

ADS-B Reference Guide

ADS-B Out (XMIT)

- Mandated by Jan 1, 2020
- “Outbound” information
- Broadcasts your position continuously, not just when interrogated
- Required anywhere a transponder is required today (but does not replace the need for a transponder)
- Requires certain equipment (transmitter and position source (GPS))
- Your aircraft may already be equipped with some of the necessary pieces.

ADS-B In (Receive)

- Currently not mandated
- “Inbound” information
- Receives position information of other aircraft
- Necessary to receive free weather and other aeronautical information (FIS-B)
- Allows for display of traffic
- Requires more equipment than just an “Out” solution (transmitter, receiver and display unit)
- May already have some of the necessary parts
- FIS-B available only on UAT
- TIS-B available on both data links.

1090ES

- Authorized (-In) at all altitudes
- Required (-Out) above FL180
- Required if flying outside of the U.S.
- FIS-B (weather) not available
- Allows reception of ADS-B from other aircraft
- Allows reception of ADS-R from ground stations (TIS-B)

UAT

- Authorized (-In) at all altitudes (but services are limited above FL180)
- Allows for inbound TIS-B and FIS-B
- Allows reception of ADS-B from other aircraft
- Allows reception of ADS-R from ground stations (TIS-B)

Questions you should ask yourself:

- Do I fly primarily below 18,000 msl, or do I sometimes venture into higher flight levels?
- Do I fly internationally?
- Should I equip with -Out only, or both ADS-B In and ADS-B Out?
- Do I have equipment that will work for either of these solutions, and how can that existing equipment be maximized?
- 1090ES or UAT? Remember: 1090ES is the required frequency for ADS-B Out above FL180, but you will need to receive on UAT to benefit from FIS-B information. TIS-B is available on both frequencies.
- Is there a way a hybrid solution will work? Can I easily incorporate ADS-B Out on 1090ES while getting ADS-B In on UAT?