

Aerial Delivery - Low Cost Modular GPS Denied Kit

Project Summary:

The project will demonstrate a low size, weight, power and cost (SWaP-C) kit that can provide GPS-denied navigation for AD platforms. The modular kit will

provide "bolt-on" GPS-denied capabilities that will be appropriately sized and priced for lower -cost DoD AD platforms, such as Unmanned Logistics System (ULS) and Joint Precision Airdrop System



Aerial Platforms Navigating without Satellite Navigation

(JPADS). Currently, AD platforms have limited use in A2/AD GPS-denied environments; the LMGADS capability will significantly increase the range of operational scenarios in which AD platforms can be used. The kit will consist of a flight computer, GPS-denied sensors, and software at TRL 7.

Benefit:

The benefit of LMGADS kit is DoD AD platforms will use a common GPS-denied kit, which will save significant development time and resources. Additionally, having a shared software and hardware baseline across multiple joint programs allows rapid, modular capability sharing at very little cost. For example, if many systems adopt the LMGADS kit, when JPADS is funded to improve Infrared Visual Based Navigation, these improvements can be proliferated to all other platforms using this kit with a simple software update.

Duration of project: FY24 – FY26

Participants: USMC Capabilities Development Directorate, USAF Special Operation Directorate, USA Special Operations Command, USA Combined Arms Support Command, DEVCOM SC Aerial Delivery Division, Armament Software Engineering Center, Army Test & Evaluation Command

Project advocacy (funding or otherwise): Product Manager Force Sustainment Systems