

Coastal Trident 2013 Summary

Briefing for Naval C-IED Knowledge Network
Wednesday, 25 September



Who is CAW?

- The Center for Asymmetric Warfare (CAW) is a federal government activity that conducts **operational research and field experimentation**
 - Satellite research center under the Naval Postgraduate School's Information Sciences Department
 - Headquartered at **Naval Base Ventura County-Point Mugu** in Southern California

“CAW conducts research and delivers focused training, field experimentation, exercise and assessment programs in order to **increase the capabilities** of military and civil authorities at all levels to **prevent and mitigate, prepare for, respond to, and recover from the effects of asymmetric threats** to national, homeland, and global security, including terrorism and natural or man-made disasters.”

- CAW Mission Statement



Who is CAW?

“NPS provides high-quality, relevant and unique advanced education and **research programs** that **increase the combat effectiveness** of the Naval Services, other Armed Forces of the U.S. and our partners, to **enhance our national security.**”

- NPS Mission Statement



“In addition to facing enemies on traditional battlefields, the United States must now be prepared for **asymmetric threats**... These threats and hazards include **terrorism, natural disasters, large-scale cyber attacks, and pandemics**... To succeed, we must update, balance, and integrate all of the tools of American power and work with our allies and partners to do the same.”

- National Security Strategy 2010



Who is CAW?

- In order to encompass the **variable and unpredictable** nature of the asymmetric threat, CAW research is focused in the following areas



Domestic Preparedness,
Emergency Response, and
Emergency Management



Port and Maritime
Safety and Security



International Assessment,
Humanitarian Assistance and
Disaster Relief



Technology Integration
and Evaluation



Military Readiness and
Defense Support of Civil
Authorities

What is Coastal Trident?

- Coastal Trident is a continuing multi-phased **training, exercise, and field experimentation** program
 - Apply **observations, recommendations, and best practices** identified during scenario-based response and recovery operations
 - Evaluate current response **plans, systems, and TTPs**
 - Provide a **relevant test venue** for field experimentation of developing and transitional technologies
- Coastal Trident was **established in 2007** as a strategic partnership between CAW and the Oxnard Harbor District
 - Satisfy the Port of Hueneme's **annual port security exercise** requirement under 33 C.F.R.
 - **Improve the capabilities** of Port and local public safety partners to respond to an emergency at the Port of Hueneme



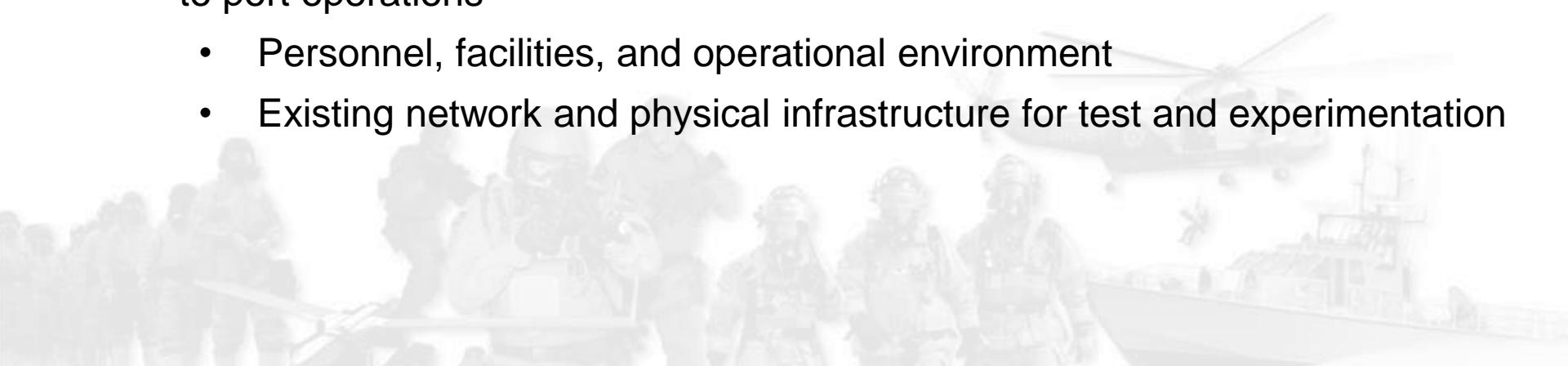
Why the Port of Hueneme?

