21st NDIA Expeditionary Warfare Conference

Navy Expeditionary Combat Command
Balancing Capabilities & Capacity

Ms. Nancy Harned
Executive Director
NECC/NECCPAC

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Unclassified
Outline

• Force Overview
• Organization
• NECF Innovations
  • New Capabilities
  • Recent Exercises
• NECF Future Capabilities
Navy Expeditionary Combat Command Mission:

Organize, man, train, equip and sustain Navy Expeditionary Combat Forces to execute combat, combat support, and combat service support missions across the full spectrum of joint, combined, multinational, and civil-military operations to control and enable freedom of action throughout the sea-to-shore and inland operating environments.
Navy Expeditionary Combat Force Responsibilities

- Navy Expeditionary Combat Forces (NECF) operate forward around the globe supporting the fleet in every theater.
  - **Clear** the battlespace of explosive, security and physical hazards; shaping the security environment
  - **Secure** the battlespace, throughout the littorals, for U.S., joint and coalition partner access and action
  - **Build** partnerships leading to domain access awareness through assured command and control (C2) and critical infrastructure development
  - **Protect** from threats to through Battlespace Awareness and Integrated Fires
Navy Expeditionary Combat Force – How We Fight Today

- Task Organized into Adaptive Force Packages (AFPs)
  - O5/O6 command
  - Expeditionary operations in austere locations

- Adaptive Force Packages (AFP) are scalable in capability, size and scope; task-oriented consistent with supported-commander requirements, and by their very nature expeditionary

- The use of AFPs provide the Navy Expeditionary Combat Force (NECF) sustainable operational warfighter capabilities

- The Navy Expeditionary Combat Command (NECC) routinely uses major fleet and combined exercises to test concepts, interoperability and exercise NECF Command Elements in Navy Mission Essential Tasks (NMET)
Navy Expeditionary Combat Forces
Battlespace
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Force Structure History
Navy Expeditionary Combat Forces

BLUF: Today’s Navy Expeditionary Force is overall 25% smaller than it was in 2000 and 37% smaller than it was in 2007.

Since 2011, Echelon IV units disestablished:
- EOD: 10
- NCF: 20
- CRF: 7
- NEIC: 9
- NAVELSG: 8
Navy Expeditionary Combat Forces
Unit Locations

LEGEND

- Type Commander/ Echelon IV Headquarters
- Additional NECF Active/ Reserve Locations

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Navy Expeditionary Combat Forces
Deployed Forces as of 30 Sep 16

EUCOM: 470
- CTF 68: 27
- NCF: 279
- EOD: 112
- CRF: 44
- NAVELSG: 1
- NEIC: 7

AFRICOM: 486
- NCF: 365
- EOD: 34
- CRF: 69
- C-IED TG: 18

CENTCOM: 994 (66 AFG) (8 IRAQ)
- CTF 56: 50
- NCF: 143
- EOD: 152
- CRF: 551
- NAVELSG: 78
- NEIC: 20

NORTHCOM: 130
- CRF: 130

SOUTHCOM: 14
- NCF: 3
- EOD: 6
- NAVELSG: 5

PACOM: 1,175
- CTF 75: 34
- NCF: 817
- EOD: 164
- CRF: 129
- NAVELSG: 27
- NEIC: 4

“If you are not mobile, you are not relevant!” ADM Swift, Commander, U.S. Pacific Fleet, May 2016

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**MK VI Patrol Boat (PB)**

**Design Characteristics**
- Length x Beam x Draft: 84.8' x 20.5' x 4.5'
- Range: 600 nm at full load (4000+ gal of fuel)
- Speed in 3’ seas at full load: 25+ kts cruise, 35+ knots sprint
- Crew: 2 crews, 5 personnel each, plus 8 person mission team (18 total)

**Mission:**
Provide capability to persistently patrol shallow littoral areas beyond sheltered harbors and bays for the purpose of force protection of friendly and coalition forces and critical infrastructure

