Team SkyGuardian

CANADA FIRST
MISSION ALWAYS
Proven Pedigree

- 3.1 million MQ-9 flight hours
- Over 400 aircraft produced
- 22 (soon 36) MQ-9s operated by European NATO allies
- Over 90% system operational availability
MQ-9B is the only RPAS that meets Canada’s interoperability requirements while seamlessly integrating with Canada’s closest Allies.

Certifiable
All Weather
Over 40 Hours Endurance
Team SkyGuardian Canada

• CAE
  • Employing CAE’s core capabilities in Training and Air System Sustainment while providing opportunities for growth into new markets

• MDA
  • Extensive experience in surveillance and intelligence systems in land, maritime, and Arctic

• L3Harris Wescam
  • Advanced EO/IR sensor systems for extreme environments and weather conditions
Team SkyGuardian Puts Canada First

- Canadian industry involvement in MQ-9 SkyGuardian ensures sovereignty

- Providing industrial benefits across Canada in the growing RPAS market

- Inclusive Team
  - Invitation to large and small companies across all regions of Canada to join Team SkyGuardian
Real Work Opportunities Now and Future

• More than 2,500 Canadian companies are already working with members of Team SkyGuardian.

• Opportunities
  • EO/IR Technologies
  • Integrated Training & Sustainment
  • Communications
  • Avionics
  • Composite manufacturing
  • Artificial Intelligence
  • R&D
  • Propulsion Systems
The World’s Benchmark

Over 6 Million total flight hours
2019 - 639,117 flight hours

Every second of every day, 69 Predator-series aircraft are airborne worldwide

Long Endurance      Mission Flexibility      Best Value
GA-ASI Company Overview
23 variants developed in the last 27 years
**Airspace Integration**

- MQ-9B SkyGuardian/SeaGuardian – Built for Certification
- NASA Ikhana MQ-9A with DAA System

Certifiable Ground Control Station (CGCS)

ENSURING THE SUCCESS OF THE CANADIAN ARMED FORCES AND THE INDUSTRIES THAT SUPPORT THEM
Aircraft
GA-ASI Family of Aircraft

- **Avenger**: Armed Reconnaissance, Quick Response
- **Predator B/MQ-9 Reaper/SkyGuardian**: Hunter Killer/Maritime Surveillance
- **Gray Eagle**: U.S. Army Troop Support
- **Predator/Predator XP**: Persistent Regional Surveillance

- 919 aircraft delivered
- 469 GCS delivered
- 647 Lynx Radar delivered
- 6,100,000+ flight hours – 90% combat hours

**Worldwide Control**
- Ku-SATCOM data link

**6,100,000+ flight hours**
Remotely Piloted Aircraft (RPA) System

C Band Data Link

Ku-Band SATCOM Data Link

Lynx Multi-mode Radar

Claw

Advanced Cockpit GCS

Ground Support Equipment
MQ-9B SkyGuardian

- Built for Type Certification
- Designed for NATO airspace
- Compliant with NATO flight certification standards
  - STANAG 4671/UK DEFSTAN 00-970
- 40 hr endurance
- First flight: November 2016
MQ-9B SeaGuardian

Expanding the Versatility of the Predator-series

- Predator-series Maritime Surveillance
  - Multimode 360° Maritime Radar
- Anti-Submarine Warfare (ASW) Capable
Payloads
### Payloads are Key

**Systems Integration — Core Competency**

<table>
<thead>
<tr>
<th>Payload Types</th>
<th>System Modes</th>
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<tbody>
<tr>
<td><strong>EO/IR/LD</strong></td>
<td>• Wescam MX-15, MX-20, M-12, M14TS</td>
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<td></td>
<td>• IAI – TAMAM/MOSP s80/770</td>
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<tr>
<td></td>
<td>• Raytheon Camera Systems</td>
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<td></td>
<td>• + Others</td>
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<tr>
<td><strong>Radar</strong></td>
<td>• GA-ASI Lynx Multi-mode Radar</td>
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<td>• Raytheon SeaVue</td>
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<td></td>
<td>• Telephonics APS143V#</td>
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<td></td>
<td>• ELTA/EL/M2022A(V3)</td>
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<td></td>
<td>• + Others</td>
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<tr>
<td><strong>Comm</strong></td>
<td>• ARC-210 and Extender Comm Relay</td>
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<td></td>
<td>• RVT Air-to-Air and Air-to-Ground Video</td>
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<td>• Indium Low Data Rate Data Link</td>
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<tr>
<td></td>
<td>• Harris PRC-117 Radio Relay</td>
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<td>• + Others</td>
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<tr>
<td><strong>Specialized and Scientific Sensors</strong></td>
<td>• Finder Mini UAV</td>
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<td>• CSAR (Personnel Locator Beacon)</td>
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<td>• NASA ACES (lightning sensors)</td>
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<td></td>
<td>• RAF DB-110</td>
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<td>• NASA AMS (wild fire sensor)</td>
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<td>• + Others</td>
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<tr>
<td><strong>Classified Programs</strong></td>
<td>• Numerous Payloads</td>
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**ENSURING THE SUCCESS OF THE CANADIAN ARMED FORCES AND THE INDUSTRIES THAT SUPPORT THEM**
Current ISR Capabilities

Electro-Optic/Infrared
- Full-motion video
- EO/IR
- Laser illuminator

GA-ASI Lynx Multi-mode Radar
- Provides wide-area imagery
- Ground Moving Target Indicator
- Maritime Wide Area Surveillance
- Precision geolocation
- All-weather – sees through clouds
Wide-Area Sensor Capabilities

Complementary cueing sensor suite:
- Wide-area SAR/GMTI radar
- Ground Moving Target Indicator (GMTI)
- Maritime Wide Area Search (MWAS)
- High-resolution EO/IR video

All-weather SAR imagery

GMTI and EO/IR cross-cueing

EO/IR

MMTI and EO/IR cross-cueing
Missions
Payload Capacity = Multi-Mission Capability

Military Operations

Border Protection/Disaster Assistance

Civilian Missions

Maritime Surveillance
Domestic Border Protection Missions
Disaster Recovery
Post-Earthquake Search and Rescue

Haiti Earthquake

ENSURING THE SUCCESS OF THE CANADIAN ARMED FORCES AND THE INDUSTRIES THAT SUPPORT THEM
Disaster Recovery – Firefighting
Disaster Recovery – Hurricanes and Flooding
Predator B Maritime Configuration

Operational with the U.S. Government
Universal pod supports Sea Vue/Sea Spray maritime radars
Equipped with Automatic Identification System (AIS)

Endurance: 23 hr
Speed: 240 KTAS
Altitude: 45,000 ft
Payload Capacity:
- Internal 850 lb
- External 3,750 lb

ENSURING THE SUCCESS OF THE CANADIAN ARMED FORCES AND THE INDUSTRIES THAT SUPPORT THEM
Maritime Predator B – Guardian

- Able to detect, track, and identify
  - Military Vessels
  - Commercial Vessels
  - Go-fast boats
  - Life rafts
  - Semi-submersible craft
GA-ASI Proven Aircraft Systems

• Supporting forces overseas, in homeland defense and civilian missions
  • Military persistence, strike & ISR – land or sea
  • Border security
  • Civilian missions (fire mapping & disaster assistance)

• Expanding mission capabilities
  • Continuing Predator-series RPA upgrades
  • New aircraft and Advanced Cockpit development
  • Advancing sensor technology (e.g. EO/IR, SAR, GPS, laser)

• Providing interoperable RPA capability worldwide