Agility - The Danish Way

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‘A’ PLAN...

• Theory

• Research Completed

• Operationalizing Agility Research

• Future Agility Research
Agility is the capability to successfully effect, cope with and/or exploit changes in circumstances.

Why do we think we need agility?
21st century battlespaces are complex...See John Arquilla’s Netwars...
...complex adaptive battlespaces

IN THE INFORMATION AGE - ADVERSARIES LEARN FASTER AND ADAPT FASTER
Complexity in the Battlespace

1. Information increases (Go from 1 to 6 dimensions)

2. Variety increases \((M + P, E, S, I, I)\)

3. Interconnections increases
   Go from 0 - 720 \((P \times M \times E \times S \times I \times I)\)
   (Assumption: That types of interconnections are known.)

4. Types of interconnections are not known and have to be discover or invented.
21st Century battlespaces demand agility…

REQUIRES A CONSCIOUS APPROACH TO AGILITY

Yours ...and theirs...
Hmm... SOFCOM Motto: "He who manages intersubjectivity best – wins"...
The model was developed in the 1960s and brought back into action in 2001 due to activist foreign policy.

- Yugoslavia
- Kosovo
- Iraq
- Afghanistan
- Horn of Africa
- Libya
- Mali
- Syria
THE DANISH WARFIGHTING MODEL
(Danish “krigsføringskredsløb”)
Optimality & The Warfighting Organisation

Optimality achieved through a harmonization of all 3 elements
RDDC AGILITY ASSESSMENT FRAMEWORK

- Versatility
- Adaptability
- Resilience
- Flexibility
- Innovative ness
- Responsive ness

Key:
- TECHNOLOGY
- ORGANISATION
- DOCTRINE
EX. How did doctrine affect battlespace agility for TF 444 during Operation XYZ?

Generate MoPs as defined by SAS 050 – ex. Decision correctness; shared awareness; action accuracy; action appropriateness; ect...
# RDDC:
## MEASUREMENTS OF INTELLIGENCE ANALYTICAL AGILITY IN THE BATTLESPACE

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>DEFINITION</th>
<th>More Agile when ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelligence Timliness</td>
<td>Extent to which currency of information is suitable to its use.</td>
<td>HIGH</td>
</tr>
<tr>
<td>Intelligence Currency</td>
<td>Difference between the current point in time and the time the intelligence was made available</td>
<td>LOW</td>
</tr>
<tr>
<td>Intelligence Correctness</td>
<td>Extent to which intelligence is consistant with ground truth.</td>
<td>HIGH</td>
</tr>
<tr>
<td>Intelligence Accuracy</td>
<td>Degree to which intelligence quality matches what is needed.</td>
<td>HIGH</td>
</tr>
<tr>
<td>Intelligence Precision</td>
<td>Level of measurement detail in intelligence item.</td>
<td>HIGH</td>
</tr>
<tr>
<td>Intelligence Relevance</td>
<td>Extent to which intelligence quality is relevant to the task at hand</td>
<td>HIGH</td>
</tr>
<tr>
<td>Intelligence Completeness</td>
<td>Extent to which intelligence relevant to ground truth is collected.</td>
<td>HIGH</td>
</tr>
</tbody>
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*(NATO SAS-050 Definitions)*
The speed at which knowledge is turned into the appropriate actions for desired effects in the battlespace.

(speed & precision)

FOCUS SQUARELY ON INTELLIGENCE

- Axiom 1: Agility is relative (not absolute) to the situation/adversary.
- Axiom 2: Understanding the situation/adversary is a prerequisite for being agile.
Scope of Agility Investigation Restricted to Existing Battlespace Operations Doctrine

EBT

Knowledge Base

Planning
Assessment
Execution

PMESII
SAS 050 C2 Model – Sensemaking
(INTELLIGENCE)
Intelligence manages the sensemaking (ex SA/SU) – it is the make or break for battlespace agility.
How we ‘observe’ and ‘orient’ in the battlespace is the focus of our research.

Remember we’re not alone ....
COMPLETED
RESEARCH PROJECTS

1- PROJECT AL-NUR - PMESII
2- PROJECT KITAE I – C2/Helmand
3- PROJECT KITAE II – SNA Helmand
4- PROJECT KITAE III- HTM Helmand
5- PROJECT CROWS NEST – TNM
No PMESII training

- Establish presence in Mogadishu and expand with main effort in Southern Somalia.
- Target extremist and encourage negotiation with all other parties.
- Humanitarian relief and CIMIC coordinated with targeting.
- When SASE is established in Southern Somalia - expand success and SASE northwards.
- Deliberate approach to DDR-process.

CIMIC – Civil-Military Cooperation
SASE – Safe and Secure Environment
DDR – Demobilise, Disorganise, Reintegrate

PMESII trained

- MD1- Establish presence in Mogadishu and expand with main effort in Southern Somalia.
- MD2 - Establish small military presence in Somaliland.
- P/SD1-ID Clan Structure Key Leaders in Somaliland.
- ED1- economic incentives to key leaders
- INFOD-Somaliland
- Southern Somalia - expand success and SASE northwards.

