

EMERGING DISRUPTIVE TECHNOLOGIES AND SMALL MILITARY POWER

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Content

- **Introduction**
- **EDT and small military power**
- **Implications for Main Capability Areas**

Emerging Disruptive Technologies

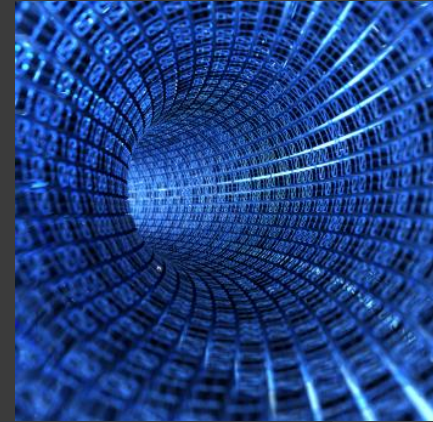
- ⦿ Emerging
 - Expected to reach maturity in the period 2020-2040
- ⦿ Disruptive
 - Drastically change the way organizations and industries function
- ⦿ Connection to Revolution in Military Affairs

Small Military Power

- ◎ **Power** - ensuring survival
- ◎ **Military power** (Mearsheimer)
- ◎ **Small military power**
 - Personnel issues
 - Financial and material issues
 - Infrastructure

EDT and Small Military Power

- ◎ „New“ strategic/operational domains
 - Outer Space
 - Cyberspace



- ◎ Remote control and autonomous systems



- ◎ Human-machine interface

EDT and Small Military Power

- ◎ Biotechnology
- ◎ Energy Technologies
 - Alternative sources
 - Weaponization
- ◎ Additive manufacturing



Prepare/Training

- Specifics of „new“ domains
- Augmented and virtual reality
- Human enhancement



Project

- New possibilities through cyberspace
- UxS and AxS
- Use of 3D printing - logistics

Engage

- Combination of cyber capabilities and electronic warfare
- UxS and AxS – compensation of the size of armed forces
- Exoskeletons

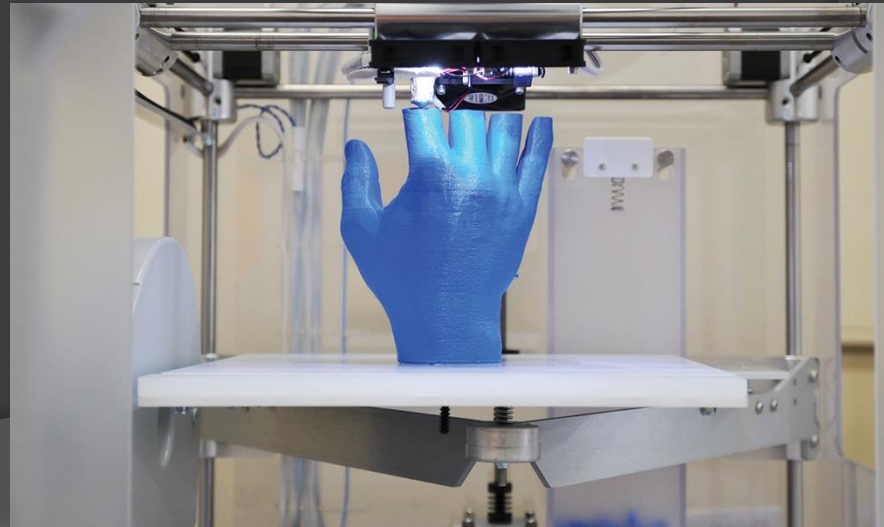


C3

- ◎ Complex C4ISR
 - Combination of cyber and space elements
- ◎ Big Data processing
- ◎ Modelling and simulation

Sustain

- ⦿ Alternative energy sources
- ⦿ Reduction of the footprint on battlefield
- ⦿ Bioprinting

