FAA STC ST02316CH | EASA STC 02249

Installation of Elementary & Enhanced Surveillance Mode-S Transponders on Boeing MD-80 & MD-90 Series Aircraft

OVERVIEW

- FAA STC ST02316CH
- European Aviation Safety Agency (EASA) STC for DC-9-80 series aircraft

Enables installation of enhanced Mode-S transponders in accordance with Electronic Cable Specialists (ECS) master data list ECS-203350.

YOUR NEEDS

Using STC ST02316CH, the existing Mode-S transponders on your fleet of Boeing MD-80 and MD-90 aircraft can be upgraded to comply with Mode-S enhanced surveillance requirements.

YOUR BENEFITS

The enhanced Mode-S transponders will have the capability to transmit flight identification as part of the transponder interrogation reply. The enhanced transponders will also provide aircraft status and intent information, such as current heading, altitude, airspeed, selected altitude, etc. These new transponders will satisfy the data requirements or ICAO Document 7040/4, Regional Supplementary Procedures, for SSR Mode-S enhanced surveillance in designated European airspace.

STC AIRCRAFT EFFECTIVITY

- Boeing DC-9-81/-82/-83/-87 series aircraft
- Boeing MD-88 series aircraft
- MD-90-30 series aircraft

STC CONFIGURATIONS & LIMITATIONS

Configuration 1: Dual ACSS enhanced Mode-S transponders using dedicated flight identification panel on Boeing DC-9-81/-82/-83/-87 and MD-88 series aircraft.

- Existing Mode-S transponders will be removed and new ACSS elementary and enhanced Mode-S transponders will be installed in their place. The existing trays located in the electronic bay will be used for installation of both transponders. Additional wiring is installed through unused pins in existing connectors of the aircraft and is terminated at the respective equipment.
- A new Gables flight identification control panel will be installed. This new control panel provides the capability to allow entry of flight identification only. The existing ATC/TCAS control panel will remain installed and will continue to be used for selection of either the transponder 1 or transponder 2 for interrogation replies, selection of altitude reporting on or off, selection of the transponder code, and providing fail indication for the Mode-S transponders.

STC Limitations: Dual Collins Mode-S transponders previously installed per FAA approved method.

Configuration 2: Dual ACSS enhanced Mode-S transponders using integrated flight identification panel on Boeing MD-90-30 series aircraft.

- Existing Mode-S transponders will be removed and new ACSS enhanced Mode-S transponders will be installed in their place. The existing trays located in the electronic bay will be used for installation of both transponders. Additional wiring is installed through unused pins in existing connectors of the aircraft and is terminated at the respective equipment.
- The existing transponder control panel will be removed and a new Gables control panel will be installed. This new control panel provides the capability to allow entry of flight identification as well as being used for selection of either the transponder 1 or transponder 2 for interrogation replies, selection of altitude reporting on or off, selection of the transponder code, and providing fail indication for the Mode-S transponders.

STC Limitations: Dual ACSS Mode-S transponders previously installed per FAA approved method.

Configuration 3: Dual Honeywell enhanced Mode-S transponders using integrated flight identification panel on Boeing DC-9-81/-82/-83/-87 series aircraft.

- Existing Mode-S transponders will be removed and new Honeywell enhanced Mode-S transponders will be installed in their place. The existing trays located on the equipment shelves in the electronic bay will be used for installation of the enhanced surveillance Mode-S. Additional wiring is installed through unused pins in existing connectors of the aircraft and is terminated at the respective equipment.

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STC CONFIGURATIONS & LIMITATIONS CONT'D.

» The existing transponder control panel will be removed and a new Gables control panel will be installed. This new control panel provides the capability to allow entry of flight identification as well as being used for selection of either the transponder 1 or transponder 2 for interrogation replies, selection of altitude reporting on or off, selection of the transponder code, and providing fail indication for the Mode-S transponders.

STC Limitations: Dual Honeywell Mode-S transponders previously installed per FAA approved method.

Contact us for usage rights, derivative configurations & installation lead time.

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