

### Benefits

- LPV approach capability provides ILS-like guidance down to near CAT I ILS minimums (200' MDA, ½ mile visibility)
- Allows approaches at smaller municipal airports at night when no local altimeter setting is available
- Access to all RNAC (GPS) approaches (currently over 3500 approaches for use with WAAS worldwide)
- Enhanced integrity and accuracy monitoring removes RAIM requirement
- Allows you to plan GPS approaches to your flight plan destination, as well as an alternate

## **Kit Content**

Basic FMS Upgrade Kit includes:

- Single or dual UNS-1Ew, UNS-1Fw or UNS-1Lw FMS installations
- Prefabricated wiring harnesses and equipment trays
- Installation data package
- Certification documentation

## Options:

• "Coupled" LPV

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# WAAS/SBAS Flight Management System with LPV Upgrade

## DHC-8 100/200/300

The FIELD AVIATION Wide Area Augmentation System (WAAS) / Satellite Based Augmentation System (SBAS) FMS upgrade is founded on the experience gained during our Local Area Augmentation System (LAAS) precision landing upgrade program which has logged thousands of successful flying hours to date.



FIELD AVIATION's unique design utilizes the precision approach flight director/autopilot input previously used for MLS. We have seen that this design philosophy is far superior as it provides reliable, coupled approaches with greater stability down to Decision Height.

FIELD AVIATION can offer several upgrade solutions to cater to your aircraft configuration – whether replacing existing UNS Flight Management Systems (FMS) or installing new ones. The WAAS/SBAS upgrade kit replaces existing Universal Avionics dual UNS-1C, UNS-1C+ or UNS-1E FMS installations with dual UNS-1Ew, or existing UNS-1F installations with the UNS-1Fw, while retaining the existing wiring in the aircraft. Kits for new single or dual FMS installations, including the UNS-1Lw, are also available.

Universal Avionics' GPS/WAAS receiver is certified to provide navigation accuracy within 0.01 nm and 99.999% availability in WAAS coverage area. The receiver is TSO-146b, Class Gamma-3 certified and the WAAS antenna was the first to receive the TSO-C190 certification for a WAAS antenna.

## Aircraft Modifiers to the World CALGARY • CINCINNATI • OKLAHOMA CITY • TORONTO



## **Typical Lead Time**

• 12 Weeks ARO

## **Certification Basis**

- TC STC
- FAA STC
- EASA STC
- JCAB STC

### **Complimentary Mods**

- Universal Avionics EFI-890R Flight Deck Upgrade
- Universal Avionics SSDTU
- Universal Avionics UniLink
- Universal Avionics TAWS
- Honeywell EGPWS

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## **Navigation Improvements & WAAS/SBAS Capabilities**

The WAAS/SBAS capable FMS provides access to all RNAV (GPS) approach types, including the most precise and accurate GPS-based approaches. With Minimum Descent Altitudes (MDAs) as low as 200 feet with ½ mile visibility, this type of approach improves safety and accessibility to airports which have much higher minima or no IFR approach at all.

The WAAS/SBAS FMS meets stringent internal monitoring requirements to provide guidance to any of the MDA levels available for RNAV (GPS) approach guidance:

- Localizer Performance with Vertical Guidance (LPV)
- Lateral Navigation / Vertical Navigation (LNAV/VNAV)
- LNAV only

The WAAS/SBAS FMS upgrade with the optional autopilot coupled LPV capability allows the aircraft to perform "coupled" LPV approaches at the lowest published LPV minimums.

The FIELD AVIATION WAAS/SBAS solution for the DHC-8 is the only one that fully stabilizes the aircraft flight path both laterally and vertically, lessening crew workload and fatigue.

