

DRAFT

Working Group A
The US Military: Diagnosis

Collaboration Workshop
April 3-5, 2001

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Group A Approach

“You Train the Way You Fight”

- Collaboration must be routine, continuous, pro-active
 - Increases effective collaboration in situations of increased OPTEMPO
 - Accelerates adoption of collaboration tools and thinking
 - There needs to be a standards based environment for increased collaboration interoperability
- Effective collaboration needs a common awareness of the general political/economic/military situation in the area of interest. This could be achieved by using structures such as the Virtual Information Center
- The COP or something like it should provide the common ground for effective collaboration
- Collaboration is not alien to the military--our goal is to optimize and standardize the way it is seen and used by all the CINC, Services, Agencies

Where Collaboration Contributes

- Planning/Execution/Assessment
 - Logistics (Total Asset Visibility TAV, LOG ACTDs)
 - Dynamic Operations Tasking/Execution
 - Dynamic ISR management
 - Effects assessment
- In a controlled, trained, and ready environment
 - Within roles and missions
 - Integrated into community of interest processes
- Flexible, supportive leadership
- Turning data to information and information to knowledge
 - Decision Superiority
 - Heightened situational awareness
- Ability to convey non-verbal communication (e.g., VTC)

Where Collaboration Contributes (II)

- Collaboration is necessary to enable
 - Theater Engagement
 - Pro-active, pre-crisis, deterrence, influence, and compel (e.g., GE in the PRC)
 - Effects Based Operations (EBO)
 - Red Teaming
 - Rapid Decisive Operations (RDO)
 - ONA
 - Virtual Situation Book
 - CROP
 - Distributed SA
 - Targeting
 - Watch relief (Transitioning and turnovers)
 - PAO Operations
 - Parallel Planning
 - Peer Review/Checks and balances (OGC)

Where Collaboration Would not be Useful

- Not a “silver bullet” by itself
- Data discrepancy (fix underlying problem)
- In a poor infrastructure environment
 - Unreliable equipment
- Real-time decision-making

Different Ways Collaboration Contributes

- DoD Collaborative Environment
- Distributes workload, combines knowledge
- Allows dispersed operations
- Reduces risk of single point failures (redundancy)
- Integrated perspectives

Different Ways Collaboration Contributes (II)

- Joint Intelligence Virtual Architecture/Joint Collaborative Environment (JIVA/JCE)
- Knowledge Management (KM)
- Red Teaming
- DARPA (GENOA, CPOF, ARCHER)

Barriers to Effective Collaboration

- Non-interoperable collaboration tools
 - DoD/Coalition/Multinational
- Inadequate infrastructure
- Undefined data sharing strategies (policies and standards)
 - Differing priorities for presentation formats
- Information overload (not tailored to user's environment)
- Not invented here (lack of confidence and suspicion)
- Security dichotomy
- Fundamental understanding of roles and responsibilities
- The unknown
- 20th century systems for 21st century missions
- Designing 21st century systems for 20th century personnel

Working Group A
The US Military: Prescriptions

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Categories of Barriers

- Personnel/Cultural
 - Not invented here
 - 21st century systems for 20th century personnel
 - Overload
 - Control “freak”
- Structural/Organizational
 - Data Sharing Strategies
 - Security dichotomy
 - Roles and responsibilities
 - Dealing with the unknown
- Structural/Tools
 - Interoperability
 - inadequate infrastructure
 - 20th century systems for 21st century missions
- Lack of Resources
 - Funds and personnel
 - Cross-cutting issue

Personnel and Culture

- Institute collaboration training and education at all levels, e.g., PME, CAPSTONE, service schools, basic training, technical schools
 - Focus on collaborative: Environment, Tools, and Process
 - Emphasize team versus individual products, rewards and incentives
- Collaboration should be imbedded in all future exercises
- Senior leadership (NCA, DoD, Joint, Services) must articulate clear objectives for operating in a collaborative environment

Structural/Organizational

- Identify and link communities of interest and communities of practice
- Restructure operational and supporting organizations for joint collaboration
 - Dynamic and flexible (different missions--different collaboration requirement)
 - Permit evolution of new structures--continuous “work in progress”
- Resourced data interoperability dictator (Y2K approach)
- Develop risk management security framework (versus risk avoidance)

Structure/Tools

- Engage industry to provide a mature/usable standard
 - Tools updated regularly
 - Plug and play interoperability
 - Permits collaboration beyond DoD (Interagency, NGO, Allies, Academia, Industry)
 - Web Based, peer to peer
- Develop a strategy to resource and deploy sufficient GIG infrastructure for collaboration
 - Develop forward deployable collaboration capability
- Engage industry to provide solutions that minimize bandwidth use
- Develop echelon/context/GeoLoc appropriate functionality (NCA, CINC, JTF, Ship, Plane)

Resources

- Inject new funding dedicated to collaboration environment
 - Education and Training
 - Processes
 - Tools
 - Infrastructure
 - Manpower
- Restructure Title 10 to favor jointness (to include collaboration)
 - Empower and fund an accountable CIO to make GIG a reality
 - Potential application to other global IT infrastructures
 - Buy capability not “equipment”
- Develop a Return On Investment
 - Joint Experimentation
 - JROC process (MNS, ORD, C4I Support Plan, etc...)

Research and Experimentation Needs

“All this is good, but it sure would be nice to have some idea what we were trying to do first” ADM Boorda.

- Historical Research: what worked or didn't in the past
- Measures of Merit
- Presentation Experiment (J-9, DARPA, CCRP, JBC, CAOC-X)
- Multi-National Sharing
- Peer to Peer
- Cognitive and Sociological Processes
- Collaboration Gateway

Priorities for Action

- Research and Experimentation
 - Hardware, Software, Peopleware
- Standards based collaboration environment
 - Acquisition Guidance
- TTP's
- Multiple Levels of Security
- Continuous evolution of DOTMLPF
- POM Process
 - Incentives for Jointness
 - Consideration for Evolutionary Process (Admiral Blair's speech to AFCEA West)
 - Commercially Driven Journey with an Unknown End State