

Command and Control: Adapting the Distributed Military Model to Emergency Response and Emergency Management

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Research Approach

- Review of Literature
 - DOD
 - Command and Control Research Program
http://www.dodccrp.org/html2/about_program.html
 - Approaches in Branches of Service
Technology, analysis, decision making in order to reduce “cycle times”
 - Organizational studies
 - Weick (Org behavior and sensemaking)
 - Rogers (diffusion...of ideas)
 - Agile/Edge organizations
 - HROs (High Reliability Organizations)
 - Homeland security and FEMA (different focus than DOD...embodied sense of emergency)
- Ethnographic Interviews
 - Former USMC Commandant
 - Former SECNAV
 - Former Cdr. US SUB Fleet
 - Former Under Secy FEMA
- Hermeneutical analysis techniques

Preliminary Constructions

- Command and Control as Process
- Command and Control as Function
- Command and Control as Organization

(Very) Preliminary Results

- Command and Control as Process
 - Boyd's Loop [The Loop](#)
 - Observe
 - Orient
 - Decide
 - Act
 - SIDA (as a variant)
 - Situational awareness
 - IS and IT enablers

Command and Control As Function

- Centralized (single point of command)
- Decentralized (multiple points permit backup)
- Distributed (horizontal and vertical – interacting “nodes”)
- Virtual (external expertise)
- Common Communication Structure (5 paragraph order framework)

In other words, we must consider expertise, knowledge, and information as NATIONAL RESOURCES AND STRENGTHS ... as force multipliers. An example might be the creation of a "virtual" command and control organization at the National and CINC level.... One that has the ability to network with industry, academia, laboratories, and other non-governmental organizations as well as with the more traditional elements of national power ... such as found in DOD and DOS. This virtual capability would allow decision makers to leverage skills that are not found ... nor should be found ... in military organizations. This is not new. The Marine Corps is doing it right now on a miniature scale with the Chemical Biological Incident Response Force. We have tapped into the expertise of Nobel Laureate, Dr. Josh Lederberg and others to include ... laboratories, hospitals, and medical schools ... to assist in the event of a Chem/Bio attack. As the head of our Chem/Bio "reach back" staff, Dr. Lederberg and his team join us on the scene of response via telecommunications and provide valuable diagnostic and treatment information. It is not difficult to visualize the expansion of this concept to bring the expertise of chemical companies, computer and software firms, banks and environmental groups onto the 21st Century battlefield. We will be globally aware and regionally savvy.

Remarks for The Council On Foreign Relations, 17 November 1997 by
Gen. Charles C. Krulak

Command and Control as Organization

- Edge organizations...enabling the edge
- HROs...High Reliability Organizations
- Network Centric...”system is the solution”
- Federated structures