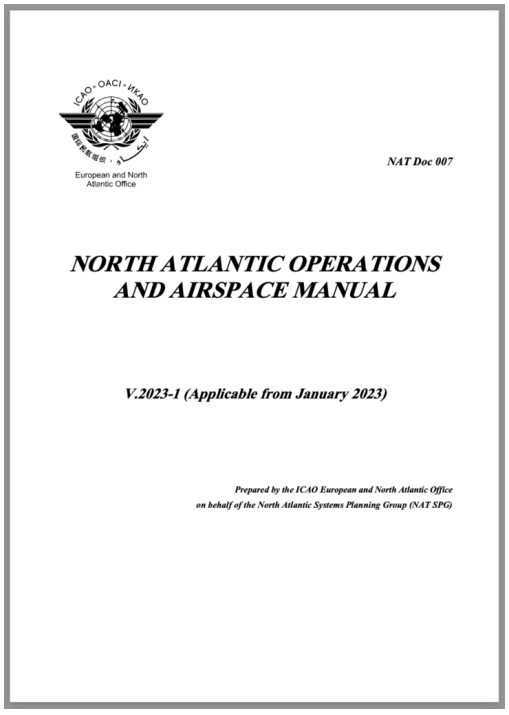
NAT Doc 007 Changes 2023

OPSGROUP Team
25 January, 2023

We knew it would happen! We predicted it would happen! And now it has happened! The annual late Christmas present from ICAO that always seems to get lost in the post and then turns up in January – **an updated version of the NAT Doc 007.**

NAT Doc 007 is the main go-to guidance doc for ops over the North Atlantic. All the specifics about how to operate your aircraft safely through the complex airspace of the region are here. **The updated version is valid from Jan 2023.** You can download it from ICAO at the source here, or click on the image below:



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The summary of changes by ICAO

They always post a little summary at the start, so here is a screenshot of it for you.

EXPLANATION OF CHANGES

Edition 2023-v1 - Content Modifications/Additions Incorporated

This modification includes:

- *Editorial and minor amendments throughout the document;*
- *Some hyperlinks were updated;*

Material changes:

- *Insertion of EFB, ETP, INF, OEP, OXP, RCL, RCP, RSP and UPR in in list of Abbreviations;*
- *Chapter 1: amendments/deletions in 1.1.2 Note, 1.1.3, 1.3.6 Notes 2, 3 and 4. 1.8.4 was updated with processing of requests for special operations in DLM airspace. Paragraph 1.8.5 was added with information on airspace excluded from the DLM;*
- *Chapter 2: 2.1.2 amended to reflect that NAT track levels are now FL340 to FL400. Deletion of text from 2.2.1 and 2.2.6. NAT track examples were updated:*
- *Chapter 3: figures of Northern routes and Tango routes were updated in 3.2.1. figures of NOTA, SOTA, BOTA and GOTA were updated in 3.3.5 – 3.3.12;*
- *Chapter 4: amendment to 4.1.3 regarding free route airspace operations. Amendment to 4.1.5 regarding routings. Amendment to 4.2.3 regarding planned Mach number and flight level. Amendment to 4.2.5 regarding EET;*
- *Chapter 5: amendment to section 5.5 regarding cruise climb and block of flight levels;*
- *Chapter 6: Figure 6-1 Reykjavik Control Direct Controller Pilot VHF Coverage was updated. Section 6.4 regarding when able higher reports was updated. Section 6.7 concerning contingency situations affection ATM provision in the NAT region was amended and moved to section 13.7; Section 6.8 regarding operation of transponders was merged with section 10.2. Section 6.9 regarding ACAS was moved to section 10.4;*
- *Chapter 8; most of this chapter was re-written;*
- *Chapter 10: insert new paragraph 10.1.3 regarding identification of ADS-B equipped aircraft. Section 10.2 regarding operation of SSR transponders was amended. Section 10.4 was moved from section 6.9. Section 10.5 was added depicting NAT HLA ATS surveillance and DCPC VHF coverage;*
- *Chapter 13: amendment to paragraph 13.5.1 regarding wake turbulence. insert new section 13.7 regarding loss or sudden withdrawal of air traffic control services in the NAT region;*
- *Chapter 14: deletion of text from 14.1.4 and 14.1.5 because the DVD "Track Wise – Targeting Risk within the Shanwick OCA" has been withdrawn;*
- *Chapter 16: Deletion of text from 16.3.1. adding reference to half degrees in 16.3.2. amendment to 16.3.8 regarding random routings. Amended flight planning guidance in 16.5.3 – 16.5.6. Deletion of text from 16.6.6 regarding EET. Amended text in 16.6.21 regarding MEL;*
- *Chapter 17: reference to charts in section 10.5 added in 17.11.2 due to deletion in Attachment 4, addition of communication channels when in difficulty in 17.14.3;*
- *Attachment 4: information on VHF coverage was deleted. Sample oceanic checklist was added;*
- *Attachment 8: information on NAT ATS surveillance coverage was moved to section 10.5 and subsequent attachments were re-numbered;*
- *Attachment 9: The checklist for dispatchers was updated.*
- *Attachment 10: Bibliography and reference list was updated.*

Hideous

The summary of changes by us

Hideous indeed. So here is a less hideous (but possibly less informative) summary of the changes we spotted as we scrolled through the 174 pages of Nat Doc 007 V.2023-1. We decided to go chapter by chapter so you can head on in and read the full info direct from the NAT Doc 007 itself if it interests you to.

Chapter 1: Operational Approval & Aircraft System Requirements for Flight in the NAT HLA

Something about Target Levels of Safety

This is probably of interest if you're a huge fan on the *"Where you all went wrong this year"* updates from the NAT HLA. They set the 'maxima' to 5×10-9 fatal accidents per flight hour, which I think means one in every 500 millionth or something.

OK, moving on.

Equipment related stuff

This is all stuff you probably know already, but they have updated and edited it so we figured we would recap on the important bits as well.

RVSM: Two handy links have been added in providing you info on **RVSM equipment requirements.**

This one from the FAA.

And this one from Skybrary

Along with a reminder that **because the NAT HLA is RVSM, you need to be RVSM approved** to fly in it.

Clocks: Make sure yours is accurate and synchronised to an 'acceptable' UTC time signal before heading off. A lot of aircraft have clocks that can only be updated on the ground so check before you fly.

LRNS: Do you fly an aircraft with only 1 LRNS (and it's a GPS)? Then its got to be approved in accordance with **FAA TSO-C129** or whatever the EASA equivalent is (it is ETSO-C129a).

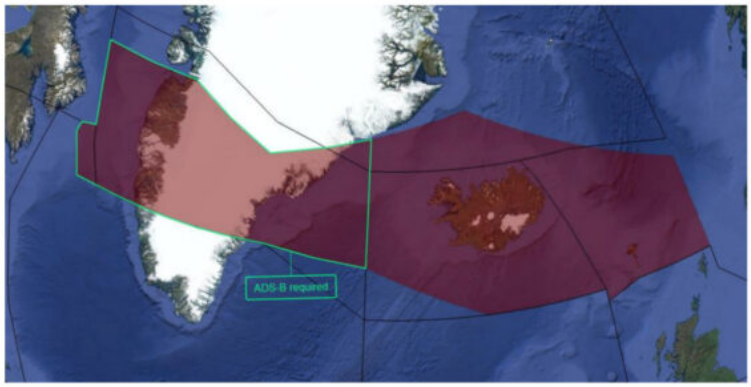
CPDLC: Don't have FANS 1/A "or equivalent"? *(we still aren't totally sure what "or equivalent" really means!)* Then you can still request to climb or descend through the NAT DLM airspace, and there are some exceptions for specific flights where you might even get let in –

