

Poseidon I UAV

Wingspan: 14'

Gross weight: 75 lbs

Payload weight: 25 lbs

Endurance: 12 + hrs

Propulsion: Hybrid
– Gas/Electric

Cruise Speed: 65 kts

Range: 800 nm +



Sensors: VIS Optical Turret (1lb/25 lbs Spare)

Construction: Carbon, Kevlar, Fiberglass, Foam

Guidance: Fully autonomous, 24 wpts, GPS

Ground Station: portable/ruggedized laptop,
small video monitor, antennas, recorder

Key Discriminators

Operational Capability

- Aircraft will give Hawaii High Tech companies a cost effective means of developing, flight testing & demonstrating UAV related products such as software, communications/telemetry, ground stations/antenna, and sensors.
- UAV can be made available for University studies in fields such as Precision Agriculture, Coral Reef Damage, Stream Pollution, Invasive Plant Species, and Geology.
- Homeland Security – UAV can be used to develop products, tactics and procedures to combat terrorism or natural disasters. Aircraft can serve as a low-cost, airborne costal patrol platform.

Problem/Readiness/Champions

Problem Being Addressed

Hawaii needs a cost effective means of evaluating emerging sensor technologies for aircraft. Manned aircraft are expensive to purchase, fly, and maintain.

Technology Readiness Level

This technology has completed level 5. Test flight of 1/2 scale prototype completed summer/fall of 2005.

Champions

- HTDV/PICHTR has awarded \$50,000 for UAV development.
- 21st Century Systems and Plain Sight Systems have expressed interest in partnerships to further develop UAV software and remote sensing products.

Milestones/Deliverable/Date/Status

<u>Milestones</u>	<u>Deliverable</u>	<u>Date</u>	<u>Status</u>
Aircraft Design	drawings, specs	1/2/06	Complete
Ground Sta. Design	drawings, specs	1/2/06	Complete
Aircraft Manufacturing	airframe, powerplant avionics, optical turret	4/23/06	In progress
Ground Sta. Manufac.	component integration	6/1/06	In progress
Aircraft Testing	flight demonstration	6/30/06	Future
Final Technical Progress Report		6/30/06	Future