19th NDIA Expeditionary Operations Conference

19 November 2014

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Expeditionary Warfare Division (N95)
Branch Head, Naval Special Warfare Branch
OPNAV N951

Overall Brief is: **UNCLASSIFIED**

Naval Special Warfare

Chain of Command

CHIEF OF NAVAL OPERATIONS

SPECIAL OPERATIONS COMMAND (SOCOM)

- **NAVAL SPECIAL WARFARE COMMAND**
- **ARMY SPECIAL OPERATIONS COMMAND**
- **AIR FORCE SPECIAL OPERATIONS COMMAND**
- **MARINE CORPS SPECIAL OPERATIONS COMMAND**
- **JOINT SPECIAL OPERATIONS COMMAND**

Naval Special Warfare

What We Do

Naval Special Warfare

Overview

- **Demand for Special Operations Forces (SOF) and Naval Special Warfare (NSW) continues to grow**
- **Increased operational tempo in a fiscally constrained environment**
- **Sea based support to SOF has become increasingly important**

N95 - NSW Relationship

- **United States Special Operations Command (USSOCOM) has service-like responsibilities to plan, program, budget and execute resources for Special Operations (SO) – peculiar support, services and equipment.**
- **Military Departments have support responsibilities to plan, program, budget and execute resources for service common capabilities for Special Operations Forces (SOF). Principal guidance is provided by:**
  - Title 10, United States Code, Sections 165, 167.
  - DOD Directive 5100.01; Functions of the Department of Defense and Its Major Components.
  - Memorandum of Agreement – Department of the Navy and USSOCOM.
- **N95 is OPNAV's principal advocate and resource sponsor for the Navy component of USSOCOM - Naval Special Warfare (NSW) Command.**
  - Other NSW resource sponsors on the OPNAV staff include:
    - N96 – Chem/Bio equipment, SOF support attribues on future surface combattants.
    - N97 – SOF support attributes onboard Navy submarines.
    - N98 – Navy helicopter flight hours in support of NSW.
    - N2N6 - Small Tactical Unmanned Aircraft System (STUAS), Scan Eagle
- **During each POM and PR cycle, N95 considers requests submitted by Commander, Naval Special Warfare Command for sustained and/or increased service common resourcing support.**

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Major Efforts

- **Service common support to NSW**

- **ISR and Unmanned Aircraft Systems**
  - **Scan Eagle UAS**
  - **Small Tactical Unmanned Aircraft System (STUAS)**
  - **Fire Scout**

- **NSW capability integration in Navy Platforms**
  - **Mobile Landing Platform (MLP) / Afloat Forward Staging Base (AFSB)**
  - **JHSV**
  - **LCS**
  - **Undersea Insertion for SOF**
  - **Future platforms**

- **Science & Technology / RDT&E Advisor to N95**

- **Maritime Precision Engagement**

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Primary Responsibilities

- **Resource sponsor for:**
  - Naval Special Warfare (NSW) requirements
- **Senior NSW advocate/advisor on the staff of the CNO.**
  - NSW Urgent Operational Need (UON)/ Special Operations Force (SOF) - related Joint Urgent Operational Need (JUON) advocate
  - Advisor in support of N81 analyses and studies that include or support NSW/SOF equities
- **OPNAV coordinator/advocate for Navy programs that support/involve SW/ExW. Examples include:**
  - Scan Eagle UAS (in support of NSW and USCENTCOM) and the Small Tactical Unmanned Aircraft System (STUAS)
  - SOF support attributes of future Navy ships
  - Navy policy for Premeditated Personnel Parachuting (P3) and Helicopter Rope Suspension and Helicopter Cast/ Recovery (HRST/C) operations
  - Common combatant craft/seaframe for Navy/NSW
- **Represent Commander, NSW Command, as directed, in the National Capital Region.**

