

CPE Mission Autonomy Overview

24 February 2026

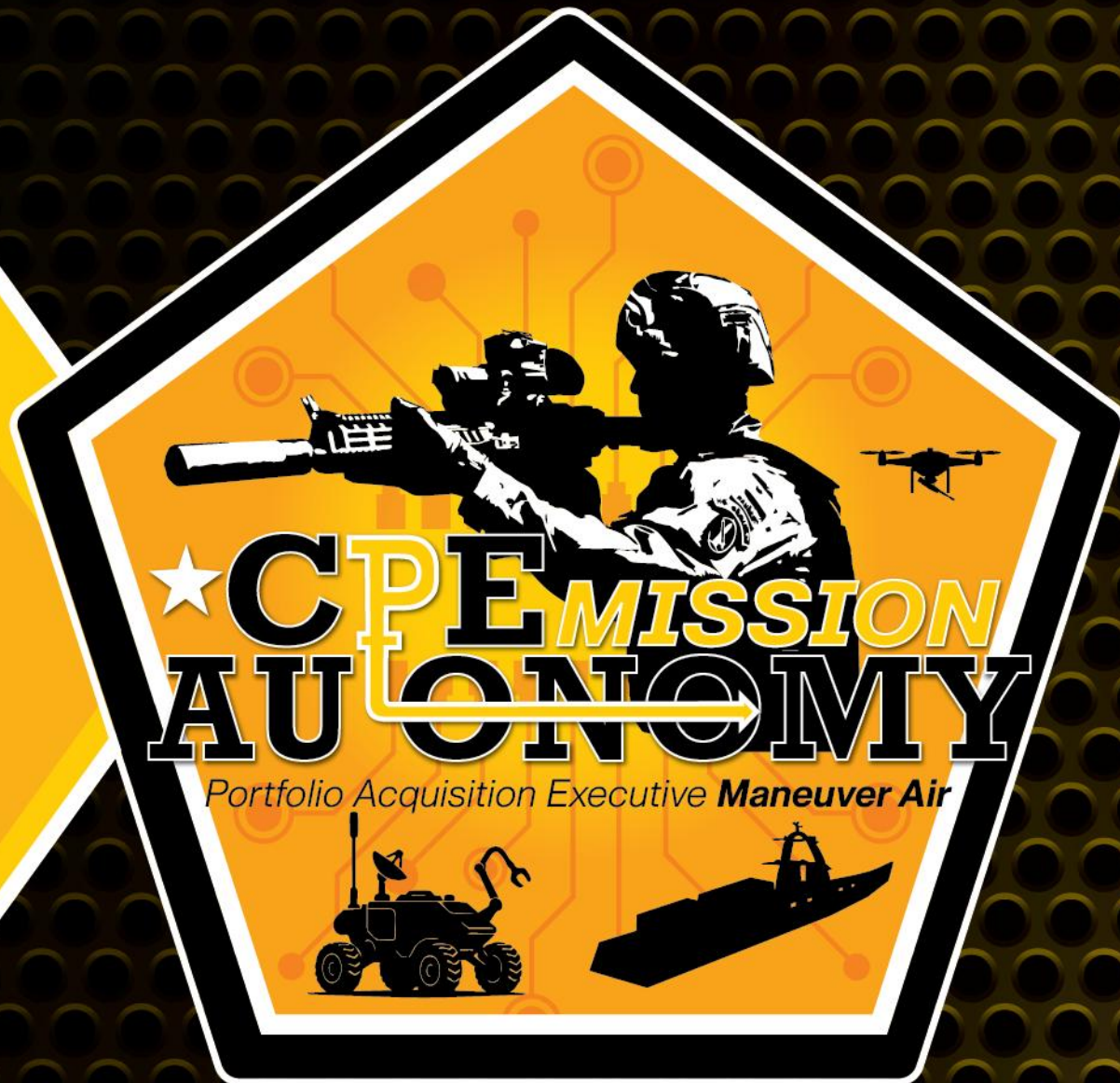
Anthony R. Gibbs

Brigadier General, U.S. Army

Capability Program Executive Mission Autonomy

Gary M. Keller

Deputy Capability Program Executive Mission Autonomy



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BUILDING CPE MISSION AUTONOMY



Mission Statement

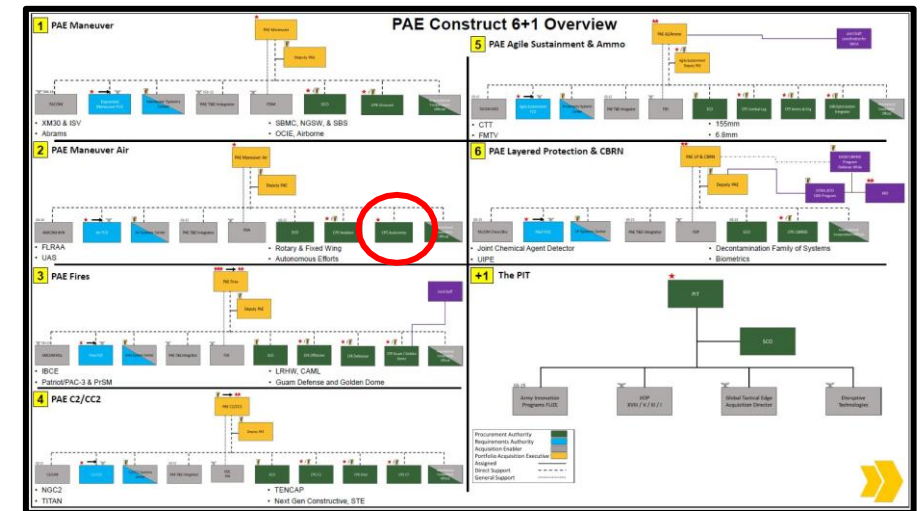
Increase Soldier situational awareness, lethality, and survivability by delivering interconnected unmanned system capabilities that accomplish missions autonomously and intuitively.

