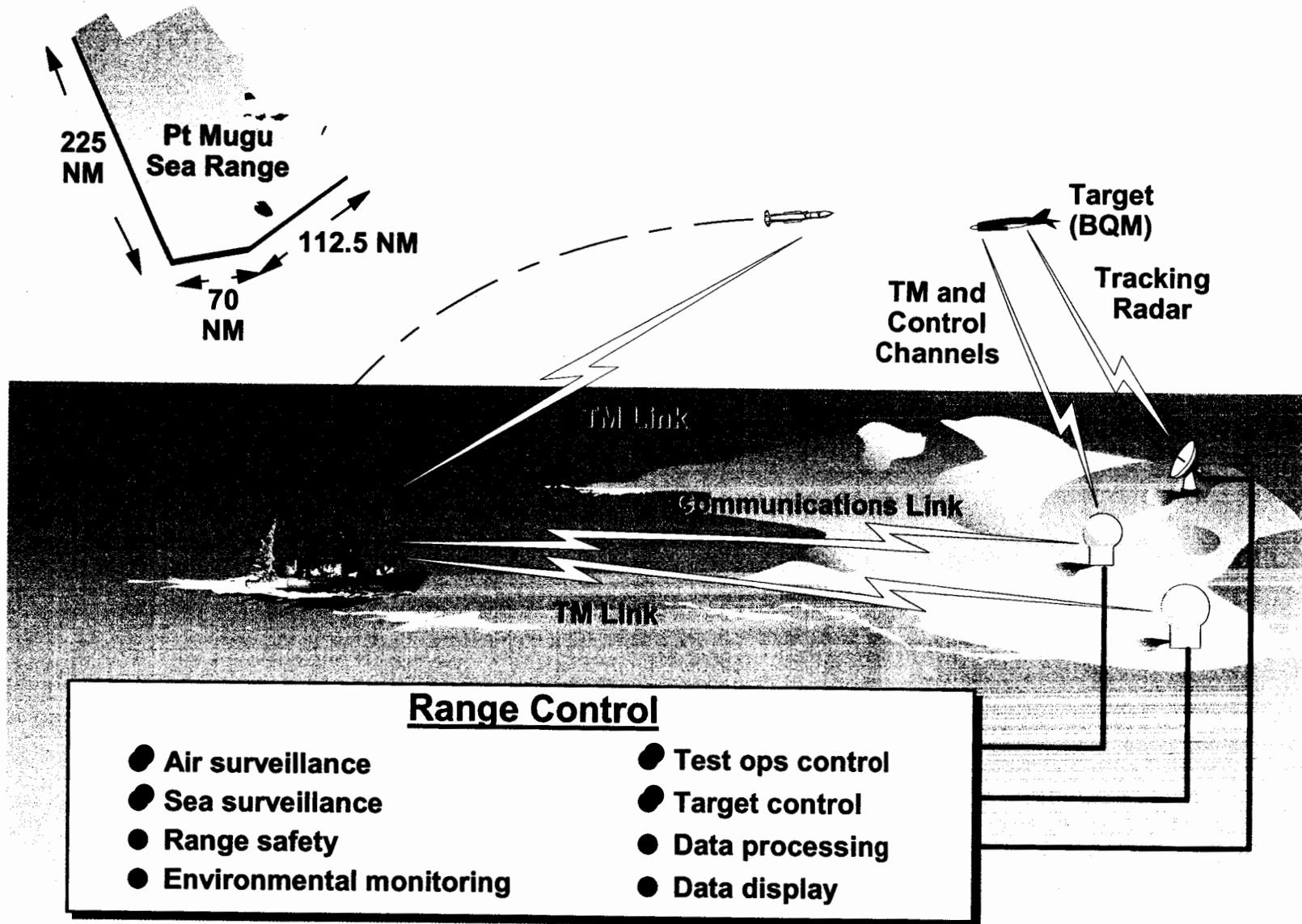
Point Mugu Sea Range

An Irreplaceable National Asset

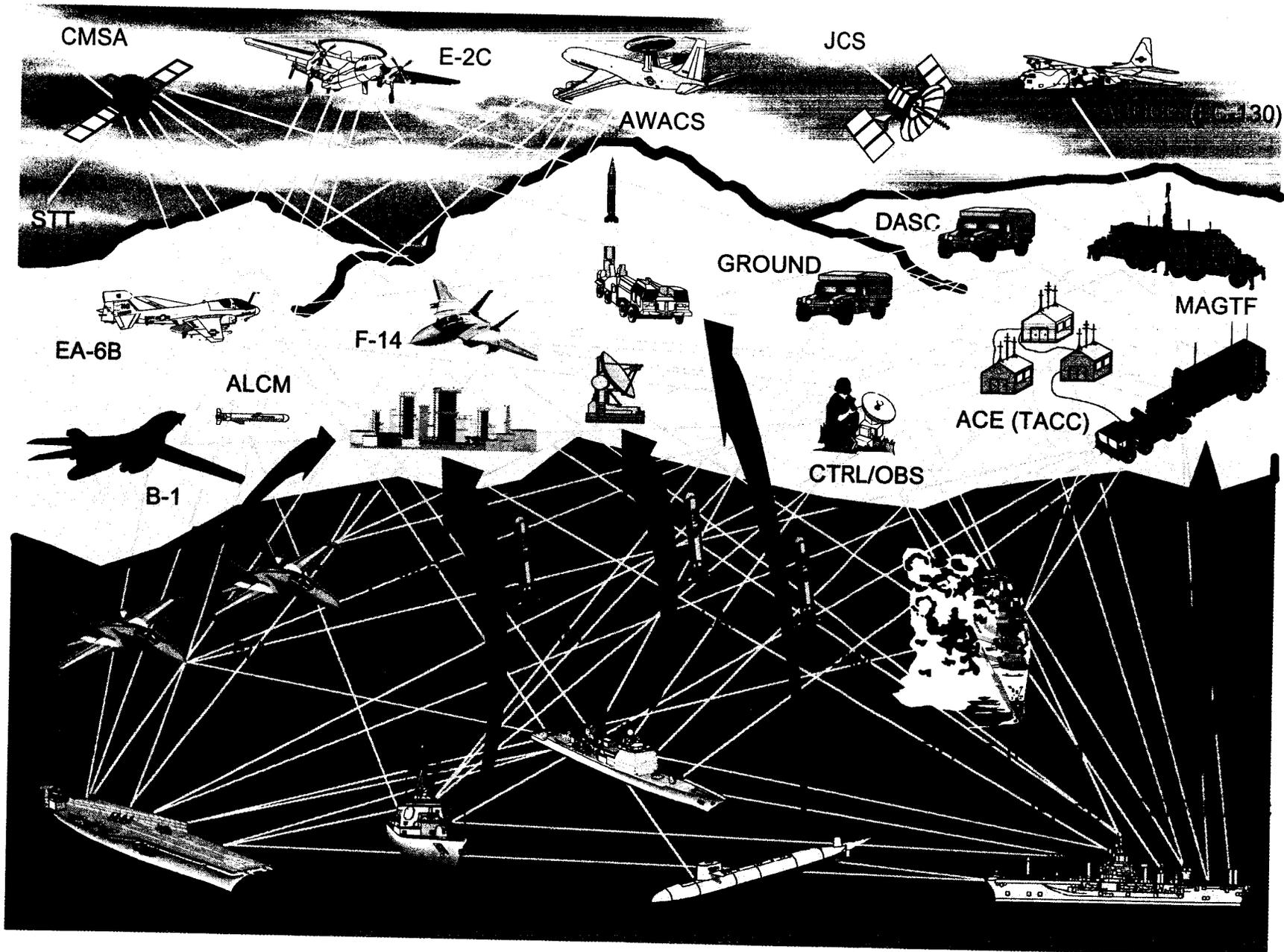


- **Large**
- **world**
- **Unencroached**
- **Offshore islands**
- **Coastal Mtns**
 - 1,500 foot elevation
- **Airfield, railhead, intellectual capital**
- **co-located with Naval Air Station**
- **Over \$1B infrastructure**
- **Ideal climate for testing**
- **Sustainability/environmental**

