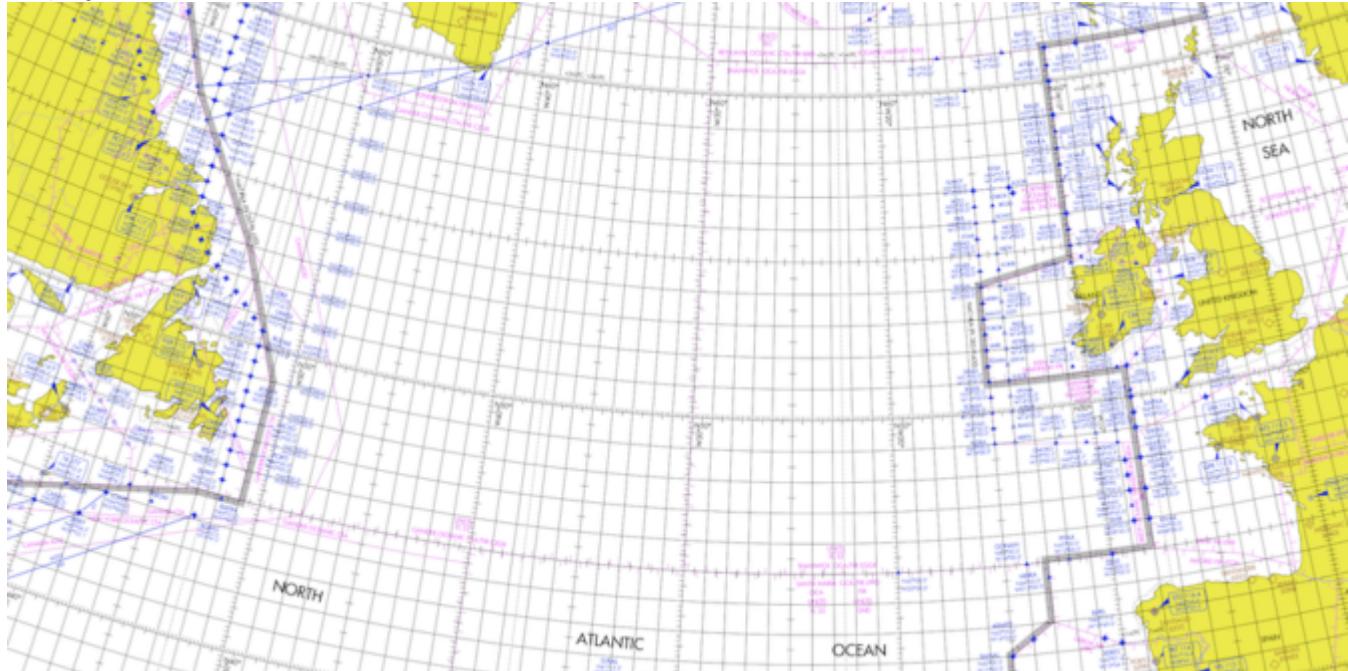


July 2020 North Atlantic Ops Update

David Mumford
13 July, 2020



July 2020: There's a bunch of new things to tell you about the North Atlantic this month! Here's a summary:

- Two new ICAO NAT Ops Bulletins
- An updated NAT Doc 007 from ICAO (aka the North Atlantic "Ops Bible")
- A guide for pilots from the FAA about what to do if ATC suddenly has to suspend services
- Some juicy Notams from all the NAT FIRs extending the relaxation of the North Atlantic datalink mandate rules until the end of September.

ICAO NAT Ops Bulletins

Two new ICAO NAT Ops Bulletins have been published this week, but it looks like there's no need to panic.

First up, there's **2019_003 Rev 2: Data Link Performance Improvement Options**, which is just an updated list of common datalink errors and what to do about them.

