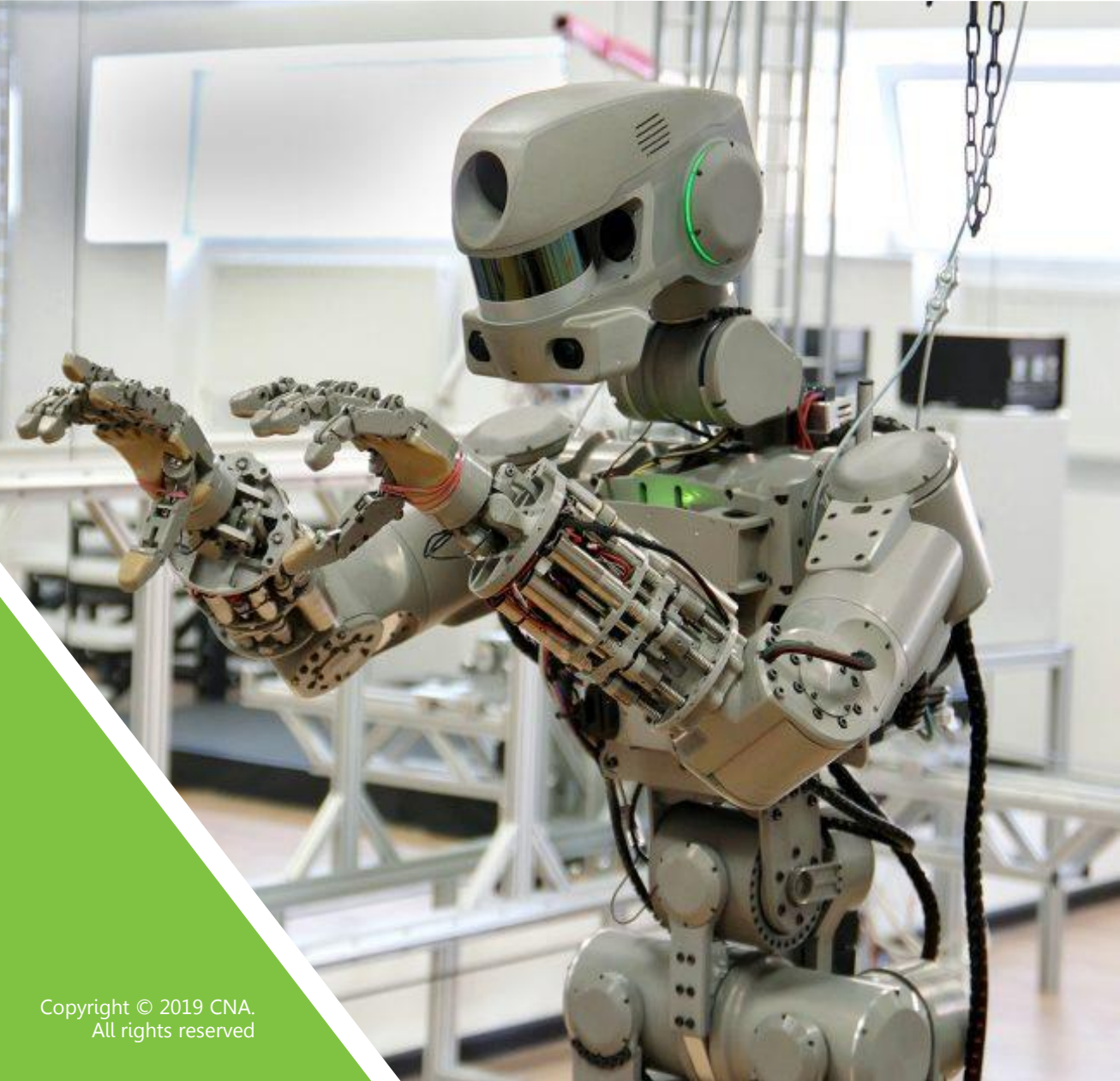


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Samuel Bendett

Russian Military Robotics and Artificial Intelligence Developments: An Assessment



CNA Adversary Analytics Group – Russia Studies Program

CNA is a federally funded research and development center (FFRDC) serving the US Department of the Navy and other US defense agencies.

Russia Program research areas:

- Russian Military Technology Development
- Decision Making: Risk Calculus and Escalation
- Doctrine and Military Capabilities
- Influence Operations: Evaluation and Assessment

CNAS Adjunct Senior Fellow, Technology and National Security Program.

- Russian unmanned military systems and Artificial Intelligence

Military Advanced Technology Development

- Recognition of new threats requires new approaches to technological, intellectual and human potential.
 - MOD leadership in autonomy/unmanned systems/AI RDT&E.
 - Growing importance of Russia's "DARPA" – the Advanced Research Foundation.
 - ERA Technopolis RDT&E.
 - Defense industry RDT&E.