- The Port of Hueneme is a USCG Tier II port and the **only deep water harbor** between Los Angeles and San Francisco and is the U.S. Port of Entry for California's central coast region
 - Serves the niche markets of **automobiles, heavy machinery, and produce**
 - Position near the Santa Barbara Channel makes it the **primary support facility** for offshore oil and gas industry
 - **Dual-use port** with Naval Base Ventura County

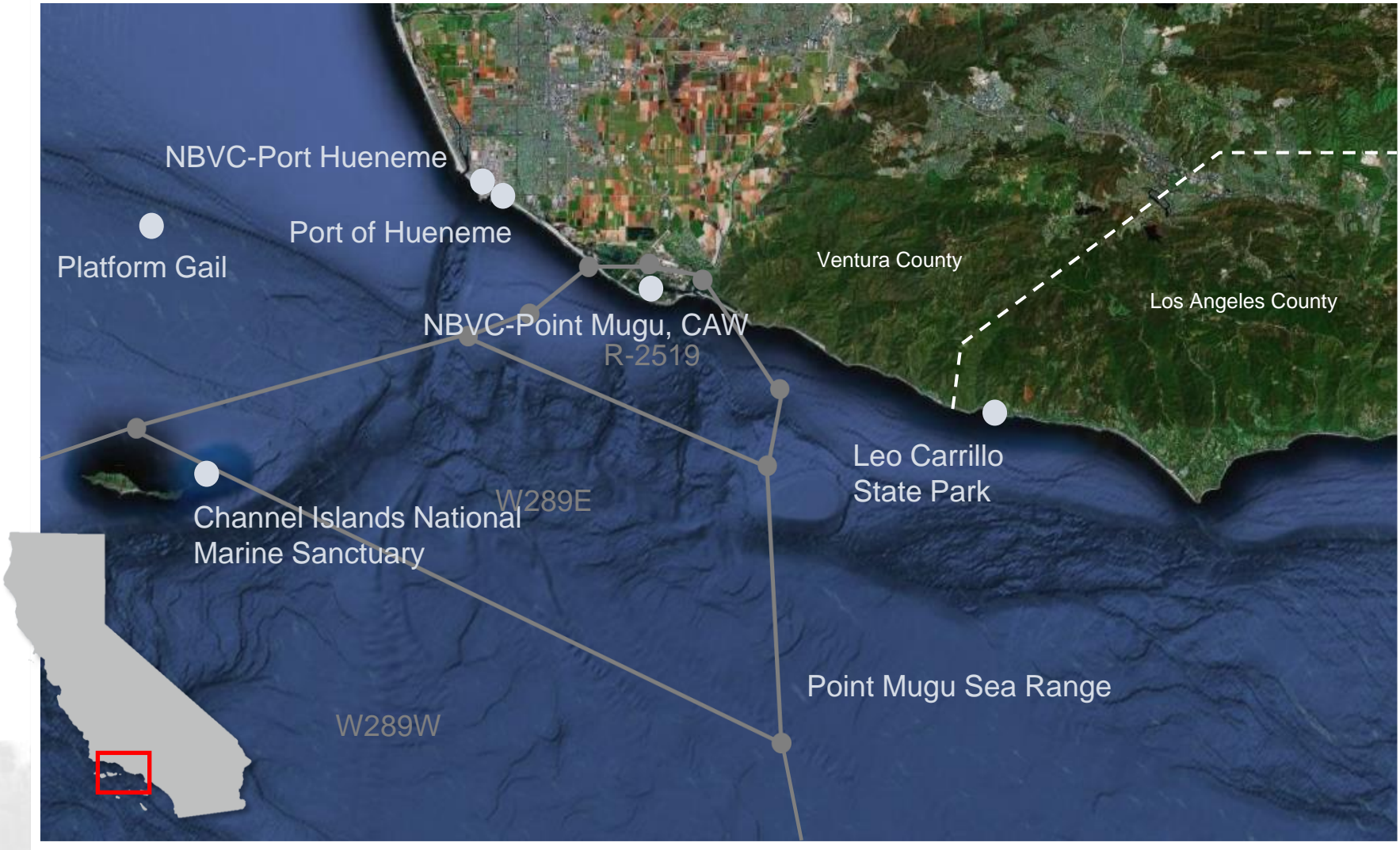


Why the Port of Hueneme?