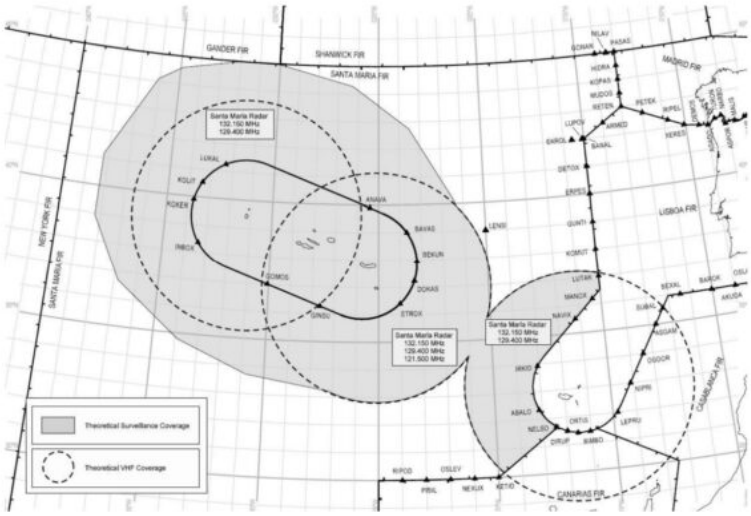
- Scientific research type flights (probably not any of you)
- If your equipment fails on you post take off then you might be ok, talk to ATC
- If you're in the NAT DLM and your equipment fails then you might be re-cleared (to move you out of the way of less dysfunctional folk), but they aim is to try and keep you on the plan you were already on

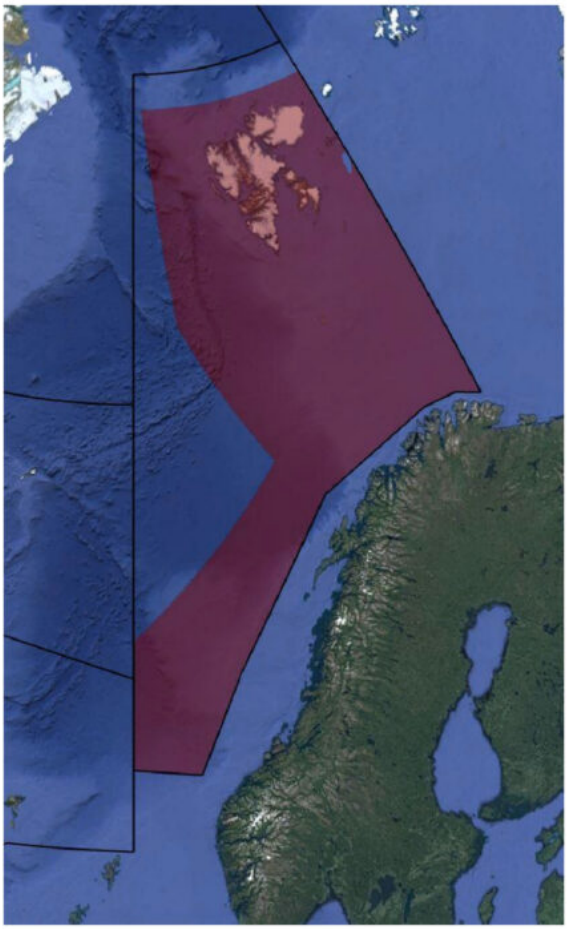
They have also clarified three specific areas where datalink is not required. This one has been bugging us for a long time with previous NAT Doc updates! Datalink exempt areas have always been these three:

1. *Airspace north of 80° North*
2. *New York Oceanic East flight information region (FIR);*
3. *Airspace where an ATS surveillance service is provided by means of radar, multilateration and/or ADS-B, coupled with VHF voice communications as depicted in State Aeronautical Information Publications (AIP), provided the aircraft is suitably equipped (transponder/ADSB extended squitter transmitter).*

We've never understood what number 3 means – until now. The new NAT Doc now specifically lists where these areas are: a chunk of airspace over Iceland/Greenland, one over the Azores, and another in Bodo. They have even provided some maps and coordinates too.







Datalink exempt areas (the others in the NAT are: airspace north of 80° North, and the NY Oceanic FIR).

Update 3 APR 2023: There have been some changes to the boundaries of the datalink exempt airspace in the northern bit of the North Atlantic. This used to extend down south to SAVRY, but now only goes as far as EMBOK. So now you need datalink in the NAT oceanic airspace over Greenland controlled by Gander. Check this post for more info.

Chapter 2: The OTS

More reminders on things you know rather than any major new stuff.

- If you want to fly on the half-spaced **PBCS Nat Tracks**, you need RNP 4 approval but also RCP240/RSP180 equipment (and a state approval). That's been the case for a while.
- You will also get messages saying **"SET MAX UPLINK DELAY VALUE TO 300 SEC"**. Do it.
- **Nat Tracks are now from FL340 to FL400** inclusive. (Remember, Nat Tracks at FL330 and below were removed back in March 2022).
- If there is a particularly strong westerly jetstream then Shanwick will post a **split westbound structure** which means you might see two adjacent landfall and exit points at the Eastern NAT boundary for the daytime eastbound flow to use.

Chapter 3: Routes, Route Structure, Transition areas

They have updated the maps and info on the bits adjacent to the NAT HLA (your NOTA, BOTA, SOTA and GOTAs).

Chapter 4: Flight Planning

Doc 7030 is the main reference for flight planning in the NAT (and state AIPs). There are little bitty edits here but nothing new.

Chapter 5: Oceanic Clearances

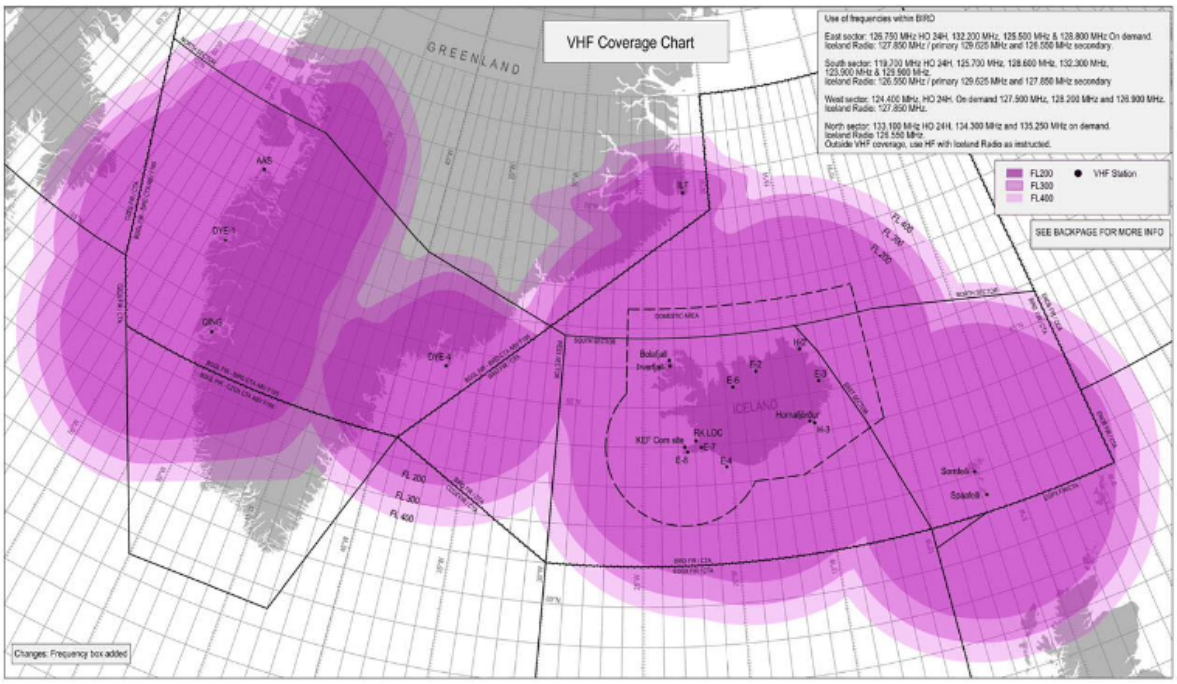
A cruise climb can be requested if you're fat and heavy and want to climb little more flexibly as your drop weight (burn fuel). ATC will do their best to accommodate this.

