12тн ICCRTS "Adapting C2 to the 21st Century" Title of Paper: Air Doctrine: Using Networks to Promote Agility in the Planning Process Topics: air planning; decentralized decision-making; NCO; agility Name of Author: John Kruse, PhD Point of Contact: John Kruse, PhD Name of Organization: The MITRE Corporation Complete Address: 202 Burlington Road Rte. 62, M370, Bedford, MA 01730-1420 Telephone: 781-271-6069 E-mail Address: wkruse@mitre.org

Air Doctrine: Using Networks to Promote Agility in the Planning Process

Flexibility must be the hallmark of air power. Against the unpredictable and dynamic threats of the 21st century security environment, air operations must exhibit a higher degree of agility that enables air forces to quickly and effectively adapt and shift effort and tempo.

Traditionally, industrial age threats generally demanded more firepower than flexibility. Air power planning has logically developed to maximize massing of forces and utilization of resources to attack large military and industrial formations. In response and in the absence of widely available computers and networks, complicated and centralized processes arose.

Today, air power planning needs to retain the capability to meet large-scale general war requirements while also addressing the greater dynamism posed by a mix of combat and operations other than war.

Ultimately, what is desired in the planning, execution and assessment cycle is for command intent to be fulfilled safely, effectively and efficiently. Networked systems provide potential opportunities to evolve legacy joint processes into a more robust, decentralized and self-synchronized effort.

This paper outlines the theories and realities that have influenced air planning and future directions for reshaping air power into a more effective, efficient and agile force in the battlespace.

- Flexibility is one of the greatest attributes of air power.
- Air operations have an innate agility.
- Strike quickly and lethally without lingering footprint.
- Yet, air doctrine (US, UK) of highly centralized control holds air power back.
- Complexity was the driver
- Can't break out of this mindset
- Economics problem command economies don't work
- Price has information
- Networks provide greater opportunities
- Firms arose because of high transaction costs too hard to negotiate on your own
- NCW systems make it easier to negotiate thus lowering the need for firms... centralized control

As a result of this inherent agility, one might expect that the air forces of the world would be carrying the banner of decentralized network-centric operations (NCO). Yet, one deeply held assumption stifles the full realization of air power's potential – the belief in the necessity of centralized planning.

Centralized Planning a Means or an End?