

# AERONAUTICAL INFORMATION CIRCULAR 21/16

## NOTICE OF PLANNED EXPANSION OF MANDATE FOR DATA LINK SERVICES IN THE NORTH ATLANTIC REGION

(Supersedes AIC 4/15)

### Introduction

The first phase of the mandate for data link services in the North Atlantic (NAT) region commenced 7 February 2013. As of that date, all aircraft operating on or at any point along two specified tracks within the NAT organized track system (OTS) between flight level (FL) 360 to FL 390 (inclusive) during the OTS validity period are required to be fitted with, and using, controller-pilot data link communications (CPDLC) and Automated Dependent Surveillance–Contract (ADS-C) equipment (see North Atlantic Operations Bulletin 2012-031).

As notified in State letter EUR/NAT 12-0003.TEC (dated 04 January 2012), Phase 2 of the mandate will begin on 5 February 2015.

### Purpose of Circular

This Aeronautical Information Circular (AIC) outlines the plan for Phase 2 of the NAT Data Link Mandate (DLM). As detailed below, Phase 2 is planned to be implemented in three steps (2A, 2B and 2C), commencing on 5 February 2015, 7 December 2017, and 30 January 2020, respectively. This AIC also provides information on the expanded vertical and horizontal boundaries of NAT DLM airspace, policy for flight planning into NAT DLM airspace, and NAT DLM operating policies.

The information provided is intended for publication in the Spring 2017 [Transport Canada Aeronautical Information Manual \(TC AIM – TP 14371E\)](#).

### Background

As concluded at the 49<sup>th</sup> meeting of the North Atlantic Systems Planning Group (NAT SPG), the objectives of the NAT DLM are to enhance communication, surveillance, and air traffic control (ATC) intervention capabilities in the NAT region, in order to reduce collision risk and enable the NAT target level of safety to be met, particularly in the vertical plane. ADS-C provides capabilities for conformance monitoring of aircraft adherence to cleared route and FL, thereby significantly enhancing safety in the NAT region. ADS-C also facilitates search and rescue operations and the capability to locate the site of an accident in oceanic airspace. CPDLC significantly enhances air/ground communication capability and therefore controller intervention capability.

The NAT SPG goals for the expansion of the NAT DLM to increase the level of aircraft data link system equipage, are in concert with the International Civil Aviation Organization (ICAO) *Global Air Navigation Plan* (GANP) (Doc 9750) Aviation System Block Upgrade (ASBU) Block 0, Module B0-40 (2013-2018). This module calls for safety and efficiency improvements for enroute operations supported by data link. The NAT SPG objectives are that by 2018, 90% of aircraft operating in the NAT region airspace at FL 290 and above will be equipped with Future Air Navigation Systems 1/A (FANS 1/A) (or equivalent) ADS-C and CPDLC systems and that by 2020, 95% of aircraft operating in that airspace, will be so equipped.

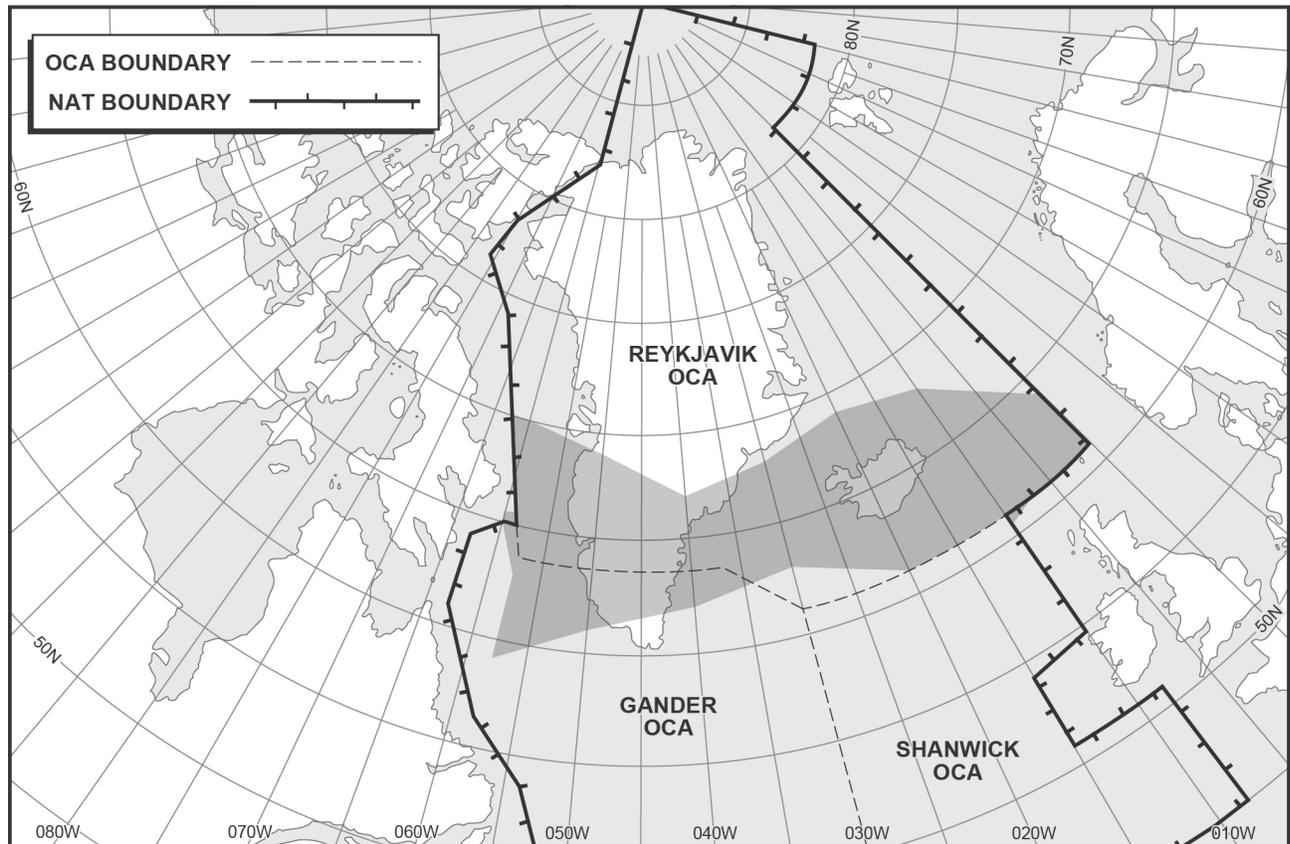
## Planned Vertical and Horizontal Boundaries for NAT Region DLM Airspace