Chapter 6: Comms and Position Reporting Procedures

The "When Able Higher" report is no longer mandatory in the New York OCA. The only place it's still required is **when entering the Santa Maria OCA.**

There's also an update in this section about **where the VHF stations are.** Remember, when you're on VHF you might not be talking direct with an ATSU. You can request a direct patch-through on HF or GP/VHF if you need it (and are on Iceland Radio or Shanwick Radio).

They've updated the big pink blob map to show where you should be able to get VHF coverage. Here it is.



Big pink blob map.

INTERESTING SIDE-NOTE: *Now, DON'T PANIC, they haven't put this in the updated Doc, but we saw it in the 'proposed changes that might one day come in' document... You currently need 2 LRCS and one of them must be HF (generally). This isn't changing, but if you lose HF then you might (when they make the change) be able to enter so long as you have two other LRCS systems that are appropriate for the route. Exciting...*

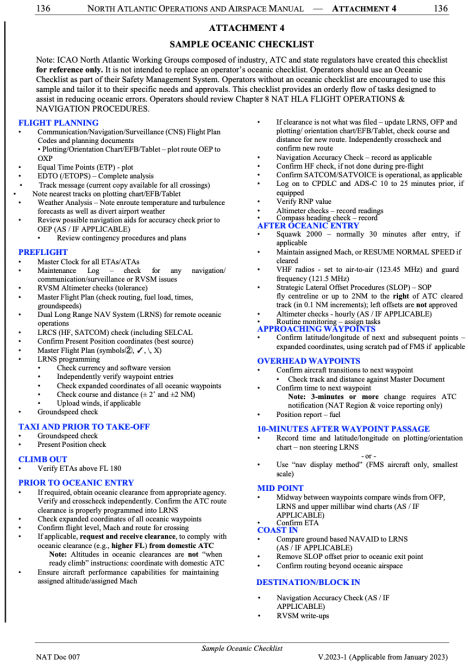
Chapter 7: Application of Mach Number Technique

Don’t get confused between RNP10 and RNAV 10. Not the same thing, but they can’t be bothered to correct everyone all the time on it so they’ve added a note saying this.

Also, don’t make Gross Navigation Errors. They ain’t good and will be investigated. Here’s the tip: if you’re on a random route, a single digit error in latitude could put you pretty darn near another aircraft so be careful!

Chapter 8: Flight Ops & Navigation Procedures

They have provided a very helpful Checklist. This chapter goes into full detail on it, and Attachment 4 has it nicely summarised.



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ATTACHMENT 4

SAMPLE OCEANIC CHECKLIST

Note: ICAO North Atlantic Working Groups composed of industry, ATC and state regulators have created this checklist **for reference only.** It is not intended to replace an operator’s oceanic checklist. Operators should use an Oceanic Checklist as part of their Safety Management System. Operators without an oceanic checklist are encouraged to use this sample and tailor it to their specific needs and approvals. This checklist provides an orderly flow of tasks designed to assist in reducing oceanic errors. Operators should review Chapter 8 NAT HLA FLIGHT OPERATIONS & NAVIGATION PROCEDURES.

FLIGHT PLANNING
- Communication/Navigation/Surveillance (CNS) Flight Plan Codes and planning documents
  - Plotting/Orientation Chart/EFB/Tablet – plot route OEP to OXP
- Equal Time Points (ETP) - plot
- EDTO (/ETOPS) – Complete analysis
- Track message (current copy available for all crossings)
- Note nearest tracks on plotting chart/EFB/Tablet
- Weather Analysis – Note enroute temperature and turbulence forecasts as well as divert airport weather
- Review possible navigation aids for accuracy check prior to OEP (AS / IF APPLICABLE)
  - Review contingency procedures and plans

PREFLIGHT
- Master Clock for all ETAs/ATAs
- Maintenance Log check for any navigation/ communication/surveillance or RVSM issues
- RVSM Altimeter checks (tolerance)
- Master Flight Plan (check routing, fuel load, times, groundspeeds)
- Dual Long Range NAV System (LRNS) for remote oceanic operations
- LRCS (HF, SATCOM) check (including SELCAL
- Confirm Present Position coordinates (best source)
- Master Flight Plan (symbols✆, ✓, \, X)
- LRNS programming
  - Check currency and software version
  - Independently verify waypoint entries
  - Check expanded coordinates of all oceanic waypoints
  - Check course and distance (± 2˚ and ±2 NM)
  - Upload winds, if applicable
- Groundspeed check

TAXI AND PRIOR TO TAKE-OFF
- Groundspeed check
- Present Position check

CLIMB OUT
- Verify ETAs above FL 180

PRIOR TO OCEANIC ENTRY
- If required, obtain oceanic clearance from appropriate agency. Verify and crosscheck independently. Confirm the ATC route clearance is properly programmed into LRNS
- Check expanded coordinates of all oceanic waypoints
- Confirm flight level, Mach and route for crossing
- If applicable, **request and receive clearance**, to comply with oceanic clearance (e.g., **higher FL**) **from domestic ATC**
  Note: Altitudes in oceanic clearances are **not** “when ready climb” instructions: coordinate with domestic ATC
- Ensure aircraft performance capabilities for maintaining assigned altitude/assigned Mach
- If clearance is not what was filed – update LRNS, OFP and plotting/ orientation chart/EFB/Tablet, check course and distance for new route. Independently crosscheck and confirm new route
- Navigation Accuracy Check – record as applicable
- Confirm HF check, if not done during pre-flight
- Confirm SATCOM/SATVOICE is operational, as applicable
- Log on to CPDLC and ADS-C 10 to 25 minutes prior, if equipped
- Verify RNP value
- Altimeter checks – record readings
- Compass heading check – record

AFTER OCEANIC ENTRY
- Squawk 2000 — normally 30 minutes after entry, if applicable
- Maintain assigned Mach, or RESUME NORMAL SPEED if cleared
- VHF radios - set to air-to-air (123.45 MHz) and guard frequency (121.5 MHz)
- Strategic Lateral Offset Procedures (SLOP) – SOP fly centreline or up to 2NM to the **right** of ATC cleared track (in 0.1 NM increments); left offsets are **not** approved
- Altimeter checks - hourly (AS / IF APPLICABLE)
- Routine monitoring – assign tasks

APPROACHING WAYPOINTS
- Confirm latitude/longitude of next and subsequent points – expanded coordinates, using scratch pad of FMS if applicable

OVERHEAD WAYPOINTS
- Confirm aircraft transitions to next waypoint
  - Check track and distance against Master Document
- Confirm time to next waypoint
  Note: 3-minutes or more change requires ATC notification (NAT Region & voice reporting only)
- Position report – fuel

10-MINUTES AFTER WAYPOINT PASSAGE
- Record time and latitude/longitude on plotting/orientation chart – non steering LRNS
  – or –
- Use “nav display method” (FMS aircraft only, smallest scale)

MID POINT
- Midway between waypoints compare winds from OFP, LRNS and upper millibar wind charts (AS / IF APPLICABLE)
- Confirm ETA

COAST IN
- Compare ground based NAVAID to LRNS (AS / IF APPLICABLE)
- Remove SLOP offset prior to oceanic exit point
- Confirm routing beyond oceanic airspace

DESTINATION/BLOCK IN
- Navigation Accuracy Check (AS / IF APPLICABLE)
- RVSM write-ups

Sample Oceanic Checklist

NAT Doc 007 V.2023-1 (Applicable from January 2023)

Sample Checklist. Click to download PDF.

Chapter 9: RVSM

FAA AC 91-85 has all your info on state approvals.

Chapter 10: ATS Surveillance Services

This is the ATS Surveillance Services chapter. They’ve updated the guidance on your squawking.

