



Ministry of Defence

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Operational Analysis in the MOD

23 July 2019

Structure:

- Current and future Defence challenges
- Our role and priorities
- The role of Operational Analysis in supporting Defence
- Operational Analysis in Capability Strategy
- Developing the evidence base
- Understanding the future
- Vision for the Future

The Challenges facing us:

- The increasing threat posed by terrorism, extremism and instability
- The resurgence of state-based threats
- The impact of technology
- A future strategic context and future operating environment characterised by complexity, instability, uncertainty and pervasive information
- Finance and cost



Our role and priorities:



- Strategic Force Development across all Defence Lines of Development
- Proposing strategic Balance of Investment
- Assuring progress towards delivering Defence Outputs structure and long-term capability requirements
- Ensuring that the individual activities and proposals of the RAF, Royal Navy, British Army and Joint Forces Command continue to meet the aggregate best interests of Defence
- Making informed, coherent proposals (the ‘Single Version of the Truth’) to the Defence Board, through the Armed Forces Committee..
- Ensuring that there is sufficient agility to enable the capability portfolio to be adjusted to meet emerging risks
- Recommending priorities for spend in the near term to make best use of any financial headroom



Operational Analysis is an enabler for Defence



At the tactical and operational level

41 Test and Evaluation Sqn

- Part of the Air Warfare Centre
- Develops and evaluates the operational tactics for front-line Typhoon squadrons
- Ensures the Typhoon remains a world leading multi-role combat aircraft

At the Strategic level

Head Office and Strategic Command

- Supporting Operations through OA staff embedded in deployed HQ's
- Developing the force best suited to meet near-term threats and designing the force to succeed against the threats of the 2030s.

“A scientific method of providing executive departments with a quantitative basis for decisions regarding the operations under their control”



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Operational Analysis in Capability Strategy

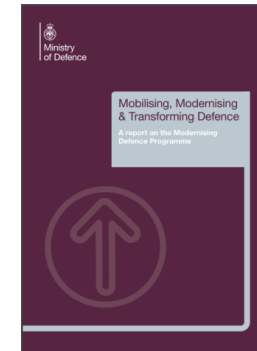
Modelling future conflict for Strategic Force Development



- The Planned Force Testing 7 wargame was the largest of its kind since the cold war
- Provided an understanding of inter-dependencies, risks, issues and opportunities between capabilities and services in a manner not easily seen in smaller scale wargames or theoretical discussions
- Allows Capability Strategy to make sense of what is a hugely complex challenge for Defence

MCDA to support Balance of Investment as part of the Modernising Defence Programme (MDP)

- Multi-Criteria Decision Analysis used as an approach to investment prioritisation
- Resulted in an additional £1.8Bn investment in critical Defence capability
- Will be used by FinMilCap as a business as usual tool for Strategic Balance of Investment



Developing the evidence base

- Ensuring that the evidence is there, recorded and accountable
- Reducing subjective decision making
- Increasing objective and informed decision making





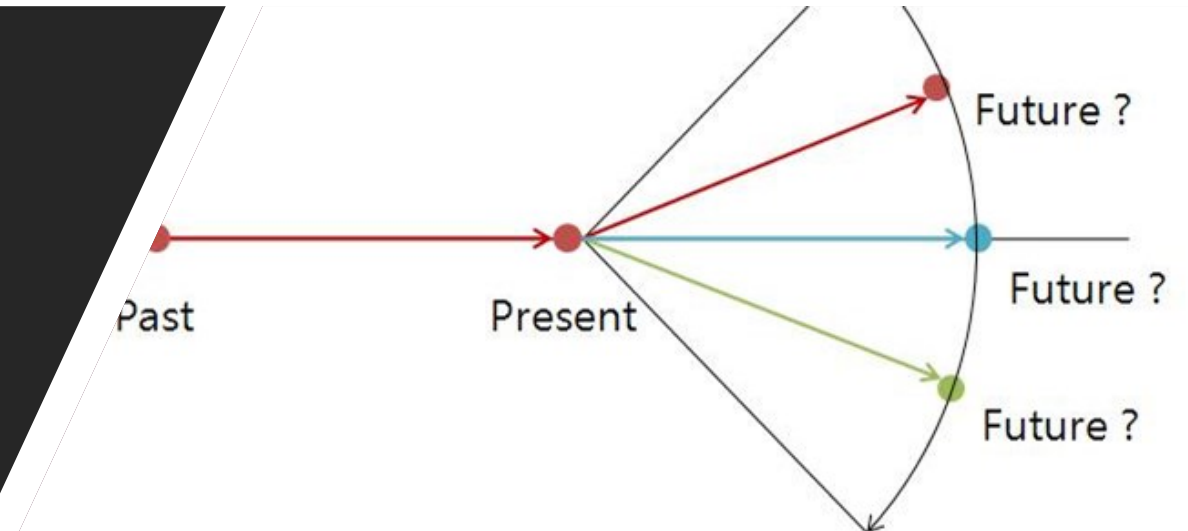
Understanding and predicting the Threat

- Must be threat aware
- Capability is not just the equipment
- All Defence Lines of Development covered:
 - Training, Equipment, Personnel, Information, Doctrine, Organisation, Infrastructure, Logistics



Understanding the Future

- How do we predict?
- What are our confidence levels?
- How accurate have we been previously?
- We need more OA
- We need to exploit OA more effectively
- We need to trust and understand OA in all its forms



Vision for the future

- Is it about Artificial Intelligence, Big Data, and Business analytics? (yes, but)
- Decisions making is still all about the human in the loop
- Decisions and Decision support needs to be grounded in reality and exploitable





Questions