

**Honeywell**

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## **WING AVIATION GETS ITS NEXTGEN UPGRADES—AHEAD OF THE ANTICIPATED INSTALLATION RUSH TO MEET THE 2020 FAA MANDATE.**

To avoid being grounded—and to open the world for its clients—this Houston-based aircraft management and part-135 charter operator chose Honeywell ADSB.

**“There are not enough reservation spots available to support ADS-B upgrades for every business jet. We’re putting ourselves ahead of the curve before the January 1, 2020 deadline so our customers don’t feel the impact.”**

*—David Riddle, President, Wing Aviation*





### Overview

The FAA has mandated that aircraft without ADS-B technology on January 1, 2020 will be grounded. In order to beat the expected rush on maintenance facilities—and to get its 25+ managed aircraft clients to start scheduling their own upgrades—Houston-based Wing Aviation recently upgraded its own aircraft well in advance of the deadline. Its Embraer Legacy 600 is now equipped with a Honeywell avionics upgrade that includes ADS-B, FANS 1/A, DU-875 LCD displays, and a Honeywell Avionics Protection Plan (HAPP).

### Quick Facts

#### Honeywell Installed Solution

- ADS-B Out
- FMS 6.1
- FANS 1/A
- Smart Runway/Smart Landing
- Primus Elite with XM Weather Option
- DL1000 Data Loader
- Honeywell Avionics Protection Plan (HAPP)

#### Customer Results

- State-of-the-art satellite communications
- Clearer, more informative displays with less glare
- Uninterrupted flights through airspace requiring FANS 1/A and ADS-B in 2020

#### Why the Honeywell FMZ-2010 Flight

#### Management System and DU-875 LCD Displays

- Compliance with U.S. and European mandates for ADS-B and FANS 1/A
- FMS 6.1 capabilities include linking aircraft position and charts
- Honeywell DU-875 LCD displays reduce weight and provide better clarity for pilots
- Wing Aviation is always looking for improved safety, reliability, and efficiency

#### Customer

- Name: Wing Aviation
- Location: Houston, Texas
- Industry: Private Luxury Jet Operator
- Website: [wingaviation.com](http://wingaviation.com)

## Background:

Wing Aviation currently manages 27 aircraft—including four of its own—for FAA Part-135 charter operations. In order to comply with the FAA mandate to have ADS-B by January 1, 2020, the company recently upgraded its Embraer Legacy 600. With over a dozen large cabin aircraft in its fleet, Wing Aviation wanted to set an example to many of its management clients for being proactive on the upcoming FAA mandate.

The company chose to upgrade the aircraft's existing Honeywell avionics suite to include ADS-B, as well as FANS 1/A (CPDLC), to meet current and future communication requirements for flights worldwide.

Having these upgrades puts the aircraft "right in line with the cutting edge of technology, allowing us to be as safe as possible," says Jeremy Gee, Chief Pilot for Wing Aviation. "We have a constant link with air traffic control now. There is no loss of radar contact, they know where we are, and we know where we are."

The FAA mandated the addition of ADS-B in planes because the technology provides the foundation for NextGen by shifting from ground radar aids to more precise tracking through satellite signals. This results in enhanced communications, weather avoidance, aircraft separation, routing, fuel efficiency, and more.

David Riddle, Wing Aviation's President, believes that everyone who owns large cabin airplanes that go more than 250 knots in the U.S. should be scheduling ADS-B upgrades now.

If aircraft owners don't upgrade in advance of the January 1, 2020 deadline, they may be faced with increased prices from maintenance facilities or the inability to get an appointment in time.

"We wanted to set an example, so we partnered with Honeywell to get all the avionics upgraded with the ADS-B and CPDLC installed on our own aircraft," Riddle says. "With the completion of upgrades on our Embraer Legacy 600, half of our fleet is now ADS-B compliant. We're well positioned to get our entire fleet upgraded by the deadline."

## Solution:

Wing Aviation's Embraer Legacy 600 was a prime candidate for an avionics upgrade because it was due for its 96-month inspection and was already scheduled for a paint job and other updates.

According to Kari Van Winkle, Director of Maintenance at Wing Aviation, the company selected Duncan Aviation to do all the maintenance work because of its experience developing Supplemental Type Certificates (STCs) for NextGen solutions and its status as a premier Honeywell avionics dealer. While there was some "red tape" to cut through regarding the approval process—another reason to upgrade to ADS-B sooner than later—the "actual installation of the equipment went pretty flawlessly," Van Winkle says.

"As part of the relationship we have with Honeywell and Duncan Aviation, we decided it would be a great time to put the entire avionics package in with the ADS-B and CPDLC," Riddle says. "It certainly saved us a lot of downtime on the aircraft because it was done in conjunction with all those other maintenance items."



Wing Aviation chose a Honeywell FMZ-2010 Flight Management System with the 6.1 FMS Software upgrade, to comply with U.S. and European mandates for ADS-B and FANS 1/A. The avionics suite also includes Honeywell DU 875 LCD displays with XM radar.



## Benefits:

Outside of the peace of mind that comes from being compliant and avoiding anticipated bottlenecks at maintenance facilities in 2019, Wing Aviation is experiencing many tangible benefits with Honeywell as the core foundation of its Legacy 600 cockpit.

Both the ADS-B and FANS 1/A technologies enhance communications and give better information to pilots. "With these products, everything is significantly easier and safer," says Chief Pilot Gee. "Those two things are very much related."

Both technologies are designed to help pilots avoid collisions and expand surveillance to remote areas without radar coverage, such as the Gulf of Mexico and parts of Alaska. Relying on satellites also means that aircraft can follow more direct flight patterns, saving time and money, and reducing emissions.

Gee also loves the new LCD displays, which are "a lot clearer, a lot more refined." Because the liquid crystal technology dramatically cuts the glare from the sun and reduces eye strain, the screens make life easier for pilots.

Wing Aviation's maintenance team is also happy with the new flight management system and its impact on departure reliability. Van Winkle was already having problems with the old CRT screens, and loves the new LCD displays because they're a lot lighter and don't require a complex cooling system. "Just like our approved Electronic Flight Bag system, the new displays help reduce weight, gain efficiency, and improve fuel burn," she says.

Looking forward, executives at Wing Aviation are already planning another upgrade that will make their Embraer Legacy 600 the first of its kind to have Primus Elite Advanced Features (PEAF). Available for aircraft with new LCD displays, a Primus Elite cockpit upgrade, and proper certification, PEAFF increases crew situational awareness with the integration of synthetic vision. Synthetic Vision provides 3D color images of runways, terrain, and obstacles to give pilots a clearer view of their flight path. This feature is especially valuable when flying into an unfamiliar airport in the dark or in bad weather.

Riddle says that all the benefits from Honeywell avionics are capped off with a great customer experience, backed by an economical Honeywell Avionics Protection Plan (HAPP). "I think all of our airplanes are on some type of program with Honeywell and we get fantastic service," Riddle says.

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