- The Port of Hueneme is an **ideal venue** for the training, operational experimentation, and exercise of personnel and technologies in the **port and maritime environment**
 - Dual-use nature of port require **civil/military coordination** in both routine and emergency operations
 - **Proximity to sea test range** provides access to restricted airspace, safe and secure test environments
 - Economic impact to community is **representative of critical infrastructure**
 - Established partnerships provide **unparalleled access** with negligible affect to port operations
 - Personnel, facilities, and operational environment
 - Existing network and physical infrastructure for test and experimentation



Area of Operations



What is Coastal Trident?



24 participating agencies

2007: EOC training and tabletop exercise

- Training provided an overview of NIMS and ICS, basic principles of emergency management
- Tabletop exercise focused on various terrorist threats to the Port



26 participating agencies

2008: EOC training and command post exercise

- Training provided an overview of EOC operations, information flow, and documentation
- Command post exercise focused on a vessel fire and Port evacuation



40 participating agencies

2009: Policy-level tabletop and full-scale exercises

- Tabletop exercise focused on policy issues of a public health emergency and non-compliant Port entry
- Full-scale exercise focused on a vessel and narcotics smuggling



33 participating agencies

2010: Port security and emergency response seminar

- Refresher training provided for NIMS, ICS, MARSEC, and Port security regulations
- Discussion-based exercise on Port threats and vulnerabilities

What is Coastal Trident?

- In 2011, the Coastal Trident program was **expanded in scope** to include regional objectives and stress technology integration



33 participating agencies

2011: Radiological response training and full-scale exercise

- Courses provided training in EOC action planning and radiological threat response
- Full-scale exercise focused smuggling of radiological materials and explosives precursors



54 participating agencies

2012: EOP training and full-scale exercise

- Training and workshop conducted to validate the Port's draft EOP
- Full-scale exercise focused on regional maritime counter-narcotics, humanitarian assistance, and WMD response operations

From 2011 on, the **“crawl, walk, run” approach is not generally applicable.** Some participants are at the “crawl” phase while others are “running.” The planning team develops modular program elements to **reduce technical and operational risk** of differing levels of capability.

Coastal Trident 2013

- Coastal Trident 2013 was conducted to explore the policy and operational considerations presented by the threat of **mines and underwater IEDs**
 - An **executive tabletop exercise** was conducted to examine policy, command, coordination, and resource management issues
 - A **full-scale exercise** was conducted to evaluate operational response plans, processes, and systems; coordination between jurisdictions; regional command and control; and public information
 - The scenario-based operational environment was leveraged to facilitate **field experimentation** and operational evaluation of technologies
- Coastal Trident was **aligned with Dawn Blitz 2013**, a U.S. Third Fleet MCM and amphibious operations exercise
 - Promote **civil/military response** and coordination
 - Provide **insight** into specialized civil and military capabilities



Program Elements

Executive Tabletop Exercise

June 12, 2013

- Examine the policy, command, coordination, and resource management issues surrounding the mining of a domestic port

Full-scale Exercise

June 18-20, 2013

- Exercise operational response plans, processes, and systems; coordination between jurisdictions; regional command and control; and public information
- Identify gaps in prevention, preparedness, response, and recovery capabilities against mine and UWIED threat

Field Test and Experimentation

June 18-20, 2013

- Facilitate demonstration and operational evaluation of developing and transitional technologies in the port and maritime environment

Executive Tabletop Exercise

- Targeting the **leadership** of the Port of Hueneme, NBVC, and regional law enforcement, emergency response, and management stakeholders, the Executive TTX addressed the following objectives
 - Assess current plans, aid agreements, and agency interfaces
 - Identify specialized local, regional, and national resources and capabilities, including capacity limitations
 - Establish expectations for the process by which federal and DOD resources are requested to support the local response
 - Identify and evaluate concerns related to notification of the public and management of media
 - Quantify risk to the public, response personnel and equipment, and the return to normal operations and identify management strategies

