

AERONAUTICAL INFORMATION CIRCULAR 40/12

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

(Supersedes AIC 24/12)

Introduction

It is widely acknowledged that data link services enhance surveillance and intervention capabilities, and its availability constitutes a crucial component in providing safe, efficient, and sustainable operations, as well as facilitating the future evolution of the air traffic management (ATM) system in the North Atlantic (NAT) region.

As notified in State letter EUR/NAT 12-0003.TEC (dated 04 January 2012), all aircraft intending to conduct flights in the portions of the NAT regional airspace defined below shall be fitted with, and shall operate controller-pilot data link communications (CPDLC) and Automatic Dependent Surveillance-Contract (ADS-C) equipment.

Purpose of Circular

This aeronautical information circular (AIC) outlines the defined airspace for the data link mandate, methods of indicating equipage in flight plan, and details the timelines for implementation.

Background

The CPDLC and ADS-C implementation based on RTCA DO-258A/EUROCAE ED-100A (or ED-100) avionics standards started in the International Civil Aviation Organization (ICAO) NAT region at the end of 1990. Data link service enhances ATM surveillance and intervention capabilities and is seen as instrumental in reducing the collision risk, particularly in the vertical plane, and meeting the NAT target level of safety (TLS). The use of ADS-C vertical and horizontal deviation event contracts to conformance monitor aircraft help towards quickly resolving this significant safety issue.

The use of ADS-C would also greatly facilitate search and rescue operations and location of an aircraft following an accident in oceanic airspace.

In order to achieve the foregoing safety objectives, it is important to increase the level of data link equipage in the NAT. The current level of data link usage in the NAT has reached 45-50% and continues to grow. Introducing a mandatory data link equipment carriage requirement will increase the NAT data link equipage level and help in meeting the NAT TLS.

Area of Applicability

The NAT data link mandate will be implemented incrementally, via two phases.

The first phase will commence 7 February 2013, with all aircraft operating on or at any point along two specified tracks within the NAT organized track system (OTS) from flight level (FL) 360 to FL 390 inclusive required to be fitted with and using CPDLC and ADS-C equipment. The mandate will be in effect during the OTS validity period, and is applicable to those flights that will cross 30° W during the published track times.

The specified tracks will be those for which the predicted loading is in the higher percentage of overall predicted NAT OTS loading on that day and shall be identified in the Remarks section of the NAT OTS message. Non compliant aircraft will not be permitted to join or cross the specified tracks during the NAT OTS validity period. However, continuous climb or descent through the specified levels may be available, subject to traffic.

The specified tracks will be published as part of the NAT OTS message in REMARKS 2.

Example:

REMARKS:

1. TMI IS 108 AND OPERATORS ARE REMINDED TO INCLUDE THE TMI NUMBER AS PART OF THE OCEANIC CLEARANCE READ BACK.
2. ADS-C AND CPDLC MANDATED OTS ARE AS FOLLOWS
TRACK B 360 370 380 390
TRACK D 360 370 380 390
END OF ADS-C AND CPDLC MANDATED OTS

The second phase will commence 5 February 2015 in specified portions of NAT minimum navigation performance specifications (MNPS) airspace. The vertical and lateral dimensions of the airspace will be defined and advertised at a later date.

Flight Planning

Operators intending to conduct flights in the airspace defined above shall be fitted with and shall operate CPDLC and ADS-C. The appropriate equipage to be indicated in Item 10 (equipment and capabilities) of the ICAO flight plan is as follows:

- D1 ADS-C with FANS 1/A capabilities and
 - J2 CPDLC FANS 1/A HFDL and/or
 - J5 CPDLC FANS 1/A SATCOM (INMARSAT) and/or
 - J7 CPDLC FANS 1/A SATCOM (Iridium).

Further Information

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