

Unmanned Aerial Vehicle (UAV) System Fact Sheet

POINTER Hand-Launched UAV (HL-UAV)

Contractor: AeroVironment Incorporated
4685-3H Industrial Street
Simi Valley, CA 93064



System Description:

The Pointer HL-UAV system is a relatively low cost, battery powered UAV that provides front line forces an "over the hill" reconnaissance and surveillance capability. Operating at 200 to 500 feet above ground level and out to ranges of 3 miles, the air vehicle's TV camera provides real-time, high resolution, color or black and white video imagery for seeing over hills and trees, into urban terrain, and "around the next bend." The 8 lb. composite air vehicle, which is easily assembled from six parts (interchangeable with other air vehicles), is battery powered. This results in an extremely low aural signature and a short logistics tail. Its small size -- 9-foot wingspan and 6-foot length -- make visual detection difficult while contributing to the overall stealthiness of the system. With the small, easily configured ground control unit (GCU), the entire system can be operationally ready in less than 5 minutes. At the end of a Pointer mission (up to 1 hour duration), recovery is executed by an automatic deep-stall maneuver to landing. One hour disposable or twenty minute rechargeable batteries can be used. With the addition of GPS, the system can autonavigate through a preprogrammed waypoint flight (including in-flight changes), altitude hold, heading hold and return to GCU functions. A system is composed of three air vehicles, a GCU, batteries, spare parts and ground support equipment.

System Capabilities:

Wingspan:	9 ft
Length:	6 ft
Weight (w/payload):	10 lbs
Range (datalink):	5 km
Endurance:	1 hr
Cruise Speed:	19 kts
Mission Altitude (AGL):	200-500 ft
Propulsion:	Electric Motor
Navigation:	GPS/Autonav
Payloads:	B&W or color TV camera. SAWCAD (Chemical, tested at Nevada test site). Small light weight image intensifiers and Forward Looking Infrared Radars (FLIRs) are being assessed through SBIR programs.

Program Summary:

The Pointer HL-UAV is a simple system used by PMA 263 to demonstrate UAV capabilities to a wide variety of military and non-DOD potential customers.