

Operational Considerations for LAWS



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Summary

- The nature of defence
- Emerging security trends
- Why military forces might or might not seek greater autonomy
- Meaningful Human Control
- Conclusions

The Nature of Defence



“The first duty of government
is defence of the realm”
Michael Fallon MP,
Former Secretary of State for Defence
HMG
09 April 2015

The Nature of Defence

The security environment is inherently unpredictable

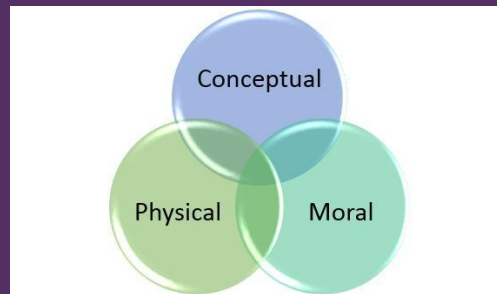
The adversary always has a vote



Defence

The hallmarks of an effective military force:

- Competitive (relative to adversaries)
- Deterrence (communication of intent and demonstration)
- Secrecy
- Governed by LOAC, IHL



Global Security Trends

- Diverse Threats
- Civilian sector is the driver for Research & Development
- Defence Industry has globalised
- Mass & cost
- ISR - Reach and persistence
- Cyber/EME/IOT
- International media/social media has increased scrutiny

Why greater autonomy is attractive

- Exploit civil technologies and understand how others may also wish to exploit existing technologies
 - Big data
 - Open Source Intelligence
 - Logistics
- Increase situational awareness and therefore make better, more timely decisions - persistence
- Increase speed, range of defensive measures
- Increasing costs of personnel

Why LAWS might be attractive

- Allow greater numbers of 'low cost' platforms
- Increases the military's ability to intervene across multiple theatres of operation if requested
- Intervene in theatres where access might be denied
- Bandwidth may not be available for man 'on the loop'

Why LAWS may not be appropriate

- Increase the likelihood of intervention on the part of the political class
- Potential for unlimited liability on the part of the commander
- Autonomous systems may be controlled by others
- Remote warfare/overwhelming violence may aggravate security situation
- LAWS Arms race

Meaningful Human Control

Strategic



Operational



Tactical



Meaningful Human Control

MHC relative to.....?



Summary

- The security situation is increasingly unstable
- Civil sector is driving R&D moving to increasing autonomy
- Potential for arms race and/or proliferation of technology
- Political oversight of military always requires MHC and many layers of scrutiny already exist within military system
- Greater scrutiny always drives more regulation and greater accuracy
- Enforcement of LOAC and IHL paramount

Questions?

Thank you