Multinational Communications Interoperability Program Brief to Disaster Management Initiative Workshop

Mr. Scott Griffin, GS-13
Technical Director
USPACOM, J651

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Agenda

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Purpose

Provide information about the Multinational Communications Interoperability Program (MCIP) and the Pacific Endeavor (PE) Workshop to the Disaster Management Initiative 2012 Annual Workshop.
The MCIP Challenge

CAN WE COMMUNICATE?
**The Problem**

• Crisis Operations can include:
  – Humanitarian Assistance and Disaster Relief (HADR)
  – Stabilization and Reconstruction (S&R) Operations
  – Complex Emergencies

• Interoperability shortfalls driven by diverse civilian and military participants and capabilities:
  – Stovepipe, sometimes antiquated, and non interoperable comm. systems
  – Uncoordinated process and procedures
  – Mix of military, civilian government, International Organizations (IOs), Nongovernmental Organizations (NGOs), contractors, media, and local population and leaders
  – Military and/or civilian authorities have little control over many of the participants
  – At best, limited unity of effort
What is MCIP

- MCIP establishes a process that identifies and documents communications interoperability between member nations.
- The program’s main target is military forces telecommunications equipment.
- MCIP supports humanitarian assistance/disaster relief operations.
- MCIP collaborates with the International Humanitarian Community, Academia e.g. Carnegie Mellon University-Silicon Valley and Telecom industry.
- The capstone for MCIP is an annual workshop known as Pacific Endeavor (PE).
The vision of MCIP is Communications Interoperability that Supports Multinational Humanitarian Assistance / Disaster Relief Operations.

Guidance from Senior Communicators, 2007, Mongolia.
MCIP’s Mission Statement

To provide Interoperable reliable and effective Communications Information Systems (CIS) procedures, framework, and systems architecture among multinational mission partners (MNMP) to support a timely response to HADR operations in order to save lives.
MCIP Goals

• The Multinational Communications Interoperability Program will:
  – Validate interoperability of national communications systems.
  – Adopt and / or develop guidelines and standards leading to communications interoperability.
  – Foster relationships among member nations and with the International Humanitarian Community (IHC).

- MCIP terms of reference, Sep 2008
What is Pacific Endeavor?

• Pacific Endeavor (PE) is a two-week workshop consisting of:
  – Tabletop exercise
  – Communication system interoperability assessments
  – Information sharing modules
  – Technology demonstrations
  – Relationship building among communications professionals from the Military, Academia, IHC e.g. UN WGET, Government and Telecom Industry
Pacific Endeavor’s Purpose

• Build Partner Capacity (BPC) support the Humanitarian assistance and disaster relief operations.

• A cooperative multinational / multiagency forum to pursue systems interoperability, develop telecommunications processes and procedures, and exchange information on technologies to reduce the risk associated with disaster response.
Pacific Endeavor Five Year Execution Cycle

2010
- Primary event – Table Top Exercise
- System Assessment – Data systems
- Communications planning integration
- Phoenix Endeavor – Spectrum
- Amateur HF radio proof of concept

2011
- Primary event – System Assessment
- Mini Table Top Event
- System Assessment – HF, UHF, VHF systems,
- VTC, Cross-band, Repeaters, Microwave IP
- Communications planning integration
- Phoenix Endeavor – Spectrum
- Cyber Endeavor – IA/CND
- First "Operational Assessment – HF Radios"

2012
- Primary event – Table Top Exercise
- System Assessment – Telephony switching
- Phoenix Endeavor – Spectrum
- Cyber Endeavor – IA/CND
- IM/KM Endeavor
- SATCOM Endeavor
- Operational Picture Development
- Amateur HF radio proof of concept

2013
- Primary event – Scenario driven Operational Assessment
  (All systems previously assessed)
- Deployed locations/IHC participation
- 19-30 August 2013

2014
- Primary event – Operational Assessment
  (All systems previously assessed)
- Multiple site locations
- Operational staff participation
- Validation of processes, procedures developed

Each year builds upon the previous
Overview

PACIFIC ENDEAVOR 12
PE12 Technical Objectives

• Interoperability Assessments
• Table Top Event
• Technology Demonstrations
• HA/DR Discussion Panels
• Information Sharing Modules
• Targeted Communication System Assessments
PE12 Synopsis

• Assessments
  – 61 assessment test conducted and completed on Telephony Systems; doubling previous switching assessments (2009)

• Information Exchange Workshops
  – Cyber Endeavor (IA/CND) – Expanded to two weeks
  – Cyber Endeavor workshop incorporation of Hands On Training (3 Days)
  – Cyber Endeavor Executive session for Corporate Board
  – Phoenix Endeavor (Spectrum) – Continued refinement of Mercury app
  – Phoenix Endeavor Executive session for Corporate Board
  – SATCOM Endeavor
  – SATCOM Endeavor Executive session for Corporate Board
  – SATCOM Endeavor incorporation of Satellite Assembly/Operator Certification
  – Information/Knowledge Management Endeavor Module
PE12 Synopsis (cont.)

