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INDUSTRIES

The American Albatross

Made in California

NDAA Compliant

Level 4 Autonomy with Edge AI and Machine Learning

Versatile U.S. Built eVTOL for Intelligence, Cargo, and Mission-Critical Applications

The MQ-X Albatross is not bound by runways or traditional launch infrastructure. With its vertical takeoff and landing (VTOL) capability, it can operate from tight urban environments, remote clearings, or disaster zones where conventional aircraft cannot go. This agility ensures that missions begin and end exactly where they are needed most, reducing deployment delays and expanding operational reach.

To complement this freedom of launch, the Albatross incorporates solar-assisted power systems that extend endurance beyond conventional UAV limits. Integrated solar panels continuously harvest energy from the sun, supplying onboard systems and propulsion to enable sustained loiter, wide-area surveillance, or long-haul cargo transport. This renewable boost reduces reliance on ground charging, lowers operational costs, and increases resilience in contested or resource-limited environments.

Together, vertical takeoff and solar endurance transform the Albatross into a persistent and self-reliant aerial platform, capable of lifting off from anywhere, staying aloft for extended missions, and returning with precision when the task is complete.

MQ-X Albatross – Technical Specifications

Dimensions & Performance

- Wingspan: **10 ft**
- Max Takeoff Weight: **55 lbs**
- Operating Altitude: **60 ft – 15,000 ft ASL**
- Cruising Speed: **30 mph**
- Endurance:
  - **6–8 hrs** (with solar assist)
  - **4-6 hrs** (battery only)

Launch & Recovery

- Launch Method: **Vertical Takeoff**
- Recovery Method: **Autonomous Vertical Landing**

MQ-X Albatross Specs

Communication & Range

- Starlink: **Global Coverage**
- 4G Cell Tower Range: **10,498 Feet**
- 5G Cell Tower Range: **600 feet**
- Ground RC Control Range: **9 miles**

Navigation

- GNSS
- RTK

Onboard Computing

LIDAR & SLAM Sensor Fusion for Obstacle Avoidance, Mapping and Autonomous Route Planning.

- GPU: **NVIDIA Jetson Orin Nano**
- CPU: **ARM Cube Blue**
- TPU: **Google Coral**
- Internal Storage: **2 TB**
- AI/ML: **Edge Processing for Object Detection, Mapping, and Autonomy**

Power

- Battery Capacity: **40,000 mAh / 22V**
- Chemistry: **Lithium-Ion**

Solar Charging stats

- Recharge Rate: **~12% battery capacity per hour in optimal sunlight**

Payload Options

- **Mapping & Surveying** (LiDAR, photogrammetry, topographic mapping)
- **Gas Leak Detection** (methane, CO_2, hazardous gases)
- **Radiation Detection** (CBRN sensors)
- **Electro-Optical / Infrared (EO/IR) Cameras**
- **Thermal Imaging** (search & rescue, night ops)
- **Loitering Munition Capability** (optional configuration)
- **Object Detection & Target Lock** (AI-assisted)
- **Signal Intelligence (SIGINT) & RF Monitoring**
- **Radar Payloads** (ground-penetrating, weather, moving target detection)
- **Comms Relay & Mesh Networking** (LTE/5G tactical nodes, SATCOM bridge)
- **Cargo / Delivery Bay**
- **Searchlight / Spotlight Module**
- **Agricultural Sensors** (multispectral, hyperspectral for crop health)