

NAT Doc 007 Changes 2022

Dave Mumford & Rebecca Lougheed

20 January, 2022



It has happened again. **They have made amendments to NAT Doc 007.** We took a look and the first thing we noticed is **a lot of red text!**

Thankfully, on reading it, we have determined there are not really any *actual changes* (i.e. nothing that you probably don't already know about). It is more a great rewording to incorporate things you already know about in a tidier and more coherent way.

So here is a summary of the changes, and here is a link in case you do want to take a look for yourself. **Version 2022-1 is applicable from Jan 2022.**

The Very Simple Summary

MNPS is out

They have removed all historical references to it.

OWAFS is in

Well, it was already but now we have some definitions and a few additional paragraphs on it.

OWAFS (in case you don't know) means **'Operations Without an Assigned Fixed Speed'** and it means that the requirement to issue a fixed Mach in the NAT has been removed. If you are told to 'Resume Normal Speed' this means you can fly at your chosen cost index speed. Just let ATC know if it is a big change (**M.02 or more**).

The Chapter by Chapter Review

Chapter 1

MNPS references have been removed, as have the old MNPS performance specs. Now it is all PBN. They

have also taken out the old bits about trials and implementation because MNPS evolution to NAT HLA and PBN has happened.

Chapter 2

They have amended the examples of NAT Track Messages. No great difference.

Chapter 3

5.1.12 is the new paragraph on OWAFS and it says this:

“With the implementation of OWAFS, flight crews can expect ATC to issue the clearance RESUME NORMAL SPEED when traffic permits after oceanic entry. This clearance allows the flight crew to select a cost index (ECON) speed instead of a fixed Mach number with the condition that ATC must be advised if the speed changes by plus or minus Mach .02 or more from the last assigned Mach number.”

Chapter 6

There are some subtle word changes here. The one to know is under **6.1.22** (and throughout the chapter). When using HF, SATVOICE or CPDLC flight crew **SHALL** maintain a **continuous air-ground communication**.

‘Shall’ not ‘should’. It also used to just say ‘listening’ instead of that continuous air-ground bit.

Chapter 7

This whole chapter is about ‘Application of Mach Number Technique’. So more OWAFS info.

In summary – You should receive a ‘RESUME NORMAL SPEED’ clearance after oceanic entry. If it doesn’t come through automatically then request normal speed.

ATC will still occasionally use mach number technique to maintain longitudinal spacing so if they give you an assigned mach number, stick to it. But if you get that “resume normal speed” clearance then you can fly at your cost index (ECON) speed and just let ATC know if it is more than a M0.02 difference.

Chapter 10

Another ‘should’ to ‘shall’ change.

If you are on **T9 route** then you **shall** change your squawk to 2000 10 minutes after passing BEGAS or LASNO. If you are on **T290** then you **shall** change it 10 minutes after ADVAT or GELPO

A permanent military area also looks like it has been removed.

That’s all we saw.

If you spot any changes we have missed please share them with us at news@ops.group

