



N857

NAVY EXPEDITIONARY COMBAT BRANCH

Captain Dan Colman, Branch Head

Expeditionary Combat Operations – What's Next?



PRESENTED TO:

NDIA
National Defense Industrial Association

15TH ANNUAL EXPEDITIONARY
WARFARE CONFERENCE
Panama City, FL
4-7 Oct 10

Navy Expeditionary Combat

NECC World Wide Force Participation Since 2007



NORTHCOM
 JTFEXS
 PATRIOT PARTNER
 GOLDEN CARGO
 CONTINUING PROMISE (USNS COMFORT)
 JLOTS
 UNITAS GOLD
 TRIDENT ARCH
 JAVELIN THRUST
 CITADEL GALE
 DELMAR

EUCOM
 OPERATIONS:
 CTF-68-
 NCF/MESF/EOD/NEIC/
 MDSU
 SOCEUR CIF - EOD
 JTF EAST - NCF
 ENGAGEMENTS/EXERCIS
 ES:
 SEA BREEZE
 UKRAINE MARITIME
 SECURITY
 BLACK SEA
 PARTNERSHIP
 LOYAL MARINER
 BRILLIANT MARINER
 BRILLIANT MIDAS
 JOINT WARRIOR
 TUNISIA

PACOM
 OPERATIONS:
 PACFLT/C7F SUPPORT -
 NCF/MESF/EOD/MDSU
 JSOTF-P - MESF/MCAG/NCF
 ENGAGEMENT/EXERCISES:
 CARAT
 PACIFIC PARTNERSHIP
 STATION
 COBRA GOLD
 KEY RESOLVE
 TALON VISION
 CONTINUING PROMISE
 PACIFIC (USNS MERCY)
 PROJECT FRIENDSHIP
 FOAL EAGLE
 ULCHI FOCUS LENS
 FREEDOM GUARDIAN
 DEEP FREEZE
 MIATA
 IWOJIMA MINEX
 DUGONG MINEX
 BALIKATAN
 HONG KONG EODEX
 SPITTING COBRA
 EOD SMEE
 TALISMAN SABER

CENTCOM
 OPERATIONS:
 MNF-W:
 RIVERINE/EOD/NCF/
 MESF/NAVELSG/NEIC/
 MCAG
 CJSOTF: NCF/EOD/
 COMCAM/ MCAG
 NAVCENT/C5F:
 MESF/NEIC/EOD/
 NAVELSG
 ENGAGEMENT/EXERCIS
 ES:
 NATIVE FURY
 EGYPT EOD CIED
 JORDAN EOD CIED
 BEIRUT EOD CIED
 SAUDI ARABIA CIED

SOUTHCOM
 OPERATIONS:
 JTF GTMO - NCF/COMCAM
 NAVSOUTH - PANAMA CANAL
 TRANSITS - MESF
 ENGAGEMENTS/ EXERCISES:
 PANAMEX
 JLOTS
 CONTINUING PROMISE (USNS
 COMFORT)
 BEYOND THE HORIZON
 PROJECT FRIENDSHIP
 SOUTHERN PARTNERSHIP
 STATION

AFRICOM
 OPERATIONS:
 JTF-HOA -
 NCF/MCAG/NEIC/EOD
 11
 ENGAGEMENT/EXERCISES:
 JTF HOA
 FLINTLOCK
 WATC
 AFRICAN PARTNERSHIP
 STATION
 GULF OF GUINEA
 CAMEROON
 SEYCHELLES



Responsibilities



RESOURCE / WARFARE SPONSOR

- Advocate and source requirements
- Close coordination within OPNAV and with NECC, acquisition community and S&T community
- Balance operating needs with future capabilities

FOCUSED ON

- Navy Expeditionary Combat Command
- Joint Programs For Explosive Ordnance Disposal (EOD)
- Joint Non Lethal Weapons
- Energy Efficiency