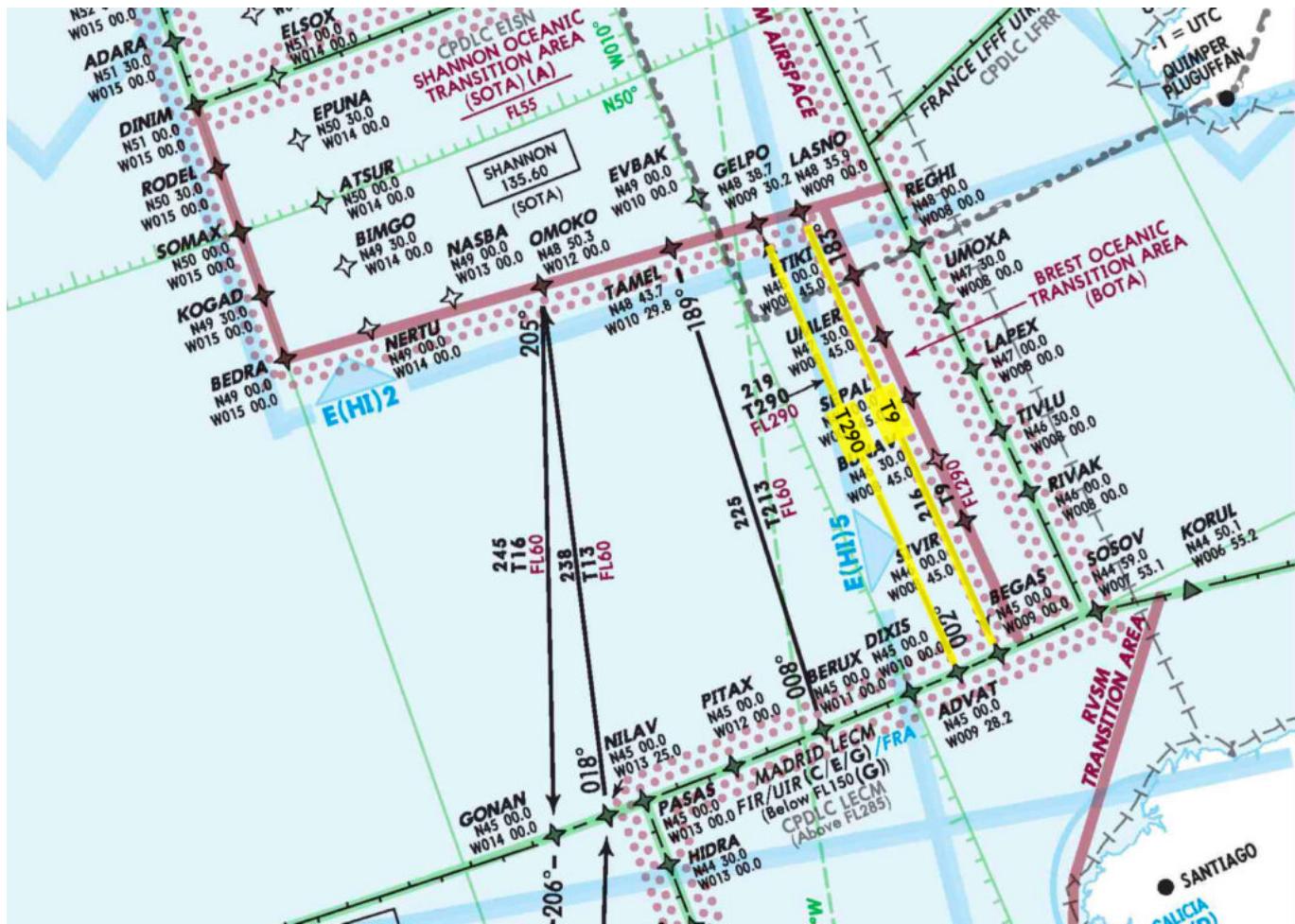
Second, there's a new Bulletin called **2020_002: Surveillance Service in the NAT Region / Flight Crew Operating Procedures**. This is a strange one. The message seems to be this: back in the old days, you used to get a call from ATC saying "radar service is terminated" or "surveillance service is terminated" when heading out into the NAT, or when crossing from one oceanic control centre to the next. But nowadays, with improved SSR equipment and ADS-B more widely implemented, you might not get this message anymore.

ICAO NAT Doc 007 (2020, Version 2)

ICAO has published an updated version of the NAT Doc 007, applicable from July 2020. There are only some minor changes from the previous version, concerning the **Tango Routes**:

- There's now a specific note saying that **state approval** is required to operate on these.
- There's also a change to the **transponder procedures** when using **T9** or **T290**: normally you

