

DEFENCE



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## COIN Research at DRDC CORA

Dr. Dean S. Haslip and many more

MORS Workshop on Improving Cooperation Among  
Nations in Irregular Warfare Analysis

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Defence Research and  
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pour la défense Canada

Canada



## COIN Research at DRDC CORA: Outline

- Part 1 – Strategic Analysis
- Part 2 – Modelling
- Part 3 – Effects Based Operations
- Part 4 – Science & Technology
- Conclusions





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## **COIN Research at DRDC CORA: Part 1 – Strategic Analysis**

- Goal is to move from descriptive and ad hoc explanations to fundamental dynamics:
  - Understand the underpinning art of COIN
  - Understand the social dynamics of insurgency
    - Understand the resistance
    - Understand role of ideology for blue side
  - Avoid having to continually re-learn COIN
  - Analyze the present mission
- Examine insurgency / COIN in the larger context of asymmetric warfare



## Part 1 – Strategic Analysis: Future Plans

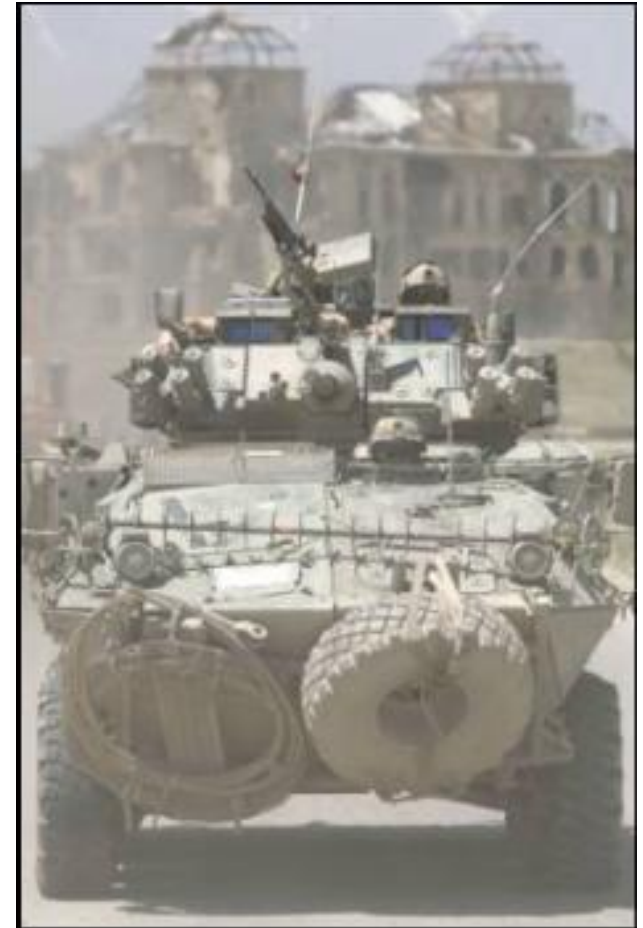
- Learning from Lessons
- Scientific review of strategic or campaign plans
- Analyzing the social dynamics of insurgencies
- Analyzing institutional dynamics of COIN





## COIN Research at DRDC CORA: Part 2 – Modelling

- Goals are to:
  - Model Army operations
    - Tactical to strategic
    - Acquisition decisions
    - Concept development





## Part 2 – Modelling: Future Plans

- Political-Military Gaming
  - Strategic level
  - Interactions between JIMP players
  - Exploring strategic-level agent-based models
- NATO Collaboration
  - Follow-on from NATO Exploratory Team
  - Most effective Social Science models for EBAO



## **COIN Research at DRDC CORA**

### **Part 3 – Effects Based Operations**

- Goals are to:
  - Develop effects assessment methodologies
  - Explore the whole of government approach
  - Inform implementation of EBO



## Part 3 – Effects Based Operations: Future Plans

- Modelling Effects Networks
  - Dynamic influence diagrams
  - Identify influence links between effects (including across levels)
  - Identify correlations between effects, keep track of changing relationships
  - Provide constant feedback loop to avoid mapping unrelated effects, and to capture unforeseen links
  - Link with Effects dashboard
- Implementing Effects Based Operations
  - Linking assessment to actions
  - Need to define strategic objectives in a tangible way, so the achievement can be measured
  - Do we have the feedback loop?



## COIN Research at DRDC CORA: Part 4 – Science & Technology

- Goals are to:
  - Understand the role of S&T in COIN
  - Use OR to direct R&D for COIN operations





## Part 4 – Science & Technology: Future Plans

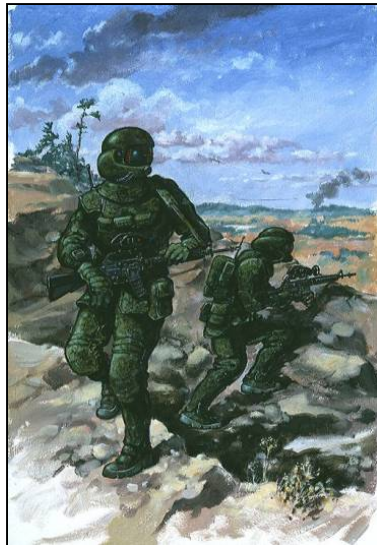
- Counter-IED research
- Geoprofiling and Social Network Analysis
- Historical analysis of potential and limitations of S&T in COIN





## Conclusions

- This is a problem that is not going away, or getting any easier
- Wide-ranging mix of research approaches
- Lots of ideas for future research and international collaboration
  - Identified as growth area



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