Applying Influence Diagrams to Support Collective C2 in Multinational Civil- Military Operations

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Overview of Influence Diagrams (IDs)
- Example of an ID

Adaptive Campaigning – Future Land Operating Concept
- Example of an ID

Application to Support Collective C2 in Multinational Civil-Military Operations
- Aid in forming a coherent operational approach
- Development and communication of Commander’s intent
- Distribution of roles
- Interactions between actors

Summary of Outcomes
Quick Overview of IDs

Influence Diagrams:
- Identify influences, one action/event has over other actions/events.
- Better understanding of relationships, connections and effects.
- Qualitative Tool

Simple Example from: A. Diaz, Rethinking the conflict trap: systems dynamics as a tool to understanding civil wars - the case of Colombia. Conference Proceedings. 2008 International Conference of the System Dynamics Society July 20 – 24, Athens, Greece
Quick Overview of IDs: Pierson Hairball ID

A Starting Point (AC- FLOC)

Adaptive Campaigning – Future Land Operating Concept
Five Concurrent Inter-Related Lines of Operation
- Joint Land Combat
- Population Protection
- Information Actions
- Population Support
- Indigenous Capacity Building

Other nations have similar approaches
Some of these are summarised in the paper
- UK
- US
- Canada
- Netherlands

Australian Army 2009, Adaptive Campaigning 09: Army’s Future Land Operating Concept, prepared by Head Modernisation and Strategic Planning - Army, Army Headquarters, Canberra
Essential Tasks and Events AC ID

Influence Diagram Supporting the Implementation of Adaptive Campaigning
Daniel Bilusich, Fred Bowden and Svetoslav Gaidow,
Proceedings of The 28th International Conference of The Systems Dynamics Society,
Essential Tasks and Events AC ID
Essential Tasks and Events AC ID
Actors AC ID

- BLUFOR (Army, JTF, CTF)
- Population (Indigenous Government Including Army, Police, Ethnic & Religious Leaders, Civilians, etc.)
- OPFOR (Regular Units, Insurgents, Criminals)
- Non-CBTs (NGOs, OGAs, SMEs, Media, Local Personnel)

DSTO
Forming a Coherent Operational Approach

Understand approaches of other parties
Combine IDs of approaches to find gaps, inconsistencies and common approaches
Understand the differences in approaches
Everyone understands all the approaches
Development and Communication of Commander’s intent

Understanding of concept by which operation will be conducted
Determination of metrics to success and progress
Ensure parties are contributing to reinforcing loops – not undoing the work of others
Distribution of Roles

Clear definition of roles to different players
Reduces chances of duplication
Ensure right elements are contributing to the right aspects
Understand how each element is contributing to the overall objective
Determination of Interactions Between Actors

Clearly identify key interactions
Determination of level of interactions required
Understand and predict changes in relationships as the operation evolves
Identify civil military interactions
In Summary

There are some considerations when using IDs:
- Language barriers in interpretation
- Determining the right level of detail
- Subjective nature of the analysis
- No explicit indication of the level of detail covered by the model

The benefits of utilising IDs within to Support Collective C2 in Multinational Civil-Military Operations are:
- Compatible, complementary and suitable contributions
- Assignment of roles based on capability
- Better integration of effort
- Synchronisation and orchestration
- Visualisation to commander’s intent
- Understanding of roles and changes with the evolving situation
- Understanding of interfaces between actors and their evolution