NAT FAQ: No HLA approval – Where can we go?

Mark Zee
23 March, 2024

No HLA Approval – Where can we go?

- **You can** make a crossing at FL280 or below, or FL430 or above
- **You can** enter the NAT region outside HLA airspace
- **You might** get special ATC approval to enter, or to climb/descend through it

The North Atlantic (NAT) High Level Airpsace (HLA) is the busiest Oceanic airspace in the world. Special approval is needed to fly in it. The NAT HLA extends from **FL285-FL420**, and takes in 6 different

Oceanic Control Areas's (OCA's): Reykjavik, Shanwick (excluding SOTA & BOTA), Gander, Santa Maria, Bodo, and NY Oceanic East north of 27N.

HLA approval is issued by your country of registry, or the country of your operator.

Without NAT HLA approval, you can make a crossing at these altitudes:

- **FL280 or below**
- **FL430 or above** – but you should be familiar with NAT HLA procedures in case of drift-down, especially if above the NAT Tracks

ATC may approve you to (briefly) enter the HLA in some cases: if you are under radar control (or other surveillance), have VHF contact, and can navigate appropriately [NAT Doc 007, 1.5.1]

You can also get ATC approval to climb/descend through HLA airspace [1.5.2].

This didn't answer your question?

Comment below. Sadly (for us), we enjoy digging into this stuff. So, post your question below and we'll update this page with the answer (probably quite quickly!)

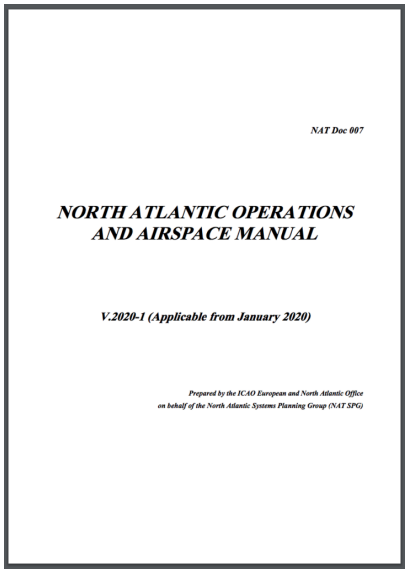
Useful links for more on this ...

- NAT Timeline – new rules, year by year
- NAT Datalink – current rules
- NAT Doc 007 (ICAO)