- Phase 2A, commencing 5 February 2015: FL 350 to FL 390 (inclusive) all tracks within the NAT OTS. This phase applies to all aircraft operating on or at any point along the tracks;
- Phase 2B, commencing 7 December 2017: FL 350 to FL 390 (inclusive) throughout the ICAO NAT region; and
- Phase 2C, commencing 30 January 2020: FL 290 and above throughout the ICAO NAT region.

## Airspace Not Included in NAT Region DLM Airspace

- Airspace north of 80° North (N). (Airspace north of 80°N lies outside the reliable service area of geostationary satellites);
- New York Oceanic flight information region (FIR); and
- Air traffic services (ATS) surveillance airspace (i.e., airspace where surveillance is provided by radar, automatic dependent surveillance-broadcast [ADS-B], or both), as depicted in State Aeronautical Information Publications (AIP), provided:
  - the aircraft is suitably equipped (transponder/ADS-B extended squitter transmitter); and
  - the entirety of the flight planned route is contained within ATS surveillance and very high frequency (VHF) voice communications coverage.

For planning purposes, a depiction and description of the estimated extent of ATS surveillance airspace considered to be exempt from the DLM in the NAT region on from 5 February 2015 is depicted in the chart provided below.



2014\_97 Expansion of Data Link Service 21.11.14

**Northern boundary:**

64N00W – 68N01W – 69N02W – 68N03W – 67N04W – 69N05W – 70N06W – ADSAM.

**Southern boundary:**

RATSU (61N00W) – 61N02W – 63N03W – 62N04W – 61N05W – SAVRY.

## Flights Allowed to Flight Plan into NAT Region DLM Airspace

The following flights will be permitted to flight plan to enter the NAT DLM airspace:

1. Flights equipped with and prepared to operate FANS 1/A (or equivalent) CPDLC and ADS-C data link systems. (NAT Regional Supplementary Procedures (ICAO Doc 7030) paragraphs 3.3.2 and 5.4.2 apply for CPDLC and ADS-C respectively).
2. Non-equipped flights that file STS/FFR, HOSP, HUM, MEDEVAC SAR, or STATE in Item 18 of the flight plan. (Depending on the tactical situation at the time of flight, however, such flights may not receive an ATC clearance that fully corresponds to the requested flight profile).

## Operational Policies Applicable To NAT Region DLM Airspace

Any aircraft not equipped with FANS 1/A (or equivalent) systems may request to climb or descend through the NAT DLM airspace. Such requests, as outlined below, will be considered on a tactical basis.

- Altitude reservation (ALTRV) requests will be considered on a case-by-case basis (as is done today regarding NAT minimum navigation performance specifications [MNPS] airspace), irrespective of the equipage status of the participating aircraft.
- If a flight experiences an equipment failure **AFTER DEPARTURE** that renders the aircraft unable to operate FANS 1/A (or equivalent) CPDLC and/or ADS-C systems, requests to operate in the NAT DLM airspace will be considered on a tactical basis. Such flights must notify ATC of their status **PRIOR TO ENTERING** the airspace.
- If a FANS 1/A data link equipment failure occurs while the flight is **OPERATING WITHIN NAT DLM AIRSPACE**, ATC must be immediately advised. Such flights may be re-cleared so as to avoid the airspace, but consideration will be given to allowing the flight to remain in the airspace, based on tactical considerations.
- If a flight experiences an equipment failure **PRIOR** to departure that renders the aircraft non-DLM compliant, the flight should re-submit a flight plan so as to remain clear of the NAT regional DLM airspace.

## European/North Atlantic (EUR/NAT) Interface Flight Planning

Where the NAT interfaces with the EUR data link implementation rule airspace, procedures will be established by the air navigation service providers (ANSP) concerned to facilitate the vertical transition of traffic to and from the NAT region DLM and the EUR data link implementation rule areas. The transition will be conducted as soon as is practicable by the initial EUR domestic area along the common FIR/upper flight information region (UIR) boundary bordering the NAT region DLM. The operator and the ANSP shall ensure that the vertical transition is complete prior to crossing any subsequent FIR/UIR boundary.

## Further Information

For further Information, please contact:

NAV CANADA  
Gander Area Control Centre  
P.O. Box 328  
Gander, NL A1V 1W7  
Attn: Jeffrey Edison  
Manager, ACC Operations

Direct line: 709-651-5223  
E-mail: [edisonj@navcanada.ca](mailto:edisonj@navcanada.ca)

A handwritten signature in black ink, appearing to read 'James Ferrier', with a long horizontal flourish extending to the right.

James Ferrier  
Manager, Aeronautical Information Management