Sea Range Test Basics

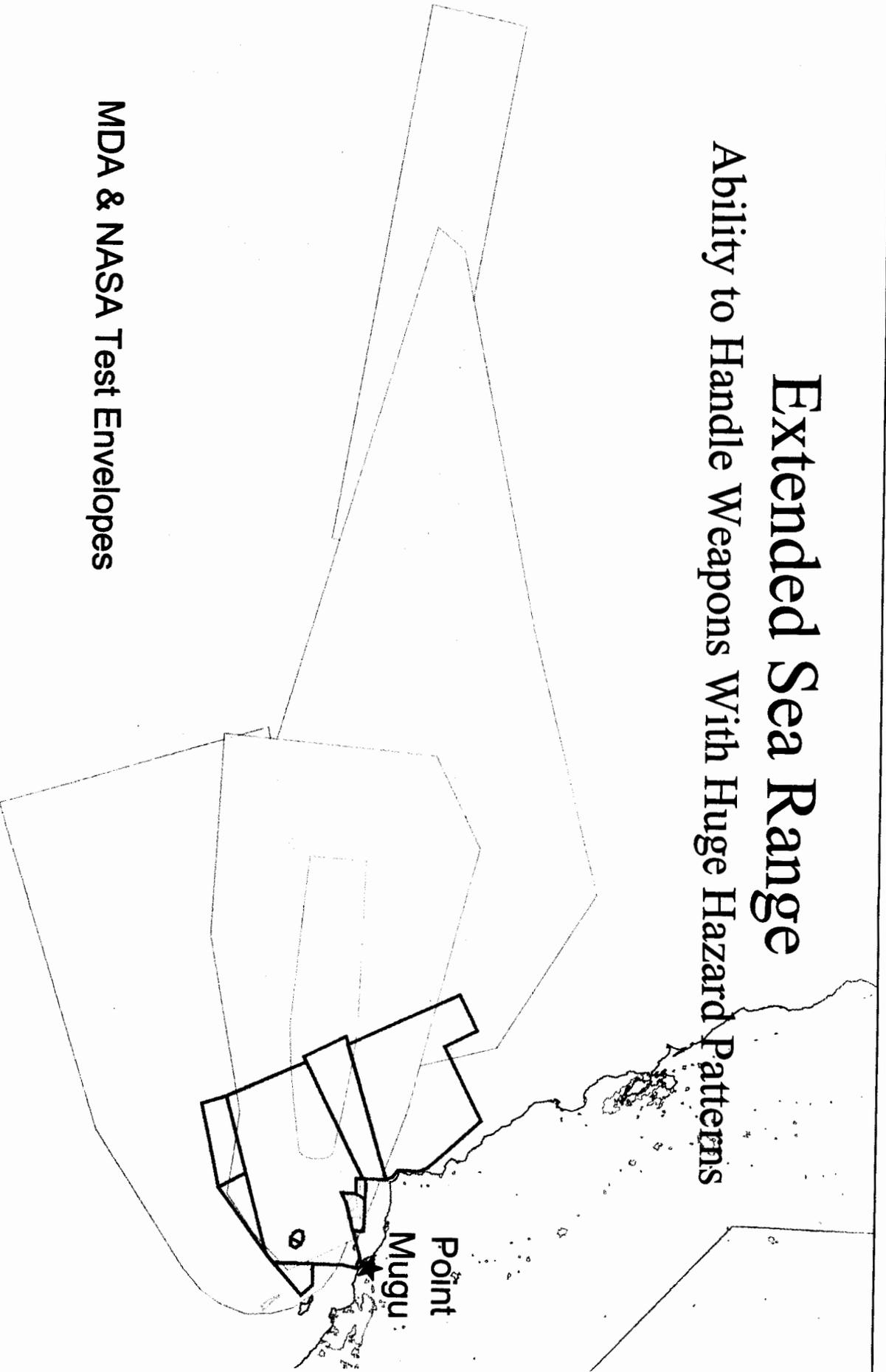


Complex Operations



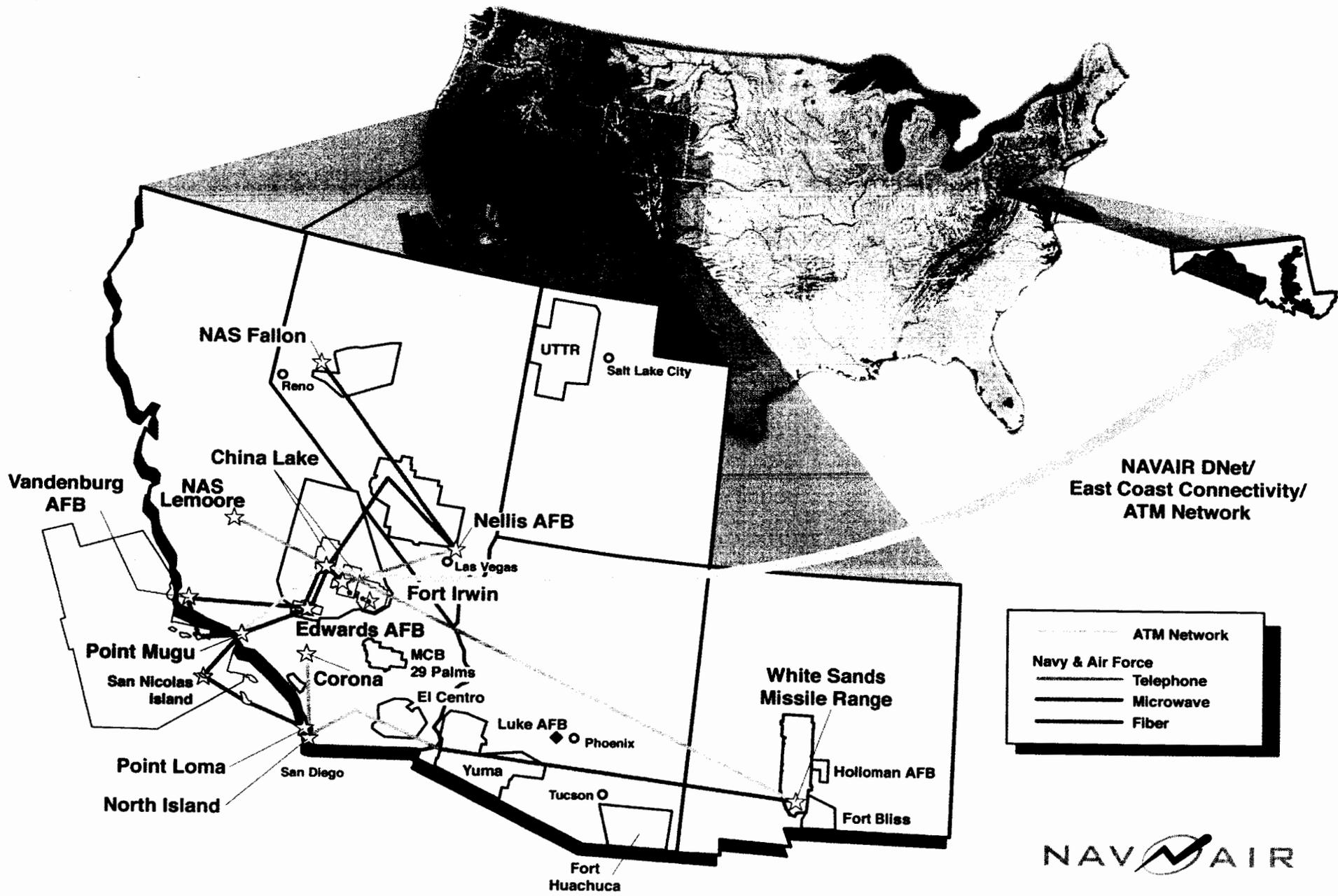
Extended Sea Range

Ability to Handle Weapons With Huge Hazard Patterns



MDA & NASA Test Envelopes

Unique & Linked to Other Ranges & Facilities



The Leader in Joint Force Test and Training Transformation

