Robotics and Autonomous Systems

June 25-27, 2018 • Detroit, MI

The Army's Priorities for Robotic and Autonomous Systems (RAS)

Near-Term, Mid-Term, Far-Term

IDGA
Institute for Defense and

roboticsautonomoussystems.iqpc.com

NEAR-TERM (2017-2020)

The Army's primary near-term investments are in pursuit of autonomous technology development.

Near-Term Priorities

The Army matures concepts and initiates or continues programs.

Strategies

- Increase situational awareness for dismounted forces at lower echelons
- Lighten the physical load for dismounted forces
- Improve sustainment with automated ground resupply
- Facilitate movement with improved route clearance
- Protect the Force with EOD RAS platform and payload improvements

RAS in Action

Squads and platoons equipped with small RAS in urban terrain. They will use these systems to aid in reconnaissance missions across three dimensions (surface, supersurface, and subsurface) and to protect Soldiers.

Includes

- **Squad Multipurpose Equipment Transports:** Which carry supplies and small unit enablers, such as additional weapons, power generation, and other ground robots.
- **Unmanned Aircraft System (UAS) sensors**

MID-TERM (2021-2030)

The Army continues research in autonomy, machine learning, AI, power management, and common control to achieve more capable UGS and UAS.

Mid-Term Priorities

The primary focus is improvements in situational awareness, Soldier load reduction, sustainment and maneuver.

Strategies

- Increase situational awareness with advanced, smaller RAS and swarming
- Lighten the load with investments in new programs to pursue exoskeleton capabilities
- Improve sustainment with fully automated convoy operations
- Improve maneuver with unmanned combat vehicles and advanced payloads

Marines Test Next Generation Combat Systems

Click above to watch US Marines from 3rd Battalion, 5th Marine Regiment testing a variety of new warfighting technology - MAARS, MUUT, PD-100, Instant Eye. All of which aim to help the U.S. Army meets is goals.

FAR-TERM (2031-2040)

The Army fields new autonomous UGS and UAS developed through commercial research and science and technology investments made in the near- and mid-terms.

Far-Term Priorities

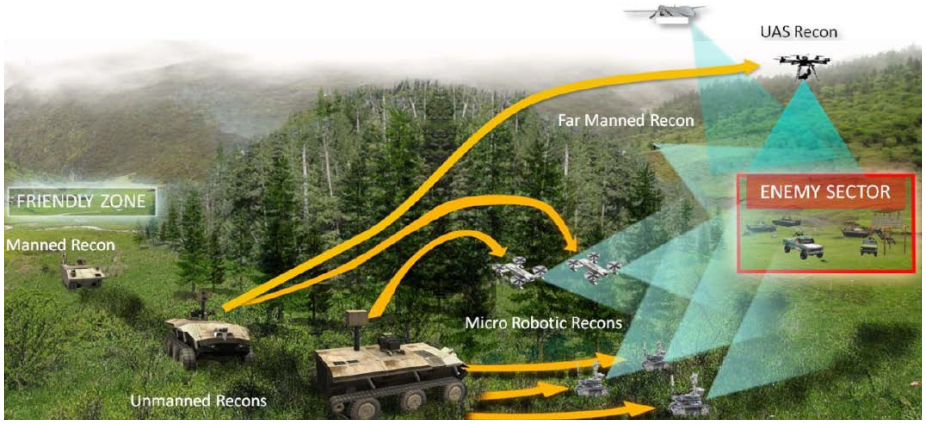
Allow Soldiers and leaders to focus on the execution of the mission rather than the manipulation and direct task control of robots. By fully integrating autonomous systems.

Strategies

- Increase situational awareness with persistent reconnaissance from swarming systems
- Improve sustainment with autonomous aerial cargo delivery
- Facilitate maneuver with advancements to unmanned combat vehicles

Unmanned Recon Scenario

Small UGS working alongside Soldiers with robotic integration across all formations and mission templates.



Includes

- Mounted scouts, augmented with vehicle-launched semi-autonomous Unmanned Aircraft System (UAS)
- Dismounted scouts, augmented with small ground robots


Robotics and Autonomous Systems
June 25-27, 2018 • Detroit, MI
DOWNLOAD AGENDA
REGISTER
SPONSOR
roboticsautonomoussystems.iqpc.com