AERONAUTICAL INFORMATION CIRCULAR Y 091/2014

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NOTICE OF PLANNED EXPANSION OF MANDATE FOR DATA LINK SERVICES IN THE NORTH ATLANTIC REGION – ATS SURVEILLANCE AIRSPACE UPDATE

1 Introduction

- 1.1 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 FL360 to FL390 (inclusive) during the OTS validity period are required to be fitted with and using CPDLC and ADS-C equipment (see North Atlantic Operations Bulletin 2012-031).
- 1.2 As notified in State letter EUR/NAT 12-0003.TEC (dated 4 January 2012), Phase 2 of the mandate will begin on 5 February 2015.

2 Purpose of Circular

- 2.1 This Aeronautical Information Circular (AIC) outlines the plan for Phase 2 of the North Atlantic Data Link Mandate (NAT 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.
- 2.2 This circular also provides depiction of the ATS Surveillance airspace considered to be exempt from the NAT DLM in the NAT Region from 5 February 2015.

3 Background

- 3.1 As concluded at the Forty-Ninth meeting of the North Atlantic Systems Planning Group (NAT SPG/49), the objectives of the NAT DLM are to enhance communication, surveillance and 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 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 goals are that: by 2018, 90% of aircraft operating in the NAT Region airspace at FL 290 and above will be equipped with 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.

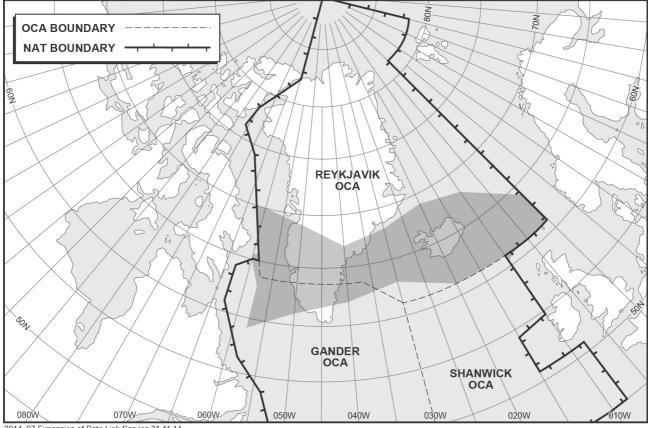
4 Planned Vertical and Horizontal Boundaries for NAT Region DLM Airspace

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

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5 Airspace Not Included in NAT Region DLM Airspace

- (a) Airspace north of 80° North. (Airspace north of 80°N lies outside the reliable service area of geostationary satellites);
- (b) New York Oceanic FIR;
- (c) ATS surveillance airspace (i.e. airspace where surveillance is provided by radar and/or ADS-B), as depicted in State AIPs, provided:
 - the aircraft is suitably equipped (transponder/ADS-B Extended Squitter (ES) transmitter); and
 - the entirety of the flight planned route is contained within ATS surveillance coverage.
- 5.1 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. This chart will be updated in an AIC to be published prior to the 5 February 2015 start date for DLM Phase 2A.



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5.2 Northern boundary: 64N000W - 68N010W - 69N020W - 68N030W - 67N040W - 69N050W - 70N060W - ADSAM. Southern boundary: RATSU (61N000W) - 61N020W - 63N030W - 62N040W - 61N050W - SAVRY.

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).

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7 Operational Policies Applicable To NAT Region DLM Airspace

- (a) Any aircraft not equipped with FANS 1/A (or equivalent) systems may request a continuous climb or descent without intermediate level off through the NAT DLM airspace. Such requests will be considered on a tactical basis;
- (b) ALTRV requests will be considered on a case by case basis (as is done today regarding NAT MNPS airspace), irrespective of the equipage status of the participating aircraft;
- (c) If a flight experiences an equipment failure **PRIOR TO DEPARTURE** which renders the aircraft non-DLM compliant, the flight should flight plan so as to remain clear of NAT Regional DLM Airspace;
- (d) 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;
- (e) 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;
- (f) NAT DLM airspace restrictions are not applicable to aircraft experiencing a contingency situation.

8 European/North Atlantic (EUR/NAT) Interface

Where the NAT interfaces with the EUR Data Link Implementation Rule airspace, procedures have been established by the ANSPs concerned to facilitate the vertical transition of traffic to and from the NAT Region Data Link Mandate 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/UIR boundary bordering the NAT Region Data Link Mandate. For flights exiting the NAT Region Data Link Mandate airspace operators and the ANSPs 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:

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