

SKYGUARD

"Persistent Airspace Awareness."

SkyGuard is a tethered sensing system that pairs a radar with a stabilized EO/IR gimbal to deliver continuous, low-altitude airspace awareness over a protected site. The radar detects and tracks; the gimbal slews to confirm and identify visually — giving operators a clear, continuously-updated picture of low-altitude activity near the site.



SYSTEM

SKYGUARD

HOW SKYGUARD WORKS

Detect → confirm → track → share, continuously



01 CORE CAPABILITIES



CONTINUOUS RADAR DETECTION

Persistent radar coverage provides continuous, low-altitude airspace detection over the protected site.



EO/IR SLEW-TO-CUE

The stabilized EO/IR gimbal automatically slews to radar contacts for immediate visual follow-up.



VISUAL/AI IDENTIFICATION

Operator and AI-assisted analysis confirm, classify, and maintain a continuous track on objects of interest.



C2 DATA SHARING

Track data is shared to the operator console and onward to connected command-and-control systems.



PERSISTENT OPERATION

Continuous tether power supports long-duration, uninterrupted monitoring without battery-cycle downtime.



HARDWIRED FIBER DATA LINK

Radar and EO/IR data ride the fiber tether back to the ground processing station on a hardwired link — no RF signal is emitted by this data link.

02 MISSION APPLICATIONS



BASE PROTECTION

Continuous low-altitude airspace watch over the installation



CRITICAL INFRASTRUCTURE

Airspace monitoring over power, rail & industrial sites



AIRSPACE MONITORING

Persistent watch over a defined site perimeter



SITE PROTECTION

Rapid airspace awareness at forward or temporary sites

DETECT. CONFIRM. TRACK. SHARE — CONTINUOUSLY.

SYSTEM ARCHITECTURE & SPECIFICATIONS

Tethered radar & EO/IR counter-UAS sensing

SYSTEM ARCHITECTURE

Radar detection cues the EO/IR gimbal for visual confirmation; the ground segment carries detection and track data onward to the operator and to connected Lattice / ATAK consoles.



MAIN COMPONENTS

Airborne platform — QUAD-L / QUAD-8 tethered UAS (see platform options below)

Radar — Echodyne EchoFlight radar, continuous low-altitude detection & tracking

EO/IR gimbal — slew-to-cue optical / infrared sensor (Gremsy, Redwire, Nextvision, or Trillium)

Power / fiber tether — hardwired power & data path to ground segment

Ground processing & networking unit — detection processing, power, network



PAYLOAD & NETWORK INTERFACES

- ✓ Radar (standard) (Echodyne EchoFlight)
- ✓ EO/IR gimbal (standard, slew-to-cue) (Gremsy, Redwire, Nextvision, Trillium)
- ✓ Fiber Optic
- ✓ IP Network
- ✓ MAVLink
- ✓ Ethernet
- ✓ Video Streaming

C2 INTEGRATION & COMPATIBILITY

SkyGuard is designed for compatibility with **Anduril Lattice** and **ATAK**, connecting into the operator's command-and-control environment. Through Lattice C2, SkyGuard can also communicate with other strike-capable drones on the network and transmit threat-location data to support a coordinated response.

PLATFORM OPTIONS

QUAD-L Compact tethered quadcopter

QUAD-8 Extended-endurance quadcopter

Tether length (QUAD-L config)	Up to 300 ft
Tether length (QUAD-8 config)	Up to 400 ft
Max payload (QUAD-L config)	8 lb (3.6 kg)
Max payload (QUAD-8 config)	20 lb (9.1 kg)

Platform selection depends on the complete payload configuration, including weight, power requirements, and integration.

OPTIONAL GROUND CONFIGURATIONS

- ✓ Operator Workstation
- ✓ Air Conditioning
- ✓ Trailer-Mounted
- ✓ Marine Configuration
- ✓ Mission Computer
- ✓ Vehicle-Mounted
- ✓ On the Move
- ✓ Custom Integration



DEPLOYMENT OPTIONS

SkyGuard's ground segment can be fielded trailer-mounted, vehicle-mounted, or in a fixed configuration — matched to the mission's mobility requirements. Trailer-mounted configuration shown above.

