

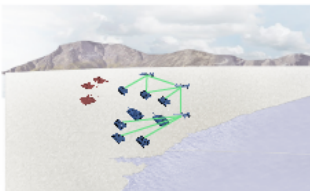


Obstacles:

- 1st gen technology not very good
- Unclear what requirements should be
- Lack of understanding of doctrine
- Cultural/bureaucratic resistance
- Lack of resources

Solutions:

- Experimentation
- Willingness to try new ideas
- Incremental technology development
- Resources
- Critical examination of cultural & bureaucratic resistance



Center for a
New American
Security

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Robotics on the Battlefield: The Coming Swarm

Paul Scharre
Fellow and Project Director for the
20YY Warfare Initiative

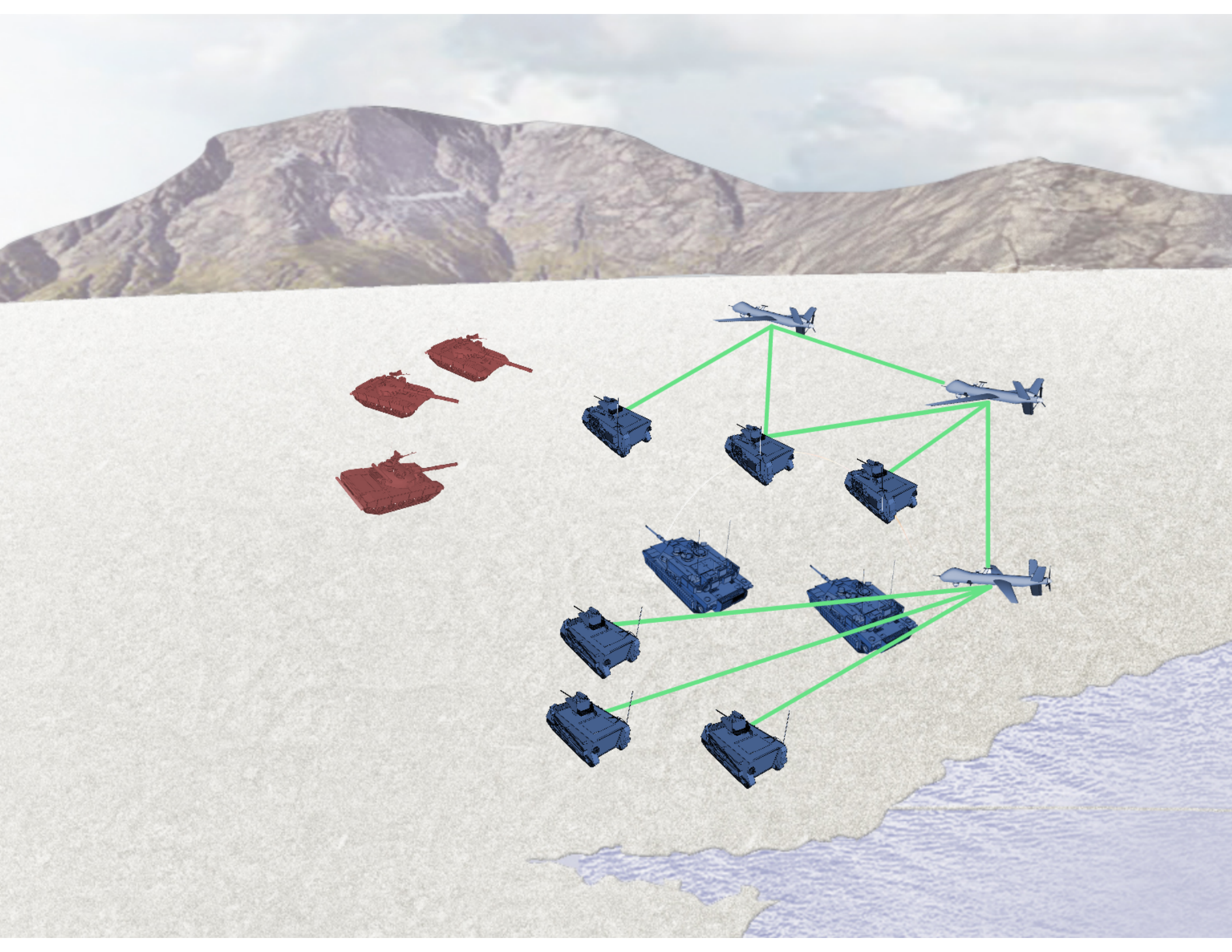






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AMERICA'S ARMY: UNCLASSIFIED
 GLOBALLY RESPONSIVE
 REGIONALLY ENGAGED

Army Unmanned Ground Systems Classes

Soldier Transportable	Vehicle Transportable
Small Bot Common Robotic System - Individual (CRS-I) CDD 	Mounted Man Transportable Robot System (MTRS) Inc 2 
UltraLight Bot Ultra Light Recon Robot 	or Towed M160 Light Flail 
Micro Bot Micro Unmanned Vehicle 	or Installed da Vinci Surgical System 
Nano Bot 	Humanoid DARPA Robot Challenge 

Tactical Robot Control

UNCLASSIFIED

NATIONAL DEFENSE BUDGET ESTIMATES FOR FY 2015



OFFICE OF THE UNDER SECRETARY OF DEFENSE
 (COMPTROLLER)
 APRIL 2014

Unmanned Systems Integrated Roadmap FY2013-2038







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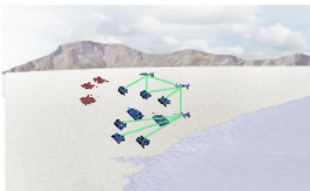


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