

# Cyber Attacks: The Biggest Threat for Future Weapons

*Are cyber attacks becoming more efficient than kinetic ones?*

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# The Future of Security...



# About Me

## Julien Chesaux, 8 years of professional experience (3 years in cybersecurity)






**Currently:** EMEA Cybersecurity Advisory Consultant at Kudelski Security

**Previously:** Advisor for the Swiss Foreign Affairs Department

**Education:** Postgrad studies in Strategic Studies at University of Aberdeen (UK)  
Undergrad studies in Political Science and International Relations at University of Lausanne (Switzerland)

**Other:** Writer of cyber geopolitical and security articles  
Speaker and Moderator at national and international levels

# Why this Article?

-  Increasing complexification of the battlefield (data/network-centric)
-  No clear government policies towards cyberattacks
-  Global instability leads to proliferation of cyberattacks (diversity and intensity)
-  Armaments are vulnerable (Global/Industry Value Chains)
-  Air superiority still matters

# Complexification of the Armament Industry

Expensive,  
complex,  
connected,  
collect data



Global/Technology  
Value Chain



Many Third  
parties



Low Security  
by design



Opportunities

# Example – Lockheed Martin F35

- Exemplifies these issues and the complexity of the geopolitics of armament
  - Advanced
  - Expensive
  - Complex
  - Geopolitical consideration
- Still making sense? “Dronification” of the battlefield



VS.





# Advanced Persistent Threat (APT)

**Biggest threat**



**Long-term, stealthy, complex and targeted**



**Malware are efficient**



**Steal, spy and/or degrade/sabotage**



**Dynamic defense**





## Malware: The new absolute weapon?

“Thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be **to avert them**. It can have almost no other useful purpose”.

BRODIE Bernard. “The Absolute Weapon: Atomic Power and World Order”, Yale Institute of International Studies, New Heaven, U.S., 1949

# Similarities with Nuclear Weapons

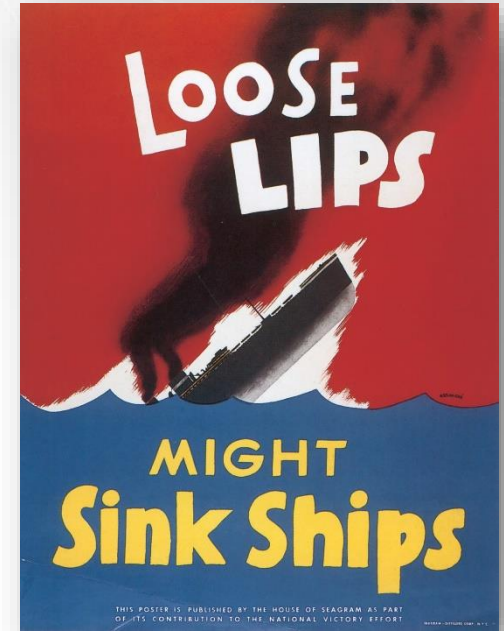
1. Superiority of offense over defense;
2. Use of weapons for tactical and strategical purposes;
3. Possibilities of first and second use scenario;
4. Possibility of automated responses;
5. The likelihood of unintended consequences and cascading effects.

→ Mutual Cyber Assured Destruction (MCAD)



# Operation Security (OpSec)

- Global/technology value chain context → Reducing the costs lead to externalization, which means less control and more risks.
- Invest in OpSec capacities → TPP triad: Technology, Process, People.
- Control the data / define Crown Jewels → Data in use, in motion and at rest



# Thinking Beyond

- Global instability asks for more information → more information needed / more cyberattacks
- Cyber PSYOPs → blurs lines of war
- Cyberspace goes across all battlegrounds → A new Revolution in Military Affairs? 5 GW?
- Network/data-centric → Increase the attack surface and threats
- Autonomous systems → Hack the armament
- Warfare more “scientific” than “an art” → bye bye Napoleon, Sun Tzu, Clausewitz, etc.



# Thank You for Your Attention

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