A twin-turboprop airliner with pressurised fuselage – originally designed to carry 10 passengers.

**Key Tests**

To fly in shared airspace a UAV must do what is safe – whatever the situation. Here are just three of the key concepts that the BAE Systems’ Jetstream ‘Flying Testbed’ will trial during a series of flights in controlled airspace this year.

**Weather Avoidance**

Using an ‘electronic eye’ mounted in the cockpit linked to computer systems and the ‘brains’ of the aircraft, the Jetstream will navigate a course that allows evasive action.

**Sense and Avoid**

Avoiding other air traffic means a UAV needs to ‘see’ potential hazards. The BAE Systems’ Jetstream will trial ‘sense and avoid’ technology, picking up ‘visual’ contact if no signals are being emitted.

**Emergency Landing**

If a UAV needs to make an emergency landing, it is essential it can do so without causing danger. The BAE Systems’ Jetstream will trial a range of technologies to be developed under the ASTRAEA programme, including what is believed to be the world’s first autonomous weather avoidance system, in addition to ‘sense and avoid’ technologies and an autonomous emergency landing system.

**How it Works**

A unique aircraft developed to be flown by pilots or as an Uninhabited Air Vehicle (UAV), the BAE Systems’ Jetstream, known as ‘The Flying Testbed’, is an aerial laboratory that will this year trial a range of new technologies to be developed under the ASTRAEA programme. Including what is believed to be the world’s first autonomous weather avoidance system, in addition to ‘sense and avoid’ technologies and an autonomous emergency landing system.

**Jetstream ‘Flying Testbed’**

A twin-turboprop airliner with pressurised fuselage – originally designed to carry 10 passengers.

**Air Crewe**

H 2 (Uninhabited Air Vehicle Commander + Flight Test Observer)

**Ground Crew**

2 (Uninhabited Air Vehicle Commander + Flight Test Observer)

**Wingspan**

52 feet

**Length**

47 feet 2 inches

**Height**

17 feet 5 inches

**Max Speed**

210 mph

**Cruise Speed**

195 mph

**Service Ceiling**

24,000 feet

**Range**

780 miles