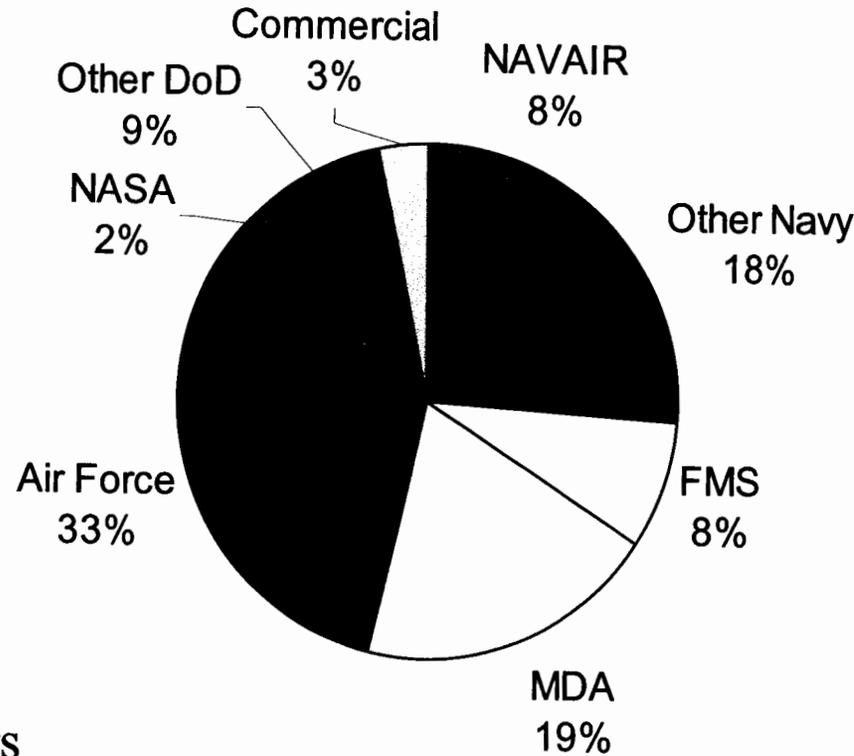
- Center of Excellence for live test and training Range integration for Joint Forces Command
- Integrated ranges, facilities and labs
- Integration of live and simulated combatants to create a realistic battlespace for Test, Training, and Experimentation

Managing Ranges With Efficiency

- Point Mugu & China Lake Ranges combined into single department in 1994
 - Eliminated redundancies
 - Integrated capabilities across sites
 - Effective use of intellectual capital across sites
 - Sharing of personnel and instrumentation assets to support customers and tests
- Savings realized: Reduction in personnel by ~50%