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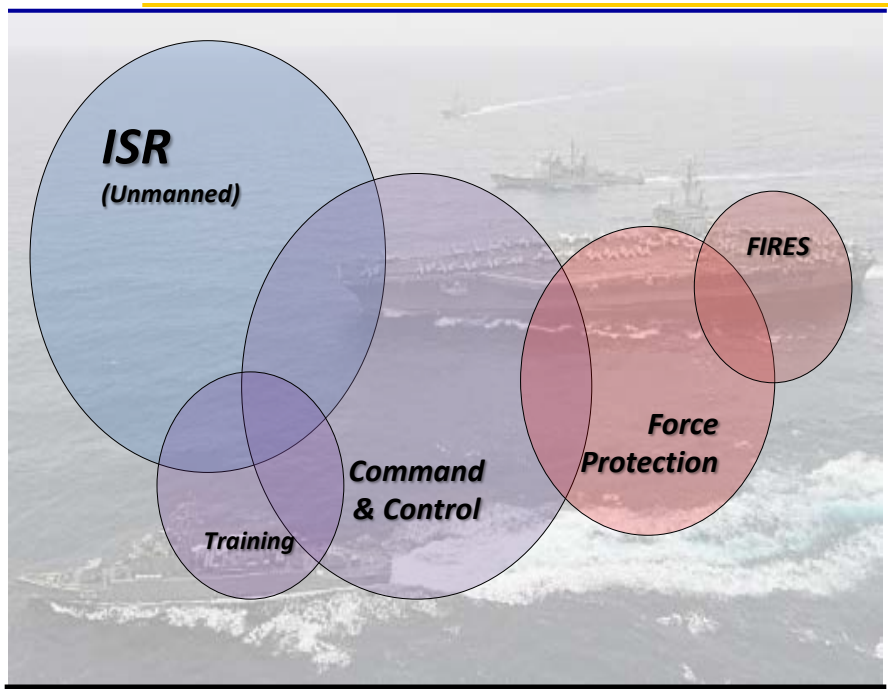
Rapid Capabilities Development

- **Mission:**
  - Identify and assess mature technologies for Expeditionary Warfare to meet urgent needs of the warfighter
- **Goals:**
  - Identify material solutions
  - Integrate & test existing unique or related capabilities
  - Demonstrate capabilities in operational environment, preferably during Fleet exercises or deployments
- **Requirements Documents:**
  - COCOM Integrated Priority Lists, JUONS
  - Navy Fleet IPCL, UON, unfunded gap/shortfalls, ROC
  - Navy S&T/R&D guides, Lessons Learned
- **FY-15 Broad Agency Announcement:**
  - Project proposals for FY15 efforts that support Expeditionary Warfare Capabilities
  - Near-term (< 2 yrs.) solutions
  - Less than $1M
  - Open through July 2015