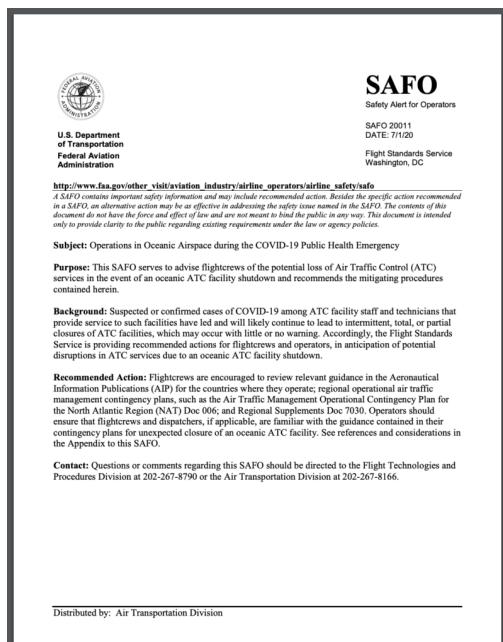
change transponder code to 2000 30mins after NAT entry, but because of the limited time spent in the NAT HLA when flying on T9 and T290 you should instead make this change 10mins after joining either of those routes.



T9 is southbound only, even levels between FL300-400. **T290** is northbound only, odd levels from FL290-410. For more info on the Tango Routes, check out our article [here](#).

What to do during “ATC Zero” events

You’re halfway across the Atlantic when ATC declares that they are suspending all services. TIBA procedures are now in effect. **Would you know what to do next?** As Covid infections impact ATC facilities, short notice closures are currently a constant risk.



The FAA has published a safety alert for international flight crew with contingency procedures in the event of loss of ATC services in **Oceanic airspace**. It's a good one to have in your flight bag. Dispatchers and flight crew are reminded to be thoroughly familiar with AIP specific procedures and traffic management contingency plans for the regions they are operating in. You can read the FAA's alert [here](#).

They have also published another one for ATC Zero events in **Terminal airspace**, which you can read [here](#). There have been multiple 'ATC Zero' events at major air traffic control centres due to Covid prevention and the subsequent cleaning required. The alert contains important information regarding instrument approach selection, TCAS use, alternate minima, aerodrome lighting and other CTAF procedures at unattended airports. There are also important considerations applicable to Part 121 operations discussed.

NAT Datalink Mandate

EGGX/Shanwick, BIRD/Reykjavik, CZQX/Gander, KZWY/New York Oceanic West and LPPO/Santa Maria have all published Notams extending the relaxation of the North Atlantic datalink mandate rules until the end of September. This is due to the fact that there's still significantly less traffic because of all the Covid restrictions. **Non-datalink mandate compliant aircraft may therefore continue to flight plan and operate across the North Atlantic between FL290-410 until Sept 30.** For more info on the NAT Datalink Mandate, check out our article [here](#).

In addition, ICAO are saying that due to the decrease in traffic, there is a significantly higher chance of flights being cleared as requested, and are encouraging operators to file and request their optimal profiles at all stages of the flight. Read ICAO's guidance [here](#).

For a brief history of the most significant North Atlantic-related ops changes, check out our dedicated article [here](#).

No Room for Error - GNE's and the North Atlantic

Chris Shieff
13 July, 2020



Advances in technology mean that aircraft in the North Atlantic High Level Airspace (NAT HLA) are flying laterally, longitudinally, and vertically closer than ever before. But North Atlantic gross navigational errors (GNE's), which are lateral off-track deviations of 10nm or more, still occur regularly, and jeopardise the safety of you and the traffic around you. So don't leave it up to Air Traffic Control (ATC) to discover your GNE! In this article, let's look at some common human slip up's that lead to GNE's, and what we can do to prevent them.

Pre-Flight Operating to the highest standards of navigational performance demands the **tedious and careful monitoring** of aircraft systems. Unfortunately, humans are by nature not the best monitors. During the long quiet of an oceanic crossing, we can fall victim to **cognitive traps** such as change blindness, expectation bias, and complacency.

But the potential for error on Atlantic crossings begins well before the first coast-out waypoint. In fact, it begins before take off. The following four areas are where strategies in mitigating a GNE begin.

1) Data Entry

Via ACARS:

Many pilots now use ACARS to automatically downlink the entire flight plan and winds aloft directly to the FMS. But an over-reliance on automation can lead to complacency, and so **the more reliable the system, the more complacent we become** as monitors. In one incident, a Boeing 747 suffered a GNE of **120nm**. The flight plan downlink from ACARS unfortunately contained one bad coordinate that went unnoticed. Once lured into complacency by such reliable technologies, there can be a temptation to omit cross-checking.

