

Sensis Solutions at Work



At a Glance

Improved separation standards

Accurate surveillance for non-radar airspace

Update rate: 5 seconds

Coverage: 250,000 sq. nm.

Hudson Bay ADS-B

The Challenge:

In the Hudson Bay area, due to the lack of radar coverage, aircraft must fly using procedural separation rules that keep them 10 minutes apart, translating into roughly 80 nautical miles of separation. This level of separation leads to excessive fuel-burn and less efficient operations. To maximize safety and efficiency, NAV CANADA needed an alternative, innovative radar solution that would also lay the groundwork for future surveillance across the country.

Sensis Solutions at Work:

To support NAV CANADA's strategy of using new technology to bring significant safety and efficiency benefits to its customers, Sensis Corporation will supply Automatic Dependent Surveillance – Broadcast (ADS-B) to the Hudson Bay region. Sensis ADS-B will provide surveillance of the 250,000 square nautical miles of airspace over Hudson Bay where there is currently no air traffic surveillance coverage.

The Sensis ADS-B 1090 ground-based transceivers will provide aircraft position information with sufficient accuracy and reliability to allow for five nautical miles of lateral separation. NAV CANADA anticipates that the ADS-B deployment will help airlines reduce fuel-burn and emissions. In the Hudson Bay airspace alone, once all aircraft are equipped with the proper avionics the surveillance system will save almost 5 million gallons of fuel a year and about 50,000 tons of CO2 emissions. At today's fuel costs, that equates to over \$10 million in annual savings. Additionally, once equipped, the 35,000 flights per year that travel through this airspace will be able to

follow the most efficient flight routes, climb to optimal altitudes more quickly, and have a greater situational awareness of other aircraft around them.

The installation of Sensis ADS-B in the Hudson Bay region launches the country's nationwide deployment of next-generation air traffic surveillance.



Hudson Bay, Quebec, Canada

ADS-B

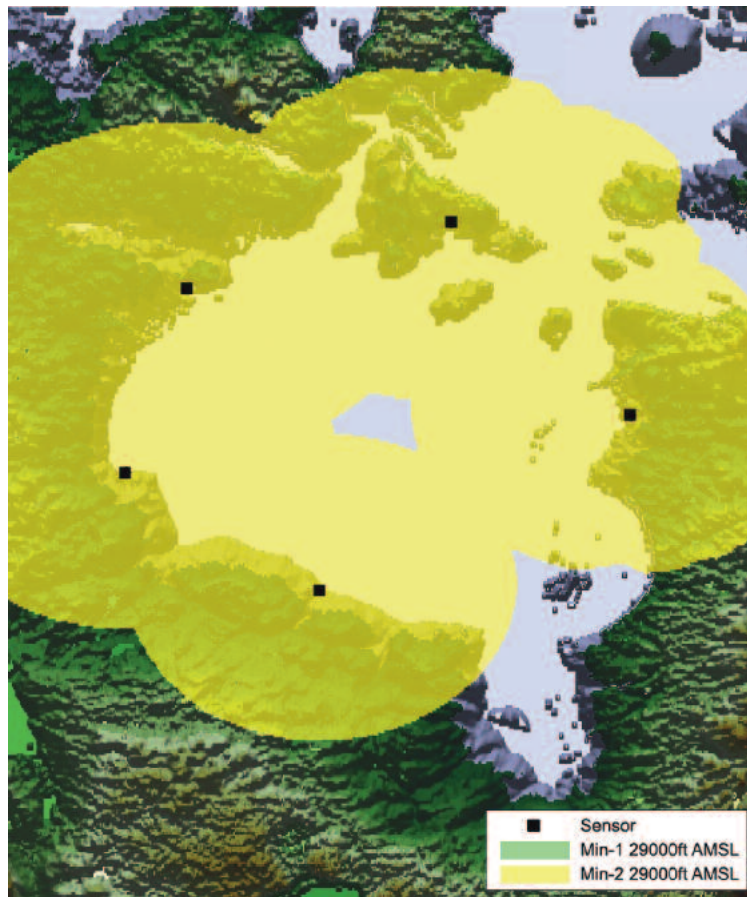


Solution Performance

Feature:	Benefit:
Improved separation standards	Fuel savings from more efficient operations
Situational awareness for pilots	Increased capacity, and safety
Lightweight, low-cost, easy to install unit	Surveillance option for non-radar airspace
Improved airport surface navigation	Reduced risk of runway incursions

About Sensis:

Sensis is the leader in ADS-B surveillance. Sensis pioneered the development and implementation of ADS-B, fielding the industry's first operational ADS-B transceivers for both the Mode S Extended Squitter (1090 ES) and UAT datalinks. In addition to Hudson Bay, and the East Coast of Canada, Sensis ADS-B was selected for China, and for the United States in Oregon and Colorado.



Hudson Bay ADS-B Coverage Area

Sensis Global Headquarters 85 Collamer Crossings East Syracuse, NY 13057

Phone: +1 315 445 0550 Fax: +1 315 446 2209 www.sensis.com email: info@sensis.com