



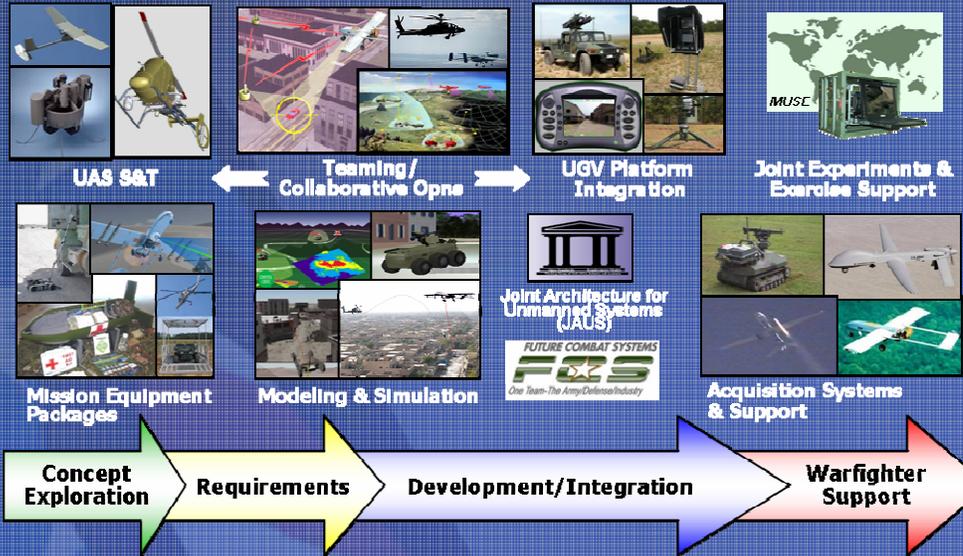
U.S. Army Aviation & Missile Research, Development, and Engineering Center (AMRDEC)

AMRDEC Homeland Security Security Through Technology

UNMANNED SYSTEMS

Cradle-To-Grave, AMRDEC is a Leader in Unmanned Systems Capabilities

... more than 14 years of experience with Army UAS and associated intelligence, surveillance, and reconnaissance (ISR) sensor packages...



AMRDEC strives for an integrated approach to Unmanned Systems that promotes **common controls, data-links, payloads, training, and logistics**. An excellent example is **Joint Architecture for Unmanned Systems (JAUS)**, a set of messaging standards originally developed by AMRDEC and now transitioning to the Society of Automotive Engineers (SAE) that reduces unmanned system development cost and increases interoperability.

Research, Development & Engineering Efforts:

- **Payload Integration**, including payloads for counter-IED and mine, communications relay, threat detection and identification
- **Weaponization**, incl. non-lethal weapons
- **Propulsion**, incl. small heavy fuel engine
- **Condition Based Maintenance**, incl. health and usage monitoring
- **Survivability S&T**, incl. durability and damage tolerance
- **Flight Control S&T**, incl. common dismounted handheld controller
- **Airframe S&T**, incl. mobility and aeromechanics
- **Counter UAS**, incl. composite tracker and target characterization
- **Manned/Unmanned Teaming & Interoperability**, incl. common architecture
- **Rapid Prototyping**, incl. design, fabrication, testing
- **Modeling & Simulation**, incl. constructive models and terrain databases, hardware-in-the-loop simulations, virtual/live distributed experimentation environments



RDECOM

TECHNOLOGY DRIVEN.
WARFIGHTER FOCUSED.



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