Mine Warfare

Preparing to Win, Today and Tomorrow

RDML John Christenson
Vice Commander, NMAWC
12th Expeditionary Warfare Conference
25 OCT 2007

Brief is unclassified
Agenda

- A Force in Transition….
- Improving Current Readiness
- Future Battlespace Preparation
Preparing to Fight –
Today and Tomorrow

- Force in transition
  - NMAWC merger, BRAC, MHC decomms, LCS uncertainty
  - ADCON from USFFC to CPF/C3F, OPCON from C2F to C3F
  - Significant doctrinal changes

- Theater / MHS requirements and footprint allowances are diverse, demanding and evolving

- Tomorrow’s warfighting structure dependent on force decision re. organic vs stand-alone capabilities

- Future MIW C2 architecture must be part of larger Force Net and support “plug-and-play” into MHQ w/MOC

- Investigating force posture options (5th and 7th Fleets)

Mines are a serious and widespread threat to DoD access
BRAC Timeline

MCMs to SDGO

MCMRONs 1&3 to SDGO

NMAWC CC to SDGO

COMOMAG to SDGO

HM15 to NORVA

MWTC to SDGO

OCT ‘08

JUL ‘09

OCT ‘09

OCT ‘10

Working through the uncertainty and disruption of BRAC
MIW Warfighting Drivers

- Global MIW CONOPS
- MIW Mainstreaming
- MHQ w/ MOC “universal” construct
- SMCM Decom & LCS rollout
- MH-53 EOS & MH-60S FOC
- New Technology (such as RMS) capabilities
- Continued 3 & 4 Star interest ($$$)

“It is now conventional wisdom in the PLA Navy that relative to other combat mission areas, [the U.S. Navy’s] mine warfare capabilities are extremely weak.”
Alternate Warfighting Paths

Organic

- LCS part of CSG / ESG
- MIWC / MCMC capability embedded within CSG / ESG staffs
- Technology & tactics advance to support integration

Stand-alone

- LCS operates indep from CSG / ESG
- Requires MCMC support (MCMRON)
- Limited organic systems

Requires battlespace dominance or force protection
## Transition to Organic MIW

<table>
<thead>
<tr>
<th>Now</th>
<th>Next?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MIWC</strong>: Battle Staff</td>
<td>Theater CTF or SG CDR</td>
</tr>
<tr>
<td><strong>MCMC</strong>: MCMRON</td>
<td>SG Warfare CDR</td>
</tr>
<tr>
<td><strong>SMCMC</strong>: MCMDIV</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>SMCM</strong>: MCM, MHC</td>
<td>LCS</td>
</tr>
<tr>
<td><strong>AMCM</strong>: MH-53</td>
<td>MH-60S</td>
</tr>
<tr>
<td><strong>UMCM</strong>: EOD Det</td>
<td>EOD Det</td>
</tr>
<tr>
<td><strong>MINING</strong>: P-3</td>
<td>MPRA</td>
</tr>
<tr>
<td>TACAIR</td>
<td>TACAIR</td>
</tr>
<tr>
<td>STRATAIR</td>
<td>STRATAIR</td>
</tr>
<tr>
<td>SSN</td>
<td></td>
</tr>
</tbody>
</table>
Agenda

- A Force in Transition....
- Improving Current Readiness
- Future Battlespace Preparation
Holistic Approach to Improving Readiness

- Integrated MIW training for both MIW forces and for deploying Strike groups
- MCO-level assessments of MIW capability and capacity used as a basis for significant force/fleet operational decisions
- Fleet performance trends that identify warfighting gaps and provide course changes in requirements, training and operations
- Fleet experimentation and testing program that provides timely analysis on TTP and systems that is useful to both fleet and shore staffs

MIW Training, Assessment and Experimentation planned and conducted in an integrated and collaborative fashion
MCMRON Training Continuum

Difficulty Index

C5F Assessments

C7F Assessments

C5F Training Exercise (IMC 2)

C7F Training Exercise (IMC 2)

C5F SMS/IMC 1

C7F SMS/IMC 1

INCONUS

OCONUS

IMC I

• CLASS
• SCENARIO

FST-J

Senior MCMC Seminar

FST-J

Senior MCMC Seminar

IMC I

• CLASS
• SCENARIO

12 MO

24 MO

IN DEVELOPMENT
# Strike Group Training

<table>
<thead>
<tr>
<th>SG TRAINING &amp; ASSESSMENT</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PRE-NMAWC</td>
<td>FRTP TRAINING</td>
<td>POST NMAWC</td>
</tr>
<tr>
<td>INCREASED REQUIRED TRAINING</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>SENIOR ASW SEMINAR</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>INTEGRATED ASW CRX</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>SYNTHETIC TRAINING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPTUEX</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>JTFEX</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>FLEET CERTIFICATION</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

## Breaking new ground with deploying strike groups
Integrated Assessments

• JTA/NTA - based assessments
  – First step towards defining capability and capacity gaps
  – Provide metrics-driven analysis to improve MIW
  – Fleet implications and recommendations

• End product
  – Assessment of MIW readiness to conduct MCO’s
  – Address MIW solutions through capability improvement strategies
  – Provide results that can be used to improve operations, doctrine/TTP, training, and acquisition

• Final Assessments to CPF/C3F/C2F/C5F/C7F

Assessments useful to Fleet Commanders
GOMEX 07-2
May 7-17
First NMETL-based assessment
MCMRON3 certification

- JTA/NTA - based assessments useful to Fleet Decision Makers
  - Assessment of MIW readiness to conduct MCO’s
  - First step towards defining capability and capacity gaps
  - Provide metrics-driven analysis to improve MIW
  - Provide results that can be used to improve operations, doctrine/TTP, training, and acquisition
MIW Readiness Effectiveness Measurement (MIREM)

