

Publication Information. The FAA Notice below will be published in the 12 December 2013 edition of FAA Notices To Airmen, Domestic/International. It will be located in Part 3, Section 2 (International Oceanic Airspace Notices). An electronic version of FAA Domestic and International Notices can be found at: http://www.faa.gov/air_traffic/publications/notices

ADVANCE NOTICE: PHASE 2 OF THE NORTH ATLANTIC REGIONAL DATA LINK MANDATE

1. Introduction

- a. **Purpose of This Notice.** This Notice provides advance notice to U.S. operators of the plan for Phase 2 of the North Atlantic Data Link Mandate (NAT DLM) that was adopted at the Forty-ninth meeting of the North Atlantic Systems Planning Group (NAT SPG/49). 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. The Notice provides information on: the expanded vertical and horizontal boundaries of NAT DLM airspace and policies for planning operations into NAT DLM airspace.
- b. **Notice Update Prior to 5 February 2015.** This Notice will be updated in the October 2014 timeframe to provide any additional operational policy and guidance necessary for the 5 February 2015 implementation of NAT DLM Phase 2A.

2. Background

- a. **NAT DLM Phase 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 FANS 1/A (or equivalent) CPDLC and ADS-C equipment.

Note: the “FAA NAT Resource Guide for U.S. Operators” provides information on NAT initiatives and programs. It can be accessed at:

http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs470/media/NAT.pdf

The FAA DLM Phase 1 Notice entitled “**18 October 2012 Update, North Atlantic FANS 1/A Data Link Mandate**” is posted under: COMM/Nav/Surveillance, Data Link Communications, NAT OPS Bulletin 2012-031.

- b. **NAT DLM Objectives.** 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.
- c. **NAT DLM Equipage Goals.** The NAT SPG goals for the expansion of the NAT DLM 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 FL290 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.

3. Planned Vertical and Horizontal Boundaries For NAT Region DLM Airspace

- **Phase 2A commencing 5 February 2015:** FL350 to FL390 (inclusive) all tracks within the NAT Organized Track System (OTS);
- **Phase 2B commencing 7 December 2017:** FL350-FL390 (inclusive) throughout the ICAO NAT Region;
- **Phase 2C commencing 30 January 2020:** FL290 and above throughout the ICAO NAT Region.

4. Airspace NOT INCLUDED in NAT Region DLM Airspace

- **ATS surveillance airspace.** “ATS Surveillance airspace” is defined as airspace where surveillance is provided by radar and/or ADS-B, as depicted in State Aeronautical Information Publications, for aircraft that are suitably equipped (transponder/ADS-B Extended Squitter (ES) transmitter). A preliminary depiction of ATS Surveillance airspace in the NAT Region is provided in the “NAT Regional Data Link Mandate Phase 2 ATS Surveillance Airspace Graphic.” This depiction will be updated in Aeronautical Information Circulars (AIC) to be published by the NAT ANSPs prior to the 5 February 2015 start date for DLM Phase 2A. See paragraph 11 below.
- **Airspace north of 80° North.** (Airspace north of 80°N lies outside the reliable service area of geostationary satellites).
- **The New York Oceanic FIR**

5. Applicability of Policies Posted in Paragraphs 6 and 7 Below. The policies posted in paragraphs 6 and 7 below will be applicable starting on 5 February 2015, when DLM Phase 2A is implemented.

6. Flights Allowed To Flight Plan Into NAT Region Phase 2 DLM Airspace Starting 5 February 2015. The following flights will be permitted to flight plan to enter the NAT DLM airspace:

a. **Equipped Flights.** Flights equipped with and prepared to operate FANS 1/A (or equivalent) CPDLC and ADS-C data link systems.

b. **Specific Categories of Non-equipped Flights.** 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 Phase 2 DLM Airspace Starting 5 February 2015

- **Climb or Descent of Non-equipped Aircraft.** Any aircraft not equipped with FANS 1/A (or equivalent) systems may request to climb or descend through NAT DLM airspace. Such requests will be considered on a tactical basis.
- **Altitude Reservation (ALTRV) Requests.** 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.
- **FANS 1/A (or equivalent) Datalink System Failure Prior to Departure.** 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.
- **FANS 1/A (or equivalent) Datalink System Failure After Departure.** 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.

- **FANS 1/A (or equivalent) Datalink System Failure After Entering NAT DLM 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.
- **Contingency Situations.** NAT DLM airspace restrictions are not applicable to aircraft experiencing a contingency situation.

8. European/North Atlantic (EUR/NAT) Interface.

a. Where the NAT interfaces with the EUR Data Link Implementation Rule airspace, procedures will be 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.

b. The operator and the ANSP shall ensure that the vertical transition is complete prior to crossing any subsequent FIR/UIR boundary.

9. U.S. Operator Requirement For Operational Authorization To Use FANS 1/A (or equivalent) Data Link Systems.

a. U.S operators are required to obtain operational authorization prior to using FANS 1/A data link systems. U.S. FAA guidance on the process and procedures for operational authorization and aircraft data link system approval can be found in the following documents:

- (1) **AC 20-140** (as amended) (Guidelines for Design Approval of Aircraft Data Link Communication Systems Supporting Air Traffic Services (ATS)).

Note: the Inmarsat I3 and Inmarsat I4 Classic Aero sub-networks and Iridium Short Burst Data have been determined to be acceptable for datalink services in the NAT Region.

- (2) **AC 120-70** (as amended) (Operational Authorization Process for Use of Data Link Communication System)

b. These documents are posted on the “FAA NAT Resource Guide For U.S. Operators” under: COMM/Nav/Surveillance, Data Link Communications. See paragraph 2 above for access to the Resource Guide.

c. The U.S. FAA will grant operational authorization for operators to use FANS 1/A data link by issuing an Operational Specifications or Management Specifications paragraph A056 (Data Link Communications), as appropriate, or a part 91 Letter of Authorization A056 (Data Link Communications).

10. Contacts

Name	Organization	Phone	Email
Roy Grimes	Performance Based Flight Systems Branch (AFS-470), Program Support, CSSI, Inc.	202-863-3692	RGrimes@cssiinc.com;
Mark Patterson	AFS-470	202-385-4352	Mark.Patterson@faa.gov;
Madison Walton	AFS-470	202-385-4596	Madison.Walton@faa.gov;

11. Preliminary Depiction of ATS Surveillance Airspace. A preliminary view of ATS Surveillance airspace is depicted in the “NAT Regional DLM Phase 2 ATS Surveillance Airspace Graphic”. ATS Surveillance airspace is located in the lightly shaded areas shown in the graphic from the Canadian coast across to Greenland and Iceland; from the Canary Islands to the Azores, in the vicinity of Bermuda, etc.

(Performance Based Flight Systems Branch, AFS-470, 11/14/13)

NAT Regional Data Link Mandate Phase 2 ATS Surveillance Airspace Graphic

