

# AERONAUTICAL INFORMATION CIRCULAR Y 086/2017

UNITED KINGDOM



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

### 1 Introduction

- 1.1 The first phase of the mandate for data link services in the North Atlantic (NAT) Region commenced on 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.
- 1.2 As notified in State letter EUR/NAT 12-0003.TEC (dated 04 January 2012), Phase 2 of the mandate began on 5 February 2015.
- 1.3 Please refer to ICAO NAT OPS BULLETIN, Serial Number: 2017\_001\_Rev2, Subject: NAT common DLM AIC, Originator: NAT SPG.

### 2 Purpose of Circular

- 2.1 This common NAT 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.

### 3 Background

- 3.1 As concluded at the forty-ninth 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.
- 3.2 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-TBO. 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) ADS-C and CPDLC systems and that by 2020, 95% of aircraft operating in that airspace, will be so equipped.

### 4 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;
- Phase 2C, commencing 30 January 2020: FL 290 and above throughout the ICAO NAT Region.

### 5 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 East flight information region (FIR);
- Air traffic services (ATS) surveillance airspace, i.e. airspace where surveillance is provided by radar, multilateration and/or automatic dependent surveillance-broadcast (ADS-B) and VHF voice communications services are available, as

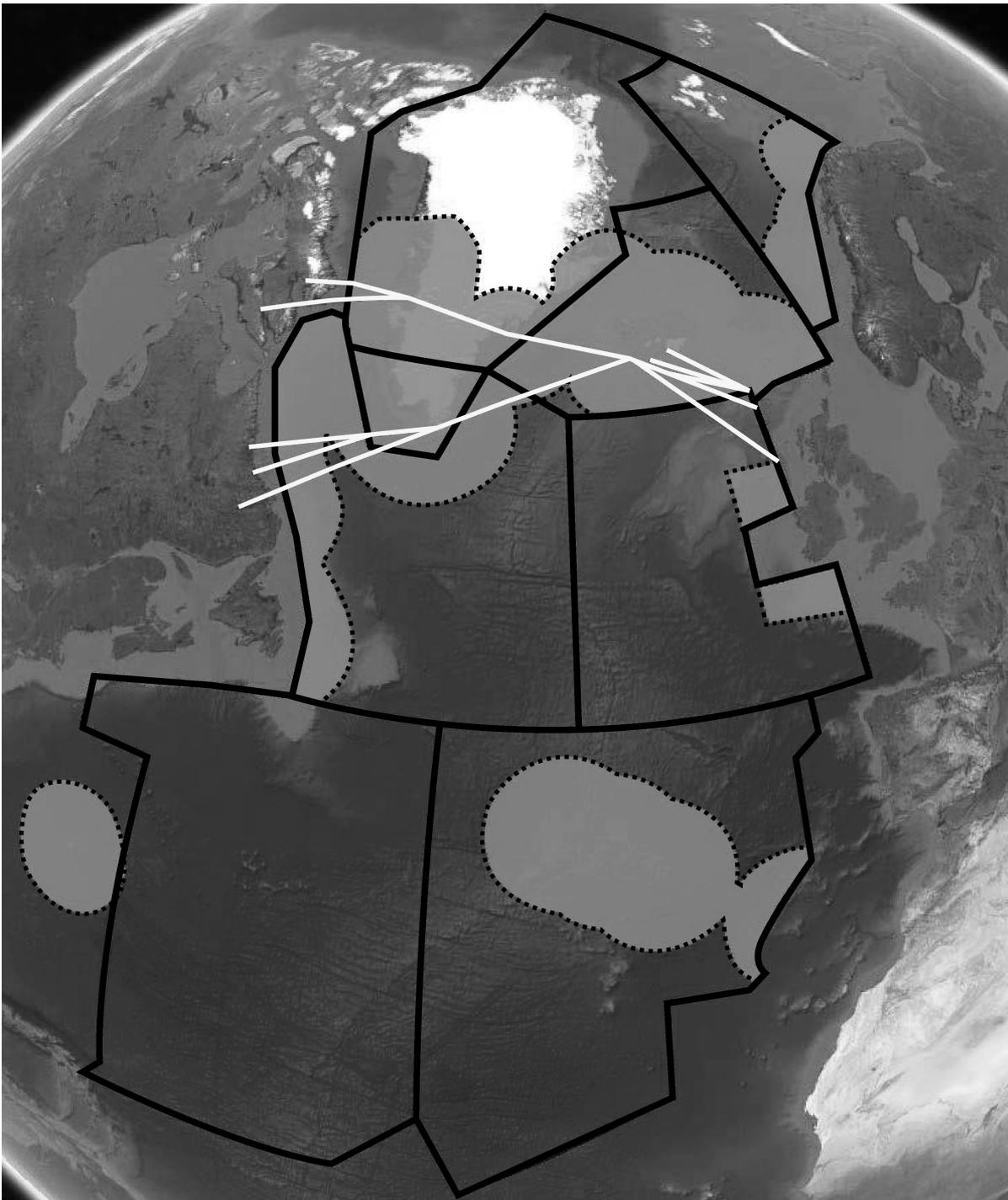
depicted in State Aeronautical Information Publications (AIP), provided that aircraft are suitably equipped with transponder/ADS-B extended squitter transmitter.

- Specific areas as agreed through the NAT SPG and specified below:
  - (i) the implementation of the NAT DLM Phase 2B goes ahead on 7 December 2017 except for non-DLM equipped aircraft that are allowed to operate on:
    - (1) T9 and T213 until solutions to provide ATS surveillance and VHF services (eventually moving T213 to the east in order to be fully covered) are implemented, after which time the NAT DLM would no longer be applicable in this airspace. This implementation will be achieved as early as possible but no later than 30 January 2020; and
    - (2) T13, re-aligned T16 and T25 until 30 January 2020;
  - (ii) there will be no other changes to the applicability of Phase 2B and that the date of implementation of Phase 2C remains on 30 January 2020.

**Note 1:** Whenever an Organised Track infringes Tango Route(s), the North Atlantic Data Link Mandate applies within the level band FL350 to FL390 inclusive, for that portion of the route INFRINGED.

**Note 2:** The aircraft operators using Tango routes within the NAT DLM area of applicability will either complete their fleet upgrades by January 2020 or will not be allowed to operate in that volume of airspace.

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 25 January 2017 is depicted in the chart provided below.



## Figure. 1. ATS surveillance and VHF voice coverage areas-at and above FL 300.

**Note:** The white lines on the map represent the NAT Blue Spruce Routes

Operators will be eligible to flight plan RLatSM tracks provided the flights are:

- (a) RNP4 approved;
- (b) Automated Dependent Surveillance–Contract (ADS-C) equipped; and
- (c) Controller-pilot data link communications (CPDLC) equipped.

The required CNS systems must be operational and flight crews must report any failure or malfunction of global positioning system (GPS), ADS-C, or CPDLC equipment to air traffic control (ATC) as soon as it becomes apparent.

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

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

- (a) 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); and
- (b) 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 which fully corresponds to the requested flight profile).

## 7 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** which 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 which 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.

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

8.1 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.

## 9 Further Information

9.1 For further Information, please contact [icaoournat@paris.icao.int](mailto:icaoournat@paris.icao.int) and consult AIPs of NAT provider-States.

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