

MQ-9B SKYGUARDIAN

MEETS CANADA'S MULTI-MISSION REQUIREMENTS

General Atomics

Canada is interested in procuring unmanned aircraft that will provide persistent Intelligence, Surveillance and Reconnaissance (ISR) and strike capabilities as part of a Canadian defence policy initiative. With discussions still ongoing, it's looking more and more like the MQ-9B SkyGuardian from General Atomics Aeronautical Systems Inc. (GA-ASI) is the right solution for Canada.

In addition to meeting the Canadian security requirement, GA-ASI's MQ-9B development program, which has already been selected by the UK's Royal Air Force, will include Canadian industry partners for the sustainment and development of new capabilities for not only MQ-9B, but for other Predator series aircraft as well. Companies like CAE and L3 WESCAM are already working with GA-ASI.

"MQ-9B SkyGuardian delivers multi-mission capability and provides a sustainable Arctic presence," said Aria Mahdion, GA-ASI Business Development Lead for Canada. "It's interoperable with existing Royal Canadian Air Force assets, as well as Five Eyes [FVEY] and NATO allies, all with low acquisition cost and sustainment."

Multi-mission

The MQ-9B SkyGuardian leverages the mature system architecture of legacy MQ-9A Remotely Piloted Aircraft (RPA), which is produced by GA-ASI and is currently in operation for the U.S. Air Force. MQ-9B incorporates enhancements to support mission capability, global industrial expertise, and unfettered access to national and international airspace. Current MQ-9 series users include the United States, United Kingdom, Italy, France and Spain.

As a multi-mission aircraft, the MQ-9B SkyGuardian and its nine hardpoints provide unmatched configurability to meet an operator's mission requirements. In a basic ISR configuration, the MQ-9B features a high performance 360° multi-mode maritime radar, to support Arctic patrol and maritime surveillance missions, and the GA-ASI Lynx Multi-mode Radar.

A variant can also be configured for maritime operations called the SeaGuardian. GA-ASI developed a maritime radar kit containing a 360° multi-mode maritime radar fielded on U.S. Department of Homeland Security Predator B aircraft. This same kit can be fitted to MQ-9B's centerline hardpoint. It can support a host of maritime radars facilitating long-range surveillance, coastal surveillance, small target detection, and search and rescue operations. Maritime configured aircraft would also be fitted with the Automatic Identification System (AIS) transponder to aid in the positive identification of vessels.

Canadian Arctic

The challenges Canadian defence faces in the Arctic include sub-zero temperatures, limited high-bandwidth SATCOM coverage, and inhospitable conditions that prevent traditional staffing and logistics approaches. Designed for all-weather operations, the MQ-9B addresses these challenges. It is equipped with a proven ice protection system that has been successfully employed with the U.S. military.

SkyGuardian has an Automatic Take-Off and Landing Capability (ATLC) with Beyond Line of Sight (BLOS) SATCOM data-link that operates above 70° north, while maintaining command and control

from anywhere on earth. MQ-9B's 3,000 nautical mile mission radius combined with the new BLOS ATLC allows for launch and recovery of the aircraft from a hospitable forward operating base. The BLOS ATLC reduces the size of the crew needed at the launch and recovery site.

Certifiable

GA-ASI is taking on the challenge of earning airworthiness certification with SkyGuardian. GA-ASI developed a Detect and Avoid system that provides required collision avoidance, as well as going beyond today's manned aircraft requirements with the addition of a Due Regard Radar.

The GA-ASI Advanced Cockpit Ground Control Station (GCS) has been modified to meet approval requirements, with some hardware changes required for flight-critical functions, similar to what is seen on today's modern business aircraft.

Performance

With SkyGuardian, GA-ASI is improving the performance and capabilities of the baseline aircraft. Longer-span wings fitted with winglets allow nearly 1,360 kg (3,000 lb) of additional fuel to be carried internally. Endurance in an ISR unarmed configuration improves from 27 hours to more than 40 hours. This increase allows the RPA to be used in a greater number of roles and to operate in difficult-to-reach regions.

SkyGuardian offers customers unmatched persistence, versatility and cost-effectiveness across a broad spectrum of requirements. Having already been selected by the Royal Air Force's (RAF) PROTECTOR program, the MQ-9B will be certified to NATO standards (STANAG 4671).