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# NATO E-3A Component Geilenkirchen, Germany



A I R C R A F T D E T A I L S

**Primary function:**

Airborne surveillance, command, control and communications

**Power plant:**

Four TF33 Pratt &Whitney 100A turbofan engines

**Thrust:**

20,500 lbs/9,523.5 kp per engine

**Dimensions:**

*Aircraft:*

Wingspan: 44.45 m/145 ft 9 in

Length: 46.68 m/152 ft 11 in

Height: 12.7 m/41 ft 9 in

*Rotodome:*

Diameter: 9.1 m/30 ft

Thickness: 1.8 m/6 ft

Height: 3.35 m/11 ft

**Rotation:**

Once every 10 seconds

**Speed:**

More than 800 kmph/500 mph

**Operational altitude:**

Above 9,150 m/30,000 ft

**Maximum take-off weight:**

147,429 kg/325,000 lbs

**Fuel capacity:**

89,610 liters/70,371 kg

22,768 gallons/148,000 lbs

**Endurance:**

More than 10 hours

All E-3A aircraft can be aerielly refueled

**Armament:** none



**RADAR COVERAGE**

One E-3A flying at 9,150 meters (30,000 feet) has radar coverage of 312,000 km<sup>2</sup>. Three E-3As in overlapping orbits can provide complete radar coverage of Central Europe.

Visual Media Services. August 2011



[www.e3a.nato.int](http://www.e3a.nato.int)



# Force Overview



In 1978, NATO agreed to establish an Airborne Early Warning and Control Force (NAEW&CF), with an E-3A Component Main Operating Base (MOB) located at Geilenkirchen, Germany. The first AWACS E-3A aircraft arrived four years later in 1982. The E-3As also operate from Forward Operating Bases (FOBs) at Trapani, Italy; Konya, Turkey; Aktion, Greece; and from a Forward Operating Location (FOL) at Oerland, Norway. With a fleet of 17 NATO E-3A AWACS, the Component has been a key player in NATO operations for almost 30 years.



Originally designed to improve Allied air defense against the Warsaw Pact, NATO AWACS was to provide strategic air surveillance and fighter control in support of air and maritime operations. Since the early 1990s, NATO's role has changed and a more complex tactical use of the E-3A has evolved. While the basic role remains unchanged, it increasingly includes air-to-air and air-to-ground control, airspace management, air policing, combat search and rescue, force marshaling, and threat broadcast.

As the E-3A Component is NATO's first integrated flying unit, multi-nationality is a key characteristic. Out of NATO's 28 nations, 18 participate in the NATO AWACS program, with 16 providing military personnel. These military personnel and the civilian workforce are critical to NATO AWACS operations.

The other part of the NAEW&CF is the Royal Air Force E-3D Component at Waddington, United Kingdom. Both Components report to Force Command, the NAEW&C Force Headquarters, co-located with the Supreme Headquarters Allied Powers Europe (SHAPE) at Mons, Belgium.

The E-3A Component has been called on to support a wide range of operations. After the terror attacks of 11 September 2001, NATO invoked for the first time in its history the "mutual defense" clause spelled out in Article 5 of its founding charter. The Alliance therefore deployed its E-3A AWACS to the U.S. on Operation Eagle Assist to fly a variety of security support missions, freeing more U.S. AWACS to operate in Afghanistan.

Less than two years later, responding to the threat posed by the war in Iraq, Turkey requested that NATO help augment defensive forces in the region. Deploying as part of Operation Crescent Guard, the E-3A provided additional surveillance support to that mission. At the end of 2009, NATO AWACS began to assist in NATO's Operation Active Endeavour, a continuous operation monitoring the Mediterranean Sea for terrorism and piracy. At the start of 2011 NATO AWACS began Operation Afghan Assist, flying missions over Afghanistan in support of ISAF operations. Shortly afterwards, Operation Unified Protector was launched to enforce the no-fly-zone and arms embargo imposed on Libya, and to protect Libyan civilians. The Component also provides security support to important events like NATO Summits, heads of state visits throughout Europe, and more.

The roughly 2,900 military and civilian personnel at the Component live in approx. 90 communities in Germany, the Netherlands and Belgium, forming an important part of the local economy in the Tri-Border region.

