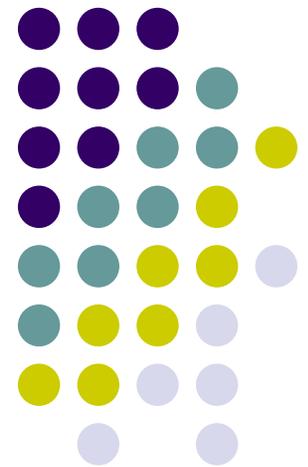


Using NATO Human View Products to Improve Defense Support to Civil Authority (DSCA)



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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

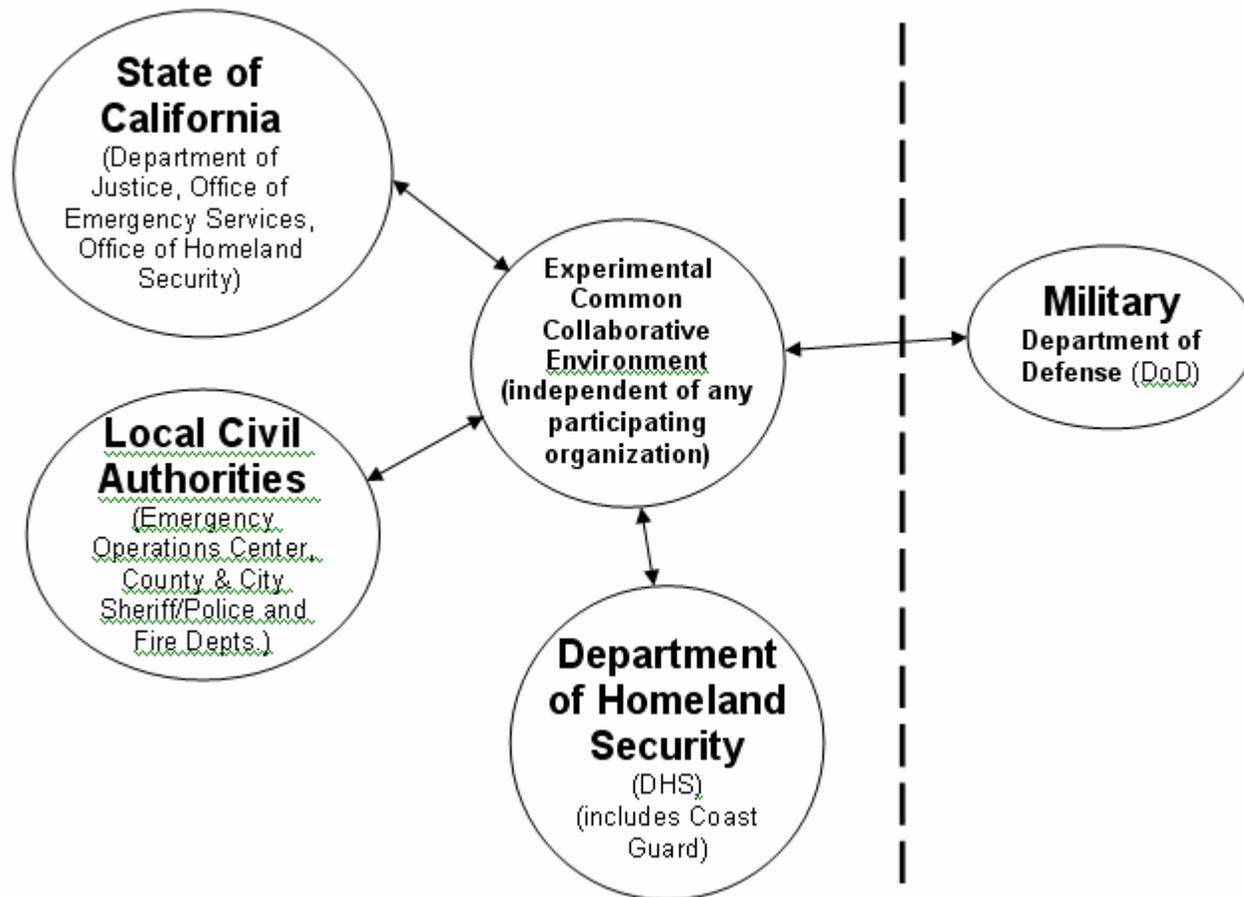


- Task to Role Assignment Matrix (HV-C3)
 - to portray *Organizational Structure* recommendations
- Team Interactions (HV-E2)
 - for C2 recommendations
- Human Roles (HV-D)
 - for *Communications* recommendations
- Information Flow (HV-E3)
 - for *Situation Awareness* recommendations