60 personnel from 30 organizations participated in the Executive TTX

Executive Tabletop Exercise

- **Three scenarios** were developed to facilitate discussions surrounding concerns about the mine or UWIED threat to a domestic port
 - A **substantiated threat** by an extremist organization to deploy explosive devices in the port and its entrance
 - The discovery of **military-grade ordnance** in the port
 - The discovery of **several underwater IEDs** in the port
- Discussions focused on strategic **differences** between the vignettes, **resources** available to address the problems, conflicting **expectations** and potential solutions, critical **information** needs, **command and control** issues, and **roles** and responsibilities



Full-Scale Exercise

- Targeting **regional** military, law enforcement, emergency response, and emergency management organizations and technology providers, the Full-scale Exercise addressed the following objectives
 - Evaluate interagency cooperation, coordination, and communications in the maritime domain
 - Evaluate regional capabilities to recognize and respond to the threat of mines and underwater IEDs
 - Evaluate the resource management capabilities of participants
 - Evaluate the technical capabilities and operational suitability of leading-edge technology applications to enable emergency response and management operations in the port and maritime environment

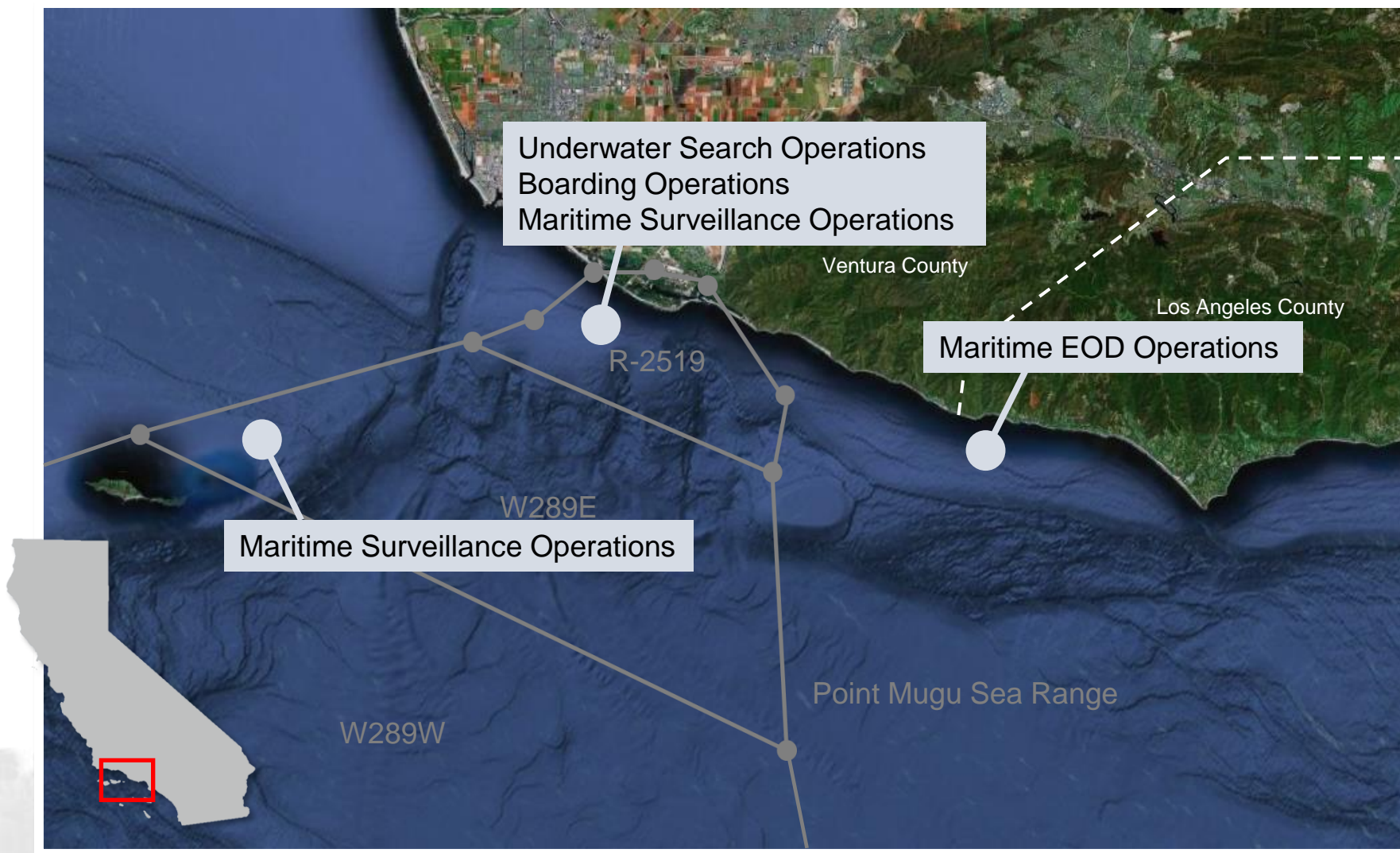
Over **500 personnel** from **115 local, state, and federal** government organizations and the **private sector** participated in the FSE