When you’ve been in the NAT HLA for 30 minutes you should **set your squawk to 2000** (the domestic controller on the other side might not want you to use the same one). **But there are some exceptions this:**

- While in the Reykjavik ACC stick with your assigned code because you’re in radar control (in the south eastern part) and they don’t want you to change it until you’re told to.
- All eastbound flights routing Reykjavik – Shanwick – Scottish should squawk 2000 after 10

minutes.

- Routing on T9 squawk 2000 10 minutes after passing BEGAS (northbound) or LASNO (southbound).
- Routing on T290 squawk 2000 10 minutes after ADVAT or GELPO

ADS-B is only mandated on T9 and T290.

Chapter 11: Monitoring of Aircraft Systems & Flight Crew Performance

This chapter has a nice list of **things to report/things ATC will report:**

- Erosions of longitudinal separation between aircraft, within the NAT HLA, of 3 minutes or more (so if you find yourself getting to close).
- Anytime you have to do something to prevent a GNE.
- Lateral deviations from cleared route of less than 25 NM.
- Discrepancies of 3 minutes or more between an ETA/ATA at a waypoint.
- Occasions when an operator is suspected of not being in possession of an NAT HLA/RVSM approval.
- Diversions or turnbacks, noting in particular whether the appropriate published contingency procedure was correctly adopted.
- ACAS RAs.
- Wake turbulence reports.
- Incorrect application of the SLOP (e.g. a left offset).

Chapter 12: Procedures in Event of Navigation System Degradation or Failure

No noteworthy newness (none that we could find, at least).

Chapter 13: Special Procedures for In-flight Contingencies

This covers all your **loss or sudden withdrawal of ATC services.** So it is basically a mini summary of Doc 006 and also covers the *'What to do it?'* situations.

They have also updated the contact info for SATVOICE. So here you go –

Oceanic Centre	Telephone Number	SATVOICE Short Code
New York	+1 631 468 1413	436623
Gander	+1 709 651 5207	431613
Reykjavik, via Iceland Radio	+354 568 4600	425105
Bodø	+47 755 42900	425702
Ballygirreen (Shanwick Radio)	+353 61 368241 Ground/Air Ops	425002
Santa Maria	+351 296 820 438 +351 296 886 042 (satellite link)	426305

Chapter 14: Guarding Against Common Errors

Updated to list recent ones.

Chapter 15: The Prevention of Lateral Deviations from Track

No newbies.

Chapter 16: Guidance for Dispatchers

There is some updated info on planning codes. Take a look.

Chapter 17: Flight Operations below the NAT HLA

So this stuff all applies for flights FL280 and below. Actually an interesting read! There aren't any massive changes here though. Mainly these one:

- Reminder the SLOP should be **right of track.**
- They re-iterate that they still haven't managed to get a decent map of **VHF coverage** of the North Atlantic. If we want one, we should go scratching around in State AIPs *(where we still won't find any – we've looked)*.
- If you're in trouble, you don't just have VHF 121.5 to turn to. Also try 123.450, SATVOICE, or "any other communication device you may have".

End of the Doc: All the attachments

Mostly forms and stuff, but **Attachment 4** is that handy sample checklist we mentioned and **Attachment 9** is an equally handy checklist for dispatchers covering equipment and what have you.

Phew, done!

Another year, another NAT Doc. Well, let's hope so – they do sometimes release a sneaky Version 2 update some time around July/August. But for now, we can relax.

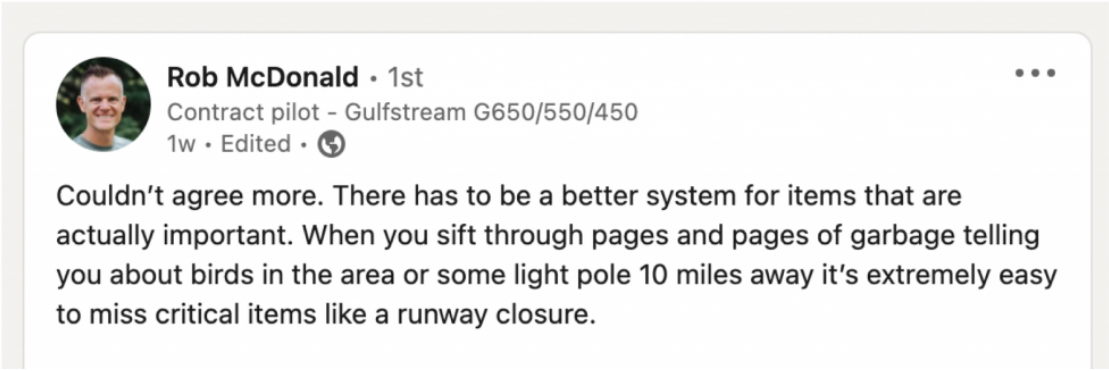
Did you spot any big updates in this new NAT Doc? Haven't read it yet and don't want to scroll to the top of the page to find the link again? No worries, just click here. If you do spot anything significant that we missed, please let us know! You can email us at news@ops.group

Taking the Trash Out: Let’s fix NOTAMs

OPSGROUP Team
25 January, 2023

After a hiatus of a year or so, we’re back working on NOTAMs. In 2021 we ran a campaign with ICAO (and IFALPA, and IFAIMA) to improve NOTAMs. We focused on “Old” NOTAMs, ones that sit in the system for no good reason, sometimes for as long as 20 years. They are mostly gone – including the Albanian NOTAM about the Y2K problem.

That’s good, but the NOTAM problem isn’t fixed. Rob, below, summed it up nice and simply last week.



So, let’s continue the work. Why do we have a system that makes it **extremely easy to miss critical items**? And how do we fix it? Let’s visualize the problem.

NOTAMs are like containers on a ship

Imagine you’re the pilot of a Boeing 787 about to sit down at a briefing table to review NOTAMs for your flight from Copenhagen to Bangkok today. You will get a folder containing a printout of NOTAMs for your

route. Here they come.

Each container is a NOTAM. Unlike actual containers on actual ships, there is no manifest. **We don't know what's in the container until we open it and take a look**. That means that we can't automatically sort them out beforehand, and we can't put them in any order of importance. Therefore, the pilot gets a random list of NOTAMs, and it's up to them to make sense of it.

CONTAINER	CONTENTS
	SMALL CRANE OPERATING NEAR AIRPORT
	BULB IN TAXIWAY LIGHT BLOWN
	AIP AMENDMENT 04/23 EFECTIVE RE DRAINAGE WORKS
	MEN CUTTING GRASS NEAR TAXIWAY
	CAUTION FLOCK OF FLUFFY BACKED TIT-BABBLERS (MACRONUS PTILSOSUS)
	AIRPORT CLOSED TODAY

If you only had six NOTAMs to take a look at, no big deal. You'll spot that the airport is closed today. But we usually have somewhere between 100 and 1,000. The result? **A system that makes it extremely easy to miss critical information**.

Finding the simple fix

This is a simplified version of the problem, but not by much.

Question, then: **How do we improve the NOTAM system so we can sort and filter them?**

Let's get a technical for a moment, since we're going to need some smart people that understand the system architecture. Here are some basics that are important.

1. **There isn't really an international "NOTAM system"**. Each country issues NOTAMs for their airspace, and keeps a local list of them for pilots in that country. Other countries can query that list (done via the AFTN, with an RQL message), and get a copy of new NOTAMs (by sending an RQN message). Not every country does this, but if they do, they'll then have a **limited database of NOTAMs** from selected other countries. A tiny handful of countries, regions, and organizations do this for every country, which makes for a fairly reliable **international database of NOTAMs**. Examples of this are the FAA (NOTAM Search), US DoD (DINS), and Europe (EAD). These databases form the source data used by pilots and operators, often via service providers like Jeppesen, LIDO, Foreflight etc. who may apply some final processing to attempt to sort and filter them for their customers.
2. Since there isn't an international NOTAM system, then logically, **nobody is in charge of it**. **ICAO** sets the standards for when a country should issue a NOTAM (Annex 15), how they are formatted (Doc 10066), and what codes to use (Doc 8400). **Eurocontrol** publishes a guidance manual (called OPADD). That's about it. Nobody has the job of monitoring all international NOTAMs for quality or quantity.
3. **The NOTAM structure is very limited**. It uses a limited character set called ITA2, which pre-dates ASCII. This limits messages to UPPER CASE. The format is set in Doc 10066, giving a NOTAM 7 sub-parts from A to G, preceded by a Qualifier called the "**Q-code**". In theory, the Q-code tells the reader what the NOTAM is about (magically solving the container problem above), but in practice, it doesn't work. Why? There are too many choices, and therefore they are often applied incorrectly, or not at all. The Q-code categories were dreamed up in 1950, and there are **13,783 possible Q-codes.** 20% of NOTAMS don't have a Q-code at all (The NOTAM office often enters XX or XXXX, meaning "not sure").

