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Information Capabilities as a Force for Change and Force Multiplier

Andrew Sleight

My themes:

Information Capabilities are in the front line of Crisis Management

Agility is the primary capability for the (new?) climate

1. Information capabilities as the glue for agility
2. Agile information assets
3. Agile capability based acquisition

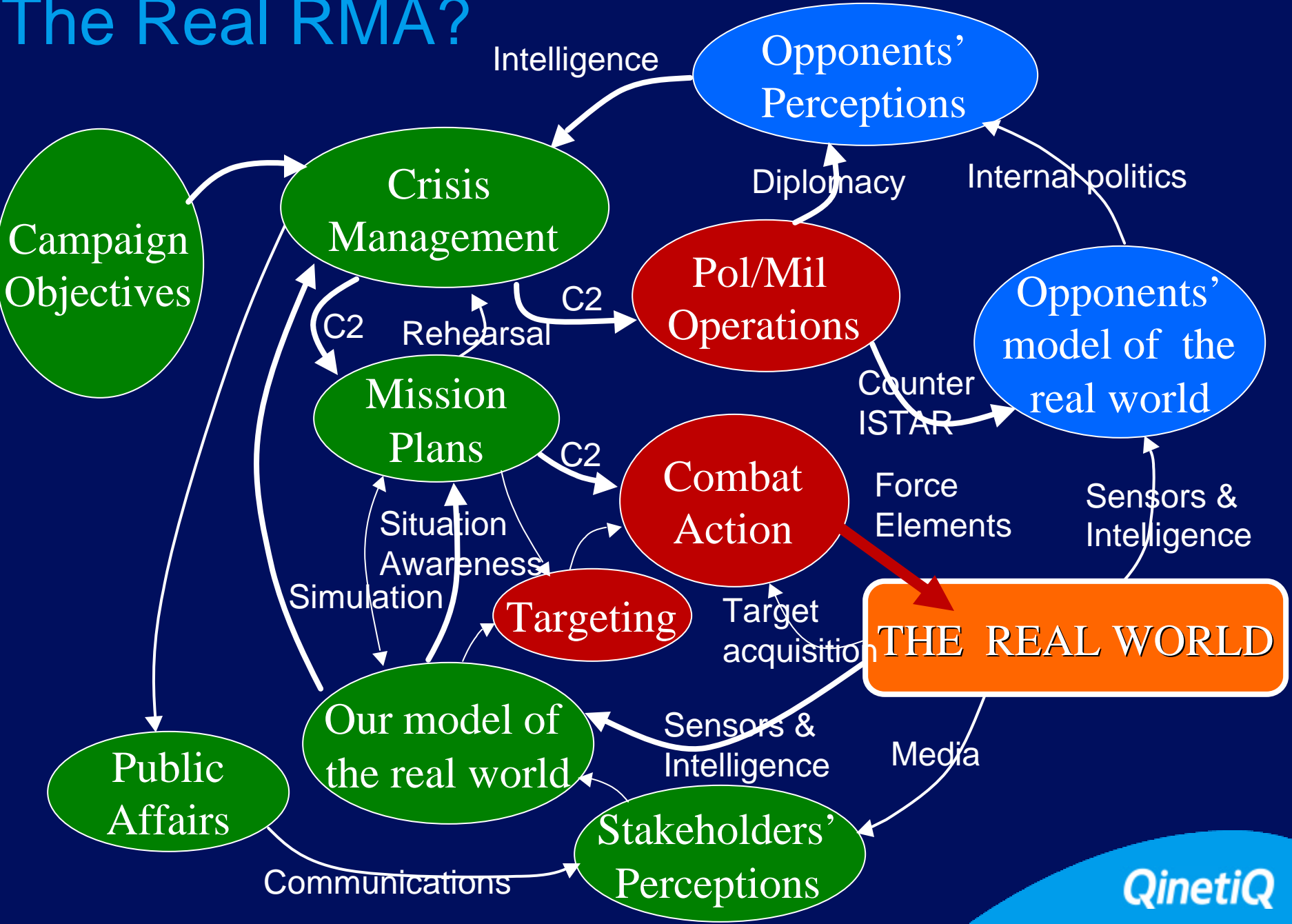
Security Planning

- Prediction is impossible
 - un-knowable complexity of the way people and physical world interact to cause “events”
- The only strategy is to have good indicators and warnings and be able to respond fast
- Planning is therefore about
 - maximising ability to respond to the unexpected
 - watching the right indicators and warnings so as to act early

Section 1

Information capabilities: the glue

The Real RMA?



