Air Force Command and Control (C2): The Need for Increased Adaptability

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Bottom Line Up Front (BLUF)

• Centralized control—the master tenet for organizing, training, and equipping USAF C2 is often misunderstood.

• Interpretation of the master tenet has led to over-centralizing airpower C2 at the combatant commander (CCDR) level.

• Although productive for single CCDR-led campaigns, this “one-size-fits-all” configuration runs contrary to fully effective C2 of USAF capabilities across the spectrum of conflict.

• Operations demonstrate effective C2 of airpower requires adaptive control—centralized at the...
Overview

• C2 Research Study Introduction
  • Research Study Approach
  • Analytical Model

• C2 Research Study Results
  • The Need for Increased Adaptability
  • Guidelines to Develop Adaptable C2
  • Influences Commanders Must Consider When Designing C2 Structures
  • Challenges the USAF Must Overcome to Create Adaptable C2
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Study Approach

• **Tasking:** Review USAF C2 to see what changes are required to ensure success in uncertain and dynamic future scenarios.

• **Research Question:** What changes are required to USAF C2 to better meet Joint Force Commander (JFC) needs across the range of military ops (ROMO)?

• **Methodology:**
  - Literature review, held numerous interviews, visited Al Udeid, sponsored C2 workshop.
  - Analyzed 4 operations and 3 mission sets (4+3) across the ROMO.
    • Allied Force, MCO OIF, COIN OIF & OEF, Katrina + Nuclear, Space, Cyber.
  - Applied an analytical model to global, theater, and sub-theater ops.
• Result of NATO research effort on C2 agility
• Effective for evaluation of multiple C2 designs
• Describes a C2 approach consisting of 3 elements
  • Decisions (X)
  • Interaction (Y)
  • Information (Z)
• Location within the C2 space reflects degree of centralization

Dr. Richard S. Alberts, Research Director OASD (NII), and Dr. Richard E. Hayes
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Analysis Results: Need for C2 Adaptability

- Current USAF C2 structures
  - Better suited for global and theater operations
  - Complicates integration with Joint Task Force (JTF) led operations
  - Relied on ad hoc arrangements for C2 at sub-theater level
Single Theater Commander of Air Force Forces/Joint Functional Air Component Commander (COMAFFOR / JFACC) Supporting Multiple Joint Task Forces (JTFs)

Diagram developed at the Curtis E. LeMay Center for Air Force Doctrine Development and Education, Maxwell AFB, Alabama
Adaptable C2 allows for varied degrees of centralization

Adaptable C2 improves
- Unity of effort (UoE) through integration at lowest appropriate level
- Achieves agility and speed of action

UoE stresses horizontal coordination & cooperation between partners
- “Ownership” not required to access partner’s capabilities

Decentralizing C2 to lowest appropriate level requires;
- Clear CC guidance, intent, priorities, acceptable risk, and

Lowest appropriate C2 organizational level varies by situation
Analysis Results: Variables to C2 Design

- Questions commanders should consider when designing C2 structures
  - What is the nature of the operation?
  - What is the capacity of available resources vs. the requirements?
  - What are the C2 capabilities of subordinate units?
  - What is the degree of confidence and trust among partners?
  - What is the political risk?
  - What are the correct organizational levels to locate C2 elements to exploit the unique Air Force capabilities of speed?

C2 structures must adapt to each unique operation
Analysis Results:
Challenges to Adaptable USAF C2 Design

- Clarity of Command Relationships
- Developing Trust
- Capability and Capacity
Problem: Unclear command relationships hampers vertical and horizontal integration impacting agility and speed of action

Recommendations:

• Broaden Airmen's understanding of centralized control
  • Current understanding of centralized control forces Airmen's thinking into a one size fits all C2 model which limits the way to think about command authorities
  • Effective C2 of Air Force capabilities requires adaptive control, with decision authority placed at the appropriate echelon of command—i.e. command in-depth
• Educate Airmen on proper command relationships especially Clarity of Command Relationships
• Command in-depth
  • Place commanders with designated decision authority in control nodes at appropriate organizational levels
  • C2 node must have situational awareness to understand the requisite actions and the authority to direct forces or delegate decision authority to allow them autonomy

Broaden Airmen’s Understanding of Centralized Control
Developing Confidence and Trust

Problem: Lack of confidence and trust impacts willingness to decentralize authority, share information, and create positive interaction.

Recommendations:

- Implement C2 structures that provide presence at appropriate organizational levels.
- Develop habitual relationships through exercises, pre-deployment spin-ups, and force rotation polices.
Capability and Capacity

Problem: Lack of capability and capacity of C2 elements limits integration with partners

Recommendations:

- Codify lower echelon command and planning elements
- **Organize, train and equip** the Air Force for a scalable expeditionary C2 concept of operations
- Create a sub-theater commander force development plan
Air Force Forces in Direct Support of a JTF

Diagram developed at the Curtis E. LeMay Center for Air Force Doctrine Development and Education, Maxwell AFB, Alabama
### Summary: Adaptable C2

#### Adaptable C2
- Allows for varied degrees of centralization
- Goal: Improve unity of effort through
  - Integration at the lowest appropriate organizational level
- Achieving agility and speed of action in delivering effects

#### C2 Design Variables
- What is the nature of the operation?
- What is the capacity of available resources vs. the requirements?
- What are the C2 capabilities of subordinate units?
- What is the degree of confidence among partners?
- What is the political risk?
- What are the correct organizational levels to locate C2 elements to exploit the unique Air Force capabilities?

#### Recommendations
- Expand understanding of command relationships
- Centralized control
- Support relationship
- Plans review
- Develop relationships
- Presence
- Habitual relationships
- Improve the capability and capacity of C2 elements
- Codify lower echelon command and planning elements
- OT&E a scalable expeditionary C2 CONOPS
- Force development plan

Adaptive C2 structures enable effective adjustments to operational
Questions?