



# Atlas ISR-180

MULTI-MISSION EO/IR SURVEILLANCE SYSTEM



## Key Capabilities:

- **Long-Range Sensing:** Human detection to 8.6 km, vehicle detection to 12.4 km
- **High-Precision Imaging:** 1080p EO + MWIR thermal with  $<50 \mu\text{Rad}$  stabilization for clear imagery at extreme distances
- **Accurate Targeting:** Integrated GPS/INS + LRF for real-time GEO/MGRS target coordinates
- **Persistent Endurance:** Up to 10+ hours flight time with hybrid propulsion
- **Multi-Domain Operations:** Border surveillance, coastal monitoring, SAR, disaster response, tactical overwatch, artillery adjustment
- **All-Weather, Rugged:** IP64 gimbal, IP35 UAV, fully sealed and optimized for harsh environments
- This configuration transforms Atlas6 into a precision ISR asset capable of delivering actionable intelligence across land, sea, and complex operational environments.

The Atlas6 ISR-180 is a next-generation aerial intelligence platform that merges the endurance, payload capacity, and operational resilience of the Atlas6 hybrid heavy-lift UAV with the exceptional long-range imaging and stabilization capabilities of the Octopus ISR Systems Epsilon 180 EO/IR gimbal.

This integration creates a high-precision ISR solution capable of persistent surveillance, day/night reconnaissance, border and coastal monitoring, maritime patrol, SAR, and wide-area tactical overwatch.

With 10+ hours endurance, 50+ kg payload capacity, hybrid propulsion, and a military-grade EO+MWIR sensor suite, the Atlas6 ISR-180 provides actionable intelligence across land, sea, and urban environments—regardless of weather, visibility, or operational complexity.

# Atlas ISR-180

## MULTI-MISSION EO/IR SURVEILLANCE SYSTEM

### Core System Advantages

#### Exceptional Long-Range EO/IR Imaging

The onboard Epsilon 180 provides unmatched sensor performance for a gimbal in its size and class:

- » Full-HD EO camera with 67× optical zoom, 4× digital zoom
- » MWIR cooled thermal imager with 15× continuous optical zoom (18–275 mm)
- » High-stability direct-drive motors with <50 µRad RMS stabilization
- » Integrated LRF with up to 15 km range (static), 10 km (dynamic)

This allows the Atlas6 ISR-180 to positively detect, recognize, and identify targets far beyond the reach of typical tactical UAVs.

#### Heavy-Lift Hybrid Endurance

- » 10+ hours max endurance
- » 700 km range (light payload, 55L fuel)
- » Up to 50 kg mission payload
- » Exceptional stability for ISR missions

Even with the Epsilon 180 and auxiliary mission equipment, Atlas6 retains industry-leading flight times for persistent intelligence gathering and wide-area surveillance.

#### Geo-Precision Targeting

- » The Epsilon 180 integrates a tightly coupled GPS/INS, enabling:
- » Live geo-pointing
- » Precise target coordinates (GEO/MGRS)
- » Accurate slant-range calculations

This transforms each ISR mission into an intelligence product with precise, actionable location data.

#### Rugged, All-Weather ISR

- » IP64 sealed gimbal
- » IP35 UAV airframe with IP67 connectors
- » Operational temperatures from -40°C to +55°C (gimbal)

The Atlas6 ISR-180 maintains performance in extreme climates—including desert heat, freezing tundra, maritime salt environments, and high-altitude conditions.

#### Target Detection

##### Human Target

Detection:  
**8,600** m

Recognition:  
**2,900** m

Identification:  
**1,400** m

##### NATO Vehicle

Detection:  
**12,400** m

Recognition:  
**7,000** m

Identification:  
**3,500** m

#### EO Camera

- » 1080p Global Shutter
- » 56.6° wide FOV to 2.2° narrow FOV
- » Combined EO/IR picture-in-picture, continuous optical zoom
- » H.264 digital video, MISB-compliant metadata

#### Laser Range Finder

- » 15 km max range (static)
- » 10 km (dynamic)
- » ±1.5 m accuracy

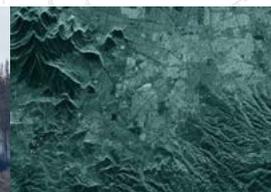
This level of sensing allows Atlas6 ISR-180 to conduct wide-area searches, identify persons or vehicles at long standoff distances, and deliver precise coordinates for interdiction or rescue.

#### Connectivity

- » Compatible with Silvus, DTC, Radinor, Persistent Systems, etc.
- » LTE, SatCom, fiber, Starlink integration

#### Mission Use Cases

- » Border & Perimeter Surveillance
- » Maritime & Coastal Patrol
- » Search & Rescue (SAR)
- » Military Reconnaissance / Target Acquisition
- » Disaster Response & Environmental Monitoring
- » Urban Law-Enforcement & Tactical Support



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