Information capabilities: the glue for agility

- Crisis management today: integrated deployment of **political, military, economic and awareness** means
- Information capabilities configure and bind assets to generate effect
 - orchestrates players to deliver desired outcomes
- **We need to think of information capabilities as the primary instrument for managing security**
 - the central trunk for crisis management, and effective warfighting
 - agility of all forces determined by information agility

Section 2

Agility in information capabilities

Agility in information capabilities will be vital to our overall ability to manage crises

Agility in information assets (1): Sensor to Shooter



Agility in information assets (2): Civil / Military

- No longer a distinction between military and civil “ISTAR”
 - events may originate as criminal investigation but move seamlessly to military involvement
 - policing and military action now operate in tandem
 - Military ISTAR could include sensing stock market deals, tracking people’s movements, analysing personality profiles
- Implies investment in ability to integrate civil and military ISTAR capabilities, and take a broader capability look

ISTAR product



Agility in information assets(3): Dynamic doctrine and tactics

- Approaches to pol/mil interaction, command style, decision making and security policy can all differ across any group of partners in a coalition

Agility in information assets (3): Dynamic doctrine and tactics

- Multi-National Interoperability Council held a Seminar Wargame in 1999. It highlighted a several impediments to coalition operations, including:
 - fundamental differences in the way information is handled and security policy defined
 - different approaches to forming plans
 - different customs for decision making and delegation
 - different relationships between military command and the political crisis management dimensions

Agility in information assets (3): Dynamic doctrine and tactics

- We need to be able to adapt doctrine and procedures with type and phase of operation, lead nation, selection of partners, etc
- Information capabilities must support this flexibility
- Information capabilities (through simulation and battlelabs) support experimentation to evolve effective and harmonised ways of working

Agility in information assets (4): Helping commanders work together

- Many “soft” people issues to get right
 - high dependence on battlelab and synthetic environment capabilities to explore process and C2 application solutions
- Growing number of experiments where real command teams have taken part in research programmes as part of their training and development
- Several research techniques are being used in Exercise SAIF SEREEA to explore coalition command issues

Agility in information assets (5): Helping commanders work together

- Many “soft” systems are not right
– high degree of flexibility and synthetic
environments to explore process and C2
- Growing number of teams have
part of their training and command
as
- Several research techniques
Exercise SAIF SEREE, command
issues



Agility in information assets (5): Crisis management C2

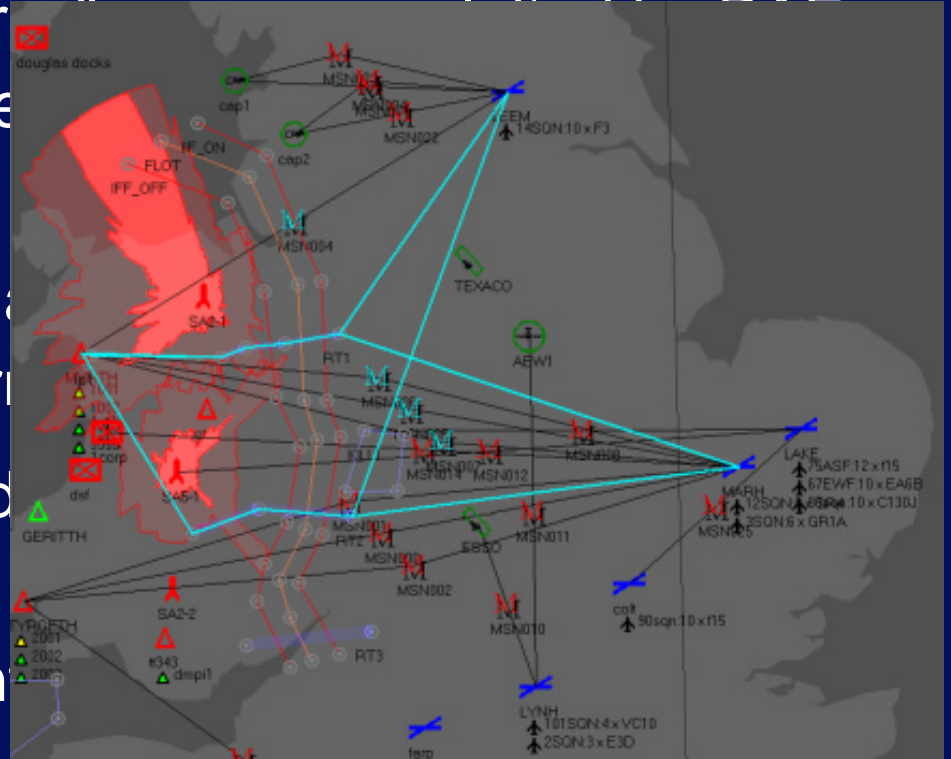
- Command and control for crisis management
 - like warfighting, C2 in the pol/mil space needs situation awareness, planning and command tools
- For example
 - Secure, trusted political decision making
 - Operational level situation awareness
 - including psychological profiling of adversaries, media and website monitoring, anomaly detection in transaction data, etc
 - Techniques to manage and minimise risks
 - esp avoid elephant trap outcomes