Full-Scale Exercise

- In response to the threat of mining activities by environmental extremists, the Port of Hueneme is temporarily closed to commercial traffic
 - Navy MCM resources have deployed to California ports to conduct exploratory operations
- A **series of events** prompt regional law enforcement and emergency response units to deploy and conduct specialized response operations
 - A suspicious boat appears to be **tending to divers alongside an anchored commercial cargo vessel** outside of the port
 - A fishing vessel discovers a **suspicious object caught in its nets**
 - A suspicious boat is observed **dropping large objects into the entrance to the port**, then **disembark several individuals** onto port facilities
 - A beachgoer discovers a **suspicious object washed up on the beach**
 - A suspicious boat is observed **tending to divers near an offshore oil platform**

Exercise Operations

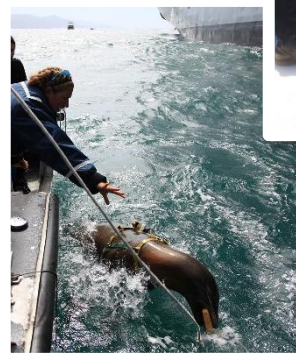
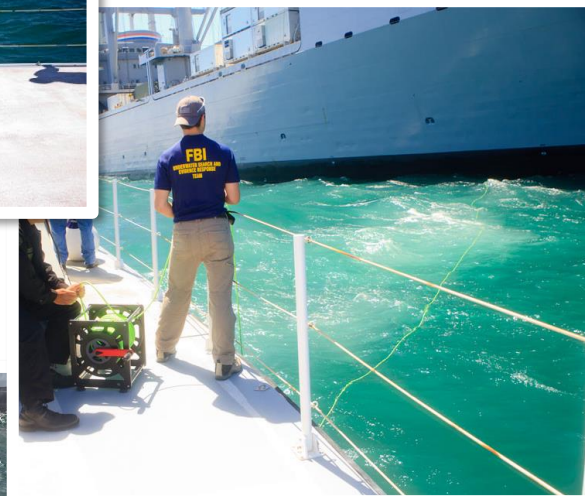
Day One – June 18, 2013



Operational Highlights

Day One – June 18, 2013

- Marine mammal, law enforcement dive teams, and remote operated vehicles **conduct underwater search** operations on hull of large vessel at anchor



Operational Highlights

Day One – June 18, 2013

- U.S. Coast Guard **conduct boarding and search** of large vessel at anchor



Operational Highlights

Day One – June 18, 2013

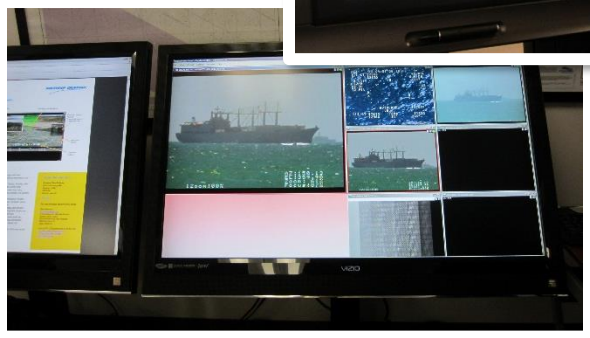
- Small unmanned aircraft **conducts launch and recovery** from small vessel



