Using NATO Human View Products to Improve Defense Support to Civil Authority (DSCA)

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Overview

- Defense Support to Civil Authority (DSCA)
- Trident Warrior 2006 and 2007 Results
- NATO Human View Architecture
What is DSCA?

- Military services help support civil authorities when resources are overtaxed during a crisis incident.

- Support mechanism versus a functional mechanism.
  - Military support: devised to manage multiple tactical operations in the context of a larger strategic objective.
  - Civilian authority: devised to maintain command through distributed decision-making in the context of a single incident.
Why is DSCA Problematic?

- Misalignment of military and civilian structures and operations
  - Military C2 operations are structured, tightly fixed, hierarchical environments where concepts such as command change at different levels of hierarchy.
  - Civilian C2 operations contain an implied chain of command but no formal overarching hierarchy, and it is typically reinforced through financial bonds, bureaucratic controls, or umbrella organizations created for a specific purpose.
What is Trident Warrior (TW)?

- FORCEnet Sea Trial experiment sponsored by Naval Network Warfare Command (NETWARCOM)

- Experiments integrate new stand-alone systems and processes to achieve substantially enhanced capability
  - Demonstrate capabilities in both laboratory and operational environments
  - Evaluate effectiveness through Military Utility Assessment
Results from TW ‘06 & ‘07

- 18+ military, federal, civilian, and coalition organizations participated in DSCA simulation
- Well versed in their own plans and resources but had limited situation awareness
- Common collaboration environment and common naming schemas found useful
- WebEOC or similar tool required to share information across the “.mil” environment
- Anticipate sensitive data issues and determine rules for sharing classified information
Recommendations from TW

- **Organizational Structure**
  - Need TTPs for coordination & policies for establishing a common information environment

- **Command and Control (C2)**
  - Need to coordinate activities while retaining respective lines of authority; need combined training

- **Communications**
  - Need accessible information environment; use standard roles

- **Situation Awareness**
  - Need an accessible common operational picture with standard symbology
How to Portray Recommendations?

Use NATO Human View Architecture --

- HV – A: Concept
- HV – B: Constraints
- HV – C: Functions
- HV – D: Roles
- HV – E: Human Network
- HV – F: Training
- HV – G: Metrics
- HV – H: Human Dynamics
Using HVs to Improve DSCA

- Task to Role Assignment Matrix (HV-C3)
  - to portray *Organizational Structure* recommendations

- Team Interactions (HV-E2)
  - for C2 recommendations

- Human Roles (HV-D)
  - for *Communications* recommendations

- Information Flow (HV-E3)
  - for *Situation Awareness* recommendations
Example of HV-E2 for Current / Observed

Current Team Interactions Matrix (HV-E2) from DSCA Experiments

- **State of California**
  - Department of Justice, Office of Emergency Services, Office of Homeland Security

- **Local Civil Authorities**
  - Emergency Operations Center, County & City, Sheriff/Police and Fire Dept.

- **Experimental Common Collaborative Environment**
  - Independent of any participating organization

- **Military Department of Defense (DoD)**

- **Department of Homeland Security (DHS)**
  - Includes Coast Guard
Example of HV-E2 for Future

Future Team Interactions Matrix (HV-E2) for DSCA Events

- **State of California**
  (Department of Justice, Office of Emergency Services, Office of Homeland Security)

- **Local Civil Authorities**
  (Emergency Operations Center, County & City, Sheriff, Police and Fire, Depts.)

- **Military**
  Department of Defense (DoD)

- **Department of Homeland Security (DHS)**
  (includes Coast Guard)

- **NGO / PVO**
  (American Red Cross)
**Example of HV-D for Current/Observed**

**Current Human Roles Matrix (HV-D) from DSCA Experiments**  
(personal information removed from this example)

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Rank</th>
<th>Role during TW (should correspond to ICS role)</th>
<th>Agency Role (home agency)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jane Doe</td>
<td>PWCS</td>
<td></td>
<td>Cutter Manager</td>
</tr>
<tr>
<td>John Doe</td>
<td></td>
<td></td>
<td>Special Agent</td>
</tr>
<tr>
<td>John Smith</td>
<td>CAPT</td>
<td></td>
<td>White Cell</td>
</tr>
<tr>
<td>Jane Smith</td>
<td>LCPO</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Example of HV-D for Future

### Future Human Roles Matrix (HV-D) for DSCA Events

<table>
<thead>
<tr>
<th>Organizational Level</th>
<th>Title</th>
<th>Communications Identification Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Incident Command</td>
<td>Incident Commander</td>
<td>A. Doe Incident Cdr</td>
</tr>
<tr>
<td></td>
<td>• Incident Commander</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Deputy Incident Commander</td>
<td>K. Smith Dep Cdr</td>
</tr>
<tr>
<td>2 Command Staff</td>
<td>Officer</td>
<td>R. Kelly Safety Officer</td>
</tr>
<tr>
<td></td>
<td>• Safety Officer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Liaison Officer</td>
<td>P. Butter Liaison Officer</td>
</tr>
<tr>
<td></td>
<td>• Information Officer</td>
<td>J. Kerry Info Officer</td>
</tr>
<tr>
<td>3 General Staff</td>
<td>Chief</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Operations Chief</td>
<td>C. Doe Ops Chief</td>
</tr>
<tr>
<td></td>
<td>• Planning Chief</td>
<td>J. Smith Planning Chief</td>
</tr>
<tr>
<td></td>
<td>• Logistics Chief</td>
<td>J. Smith Log Chief</td>
</tr>
<tr>
<td></td>
<td>• Finance/Administration Chief</td>
<td>L. Taylor Finance Chief</td>
</tr>
<tr>
<td>4 Branch</td>
<td>Director</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• e.g. Air Operations Branch Director</td>
<td>E. Bug Air Ops Dir</td>
</tr>
<tr>
<td>5 Division / Group</td>
<td>Supervisor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• e.g. Air Tactical Group Supervisor</td>
<td>Y. Wu Air Tac Supv</td>
</tr>
</tbody>
</table>
Conclusion

- DSCA efforts would benefit from system depictions that express pertinent needs during crisis scenarios.

- NATO Human View diagrams provide a mechanism to incorporate the human contributions to a system in formats that allow for simple visualization of key points.
Questions?

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