Agility in information assets (6): Research examples feeding operational agility

- Flexible “reports & returns” process exploited by BAE Systems in GP3, moves away from 12 hour reporting
- COTS data mining tool able to rapidly find ‘hidden’ relationships and patterns in intelligence data
- A range of security products that allow controlled sharing of information
 - deployed in all recent operations
- FAST: intuitive ATO planner allows dynamic update and real-time verification of air tasking orders
 - tested by Air Warfare Centre and in use by Malaysia

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Section 3

Agile capability based acquisition

Smart Acquisition for agile capability development

- Smart Acquisition gives us the tools to achieve agility in capability development
- How do we get the right “customs” in place to use them to full effect

Capability based acquisition

- The UK Capability approach is a crucial asset
 - driven by outcomes, not programmes
 - Capability Plans provide the framework to articulate trends and risks, then judge investment priorities
 - no pre-commitment to a solution
- Can we strengthen Capability Plan process by focusing more directly on the flexibilities we need to create to hedge across events?

Capability based acquisition: Getting the right flexibilities

- Identify trends and synthesise implied “events” and associated indicators and warnings (I&W)
 - eg the RAND “Day before...” approach
- Focus on capabilities that mitigate events with an I&W “turning circle” inside current responses
- Balance investment to realise short term capability improvements
 - with option “hooks” that can be exercised in response to I&W or lowered technology risk
 - fast-track user needs to adapt equipment “fit-for-role”

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Providing hooks for latent capability

- Focus on minimum essential baseline capability,
 - get it in early
 - accept by outcomes not system performance
- URD should explicitly map out plausible avenues for extension options, updated regularly in partnership with IPT
 - make demonstration of flexibility part of acceptance
 - run parallel demonstrator programmes for extension avenues
 - maintain funding headroom to activate options rapidly

Fast-track user needs to achieve “fit-for-role”

- Use battlelabs and simulators to test emerging concepts
- “Pre-emptive UOR” aimed at risks with rising I&Ws
 - Use trade-off “envelope”, and in-year transfers, to fund rapid technology insertion
- Ensure research contractors have ability to exploit successes rapidly into field
- Allow contractors to introduce unsolicited innovative capabilities, charged to IPT or end-user if taken up

Making Smart Acquisition agile

- Smart Acquisition gives DEC's and IPT Leaders very significant authorities to adapt programmes and funding to optimise capability benefit
- Have been instances where these authorities have been exercised with great effect
- Important now for DEC's and IPT Leaders to stretch these authorities and tighten our procurement turning-circle

Concluding remarks

- Those responsible for information capabilities probably now bear the greatest influence on our future success in defence
- We will never know what is round the corner, but we can make good judgements on what we need to do to improve our agility to respond
- The UK approach to Capability based acquisition has all the right features for agility; we now need to make it really sing for us