Example of HV-E2 for Current / Observed



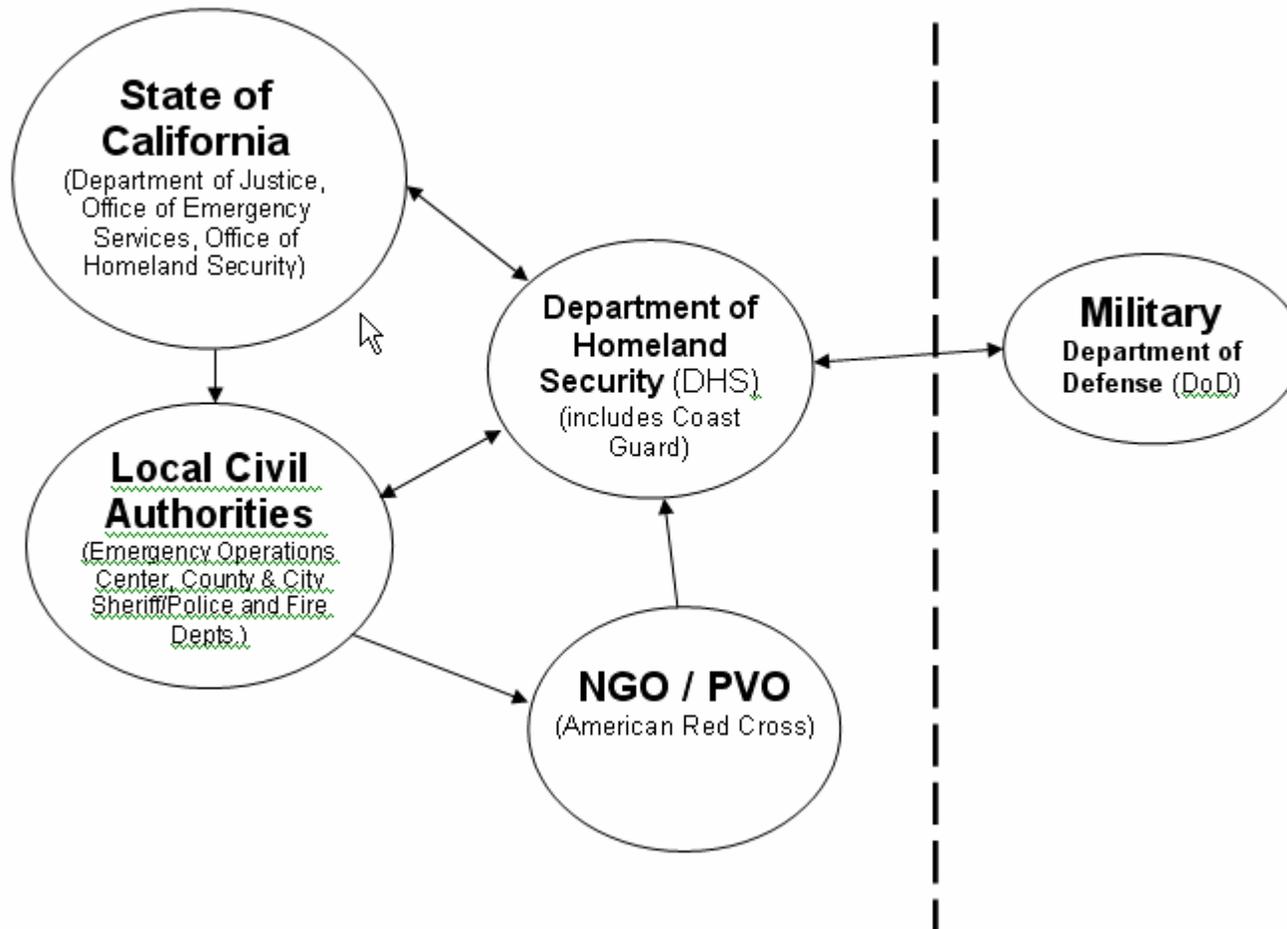
Current Team Interactions Matrix (HV-E2) from DSCA Experiments



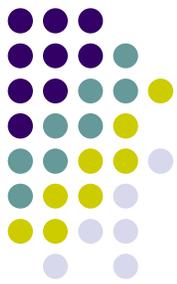


Example of HV-E2 for Future

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

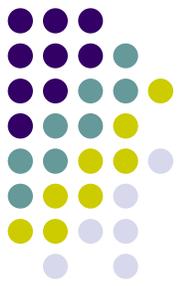


Example of HV-D for Current/Observed



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

Name	Title/Rank	Role during TW (should correspond to ICS role)	Agency Role (home agency)
Jane Doe	PWCS		Cutter Manager
John Doe			Special Agent
John Smith	CAPT	White Cell	
Jane Smith	LCPO		



Example of HV-D for Future

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

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

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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