What can we learn from this? Always verify the **full** coordinates in an ACARS downlinked flight plan. Similarly, if several different flight plans were run, ensure that you request your downlink using the **most current and filed flight plan number**.

Manually:

A manual entry means a pilot inserts the flight plan's waypoints directly into the aircraft's flight management system (FMS). But no matter how meticulously one may be, manual data entry can still produce errors. Then how do we guard ourselves against these errors?

Firstly, **avoid using ARINC 424** shorthand for programming oceanic points. This has been a factor in many GNE's, given how easy it is to misplace the letter as a prefix or suffix. For instance, consider how simply misplacing the "N" could cause a drastic lateral deviation:

- $50\text{N}60 = 50\text{N }160\text{W}$
- $5060\text{N} = 50\text{N }060\text{W}$

If you have the capability on your aircraft, use the full coordinates, including minutes.

For the last few years, use of half degrees of separation has been on the rise in an attempt to enhance airspace efficiency. But on flight displays units that only show 7 digits, these half degree coordinates are misleadingly displayed as full coordinates. For instance, the half coordinate $N55^{\circ}30' W020^{\circ}$ will display as $N55^{\circ}\text{W}020^{\circ}$ (see image below, which shows identical waypoint labels for points separated by half a degree!). In this case, it is imperative to view the expanded version of coordinates (degrees and minutes).



Another frequent error leading to GNE's is *transposing* numbers during data entry. This commonly occurs when you complete almost the entire crossing along one degree of latitude, then fly the last waypoint at a different latitude. For example, with a cleared route of $57^{\circ}\text{N }050^{\circ}\text{W}$, $57^{\circ}\text{N }040^{\circ}\text{W}$, $57^{\circ}\text{N }030^{\circ}\text{W}$, **56^{\circ}\text{N }020^{\circ}\text{W}**, one can accidentally enter **57^{\circ}\text{N }020^{\circ}\text{W}**. This will put you 60nm off course.

But there is good news! These errors are easy to recognize and avoid by having a specific method of waypoint verification.

2) Waypoint Verification

Whether entered via ACARS or manually, both crew members must come together to perform a **thorough cross-check**. The following method recommended by ICAO in Doc007 seems to work the best:

- One pilot reads the waypoint/coordinates, bearing and track from the FMS.
- On the master document, the other pilot will circle the waypoint to signify the insertion of the

correct FULL coordinates in the navigation computers

- The circled waypoint number is ticked, to signify the relevant track and distance information matches
- (In flight) The circled waypoint number is crossed out, to signify that the aircraft has overflowed the waypoint.

[fancy_box box_style="default" icon_family="none" color="Accent-Color" border_radius="default" image_loading="default"]

Cognitive Traps:

Expectation Bias is when your perception is influenced by your preconceptions. It is vital that the second crew member crosschecks **from the FMS/CDU** to the master document - and not vice versa - thereby increasing the chance of spotting an error.

Pop-up trip hustle - It's one thing reading about waypoint verification, but it's another thing actually sitting down and taking the time to do it. Do not be tempted to crosscheck your own work because you're in a time crunch - it requires at least **two separate sets of eyes**.[/fancy_box]

3) Initialisation of navigation systems

The navigational integrity of your entire flight is predicated on an accurate starting position. Even a small error with on the ground can translate into a gross error later down the line in flight.

The FMS GPS position and your current parking coordinates (found on the 10-9 pages) must match. Avoid using "last position" function in the FMS - if you were towed overnight, the "last position" will be your previous location, not your current one! Sounds obvious, but mistakes happen.

Inertial systems, once aligned, must also complement the GPS coordinates. Initialisation of inertial navigation systems can take between 6-15 minutes, and errs on the longer side at more northerly latitudes - so be patient! Moving the aircraft during alignment **will cause an alignment error**. **Bottom line: avoid repositioning/towing the aircraft during alignment, even it is to a nearby spot on the same ramp area**. Position errors like this cannot be corrected once in flight.

4) Your Master Clock - (iPhones not authorised!)

