Reduced Lateral Separation – RLATSM, Airline Briefing

This guidance brief highlights the key aspects and details appropriate official publications supporting RLatSM implementation.

NATS has also produced a video based training brief on RLatSM implementation specifically for airlines

http://www.nats.aero/RLat/

Introduction

On 12 November 2015 Reduced Lateral Separation Phase 1 will commence in the Gander and Shanwick oceanic control areas. Track spacing is currently one degree of latitude, which equates nominally to 60nm. The proposed change will reduce lateral separation for eligible aircraft to 25nm, which will be implemented by establishing tracks that are spaced by one-half degree of latitude.

RLATSM will be implemented using phased approach between FL350 to FL390 inclusive (co-incident with NAT Region Datalink Mandate), the first of which will introduce one-half degree spacing between two core tracks of the NAT-Organised Track System (OTS). The second phase will be implemented approximately 1 year later, and will introduce one-half degree spacing between all tracks of the NAT-OTS from FL350 to FL390 inclusive.

RLATSM tracks will be identified in the NAT Track Message in Note 3.

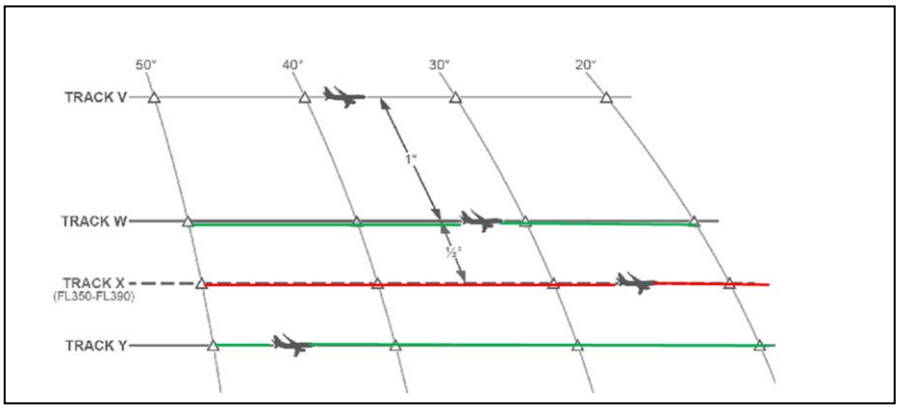

Fig-1: Phase 1 RLatSM tracks. Note Track X will have one-half degree coordinates.

Eligibility

Operators will be eligible to flight plan and operate on RLATSM tracks provided flights are

- Required navigation performance (RNP) 4 approved
- Automated Dependent Surveillance-Contract (ADS-C) equipped and
- Controller-pilot data link communications (CPDLC) equipped

The required Communications/Navigation/Surveillance (CNS) systems must be operational and flight crews must report any failure or malfunction of global position system (GPS), ADS-C, or CPDLC equipment to Air Traffic Control (ATC) as soon as it becomes apparent.

Participation

All aircraft operating on the three published tracks will be subject to the trial, other published OTS flight levels are not part of the RLATSM trial. There are no additional crew requirements associated with trial participation.

Equipment and flight plans

It is important that before entering the NAT, the flight crew should ensure that the aircraft is logged on for data link capability (J5, J7, D1) filed in the flight plan 30 minutes prior to entering the Shanwick, as per NAT Region Datalink Mandate. Failure to be logged on prior to entry is likely to result in a revised

oceanic clearance being issued. Crews are not required to manually logon to next agency if they are already logged on to an adjacent ANSP, as the logon will be forwarded automatically by the ATC systems.

See Global Operational Datalink Document (GOLD) which provides guidance to flight crews on datalink operations and service failures.

Waypoints and navigation errors

Track spacing for RLatSM may involve the use of waypoints consisting of half-degree coordinates. Existing cockpit map display limitations result in truncation of waypoints consisting of latitude/longitude to a maximum of seven characters; minutes of latitude are not displayed.

To mitigate the possibility of gross navigation errors resulting from incorrect waypoint insertion, it is imperative that established cockpit procedures are followed whereby each pilot independently displays and verifies the degrees and minutes loaded into the FMC for each oceanic waypoint defining the cleared route of the flight. See **UK AIC 059 & 062_2015**.

Flight crews are further advised that, should they be notified that ATC systems indicate the aircraft is not flying the cleared route, they should immediately display the **full degrees and minutes loaded in to the FMC** for the NEXT and NEXT+1 waypoints, and verify against the cleared route before responding. As a precaution against possible waypoint insertion errors, rerouting of flights onto RLatSM identified tracks containing one-half degree coordinates will only be permitted via CPDLC.

ATC Notifications of possible track deviation

- Voice message example: 'SHANWICK CONFIRMS YORU POSITION REPORT INDICATES INCORRECT ROUTING. CHECK FULL DEGREES AND MINUTES LOADED INTO FMC. YOUR CLEARED ROUTE IS [route]'

- CPDLC message example: 'YOUR POSITION REPORT INDICATES INCORRECT ROUTING. CHECK FULL DEGREES AND MINUTES LOADED INTO FMC. YOUR CLEARED ROUTE IS [route]'

ATC systems and procedures

In support of RLatSM, ATC systems and procedures are being implemented such that flights entering from a domestic agency will be checked to ensure flight has logged on and established ADS-C contracts and CPDLC connection prior to entry. ATC will be alerted when flights fail to meet the criteria, which is likely to result in a revised clearance being issue to the crew prior to entry. Additional conformance monitoring will take place utilising both ADS-C and CPDLC. ATC will transmit 'confirm assigned route' (UM137) CPDLC messages shortly after oceanic entry, this requires the crew to select the enabled response button, which will instruct the avionics to downlink the active route loaded into the FMC for the ATC system to interrogate. It is important that crews understand that the RLatSM separation relies on frequent position report updates provided by ADS-C contracts. Should there be any loss of datalink capability, the controller will be alerted and alternative clearances may be issued depending on the traffic situation at the time.

References – must be used as primary official publication of information

UK AIC 062/2015 – Provides detailed information on the trial of 25nm lateral separation minimum in the North Atlantic Region.

NAT OPS BULLETIN 2015_003 – Detailed information and references to existing procedures relevant to RLatSM operations.

UK AIC 059/2015 – Recommended Use of ARINC-424 Identifiers for Half-Degree Waypoints in the Shanwick Oceanic Control Area.

Global Operational Datalink Document – Provides detailed guidance on datalink operations, which can be found at www.icao.int/EURNAT