CAPABILITY INVESTMENT OPPORTUNITY

UxS Autonomy & Multi-Vehicle Control

TOTAL ASK: ~$1.85M

THE GAP

The Air Force lacks a widely adopted common Ground Control Station (GCS) that is modular, adaptable to dynamic mission sets, natively supports multi-vehicle UAS control, and integrates with a common data platform. Units are forced to operate stovepiped, single-vehicle control systems with no interoperability, limiting operational reach and scalability.

THE SOLUTION

Three complementary investments that build from software to hardware to AI-enabled autonomy:

1. **UMS Tool — Feature Updates & New Platform Integration**
   Expands the Unmanned Mission System software to support additional UAS platforms and mission sets; enables rapid configuration across diverse operational environments
2. **Universal Third Party Controller (Hardware)**
   Develops and tests modular hardware enabling autonomous drone operations and 1-to-many UxS control from a single operator station; potential for cost-share with partner organizations
3. **AI-Enabled Tipping & Cueing**
   Licenses and hardware for AI-driven sensor tipping and cueing; accelerates detection-to-decision timeline for base defense applications

THE COST

INITIATIVE	COST	FLEXIBILITY
UMS Tool Updates	**$250K**	Incrementally fundable
Universal Controller (HW)	**$1.5M**	Cost-share eligible
AI Tipping & Cueing	**$100K**	Incrementally fundable
TOTAL	**~$1.85M**	**All 3 or any combination**

THE RETURN

Enables single-operator multi-UAS control, eliminating the current 1:1 operator-to-vehicle ratio constraint. Accelerates sensor-to-decision timeline for base defense. Delivers a modular, platform-agnostic GCS architecture adaptable across all AF/SF mission sets — directly supporting ACE, JADC2, and integrated base defense.

COST OF INACTION

Without investment, the Air Force continues to field stovepiped, single-vehicle GCS solutions with no common architecture. Each new UAS platform requires its own controller, training pipeline, and sustainment tail — compounding cost and complexity while the threat adapts faster than our acquisition cycle.

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