Since our ETAs for oceanic waypoints must be accurate within +/- 2 minutes, it is vitally important that, prior to entry into the NAT HLA, your master clock is accurately synchronised to UTC. ICAO Doc007 has a list of approved sources from which you can set your aircraft master clock (and your iPhone isn't one of them!). You are approved to use the GPS time which can be found in the FMS.[fancy_box box_style="default" icon_family="none" color="Accent-Color" border_radius="default" image_loading="default"]

Cognitive Trap:

Close to the E/W Greenwich line or close to the equator, you'll just be on the fringes of the opposing segment. So, take a close look at the E/W or N/S letter coordinates, especially if you are usually accustomed to flying from one particular geographic area.[/fancy_box][heading]Clearances & Communication[/heading]With a move away from spoken communications and towards datalink procedures, requesting, copying and verifying a clearance becomes a much simpler task! But it is still important to know your own limitations in the rare instance that you need to copy a clearance via voice.

Casual radiotelephony should be avoided

Casual radiotelephony can be the source of misunderstanding coordinates or clearances, and so all waypoint coordinates must be read back in detail, adhering strictly to standard ICAO phraseology. An example of standard ICAO phraseology requires enunciation of every individual digit. 52 North, 030 West would be read back as "Fife two north, zero tree zero west" as opposed to "fifty-two north thirty west". Have no doubt about it, Shanwick can be the most strict in this regard.

Distractions and workload

If your departure airport is close to the oceanic boundary, e.g. Shannon or Miami, the benefit is that you will copy your oceanic clearance on the ground. Unencumbered by distractions typically associated with being in flight, you can focus almost fully on the task at hand. However, most flights pick up an airborne clearance, and it is important to **prioritise this for a period of low workload**.

Take the example of a Bombardier Global Express crew that narrowly avoided a GNE after copying a clearance. While they were in the midst of crosschecking the clearance with the FMS and climbing to their initial altitude, the flight attendant approached them with an issue. Instead of waiting, one of the pilots attended to the problem. A new waypoint wasn't entered, and it was later caught by ATC in a position report. **Try to avoid non-vital tasks until ALL the steps regarding copying, verifying and inputting a clearance are complete.**

Following these simple standard operating procedures (SOPs) step-by-step will guard against clearance errors. If the steps are interrupted for any reason, start again from the beginning.

- Two pilots monitor and record the clearance. The Pilot Monitoring (PM) will contact clearance delivery, while Pilot Flying (PF) monitors both the primary ATC frequency and the clearance delivery frequency.
- The PM then records the clearance on the master document. The PF also copies down the clearance separately.
- Clearance is read back to ATC. *Any disparities between both pilots' interpretations of the clearance must be clarified with ATC.*
- A deliberate cross check of the clearance to the filed flight plan and the FMS is made.

Re-Clearance

According to ICAO Doc007, "*In the event that a re-clearance is received when only one flight crew member is on the flight deck...changes should not be executed...until the second flight crew member has returned to the Flight Deck and a proper cross-checking and verification process can be undertaken.*" Sorry, they just don't trust you to do this by yourself, and neither should you!

Errors associated with re-clearances, re-routings and/or new waypoints continue to be the most frequent cause of GNE's. Therefore, a re-clearance or amended clearance should be treated virtually as **the start of a new flight** and the procedures employed should all be identical to those procedures employed at the beginning of a flight.

- Both crews note the re-clearance

- Reply to ATC via ACARS or voice
- Amend the Master Document
- Load the new waypoints into the FMS from the updated Master Document
- One pilot verifies the input of the new waypoints reading **from** the FMS
- Verify the new tracks and distances, if possible
- Prepare a new plotting chart/re-plot in Jeppesen EFB

With datalink, you might have the capability to load the new route directly from the ATC message into your FMS flight plan. This will eliminate a transcription error on your part, but you cannot always count on the FMS to load this seamlessly. Oftentimes, if a revised coast-in waypoint doesn't connect with your originally planned domestic airspace airway, it might cause a discontinuity. Worse, some crew have experienced their entire domestic flight plan drop out, left with only the oceanic portion.

Conditional Clearances - There's always a catch!

A conditional clearance is an ATC clearance given to an aircraft with certain conditions or restrictions, such as changing a flight level based on a time or place. Conditional clearances add to the operational efficiency of the airspace, but are commonly misinterpreted by flight crews.

Shannon has been known upon first VHF contact to provide lateral conditional clearances on coast-in. For example: "N135AC, after DINIM, direct ELSOX". Often, crew have been known to read back the *correct* transmission, but then execute the wrong procedure by proceeding directly to ELSOX.

