

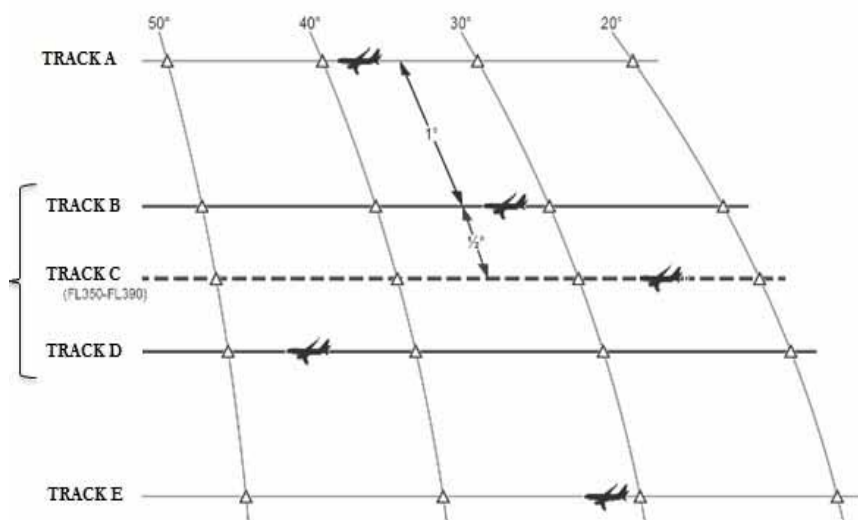
Subject: Reduced Lateral Separation Minimum (RLatSM) Half-Degree Tracks in the North Atlantic

Background

On or soon after 12 November 2015, Phase 1 of the Reduced Lateral Separation Minimum (RLatSM) trial is planned to start in the Gander and Shanwick oceanic control areas (OCA). During Phase 1, a half-degree track will be established on the organized track system (OTS) between the two core tracks at FL350-FL390 inclusive. This initiative will increase capacity at optimal flight levels. Phase 2 will begin in 2016 and expand the use of half-degree tracks throughout the entire OTS.

Overview

During Phase 1, the half-degree track and the two whole tracks on either side at FL350-FL390 are considered RLatSM tracks that require FANS (CPDLC/ADS-C) and RNP 4 capability.



The arrows in the example below highlight the RLatSM tracks. The RLatSM tracks and applicable altitudes (FL350-FL390) are identified in the REMARKS. All waypoints on a half-degree track will be half-degrees (see Track C below). Half-degree tracks exist only at FL350-FL390. On a whole-degree track next to a half-degree track, RLatSM exist only at FL350-FL390. All other altitudes are available and not considered RLatSM.

FF CYZZWNAT 102151 EGGXZOXZ (NAT-1/3 TRACKS FLS 310/390 INCLUSIVE FEB 11/1130Z TO FEB 11/1900Z PART ONE OF THREE PARTS- A PIKIL 57/20 58/30 59/40 58/50 DORYY EAST LVLS NIL WEST LVLS 310 320 33 340 350 360 370 380 390 EUR RTS WEST NIL NAR NIL- B RESNO 56/20 57/30 58/40 57/50 HOIST EAST LVLS NIL WEST LVLS 310 320 330 340 350 360 370 380 390 EUR RTS WEST NIL NAR NIL- C VENER 5530/20 5630/30 5730/40 5630/50 IRLOK EAST LVLS NIL WEST LVLS 350 360 370 380 390 EUR RTS WEST NIL NAR NIL- END OF PART ONE OF THREE PARTS) FF CYZZWNAT 102151 EGGXZOXZ (NAT-2/3 TRACKS FLS 310/390 INCLUSIVE FEB 11/1130Z TO FEB 11/1900Z PART TWO OF THREE PARTS- D DOGAL 55/20 56/30 57/40 56/50 JANJO EAST LVLS NIL WEST LVLS 310 320 330 340 350 360 370 380 390 EUR RTS WEST NIL NAR NIL-	E MALOT 54/20 55/30 56/40 55/50 LOMSI EAST LVLS NIL WEST LVLS 310 320 330 340 350 360 370 380 390 EUR RTS WEST NIL NAR NIL- END OF PART TWO OF THREE PARTS) FF CYZZWNAT 102152 EGGXZOXZ (NAT-3/3 TRACKS FLS 310/390 INCLUSIVE FEB11/1130Z TO FEB 11/1900Z PART THREE OF THREE PARTS- REMARKS 1. TMI IS 042 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 A 350 360 370 380 390 TRACK B 350 360 370 380 390 TRACK C 350 360 370 380 390 TRACK D 350 360 370 380 390 TRACK E 350 360 370 380 390 END OF ADS-C AND CPDLC MANDATED OTS 3. RLATSM OTS LEVELS 350-390. RLATSM TRACKS AS FOLLOWS TRACK B TRACK C TRACK D END OF RLATSM OTS...
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Requirements to Operate on an RLatSM Track

