SUBJECT: NAT TRACK STRUCTURE
VALID DATE: 12 NOV 2015

Situation/Event

On 12 NOV 15 significant changes will occur to the design and structure of North Atlantic Tracks (NAT OTS), which have existed in their current lateral structure since the OTS introduction in 1965.

The key changes are: a reduction in separation to 'half-track' compared to the existing structure, introduction of 24 new Oceanic Entry Points (OEP’s), and some procedural changes. These will affect all operators on the North Atlantic.

Airspace Affected

Shanwick and Gander OCA’s, and adjoining domestic airspace.

Guidance

The aim of this notice is to provide plain language summary to Aircraft Operators in the form of a summary of the changes occurring in the NAT Region on 12 NOV 15.

12 November 2015 Changes

- Officially designated as a ‘Trial’ – but RLAT Tracks are available to all operators meeting the existing airspace requirements and the RLAT Com/Nav/Surv requirements below – no need for application to any authority
- Each day, for both east and westbound tracks, a new “RLAT Track” will be inserted at half latitudes between two of the core tracks
- The RLAT Track will have half-degree latitude separation with the two tracks beside it, in other words, it will be spaced 30nm from the tracks to the north and south of it
- This has the effect of making three “RLAT” or “RlatSM” tracks (Reduced Lateral Separation Minima)
- A series of new Oceanic Entry Points (OEP’s) are introduced
- The North American Route (NAR) structure is amended to match the new OEP’s

RLAT Track Design

- RLAT Tracks will ‘sit into’ the existing track structure
- RLAT Tracks are FL350 to FL390 only
- Phase 2 of the Trial will extend the RLAT minima to all tracks between FL350-FL390, estimated implementation date May 2016.

History

1956 Selcal introduced on HF
1961 First occasional use of NAT Tracks
1965 First publication of daily NAT Tracks
1966 Consolidation of Shannon and Prestwick centres to create ‘Shanwick’
1977 MNPS Introduced
1981 Longitudinal separation reduced to 10 minutes
1996 GPS approved for navigation on NAT; OMEGA withdrawn
1997 RVSM introduced on the NAT
2006 CPDLC overtakes HF as primary comms method
2011 Longitudinal separation reduced to 5 minutes
2015 RLAT introduced
Aircraft requirements

Since the RLAT Tracks will always be within MNPS airspace, operators must meet the existing basic MNPS requirements, and the additional RLAT requirements.

Existing requirements
- HF
- MNPS (2x LRNS, Aircrew MNPS approved)

To use RLAT Tracks
- Comms: CPDLC
- Nav: RNP4
- Surveillance: ADS-C

Pilot requirements

Logon to OCA Datalink 20 minutes prior OCA boundary unless already logged on to adjacent ACC. The logon is required so that ATC can send a check message for the next waypoints. Failure to Logon means RLAT clearance will be cancelled.

There are no changes to the in flight contingency procedures and weather deviation procedures as detailed in PANS ATM Doc444 Para15.2 & 15.2.3.

SLOP procedures are also unchanged.

Flight Planning

Field 10a – Satcom capability J5 for Inmarsat, J7 for Iridium
Field 10b – Surveillance capability D1 for ADS-C
Field 18 – RNP4 (PBN/L1)
Track message

From 12NOV15 the format of the NAT Track message will change slightly. Item 3 in the notes will list the letters of the RLAT Tracks. An example of the format is below:

```
FF CQXZQZX
112038 EGGXZQZX
(NAT-1/3 TRACKS FLS 310/390 INCLUSIVE
NOV 12/1130Z TO NOV 12/1900Z
PART ONE OF THREE PARTS-
A PIXIL 57/20 58/30 59/40 58/50 DORYY
EAST LVLS NIL
WEST LVLS 310 320 330 340 350 360 370 380 390
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)
...
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REMARKS:
1. TMI IS 242 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...

Potential for Error

In the aircraft FMS, and map display, the current common waypoint format is 5230N for position 52N030W (as prescribed by ARINC 424).

To show position 5230N030W – ARINC 424 offers a format N5230. The potential for confusion is clear.

ICAO, in NAT Ops Bulletin 3/15, have recommended that operators use the format H5230, if a five-letter FMS format waypoint is required. In addition pilots are recommended to cross check any waypoints that don’t have a ‘name’.

Aircraft Plotting Chart

To assist operators with the new airspace structure, Flight Service Bureau has published an updated Aircraft Plotting Chart for the North Atlantic effective 12NOV15. To obtain a free copy send an email to intl.desk@fsbureau.org.
New Oceanic Entry Points

Gander OCA/Gander Domestic Boundary:
LIBOR, NIFTY, RADUN, TOXIT, VESMI, BOKTO, ENNSO, IRLOK, KODIK, MELDI, PELTU, SAXAN, UMESI, BUDAR, IBERG, MUSAK, OMSAT, RELIC.

Additional new waypoints for NAR Design: MUSLO, SINGA, UDMAR, ALSOP, DUBVI

Scottish/Shanwick Boundary
OEP’s in bold, landfall fix in brackets:

60.5N LUSEN (ELCOG)
59.5N ORTAV (ODPEX)
58.5N ADDODO (AMTAP)
57.5N ETILO (EVNAL)

Brest Oceanic Transition Area

47.5N UMLER (UMOXA)
46.5N BUNAV (TIVLU)

Reference Material

- ICAO NAT Ops Bulletin 3 of 2015
  RLAT Special Emphasis Items
- UK AIC No 65 of 2015
  Introduction of RLAT Trial
- NATS RLAT FAQs
- Canada AIC 25/2015
  RLAT Airspace Changes
- Canada AIC 26/2015
  RLAT Trial

For ease of reference, we have combined these source documents into one PDF available at:


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