2020 Edition: New NAT Doc 007 – North Atlantic Airspace and Operations Manual

David Mumford
23 March, 2024

July 2020

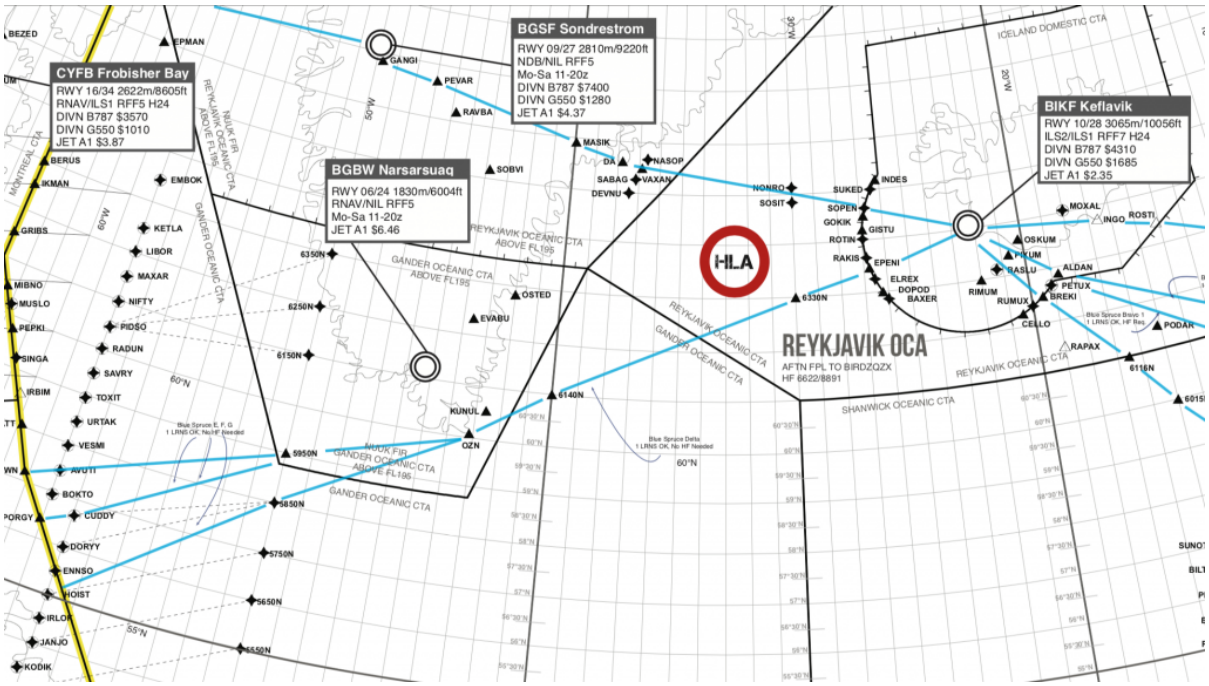


ICAO have published a **new NAT Doc 007** too. Download it here!

The only changes in this edition are to do with the rules and guidance relating to the Datalink Mandate.

Despite the expanded mandate, there are still some places where you won't need datalink:

- **Everything north of 80° North**
- **New York Oceanic East FIR**
- **ATS Surveillance airspace** These are areas where surveillance is provided either by: Radar, VHF, or ADS-B – which is basically the airspace over Iceland, the southern half of Greenland, and a big fish shape of airspace over the Azores (see image below)
- **Tango Routes** T9 and new route T290 that was also introduced today (the other Tango routes T213, T13, and T16, will all require datalink).



To figure out where you are welcome on the NAT, depending on what equipment and training you have, **check out our NAT guides and charts** here.

Your top three PBCS questions answered

David Mumford
23 March, 2024

PBCS has been an ongoing PITA for some time now. We **wrote about it back in March**. Here are the top three questions we've had on it since then – and now we finally have some answers!

Question 1: What happens if I still haven't received my updated A056 LOA?

After the PBCS tracks were introduced in March 2018, **the FAA published a Notice** requiring all N-reg operators to update their A056 LOA authorization – regardless of whether or not they intended to fly these PBCS tracks. For private (Part 91) operators, the deadline to submit the application was 30th September 2018.

There was a barrage of applications, and the FAA still seem to have a bit of a backlog, as even now some operators have still not received their updated approvals.

The FAA's unofficial policy is that as long as you have applied for a revised LOA, you can continue to use your old authorization after September 30th, while you wait for the new one to be issued.

Bottom line: This means you are allowed to keep flying in the **North Atlantic**, just not on the PBCS tracks.

Question 2: What about that problem with aircraft with Honeywell systems installed?

Back in March, a latency timer issue with certain Honeywell FMS systems meant that there were bunch of aircraft which weren't able to get the PBCS approval.

In June, Honeywell issued a service bulletin fix for the issue, available at varying times for different aircraft. Since then, the FAA has been issuing the updated A056 LOA approvals to those aircraft with the Honeywell systems that reflect the new capabilities but the still don't meet the PBCS requirement of RCP240 due to the latency timer issue.

Bottom line: Now those affected aircraft are able to receive the updated A056 LOA approvals, just with a PBCS restriction – meaning they can continue to operate in the North Atlantic, just not on the PBCS tracks.

Question 3: What the heck is PBCS anyway?

PBCS stands for 'performance-based communication and surveillance'.

PBCS involves globally coordinated and accepted standards for Required Communication Performance (RCP) and Required Surveillance Performance (RSP), with the goal being to allow the application of reduced lateral and longitudinal separation to aircraft which meet the criteria.

To be PBCS compliant, you basically need CPDLC capable of RCP240 and ADS-C capable of RSP180; this effectively means having a 4 minute comms loop, and 3 minute position reporting.

PBCS has been implemented in various different chunks of airspace around the world, but most notably in the North Atlantic, where the three core daily NAT Tracks are assigned as PBCS tracks between FL350-390. To fly those, you will need to be PBCS compliant (read above) but also have RNP4 (the rest of the NAT only requires RNP10).

