

QinetiQ

Report Documentation Page

Report Date 27SEP2001	Report Type N/A	Dates Covered (from... to) 25SEP2001 - 27SEP2001
Title and Subtitle Emerging Threats	Contract Number	
	Grant Number	
	Program Element Number	
Author(s) Rankin, Robert	Project Number	
	Task Number	
	Work Unit Number	
Performing Organization Name(s) and Address(es) QinetiQ	Performing Organization Report Number	
Sponsoring/Monitoring Agency Name(s) and Address(es) EOARD PSC 802 BOX 14 FPO 09499-0014	Sponsor/Monitor's Acronym(s)	
	Sponsor/Monitor's Report Number(s)	
Distribution/Availability Statement Approved for public release, distribution unlimited		
Supplementary Notes See Also ADM001419 for whole conference on CD-ROM. These papers are from the Harnessing Advanced Technology for C4ISTAR, The Second Annual Advanced Technology Conference, held 25-27 September 2001 at The Great Malvern Theatre Complex., The original document contains color images.		
Abstract		
Subject Terms		
Report Classification unclassified	Classification of this page unclassified	
Classification of Abstract unclassified	Limitation of Abstract UU	
Number of Pages 12		

Emerging Threats

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A presentation to: RUSI

27 September 2001

Emerging Threats

Context for this presentation

- Threats to a UK peacekeeping operation
- Identify technologies which will have an impact
- Examine some emerging threats

Definition

We say a threat is a function based on motivation and capability:

$$\textit{threat} \sim f(\textit{motivation}, \textit{capability})$$

Emerging Threats

Dependencies

- Co-operation with allies
- Interaction with NGO's, UN etc
- Use of the Internet & e-commerce
- Dependence on civil systems
- Interdependence between suppliers
- Media engagement

=> many non-military targets & vulnerabilities



Emerging Threats

Technologies

Technology marches on...

Non-esoteric technology provides a capability

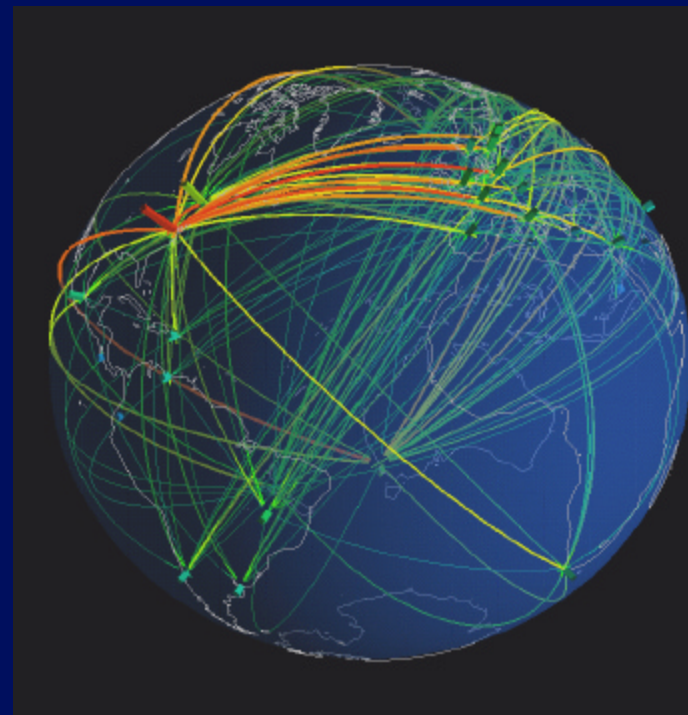
- Satellite phones
- Satellite imagery
- Internet service expansion
- Wireless Area Protocols (WAP)
- Free/disposable mobile phones

Emerging Threats

Technologies

Why are these technologies important?

- affordable
- access to information & services
- share information
- form trans-national communities
 - virtual communities
- WAP, mobile phones and Internet services provide *anonymity*



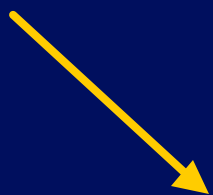
Emerging Threats

The actors

- State Actors
- Terrorists
- Disaffected Individuals
- Criminals
- Gangs/Militia



David Smith -
Melissa



Emerging Threats

The actors

- Single Issue Movements
 - National to Global
- Law abiding to dangerous
 - extra-parliamentary/pressure groups
 - political pressure/economic
 - activism/threatening



Emerging Threats

Single Issue Movements

- Increasing trend & difficult to predict
- Technology provides vehicle to orchestrate effort
- Duration of a movement depends upon the cause
- Motivations of supporters are complex
- Trans-national support
- Trend to promote direct action
- Use of media

Emerging Threats

The threats to an operation

- Spread of dis-information
 - Lose the war of words & public support
- Attacks
 - directly against MOD infrastructure
 - against interdependencies in common supply & telecomms chain
 - threaten companies who are associated with an operation
 - identify and threaten key individuals
 - distributed & trans-national
 - denial of service attacks
- Fragmented organisation - makes countermeasures difficult
- Promotion of direct action ~hacktivism
- Fast tempo of events

Emerging Threats

Conclusions

- The evolution of single issue movements groups pose a threat to military operations. Their formation, expansion and duration can be difficult to predict; They are spawned within complex social-technical systems.
- Attacks on civil infrastructure & personnel could undermine operations
- Indicators and warnings are required to alert us to their development as few, if any, exist.
- How do we identify the 'catalysts' that transform a situation
- Media engagement is required as a countermeasure
- The threat posed by such groups will grow especially as 'activism' is promoted.