Vision

Empower Soldiers with the full force and scale of American innovation.

CPE Mission Autonomy – FIRST Principles

1. Deliver Formation-Based Mission Autonomy Capability to MBCTs, ABCTs, and SBCTs as the Top Priority
 - System of Systems Approach
 - Accelerate Robotic Control Architecture
 - CI/CD Approach for Autonomy Development
 - Identify and address key challenges (power, spectrum, bandwidth, cyber, EW, etc.)
 - Address all elements of DOTmLPPF-P during prototyping
2. The Soldier Experience is Paramount
 - Intuitive
 - Robust/Reliable
 - Trainable
3. Close Partnership with PIT
 - Inform and support unit innovation cells
 - Focus development on relevant use cases
 - Prototype and iterate with TiC and Deliberate Transformation formations
4. Develop Sustainable Business Model
 - Adopt available industry solutions, Adapt/Modify when we can, Develop if we must
 - Utilize set-based design & selective MOSA approach to maximize competition & industry innovation
 - Affordable for the Army
 - Profitable for industry
 - Foster a healthy and robust industrial base with ability to scale



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CROSS-CUTTING TECHNOLOGY AND ARCHITECTURE



CPE Mission Autonomy plays a pivotal role in integrating cross-cutting robotic and autonomous system capabilities across the Army's warfighting functions by emphasizing MOSA architecture, commonality in software, hardware, common control and routing networks, as well as the reuse and reconfiguration of platforms and modular payloads.

GROUND

- UGV/UAS scouts conduct overwatch and clear routes, identify ambushes/mines, breaching package: remotely delivered line charges; terrain shaping obstacles

FIRES

- UAS/UGV detect/identify targets and pass target-quality data to AFATDS/JADC2 for immediate prosecution by organic fires, and loitering munitions

C2/CC2

- UAS/UGV conducting EW mapping, feeding DCGS-A/mission command; enables rapid target development

AIR

- UAS, Optionally Manned & Fully Autonomous flight kits, Autonomous rotorcraft resupply, Autonomous launched effects with common control

CROSS CUTTING TECHNOLOGIES

- MOSA Architecture and RAS Standards
- Robotic Smart Routing Network Integrated with NGC2
- Common Software and Hardware Infrastructure
- Integrated Cross-Platform Common Control
- Platform Reuse and Reconfiguration
- Modular Mission Payloads
- Mission Autonomy Planning Capabilities
- Machine Teaming
- CI/CD Pipeline for S/W updates at tactical edge

PROTECTION

- Robotic sentries with EO/IR and acoustic sensors, tethered Small UAS for elevated persistent ISR, and automated alerts integrated to mission command

AGILE SUSTAINMENT

- Autonomous ground resupply, convoys, heavy lift UAS and USVs for littoral/island hops; integrates into logistics C2 for low-signature, persistent sustainment under EW and fires

Cross PAE coordination to ensure alignment across war fighting functions. The alignment of robotic and autonomous system solutions with specific use cases across PAE portfolios underscores the strategic importance of this cross-cutting initiative.

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CPE
Mission Autonomy
BG Anthony Gibbs

Ft. Belvoir, VA

DCPE Mission Autonomy
Gary Keller

Ft. Belvoir, VA

CTO
Mike Rose

Warren, MI

Enable
SMEs, Tools, Plans
Industry gateway

PM Formation Based Mission Autonomy (TBD – O6 CSL)

Fort Belvoir, VA

Mission Teams
Responsible for:
Formation Need/Use Case Definition
And Prioritization
Formation Experimentation (TIC→CTC)
Operational Evaluation
Tech Scouting

PM Autonomous Robotic Capabilities
COL Ken Bernier

Warren, MI

Buy Items
Platforms and payloads

Ft. Belvoir, VA; APG, MD

PM Robotic Control and Integration
O6 – CSL
Rob Monto

Integrate & Deploy Systems
SoS Integration & delivery
CI/CD

PdM Mission Autonomy All Arms Maneuver
O5 – CSL
LTC Brady Juelson

Mission Team: Reconnaissance, Screening, Breaching, TSO Emplacement (1CD Alignment)

PdM Mission Autonomy Fires, C2&Counter-C2
O5 – CSL
LTC Graham Mullins

Mission Team: Target Identification, Automated Call-for-Fire, UAS-LM Hunter-Killer Ops, Range Extension, Electronic Warfare (4ID Alignment)

PdM Mission Autonomy Agile Sustainment & Protection
O5 – CSL
LTC Jonathan Judy

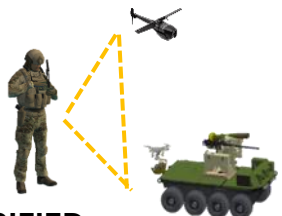
Mission Team: Resupply, CASEVAC, Surveillance, Fixed Site Protection (25ID Alignment)

Platforms, Payloads (w/Autonomy)

Unified C2 Architecture (Collaborative Autonomy)

Deliver

System of Systems
Integrated Formations



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