



MOBILE ISR SYSTEMS

MOBILE PERSISTENT ISR PLATFORM

POWER. PERSISTENCE. MOBILITY.

A self-contained tethered ISR system that puts continuous airborne surveillance on station in minutes — independent of fixed infrastructure, battery cycles, or ground crew. One trailer, one operator, persistent eyes on target.

SYSTEM
MPI-1

01 CORE CAPABILITIES

**UNLIMITED FLIGHT ENDURANCE**

Continuous tether power eliminates battery-cycle downtime

**RAPID DEPLOYMENT**

On station in under 2 minutes with a single operator

**INTEGRATED POWER GENERATION**

Onboard generator sustains the full system independent of site power

**ZERO-RF COMMS**

All data rides the fiber tether — no RF emission, nothing to detect or jam

**AUTONOMOUS OPERATIONS**

Automated launch, hover, and recovery reduce operator workload

**MODULAR PAYLOAD INTEGRATION**

EO/IR, radar, RF, and relay payloads — field-swappable

**MOBILE ISR**

Trailer, vehicle, or marine-mounted configurations

**NDAA COMPLIANT**

Designed, built, and supported in the United States

02 MISSION APPLICATIONS

**BASE SECURITY**

Perimeter & access-point overwatch

**BORDER SURVEILLANCE**

Wide-area boundary watch

**MARITIME ISR**

Port & coastal awareness

**COMMS RELAY**

Extends mesh & radio range

**CRITICAL INFRASTRUCTURE**

Power, rail & pipeline watch

**DISASTER RESPONSE**

Rapid situational awareness

03 WHY ZENITH

	TRADITIONAL MOBILE UAS	ZENITH MPI-1
SETUP TIME	15–30 min, multi-person crew	Under 2 minutes, single operator
POWER SOURCE	Removable battery packs	Integrated onboard generator
ENDURANCE	20–40 min per battery, swap downtime	Continuous — unlimited on-station time
COMMUNICATIONS	RF telemetry — detectable, jammable	Zero-RF fiber tether + mesh / LTE / ATAK
PAYLOAD FLEXIBILITY	Fixed, single-sensor	Modular EO/IR, radar, RF, relay, weather
OPERATOR WORKLOAD	Manual piloting, constant monitoring	Autonomous launch, hover & recovery
RELIABILITY	Weather- and battery-limited	Rugged enclosure, all-weather persistent ops

DESIGNED FOR PERSISTENT ISR IN CONTESTED ENVIRONMENTS

TECHNICAL SPECIFICATIONS

SYSTEM MPI-1

TRAILER PLATFORM

Platform Type	4x6 ft Single-Axle Trailer
Frame Construction	Powder-Coated Steel
Axle Configuration	Single Axle
Coupler	2 in Locking Ball, Height-Adj.
Base Footprint (L x W)	72 x 49 in (182.9 x 124.6 cm)
Overall Footprint (L x W)	110 x 63 in (279.4 x 160.0 cm)
Tow Interface	2 in Ball Hitch
Deployment Time	< 2 Min, Single Operator
Operating Temperature	4°F to 122°F (-15.6°C to 50°C)

POWER & AIRCRAFT CONFIGURATIONS

	QUAD-L CONFIG	QUAD-8 CONFIG
Generator	Honda EU3000iS	Honda EU7000iS
Tether Length	Up to 300 ft	Up to 400 ft
System Height	31.7 in (80.5 cm)	30.6 in (77.7 cm)
System Weight	438 lb (198.7 kg)	472 lb (214.1 kg)
Max Payload	8 lb (3.6 kg)	20 lb (9.1 kg)
Ground Power Draw	1,800 W	3,500 W

Both configurations include an Inergy 1500 Power Station for integrated battery backup / UPS.

AIRCRAFT COMPATIBILITY

QUAD-L

Compact tethered quadcopter platform

QUAD-8

Extended-endurance tethered quadcopter platform

FUTURE PLATFORMS

Open architecture supports additional tethered UAS as they are qualified

SYSTEM OVERVIEW

MPI-1 combines a trailer-mounted power and communications base with an autonomous tethered quadcopter to deliver continuous, high-altitude ISR at a fixed location. The tether supplies uninterrupted power and a hardwired data path to the aircraft, removing the flight-time and link-security limits of battery-powered UAS. The system is towed into position, unfolds without tools, and is flight-ready in under two minutes.

PAYLOAD COMPATIBILITY

- ✓ EO/IR
- ✓ AIS
- ✓ Radio Relay
- ✓ Spotlight
- ✓ MWIR
- ✓ ADS-B
- ✓ LTE
- ✓ Loudspeaker
- ✓ Radar
- ✓ RF Detection
- ✓ Weather Station

COMMUNICATIONS

- ✓ Fiber Optic
- ✓ Mesh Radios
- ✓ ATAK
- ✓ Video Streaming
- ✓ Ethernet
- ✓ MAVLink
- ✓ IP Network

OPTIONAL CONFIGURATIONS

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

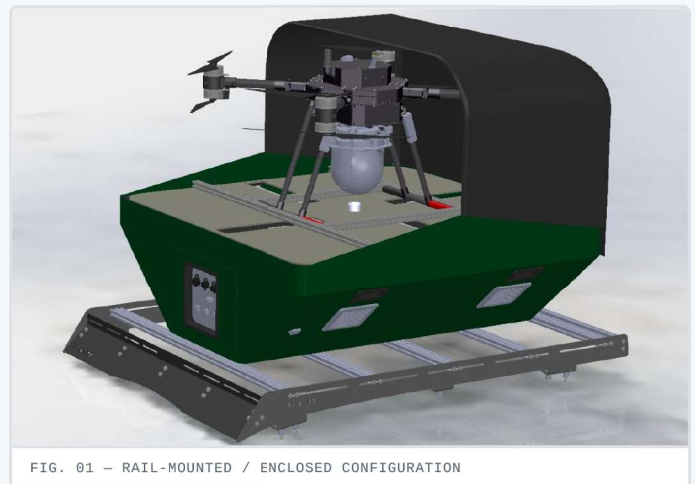


FIG. 01 — RAIL-MOUNTED / ENCLOSED CONFIGURATION

400 FT
MAX TETHER LENGTH

108 HRS
PROVEN ENDURANCE

< 2 MIN
DEPLOYMENT TIME

MADE IN USA
NDAA COMPLIANT

Zenith
AeroTech

- ✓ MADE IN USA
- ✓ ISO CERTIFIED
- ✓ NDAA COMPLIANT
- ✓ ITAR REGISTERED
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