Operational Highlights

Day One – June 18, 2013

- Data from air, surface, and subsurface platforms **transmitted and viewed in real time** at maritime operations center



Exercise Operations

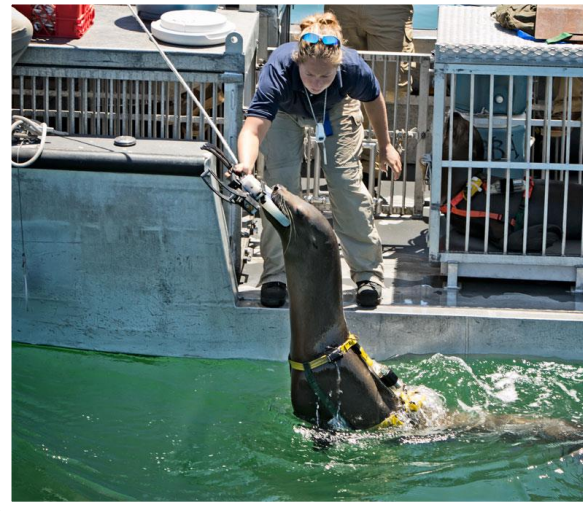
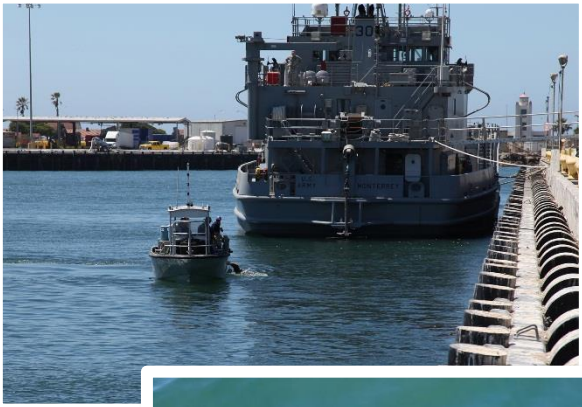
Day Two – June 19, 2013



Operational Highlights

Day Two – June 19, 2013

- Marine mammal team **conducts swimmer detection** operations in operational port



Operational Highlights

Day Two – June 19, 2013

- Law enforcement **bomb squad, evidence response team** conduct operations aboard a small vessel
- Law enforcement bomb squad demonstrates **robot capabilities in sand** during shoreline response operations



Operational Highlights

Day Two – June 19, 2013

- Unified Command facilitates local government request for Navy EOD support
- Manned aircraft support EOD and port security operations