DEFINING NEEDS ~ PRIORITIZING INVESTMENTS

Navy Expeditionary Combat A Vision for the Future



A fully integrated littoral combat force



Forces that link the maritime and land domains, effectively enabling the support of Joint operations ashore from the global maritime commons



Units that are globally engaged providing training, advice, and assistance to partners at the individual level



“Dual use” general purpose forces, equally suited to meet both conventional and irregular challenges



Forces that are deployed in predictable and sustainable rotations

Force Evolution



Current Expeditionary Combat Force

COLLECTION OF INDIVIDUAL COMPONENTS

- Maritime Expeditionary Security
- Explosive Ordnance Disposal
- Expeditionary Construction
- Expeditionary Logistics
- Maritime Civil Affairs & Expeditionary Training
- Riverine
- Combat Camera
- Expeditionary Intelligence

Robust C4ISR
Force Commonality
Improved Self Defense
Enhanced Logistics Tracking
Improved Undersea Warfare Capability
Adaptive Force Packaging

Future Expeditionary Combat Force

INTEGRATED FORCES



Capability Implications

What we need from you to help us get there



Flexible and Responsive C2

Common architecture that allows for “plug and play” compatibility for unique C2 requirements & robust “reachback” capability.



Pre-Positioning

Deployable equipment and stock configured for immediate deployment at fleet mobilization sites.



Modularity

Platform and equipment commonality and standardization.



Force Agility, Interoperability, Adaptability to Achieve Global Engagement

Capability Implications

What we need from you to help us get there



Improved Sensors

- To detect & track underwater threats in shallow/very shallow water
- Interoperable with overarching C4 infrastructure



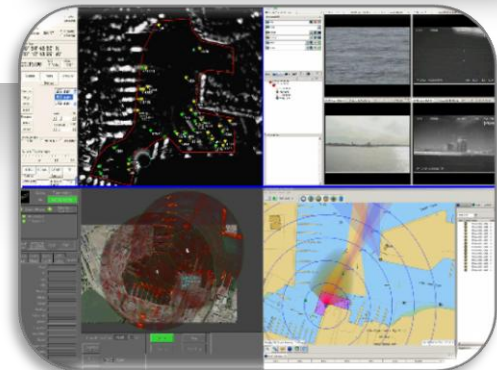
Unmanned Systems

- Incorporation of open architecture to permit cost effective upgrades
- Systems capable of accomplishing mission critical tasks beyond simple surveillance



Adaptive, Deployable Networks

- To enable persistent awareness
- Able to integrate sensor data & enhance COP



Capability Implications

What we need from you to help us get there



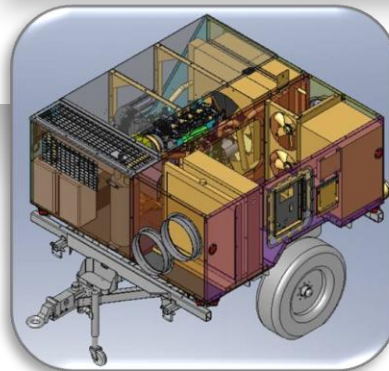
Non-Lethal Effects

- Stand off vessel/vehicle stopping
- Reduced size, weight, and cost of directed energy systems
- Increased range of fielded systems



Energy Efficiency

- Improved Environmental Control Units
- Hybrid CESE
- Alternate energy sources for expeditionary tent camps



Leverage COTS/GOTS

- Must maximize return on investment of S&T development funding
- In many cases, industry, other services, & OGAs may already have what we need



Engaging N857



Force/Commodity Managers

ELSG/Sub-surface Defense	CDR John Rivers	john.rivers@navy.mil
MESF	LCDR Nakia Cooper	nakia.cooper@navy.mil
EOD/JEOD	LCDR AJ Kyle Ed Ebinger John Stansbury	anthony.kyle@navy.mil edwin.ebinger.ctr@navy.mil john.stansbury.ctr@navy.mil
Non-lethal Weapons	Corey Noel	corey.noel@navy.mil
MCAS/ECRC/ETC/NEIC	Mike Polidoro	michael.polidoro@navy.mil
NCF/Tactical Vehicles	George Wenchel	george.wenchel.ctr@navy.mil

Capability Area Managers (CAMs)

Afloat	Steve Gorin	steven.gorin@navy.mil
Ground	Harry Guthmuller	harry.guthmuller@navy.mil
C5I	Matthew O'Connor	matthew.oconnor@navy.mil

Partnering with Industry to Support the Force



Your technological efforts to assist our needed capability advancements directly support Expeditionary Warfare's Resource Strategy for Programs!

