

AERONAUTICAL INFORMATION CIRCULAR 31/11

AIR TRAFFIC SERVICES ASSOCIATED WITH AUTOMATIC DEPENDENT SURVEILLANCE–BROADCAST OUT SURVEILLANCE

(Replaces AIC 21/09)

Introduction

This Aeronautical Information Circular (AIC) supersedes the information provided in AIC 21/09 related to NAV CANADA Air Traffic Control (ATC) services supported by Automatic Dependent Surveillance–Broadcast Out (ADS-B Out). This AIC outlines the latest in a continuing series of improvements in air traffic service provision that began in January 2009 with the introduction of reduced separation based on ADS-B Out as managed by the Montreal and Edmonton area control centres (ACCs) within the ADS-B coverage volumes.

Owing to ongoing increases in the number of customers operating aircraft in conformance with Transport Canada Operations Specifications 609 or 610, NAV CANADA has been able to provide benefits for its customers through progressively improved service, from tactical application of reduced separation applied on an opportunity basis, to priority handling for assignment of flight-planned route, cruise altitude, and planned Mach number, and approval of requests for en route dynamic rerouting. There are no changes to the continued priority handling for ADS-B Out registered aircraft within the entire ADS-B coverage volume.

The changes outlined below are part of NAV CANADA's commitment to continuous reduction of aviation's greenhouse gas (GHG) footprint and improvement in customer service.

Changes in the Hudson and Minto Sectors

The following air traffic flow management (ATFM) changes take effect in the Hudson and Minto Sectors as of 17 November 2011. Aircraft that are not registered with NAV CANADA as eligible to receive ADS-B Out surveillance services, when operating through the Hudson and Minto Sectors at a flight-planned altitude ranging from flight level (FL) 350 to FL400 inclusive, will be required to file flight plans on published route structures.

This change in ATFM responds to our customers' desires to extract benefits from investments made in qualified avionics by providing additional airspace capacity that will enable a larger percentage of ADS-B Out customers to fly their preferred routes.

The following graphic provides the specific dimensions of the Hudson and Minto Sectors.