Operational Highlights

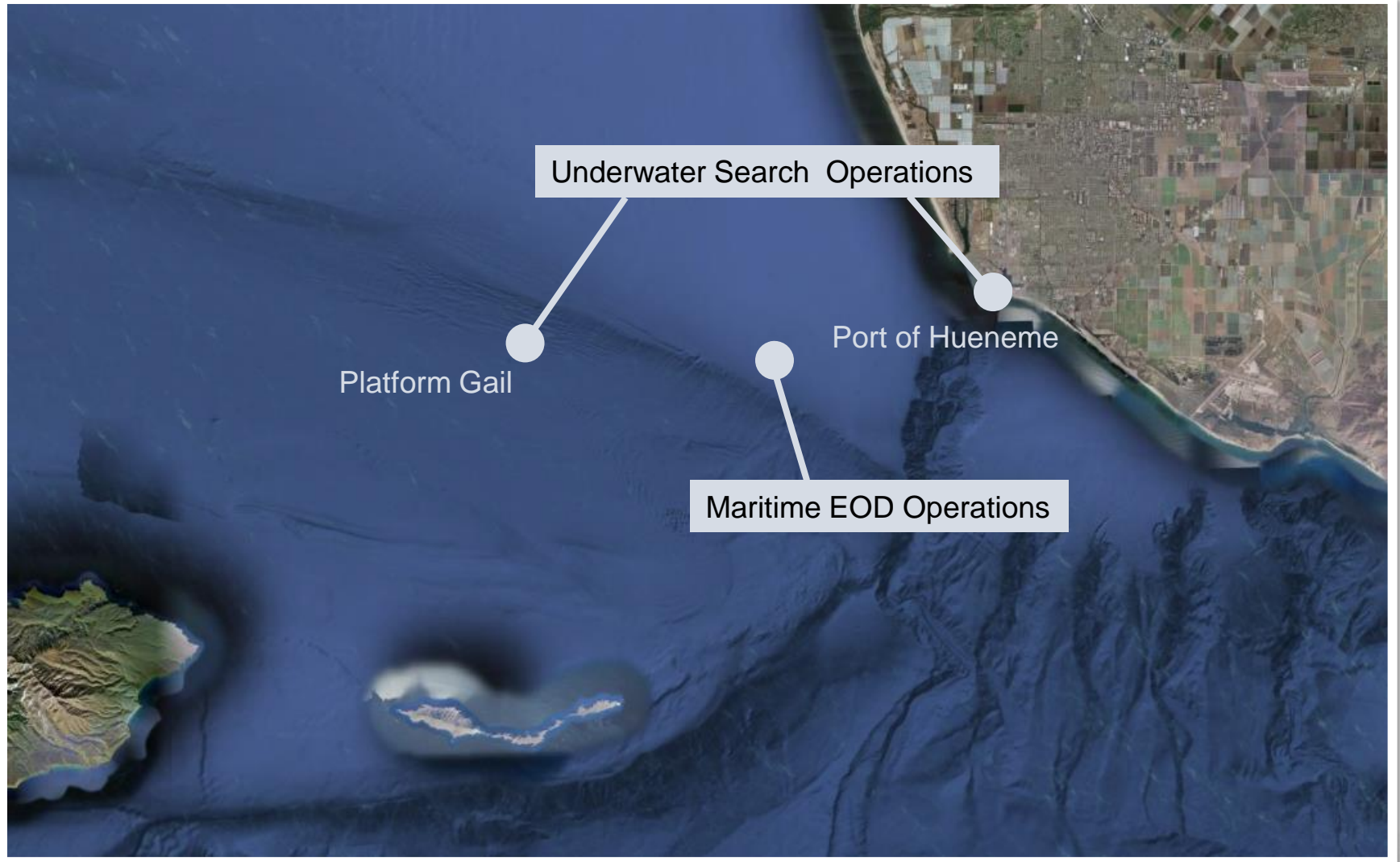
Day Two – June 19, 2013

- Law enforcement divers and autonomous underwater vehicles **conduct underwater survey** operations in operational port



Exercise Operations

Day Three – June 20, 2013



Operational Highlights

Day Three – June 20, 2013

- Marine mammal, law enforcement dive teams **conduct underwater search and EOD** operations at offshore oil platform



Operational Highlights

Day Three – June 20, 2013

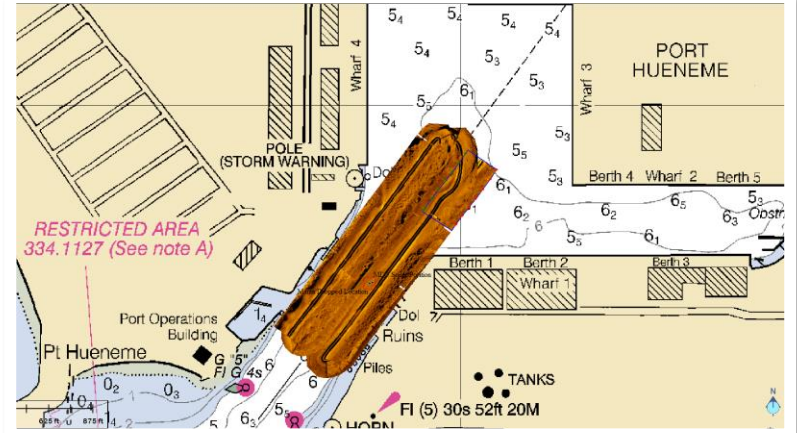
- Law enforcement bomb squad transfer to small vessel to conduct **render safe procedures** on IED