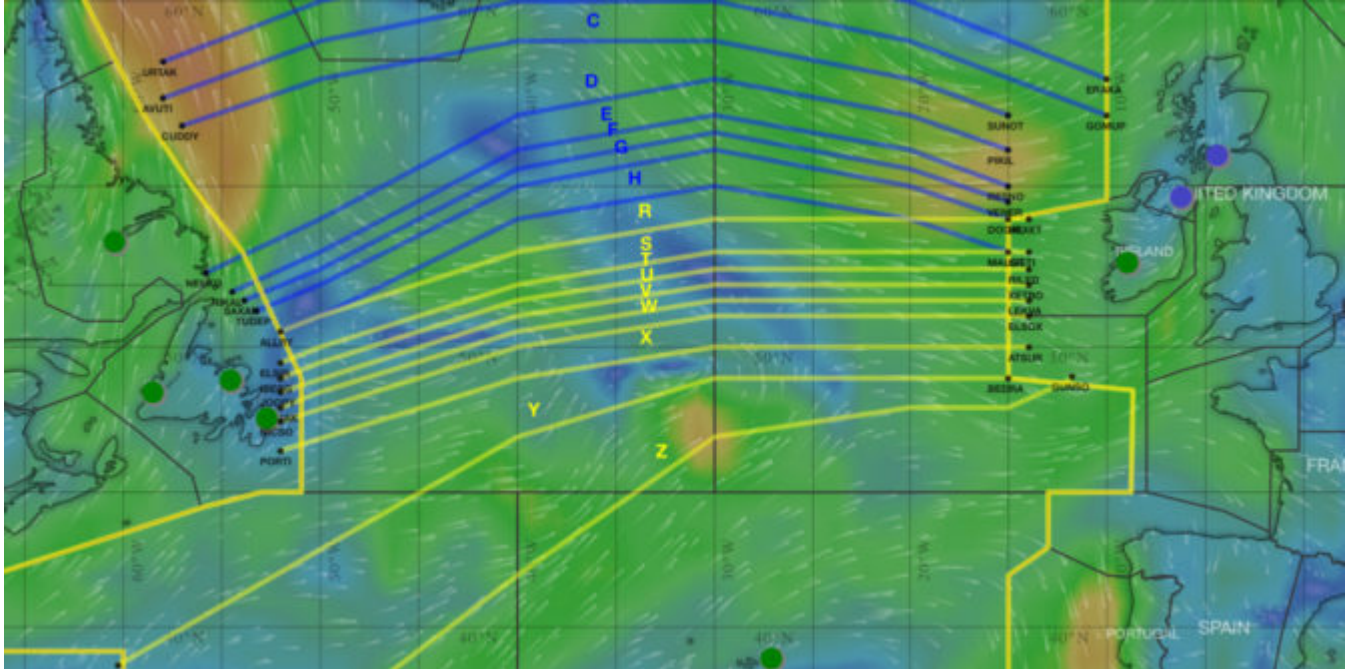
Further reading

To see a full version of this new NAT Doc 007, with all the changes incorporated, go here.

The last time they updated it was back in July 2020, which you can read about here.

July 2019 North Atlantic Update

Dave Mumford & Rebecca Lougheed
20 January, 2022



There are **four new things** to tell you about the North Atlantic, following the flurry of new and updated NAT Bulletins that ICAO issued last week. Get ready for some acronyms! Here's a summary:

1. OWAFS

Operations Without an Assigned Fixed Speed
ICAO NAT Bulletin 2019_001

We wrote about this before. This Bulletin just formalises the practice that has already been in place since April 2019 in the Shanwick, Santa Maria, and New York Oceanic FIRs (not WATRS).

Here's how it works: You'll get a normal oceanic clearance, with a fixed Mach Number, like you always did. But then somewhere after the Oceanic Entry Point, you may get a CPDLC message saying **RESUME NORMAL SPEED**. You should reply with **WILCO**. What that means is: **Fly ECON, or a Cost Index with Variable Mach**. You can fly within 0.01 up or down of your cleared Mach, but if it varies by 0.02 or more you must advise ATC.

