

## IBAC TECHNICAL REPORT SUMMARY

**Subject: NAT Operations and Air Traffic Management**

**Meeting: North Atlantic (NAT) Procedures and Operations Group Meeting 4**

**Reported by Tom Young**

POG4 took place at the ICAO Paris Office September 25-29, 2017. In attendance were ANSP representatives from the United Kingdom, Canada, United States, Portugal, France, Norway, Iceland and Ireland. Users were represented by IFALPHA, Airbus, IATA and IBAC.

Items of interest ...

### **PBCS**

Within Shanwick and Gander Oceanic Areas reduced lateral separation will expand across all organised tracks at FL350-390. Effective January 4, 2018 until March 29, 2018.

On March 29 2018, Shanwick and Gander will transition from RLatSM and RLongSM to operational implementation of PBCS separations as per the newly amended ICAO provisions; PANS ATM Chapter 5 (5 minute longitudinal, 23NM lateral).

Initially there will be a period called the PBCS Transition Period lasting no more than one year. Airspace user's readiness will be reviewed after six months with the intent of revising transition procedures.

To be eligible for PBCS separations aircraft must flight plan:

- a) RNP4,
- b) ADS-C and CPDLC (J5 or J7) equipped and, where applicable, authorized; and,
- c) Required Communications Performance (P2 - RCP240), and Required Surveillance Performance (SUR/180 - RSP180.)

Gander and Shanwick will apply PBCS separation to targets of opportunity throughout the airspace except for the OTS.

To permit non PBCS certified aircraft to avail of NAT OTS during the PBCS Transition Period, the design of OTS will be limited to three PBCS tracks until the filing of PBCS designators reaches the 90% mark or March 29th of 2019, whichever comes earlier. At that point the OTS design will be adjusted to include as many PBCS tracks as are required to accommodate expected traffic.

The OTS will continue to be designed using whole and half degrees of latitude. Lateral spacing will either be 60NM Gentle Slope, or 23NM (designated as 'PBCS' Tracks),

During the PBCS transition period, only OTS PBCS tracks will contain half degree with a maximum level band associated with DLM airspace (FL350 to FL390). Only operators/aircraft eligible for PBCS separations will be allowed to file or operate on designated PBCS tracks (FL 350 - FL 390 inclusive).

On a tactical basis aircraft not eligible for PBCS separations may be permitted to;

- a) Infringe OTS PBCS tracks at FL350 - FL390 inclusive at only one point (including Oceanic Entry / Exit Point) i.e cross but not join an OTS PBCS track. And;
- b) Climb or descend through PBCS levels provided the climb or descent is continuous.

**Effect on IGA – In order to take advantage of benefits derived through PBCS, aircraft must be equipped.**

## **NAT Operations without Assigned Fixed Speed (OWAFS)**

There is general support to implement some version of a NAT oceanic operation without an assigned fixed speed, It's felt that implementation of OWAFS (vary speed by no more than +/- .02 Mach) would be beneficial to operators, although to apply to every aircraft, all the time, is probably not achievable.

**Because of the typically higher Mach speeds (.86+) for IGA aircraft, there is not only insignificant variable Mach advantages for these aircraft, but in fact not even a FMS variable Mach option for most aircraft. In that regard, IBAC has asked to "not be penalized" and to be removed from any variable Mach option in the NAT.**

## **Proposal to Change Doc 7030 in Reference to receiving Oceanic Clearance on HF**

Procedures to follow when unable to obtain an oceanic clearance using HF communications  
Aircraft experiencing radio communication failure shall maintain their current flight level, route and speed to the Oceanic exit point. Thereafter, it shall follow the radio communication failure procedure applicable for that airspace.

**Note;** In this context, the current flight level is the last cleared level unless the preceding units' radio communication failure procedure dictates otherwise. In all cases, aircraft should stay in level flight in the oceanic area. Current speed should be the initial oceanic Mach number in the flight plan, if the aircraft does not have a speed clearance.

**Effect on IGA** – Watch for updates to 7030. Some areas of the NAT still deliver Oceanic Clearances via HF

## **FREE ROUTE CONCEPT**

This means that the basic idea behind Free Route is to have a specific section of airspace in which users may freely plan a route between a defined entry point and a defined exit point, but it also means that this comes second when it comes to safety and efficiency. To improve the ability of operators to flight plan more freely in the busy NAT, it was proposed that paragraph 41.2 NAT DOC 007

"4.1.2 All flights which generally route in an eastbound or westbound direction should normally be flight planned so that specified ten degrees of longitude (20°W, 30°W, 40°W etc.) are crossed at whole or half degrees of latitude; and all generally northbound or southbound flights should normally be flight planned so that specified parallels of latitude spaced at five degree intervals (65°N, 60°N, 55°N etc.) are crossed at whole degrees of longitude. Exceptions apply in the case of flights routing north of 70°N, these are noted below.

**Effect on IGA** - The ability to flight plan a combination of whole or half degrees on eastbound or westbound flights in specific areas makes filing a more direct or cost efficient route possible. ANSP automation systems are now capable of accepting routes filed in 5 degrees,

## NAT DLM

On 7 December 2017, DLM Airspace will be expanded to flight level 350-390 (inclusive) throughout the ICAO NAT region

In order to clarify where aircraft not meeting the DLM may fly unrestricted, a proposed revisions to the NAT DLM AIC Bulletin was presented.

*“Air traffic services (ATS) surveillance airspace, i.e. a Airspace where an ATS surveillance service is provided by means of radar, multilateration and/or ADS-B, and coupled with VHF voice communications services are available, as depicted in State Aeronautical Information Publications (AIP), provided that the aircraft are is suitably equipped with transponder/ADS-B extended squitter transmitter*

### **NAT DLM Phase 2C ceiling issue.**

DLM Phase 2C commences 30 January 2020 and will apply from FL 290 and above (no ceiling) throughout the ICAO NAT Region.

In the NAT DLM Bulletin, it was stated that aircraft not equipped with FANS 1/A (or equivalent) may request a climb or descend through the DLM airspace. This was applicable during Phases 2A and 2B but has the potential to provide misunderstanding once Phase 2C commences.

To prevent future misunderstandings on the applicability of the ceiling of the NAT DLM airspace, POG 4 agreed with the following draft changes to the language of the NAT DLM Bulletin:

### ***“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. This provision will not be applicable after commencement of Phase 2C. “*

However, the Group also noted information about some typically military aircraft that would normally operate above NAT HLA upper limit. It was noted that the NAT DLM provisions would not apply to these military aircraft since they are considered as State aircraft.

**Effect on IGA** – The DLM will eventually include all the NAT airspace at FL290 and above. In order to use this airspace all aircraft will be required to be equipped..