What's in the NOTAM container?

Let's get back to the yard, and lower down one NOTAM container and take a look.

We know it came in on the NOTAM ship so it relates in some way to our route today, but **we don't know what's in it**. Therefore, we can't sort it or filter it out. It just joins all the other NOTAMs that we load up into the pilot's briefing, and leave it to them to make sense of.

But if the shipper (the originating NOTAM Office) puts a label on it saying "**BIRDS**", then we immediately know what to do with it.

Pretty quickly we can start organizing the containers. Each operator can figure out the order they want to put them in, and which ones to leave at the back of the yard.

By knowing what the NOTAM is about, in advance, we can set up some basic processing rules. Each aircraft operator is different: Airlines don't care about broken obstacle lights 5 miles from the airport, but a Police helicopter does. Perhaps someone cares about birds, most pilots don't. It doesn't matter; **let the operator decide for themselves how important each label is**, and what order to put them in (or discard).

Sounds easy, but is it?

In a huge list of NOTAMs, the ability to **sort** and **filter** them is the key to making them manageable. If they are sorted and filtered, then it's unlikely a pilot will miss the big ones. Back to ***what Rob said*** (⬆) **–** the problem is that it's **extremely easy to miss critical items**, and that's what we want to change.

We have some limitations:

1. **It must be a simple change**. There are 193 countries that are ICAO members, each one ultimately resistant to a system-wide change that will cost money and require infrastructure investment. It would be lovely to start from scratch with a new system, but it's not feasible. We need a simple change to the format with big impact. Conversely, if you think even that is impossible, just remember that Snowtams changed format in 2021.
2. **We can't use *Item E***. To be able to sort and filter, a computer has to be able to know what the NOTAM is about, without having to read the content text. It can't make sense of the text in *Item E* (the text of the NOTAM) – we tried this some years ago with machine learning, and after 2 millions passes, AI wasn't able to formulate an algorithim that worked. There are just too many countries with different ways of writing NOTAMs to use *Item E*. So we must have a label of some kind.
3. **We must change the back end**, not the front end. This must be a change available to everyone. Sure, Foreflight does good stuff, especially with US domestic NOTAMs. There's a bunch of software and apps that can help to make NOTAMs more digestible. Some can be displayed graphically, but not many. Big airlines have back-office staff to organize and even

rewrite some NOTAMs. But they all do it differently, and not many of them solve much of the big problem. We're still getting dozens, even hundreds, of pages of NOTAMs to read.

That's where the work begins. We don't have all the answers, and we need some smart NOTAM-folk to help. It's not the intention here to present a vague solution and say "This is it" – this article is intended to generate some critical thought and discussion on what the "Big Fix" looks like. Labelling them in some way seems the way to go, but we're not sure.

Remember this …

There's nothing like saying "*NOTAMs, what do you think?*" to generate a slew of pilot complaints, jokes (some great memes after the January outage!), and things that need to be fixed. We've been working on this here for a couple of years, but efforts to fix the b*rds date back **almost 60 years**. With that in mind, addressing the most common talking points may help.

1. **NOTAMs suck**. We know. We're just a bunch of pilots and dispatchers that really don't like them, and we're doing our best to make change happen. But if we want to solve them, we have to find **the one thing that fixes most of the big problem in one hit**. UPPER CASE is tough to read, but that's not the big problem. Abbreviations are annoying, but that's still not the big problem. **The Big Problem is that we can't see the critical stuff** because we have to read hundreds of them before flight in no particular order. If we can sort and filter them, that means we'll see the important stuff first, and don't have to read such a long list.
2. General ranting at the FAA, ICAO, IATA, or even the government doesn't help. Instead, help us to help find a sensible solution, draw it out, think it out, test it, and we can then present it to those that can help implement it.
3. **Digital Notams**. Sometimes this comes up as a solution that's on the horizon, and will fix everything. That conversation has been happening for at least 20 years, and while a lot of good people are working on this, it doesn't fix the problem we have right now. In a perfect world, SWIM and Digital Notams will come online in 2028 (five years from now), and start to solve some of the issues. Problem is, we live in an imperfect world, and the chances that this will solve our woes as they exist today are slim.
4. **Hey, I made a thing that solves NOTAMs**. Like we said above, yes, there are some really great apps, graphical tools, and software that help make some sense of NOTAMs. Foreflight is a favourite amongst us pilots. But despite some of the advances, the originating NOTAM is still a brutalist remnant of the early 20th century, and the vast majority of pilots still get giant chunks of NOTAM text to plod through. **We want to fix the problem at source**. At the same time, it's likely that the smart people that made these things can also be the smart people to solve the source problem!

So, what now?

We want to hear from you! Write to us at team@fixingnotams.org. We can only solve this as a community group, and we're working on a few events to get people together for some discussion. We'll set up a few group chats on Zoom to get the discussion started and some ideas flowing.

Ultimately, the plan is to start funnelling some ideas along the pipeline until we reach one that really

seems to work, and take that to the organizations that can implement it. So, it's up to you. **Want to get involved? You're awesome! Please reach out to us.**

Super Bowl 2023: Special Procedures in Phoenix

OPSGROUP Team
25 January, 2023

It's time to stock up on chicken wings – Super Bowl LVII is just around the corner.

This year, kick-off will be in **Glendale, Arizona on February 12.**

Airports within the area will be **extremely busy** – not just in Arizona, but across the state line in Nevada too.

The FAA are onto it, and have published their safety plan for the event. If you're flying into (or near) the game, here's what you need to know.

Parking

A ramp reservation program is already open (including for drop-and-goes) for airports in the Phoenix area from **Feb 8 – 14,** along with those in Las Vegas. Essentially, you have to **reserve a parking spot** in advance during this period.

This includes the following airports:

Arizona

- KPHX/Phoenix Sky Harbor

- KSDL/Scottsdale
- KDVT/Phoenix Deer Valley
- KGEU/Glendale
- KGYR/Goodyear
- KCHD/Chandler
- KFFZ/Falcon Field
- KIWA/Williams Gateway

Nevada

- KLAS/Las Vegas
- KVGT/North Las Vegas
- KHND/Henderson

Who to talk to for your reservation

Talk to your **FBO** (sooner rather than later). They are the ones with the slot allocations and will be able to keep you updated on any changes nearer the time. No FBO? You can also get in touch with the **airport authority** directly.

There will be Special Air Traffic Procedures

Expect traffic jams and hold ups. To help keep things flowin', ATC will implement the usual culprits including ground delay programs, holding, reroutes, miles-in-trail and other restrictions.

Your best defence will be to avoid arriving and departing at **peak periods.**

These are expected to be between: ***07:00am to 19:00pm local (14 – 00z) daily between Feb 8 – 13.***

A head's up that it can also be extremely busy for departures on game day well into the wee small hours of the morning too. Last year over one hundred and fifty jets had already left the LA Basin area within five hours of the game ending.

Also beware that ATC will not allow aircraft to pick up IFR clearances airborne, or change destinations within 200nm of Phoenix Terminal airspace.

Security

Two **TFRs** will be established on February 12, centred around State Farm Stadium in Glendale, approx. 7nm northwest of downtown Phoenix.