Why is this happening? In studies of linguistics, **verbs** (such as 'direct') have been noted as having a perceptual priming effect, that more **easily grabs our attention** at the expense of weaker prepositions (such as 'from' or 'after'). Listen carefully for prepositions. Similarly, in aviation vernacular, the word 'direct' means to proceed **now** to the specified waypoint. As pilots, we can distinguish this meaning with very little effort, and most of the time can expect to proceed present position direct. Thus, we are *primed* to go direct.

While this isn't a complex sentence, research indicates that transmissions involving serial recalls (such as "proceed here *then* here...") are susceptible to distortion, with the last word or item more commonly interfering with recall of the previous item.

A really simple way to prevent this is to **write down** clearances as they are being read to you, *then* read-back the transmission. You can also call attention to a conditional clearance by prefixing their read-back with the word "Verify" or "Confirm" over the radio. Via datalink, sufficient care always must be taken when factoring in all the contents of a clearance before acknowledging the message. The initial phrase "MAINTAIN FLIGHT LEVEL 300" is included to stress that the clearance is **conditional**. If the message is about to time out, and you need more time to process its contents, reply using "Standby". Respond at your own pace![fancy_box box_style="default" icon_family="none" color="Accent-Color" border_radius="default" image_loading="default"]

Cognitive Trap:

On the longer route segments between New York and Santa Maria, "when able higher" (WAH) reports might be solicited. ATC acknowledgement of a WAH report must not be misconstrued as a conditional clearance to climb. Any climb clearances will be issued **separately** from a WAH acknowledgement.[/fancy_box][heading]Miscellaneous[/heading]

10-minute Check - put the (Bad) Elf on the shelf for this

One of the best ways to capture a potential GNE and refresh your situational awareness is with the sublimely simple 10-minute check. Ten minutes after waypoint passage, you'll use your current coordinates to plot your position on your plotting chart. If the coordinates don't land on the plotted track line, an investigation into the source of the error must begin immediately. It doesn't hurt to even make additional plots between waypoints too, but ICAO only requires the one 10-minute check.

Today, more pilots are carrying independent GPS units in their flight bags, providing crew with own-ship on their oceanic route map. Tempting though it may be to use this for present position information, it is currently not an approved source of navigation, and should **NOT** be used in lieu of a 10-minute check.[fancy_box box_style="default" icon_family="none" color="Accent-Color" border_radius="default" image_loading="default"]

Cognitive Trap

It is easy to forget about the 10-minute check. Setting a timer once your waypoint passage tasks have been completed will help remind you to do so.[/fancy_box]

Autopilot mode - “Wait, are we supposed to be in heading?”

Incorrect autopilot mode selection has been known to be a factor in GNE's. On an oceanic crossing, you can bank on being in NAV or LNAV most of the way across the Atlantic. But perhaps you used heading mode to deviate for weather or to intercept a SLOP. It is not uncommon among pilots to spare your passengers two steep banking turns (thanks LNAV!) by manually flying a SLOP intercept in heading mode. But if you forget to re-engage LNAV, you will continue drifting on your merry way, further and further off course.

Distraction, fatigue or complacency are common reasons for losing mode awareness, so the following simple tricks will help mitigate autopilot induced GNE's.

- It helps to **verbally announce** when you are transitioning temporarily into heading mode, to bring both pilots in the loop.
- Employing **sterile cockpit** until you're back in LNAV will help mitigate distractions.
- In an abundance of caution, you can keep a **finger** on the heading button or heading dial until you are back in LNAV will serve as a reminder.

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Cognitive Trap:

The flight mode annunciators (FMA's) are the most reliable indicators of automation selection – more so than the flight guidance panel! Yet, a study found that pilots pay superficial attention to the FMA's during critical mode changes. Don't waste a valuable resource, and do consciously **bring the FMA's into your scan**.[fancy_box]Deliberate cross-checking and monitoring are a critical last line of defense for which we, as pilots, don't get explicit training, but are nevertheless expected to perform effortlessly. But over the North Atlantic, there is little room for error. So, let's recap what can be done!

1. **Allow sufficient time on the ground to set up**
2. **Closely scrutinise data entry - whether the source is human or ACARS!**

3. Work together on waypoint verification
4. Don't work single pilot - always keep all crew in the loop
5. Deal with clearances and re-clearances methodically

Understanding our vulnerabilities is key to the process of mitigating errors. Armed with an understanding of our own limitations, and an appreciation for the practices and habits mentioned above, a 'would-be' GNE can be averted.

