

**ABSTRACT**

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**Analysis of Metrics Utilized in US Joint Experimentation of Future Command and  
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**Proposed Track: C2 Assessment Tools and Metrics**

## **ABSTRACT**

### **Analysis of Metrics Utilized in US Joint Experimentation of Future Command and Control Concepts**

The US Joint Forces Command has been charged to lead the transformation of the US Armed Forces through development and experimentation of new command and control concepts. In particular the Knowledge-C2 Working Group of the Concepts Division has focused on three related concepts:

- Adaptive Joint Command and Control (AJC2)
- Joint Interactive Planning (JIP)
- Common Relevant Operational Picture (CROP)

These concepts have been, and continue to be evaluated in a series of different type experiments. Limited Objective Experiments (LOE) focus on a particular aspect of a concept. For example, the Presentation LOE examined display technologies related to the CROP. These are an essential part of a coherent experimental campaign. Larger major events focus on integrating the concepts in support of overarching, unifying concepts such as Rapid Decisive Operations (RDO) that was initially examined in detail in a major, simulation-supported experiment, Unified Vision 01 (UV01), conducted in May 2001. As the concepts mature, major live field experiments are planned to further refine and examine their value to transformation.

Analyzing the experiments and the value of the concepts is particularly important, and at the same time quite difficult. In several instances, analyses were primarily subjective and the results less than conclusive. In an effort to apply more objective rigor, Evidence Based Research has been engaged to apply the Headquarters Effectiveness Assessment Tool (HEAT) to the assessment effort. HEAT is a proven and robust objective analytical approach to measure command and control effectiveness and it provides/has provided a complimentary addition to the assessment efforts.

This paper discusses the Knowledge-C2 concepts and related experiments in the US JFCOM experimental campaign. It then reports on the experimental results showing how the HEAT metrics were used to develop analyses baselines and quantitative results. Finally it discusses the future of the experimental campaign and events.