









Today's modern airships are highly mobile, flexible, quiet and stable elevated sensor platforms, presenting extended time-on-station advantages when delivering wide-area perspective of the air and ground environment.

| USEFUL PAYLOAD: | 1,000 KG / 2,200 LBS                           |
|-----------------|------------------------------------------------|
| ENVELOPE VOLUME | 3,200 M <sup>3</sup> / ~113,00 FT <sup>3</sup> |
| RANGE:          | 510 KM/ ~275 NM                                |
| PROPULSION:     | TWIN ENGINE / VECTORED (160HP X 2)             |
| ENGINE:         | LYCOMING AEIO-320-D                            |
| MAX SPEED:      | 92 KPH / 50 KNOTS                              |
| CEILING:        | 3,050 M / 10,000 FT                            |
| SEATING:        | 1+6                                            |
| CREW:           | SINGLE PILOT OPERATION                         |
| OPERATION:      | VFR / IFR (DAY/NIGHT)                          |

# TYPE CERTIFIED BY:

United States Federal Aviation Administration & civil aviation authorities: in Europe, Asia, Americas



The 40E is a game-changing airship. It will be transformative and liberating with respect to traditional ground crew requirements, and requires a single pilot for operations. Whether serving border and port security, maritime patrol, event or critical infrastructure monitoring, or during use in a related or traditional service. The aircraft's flight capability, vigilant duration and reduced operational sustaining costs will provide unique utility in varied defensive, proactive and responsive roles.

# ADVANCED DETECTION & OBSERVATION:

- vigilant threat detection capabilities
- wide-area situational awareness
- real-time actionable intelligence and asset coordination
- efficient, mobile soldier, agency and commercial security support

# **40E ADVANTAGES:**

- stable, effective, mobile & slow loiter platform
- near Vertical Take-Off and Landing (VTOL)
- flexible multi-payload accommodation
- advanced multi-system integration
- minimal manpower and fuel consumption

# 40E SKY DRAGON TECHNOLOGY & INNOVATION

- ADVANCED PROPULSION
- The 40E's vectoring (directionally-controlled) propulsion improves pilot handling, reduces takeoff and landing requirements and lessens ground crew requirements, while empowering the vehicle's 500+Km range and speed.
- WEIGH-OFF-WHEEL (WOW)

  Advanced gear design provides empowering static lift data for pilots, while optimizing dampening force and ground clearance.

- Vigilant, quiet aerial asset -- for ensuring national security and public safety
- Mission proven & budget attractive
- Threat Detection, Imaging & Documentation, Command
   Support & Ground Asset Support
- Provides essential operational cost-efficiency
- Obtain more flight hours and aerial monitoring amid reduced operational budgets

# **SURVEILLANCE & INTELLIGENCE**

Cost effective monitoring and over-border observation; 500km+ range, wide area observation with extended line of sight (LOS)

# Surface Surveillance

- Long Ranch Search
- Priority Track
- Small Target Mode

# Beacon Detection

- Search and Rescue
- Transponder (SART)

# High-Res Ground Mapping

Geo-Mapped Data

**Moving Target Detection** 

- ĞMŤI

# Target Imaging/Classification

- ISAR, Range Profiling
- EO/IR 1080P

# Navigation<sub>i</sub>

- Real Beam Ground Map
- Weather Detection

# Acoustic Directional Detection

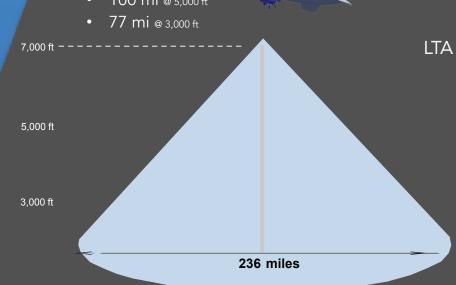
HD-SDI

Communications and SigINT

Airships provide great visibility and mobility, vigilant time on station, & can fly lower and/or slower to support observation and operations



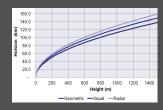
- 118 mi @ 7,000 ft
- 100 mi @ 5.000 ft



- elevate radar, HD imaging systems, communications equipment, and other sensory technologies
- detect and track air, ground and surface vessels
- obtain multispectral imaging (EO/IR) day+night

LTA (lighter-than-air) ISR (intelligence, surveillance, recon):

- elevate cost effciency for vigiliant or persistent missions
- rapid deployment and unique flight capabilities
- aquire real-time intel/ data and distribute to air and ground assets, field commanders and data centers







# 40E SKY DRAGON VERSTILE MISSION SUPPORT



**INTERDICTION SUPPORT** 















Integrates all sensors into single user interface. Enables cueing of integrated sensors to one



**MULTI-MODE RADAR** 

» GMTI

» Priority track

» Long range search

» Small target mode

### **LONG RANGE EO/IR**

- » Full HD
- » Gyro stablized
- » Daytime 30 KM
- » Nighttime 20 KM



### **SHORT RANGE EO/IR**

**Recognition Range:** 

- » Daytime 7
- » Nighttime 2



### **COMMS SUITE**

- » Radio retransmission
- » Cell phone detector
- » Frequency jammer



## **WIRELESS ANTENNA**

- » 20 or 50 mile LOS
- » Resists jamming and interference
- » Available L band to Ka



### **GUNSHOT DETECTION**

- » Superior detection
- » Single shot, burst fire, and multiple shooter recognition
- » 360° field of view
- » Reports threat weapon classification



# **NON-LETHAL WEAPON**

- » LRAD
- » Lasers
- » High power electromagnetic pulse

# **MOBILE MOORING** MAST

- » Mobilize to extend operations
- » COTS equipment reduces costs



- » Optional GCS



# **GROUND CONTROL** STATION

- » Localized Command & Control
- » Interface with network » Distributes target
- information » Monitor Situational
- » Climate controlled operations center

**Awareness** 



MARTIME PATROL &

- Border Surveillance & Interdiction: Providing cost effective border monitoring and over-border observation, littoral patrol efficiency, interdiction support, and mission sustainment support. Amid reduced operational budgets, airships can free more expensive air assets for other task delivering a cost efficient alternative for more aerial monitoring flight hours.
- Maritime: Use of airships increases visual and sensor range, providing more efficient coordination of surface patrol and asset response. Supports coast guard, counter-trafficking, harbor security, territorial waters/fisheries protection, SAR, and other contingency maritime missions.

Security Intelligence: Airships support area ISR observation for added public safety, with attributions of advertising and media broadcast.

- •LEO/ Public Safety: Obtain real-time intel/ data and distribute across the domain to air and ground assets, field commanders and data centers. Airship's vigilant flight capability, sensory technology flexibility, near-silent operations, and data/ communications dissemination supports special missions, events and SWAT operations.
- Infrastructure Monitoring: Provides aerial efficiency for monitoring large and challenging geographical areas; IR imaging and laser spectrometry inspection for assurance of operational reliability and safety.
- First Responder: C&C platform for situational analysis, enhanced communications, ground asset coordination, etc.



Aeros is interested in advancing your mission, operational effectiveness and bottom line. Our team has experience developing integrated solutions for mission-specific requirements, and advanced development capability to speed solutions to the field. To ensure operational performance without interruption or delay, Aeros provides full integration and maintenance solutions for parts and labor as well as supply chain management for helium, and hangar construction.

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