- Measure the performance of MIW systems / sensors
  - Effectiveness based – “gap analysis” focused
- Identify and develop solutions for tactical problems connected with employment of MIW systems
- Produce recommendations for effective employment of MIW systems
- Validate and support development of TTP
- Establishment and maintain an empirical data base for MIW system measurement

Provide Significant Products in accordance with Fleet Demand
MIREM Process

**Technical ...**

*How Well Does it Work?*

- Systems
- Sensors
- Weapons
- Command and Control
- Systems Integration

**Training ...**

*Do we know how to operate it?*

- Systems
- Sensors
- Weapons
- Command and Control
- Systems Integration

**Tactical ...**

*How is it Employed Against the Threat?*

- Tactics Techniques and Procedures

---

- Acquisition/Procurement
- Fleet Synthetic Trainer
- Analysis
- Objective Based Empirical Data
MIREM Next Steps

• MIWIP FCT developing a “strategic” REM plan
  – Plan finalized within the next six months
  – REM results feedback into MIWIP and POM process

• Possible Events:
  – LOE – Measure CSG mining effectiveness (F/A-18)
  – LOE – Measure AQS-20 performance
  – LOE – Measure surface ship navigation precision ISO swept channel lane widths

Significant demand for REM, now and in the foreseeable future
MIW Training and Assessment Way Ahead

• MIW training provided to all Strike Groups

• Integrated Training & Assessments in FDNF
  – COMPTUEX-level integrated training (1 per theater per year)
  – MCO-level assessments (1 per theater per year)

• Integrated HLD / HLS training and assessment
  – COMPTUEX-level integrated training (1 per year)
  – Assessment of capability & capacity to support NORTHCOM requirements (1 per year)

• MIREM funding restored by CPF for FY08
  – Provide timely unit, system and TTP assessment and analysis that is useful to the fleet
Agenda

- A Force in Transition….
- Improving Current Readiness
- Future Battlespace Preparation
Maritime Homeland Security
Recurring Wargaming Themes

• MCM forces cannot clear port / approaches within acceptable timeline
• Response will benefit from inter-agency CONOPS
• Prioritization of Ports and response protocols require coordinated National (NSC/DHS/DOC) and DOD guidance
• Port Folders for priority ports, complete with pre-event surveys and IPE, should be completed without delay
• Emerging technology requires doctrine and TTP

Mines / UWIEDs = Credible Threat to Maritime Commerce
DoD supports a complex inter-agency C2 structure

- USN Fleet Supporting
- NMAWC CTG XX.XX
- COMCMRON MCMC
  - AMCM
  - SMCM
  - UMCM
    - EODMU DET
    - EODMU UUV
- USCG AREA Supported
- USCG District

Unified Command Post
  - Incident Action Plan
    - Operation Section
    - Logistics
    - Plans
    - Finance
  - Law Enforcement JOC
  - Response & Recovery

Local Emergency Operations Center

Security Ops Branch

- Incident CMD Post
  - Fire Services, LEA
  - EMS, DSCA

Responders All

State & Local

Federal

Downrange INCIDENT SITE
Port Prioritization?
Many important ports, few MCM assets
MIW Survey Status
(Sea Buoy-to-Sea)

- MIW-level surveys not available for major ports and waterways

Priority Routes:
- Mil 1 (NAVY)
- Mil 2 (NAVY)
- Mil 3 (NAVY)
Louisiana Offshore Oil Platform (LOOP) – enormous infrastructure considerations

- 5 connecting pipelines tie the LOOP to over 52% of US refining capacity in Texas, Louisiana, and the Midwest
- LOOP pumps 1.2 million barrels per day
“Port Folders” for Priority Ports

Port Infrastructure
Port Priorities (channels, piers, berths)
Environmental Effects
Local Law enforcement and response Capabilities
Key assets and critical infrastructure
Most likely Enemy Courses of Action
Response Gaps
Most effective Navy/MCM assets

Port of Corpus Christi

Extensive petroleum infrastructure

Value

Ranked 20th in foreign commerce trade
Military port and SPOE
Key refineries for aircraft fuel

Vulnerabilities

Numerous chokepoints along transit route and IVO port infrastructure
Battlespace Preparation Accelerates MCM Timeline

Leading discussions WRT port prioritization
Working on first set of port folders
Working with NOAA, NAVO to obtain port survey funding
Conducting surveys with MCM assets in interim
Summary

- Provide integrated MIW training for deploying Strike Groups
- Implement overarching plan for fleet MIW training, assessment and experimentation
- Provide MCO-level assessments of MIW capability and capacity
- Devise fleet experimentation and testing program that provides timely analysis on TTP and systems
- Reduce risk through port surveys and port folders

Improving current and future MIW Readiness at every echelon, in every theater
• NMAWC – Naval Mine and Anti-submarine warfare command
• BRAC – Base Realignment and Closure
• MHC – Coast Mine Hunter
• LCS – Littoral Combat Ship
• ADCON – Administrative Control
• USFFC – U.S. Fleet Forces Command
• CPF – Commander Pacific Fleet
• C2F – Commander 2nd Fleet
• C3F – Commander 3rd Fleet
• MHS - message handling service, 2 message handling system
• MIW – Mine Warfare
• MHQ w/MOC - Maritime Headquarters w/Maritime Operations Center
• DoD – Department of Defense
• BRAC – Base Realignment and Closure
• MCM - mine countermeasures ship
• MCMRON - Mine Countermeasures Squadron
• SDGO – San Diego
• COMOMAG - Commander Mobile Mine Assembly Group
• HM-15 - Helicopter Mine Countermeasures Squadron Fifteen
• NORVA – Norfolk, Virginia
• MWTC – Mine Warfare Training Center