



**Adaptive Airborne Enterprise (A2E)**  
**FANTOM Core**  
**Mission Autonomy Software Integration**  
**Assessment Event**

**USSOCOM SOF AT&L Program Executive Office-Fixed Wing (PEO-FW)**

**Problem Statement:** Given DoD's pacing challenges, USSOCOM currently lacks the concepts and technologies to leverage its access and placement and provide long-range ISR & effects at scale to execute Special Operations peculiar (SO-p) missions.

**Operational Use/Conditions:** The PEO-FW A2E program is seeking vendors that can integrate mature (TRL6+) vendor provided solutions with the A2E Mission Autonomy software stack. We are particularly interested in enhancing our capabilities in the areas identified below (in order of priority) but are open to other unique solutions that may be of interest to USSOCOM:

- **Behaviors**
  - Coordinated ISR
  - Target Custody
  - Topology based Search Optimization
  - GNSS denied operations
- **Autonomy Playbook and Objective Planning**
- **Automatic Target Recognition (ATR)**
  - Zero shot methods
- **Dynamic Geozones**
- **Correlation**
  - Including off board sources
- **Alternate Planning methods**
  - Game theoretic planners
  - Deep learning planners

***If the industry provider has a method to augment the mission autonomy, we would like to understand what functionality you have that can be added to the abilities of the Mission Autonomy system. Responses should reference ALL queries identified below. Please be as descriptive as possible in your responses.***

1. What benefits and value do you offer, perhaps uniquely, as a part of the A2E autonomy solution based upon the government-owned Mission Autonomy Architecture?
2. What limitations of the architecture do you recommend be addressed and how? How can you help solve these?
3. What Services within the Autonomy Architecture could you offer using mature, flight demonstrated, code?





4. What additional related functions such as simulation, test automation, cybersecurity, etc. could you offer?
5. Was sufficient introductory documentation provided to give a good overview of the autonomy software and how it fits into an overall system of systems context?
6. Not including developer configuration setup, was sufficient quick-start guide instructions provided to allow building the software and simulating flying the software in a software-in-the-loop (SITL) developer/test workstation environment in less than a workday?
7. Was sufficient autopilot interface adapter introductory documentation provided to give good overview and its context in the software and its responsibility to implement the ICD for the UxV's autopilot?
8. Was the autopilot adapter service development guide using the autopilot adapter service template sufficient to guide an engineer to develop a new autopilot adapter service implementation?
9. How do you view requirements, competition, pricing, quality, accountability changing when migrating to a government-owned Autonomy Architecture?
10. What are the risks you need addressed to perform within the Autonomy Architecture?