Operational Highlights

Day Three – June 20, 2013

- Autonomous underwater vehicle **conducts bottom survey** of operational port



Field Test and Experimentation

- Coastal Trident provides a **robust, realistic, and operationally relevant** venue for field test and experimentation of developmental, emerging, and transitional technologies
 - **Ready access to experimental facilities** within the Port of Hueneme, NBVC, the Sea Range at Point Mugu, and vessels including CAW-1
 - **Established partnerships** with local, state, federal government response agencies and private sector partners throughout the region
- Through integration into exercise activities, technologies are placed directly into the hands of **representative end users in representative scenarios**
 - **Demonstrates effectiveness and suitability** in a controlled operational environment and **accelerates feedback** through controlled field experiments
 - Facilitates rapid improvements and validation of concepts of employment **prior to operational fielding**, significantly increasing benefit to the developer and utility to the operational user

Field Test and Experimentation

Naval Surface Warfare Center – Port Hueneme Division

Seismic Acoustic Sensor Experimentation

- An applied experiment to evaluate the effectiveness of seismic acoustic sensors in the detection, classification, and tracking of maritime and terrestrial traffic

Onvoi, LLC

Puma AE UAV, DA-42 aircraft

- Field tests to demonstrate the viability of manned and unmanned aircraft systems for locating, identifying, and determining the intent of vessels and objects in the maritime environment

Perceptronic Solutions, Inc.

Collaborative Information Infrastructure for Planning, Operations, and Evaluation

- A research effort to develop a system assisting operational planners in the development and evaluation of courses of action in response to a potential incident or emergency

Field Test and Experimentation

Northrop Grumman

Common Operational Picture and Sensor Data Fusion

- Demonstration of the ability to maintain information superiority in the maritime domain through the use of integrated data from manned, unmanned, air, surface and underwater fixed and deployable sensors

Hughes

Satellite Communications in the Maritime Environment

- Field tests to evaluate the suitability of an IP satellite BGAN terminal to support communications in the maritime domain over the Inmarsat network

Bluefin Robotics

Unmanned Underwater Survey

- A series of field tests to evaluate the capabilities of unmanned underwater vehicles to search for, identify, and classify mines and UWIEDs in the port and maritime environments, in support of law enforcement response operations

Field Test and Experimentation

Motorola

Hands-Free Computing for Response Operations

- A demonstration of the ability for a hands-free enterprise mobile computer to provide access to complex graphical data or text through voice recognition, head gestures, and video streaming in remote and harsh operational environments

AT&T

Rapidly-Deployable Disaster Communications

- Demonstration of the ability for a dynamically-deployed GSM system that can be utilized in disaster areas to provide portable cellular coverage via satellite backhaul in response areas



Key Findings

- The threat posed by mines and UWIEDs represents a **regional problem**
 - **No single jurisdiction** maintains the capability, capacity, or resources to address the threat alone
 - Response organizations **must collaborate** with partners at federal, state, local levels, as well as leverage capabilities and expertise of private sector
- Most current all-hazards **plans are inadequate** to address the threat of mines and UWIEDs
 - Underwater hazard plans in place are **unfamiliar** to many local agencies
 - Most local plans do not consider the integration of regional resources into a **coordinated solution**
- Through participation in CT-13, participants have gained an **operationally validated understanding** of their own response capabilities and resources available to support from federal, state, local, and private sector partners

Key Findings

- CT-13 demonstrated the difficulty of maintaining “**information superiority**” in the maritime domain
 - **Great deal of data available** in real-time from manned and unmanned sensor platforms in air, on surface, and below the surface
 - Available tools to fuse and leverage this data to make decisions were **underutilized**
- The ability to conduct unmanned and autonomous aircraft operations, even in restricted airspace, remains an **administrative and logistical challenge**
 - Imposes **significant barriers** to development of innovative applications and concepts of employment
 - **Further education and better understanding** of requirements origins necessary in order to change test and evaluation culture

What's Next?

- An incremental follow-on to CT-13 will be conducted to explore the operational response considerations and technology applications surrounding the security of **offshore oil and gas platforms**
 - **Specialized capabilities** available to support security response
 - **Equipment and tactics** requirements to enable effective operations
 - **Technologies** capable of providing early warning and threat characterization
- “CT-13.5” will include orientation and familiarization, operational response, and field experimentation components as part of an **ongoing CAW initiative to address platform safety and security**



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