Feeling queasy? That's okay, reading about PBCS makes us feel that way too. If you're still hungry for more though, check out our recent **article on all things PBCS!**

More questions? **Get in touch!**

My first North Atlantic Flight is tomorrow – NAT Ops Guide (Updated 2018)

Declan Selleck
23 March, 2024

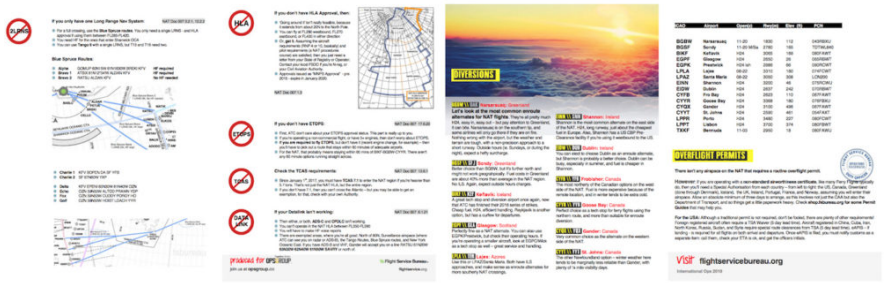
> For the **latest changes and updates on the North Atlantic**, including our most recent **Guides and Charts**, use our NAT reference page at **flightservicebureau.org/NAT**.

Of all the hundreds of questions we see in OPSGROUP, one region stands out as the most asked about – the NAT/North Atlantic. So, we made one of our legendary guides, to get everything into one PDF. It's called "My first North Atlantic Flight is tomorrow" – **and now we've updated it for 2018!**

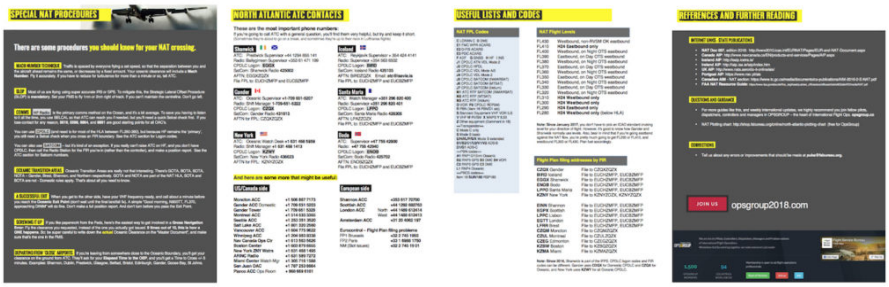
Contents:

- 3. NAT Quick Map – Gander boundary, Shanwick boundary
- 4. Routine Flight Example #1 – Brussels to JFK (up at 5.45am)

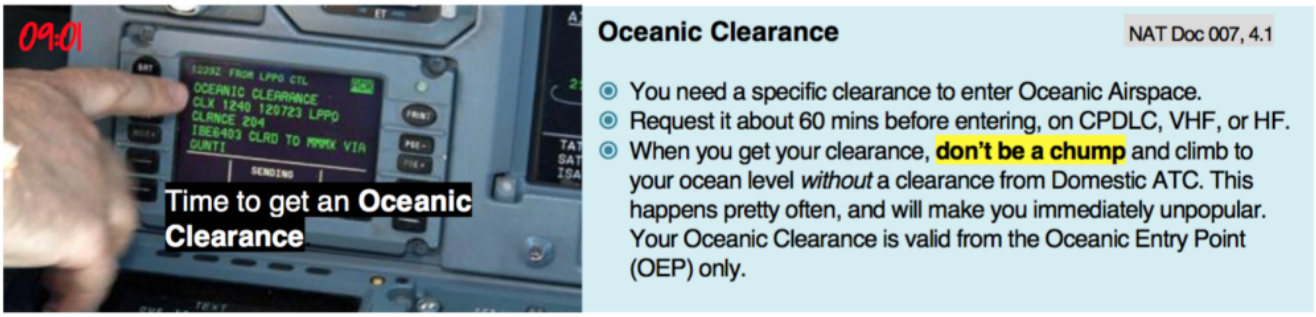
- 5. **Non Routine-Flights**: No RVSM, No RNP4, No HF, 1 LRNS, No HLA, No ETOPS, No TCAS, No Datalink – what you can do and where you can go
- 6. **Diversion Airports guide**: Narsarsuaq, Sondy, Kef, Glasgow, Dublin, Shannon, Lajes, Fro Bay, Goose Bay, Gander, St. Johns
- 7. **Airport data**
- 8. **Overflight permits** – routine and special

