



Atlas6 ATEP

Autonomous Airborne C-UAS Interceptor



The future of airborne anti-drone defense.

- 300 m UAV kill range
- Autonomous detect-track-engage
- Target detection up to 10 km
- 1,000-round onboard capacity
- 50-round bursts = 20 engagements
- Ultimate airborne counter-UAS hunter-killer
- 10+ hour endurance patrol capability



The Atlas6 ATEP is a next-generation airborne Counter-UAS hunter-killer platform, combining the long-endurance, heavy-lift Atlas6 hybrid UAV with the fully autonomous ATEP-556 targeting and engagement system. Equipped with a multi-layer sensor suite—including radar, EO/IR, RF detection, and AI-driven target classification—Atlas6 ATEP can independently detect, track, and neutralize FPVs, Group 1–3 UAVs, and loitering munitions.

MISSION ROLE: AUTONOMOUS UAV HUNTER-KILLER

The Atlas6 ATEP provides persistent airborne interception, combining:

- Detection (Long-Range)
- RF detection + triangulation finds active FPVs and control links early.
- Radar identifies non-emitting aircraft and tracks maneuvering targets.
- EO/IR confirms targets, classification, and nighttime/thermal ID.

Key Advantages

- » **Persistent airborne C-UAS capability**
Most C-UAS systems are ground-based; Atlas6 ATEP delivers airborne patrol + intercept, massively extending detection and engagement range.
- » **Autonomous engagement**
AimLock CTM handles all targeting math, reducing operator load.
- » **High-density kinetic defeat**
XM556 microgun provides massive volume of fire without excessive weight.
- » **Multi-layered sensor fusion**
Radar + EO/IR + RF + AI ensures accuracy even against small FPVs.
- » **High mobility & survivability**
Atlas6 hybrid propulsion ensures long endurance, fast repositioning, and redundancy.
- » **Modular for future payloads**
Can integrate jammers (WaveShield), proximity munitions, or interception drones.



Atlas6 - ATEP

- » **Atlas6 Heavy-Lift Hybrid UAV**
 - 10+ hour max endurance, 50 kg payload, 700 km range, hybrid gas-electric powertrain
 - Combat-proven defense configurations: ISR, EW, kinetic, strike, FPV mothership, hunter variants
- » **ATEP-556 Autonomous Weapon System**
 - AimLock CTM targeting computer (TRL9, Navy-certified)
 - Stabilized pan-tilt gimbal
 - XM556 micro-Gatling gun (5.56 mm, 2,000-6,000+ rpm)
 - Automated detection, tracking, and engagement
- » **Multilayer Sensor Fusion Suite**
 - AESA / doppler micro-radar
 - EO/IR thermal gimbal
 - RF detection + bearings + link-analysis
 - GNSS-jamming detection + emitter geolocation
 - Onboard AI/ML target classifier

System Integration

The Atlas6 ATEP integrates the full ATEP weapon stack:

ATEP-556 WEAPON MODULE

- » **XM556 Microgun**
 - 5.56 NATO
 - ~16 lb weapon mass
 - 2,000-6,000+ rpm
 - o Electrically driven
- » **Autonomous Stabilized Turret**
 - High-speed pan-tilt
 - Vibration-compensated
 - Compatible with airborne recoil profiles
- » **AimLock CTM Targeting Module**
 - Xilinx Ultrascale+
 - TRL9 (combat verified)
 - Navy, OJAG, NSWC certified
 - 20-52 VDC, 12-30W
 - Auto-detect / auto-track / auto-align

Tracking & Target Lock

Using AimLock's CTM (TRL9, fully certified targeting module), Atlas6 achieves:

- » Continuous auto-tracking of fast, maneuvering drones
- » Lead-angle prediction
- » AI-based target profile analysis
- » Network-enabled cooperative targeting

Intercept + Engagement

The ATEP-556 turret provides:

- » High-speed slew & stabilization
- » Ultra-high-density fire bursts from XM556 microgun
- » Autonomous, semi-autonomous, or man-on-the-loop engagement modes
- » Effective range envelope tailored to Group 1-3 UAS threats



AIRFRAME

Heavy-Lift Hybrid Endurance

- » 10 hours+ flight endurance with lighter payloads
- » Up to 50+ kg payload capacity for sensors, weapons, and EW packages
- » 700 km range with large fuel tanks

Battle-Ready Construction

- » Up-armoured Kevlar base
- » Thermal shrouding
- » Self-sealing fuel tanks

Sensor & Payload Modularity

Atlas6 supports:

- » EO/IR gimbals
- » Radars
- » EW / RF detectors
- » LIDAR

Flight Performance for Interceptor Missions

- » Max airspeed: 110 km/h
- » Rapid climb/descent (10 m/s peak climb)
- » Operational altitude up to 3000 m ASL
- » Thrust-to-weight ratio: 2:1

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