



Unparalleled Visibility. Unprecedented Safety.

# AerAware

**Complete Enhanced Flight Vision System** 

# NEXT GENERATION GATE-TO-GATE VISIBILITY SOLUTION

#### AerAware™

#### **Enhanced Flight Vision System (EFVS)**

From gate-to-gate, AerAware is the complete EFVS solution that enables commercial aircraft pilots to "see" through low visibility situations in all phases of flight. This revolutionary system enables operators to get into and out of airports faster, safer, and more cost-effectively.

Developed in collaboration with Universal Avionics (an Elbit Systems Company), the system features dual SkyLens™ Head Wearable Displays (HWD) and a state-of-the-art multispectral camera providing superior heads-up capability both day and night. AerAware combines Synthetic Vision (SVS) and Enhanced Vision (EVS) along with Primary Flight Display (PFD) symbology, enabling aircraft to descend below published visibility minimums.



#### **SAFETY BENEFITS**

- 50% visual advantage over the naked eye: the highest of any commercial aircraft EFVS in the market
- Dual pilot HWD provides complete situational awareness
- Low visibility approaches without auto land
- Significantly enhances safety
- Supports better energy management allowing pilots to stay one step ahead of the aircraft

#### **COST BENEFITS**

- Reduces fuel burn, and emissions
- Improves operational efficiency
- Fewer delays, diversions, cancellations, and passenger travel disruptions

### **IMPROVED SAFETY IS POSSIBLE**



Heads-up Guidance System Technology (HGST) - A Powerful Tool for Accident Prevention\*



### ACCIDENTS THAT LIKELY COULD HAVE BEEN PREVENTED WITH HGST

123

LOSS OF CONTROL

341

TAKEOFF AND LANDING

110

**MISCELLANEOUS** 



57%

LOSS OF CONTROL

69%

TAKEOFF AND LANDING

33%

**OVERALL** 

574
TOTAL ACCIDENTS
INVESTIGATED

\*Data: Special Report-Flight Safety Foundation Heads-Up Guidance System- A Clear Path to Increasing Flight Safety (2009) 344
TOTAL AVOIDABLE
ACCIDENTS

### EVS-5000 CAMERA

AerAware utilizes the top-of-the-line Universal Avionics/Elbit Systems EVS-5000 multispectral camera which provides a complete gate-togate experience, during all phases of flight. The camera system combines visible light and longwave infrared sensors to display a comprehensive view outside the cockpit.

- Four (4) Internal Cameras
- Six (6) Internal Sensors
- High Resolution 1280 x 960 Pixels



Reduces published visibility minimums by 50%



#### **BENEFITS**

- Multispectral technology for improved imaging details
- High-resolution, high contrast
- Detects LED and incandescent runway lights
- Low visibility approaches to any airport without using an ILS (Instrument Landing System)
- Ability to see runway and taxiway environment/obstacles in low visibility conditions

### SKYLENS™ (HWD) HEAD WEARABLE DISPLAY

- Dual system provides both pilots with the same information
  - Improving crew resource management, decision-making and overall situational awareness
- Panoramic display allows pilots to look
   180 degrees to either side
- Projects key Primary Flight Display
   Symbology (PFD) including extended
   runway centerline, touchdown zone and
   remaining runway
- Light-weight and comfortable
  - Allows for preferred pilot seating location (no seat adjustment needed)
  - Wearable over glasses and headphones
- Only HWD display certified for commercial operations



## COMBINED VISION SYSTEM (CVS): EVS + SVS

### CVS provides a high resolution view of the outside world when faced with deteriorated visibility conditions.

AerAware's Combined Vision System is a unique and optimized solution for commercial aviation. The CVS combines EVS, SVS and PFD symbology, providing an enhanced view of the outside world even when actual visibility is close to zero. It enables the pilots to see runway lights much earlier in conditions impairing the visibility of an unaided approach. This improves the pilots' ability to execute precision and non-precision approaches, reducing the risks of Controlled Flight into Terrain (CFIT) accidents, tail strikes, hard landings, and runway incursions.



#### **⊢** Synthetic Vision (SVS)

- Provides computer generated3D images of terrain
- Utilizes a worldwide airport database & GPS technology
- Extended centerline symbology
- Displays alternative suitable airports

#### **⊢ Inhanced Vision (EVS)**

- Merges input of high-definition visual cameras, and both near and far infrared sensors into one perfectly fused image
- Detects incandescent and LED runway lights

# **OPERATIONAL ADVANTAGES**

#### SAFETY

- Complete situational awareness under all circumstances and all phases of flight
- See the runway sooner, make decisions faster
- Supports better energy management, allowing pilots to stay one step ahead of the aircraft
- Enhanced vision during taxi operations provides pilots with early / enhanced vision of taxiways and ground operations

#### **REDUCED COSTS**

- Reduces delays, diversions, and cancellations
- Reduces scheduled flight time by allowing more direct routes

#### **EFFICIENCY**

- Provides dispatch and landing approach priority regardless of destination airport's infrastructure
- Mitigates traffic delays by allowing for alternate runways / approaches
- Minimizes seasonal weather-related route variances

#### REDUCED ENVIRONMENTAL IMPACT

 Enhanced route efficiency during low visibility weather contributes to lower fuel consumption and carbon emissions





## **EQUIPMENT AND INSTALLATION**



Installation at any MRO within 3 to 5 days



AerSale will provide Training Manual, Training Program and Train the Trainer



Installation can be accomplished around aircraft maintenance schedule



Rotable pool of serviceable radomes and LRU's available



Structural and Electrical kits are manufactured by AerSale's in-house PMA division



AerAware simulator integration is available



24/7 Customer Support

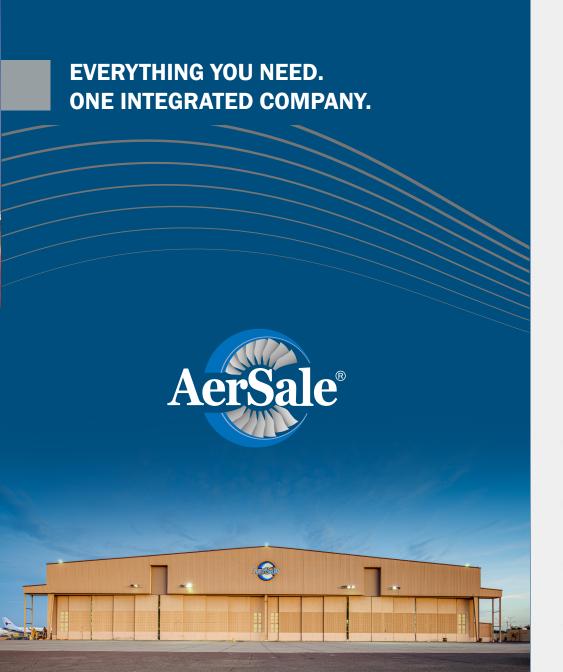
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# APPROVALS AND CERTIFICATIONS

- FAA Certification Received
  - Supplemental Type Certificate (STC) for Boeing 737NG
  - STC04576AT
- EASA Certification in Progress





#### **About AerSale**

AerSale is dedicated to providing integrated aftermarket services and products designed to help aircraft stakeholder realize significant savings in the operation, maintenance and monetization of their aircraft, engines and components.

#### **OUR SERVICES**

- Engineered Solutions
- Asset Management
- Engine and Aircraft Sales and Leasing
- Materials USM
- Aircraft MRO
- Component MRO

#### **OUR SIGNATURE PRODUCTS**





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