

Alliance Ground Surveillance (AGS)



NATO plans to acquire an Alliance Ground Surveillance (AGS) system that will give commanders a comprehensive picture of the situation on the ground. NATO's operation to protect civilians in Libya showed how important such a capability is. A group of Allies intends to acquire five unmanned aerial vehicles (UAVs) and the associated command and control base stations. NATO will then operate and maintain them on behalf of all 28 Allies.

The AGS system is expected to be acquired by 13 Allies (Bulgaria, Czech Republic, Estonia, Germany, Italy, Latvia, Lithuania, Luxembourg, Norway, Romania, Slovakia, Slovenia and the United States), and then will be made available to the Alliance in the 2015-2017 timeframe. This key transatlantic procurement programme is in its final approval phase before the 13 nations authorise contract signature.

The NATO-owned and -operated AGS core capability will enable the Alliance to perform persistent surveillance over wide areas from high-altitude, long-endurance, unmanned aerial platforms operating at considerable stand-off distances and in any weather or light condition. Using advanced radar sensors, these systems will continuously detect and track moving objects throughout observed areas and will provide radar imagery of areas of interest and stationary objects.

The main operating base for AGS will be located at Sigonella Air Base in Italy, which will serve dual purpose as a NATO Joint Intelligence, Surveillance & Reconnaissance (JISR) deployment base and data exploitation and training centre.

Just as NATO's Airborne Early Warning & Control (NAEW&C) aircraft – also known as AWACS – monitor Alliance airspace, AGS will be able to observe what is happening on the earth's surface, providing situational awareness before, during and, if needed, after NATO operations.

AGS responds to one of the major capability commitments of the Lisbon Summit.

Components

The AGS Core will be an integrated system consisting of an air segment, a ground segment and a support segment.

The air segment consists of five Global Hawk Block 40 high-altitude, long-endurance UAVs. The UAVs will be equipped with a state-of-the-art, multi-platform radar technology insertion program (MP-RTIP) ground surveillance radar sensor, as well as an extensive suite of line-of-sight and beyond-line-of-sight, long-range, wideband data links. The air segment will also contain the UAV flight control stations.

The ground segment will provide an interface between the AGS Core system and a wide range of command, control, intelligence, surveillance and reconnaissance (C2ISR) systems to interconnect with and provide data to multiple deployed and non-deployed operational users, including reach-back facilities remote from the surveillance area.

The ground segment component will consist of a number of ground stations in various configurations, such as mobile and transportable, which will provide data-link connectivity, data-processing and exploitation capabilities and interfaces for interoperability with C2ISR systems.

The AGS Core support segment will include dedicated mission support facilities at the AGS main operating base (MOB) in Sigonella, Italy.

Contributions-in-kind provided by France and the United Kingdom will complement the AGS with additional surveillance systems.

The composition of the AGS Core system and these contributions-in-kind will provide NATO with considerable flexibility in employing its ground surveillance capabilities.

This will be supplemented by additional interoperable national airborne surveillance systems from NATO nations, tailored to the needs of a specific operation or mission conducted by the Alliance.

Mechanisms

The NATO Alliance Ground Surveillance Management Organization (NAGSMO) is responsible for the acquisition of the AGS core capability on behalf of the 13 participating nations. The AGS Implementation Office (AGS IO) at Supreme Headquarters Allied Powers Europe (SHAPE) is responsible for ensuring the successful operational integration and employment of the NATO AGS core capability.

The NATO Alliance Ground Surveillance Management Agency (NAGSMA), representing the 13 AGS acquisition nations, has received the final AGS system proposal from the prime contractor and the contractual negotiation has been successfully finalised. The contractual arrangements are being evaluated and staffed by procurement nations. The contract award is expected at the Chicago Summit or shortly thereafter. The industries of all 13 participating nations will contribute to the delivery of the AGS system.

The engagement of NATO common funds for infrastructure, communications, operation and support will follow normal funding authorisation procedures applicable within the Alliance.

By the time AGS becomes fully operational in 2017, France and the United Kingdom will sign a Memorandum of Understanding (MOU) with the Strategic Allied Commander Europe (SACEUR), outlining the modalities for making their contributions-in-kind available to the Alliance.

Supporting NATO's core tasks

The Lisbon Summit set out the vision of Allied heads of state and government for the evolution of NATO and the security of its member nations. This vision is based on three core tasks, which are detailed in the new Strategic Concept:

- cooperative security
- crisis management
- collective defence

AGS was recognised at Lisbon as a critical capability for the Alliance and is planned to be a major contributor to NATO's Joint Intelligence, Surveillance & Reconnaissance (JISR) ambition.

AGS will contribute to these three core tasks through using its Swath & Spot Synthetic Aperture Radar (SAR) and its Ground Moving Target Indicator (GMTI) capabilities to collect information that will provide political and military decision makers with a comprehensive picture of the situation on the ground.

Facts and Figures

General characteristics of the Global Hawk Block 40 UAV:

- Primary function: High-altitude, long-endurance intelligence, surveillance and reconnaissance
- Power Plant: Rolls Royce-North American AE 3007H turbofan
- Thrust: 7,600 lbs
- Wingspan: 130.9 ft / 39.8 m
- Length: 47.6 ft / 14.5 m
- Height: 15.3 ft / 4.7 m
- Weight: 14,950 lbs / 6,781 kg
- Maximum takeoff weight: 32,250 lbs / 14,628 kg
- Fuel Capacity: 17,300 lbs / 7,847 kg
- Payload: 3,000 lbs / 1,360 kg
- Speed: 310 knots / 357 mph / 575 kph
- Range: 8,700 nautical miles / 10,112 miles / 16,113 km
- Ceiling: 60,000 ft / 18,288 m

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