**HELP US
HELP YOU !**



Backups

Capability Implications



- **Enabling non-lethal effects**
- **On surface and subsurface contacts of interest**
- **Aid in determining contact intent**
- **Enabling stand-off explosive detection, classification, and neutralization**
- **Enabling expeditionary energy enhancements**
- **Alternative power sources**
- **Water purification**
- **More efficient environmental control units (ECUs)**
- **NECC 15 Year Energy Strategy**

Capability Implications

NECC Vision 2024



- **Enabling the Reception, Staging, Onward movement, and Integration (RSOI) of Joint/Combined/Multinational forces:**
 - Austere port and airfield operations
 - JLOTS
 - Warehousing and distribution
 - Expeditionary base operations
 - By conducting rapid repair of ports and airfields
 - By building expeditionary facilities both on land and underwater
- **Enabling combat engineering capabilities that:**
 - Establish expeditionary facilities and utilities
 - Repair or protect critical infrastructure and utilities

Where does NECC need your help?



- **Sensor Technology**

- Unmanned Systems (UAV/USV/UUV)**

- ❖ More capability in a smaller package in more varied operational environments
- ❖ User friendly design to capture the skills of technology generation
- ❖ Inter-operable; enhancing common operating picture and knowledge
- ❖ Energy efficiency

- Standoff Detection**

- ❖ Persistent ISR applications
- ❖ Fixed-site, Force Protection, Proliferation Security Initiative, EOD
- ❖ Counter IED and Chemical, Nuclear, Biological

- Enhanced Situational Awareness**



- **Integrated Armor and Lightweight Personal Protection**

- Layered and adaptive protection across spectrum to defeat multiple threats without significant increase to personnel and platform footprint
- Ground vehicles, green water-borne platforms, work sites
- Plug and play, able to shed armor when not needed



- **Adaptive, Deployable Networks**

- Incorporate wireless technology for the battlefield
- Optimize logistic footprint
- Interoperability with the Intra-Agency, local governments, NGO's

- **Enhanced Cultural Awareness and Language Translation**

- CBTs and field-employable multi-language translation tool
- Training enablers to facilitate Security Force Assistance in multiple operating areas

Where does EOD need your help?



- **Unmanned Systems**
 - ❑ UUV/UAV/Ground Robotics communications enhancement
 - ❑ Underwater vehicle sensor and neutralization technology
 - ❑ Energy Efficiency
 - ❑ Ground Robotics advancements
 - ❖ Reduce time-on-target
 - ❖ Light weight systems for agile, dismounted ops without capability loss
 - ❖ Enhance manipulation capability
 - ❖ Extend operation life with advancements in power generation/supply
- **Personnel Protection**
 - ❑ Ultra light and agile body armor
 - ❑ Next generation bomb suit technology
- **Standoff Detection and Disruption**
 - ❑ Determine the threat before going into harms way
 - ❑ Enhance survivability
 - ❑ Defeat the Network*
 - ❑ Spectrum of Effects: Non-kinetic, low-order, high-order neutralization
- **Forensics**
 - ❑ Radiographic systems
 - ❑ Post Blast investigation
 - ❑ Wireless transmission/reception*



Where does CREW need your help?



