

Airborne Pursuit & Exploitation



The Airborne Pursuit & Exploitation (APEX) is an electrically powered, small tactical unmanned aircraft system that combines the advantages of an impressive performance envelope with radically reduced logistical and operational requirements. This unique combination makes the APEX a remarkably capable, yet effective solution for Intelligence, Surveillance, and Reconnaissance (ISR) purposes.

MISSION APPLICATIONS

- Tactical ISR (ground & marine environments)
- Special Missions
- Precision Targeting 'Sensor to shooter' (guided weapons)
- Force protection (static and convoy)
- Border patrol and homeland security
- Artillery Fire Support
- Communications intelligence (COMINT)
- Signals Intelligence (SIGINT)

CHARACTERISTICS

- Low acoustic and visual signal
- Highly reliable and easy electric operation
- Runway independent
- Long endurance
- High definition EO/IR ISR payloads
- Secondary, multi-int payloads



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KEY PERFORMANCE ATTRIBUTES

- Smallest Operating Team for UAS in its class – no more than 3 personnel to operate and maintain
- Long endurance electric operation – 6+ hr endurance. No combustion engine maintenance or upkeep
- Secure Digital Data Link with Payload Flexibility (with C4I connectivity via TCP/IP connection)
- Electric propulsion system achieves near covert, silent operation
- Long range small footprint ground control station – 100+km range
- Multiple Plug-n-Play payloads available to meet a variety of mission needs
- Capacity to carry additional payloads of various sizes/weight
- Catapult launch and accurate parachute recovery – no recovery device, netting or apparatus required
- Expeditionary / High transportability – full operational capability with a small logistics footprint: 1 or 2 aircraft pallets.
- Operational in GPS denied environments
- Static and mobile (on-the-move) ground station ability
- Full autonomous aircraft control with camera-guided flight



The APEX launches with a catapult system and lands using a parachute system for easy recovery

SPECIFICATIONS IN TABLE FORMAT	
CHARACTERISTIC	DATA
Endurance	6+ hours
Speed	30-60 knots
Range	62+ miles (100+ km)
Service Ceiling	18,000 ft
Payload Options	EO, IR, EO/IR, 3D Imaging/Mapping
Wing Span	14.1 ft (4.3 m)
Length	6.1 ft (1.85 m)
Height	1.6 ft (0.5 m)
Power Plant	Electric Propulsion System
Launch/Recovery Method	Catapult Launch; Parachute Recovery



Payloads for the APEX include (left to right) T STAMP, D/U STAMP, M STAMP

APEX PAYLOADS

EO/IR

- UZ STAMP: IR (uncooled) camera
- HD STAMP: Daytime EO camera that provides high definition video (720p)
- M STAMP: Day and night stabilized payload (EO, uncooled IR)
- T STAMP XR: Dual/tri-sensor payload (EO & cooled IR); LASER designator optional
- HD Lite - 3D Imaging/Mapping

Image Processing Capabilities

- Video tracking and movement detection
- Mosaic (video composition), D-roll and image stabilization
- 3D modeling with change detection

L-3 Unmanned Systems

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