2. ASEPS

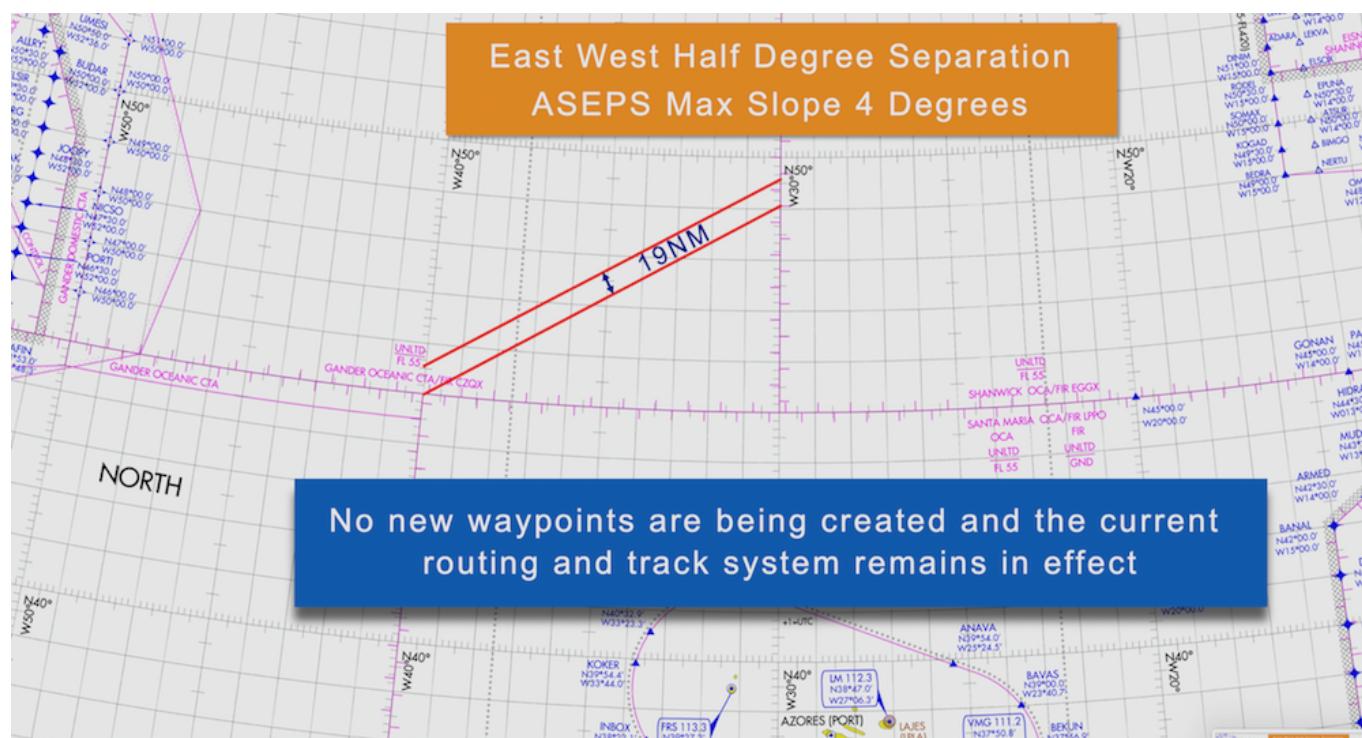
Advanced Surveillance Enhanced Procedural Separation
ICAO NAT Bulletin 2019_002

ASEPS was another trial that started in April 2019 – this time in the Shanwick, Gander and Santa Maria FIRs.

So far it has only been for **longitudinal separation**, which can be brought down to as close as **14NM** for

But in the new Bulletin, from October 2019 they plan to reduce **lateral separation** for compliant aircraft as well – down to **19NM** from the previous limit of 25NM.

There are no plans to change the design of the NAT Tracks, which will continue to be spaced 25NM apart. The initial benefit of the 19NM lateral separation will basically just be that steeper route angles will now be available for pairs of aircraft flying parallel routes outside of the NAT Track system – the current “gentle sloping turn” limitation is 3 degrees latitude between 10 degrees of longitude, but on 10th October 2019 that will change to a limitation of 4 degrees latitude between 10 degrees of longitude. The result of this will be a lateral separation of 19NM on the steeper turning routes.



3. Data Link Performance Improvement Options

ICAO NAT Bulletin 2019_003

Nothing to worry about, this is just a list of common datalink errors and what to do about them.

Two key take-aways:

1. Update your aircraft avionics software as soon as updates are available.
2. Answer your messages within 60 seconds or send a Standby message (recent data indicates Business Aviation operators are very bad at this).

4. NAT DLM - The North Atlantic Data Link Mandate

ICAO NAT Bulletin 2017_001_Revision 04

This one is just a slight revision to the plans for the datalink mandate. Datalink is currently required between **FL350-390** in the NAT region, and from 30th Jan 2020 this mandate will be extended to between **FL290-410**.

So with this revised Bulletin, the **change** is that they have decided they will **cap it at FL410** – whereas previously there were no plans for any upper limit at all. This will basically match the NAT HLA and RVSM vertical limits and makes sense. This will allow non-compliant aircraft to continue to operate at FL430 and above – mostly GA/BA operators.

Further reading:

- **OPSGROUP members** can watch the replay of Member Chat #9, where we discuss all these changes in more detail.
- The last round of important changes on the NAT went into effect on 29th March 2019: the PBCS tracks were expanded; real-time Space-Based ADS-B surveillance and reduced longitudinal separation standards were introduced; and the contingency and weather deviation procedures were changed.
- Check out our NAT Plotting & Planning Chart – updated for July 2019.

