

New CPDLC procedure on the NAT

David Mumford
23 May, 2018



There'll soon be a new CPDLC procedure on the NAT, designed to prevent pilots from acting on any old CPDLC messages that might have been delayed in the network.

ICAO have published a new Bulletin for all the NAT Air Navigation Service Providers (ANSP's) to use as a basis for implementing this new procedure. They recommend that all aircraft should receive a message immediately after they enter each control area telling them to "SET MAX UPLINK DELAY VALUE" to a certain number of seconds. The idea is that this will prompt the pilot to enter the specified latency value into the aircraft avionics, so that it will ignore/reject any old CPDLC messages.

So far, only Iceland's BIRD/Reykjavik FIR have implemented this procedure, effective May 24. All other sectors of NAT airspace (Gander, Shanwick, Bodo, Santa Maria, New York Oceanic) are busy writing their own AIC's and will implement later in the year.

So when entering the BIRD/Reykjavik FIR, expect to receive a CPDLC message from ATC instructing you to "SET MAX UPLINK DELAY VALUE TO 300 SECONDS". A copy of their AIC with more guidance can be found [here](#).

The latency monitor function varies from one aircraft type to another: some just automatically reject old CPDLC messages, some will display a warning to the pilot that the message has been delayed, some have deficient equipment, and some do not have the message latency monitor function implemented at all.

Because of this, ICAO note that "*it is impossible for ATC to tailor the uplink of the message... to different aircraft types. It has therefore been decided among the NAT Air Navigation Service Providers (ANSPs) to uplink this message to all CPDLC connected aircraft immediately after they enter each control area. An aircraft may therefore receive this message multiple times during a flight.*"

So here's the lowdown on what you need to do:

1. Work out in advance what kind of message latency monitor function your aircraft has, and what it is designed to do when it receives the CPDLC message "SET MAX UPLINK TIMER VALUE

TO XXX SECONDS".

2. When you receive this message, respond with the voice message "ACCEPT" or "ROGER". If your aircraft has a functioning message latency monitor, punch in the specified number of seconds. If you don't have functioning equipment, respond with the free text message "TIMER NOT AVAILABLE".

3. If anything goes wrong, revert to voice comms.

Back in November 2017, we reported on an equipment issue with Iridium satcom that prompted a ban by a number of Oceanic ATC agencies. Some aircraft were receiving massively delayed clearances sent by ATC via CPDLC - and one took the instruction and climbed 1000 feet, even though the message was meant for the flight the aircraft operated previously.

Although the bans were dropped after Iridium fixed the problem at ground level (by ensuring the system no longer queued CPDLC uplinks for more than five minutes), this new CPDLC procedure on the NAT should ensure this kind of situation doesn't happen again. It's officially being brought in as one of the safety requirements for the roll-out of reduced lateral and longitudinal separation minima across the NAT, which is predicated on Performance Based Communication and Surveillance (PBCS) specifications - that means having CPDLC capable of RCP240 (4 minute comms loop), and ADS-C capable of RSP180 (3 minute position reporting).

Further reading:

- ICAO NAT Bulletin 2018_002: CPDLC Uplink Message Latency Monitor
- Iceland's AIC on the new CPDLC procedure for the BIRD/Reykjavik FIR
- The latest PBCS rumours and facts
- The latest NAT changes, including EGGX/Shanwick, CZQX/Gander, BIRD/Iceland, ENOB/Bodo, LPPO/Santa Maria, and KZWY/New York Oceanic East.
- IRIDIUM satcom fault fixed