• User Defined Operational Picture Development – HADR Communications
  – Agreed upon standard for injection sources (KML/KMZ) files
  – Incorporation of Crowd Sourcing – Quicknets
  – Incorporation of Multi-site injects (FIST/Delorme)
  – Incorporation of UAV inputs (VDOS/FIST)

• Introduction of Amateur Radio communications –
  – Successful integration and operation using Military facility and amateur radio operators (Tribuvan Univ/Carnegie Mellon Univ-SV)
  – Successful Link between Singapore and Nepal

• Table Top Exercise
  – Integration and use of MCIG database, Operational Picture Injects, Collaboration Portals (APAN/Opera), Linkage to Info Sharing Module
PE12 SYNOPSIS (cont.)

• Participation
  – Increased participation (Apprx 200 attendees) representing Academia, Industry, IHC, and Military partners
  – Doubled Technology Demonstrations
USPACOM articulated a multinational need to rapidly coordinate spectrum management when responding to a Humanitarian Assistance / Disaster Response (HA/DR) event.

Need for Spectrum de-confliction identified during the Sumatra Earthquake and Tsunami of 2004.

Lessons learned from Sumatra:
- International Telecommunications Union (ITU) Resolution 647 “Spectrum Management Guidelines for Emergency and Disaster Relief Radio communications”.
- Spectrum Collaboration Application “Mercury”.

Mercury
• Mercury supports Humanitarian Assistance Disaster Relief (HA/DR) and supports Joint, Coalition and Combined Operations as a spectrum collaboration application.

• Affords Military Communication Planners, Non Governmental Organizations (NGO), the International Humanitarian Community (IHC), and other agencies the ability to collaborate with spectrum managers of other nations on a web based application.
Mercury

• Mercury is one stop for requesting frequencies from a country in need during an HA/DR event.

• Mercury provides the country in need a place to view and assign frequencies to countries and agencies coming to their aid.

• Mercury is currently on-line, functional and ready for use in any HA/DR event, or for any coalition, Combatant Command (COCOM) or other agency’s internal spectrum collaboration needs.
Spectrum Collaboration Application

- Military Communications Planners
- Non Government Agencies (NGO)
- International Humanitarian Community (IHC)
- Country Spectrum Managers
- First Responders

Something Happens Some Where in the World
Proposed Concept

PACIFIC ENDEAVOR 13
Proposed PE13 Objectives

- “Real World” operational setting
- Operational Assessments led by JITC
- Build on previous years success
- Inclusion of host nation systems and training objectives
- Expand IHC/Industry collaboration
- Use of SOPs
- Employ collaboration tools (MCIG / Mercury)
Proposed PE13 Phases

• PE-13 comprised of two phases:
  – Phase 1: Event Prep
  – Readiness/Prep of systems
  – Primary Coordination Center activated

• Phase 2: Operational Assessment
  – Deploy personnel/systems
  – Architectures utilize systems tested during the previous 3 years as well as incorporate new systems
  – Inclusion of IHC systems/participants
Proposed Information Sharing Modules

• Priorities (Subject to funding)
  - Spectrum (Phoenix Endeavor)
  - Information Assurance/Computer Network Defense (IA/CND Co-Chairs)
  - Information/Knowledge Management (IM/KM Co-Chairs)
  - Radio Endeavor (New) (Off-Setting Year) (Transmission Co-Chairs)
  - SATCOM Endeavor (Off-Setting Year)
# Proposed PE13 Locations

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<tr>
<th>Staff Workshop 1</th>
<th>Staff Workshop 2</th>
<th>Staff Workshop 3</th>
<th>PE Workshop</th>
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<tr>
<td><strong>Primary Location</strong></td>
<td>US</td>
<td>Sri Lanka</td>
<td>Tonga</td>
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<td><strong>Alternate Location</strong></td>
<td>TBD</td>
<td>AUS</td>
<td>PNG</td>
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<td><strong>Timeframe</strong></td>
<td>4-8 Feb</td>
<td>22-26 Apr</td>
<td>3-7 Jun</td>
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Points of Contact

MCIP Workshop Director – Lt Col Joerres 808-477-0684
david.joerres@pacom.mil

MCIP Technical Director – Mr. Scott Griffin 808-477-7678
Scott.griffin@pacom.mil

MCIP Program Manager – Mr. Ricardo Layne 808-477-7320
Ricardo.layne@pacom.mil

Mercury Program Manager – Mr. Tom Grant 808-477-9037
Thomas.grant2.ctr@pacom.mil

MCIP Logistics Manager – Ms. Melanie Smith 808-477-8057
Melanie.g.smith.ctr@pacom.mil

MCIP Advisor – Mr. Pat Lanthier 650-574-7472
patlan@pacbell.net
MCIP via the All Partners Access Network (APAN)
https://community.apan.org/

Mercury  https://mercury.dreamhammer.com
Questions?