**Concept of Operations**
- Able to conduct a variety of missions:
  - Surface Warfare (FAC and FIAC)
  - Maritime Infrastructure Protection
  - Mine Warfare – with UUV
  - Intelligence, Surveillance, Recon
  - AFSB and/or shore-based
- 24-hour un-supported operations
- Supports UAV, USV, and UUV
- Mission Reconfigurable
- Deploy in threes, operate in pairs
- Supported by maintenance det
- MK VI PB is capable of conducting missions associated with more costly platforms (e.g., DDG, MCM, LCS)
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**NECC/NECCPAC**
Adaptive, Responsive, Expeditionary

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Expeditionary MCM Mission

• **Mission:** Counter naval mines and other underwater explosive threats in near shore areas.

• **Expeditionary MCM (ExMCM):** The MCM mission conducted by EOD forces, and often where surface and airborne MCM assets cannot operate due to geographic or depth limitations.
  – Pre-assault/Advance Force in support of Amphibious Warfare missions
  – Underwater explosive threats - as well as obstacles - in confined or restricted areas including harbors, ports, beach approaches and potential assault force landing sites.

• Intelligence Preparation of the Environment (IPOE): EOD divers, marine mammal systems and unmanned systems to assess moored, ground and buried mine threats.
  – SLOCs, Choke Points
  – Q-Route surveys

A scalable platform and sensor agnostic approach to execute MCM missions
Expeditionary MCM Company


Search – Classify – Locate
Q-Route (ISR/IPOE) Ports / Points

Reacquire – ID – Neutralize – Exploit

Video Sonar and ID / Portable Neutralizer

ROV Operators

MK 18 Mod 1 “Swordfish” Mk18 Mod 2 “KINGFISH” SEAFOX ROV (1-shot neutralizer) SEABOTIX ROV (multi-mission) MK16 UBA (EOD divers)

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**Mission:** Provide a modular, scalable and rapidly deployable command and control system for Expeditionary Forces.

**Where Expeditionary C4I is going**

- Single network system (NETC2) leveraging DJC2 product line
  - NETC2V2 is an everything-over-IP (EOIP) IT and communication system that provides classified and unclassified voice, video and data network services

- Multiple RF paths for IP based communications (HF, VHF, UHF, UHF SATCOM/w MUOS, SHF, EHF) that are plug and play between boats, vehicles, man packs and TOCs
  - Protected Communications (i.e. EHF)

- More automated cybersecurity solution & remote assistance

- Strive for commonality with the afloat Navy
  - Shipboard communication solutions don’t always work for the other half of the expeditionary force (ground mobile, small boat, small teams in urban areas)
Airfield Damage Repair (ADR)

- **Mission:** Combatant Commanders’ warfighting plans require airfield damage repair (ADR) capabilities in order to sustain air operations that are essential to multiple missions.

- **NECC Objectives:**
  - Employ Naval Construction Force (NCF / Seabees) capabilities to conduct ADR in maritime and expeditionary environments are essential to enabling and sustaining Naval and Joint air operations.
  - Assess evolving threats to maritime and expeditionary airfields demand unique, equipment, skill sets and training to generate NCF ADR capability.
Energy Solutions

**FIELDED INITIATIVES (EFFICIENCY GAIN)**

- Construction Equipment GPS Blade Control (40%)
- Adv Medium Mobile Power System (20%)
- Improved Environmental Control Unit (20%)
- Expeditionary Facilities (30%)
  - Energy Efficient Tent Liners
  - LED Lighting
  - Solar Shades

**ONGOING INITIATIVES (EFFICIENCY GAIN)**

- Expeditionary Power Integration and Control (EPIC) (45%)
- More efficient ECU (20-50%)
- Fuel Efficient MTVR (27-40%)
- Renewable Energy Technology Maturation (TBD)
  - Solar, wind, tidal, waste to energy
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BOLD ALLIGATOR