Innovative and Mature Solutions to Accelerate Navy ExW Capabilities

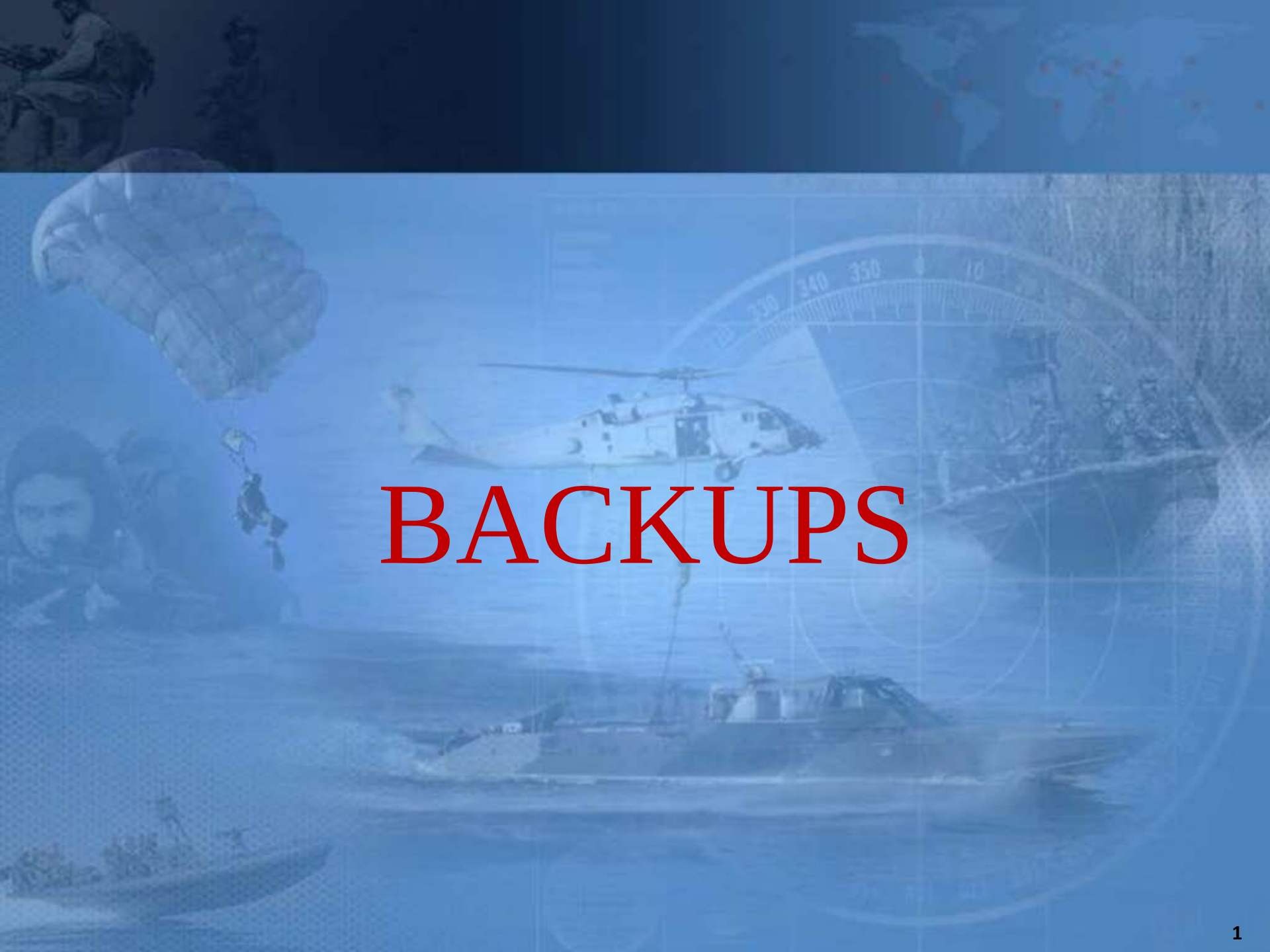
Opportunities for Industry
Capability Development Priorities

- Intelligence Surveillance and Reconnaissance
- Payloads
- Situational Awareness
- Stealth
- Survivability

Questions?

Expeditionary Warfare Division (N95)

CAPT Chad Muse, USN
Naval Special Warfare Branch Head (OPNAV N951)



BACKUPS

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Focus

FIND

Endurance/ Reach

Connectivity

NAVY

ANALYZE

Interoperability

- Communications
- Mobility

FIX

SOF

Dissemination

Minimize collateral damage

EXPLOIT

FINISH

Scan Eagle UAV

MISSION

Procured in response to NSW and Joint SOF Urgent Needs, the Scan Eagle UAS provides full-motion video (FMV) intelligence, surveillance, reconnaissance, and targeting support to tactical users.

Operational Overview

- IOC: Nov 08 (OIF), Aug 09 (OEF):
  - 30,000 Hrs.
  - 6,000 sorties
- Rapid Development Deployment (RDD) – Special Payload Efforts

Operational Employment:

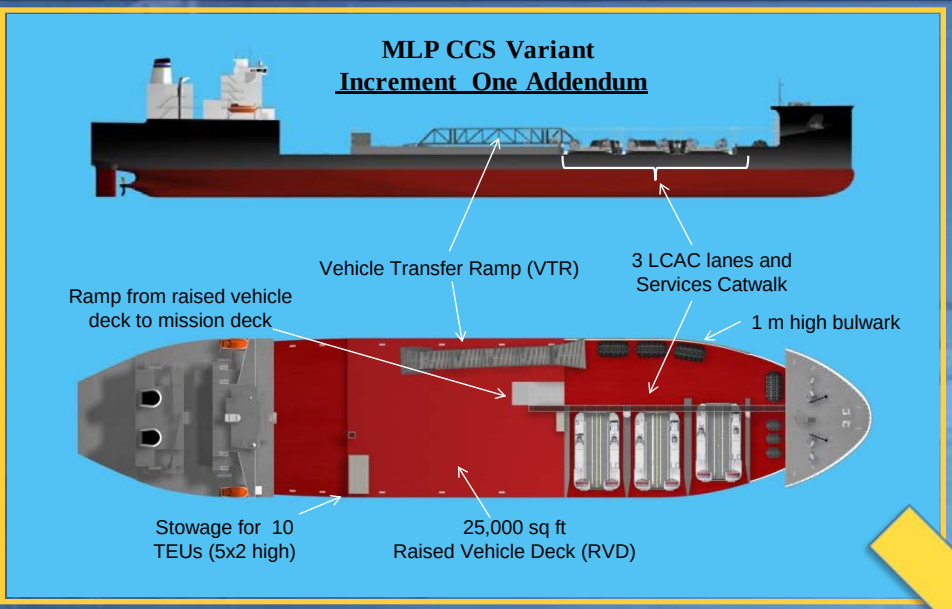
- 9 Navy-owned systems: 6 x Operational, 2 x training, 1 x Op
- Spare hub & spoke operations (300 hrs./month)
  - Spoke (forward control station) ~100km