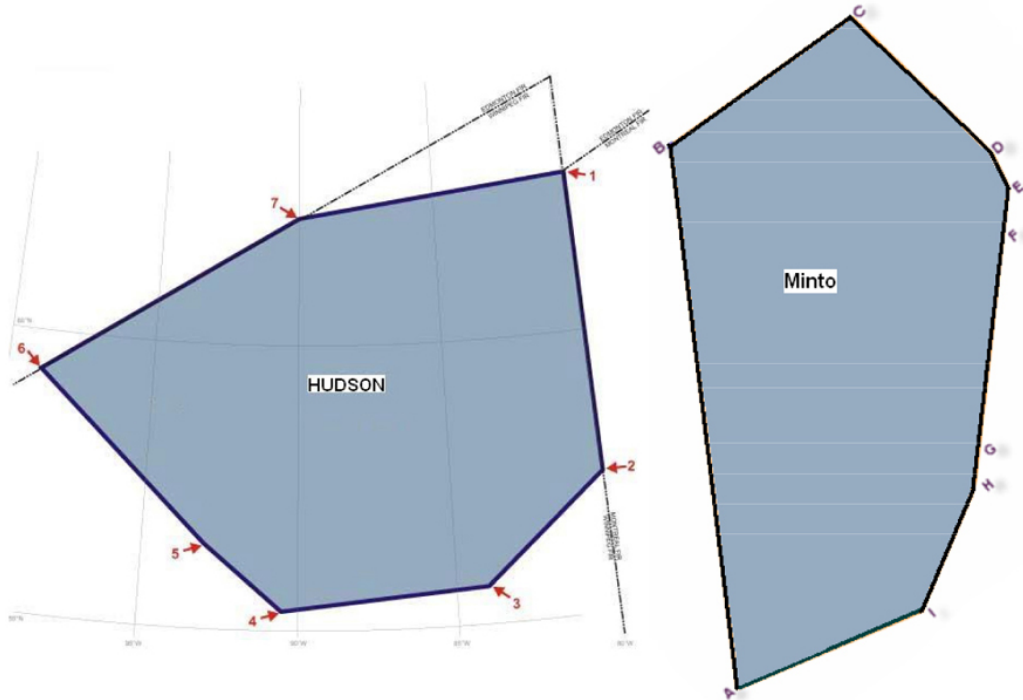
Hudson Sector - Edmonton ACC

The airspace extending from FL290 and above and bounded by a line beginning at

- 1) N624500/W0800000
- 2) N573000/W0800000
- 3) N554000/W0840000
- 4) N552000/W0903000
- 5) N563000/W0930000
- 6) N592000/W0985500
- 7) N621638/W0900000

Minto Sector - Montreal ACC

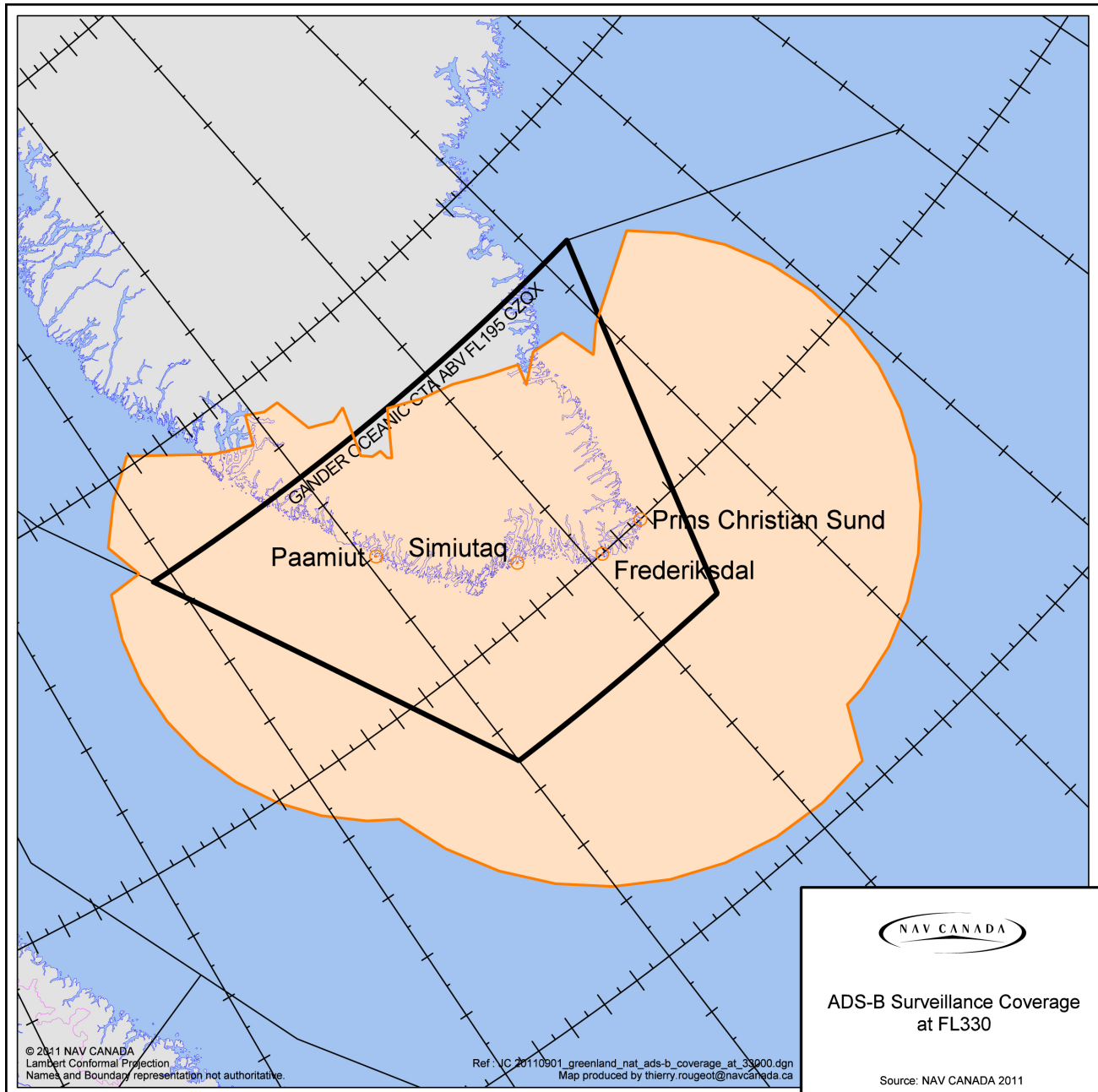
- A) N552500/W0800000
- B) N624500/W0800000
- C) N635928/W0741312
- D) N614500/W0711000
- E) N611500/W0705500
- F) N603000/W0712500
- G) N574000/W0732200
- H) N571000/W0735000
- I) N560000/W0753000

