



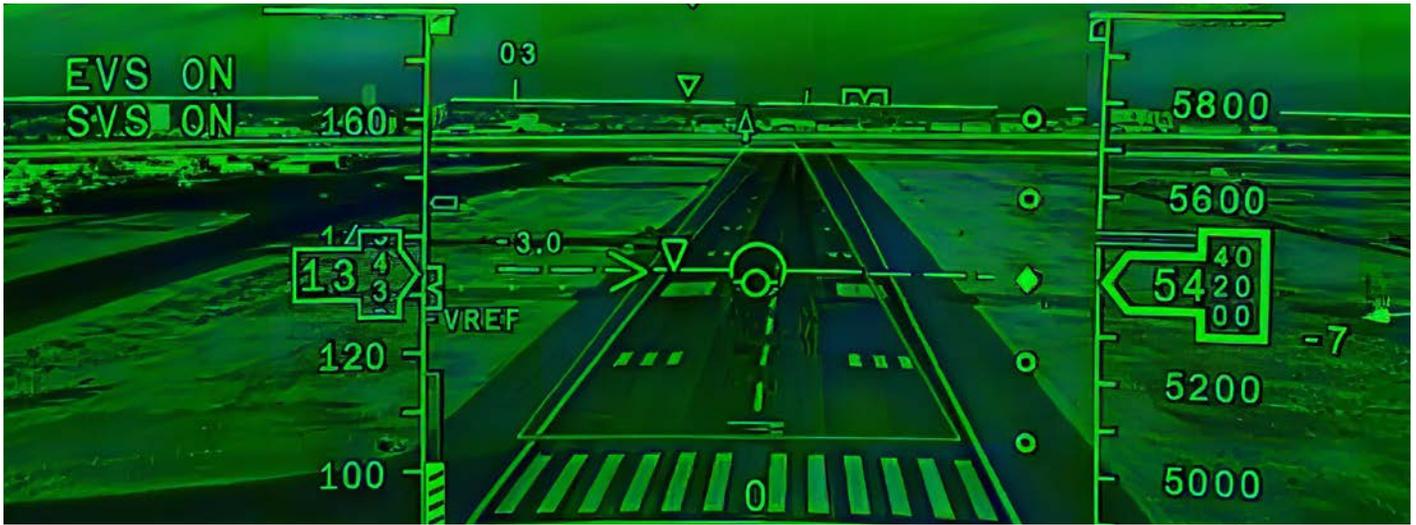
# Enhanced Flight Vision Revolutionizing the Skies and Airport Runways

Safety and Cost Efficiencies are Just the Beginning of this Cutting-Edge New Technology



## Introduction

AerSale's AerAware Enhanced Flight Vision System (EFVS) is a first-of-its-kind, gate-to-gate visibility solution that promises to transform the safety, efficiency, and operational capabilities of the commercial aviation industry. This revolutionary vision system enables pilots to see clearly in low-visibility conditions, allowing them to take off and land when other aircraft cannot. The AerAware system project is a perfectly fused high-resolution image, combining synthetic and enhanced vision onto a Head Wearable Display (HWD) known as SkyLens. SkyLens provides all the benefits of a Heads-Up Display (HUD) while allowing for an expanded field of view and free pilot head movement.



## SkyLens: Redefining HUDs

Since their introduction in the 1980s, HUDs have revolutionized aviation safety by displaying instrument data within the pilot's forward view. AerAware takes this concept significantly further with SkyLens HWD, offering a wider field of view and showcases critical flight data, and navigation information. This intuitive tool aids in managing the aircraft's energy, ensuring safe descents and reducing the risk of hard landings, tail strikes, and runway excursions/incursions. Additionally in high crosswind landings, AerAware offers significant advantages over a fixed HUD due to its ability to provide real-time adjustable information directly within the pilot's line of sight, regardless of head position. This flexibility allows pilots to maintain constant situational awareness while focusing on critical flight parameters and external conditions. The HWD can dynamically adjust to the pilot's head movements, enhancing the ability to monitor both the aircraft's attitude and crosswind drift, leading to highly effective energy management.

Moreover, while most existing HUDs serve only the pilot in control, AerAware EFVS equips both the pilot and co-pilot with SkyLens. This innovation allows for a shared mental model between pilots, as the co-pilot can fully monitor the flight using the same information as the pilot in command, greatly enhancing overall safety. SkyLens can be worn over glasses and headphones and used from any seat position, offering unprecedented flexibility. But AerAware EFVS isn't just a versatile, dual HUD with an industry leading field of view – it's a groundbreaking innovation.

## Enhanced Vision: Transforming Situational Awareness

One key component of the AerAware EFVS system is the EVS-5000 Enhanced Vision System camera. This multispectral camera system is comprised of four lenses and six sensors that combine visual and infra-red images and display them onto the SkyLens. This provides the pilots a high-resolution view which cuts through mist, fog, haze, dust, sandstorms and other obscurants, turning any visibility condition day or night into a clear day.

The safety advantages of improved visibility are not only obvious but also quantifiable. According to a study by the Flight Safety Foundation, this technology could have prevented 69% of accidents that occurred during takeoff and landing over a 13-year period. AerAware EFVS allows pilots to be more aware of their surroundings, both in the sky and on the ground. With this technology, pilots can now see other airplanes taxiing or preparing for takeoff that might otherwise be invisible.

AerAware EFVS also incorporates synthetic vision, displaying a 3D computer-generated image of the terrain and topography below, along with additional symbology and an extended runway centerline. Synthetic vision is especially useful in visually distracting situations, such as approaching a large light saturated city at night. It flags the correct runway and displays centerline breadcrumbs which provides orientation so the pilot can easily line up for landing.

## Financial Advantage: Significant Economic Benefits

Only 2.5% of airports around the world have the infrastructure to support low-visibility landings. With the AerAware system, no additional infrastructure is needed, as the airplane carries this technology wherever it lands. Because AerAware significantly lowers the required visibility minimum, AerAware-equipped aircraft can take off and land when other aircraft are stuck waiting on the runway or holding in the sky, thus mitigating the need for delays or diversions.

Just one delayed flight can throw an entire fleet off-schedule creating a ripple effect that trickles through multiple airports, affects thousands of passengers and carries a hefty cost to the airlines. AerAware reduces the need for delay-related expenses such as alternate transportation, hotel arrangements, and crew schedule disruptions, ultimately benefiting both airlines and passengers.

Additionally, the energy management features of EFVS reduce the wear and tear on wheels, brakes and engines, leading to maintenance savings.

## Certification and Installation:

AerAware is certified by the Federal Aviation Administration (FAA) for the Boeing 737NG series at the highest visual advantage

rating (50%) for any commercially available system. European Aviation Safety Agency (EASA) and other air agency certifications are currently in progress. Additionally, AerSale is working on expanding the AerAware program to include additional airframes.

While fixed HUD installations are not always possible or practical by volume or weight, AerAware's smaller size and weight make for a quick and straightforward installation accomplished around the aircraft maintenance schedule.

## Future Potential: A New Frontier in Aviation

While AerAware is currently the most advanced EFVS system available in the commercial market, AerSale is continuously innovating and has several enhancements to their EFVS product in the pipeline. One of the benefits of the AerAware system being predominantly software is that AerSale can continue to expand the capabilities of the system through a simple software load; easily enabling future product enhancements.

AerSale's AerAware, with its combination of advanced sensors, enhanced and synthetic vision with dual head-worn displays provides pilots with unprecedented situational awareness in low-visibility conditions. By enhancing both safety and operational efficiency, AerAware is opening a new and expanding frontier in aviation.