Those details will be published via the **FDC Notams,** usually 3-5 days before kick-off. But you can expect standard stuff – a very restrictive 10nm inner ring, and a less restrictive one out to 30nm.

There should be minor impact for IFR aircraft but expect additional communication requirements and discrete transponder operations.

Getting in and out

There are **preferred routes** for all IFR turbojet aircraft arriving and departing the Phoenix area from **17z Feb 10 until 23z Feb 12.** You can view those here.

The FAA has also summarised tower hours for major airports near the event, many of which will be extended.

For real time info on delays, airport status and other flow related issues, the FAA NASS website is the place to check.

Other stuff to think about

Consider your alternates. Options are going to be limited and restricted because of the high traffic levels. Unless you have a bona fide emergency, you'll need to plan ahead.

Gas Up. With all the traffic management programs in place, there could be **lengthy delays**. Consider extra holding and taxi fuel.

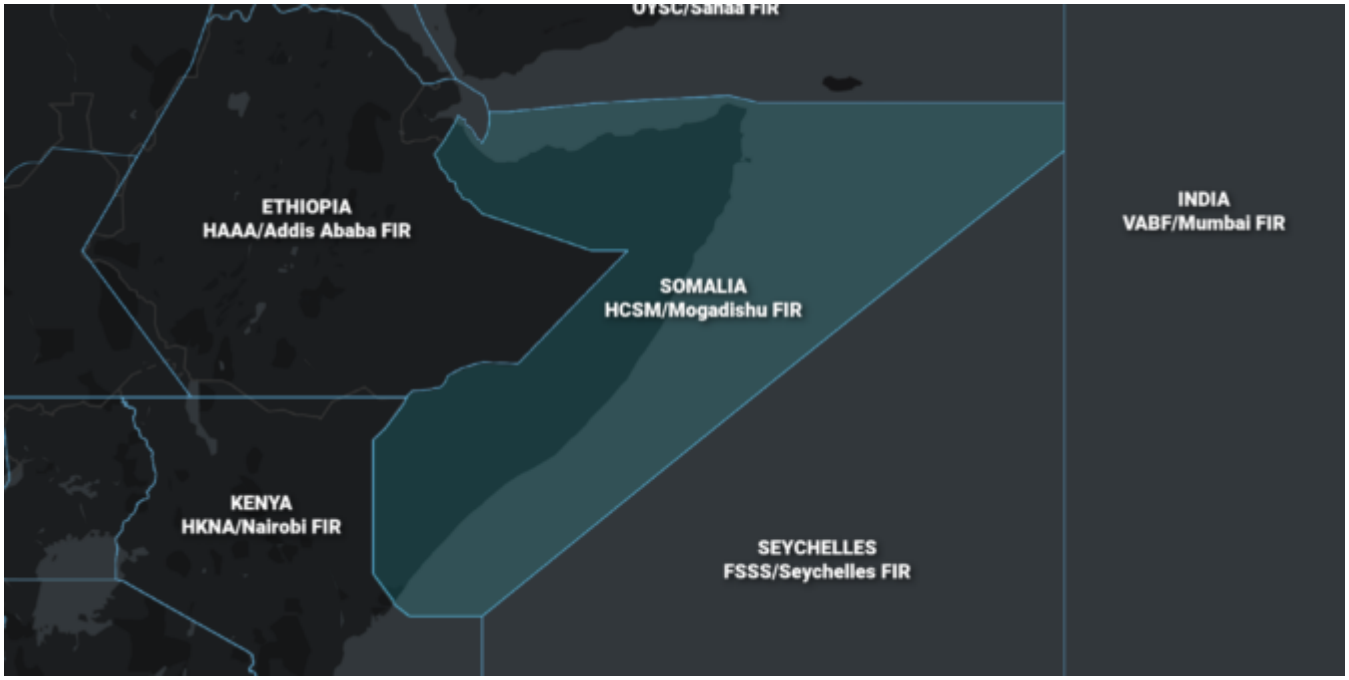
Check your documents. Make sure you have everything you need onboard, including crew licences, medicals, aircraft docs and confirmation of all reservations and confirmations. Increased security measures may involve ramp checks, searches, or other TSA requirements.

One last thing…..chicken.

It's just not Super Bowl weekend without **wings**. Looking for the best ones in Phoenix? This article may help.

Mogadishu Wishes You a Class A New Year

OPSGROUP Team
25 January, 2023



The Mogadishu FIR is that chunk of Somalian airspace which you have probably flown through if you regularly route from the Middle East to southern Africa.

Since 2022 they have been trialling the return of controlled airspace, and we have an update on that for you.

First up though, why are we interested in this FIR?

Somalia and its direct neighbours are all **fairly high risk regions in terms of airspace safety**. Yemen is a no fly zone, Eritrea and Djibouti are both fairly unstable, Somalia has issues with Al-Shabab, and the Tigray region in Ethiopia has an ongoing conflict to contend with.

So if we want to head from the Middle East into Africa or from Asia to Africa, we have to **make a fairly large detour** around these spots, or **risk overflying areas considered unsafe** and which also have limited diversion options due to safety and security concerns on the ground.

Having part of the Mogadishu FIR available doesn't help fix the safety and security on the ground (or lack of diversion options) issue, but there are **airways which keep you over the oceanic region here**, which means the overflight safety risk is reduced, which means we don't have to detour as far.

So the HCSM/Mogadishu FIR offers a direct connection from the Mumbai FIR, and from Omani (Muscat) airspace into Africa.

But it has issues of its own?

That it does.

The situation on the ground in Somalia is highly unstable. The central government has little control of the major cities and ports, with ongoing attacks from extremist militants targeting civilians who continue to show an intent to target aviation interests. **The primary risk** is to overflying aircraft at the lower flight levels, which may be targeted by anti-aircraft-capable weapons.

What warnings should I know about?

- **The US prohibits flights across Somalia's airspace below FL260** (except for flights transiting the overwater portion of the airspace going to/from HDAM/Djibouti airport across the border in Ethiopia).
- Several other countries have issued airspace **warnings advising against operating below FL260** (Note UR401 SIHIL-AXINA is excluded from this by one authority).

There is also a **secondary risk** related to a lack of ATC service for overflights of the HCSM/Mogadishu FIR. The airspace was **Class G uncontrolled airspace** for sometime, requiring IFBP and HF comms (and a fair amount of looking out) for crew.

However, from 11 May 2022 they started trialling Class A airspace again, from FL245 each day from 0300-1800z.

Tell us more about this airspace then!

We wrote about the trials here.

From November 2022, they extended the **Class A operating hours to H24.**

From **26 Jan 2023** it will become full operational, fixed, permanent, sorted and set via AIP SUP 01/23 (no, we aren't sure where you can access that directly!).

HCSM/Mogadishu FIR Notam A0012/23 is the one with the info. It looks like this:

```
A0012/23 - TRIGGER NOTAM AIRAC AIP SUP 01/23 WEF 00:01 UTC 26 JAN 2023.
OPERATIONAL IMPLEMENTATION OF CLASS ''A'' AIRSPACE WITHIN THE MOGADISHU
FLIGHT INFORMATION REGION AT AND ABOVE FL245. 26 JAN 00:01 2023 UNTIL
08 FEB 23:59 2023. CREATED: 19 JAN 07:45 2023
```

It is worth noting they are still training ATC. This takes place from 0300-1800z, so go easy on the trainees if you're flying during those times.

The *"upgrading"* of the airspace is down to the Somalia Airspace Special Coordination Team (SASCT), comprising of the Somali CAA, IATA, ICAO, adjacent FIRs, and core RCG (Regional Coordination Group) airline team members. *Thanks folks!* They are going to monitor the progress and performance over the next 6 months so send in your feedback to IATA_AME@IATA.ORG

Tell us some comms stuff.

You have **VHF 132.5 within 240nm of MOGDU.** In case you can't find it, that's a point over **HCMM/Aden Adde** airport.