2018 Edition: New NAT Doc 007 2018 - North Atlantic Airspace and Operations Manual

Declan Selleck
23 May, 2018



European and North
Atlantic Office

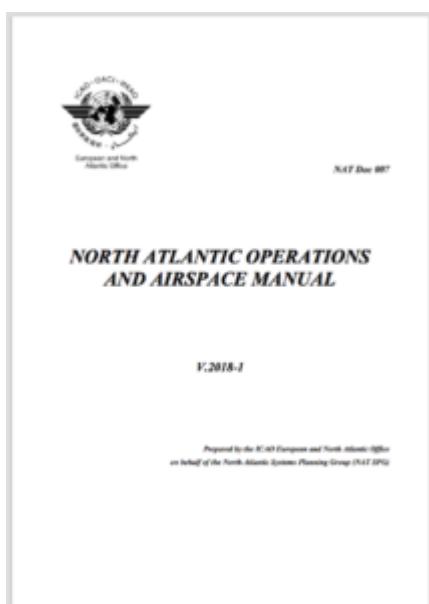
NAT Doc 007

NORTH ATLANTIC OPERATIONS AND AIRSPACE MANUAL

For the **latest changes and updates on the North Atlantic**, including our most recent **Guides and Charts**, use our NAT reference page at flightservicebureau.org/NAT.

2018 version - NAT Doc 007

The **2018 version of NAT Doc 007**, North Atlantic Airspace and Operations Manual, was published in January 2018 by ICAO/NAT SPG.



Download the original document here (PDF, 5mB), and see also:

- The North Atlantic page with a **summary of the changes** so far in 2018
- The FSB/OPSGROUP **NAT Ops Guide** - “**My First North Atlantic Flight is tomorrow**”

2018 is off to a flying start again with NAT changes – these are the latest important changes. These are also published in the latest edition of NAT Doc 007, January 2018.

- **PBCS** From March 29th 2018, PBCS is a requirement for the NAT Tracks between FL350-390 – RCP240 and RSP180. Read more about **PBCS in our article**.
- **RLAT** From January 4th 2018, Shanwick and Gander increase the number of RLAT tracks – most tracks between FL350-390 will now be RLAT – 25nm separation between them.

And there will be more! Keep an eye on the **FSB NAT Changes** page, we'll keep it updated.



In the fewest number of words possible we will tell you what you need to know about crossing the North Atlantic.

If you have a couple of days to spare, then read the official ICAO North Atlantic Operations and Airspace Manual (NAT Doc 007). Otherwise, pay attention and you'll be an expert in 15 minutes.

So, what's different about the North Atlantic?

Buster than Best Buy on Black Friday.

There is a ton more in the NAT. So, ATC communicates most of it using "NAT Threaded" – it means for there to keep everyone apart. That doesn't mean it's easier for you.

The rules keep changing.

As soon as you think you've got things figured out, the rules will change. So we'll start with "What Changed" ... need on.

There's a lot of water.

And not many airports. So it pays to know which ones are suitable, and closest.

Shanwick Shanwick

When you talk to "Shanwick Shanwick" it means you're not talking to the ATC. So, when something major happens, know how to get off track safely without a clearance.

Acronym leaves

HLA, RLAT, CPDLC, RNP, NAT-OTS, TMI, MNPS, OCA, CEP, BLOP. Know 10 out of 10? Good. There's more.

"It's complicated"

Normally, you can take off, read the paper, do what ATC says, and land again. Easy. On the NAT, things are a good deal more challenging. [Read on...](#)

Feb 2nd, 2018: FSB updated the full NAT Crossing Guide **"My first**

North Atlantic Flight is tomorrow".

- What's different about the NAT, changes in 2018, 2017, 2016, 2015, NAT Quick Map
- Routine Flight Example #1 – Brussels to JFK (up at 5.45am)
- Non Routine-Flights: No RVSM, No RNP4, No HF, 1 LRNS, No HLA, No ETOPS, No TCAS, No Datalink – what you can do and where you can go

Take a look.



AIRCRAFT PLOTTING CHART NORTH ATLANTIC

Flight Service Bureau®
www.fsbureau.org

NOTICE TO USERS OF THIS CHART: You are kindly requested to inform us of any errors or omissions you may find in your operation while using this chart. No warranty is made as to the accuracy of information contained herein - check official sources before using for navigation. Corrections should be notified to charts@fsbureau.org.

North Atlantic Plotting Chart

\$19.00 \$25.00

Hi-Res North Atlantic Plotting/Planning Chart in PDF format showing North Atlantic Oceanic Airspace, Shanwick, Gander, Reykjavik, New York, Santa Maria, and adjoining domestic airspace, with Airspace entry requirements, FPL codes, Airport data and pricing.
Current chart: Effective 2016

[ADD TO CART](#)