



# ADS-B Out

## Are You Compliant?

With a new wave of upgraded ADS-B Out mandates already in motion, airlines want to make sure they are compliant to avoid potential limitations on their airspace access or worse, getting their aircraft grounded.

Canada recently implemented a mandate stating that all aircraft flying over Canadian airspace in Class A must be equipped with the upgraded ADS-B Out (DO-260B) version, effective as of August 2023. For Class C, the mandate comes into effect in May 2024.

Likewise, the Brazilian aviation authorities have issued a similar mandate requiring upgraded ADS-B Out equipment for all aircraft operating in Brazilian upper airspace at FL 245 or above by 2027.

Previously, mandates by the FAA, EASA, and China were introduced and came into effect during 2020.

As the modification may take considerable time and resources, heavy maintenance schedules will determine the short window of opportunity to modify each aircraft. At Fokker Services Group, we have equipped over 100 operators, and offer modification solutions for a range of aircraft including: Airbus A320 series; Boeing 737 Classic and NG, 747, 757, 767; Dash 8 Q400; and Fokker 70, 100.

## Our Promise

We are your ADS-B Out one-stop shop, delivering integrated solutions on time for your fleet, including:

- » Advice on your hardware needs.
- » A range of hardware and upgrades: Transponders (in stock), GNSS, Wiring and Flight Deck indications.
- » Various configurations transponders: Honeywell, Rockwell Collins and ACSS/L3Harris.
- » A Fokker Services Group STC package approved by EASA, CAAC, FAA, TCCA, ANAC, and others.
- » Approved documentation amendments.
- » On-site assistance.
- » ADS-B Out components support and repairs.
- » Aircraft modification during several slots.
- » Operational benefits (ATC support outside the coverage of primary radar, and Aircraft Tracking).
- » Optional validation for other authorities.

# ADS-B Out Aircraft Requirements

## ✓ ATC Mod S Transponder

Depending on the requirement, several aircraft parameters are 'squittered' to any ADS-B Out capable receiving station, such as: AC position, AC altitude, AC velocity, AC identification, etc. A version 2 (DO-260B) ATC Mode S Transponder is now required. Some ATC Mode S Transponders can be upgraded to DO-260B, others must be replaced with new DO-260B capable Transponders on 1090MHz (1090ES).

## ✓ Global Navigation Satellite Sensor (GNSS)

GNSS that exceeds the Minimum Operational Performance Standards for GPS/SBAS Airborne Equipment. This GNSS can be part of the existing dual Flight Management System, Multi-Mode Receivers (MMRs) or as a dual stand-alone sensor. For non-compliant GNSS installations, we offer a dual stand-alone GNSS installation, optional with SLS/LPV capabilities.

## ✓ Wiring Interfaces and Flight Deck Indications

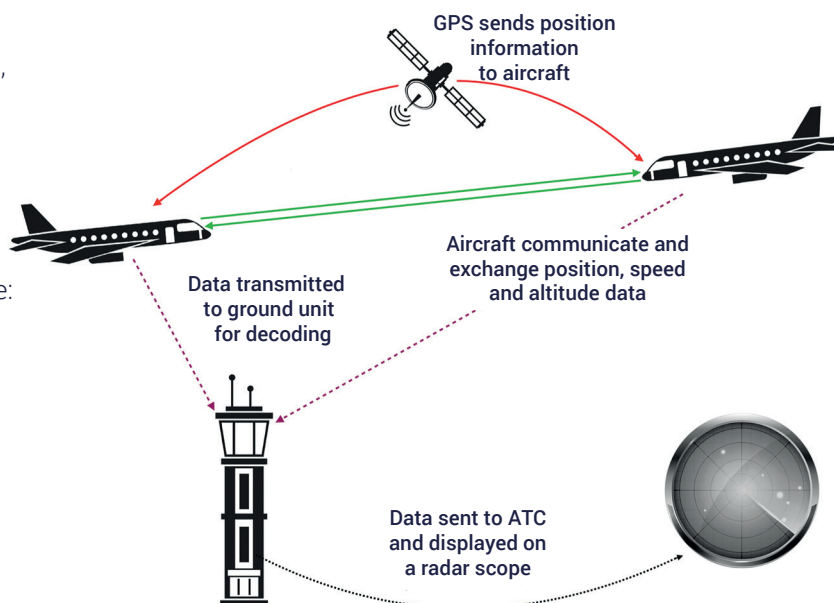
Wiring interfaces between several aircraft sensors and the ATC Mode S Transponder are required and, depending on requirements, a possible Flight Deck indication. If the aircraft is already EnHanced Surveillance (EHS) or Elementary Surveillance (ELS) compliant, most required wiring interfaces are already present.

## Regulatory Documents

U.S. Mandate: January 1, 2020. FAA: 14 CFR 91.225, 14 CFR 91.227 and AC 20-165B. Europe Mandate: December 7, 2020. EU IR No. 1207/2011, No. 1028/2014 and CSACNS. China Mandate: January 1, 2023. Canada Mandate: July 17, 2023. Transport Canada: Airworthiness Chapter 551 - Aircraft Equipment and Installation - Canadian Aviation Regulations (CARs) section 551.103. Brazil Mandate: DECEA: Brazil AIC #14/23.

## Equipment Qualification

ATC Mode S Transponder 1090 MHz  
Extended Squitter ADS-BRTCA MOPS  
DO-260B or EUROCAE ED-102A(E)TSO-C166b  
GNSS: RTCA MOPS DO-229c()(E)TSO-C145c,  
(E)TSO-C146.



## About Fokker Services Group

Fokker Services Group is an independent leader in aerospace services with a global reach. Providing comprehensive solutions from its five facilities in Europe, Asia and the Americas, Fokker Services Group is a key partner for regional, narrow-body and wide-body platforms in the Commercial, VIP, Cargo and Defense markets. The organization offers a unique set of capabilities, products and services: 'Modifications & Engineering Services' for the latest technical solutions; 'Component & Material Services' such as nose-to-tail programs, exchange services, component repairs, parts manufacturing and spares deliveries; 'Airframe Services' for aircraft MRO including lease transitions and painting; and 'Aircraft Completion & Conversion Services' for Executive, VVIP and Special Mission aircraft upgrades. With this broad range of expertise, Fokker Services Group ensures the continued competitive operation of its customers' fleet.



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