Links

[ICAO Doc 007](#)

[Global Operational Datalink Document \(GOLD\)](#)

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

Mark Zee
13 July, 2020



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 KZWH
- 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!

Midweek Briefing: Australia Airport Workers Strike, ICAO Toughens Aircraft Tracking

Cynthia Claros
13 July, 2020

INTERNATIONAL BULLETIN	ISSUED BY FLIGHT SERVICE BUREAU SITA HNLFSXH AKLFSXH AFTN KMCOXAAL EMAIL INTL.DESK@FSBUREAU.ORG
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Australia Airport Workers Strike 09MAR The Community and Public Sector Union (CSPU) announced the possibility of a strike during the week of 21 March, as well as three weeks of rolling airport strikes by Border Force and Immigration Department staff at international airports across the country. Airport staff members are expected to begin a work stoppage on 24 March, to coincide with the Easter holiday weekend, and will walk off the job at airports, freight terminals and other related sites. The work stoppages will be held to protest wage freezes and work conditions. Further details are likely to emerge closer to the strike.

ICAO Toughens Aircraft Tracking while in distress 02MAR The ICAO has announced new requirements for the real-time tracking of civilian aircraft in distress, following the disappearance of Malaysia Airlines flight MH370 two years ago. The ICAO's governing council approved proposals for planes to carry tracking devices that can transmit their location at least once a minute in cases of distress. Aircraft operators will have to ensure their flight recorder data is recoverable, while the duration of cockpit voice recordings is being extended to 25 hours, ICAO said in a news release. These changes will take effect

between now and 2021.

United States Visa Waiver Program Passport Requirements Take Effect April 1. Visa Waiver Program (VWP) travelers must present an e-Passport containing a biometric chip in order to enter the United States visa-free after March 31, 2016. VWP travelers who do not hold an e-Passport should apply for a new passport as soon as possible to ensure that they can continue to use the program without interruption. The e-Passport requirement applies only to VWP travelers; it does not affect holders of U.S. visas.

Canada Electronic Travel Authorization Deadline Relaxed It has been announced that visa-exempt nationals who plan to enter or exit and re-enter Canada by air will be able to board their flight without an Electronic Travel Authorization (eTA) from March 15, 2016 until fall 2016.

India has extended its e-Tourist Visa program to applicants from 37 additional countries. Also, the visa-on-arrival program for certain Japanese nationals who are unable to apply for a regular or electronic visa has been relaxed to allow multiple visits per calendar year. Lastly, the deadline for Person of Indian Origin card holders to apply for the Overseas Citizen of India card in lieu of Person of Indian Origin card has been extended until June 30, 2016.

Ecuador The Ecuador's Geophysical Institute reported that the Tungurahua volcano has experienced a series of eruptions. Pyroclastic flows and fallen ash have collected near the crater. During past eruptions, the volcano's clouds of ash have disrupted flights to major airports in the region.

KZWY/New York Oceanic has issued NOTAM A0105/16 advising restrictions to routings in the WATRS PLUS area due to the (QVR) Oceana Radar being U/S on March 9th and March 10th between the hours of 14-22Z. The restrictions are issued as follows:

Northbound: L453 will be closed.

Southbound: M201 will be clsd btn int atugi and hanri.

Only aircraft equipped with operational ADS-260B out may use the following routes:

Southbound: L453 between LEXAD and ONGOT

North-eastbound: M201 between HANRI and ATUGI

All ADS-260B out aircraft must file an icao flight plan.

UIBB/Bratsk issued a NOTAM restricting the arrivals to only scheduled services due a fuel shortage until March 31st.

PKMJ/Majuro (Marshall Islands) Monthly tanker replenishment is planned for Mar 21-25. During this time, fuel will not be available.

VTSP/Phuket,Thailand has issued a NOTAM advising that the parking of private aircraft is prohibited overnight until April 25th.

Nigeria has experienced a country wide fuel shortage. Please check with your handler ahead of time to ensure fuel is available. Tankering is highly recommended until further notice.

LCCC FIR/Nicosia FIR Late notification of a military exercise in LCCC ACC starting on 09/03/2016 0300 UTC until 11/03/2016 1000 UTC. Exercise areas and route closures announced by following NOTAMs:

A0191/16 through A0196/16, A0208/16 and A0209/16 for area specifications. A0215/16 through A0220/16 for the route closures.

Please see the following graphic outlining the area:



View the full International Bulletin 09MAR2016