*Special thanks to Mitch Launius at **30WestIP.com** for help with this post. For assistance with international procedures training for business aviation crews worldwide, check out the website.*

Fly it like you stole it - free speed on the NAT

Dave Mumford & Rebecca Loughheed
20 January, 2022



This is a new one, and it's a good one for pilots! Being introduced slowly is a new flexibility – flying without a fixed Mach speed. In simple terms, you get to decide how fast you fly.

Like all new things on the NAT, we have an acronym. This one is **OWAFS**. *Operations Without an Assigned Fixed Speed*. But you'll also see it as referred to as "Variable Mach", and "Resume Normal Speed".

When does this start?

It already has! It's starting out as a trial (everything on the NAT starts out as a trial), and some members are already reporting getting "RESUME NORMAL SPEED" messages from Shanwick. The official start date is April 8, 2019. Three OACC's are doing this – Shanwick, Santa Maria, and New York Oceanic (not WATRS).



For no good reason, here's a picture of the Shanwick Oceanic control room in 1989. Much has changed since!

How does it work?

You'll get a normal oceanic clearance, with a fixed Mach Number, like you always did. Somewhere after the Oceanic Entry Point, if you are selected for the trial, you'll get a CPDLC message saying **RESUME NORMAL SPEED**. You should reply with **WILCO**. What that means is: **Fly ECON, or a Cost Index with Variable Mach**.

So, once I get that, no restrictions on speed?

Correct! But, ATC will expect you to fly ECON/Cost Index, and normally, that should be pretty close to your cleared Mach (within 0.01 up or down). If you're doing something different, tell them. If the resulting speed differs from your Oceanic Clearance Mach by **0.02**, or more, you must tell ATC.

Rules for Shanwick (Don't ask for it)

- Flight must be data link connected to EGGX
- Flight must be eastbound and operating solely in Shanwick Oceanic airspace and exiting into UK/Ireland/Continental European airspace
- Flight cannot exit into Santa Maria
- RESUME NORMAL SPEED will be offered on a "manual" tactical basis
- **Do not request** RESUME NORMAL SPEED

Rules for New York and Santa Maria (You can ask)

- Flight must be data link connected to LPPO or KZWY
- Flights must be wholly within Santa Maria and New York East Oceanic airspace and not enter Gander or Shanwick airspace
- Flights can enter New York East Oceanic airspace or Santa Maria airspace from Gander airspace or Shanwick airspace and receive RESUME NORMAL SPEED uplink message
- New York West (WATRS airspace) is excluded
- RESUME NORMAL SPEED **can be requested** if not offered

Background and History

(Thanks, Jeff Miller @IATA, for this and the condensed info above!)

Both Airbus and Boeing advocate cost index (ECON) as the most efficient way to fly. Operators use cost index (ECON) globally, except for the North Atlantic (NAT) where flights are assigned a fixed Mach by ATC and flight crews are required to fly the assigned Mach. Depending on the distance from the departure airport to the oceanic entry, most operators flight plan the aircraft with cost index to the oceanic entry point and again after oceanic exit. Flight crews use the desired fixed Mach number from the computer flight plan that is generated by the cost index, as the requested Mach number for the crossing. It is possible the flight crew may request a Mach greater than or less than the flight plan Mach to improve scheduled arrival time. IATA led the ICAO NAT, Operations Without an Assigned Fixed Speed (OWAFS) project team to enable the use of a variable Mach in the NAT. The North Atlantic Systems Planning Group (NAT SPG) is expected to fully endorse OWAFS late June 2019 for an official implementation in late 2019 for all NAT OCAs. Full automation for all Air Navigation Service Providers (ANSPs) is expected by Q1 2020.

So I can use this for turbulence speed changes?

Yep, but remember, if you're slowing down or speeding up significantly (0.02 or more), tell ATC your new speed.

Anything else?

That's it for now. Remember, it's a trial – later in the year full implementation is expected. Don't ask for it if you aren't offered, unless you're in New York or Santa Maria airspace. Tell ATC if you're changing by 0.02 or more from the Oceanic Clearance.

And most importantly, keep us posted on your experiences with this!