- **Antennas and Amplifiers**
 - ❑ **Environmental efficiency**
 - ❑ **Size and weight**
 - ❖ Dismounted applications
 - ❖ Future combat vehicle families
 - ❖ Fixed site applications
 - ❑ **Energy efficiency**
- **Receivers/Processing/Modulators/Integration**
 - ❑ Open architecture to enable continuous system enhancement
- **Common Timing And Electromagnetic Compatibility**
 - ❑ Interoperability across DoD Electronic Warfare systems
 - ❑ Develop systems permitting span of C5ISR capabilities
- **Additional Technology, Information, Recommendations**

BAAs:

- <http://www.onr.navy.mil/02/BAA>
- <https://bids.acqcenter.com/jieddo/>

CREW is transitioning to N2/N6

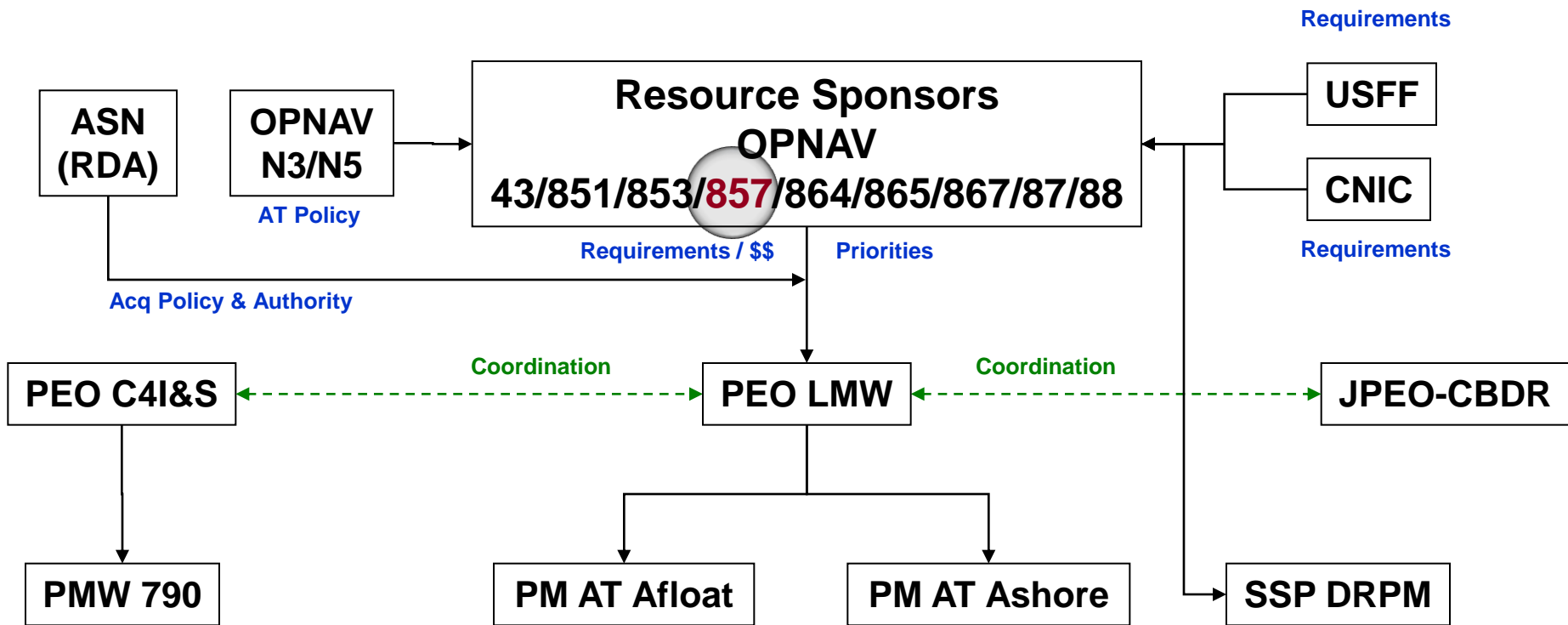
Where does Navy NLW need your help?



- **Stand off vessel stopping**
- **Stand off vehicle stopping**
- **Reducing the size and weight and cost of directed energy systems**
- **Integration of directed energy systems into shipboard platforms as part of their self defense systems**
- **Determining contact intent**



Where is N857?



N857 Organization