MD 1.2 – Military Dimension 1.2
P/SD1 - ID- Political/Social Dimension 1 – Identification
ED1 – Economic Dimension 1
INFOD – Information Dimension
SASE – Safe and Secure Environment

Commander decided on best operational plan
RESULT: SOSA provides more accurate SA/SU and therefore promotes a more flexible and resilient plan, increasing agility. Need to develope HTM capacity.
KITAE I: Battlespace agility in Helmand: Network vs. hierarchy C2

KITAE II: Battlespace Intelligence: Social network vs. traditional time and space analysis in Helmand

KITAE III: Unit construction for effect in a complex battlespace
RESULT: The situation called for a greater allocation of decision rights in order to achieve a greater agility than our adversary.
RESULT: Time and Space IPB doctrine does not produce ground truth and reduces information accuracy, and therefore reduces agility.
RESULT: How best to organise for the collection and integrate HTM for targeting processes in the asymmetric environment.
Project CROWS NEST

TEST TARGET NETWORK MODELLING FOR IPB MANAGEMENT AT SEA TO IMPROVE SA/SU
**RESULT:** Adopting network target modelling increased SSA/SSU and increased the agility of the fleet versus the adversary.
RESULTING RDDC BATTLESPACE AGILITY ASSESSMENT FRAMEWORK
AXIOMS

The warfighting organization should be built to anticipate change and facilitate adaption.

1. Doctrine should anticipate change and facilitate adaptation.

2. Organization should anticipate change and facilitate adaption.

3. Technology should anticipate change and facilitate adaption.

Ex. Does existing doctrine, technology, organisation facilitate task force org? Does it facilitate networking?
Operationalization

• EDUCATION
  • Senior/Junior Staff Officer Courses (Masters/Bachelors Level)
  • Advanced Joint Intelligence Courses
  • Commanders Intelligence Courses

• DOCTRINE
  • AJP-2(A) Section IV – Principles of Intelligence
  • AJP -3.4.4 0323 Operational and Organization Patterns
  • AJP 1.0 0218 Evolving Character of Operations

• PRACTICE
  • Establishment of new SOFCOM
  • Establishment of new JOC
  • Establishment new military intelligence center (2 MI Battalions)
  • Introduction of new national intelligence C2 Architecture
  • Support for global US SOF Network
  • SOPs for N2 use of TNM
  • Adoption of AtN Approach
Ex. Agility research has informed decisions on major restructuring in Danish Defence to best manage a future of complex adaptive battlespace systems.
EX- Agility research has driven a renewed focus on the quality of military intelligence in terms of organization, doctrine, and technology and the development of an intelligence.

- **Intelligence Orientation for Commanders (OF4&OF5)**
- **Joint Advanced INTEL Course (OF2&OF3)**
- **Comprehensive Intelligence Analytic Course (OR7-OF3)**
- **Joint Intelligence orientation on Officers Bachelor School, Joint Module (OF1)**
- **Knowledge- & Intelligence training on Military Master Class Course (OF2)**
- **Joint Intelligence orientation on Reserve Officers Course (OF2&OF3)**
Thread 1: Intelligence analysis methodologies (sense-making) AtN

Thread 2: Defining Adversarial Agility

Thread 3: Role of Agility in Deception & Surprise

Ex. What are the effects implementing doctrine X,Y,Z on the operational responsiveness of the military organisation/unit?
THREAD 1: Focuses on increasing the military organisations agility through the further development of tests and SOPs regarding Target Network Modelling (TNM) and other structured analytical techniques for managing and communicating SA/SU.
Thread 1: Attack the Network (AtN)

- Understand the Operational Environment
- Conduct CPOE
- ID the Threat Networks
- Understand Network Concepts
- Analyze the Networks

- Determine Characteristics
- Determine Components
- Targeting
- Define the Networks
- Develop Indicators
- Develop NAIs/TAIs
Thread 1: Major change to operational planning approach...

20th Century
1. Organize
2. Intent
3. Plan
4. Execute

VS.

21st Century (AtN)
1. Understand
2. Plan
3. Organize
4. Execute

Which approach best facilitates agility and how?
Thread 2: What about the adversaries’ agility?
Thread 2: The Adversary

John Boyd's OODA Loop

Unfolding Circumstances
Outside Information
Unfolding Interaction With Environment

Observable
Implicit Guidance & Control

Orient
Cultural Traditions
Genetic Heritage
Analytical Skills

Decide
Implicit Guidance & Control
Decision (Hypothesis)

Act
Action (Test)
Unfolding Interaction With Environment

Feedback
Forward
Forward
Forward

Agility

?
Thread 2: EX. Target modelling your adversaries agility where it concerns allocation of decision rights, distribution of information, patterns of interaction.
Thread 3: Role of Agility in Deception & Surprise

Modes of Surprise

- **Place** – Point, location, or area threatened. Axis or direction of operations.
- **Time** – Unexpectedness of timing measured in minutes, hours, days, and weeks.
- **Strength** – the amount of forces or assets committed to the operation.
- **Intention** – The scope of fundamental preferences
- **Style** – The form or fashion that the operation is carried out.
Dept. Of Joint Operations on Twitter:

**BattlespaceRD4G**

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