Equipment:

- Scan Eagle UAS (12 air vehicles per site)
- Ground control stations, launch/ recovery, pack-up & maintenance

Scan Eagle UAS is an interim capability until fielding of STUAS Program of Record

MLP/ AFSB


MLP CCS Variant
Increment One Addendum
Vehicle Transfer Ramp (VTR)
3 LCAC lanes and
Services Catwalk
Ramp from raised vehicle
deck to mission deck
1 m high bulwark
Stowage for 10
TEUs (5x2 high)
25,000 sq ft
Raised Vehicle Deck (RVD)

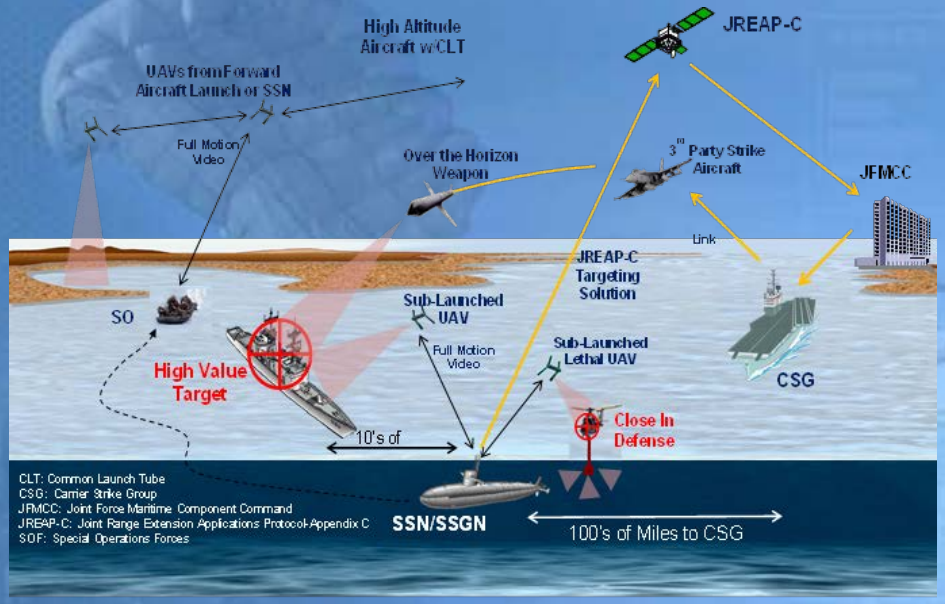

Hangar
HCS
AFSB Variant
HCS

STUAS

Overall Length	7.2 feet
Weight	Design gross take-off: 125 lbs.
Airspeed	80 knots
Ceiling	15,000 ft.
Range	50 nm
Payload	Electro-optical/ infrared, comm relay, AIS, LRF, IR Pointer

Advanced Weapons Enhancements for Submarine-Launched UAVs against Mobile Targets

(AWESUM)



Description

- AWESUM provides 3rd Party Targeting HVTs, Submarine Defense, and SOF ISR Support in A2AD environments through a submarine launched AUS. Already demonstrated from a 6" launch tube, this project will provide a launch canister from a 3" flare tube with delayed UAV deployment

System Capability

- Re-packaging UAV for submarine 3-inch countermeasure launcher
- Militarily useful UAV endurance (stretch fuselage and add batteries)
- Timed-release launch following deployment of the UAV from sub
- Sub-to-UAV comms via new mast antenna prototype
- Digital and encrypted transmissions
- JREAP-C (Link 16 over IP) on the sub for OTH targeting
- Weaponized version (inert demos) as a close-in and littoral self-defense option