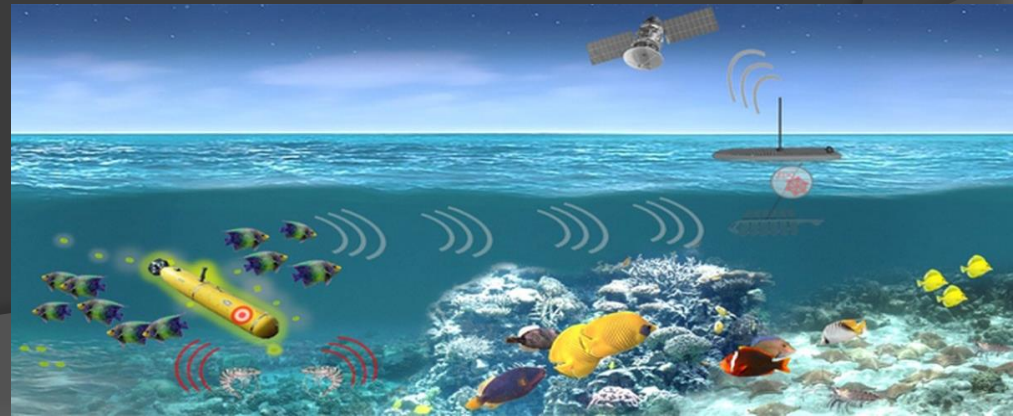


Protect

- ⦿ Protection against adversary's EDTs
- ⦿ Electromagnetic pulse
- ⦿ Nanotechnologies
- ⦿ Quantum tech and cryptography

Inform

- ◎ C4ISR
- ◎ Big Data processing
- ◎ New types of sensors (even bio)

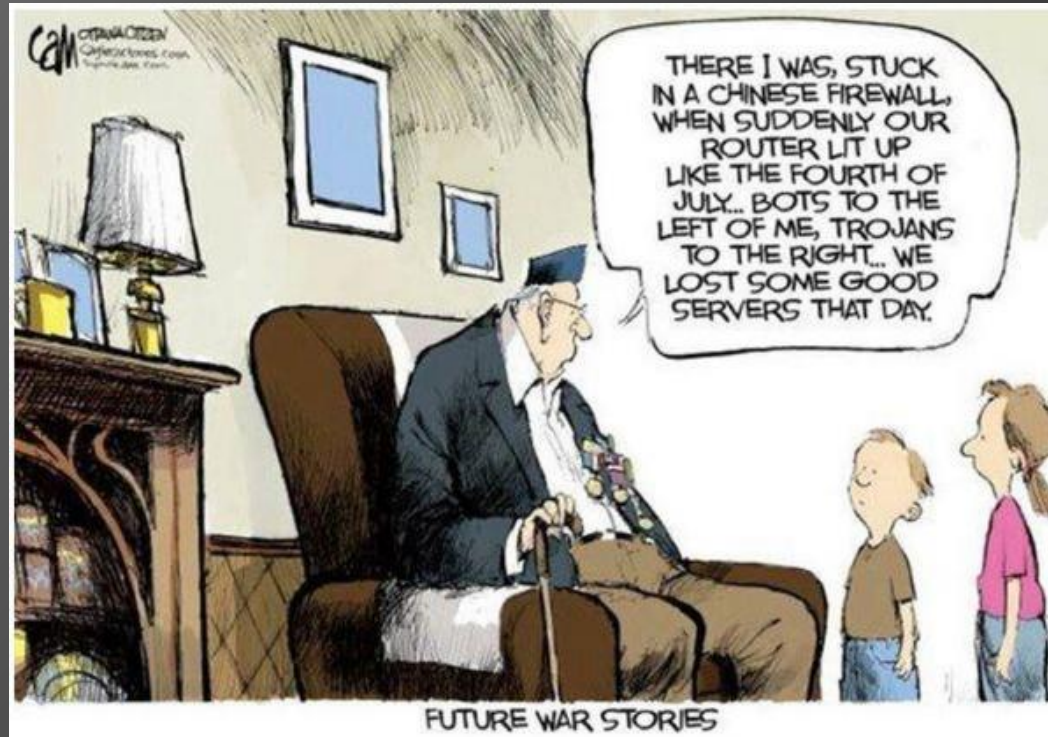


Final remarks

- ① Interoperability requirements
- ① Blurring the border between the mil and civ dimensions
- ① Supply chain issues

THANK YOU FOR YOUR ATTENTION

QUESTIONS?



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