Military Advanced Technology Development

Russian MOD leadership:

- Syria as the “contours of future war.”
- Testing of Russian weapons in Syria.
- Russian army should make a technological breakthrough with the adoption of “robotic complexes” and the intensification of artificial intelligence research.
- “Do not copy other people's experience and catch up with the leading countries, but work ahead of the curve.”



Unmanned Aerial Vehicle Developments

The MOD currently organizes its drone fleet by companies that are divided into platoons based on the size and range of the UAVs they operate, to more easily facilitate command and control, as well as maintenance.



Unmanned Aerial Vehicle Developments

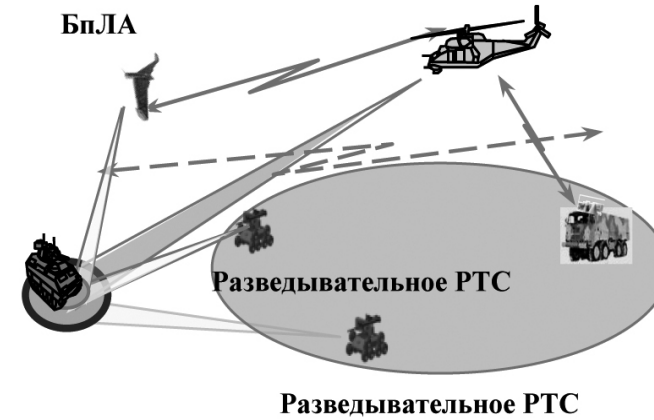
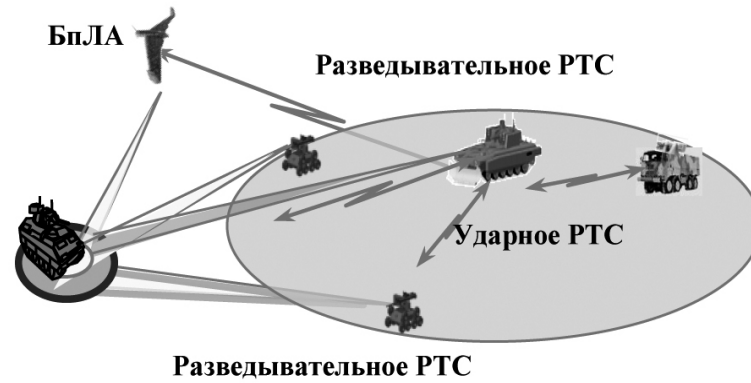


Unmanned Ground, Underwater and Surface Vehicle Developments



Potential CONOPS and TTPs

Многофункциональность элемента боевого порядка



Совместная автономность элемента боевого порядка



Комплексная реакция элемента боевого порядка

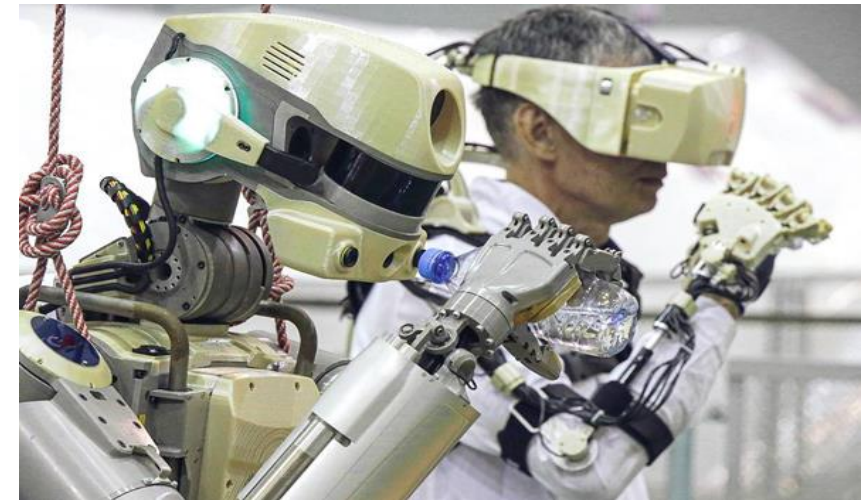
Military Artificial Intelligence: Developing a RDT&E Infrastructure

- What is AI for the MOD?
- 4 AI Principles.
- Innovation infrastructure.
- AI in weapons development.
- Drive for greater autonomy, but with a “human-in-the-loop.”



AI RDT&E: Goals and Challenges

- Developing domestic high-tech expertise.
- “Digitization” and “intellectualization” of armed forces.
- “Import-substitution” drive for domestic components.
- Dual-use technology development by military enterprises.
- Legal/regulatory issues WRT autonomy.
- Cooperation with academia and industry.
- International competition.



Questions?



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