There are a whole bunch of **HF frequencies** as well:

- **Day 11300**/8879/13288
- **Night 5517**/11300/3467

They have **CPDLC** for FANS1 equipped folk. **Logon: HCSM.**

And they have a whole load of **SATCOM numbers** you can try if you get really stuck:

- +252 61 335 0046
- +252 62 3350047
- +252 1857390
- +252 1857391
- +252 1857392
- +252 1857393

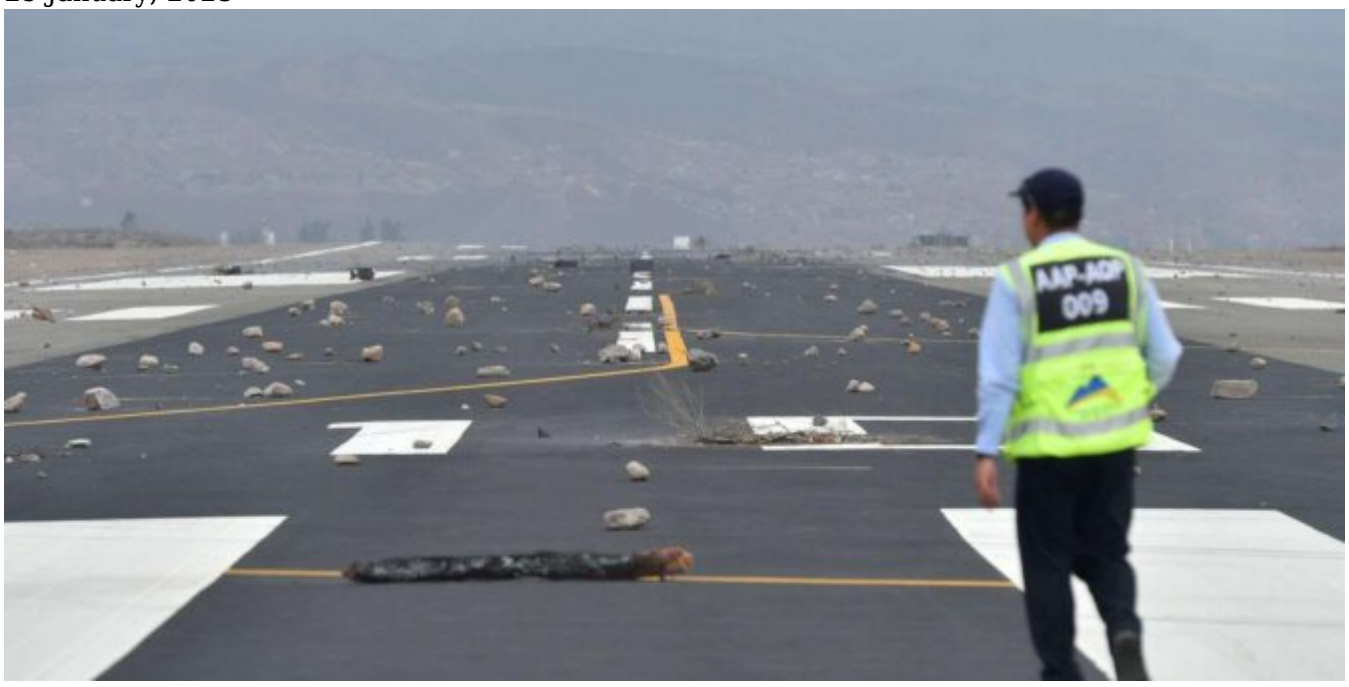
What else do I need to know?

That is about it. There are **contingency procedures**, and fairly standard equipment and all that which you can read about in full in here.

We also say check your weather, check your fuel, check your alternates because there are not many options nearby if routing this way. You can find more information on airspace safety here.

Peru: Airport Closures due to Civil Unrest

OPSGROUP Team
25 January, 2023



Ongoing unrest across Peru has led to the closure of **SPZO/Cusco** and **SPQU/Arequipa** airports on Jan 20. **SPJL/Juliaca** remains closed since Jan 11.

All three airports closed following clashes between security forces and protestors. At SPQU/Arequipa, reports indicate that there has been damage to the runway, ATC office, perimeter fences, safety signs, and more.

There were widespread demonstrations in Lima on Jan 19. So far, **SPJC/Lima** airport has remained open and operational, but security forces are only allowing ticketed passengers to enter.

Peru has declared a 30-day **state of emergency** in several parts of the country, including Lima, which essentially allows military forces to assist local police in maintaining law and order. Protests have been ongoing since early December, and the security situation may change without warning.

Advice for crew

- Any crew overnighting in Lima are advised to **stay close to the airport** and not travel in the city.
- **Avoid making any comments** about the government or the situation.
- Operations may be impacted if protestors **block access roads**, and security is likely to be much higher leading to some delays and disruption.
- The US advice is to **reconsider travel to Peru** at this time. The UK government issued the following information.

RNP-AR: New Arrival Procedures at Toronto

OPSGROUP Team
25 January, 2023

Everyone loves an aviation acronym, don't they? So this post is about an acronym that causes a lot of

confusion. **Is an RNP-AR the same as an RNAV, and what if you add GNSS on the end?**

It is also about **CYYZ/Toronto Pearson** airport because they have just implemented the **'biggest' deployment of ICAO E0R standard** at any major international airport in the world.

OK, so what *exactly* have they done?

If you haven't heard the term EoR before, then it just means ***"Established on RNP-AR"*** and means they can use reduced separation standards.

So in simple terms, they've started using RNP-AR approaches. Which is great because **reduced separation standards** means reduced track miles for you, which means reduced fuel costs and time and all that joylessness at the end of a long and tiring flight.

So, RNP-AR approaches are way better.

Nav Canada says this – *"The EoR separation standard allows aircraft to be considered established on final as soon as they're on the RNP-AR procedure, which is now in use for both ends of Toronto Pearson's north runway (05-23). As a result, some aircraft approaching from the south will have the opportunity to fly up to 1,000 feet higher when aircraft to the north are established on an RNP-AR procedure, thereby providing aircraft with the opportunity to reduce their noise over communities located south and downwind of the airport."*

And here's a little video to learn even more about the project.

But before you disappear, here are some of Toronto's charts and a little discussion on these approaches in case you're seeing them for the first time ever.

The Charts.

General RNP-AR Info.

Because a lot of folk find the RNP, RNAV, RNAV RNP, RNAV GNSS, RNP AR terminology just a little confusing (it is!), here is a link to a post talking all about it.

A mini summary:

- **RNAV is the original name**. The system doesn't require alerting (when you go outside the required tolerance)
- **RNP is the new name**, and the system requires alerting
- In the US they call RNAV approaches **GPS approaches**, and RNAV (RNP) when they need authorisation
- **RNAV/RNP (GNSS) requires GPS.** If it doesn't, it might use something like DME/DME to back-up accuracy
- **AR means authorisation required**, which means you need training and approval to fly them
- **They all come under PBN** which stands for Performance Based Navigation

