Toward a Modern Seabased Expeditionary Capability

Enhanced Company Operations
&
Enhanced MAGTF Operations

Experimentation and Capability Development

NDIA Expeditionary Warfare Conference
Panama City, FL

19 Nov 2009
MCWL Mission: “Conduct concept-based experimentation to develop and evaluate tactics, techniques, procedures and technologies....”

“The primary product of the Lab is knowledge, which informs capability development along a variety of pathways and via a wide range of service partners.”

BGen R.F. Hedelund, CG MCWL
ECO/EMO: Shift to the Deep Target

Enhanced MAGTF Ops Company Landing Team (2011-2014)

Enhanced Company Ops (07-10)
Company-level Ops Center (Light)
Company-level Intel Cell
Distributed Logistics/
Lighten the Load

Distributed Operations (04-06)
Two LOEs (test in OEF)
Squad Fires
Combat Hunter

Product:
Conventional, combined arms force for any “clime, place” or warfare label (small war/big war)
The Challenge: Capability Must Reflect Reality

"With repeated OIF/OEF deployments, amphibious core competencies in the operating forces have eroded to the point where it was important to use a graduated approach toward building skills to live and operate aboard and from amphibious ships."

- Marine Corps Center for Lessons Learned
  MEU Operations Afloat 19 Oct 2009
Setting the Stage: ECO 2007-2009

LOE 1: Company-level Intell Cell (CLIC) ('07)
  • Standardize “train, organize, equip”

LOE 2: Company-level Ops Center (CLOC) ('08)
  • Establish a baseline using Forward Operating Base

LOE 3.3: Sustaining the Distributed Force (Jun ’09)
  • Unmanned air/ground vehicles
  • Resupply and “mule” function
  • Lighten the Load implications
  • Limited CASEVAC
  • Mountain Warfare Training Center

LOE 3.1: Company-level Ops Center (light) (Jul ’09)
  • Build on CLOC
  • Expeditionary (dismounted)
  • Prototypical communications suite (CAPSET V)
  • Marine Corps Mountain Warfare Training Center

Distributed Artillery (Aug ’09)
  • M777 artillery battery (3X2)
  • Develop Tables of Organization/Equipment for ECO LOE 4

ECO Fires (Oct ’09 & Jan ’10)
  • MSTP/C2TECOE
  • Company-level fire support coordination

LOE 3.2: CLOC (light) part II (Dec ’09)
  • Refine prototypical comm suite IOT inform CAPSET V
  • Inclusion in ECO LOE 4
  • Demand reduction (water/power)
Transitioning to EMO/CoLT

ECO LOE 4 (2010):
- Culminate 6 years of live force experimentation
  - Conduct first Marine Corps STOM experiment
  - Provide a starting point for an EMO program

- Identify capability gaps at all levels – especially in the areas of C2/ISR, fires, logistics

- Assess the impact of an enhanced company/company landing team (CoLT) on immediate HHQ, MAGTF/Navy
- Employ and assess experimental Infantry Company T/O
- Test a prototype C2 suite (CAPSET V) in the context of STOM and ECO
- Evaluate proposed Company C2 TTP’s in the area of fires, logistics, operations and intelligence
- Evaluate the contribution and cost of organic Unmanned Ground Vehicles (UGV)
- Evaluate the utility of a logistic support element within the Company
- Evaluate the contribution and cost of enhanced attached/organic surface indirect fire support and enhanced infantry weapons capable of providing fire support
- Examine the fire support coordination function/capability within the company headquarters
EMO Campaign Plan

• 2011: EMO LOE 1 C2ISR/Fires (Live Force)
  – Develop/assess fires related capabilities that enhance the ability of the MAGTF to support ECO
  – Identify/assess C2 & ISR related capabilities that enhance these functions and enable the MAGTF to fully exploit ECO

• 2012: EMO LOE 2 Logistics (Live & Constructive)
  – MARFORPAC (RIMPAC?)
  – Identify/address logistics capability gaps and develop logistics related capabilities that enable the MAGTF to support ECO

• 2013: EMO LOE 3 MAGTF (Constructive)
  – Assess the combined impact of the C2ISR, Fires, and Log related enhancements developed and tested in previous projects