• **Scenario:** An annual Fleet Forces Command / MARFORCOM amphibious exercise designed to improve Naval Amphibious core competency and refine ESG-2 and 2nd MEB staff’s ability to plan and execute MEB sized amphibious operations from a seabase

• **NECC Key Objectives:**
  o Provide NECC LNOs to incorporate integrated staffs (FICE)
  o Seebees provide composited forces in theater to assist with forward operating bases
  o Continue interoperability with Coalition forces (availability of CENTRIX)
  o Enhance and continue to revitalize the relationships between the Navy and Marine Corps regarding amphibious operational capability
  o Develop and refine the supporting/supported relationship and doctrine for MEB/ESG/NECC integrated operations
  o Execute C2 of all forces in support of amphibious operations from the seabase and phase aspects of C2 ashore

**Recent accomplishments:**

- CRF integration with ESG
- Coordination of fires support from MEB/ESG
- UAV integration into air planning
- NCF Expeditionary Advanced Bases
- EOD ExMCM validation for ESG support
RIMPAC

- **Scenario:** RIMPAC fosters multinational cooperation and trust, enhances interoperability, enables professional engagement, and achieves respective national objectives to build capable and adaptive coalition partners.

- **NECC Key Objectives:**
  - Maintain and improve Mil-to-Mil relations between U.S. and participating foreign forces.
  - Assist in conducting amphibious raids and assaults with combat construction units.
  - Conduct Humanitarian Assistance / Disaster Relief, and Search and Rescue Operations.
  - Conduct logistics and combat service support.
  - Conduct diving operations and explosive clearing.

Recent accomplishments:
- C4I NETC2 demonstration/integration
- EOD ExMCM with LCS
- NCF HA/DR training with coalition
- NAVELSG Strategic lift integration
DAWN BLITZ

- **Scenario:** Leverages the SOCAL operating area as maneuver space in order to increase amphibious combat readiness via the conduct of a joint, combined amphibious exercise

- **NECC Key Objectives:**
  - Enhance Naval and Coalition relationships through common amphibious exercise
  - Execute dynamic and scripted training designed to develop staff and/or individual core competencies in Amphibious operations, to include:
    - Conduct limited Over the Horizon (OTH) operations with available connectors
    - Conduct amphibious supporting operations
    - Conduct kinetic and non-kinetic fires in support of amphibious operations
    - Incorporate joint, Interagency, Intergovernmental, and Multinational (JIIM) operations
Defense Support of Civil Authorities
Humanitarian Assistance / Disaster Relief

• Defense Support of Civil Authorities (DSCA)
  - Designated Navy Lead Element, CTF 86
  - Liaise with Civil Authorities to perform tasks in accordance with Stafford Act
  - Activities: Minnesota Bridge Collapse, Hurricane Sandy Response, Exercise Ardent Sentry

• Humanitarian Assistance/Disaster Relief (HA/DR)
  - Adaptive Force Package task organized to support designated operations
  - Activities: Hurricane Irene-Haiti, Hurricane Mathew - Haiti

Security, Partnership, Stability “People Are Our Platform”
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The Way Ahead

• Equipment weight reduction to ease deployment lift requirements and maneuverability ashore

• Force protection boat (34 ft replacement) that is smaller, armed, and armored with fast speed, long range with good seakeeping capabilities

• Soil stabilization (concrete) to create a faster means for Airfield Damage Repair (ADR)
Summary

- What can industry do for us
  - Improve algorithms for data analysis aids
  - High data rate transport for ExMCM afloat
  - Protected communications in a Command and Control in a Denied or Degraded Environment (C2D2E)
  - Mobile secure network connectivity
  - Lightweight common tactical picture
  - Stronger, lighter, high endurance materials
  - Reduced Life Cycle Costs: Training, Maintenance, Technology Refresh