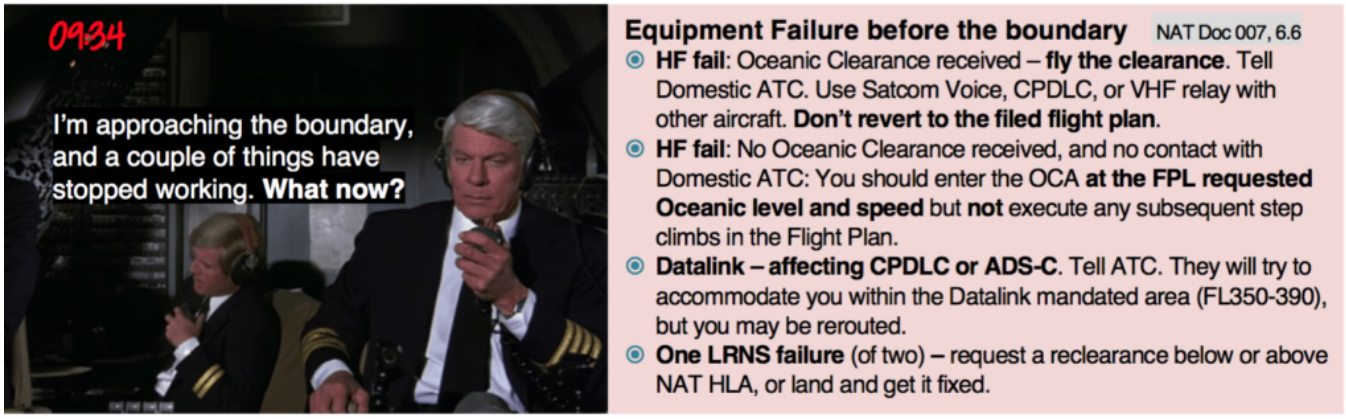


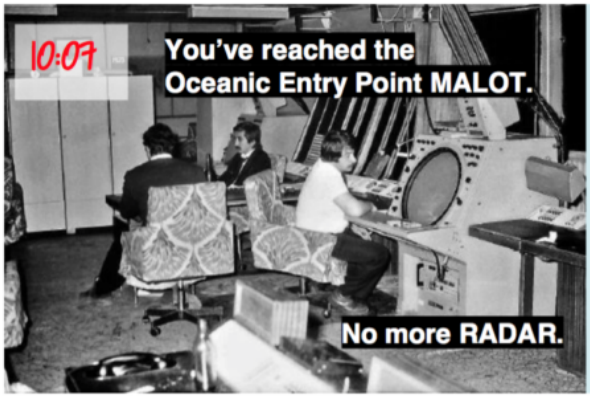
- 9. **Special NAT procedures**: Mach number technique, SLOP, Comms, Oceanic Transition Areas, A successful exit, Screwing it up, Departing from Close Airports
- 10. North Atlantic **ATC contacts** for Shanwick, Gander, Iceland, Bodo, Santa Maria, New York – ATC Phone, Radio Station Phone, AFTN, Satcom, CPDLC Logon codes; and adjoining Domestic ATC units – US, Canada, Europe.
- 11. NAT **FPL Codes**
- 12. NAT **Flight Levels**
- 13. **Flight Plan Filing** Addresses by FIR
- 14. Links, Questions, Guidance



Excerpt from the Routine Flight #1:







Entering the Ocean NAT Doc 007, 4.1

- Say goodbye to the radar controller, you're on your own now.
- Select an offset for **SLOP** – 1nm or 2nm right of track, your call.
- Logon to **EGGX**, and call Shanwick on HF for a radio check.
- Expect a "Confirm Assigned Route" message on CPDLC .
- Check next waypoint is correct, and that you're going there.
- Set 123.45 for turbulence complaints + baseball scores, and 121.5.
- **Squawk 2000**, 30 minutes after passing the OEP.

If you do have to make a voice position report, then do it like this:
***Position, Swissair 100**, RESNO at 1235, Flight Level 330, Estimating 56 North 020 West at 1310, 56 North 030 West Next.*

Going around Weather NAT Doc 007, 13.4

- Unless you've spotted the CB late, request a deviation from ATC. Otherwise, follow the **contingency deviation procedure**:
- Turn away from the tracks, turn on your lights
- Call on 121.5 and 123.45 to tell others
- If deviating >10nm, if **north of track** descend 300 feet; if **south of track** climb 300 feet, but only once you are 10nm off track.
- Once clear, and back within 10nm of track, return to level.

