

**BULLET BACKGROUND PAPER**  
**ON**  
**EXPANDING COMMAND AND CONTROL DOCTRINE**

**BACKGROUND**

Multi-domain operations against non-state actors, near-peer competitors, and in regions without a strong coalition presence require a new perspective on how the Air Force understands command and control (C2). The growing volume of data and assets available, coupled with an increasingly complex operating environment, dictates this change. Commanders cannot leverage the full spectrum of US capabilities if they remain focused solely on their sphere of control and do not recognize the value of informal influence relationships across all domains. In order to develop a concept of operations (CONOP) capable of providing Global Network C2 linking sensors-to-effects, the Air Force must expand its basic doctrinal C2 understanding.

**DISCUSSION**

- Doctrine

-- C2 definition: “the exercise of authority and direction by a designated commander over assigned forces in the accomplishment of the mission”

--- Doctrinal understanding of C2 still reflects traditional view of operations

--- In a constantly evolving and adapting environment, we must maintain operational agility across multiple domains

-- Assumptions for how to conduct C2 in the future: 1) Air Force first to respond to a contingency event; 2) multi-domain operations demand cross-domain synergy; and 3) the ultimate solution for Global Network C2 Infrastructure is at the national level

-- Influenced Command and Control (iC2): the exercise of authority, direction and *influence* by a designated commander over *all available forces and across all domains* to accomplish the mission

-- Influence: the capacity to leverage capabilities outside traditional command structures

- C2 Models

-- C2 acts as connective tissue linking sensors-to-effects through formal control relationships

--- In complex, multi-domain operations, commanders may not always exercise control over the most appropriate asset for a specific task

- Terrorist organizations serve as a model for rapidly adaptable C2
  - Loosely Coupled Movement: limited connections between organizations at the strategic level in the pursuit of broadly defined objective
  - Tightly Coupled Group: traditional hierarchy structure (e.g. Air Operations Center)
    - Time and quality costs incurred as an organization transitions to a Tightly Coupled Group in response to contingency event
  - Coupled Network: strengthened connections between organizations at the strategic, operational, and tactical level working towards an objective with complementary effects
    - Proposed iC2 model: connections across the network based on pre-established influence relationships that extend beyond traditional control relationships
- The value of iC2
  - Improved operational agility, expanded capabilities available to commanders, and empowered decision makers at the lowest level
  - Time and quality cost reduced
- Implementation through DOTMLPF-P framework
  - Doctrine: expand the Air Force Annex 3-30 definition of C2 to iC2
  - Personnel: pursue increased integration training and crossflow opportunities to strengthen influence relationships
  - Systems: develop materiel solutions providing point-to-point (mesh-topology) communication

## **SUMMARY**

Complex, multi-domain operations demand a new perspective on C2. In order to develop an effective CONOP for Global C2, the Air Force must recognize the importance of influence relationships.