FY04 Sea Range Customer Base

The Sea Range is a Joint DoD, interagency, international use range



Workyears

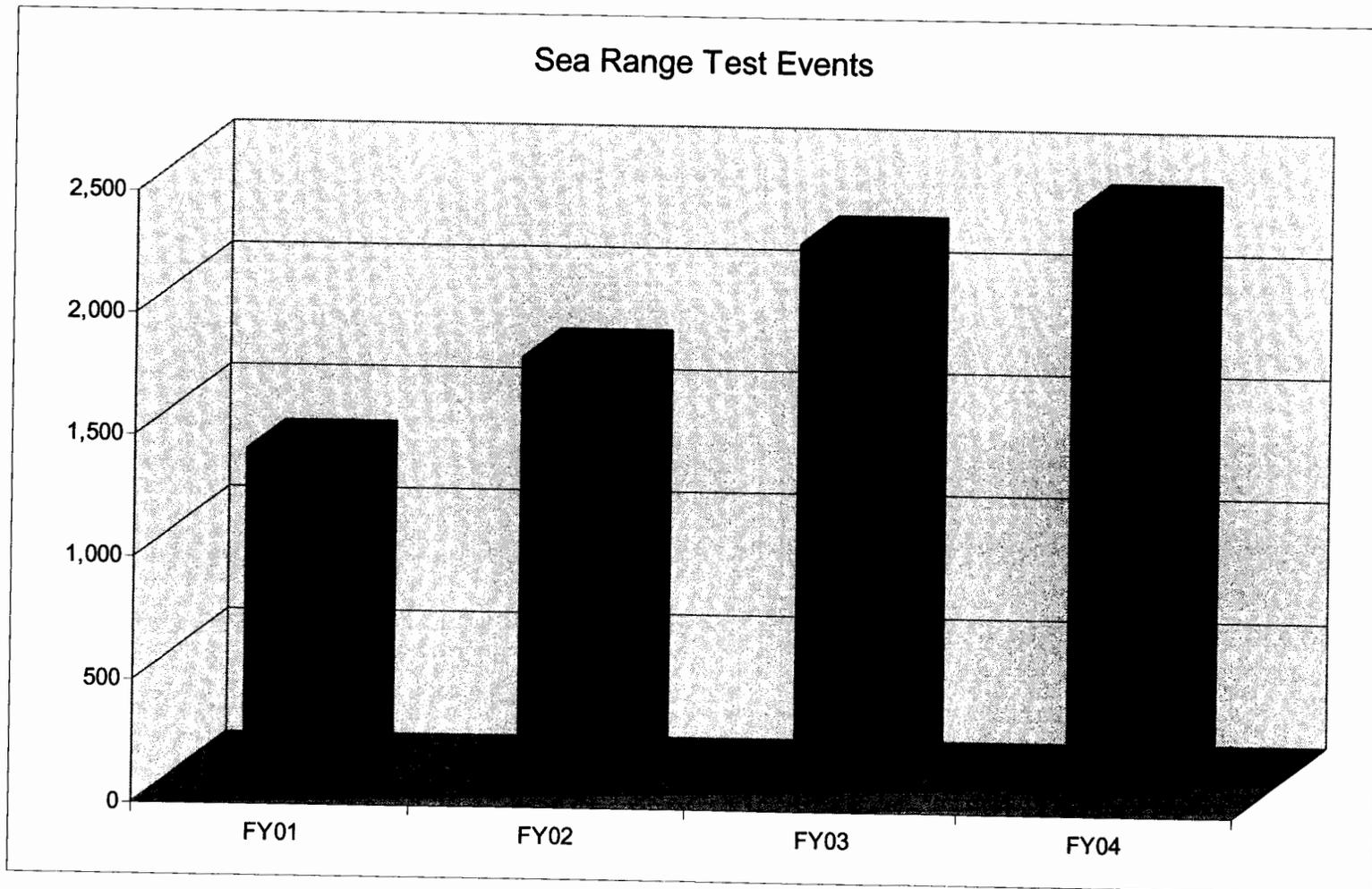
Civilians	333
Contractors	63
Military	25

1138 test events

Funding Levels

Customer	\$31.183M
MRTFB	\$19.113M
Total	\$50.296M

Increasing Demand for the Sea Range



Tech 0018

- 543 personnel in Sea Range & Targets identified as supporting weapons RDAT&E.
- Sea Range operates as an integrated team supporting multiple customers & operations daily. This support requires weekly, daily & hourly coordination. Typical coordination involves:
 - Range: Operations control, safety, instrumentation, test management, communications & data systems
 - Targets - Test Squadron - NBVC
- Operation of the Sea Range is inextricably linked to the geography

Take-Aways

- The Sea Range is an irreplaceable DoD asset
 - Unencroached air and sea space
 - Large, instrumented areas of open ocean, littoral, and military controlled air space
- Infrastructure, personnel and operation are inextricably linked to the geography
- Point Mugu & China Lake Ranges are a single organization
 - Savings realized: reduction in personnel ~50%