

## FAA STC ST01221CH

### Installation of Automatic Dependent Surveillance – Broadcast (ADS-B) Provisions & Mode-S Transponders on Boeing 757 Series Aircraft

#### OVERVIEW

- » FAA STC ST01221CH

*Installation of Automatic Dependent Surveillance – Broadcast (ADS-B) provisions and dual Honeywell or Collins Mode-S transponders in accordance with Electronic Cable Specialists (ECS) master data list ECS-990437.*

#### YOUR NEEDS

In the event that your aircraft does not comply with FAA mandated ADS-B Out capabilities, STC ST01221CH supports installation of ADS-B provisions on Boeing 757 series aircraft. Refer to FAA Advisory Circular 20-165A for details on the Airworthiness Approval of ADS-B Out systems.

#### YOUR BENEFITS

After modification per STC ST01221CH, your aircraft will be appropriately configured to comply with FAA mandated ADS-B Out system requirements. Installation of the provisions also establishes ADS-B In capabilities, which will provide in-flight location awareness information to the flight deck.

#### STC AIRCRAFT EFFECTIVITY

- » Boeing 757-200PF series aircraft

#### STC CONFIGURATIONS & LIMITATIONS

- » **Configuration 1:** Complete ADS-B provisions and Dual Mode-S (Honeywell or Rockwell Collins), including UAT and VDL-M4 antenna provisions; Boeing 757-200PF series aircraft.
- » **Configuration 2:** Complete ADS-B provisions and Dual Mode-S (Honeywell or Rockwell Collins) without UAT and VDL-M4 antenna provisions; Boeing 757-200PF series aircraft.
- » **Configuration 3:** Complete ADS-B provisions without Dual Mode-S (Honeywell or Rockwell Collins) and UAT and VDL-M4 antenna provisions; Boeing 757-200PF series aircraft.

*STC Limitations: Only approves the installation of ADS-B provisions and not operation of the ADS-B System*

#### PRODUCT DESCRIPTION

This installation consists of installing ADS-B system provisions, including wire harnesses, coaxial cables, equipment trays, antenna structural provisions, and antennas on Boeing 757 aircraft. Additionally, the existing ATCRBS transponders are replaced with either Collins Mode-S transponders or Honeywell Mode-S transponders.

#### ELECTRICAL CHANGES

##### Installation of the following:

- » Harnesses for interconnection of the provisioned Link and Display Processor Unit (LDPU), a Cockpit Display of Traffic Information (CDTI) display and control panel, and a VHF Data Link (VDL) Mode 4 radio transceiver.
- » Data Bus wiring from the existing right and left air data computers to the provisioned LDPU and from the existing left flight management computer to the provisioned LDPU and CDTI display.
- » Wiring for the audio output is added between the existing audio warning unit and provisioned LDPU.
- » Data bus wiring from the existing left radar altimeter and left IRS to the provisioned LDPU. Wiring for discrete signals from the existing EGPWS to the provisioned LDPU.
- » Antenna coaxial cables from the provisioned LDPU to the upper and lower UAT, upper and lower 1090 antennas, and upper GPS antenna. Antenna coax from the provisioned VDL-M4 to the upper VDL-M4 (VHF) antenna.
- » Antenna coaxial cable from the transponder antenna coax switch to the upper Mode-S antenna.

#### MECHANICAL CHANGES

##### Installation of the following:

- » 4 MCU Mode-S tray for the right & left Mode-S transponders
- » 6 MCU LDPU tray
- » 3 MCU VDL-M4 tray
- » Upper & lower 1090 MHz antennas
- » Upper GPS antenna
- » Upper & lower Universal Access Transceiver (UAT) antennas
- » Upper VHF antenna

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