

# Teamwork in Complex Environments

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# Task

- Highlight issues of particular importance in the paper
- Raise others that are not in the paper, or treated briefly
- Make connections between the topic, other relevant military research, and missions

# Distributed Cognition and IT Interface

- Interaction of information technology and human cognitive processes in a work system involving multiple technologies and multiple humans
  - People are not good at perceiving the dynamics of the systems of which they are part
- Unanticipated consequences: IT affects attention, shapes cognition
  - Study of control of Tomahawk missiles (Cummings, 2004)

# Distributed Cognition in Context

- Important to study distributed cognition in its social, organizational, physical and cultural contexts
  - Within organization, culture, hierarchy
  - Across organization, cultures, hierarchy

# Related Questions (Cramton, 2001)

- Occurrence and consequences of undetected information transmission failures: Acting on erroneous conclusions
- Resilience of incorrect conclusions in the face of correcting information
- Cognitive overload in complex team environments→Implications for attribution
- Training to address these problems

# Teamwork in Complex Environments

- Awareness of situational differences in distributed systems (Cramton, 2001, in press)
- Multi-team systems (Mathieu et al., 2001; Marks et al., 2005)
- Multiple organizations
- Status and power issues
- Multiple cultures (Baba et al., 2004; Cramton & Hinds, 2006)
- Raising task forces