- FANS functionality (CPDLC and ADS-C)
- RNP 4

Procedures

Flight Crew

NAT Track procedures remain unchanged with emphasis on the following:

- Current published Waypoint Verification Procedures (PF and PM) must be accomplished to verify the full Lat/Long coordinates of the un-named oceanic waypoints;
 - During preflight
 - After receipt of oceanic clearance
 - Approaching each oceanic waypoint
- A CPDLC/ADS-C log on must be established NLT 20 minutes prior to oceanic entry. ATC will reroute any aircraft trying to enter an RLatSM track that has not established a CPDLC/ADS-C log on. All of Canada has CPDLC. Eastbound crews should log on entering Canada. Likewise, Maastricht, London, Scottish, and Shannon have CPDLC. Crews should log on to allow for auto transfers to either Gander or Shanwick Oceanic. If the auto transfer fails, log on manually.
- SLOP procedures remain in effect (centerline, 1nm, or 2nm right of course).
- The aircraft cannot be re-routed from a whole-degree track to a half-degree track unless a CPDLC route clearance uplink is used.

Air Traffic Control

- Gander and Shanwick will use the CPDLC uplink CONFIRM ASSIGNED ROUTE after sending the Welcome Message. A proper response to this uplink message allows ATC to “see” if the FMS routing agrees with the oceanic clearance. Do not use FREE TEXT.
- If ATC notifies the crew that the aircraft has indicated it is not flying the cleared route (CPDLC message stating; YOUR POSITION REPORT INDICATES INCORRECT ROUTING. CHECK FULL DEGREES AND MINUTES LOADED INTO FMC. YOUR CLEARED ROUTE IS); the PF shall immediately display the full DEGREES and MINUTES loaded into the FMC for the NEXT and NTEXT +1 waypoint, and verify against the cleared route.
- CPDLC route clearance uplink CLEARED TO [position] VIA ROUTE CLEARANCE will be functional for use if necessary.

It is important to know that this is an ATC clearance. The LOAD prompt should be selected to load the clearance into the FMS. If there are no scratchpad messages indicating a corrupt load (PARTIAL CLEARANCE LOADED or UNABLE TO LOAD), select ACCEPT and EXE.

This uplink can be used to change the entire track and will create a route discontinuity at track exit. Leave the discontinuity in and verify domestic routing with ATC when in VHF contact. Weather data (winds and temp) for the oceanic portion of the route will be deleted. Coordination with Flight Control will be required to ensure FPS is properly updated and wx data uplinked.

Contingencies

Track Divert

Contingency procedures in an RLatSM environment are unchanged. It is important to recognize the potential of being within 30nm or less of adjacent traffic. If deviating off a track and able to maintain altitude, offset 500' when 10nm offset, establish a 15nm offset and obtain a clearance.

Equipment Failure or RNAV degradation (CPDLC/ADS-C or RNP 4)

Notify ATC and Flight Control

- Prior to dispatch, obtain a re-route off an RLatSM track
- Prior to track entry, expect to be re-routed off an RLatSM track
- Established on an RLatSM track, expect to remain on track

Note: SATCOM LOST or an ACARS NO COMM message that doesn't clear after a few minutes will render CPDLC and ADS-C inoperative.

FMS Data Base

Jeppesen has published half-degree waypoints in an "H" format (H5040 is N5030.0 W04000.0). This waypoint convention will be in the left column of the flight plan and can be used on the FIX Page. All FMS route and legs page programming should be in a Full Lat/Long format.

North Atlantic Orientation Charts

The North Atlantic Orientation Charts are being revised to depict the new half-degree waypoints for oceanic entry and exit fixes. In the event the waypoint is not depicted, use normal plotting procedures to annotate the waypoint on the orientation chart.

Summary

- No special clearance procedures
- Clearance is issued according to the equipment on the flight plan
- If not logged on to CPDLC 20 minutes prior to ocean entry, expect to be re-routed
- RLatSM half-degree tracks only exist at FL350-FL390
- The adjacent whole degree tracks to either side at FL350-FL390 are RLatSM. All other altitudes on these tracks are available for use and are not RLatSM
- No change to track contingencies
- No change to SLOP
- RLatSM applies to Gander and Shanwick airspace only

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