NAT Changes in the last 12 months

Declan Selleck
23 March, 2024

A constantly evolving airspace: It's been busy on the NAT! And not just traffic wise – **there have been a record number of procedural and regulatory changes in the last 12 months**. Here they are, in order of significance:

- **OPSGROUP membership** is required to access this briefing
- **Join today** and receive full Welcome Pack
- Contact **subs@opsgroup.co** for any membership questions or read more at **opsgroup.co**

Oceanic Errors

Declan Selleck
23 March, 2024

Unfortunately, we don't fly with three in the cockpit anymore – or even four. The navigators job falls squarely onto the front two seats. Over one weekend in April there was one **Gross Navigation Error**, and two close calls reported on the North Atlantic.

April 22nd (Friday)
Democratic Republic of the Congo Boeing 727 100 (9QCDC/DRC001) from Santa Maria Island, Azores (LPAZ) to St. John's NL (CYYT)
At 1235Z, Observed on radar to be over position 4720N 4745W, which was approximately **60 miles** north of the cleared route 45N 45W – 47N 50W. The crew reported correctly while in oceanic airspace. The flight was cleared direct to YYT and landed without incident at CYYT. There was no traffic, and no other impact to operations.

April 24th (Sunday)
Neos Airline Boeing 767-300 (INDDL/NOS730) from Ferno, Italy (LIMC) to Havana, Cuba (MUHA)
Cleared via 49N030W 48N040W 45N050W. At 30W, the flight reported 48N040W 44N050W. The aircraft recleared to 45N050W prior to proceeding off course.

Apr 25th (Monday)
Transportes Aereos Portugueses Airbus A330-202 (CSTOO/TAP203) from Lisbon, Portugal (LPPT) to Newark, NJ (KEWR)
Cleared 46N030W 46N040W 45N050W. The aircraft reported proceeding via 46N030W 46N040W 44N050W, as per the original flight plan. The aircraft was recleared via 45N050W prior to proceeding off course.

Did you notice how hard it was to find the error in the above two examples?

Gross Navigation Errors are a really interesting topic, and relevant not just on the North Atlantic but in any Oceanic or Remote airspace where ATC cannot monitor the aircraft tracking.

What defines a GNE? Normally, 25nm: That is, when on "own navigation" the aircraft departs the cleared route by more than 25nm. The NAT Central Monitoring Agency (CMA) now defines a Gross Navigation Error as 10nm instead of 25nm.

Annually, the biggest offenders in order of "market share" are: 1. Corporate/Private, 2. Military/State 3. Civil airlines.

How to Avoid a GNE?
(***aka How to avoid a Nastygram from the Authorities***):

In general, when operating outside of ATC Radar coverage in any airspace:

- Crews: Don't have more than one paper copy of the Flight Plan in the cockpit. Mark the active one "Master Document". Hide any other copies where you won't find them.
- Ops: If you send a new Flight Plan to the crew, tell them what the changes are – especially if you've filed a different route in Oceanic or Remote Airspace.
- **Fly the Clearance, not the Filed Plan**. This is the biggest gotcha. As soon as you reach the Oceanic Entry Point, or leave radar airspace – refer only to the most recent Clearance from ATC. The filed plan is a request only – sounds obvious, but most GNE's occur because the crew fly the filed plan although there was a reroute.
- **Be aware of the 'ARINC424 problem'**: 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'.
- Use a **plotting chart** – it's mandatory. You don't have to use ours, but use one.
- Use an **Oceanic/Remote Area Checklist** (sample link below).

And specifically on the Atlantic:

- Read the advice on the Daily Track Message – waypoint cross check, Fly the Clearance (and be sure it is the clearance!)
- Know the weather deviation procedures: Even with the new "Half Tracks", 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.

Here's some links and resources that we think are really useful:

- **Sample Oceanic Paperwork**
- **Oceanic Checklist**
- **Oceanic Plotting Chart**
- **ICAO: Gross Navigation Errors: NAT Ops Bulletin 02/2014**

For regular notices and content like the above, consider joining **OPSGROUP**.