Humanitarian Assistance & Disaster Response (HADR) Experimentation Concept

Technology Experimentation and Training integrated into Humanitarian Civic Action (HCA) events

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**Humanitarian Civic Action**

“… is assistance to the local populace provided in conjunction with authorized military operations…Assistance provided under these provisions must promote the security interests of both the US and the HN and the specific operational readiness skills of the members of the armed forces who participate in the activities.”

- JP 3-29 Foreign Humanitarian Assistance

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**Foreign Humanitarian Assistance (aka HADR)**

“…is conducted to relieve or reduce the results of natural or man-made disasters or endemic conditions…FHA provided by US forces is limited in scope and duration. The foreign assistance provided is designed to supplement or complement the efforts of the host nation (HN) civil authorities or agencies that may have the primary responsibility for providing that assistance.”

- JP 3-29 Foreign Humanitarian Assistance

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**HCA = resiliency through capacity building**

**FHA = post disaster response**

HCA Mirrors HADR
Situation

- Frequent HCA and HADR events in PACOM AOR.

- MARFORPAC is traditionally PACOM’s lead for HADR planning.

- III MEF is traditionally designated as the JTF in support of HADR.

- MEC facilitates S&T experimentation & bridges the gap between technical capability and warfighter requirements.
HADR Experimentation Plan

· HCA events consist of many tactical tasks that are executed at the small unit level in the field
  * Live training

· Command Post Exercises (CPX) consist of tactical and operational levels of command and control staff training
  * Constructive training

· Limited HADR training opportunities linking Live to Constructive

· **Shadow Exercise (ShadowX) concept:** Use HCA events for HADR training and experimentation to provide Live input to Constructive training
Foreign Humanitarian Assistance and Disaster Response Technology Experimentation & Training Using HCA Platform

Use CG & BK HCA to drive HADR Technology Insertion & Training

The tasks match but the timelines do not...

HCA Nomination Surveys

Initial Site Survey

Final Site Survey

HCA Start

Arrival Assembly Ops

Civil Affairs teams in place

Establish JCMOTF

~14 day MDVCAPs begin

‘30 day ENCAPs Begin

Improved HADR Capabilities

Retrograde

Redeploy

R&amp;D

Reconstruction assistance

Displaced Persons Processing

Humanitarian Medical & Veterinary Ops

Disaster Response Engineering (urban SAR, life support services & facilities, IDP camp construction etc)

Disasters & potential HA sites

HAST Assessing damage

JTF RSOQI

Establish CMOC

HADR “Shadow X” notional timeline

Exercise Cobra Gold HCA timeline

The tasks match but the timelines do not...

Potential Technologies
Recon UAVs & UGVs
Crowd Sourcing
Situational Awareness
Machine Language Translation
Social Cultural Modeling & Analysis
Expeditionary Water & Power Collaboration & Communication
Movement Requirements Visibility
Humanitarian Asset Visibility
Civil & Humanitarian Information Management Experiment (CHIME)

- CHIME focus is field data collection and reporting using smartphones on available commercial communications
- Current paper-based collection and reporting results in reports that are widely varied in quality and relevance
- CHIME reporting can improve current paper-based data collection and reporting methods streamlining and reducing the Data to Action cycle*

*Making historical Civil and Humanitarian Information Management Starts in the Field

*see last slide
Why CHIME in Exercise HCA?

- CHIME in HCA will improve field input to the HA command (i.e. JCMOTF, CMOC, etc.)
  - The HA command will be more efficient in reporting to the exercise JTF or other Live HHQ
  - The HA command can provide operationally relevant and realistic input to the exercise CTF or other Constructive HHQ improving the quality of that command’s training
    - Exercise White Cell, as a Shadow HA Command, would modify CHIME reports to fit a Constructive CPX scenario’s MSEL injects.
    - Example: changing the description of a UAV video feed from a Live HCA MDVCAP to video of a Constructive IDP camp in the Humanitarian Assistance requires Unity of Effort without Unity of Command
Exercise HCA Components

- **JCMOTF**: Regimental level unit providing C2.

- **CA**: Civil Affairs detachments provide liaison to local communities informing the local leaders of the benefits and coordinating local support. CA teams are in place before the HCA events, throughout the exercise and often for a short time after an HCA event concludes.

- **ENCAP**: the Engineering Civic Assistance Program builds and renovates buildings and roads. Typically 30 day projects.
Exercise HCA Components

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- **MDVCAP**: the Medical Dental and Veterinary Civic Action Program conducts field clinics that provide health and vet services to rural communities. Typically 1-2 days per location seeing approximately 1000 patients per day.

- **COMREL**: Community Relations projects are events that address a limited but impactful improvement to local quality of life; e.g. paint a building, clean up a soccer field, hand out school supplies, etc.
Field Data Inputs to JCMOTF
(not comprehensive)

- Site Surveys
  - Site Nomination
  - Initial
  - Final
  - Ongoing

- Civil Military Operations
  - District Support Framework (DSF)
  - Area Structures Capabilities Organizations People and Events (ASCOPE)

- Key Leader Engagements

- MDVCAPs
  - Community demographics
  - Medical trends
  - OPSUMs

- ENCAPs
  - Ongoing

- Civil Military Operations
  - Project SITREPS
  - Project LOGSTAT

- Administration
  - PERSTAT

- Operations
  - SIGACT
  - SIGEVENT
HCA Information flow supports the Live, Virtual* & Constructive Training model

Automated data collection & information management at HCA
CJCMOTF will improve Tactical C2 capability in HADR mission

HCA data collection & information products can enable CPX training objectives

* No Virtual play planned in CG or BK CPX
How will we do this?

- Two types of technologies to insert:
  - Point: may have little or no impact on the rest of the ShadowX Exercise writ large and may or may not be impacted by any other technology yet. Could be integrated into the overall scenario.
  - Broad: will impact at least one other technology and/or the execution of the exercise mission.

- Proposed technologies will have a CONOPs developed or approved by the MEC that addresses its individual use and its employment in the ShadowX.

Below is an example of how Civil Information from HCA will integrate into the CPX (i.e. the dashed white arrows in the slide above).
CHIME Data is collected during normal HCA activities & operations
CHIME Data is reported to “Live” JCMOTF where it is used to enhance SA, inform Decisions and accelerate Action.
CPX White Cell extracts CHIME from JCMOTF and creates operationally realistic input to Constructive training.

**HCA JCMOTF**

**SHADOW HADR JCMOTF:**
Exercise Control
White Cell adapts LIVE HCA reporting to match CPX HADR scenario.
HCA Data is reported to Live JCMOTF where White Cell translates it to relevant MSEL injects for the CPX.

**HCA JCMOTF**

**SHADOW HADR JCMOTF:** Exercise Control
White Cell adapts
LIVE HCA reporting

**HCA Timeline**

**HCA Activities**
Reference Slides
Data to Action Cycle

- Data is the foundation for the Decision that leads to Action
- Data must be collected *early, widely and frequently* to create that foundation

Provided as background info on the information lifecycle
MCDP 6: Command and Control Theory

The command and control process: The OODA loop

The information hierarchy

1. **Raw Data**
   - Raw signals

2. **Processed Data**
   - Formatted, plotted, translated, correlated

3. **Knowledge**
   - Evaluated, integrated, analyzed

4. **Understanding**
   - Synthesized, visualized

   **Steps of the OODA Loop**
   - **OBSERVE**
   - **ORIENT**
   - **DECIDE**
   - **ACT**