

END-TO-END SOLUTIONS

GUARDIAN MOBILITY SPECIALIZES IN AVIATION CONNECTIVITY SYSTEMS THAT ELEVATE SAFETY AND INCREASE OPERATIONAL EFFICIENCY.

BY LISA GORDON



Guardian Mobility Inc. supports more than 400 clients in 25 countries as a provider of end-to-end aviation communications products and services.

Founded in Ottawa, Canada, in 2002, the company initially focused on aircraft tracking and data monitoring. Today, Guardian Mobility delivers a full range of satellite communications (Satcom) devices, applications, and airtime services to aviation operators of all kinds — including military, first responders, oil-and-gas, general aviation, aerial firefighting, and emergency medical services.

"We got our start making small satellite devices that went in aircraft and provided basic aircraft tracking, or automated flight following [AFF]," explained Giles Peeters, director of business development for Guardian Mobility. "These were low-cost devices, and aerial firefighting and general aviation were two of our biggest sectors. Fundamentally, the market was simple, and we still offer these units today."

The company began developing aviation products and services that harness the new Iridium NEXT satellite constellation, which provides the Iridium Certus product family. It is currently the best all-weather satellite communications service with truly global coverage, Peeters said.

"Certus offers higher bandwidths, lower cost per data, and internet protocol [IP] technology — so anyone can connect and utilize off-the-shelf applications."

The result is Guardian Mobility's enhanced flight-tracking capability with the new Certus100 G6 all-in-one satellite terminal. It provides a compact IP data connection, guaranteeing secure connectivity anywhere in the world. The G6 sits on top of the aircraft and facilitates a reliable data link, supporting capabilities such as flight data monitoring, command and control (C2), and situational awareness. Peeters said the G6 is easy to install and can be achieved with just a minor modification.

The unit offers best-in-class size, weight, and power (SWaP), is DO-160G certified, and features encrypted voice, VOIP, and push-to-talk (PTT) communications. A new app, GMI Connect Pro, will soon be launched for Apple tablet and smartphone users, enabling communications anywhere in the world between an aircraft and people on the ground via cellular or Wi-Fi networks.

"We believe this app will provide true interoperability," Peeters said. "You could be in an airport in Australia and make a live call to an aircraft flying over Canada."

Furthermore, mapping with situational awareness and the ability to upload and download images into the cockpit in real time provides a cost-effective capability not yet seen in the aviation market.

"This is a simple and reliable comms link. You can use WhatsApp, Teams, iMessage, and more. In the military world, it works with the Android Tactical Assault

Kit [ATAK], a software application that provides geospatial information and allows teams to see and communicate with other aircraft. ATAK is updated in real time as they fly."

Operators want reliable flight tracking and voice service, and the new Certus-based G6 solution delivers both.

"I can provide a mid-bandwidth internet connection for fleet management, delivering 100 percent more capability at a 25 percent reduction in cost," Peeters said.

Guardian Mobility offers tracking intervals every second, if required, further elevating situational awareness and mission safety. In

the event of an air investigation, more detailed flight data will now be available.

A G6-S package with a TSO blade Iridium/GPS antenna is also available, Peeters added. It features an external antenna certified to 55,000 feet (16,764 meters) and is suited to both rotor- and fixed-wing aircraft.

For operators seeking a cost-effective video option, the G6 can stream live video over Satcom at a cost of about \$5 per minute. While the video is not high resolution, it is well suited for live thermal imaging and military surveillance and reconnaissance.

Peeters said the addition of ATUs — additional telemetry

units — has expanded the aerial firefighting toolbox. Guardian Mobility's G4MX2 solution is the only compact, all-in-one product that significantly elevates operator capability on firefighting missions.

"This technology means more efficient firefighting is possible with fewer assets," he explained. "It can do AFF and ATU plus video in real time, so home base can see live video and imagery of water drops and fire conditions. With our system, you buy one device that does it all — and it's an accredited system."

Guardian Mobility also offers month-to-month contracts and customizable service packages,

including Iridium Certus. Its Guardian Application Provisioning Portal (GAPP) web-based application, complete with an intuitive dashboard, helps clients manage their Iridium Certus airtime and network security. The company also offers a secure network architecture that can be customized to suit a client's unique fleet.

Guardian Mobility is not simply a box manufacturer, Peeters concluded.

"We are an end-to-end solutions provider. As Iridium Certus has made satellite communications more affordable, we are making it possible to scale up flight connectivity." ✨



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