Mobile Surveillance Unit

Solar-autonomous mobile surveillance trailer — 22–30 ft mast, AI detection with live SOC talk-down, NDAA-compliant. Coverage: 5–30 acres per unit, depending on sensor configuration.

< 20 min	24/7	11.8 kWh	900W
Deploy time — one person	SOC monitoring available	Largest battery in class	Bifacial solar array

POWER SYSTEM

Battery chemistry	**LiFePO4 lithium**
Battery configuration	**25.6V · 460Ah**
Total energy	**11,776 Wh**
Usable energy	**~10,598 Wh (90% DoD)**
Cycle life	**3,000+ cycles**
Cold weather	**Built-in intelligent battery heater — 4-season operation**
Solar array	**2× 450W bifacial panels = 900W**
Solar orientation	**Rotating solar mast — operator-adjustable for south-facing**
Energy monitoring	**Remote battery and solar monitoring included**
Shore power / generator	**Built-in power supply and battery charger via inlet**
Power architecture	**Native DC distribution — no inverter**
DC outputs	**12V · 24V · 48V (top enclosure and bottom chassis)**

MAST & STRUCTURE

Mast height	**22 ft telescopic · 30 ft available**
Mast operation	**Manual winch or electric winch options**
Mast wiring	**Fully internal — protected throughout length**
Cable management	**Integrated cable reel + slip ring**
Power conductors	**4× 16 AWG — integrated through mast**
Data cable	**1× Cat6 — integrated through mast**
Stabilization	**4 corner jack outriggers — no guy wires required**
Site positioning	**Built-in forklift pockets**
Trailer compliance	**DOT-compliant**
Tow hitch	**2-inch ball — any half-ton vehicle**
Tamper protection	**Locking mast, chassis, and enclosures**
GPS tracking	**Built-in**

IMAGING

PTZ camera	**5MP · 25× optical zoom · 360° pan/tilt**
Wide-angle cameras	**3× 8MP · 2.8mm wide-angle turret**
Storage	**Up to 30 days on-board**
Remote access	**Live + recorded · browser · iOS · Android**

CONNECTIVITY

Cellular router	**Industrial cellular router**
SIM	**Dual-SIM + eSIM**
Network	**4G / 5G**
Failover	**Automatic multi-SIM failover**
Antenna	**9-in-1 omni-directional (4G · 5G · GPS · Wi-Fi)**
Satellite	**Optional satellite backhaul (Starlink)**

TOP BOX / ENCLOSURE

Location	**Top-mounted integrated enclosure at mast head**
DIN rail	**Included — for PoE switches and networking**
Camera mounting	**Camera mounting plates included**
Deterrence	**High-visibility red/blue strobes + strobe controller**
Deterrence audio	**120 dB horn**
Power outputs	**12V · 24V · 48V — top and bottom enclosures**

PLATFORM & SOFTWARE

VMS	**AI VisionStream — cloud-based**
Third-party VMS	**Full ONVIF / RTSP support**
Mandatory subscription	**None required**
White-label VMS	**Available for integrators and dealers**
SOC integration	**Available**

PHYSICAL & COMPLIANCE

Operating temp	**22°F to 140°F (30°C to 60°C)**
Enclosure rating	**IP66+**
Compliance	**NDAA 889 · FCC · UL**
Manufacturing	**USA — Pikesville, MD**
Warranty	**1-year standard · extended plans available**