

**12<sup>TH</sup> ICCRTS**  
**“Adapting C2 to the 21st Century”**

**Title:** “Capability and Metacapability: Complexity and its implications for the 'abilities' of the Future Force”

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## **Abstract**

The capability-based planning paradigm develops capability within the context of an assumed set of future roles, using scenarios derived from strategic analysis and the extrapolation of historical trends. It avoids a focus on platforms, instead considering a broad range of system attributes (processes, structures, entities and knowledge), designing those system attributes against 'known' problems. However, complexity (and past experience) tells us that the future is anything but perfectly known. In other words, Defence must also plan against 'unknowns'. These 'unknowns' may be more than unanticipated differences in the scale of a problem; they may be qualitative shifts. How can the capabilities of an organisation--embodied in its structure, processes, entities and knowledge--be designed to cope with an environment that hasn't been anticipated? The answer lies in comprehending the inherent dual nature of the concept of 'ability', which we propose consists of 'capability' (the ability to deal with known problems) and 'metacapability' (the ability to change capability). This paper discusses this duality, emphasising its implications for command, control, communications and the supporting network. It argues that measures used to assess the qualities of a Defence Force must simultaneously consider both capability and metacapability, with the latter concept increasingly important where the future is less resolved.