Specifics

- Warfighter Gap Alignment: The Warfighter lacks the ability to discretely and quickly identify and defeat time-sensitive mobile targets in an anti-access area denial (A2AD) environment. This shortfall presents unique and compelling challenges to the Joint Force Commander (JFC) that the subsurface platform has the opportunity to resolve from a forward position.
- Requirements Basis: SOC3, SOC8, PC3, CC6
- Major Customers: SOCOM/PACOM/CENTCOM
- Legacy Systems: N/A

Remote Aquatic Directed Energy System
(RADES)

Description

- Develop and demonstrate an Unmanned Surface Vessel (USV)-mounted, compact High Power Microwave (HPM) payload against a simulated swarm of Fast Attack Craft (FAC)
- The USV and HPM source will be remotely controlled from a ship with Command and Control (C2) capabilities

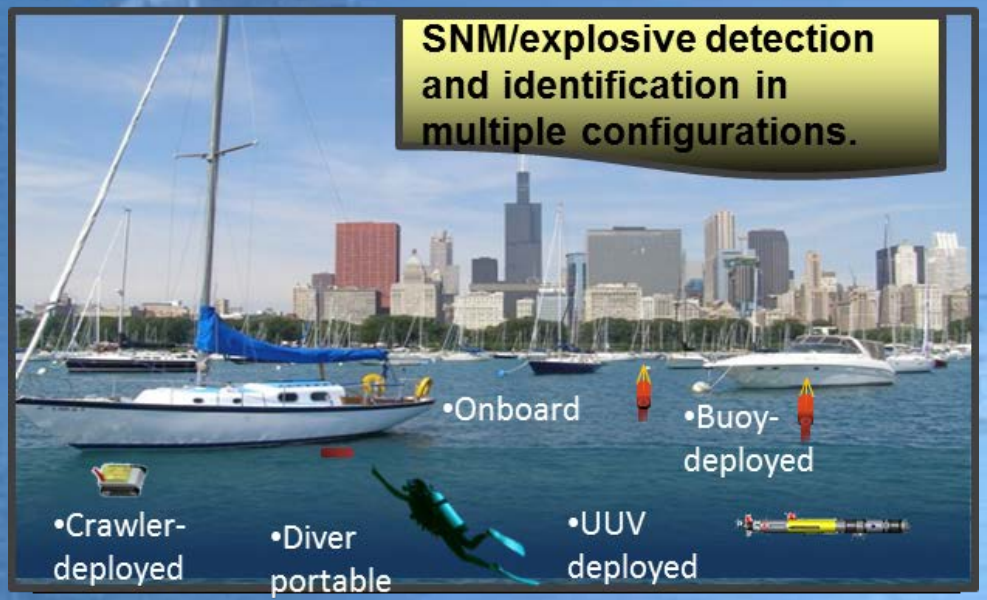
System Capability

- Demonstrate that RADES can successfully stop specific outboard boat motors at standoff range
- Intend to demonstrate on a 7 meter RHIB, deployable from Navy Ships, in Trident Warrior 2014 exercise

Specifics

- Warfighter Gap Alignment: Answers Integrated Prioritized Capability (IPCL) and Integrated Priority List (IPL) requirements for non-lethal force protections
- Requirements Basis: CC6, NC10, SOC10
- Major Customers: CENTCOM/NORTHCOM/SOCOM

Naval Undersea Tactical Interrogation and Covert Assessment System
(NAUTICAS)



Description

- Develop, create, and test a covert, compact underwater active interrogation system that can non-invasively determine if explosives, special nuclear material (SNM), and/or other materials of interest are present inside a maritime vessel.

System Capability

- Active non-invasive underwater interrogation
  - Special nuclear materials
  - Explosives
  - Other
- Applicable in anti smuggling and MIW warfare areas

Specifics

- Warfighter Gap Alignment: This is the first technology to provide a capability the military currently does not have: the ability to interrogate underwater through water, shielding, and structural components (fiberglass, steel, aluminum, etc.) to examine maritime vessel contents non-invasively.
- Requirements Basis: CC2, CC8,
- Major Customers: CENTCOM/NORTHCOM