

## Why Upgrade to the Universal Avionics InSight™ Display System?



As aviation technology advances, maintaining older avionics systems becomes increasingly costly and challenging. The Universal Avionics InSight™ offers an effective solutions for upgrading cockpit avionics, resolving maintenance issues, and enhancing aircraft capabilities, thus saving operators time and money. With this integrated flight display system, operators can continue flying their older - and favorite - aircraft for years to come with upgraded flight deck systems.

### What is Universal Avionics InSight™ Display System?

The Universal Avionics InSight™ integrated flight display system is a glass cockpit upgrade that enhances safety, situational awareness, and navigation capabilities. The display system replaces legacy CRT displays, improving functionality and resolving maintenance and repair issues typically associated with older display systems.

### *InSight™ Display System Features*

The system includes three high-resolution displays and two touchscreen-enabled control displays. It features electronic charts (e-charts) and conveys traffic, weather, terrain, airport terminal data, remaining runway distance, geo-referenced own ship position, and other navigational information.

Additional capabilities include:

- Dual UNS-1Fw SBAS FMS
- LPV approaches (when certified)
- FANS 1/A+ with ATN B1
- World Class 3-D Synthetic Vision Systems (SVS)
- Controller Pilot Data Link Communications (CPDLC)
- UA Connected Flight Deck via iPad integration



InSight™ integrates with Universal FMS and enables Data Communications and LPV and RNP approaches.

## What to Know about Installing Universal Avionics InSight™ Display System?

### *Aircraft Compatibility*

The InSight™ system is compatible with the following aircraft that have legacy CRT displays and is approved for installation via an available supplemental type certificate (STC).

- Hawker 800A/800B/800XP (with either Collins APS-80 or Honeywell SPZ-8000 installed)
- Cessna Citation VII
- Dassault Falcon 900B/20/50/2000/200EX
- Gulfstream III

### *Installation Process*

Upgrading involves replacing outdated displays

and navigation systems with modern equipment. Generally, only the existing radio transceivers are retained and integrated into the new Universal system.

As an example, the following is a list of the equipment removed during the Hawker upgrade:

- Honeywell EDZ-817/818 EFIS - all displays, controllers, and LRUs
- NZ 2000 FMS LRUs and CD8X0 CDUs
- Honeywell GNSSU GPS Units
- Weather Radar (unless existing is WU-880)
- Honeywell RMU 85Xs (retain CD-850 for EMER COM 1 and NAV 1 Control)
- Standby instruments
- Flight instruments and clocks
- Cockpit voice recorder system (retain cockpit microphones)
- Honeywell AFIS
- #3 Emergency battery
- 37 Annunciators

BEFORE



AFTER



An Example of a Universal Avionics InSight™ Flight Display Upgrade in a Hawker Aircraft



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Ethernet connections are also available for less complicated installations.

## *Aircraft Downtime*

Installation typically takes 8-12 weeks. An ideal time for the upgrade is during a major inspection (such as an E, F, or G check) to minimize downtime or when an aircraft is changing ownership.

## Benefits of the Universal Avionics InSight™ Display System

### *Increased Payload*

InSight™ adds only 150 pounds, increasing the aircraft's payload by approximately 100-250 pounds (based on Hawker series aircraft).

### *Efficiency*

The new system supports LPV and RNP approaches within 0.3nm to increase accuracy. It also allows for CPDLC to be enabled, which can save operators 15-30 minutes (or more) on a typical flight by reducing the time spent waiting to take off and for landing clearances.

### *Advanced Safety Features*

InSight™ improves situational awareness with multiple advanced safety and navigational features. The cutting-edge 3-D SVS clearly depicts the surroundings, allowing operators to confidently navigate challenging conditions. InSight™ also automatically provides Aircraft

Traffic Control (ATC) with intended flight information, reducing miscommunication risks.

## *Simplified Workload*

High-resolution displays and touchscreen-enabled controls are user-friendly and ensure clarity.

Plus, the integrated FMS allows for graphical flight planning and streamlined operations.

## Upgrade Costs and Benefits

An InSight™ installation ranges in price from \$625,000 to \$750,000, depending on the level of specification.

When upgrading to InSight™, operators can save time and money by reducing delays and fuel consumption, thus reducing CO2 emissions.

Aircraft with the latest compatible technology tend to receive priority from ATC. Operators using older systems often experience delays on the runway or in holding patterns or may be rerouted to another (sometimes less conveniently located) airport.

Upgrading to a compliant system reduces delays, lowers costly fuel burn and operational expenses, results in fewer flight hours on aircraft engines, and lessens the chance of rerouting.

## Universal Avionics InSight™ Advice

1. Verify that the aircraft and its existing



equipment are compatible via a thorough survey before modification.

2. Discuss add-on options, such as Data Comm, FANS-1/A, CPDLC, and Weather Radar Graphics, early in the modification process.
3. Know that pilots must receive training on the new system after installation, which is available from the experts at Universal Avionics either online or in person.

Upgrading to the Universal Avionics InSight™ Display System ensures enhanced safety, efficiency, and cost savings, allowing operators to continue flying their favorite aircraft with modern avionics.

## Check Out Our Other Resources:

**Why Upgrade Your Aircraft to WAAS/SBAS?**  
([cla.aero/upgrade-your-aircraft-to-waas-sbas/](http://cla.aero/upgrade-your-aircraft-to-waas-sbas/))

**Supplemental Type Certificate Process in 7 Steps**

([cla.aero/supplemental-type-certificate-process-7-steps/](http://cla.aero/supplemental-type-certificate-process-7-steps/))

**Why Upgrade Your Flight Deck Avionics?**  
([cla.aero/why-upgrade-your-flight-deck-avionics/](http://cla.aero/why-upgrade-your-flight-deck-avionics/))

**Support Issues & Solutions for Universal Legacy FMS [Webinar]**  
([cla.aero/upgrading-legacy-fms](http://cla.aero/upgrading-legacy-fms))

