

Multi-Capable Distribution Platform (MCDP) Assessment Event (AE) Assessment Criteria

Category: Autonomous Unmanned Aircraft System (UAS)

Problem Statement: SOF desires an autonomous UAS, for use in contested environments to provide long range resupply for SOF elements.

Operational Use Scenario: The UAS will be used to deliver cargo payloads to SOF personnel. The UAS will deliver the payload and return to a launch/recovery site without requiring SOF interaction at the delivery site(s).

General Conditions: Day / Night operations

Unique Conditions: Systems will be subjected existing weather conditions such as solar load, rain, snow and wind.

Standards/Desirements:

1. The contractor shall propose and provide the prototype UAS, support electronics and software capabilities to support the easy integration of cameras via standard interfaces to kits.
2. Solutions will be assessed according to the following specifications. Submissions do not need to meet all of the desired technical parameters.
 - Capable of delivering a 500 payload
 - Endurance of 300nm with Max payload
 - Runway Independent – Vertical Take Off and Landing (VTOL) Capable
 - Capable of operating in a variety of environments from wet/cold, hot/humid, and dry/arid –
 - Autopilot Automation with Pre-program mission planning and autonomous navigation/mission execution
 - Autonomous ground and air anti-collision
 - Line of Site (LOS) and Beyond Line of Sight (BLOS) data communication
 - Propulsion System requires no specialized fuels
 - Navigation –Utilize alternative autonomous navigation methods to equivalency of GPS accuracy
 - Size: Capable of being stored/shipped in a 20 ft shipping container
 - Dimensions (in feet): 19' 4" long x 7' 9" wide x 7' 10" high.
3. Cost is an independent variable. Desired cost ranges from \$200,000 to \$2,000,000.
4. System Architecture Design
 - Should either have user swappable components with existing standard tools.
5. Supply Chain Disclosure. Interested vendors must disclose the source of origin for manufacturing materials.