**Introduction of ADS-B Out Separation Services in Oceanic Airspace**

Prior to the end of 2011, Gander Centre will exercise the ability to apply ADS-B Out separation services to qualified aircraft in oceanic airspace within the vicinity of southern Greenland. Services will reflect the same type as those initiated in the Hudson Bay airspace, with tactical application of improved separation for eligible aircraft. Initial benefits are expected to accrue for eligible customers through the availability of earlier climb approvals on westbound flights.

Further development of traffic management applications in the Oceanic ADS-B service volume will follow the same process as the domestic ADS-B, with advancements as a result of increasing percentages of eligible traffic in concert with ongoing customer consultation.

The following graphic indicates the projected extent of the Oceanic service area.



Future Incremental Changes within Domestic ADS-B Coverage Volumes

NAV CANADA is planning to require operators of aircraft that have not been registered for ADS-B Out to be on fixed route structures when transiting through any domestic ADS-B coverage between FL350 and FL400 beginning in November of 2012. Furthermore, discontinuing the publication of the Northern Organized Track Structure (NOR OTS) is planned to be coincident with this extension of the lateral boundary of fixed route filing for non ADS-B Out aircraft.

NAV CANADA plans to implement further domestic ATFM advancements on a regular basis throughout 2013 and beyond. These advancements will progressively include lower flight levels as part of the requirement to file flight plans on published routes for aircraft not capable of ADS-B Out that are operating in ADS-B service volumes.

Aircraft Registration with NAV CANADA

At the time of publication of this AIC almost 1,000 aircraft representing over 30 air operators were eligible to receive ADS-B-based separation services from NAV CANADA. A qualification for ADS-B separation services from NAV CANADA is valid in any area where we provide services.

Domestic operators and those foreign operators holding a Foreign Air Carrier Operations Certificate are required to apply to Transport Canada for Operations Specifications 609 or 610 to be eligible to have a separation standard applied based on ADS-B Out. Transport Canada has provided guidance in Advisory Circular AC700-009 revision 2 as to how operators can achieve this specification.

Operators who do not fall into these categories are required to provide NAV CANADA with proof from the civil aviation authority of their aircraft's state of registry of compliance with the European Aviation Safety Agency's (EASA) Acceptable Means of Compliance (AMC) 20-24. In addition, in all cases operators must complete an aircraft equipment survey and provide NAV CANADA with each aircraft's unique 24-bit transponder address in order to be entered onto the list of eligible aircraft.

For registration support please contact:

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Ongoing Customer Consultation

NAV CANADA will continue to conduct regular customer consultation through teleconference and web-based media. If you are not part of the ongoing consultation forums and would like to participate, please contact:

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