A = **Automatic** Once the system is turned on and the flight ID is entered, no ongoing management of the system is required of the crew.

D = **Dependent** The required data depends on sources within the aircraft itself, not from bouncing radar pulses off the side of the fuselage.

S = **Surveillance** Very accurate and timely position reports form the basis of an extremely effective surveillance system.

B = **Broadcast** The aircraft's Flight ID, position and trajectory are transmitted every second to all participating receivers.
**ADS-B (Out)** is a “transponder” on steroids. It periodically and automatically broadcasts position information derived from GPS signals. This makes it far more accurate than radar. **ADS-B (Out)** is mandated in most places.

**Data Broadcasted**
- Who you are: Flight ID
- Where you are: GPS position
- Where you are going: Direction, Altitude, Speed

**ATC**

**Ground Station**

**GPS**

{图示内容}
**ADS-B (IN)** is a "TCAS" on steroids. It receives data from ground stations as well as directly from other aircraft. **ADS-B IN** is optional at this time.

Data Received:
- Traffic (ADS-B OUT Aircraft)
- Weather (Weather Reports/Radar)
- Flight Information (NOTAMS/TFRs)

Diagram:
- ATC
- Ground Station
- GPS
ADS-B Infrastructure

**Ground Stations:**

- Can be placed anywhere
- Receive data from aircraft
- Send data to ATC controller’s display over conventional telecom networks
- Transmit traffic, weather, and flight information to ADS-B (IN) equipped aircraft

ADS-B is a CAT A MEL item. It may be inoperative provided:

a) Operations do not require its use, and
b) Repairs are conducted at next major inspection

ADS-B will eventually replace radar antennas
Failure of both transponders or lack of a usable GPS signal will result in an **ADS-B FAIL** CAS message.

**MCDU**

**Radios page**

**TCAS page 1/1**

**ADS-B**

ON  OFF  >  **ADS-B is ON but transponder is OFF or STBY**

**ADS-B**

♦ ON  OFF  >  **ADS-B and transponder are ON**