N857
NAVY EXPEDITIONARY COMBAT BRANCH
Captain Dan Colman, Branch Head
Expeditionary Combat Operations – What’s Next?
**NORTHCOM**
- JTF EXS
- PATRIOT PARTNER
- GOLDEN CARGO
- CONTINUING PROMISE (USNS COMFORT)
- JLOTS
- UNITAS GOLD
- TRIDENT ARCH
- JAVELIN THRUST
- CITADEL GALE
- DELMAR

**SOUTHCOM**
- JTF GTMO – NCF/COMCAM
- NAVSOUTH - PANAMA CANAL TRANSITS – MESF

**AFRICOM**
- OPERATIONS:
  - JTF-HOA – NCF/COMCAM/NEIC/EOD
  - 11

**EUCOM**
- OPERATIONS:
  - CTF-68
  - NCF/MESF/NEIC/EOD/MDSU
  - SOCEUR CIF – EOD
  - JTF EAST - NCF

**CENTCOM**
- OPERATIONS:
  - MNF-W:
  - RIVERINE/EOD/NCF/NEIC/MESF/MCAG
  - CJOTF:
  - NCF/EOD/COMCAM/ MCAG
  - NAVCENT/C5F:
  - MESF/NEIC/EOD/NAVELSG

**PACOM**
- OPERATIONS:
  - PACFLT/C7F SUPPORT - NCF/MESF/EOD/NEIC
  - JSOTF-P – MESF/MCAG/NCF

**Navy Expeditionary Combat**
- NECC World Wide Force Participation Since 2007
Responsibilities

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

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

DEFINING NEEDS ~ PRIORITIZING INVESTMENTS
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

Future Expeditionary Combat Force
INTEGRATED FORCES

Robust C4ISR
Force Commonality
Improved Self Defense
Enhanced Logistics Tracking
Improved Undersea Warfare Capability
Adaptive Force Packaging
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
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
# Force/Commodity Managers

<table>
<thead>
<tr>
<th>Category</th>
<th>Manager</th>
<th>Email</th>
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</thead>
<tbody>
<tr>
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</tr>
</tbody>
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# Capability Area Managers (CAMs)

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<thead>
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</table>
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
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
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
Developing a Fully Integrated Dual-Use Force

- Investments in high-demand/low density SFA-capable forces
- Common, upgraded C4I infrastructure
- Small boat standardization
- Continued EOD technology development
- Robust non-lethal capabilities

NECC forces LINK the maritime and land domains across the challenging littoral battlespace.
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*
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](http://www.onr.navy.mil/02/BAA)
- [https://bids.acqcenter.com/jieddo/](https://bids.acqcenter.com/jieddo/)

Where does CREW need your help?

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?

Resource Sponsors
OPNAV
43/851/853/857/864/865/867/87/88

ASN (RDA)
OPNAV N3/N5
Acq Policy & Authority
PEO C4I&S
PMW 790

PEO LMW
PM AT Afloat
PM AT Ashore

Requirements
USFF
CNIC

Requirements
Coordination
PEO-CBDR
SSP DRPM