• 2014: EMO 4 MAGTF (Live & Constructive)
  – Culminating event for EMO
  – Provide a live force venue that allows MCCDC to assess the combined impact of the C2ISR, Fires, and Logistics-related enhancements developed and tested in previous LOEs.
Things to Consider

- History (doctrine) may or may not be a guide to the future
  - Joint Publication 3-02 was recently signed, but is intellectually dated
- Navy/Marine Corps not as far along as we think (19 Oct MCCLL: 13th MEU)
- Non-traditional approaches deserve a look
- Success in “complex joint operating environments” requires tactical interoperability…
  - Can a Marine rifle company “talk” to its Army counterpart?
  - to Navy/Marine/Joint/coalition SOF?
  - the seabase?
- Advance force ops needs a serious re-think
  - STOM is based on intell/operational prep of the environment (IPE/OPE)*
  - To include coalition/joint, NGO, PVO, host nation etc.
  - Is there a unitary advance force? If so, who does it report to/work for?
- Realistic stand-off distances and connectors of different speeds must be exercised
- Weight/Cube: Can we get the GCE to the scene?
  - Can we get it ashore?
  - Can higher headquarters support/sustain much more capable subordinate units?
  - How do we reduce demand?

- Non-traditional tactical organizations and command relationships must be considered

* JFCOM: IW Joint Operating Concept; “Irregular Amphibious Warfare,” Nov ’09 Marine Corps Gazette
Why we come to work

- To develop knowledge....
- DO → ECO → EMO/CoLT represent a logical progression
- Address operational imperatives and future requirements
- Enable achievement of Vision & Strategy 2025
- Seriously look at the future force across Doctrine, Organization, Training etc.

Objective: Enhance the Marine Air-Ground Task Force starting where the rubber meets the road

Hard issues:
- OTM/OTH comms
- Fires
- Resupply
- Casualty handling/evac
- Reduced demand
- Lightening the Load
- Tables of Organization
Semper fidelis
The Man in the Arena

1st Platoon

2d Platoon

3d Platoon

Mortar Section

MG Section

Assault Section

Weapons Platoon

HQ Section
Optimized for the Future Fight

1st Platoon

2d Platoon

3d Platoon

Mortar Section

MG Section

Weapons Platoon

Scout Section

HQ Section
A Simple Variation on Theme

Command Element

Aviation Combat Element

Ground Combat Element

Combat Svc Spt Element

Battalion Landing Team

Company Landing Team
Train the Way We Fight

Company Landing Team

- Indirect Fire Platoon
- Combat Svc Spt Det
- Weapons Platoon
- Rifle Platoon
Distributed Tactical Communications System (DTCS): Expand the range of the tactical DTCS radio from 100 miles to 250 plus miles, in order to enable the Warfighter to execute STOM. Ship installation of DTCS occurring on LHD 6 to provide OTH voice comms from LFOC to CLOC.

Next Generation Command and Control (NGC2): Trellis-Ware Communications – Mobile Mesh networks (MANET) technologies, compression algorithm technologies, implementation of Position Locating Information throughout the network, and development of a network management system to facilitate smooth network transitions.

Mobile Tactical Network CLOC Enabler (METN-CE): Mobile CLOC C4 enabler that integrates current MCWL initiatives (DTCS and TW) with Mobile Modular Command and Control (M2C2) or Warfighter Information Network Tactical (WIN-T) to create On the Move (OTM) / Beyond Line of Sight (BLOS) tactical network for CLOC operations.

Panasonic CFU-1: Toughbook employed at Platoon and Co. level. Provides Operational and Planning tools through the inclusion of Command Post of the Future (CPOF) and Tactical Ground Reporting System (TIGR). Also capable of operating Marine Link (Co. level and above)
LOE 4 Technologies

GCE
Combat Robotic Systems (CRS):
Organic, remotely operated weapons system capable of operation in battlefield conditions.

UAS
MCWL UAS Research Surrogate (TIER II UAS):
Employ XMQ-19A as a test platform to investigate emerging UAS technologies; develop and refine experimental UAS TTPs, and Provide MAGTF level ISR enable for EMO experimentation.

CSS
Ground Unmanned Support System (GUSS):
Off-road unmanned system, either remote or on board operation with 500lbs payload capacity, and provision of Supply support to Squad and Platoon. Support Lighten the Load initiative and alternate water and power.