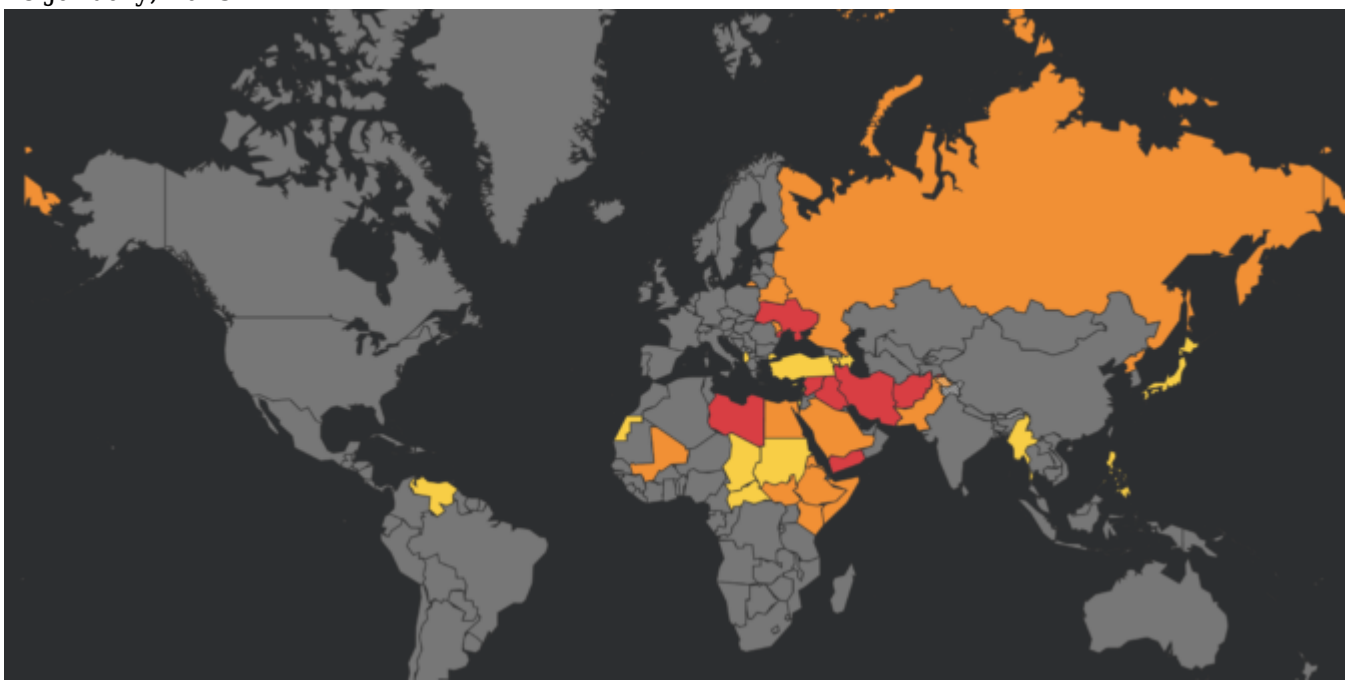
CYYC/Calgary

Calgary is next in line to get them (probably).

There is a ‘period of public comment’ open now until Feb 3rd 2023, so get your voice heard if you have comments on these plans.

Airspace Risk: Conflict Zones and Security in 2023

OPSGROUP Team
25 January, 2023



Over the past twelve months we have reported changes to a number of conflict zones which have the potential to affect airspace risk, along with other security concerns.

With the arrival of 2023, here’s another look at these regions which have had the biggest impact on civil aviation safety.

Active conflict zones

We cover all the current conflict zones, with information on the context and details of current notams and warnings, on safeairspace.net

There are a number of conflict zones which remain active, but which have seen little change to the situation or risk rating. The following mentions refer to those which have seen **substantial change over the last year only.**

Ukraine/Russia

The war has continued since February last year with significant impact on airspace in Europe. **Ukrainian airspace remains closed at all levels** due to ongoing and intensive military activity. Russia has also persisted with **flight disruptions at ten airports** in Southwestern Russia, and another in Russian-annexed Crimea.

They include:

- URKA/Anapa
- UUOB/Belgorod
- UUBP/Bryansk
- URWI/Elista
- URKG/Gelendzhik
- URKK/Krasnodar
- UUOK/Kursk Vostochny
- UUOL/Lipetsk
- URRP/Rostov-on-Don
- UUOO/Voronezh
- UKFF/Simferopol (Crimea)

Ukrainian airspace remains **extremely dangerous** due to military activity. Those risks have also been shown to spill over into open airspace that borders it. Special care needs to be taken when operating anywhere near the conflict zone.

Official Advice

Major authorities continue to recommend avoiding Russian airspace, and prohibit against operations in Ukrainian airspace. They also advise to use caution for operations within 200nm of the Ukrainian border.

On Jan 14, debris from a Russian rocket was found in Northeastern Moldova near the Ukrainian border. It is the third such report since October last year. Spill over risks from the war in Ukraine are a known threat to civil aircraft in the **LUUU/Chisinau FIR**, which is mostly off limits. AIP Sup 01/23 allows flights in and out of **LUKK/Chisinau** under certain conditions only.

Iran/Iraq

The end of 2022 saw an **increase in activity** between Iran and Iraq, with multiple rocket attacks reported in the **ORER/Erbil region**. In September, Iran closed a section of airspace in the north of the country along the border with Iraq, and is using the area to launch missile and drone attacks at targets near ORER/Erbil Airport. Iran is warning their own operators against flying in Iraqi airspace.

Ongoing political turmoil, militant activities, and military operations in Iraq poses an elevated risk to aviation and airspace safety. In recent months, militants have fired rockets in Baghdad’s Green Zone, causing flight disruptions at nearby ORBI/Baghdad airport; Iran continues to target northern Iraq with missile and drone attacks; and Turkey has been launching attacks along Iraq’s northern border.

Official Advice

The airways in the vicinity of the border should be operated on with caution.

Towards the end of 2022, the US FAA extended their restrictions on Iran and Iraq by two years – US operators are prohibited from the ORBB/Baghdad FIR below FL320, and completely prohibited from OIIX/Tehran FIR. Other major authorities caution against operations below certain flight levels.

Potential Risk & Conflict Zones

North Korea

North Korea test fired an unprecedented number of missiles in 2022, all without prior notice. Things escalated late last year to **coincide with South Korean military exercises.** A large number of the missiles landed in the Sea of Japan, with one splashing down just 30nm off the coast of South Korea. Another **overflew Japanese territory.**

From December 26, there were further disruptions. Several **North Korean drones flew across the demilitarised zone** and entered the RKRR Incheon FIR, resulting in military jets being scrambled. **Ops at RKSI/Seoul and RKSS/Gimpo** were briefly suspended. We wrote about that here.

The South Korean president has gone public announcing that any further incidents could threaten a military pact between the two countries, which has **potential to greatly increase overflight risk**.

Official Advice

The US prohibits flights across all North Korean airspace, including the oceanic part of the ZKKP/Pyongyang FIR over the Sea of Japan. Several other countries have airspace warnings in place which advise caution due to the risk posed by unannounced rocket launches.

The **primary risk** remains from debris from missile re-entries striking aircraft overflying the oceanic part of the ZKKP/Pyongyang FIR over the Sea of Japan. However, the escalation in tensions between North and South Korea, and the incursions on the Japanese EEZ raise the caution level within both Japanese and South Korean airspace.

China/Taiwan

In mid-2022, the US reported an increase in what they consider *'unsafe, unprofessional or non-standard intercepts'* by Chinese military aircraft in the South China Sea region. The China Sea Dispute is a growing concern.

China has also **increased political pressure on Taiwan**. Various military exercises by the Chinese took place throughout 2022. In August, China designated six areas of airspace as danger zones for a "military exercise," effectively barricading the country's airspace.

Official Advice

There are no reports of intercepts impacting civilian aircraft, but extra caution is advised because of a growing amount of military traffic active in the area.

Aircraft operating in Taiwan's ADIZ need to pay close attention to proper procedures – effectively squawk a discrete code and remain in contact with ATC at all times.

Turkey

Turkey has seen an increase in spillover effects from **Syrian and Iranian conflicts.** Reports say shelling and rocket strikes have occurred near a town in southern Turkey, near the border with Syria. Turkey has been carrying out airstrikes on Syria and Kurdish regions of Iraq since an earlier attack on Istanbul. The escalation in airstrikes, and risk in southern Turkish airspace from Syrian insurgents poses an **ongoing threat to civil aircraft.**

Official Advice

More caution should be taken if operating in southern regions of Turkey, along the border with Syria. **GPS**

jamming within border areas can be expected.

Civil Unrest and Crime

Economic pressures around the world over the past twelve months seem to have escalated instances of widespread civil unrest that have directly impacted aviation.

Peru is the latest. It has been experiencing political turmoil since late last year which led to protests and riots. Demonstrators blocked access to several airports. The situation is still developing.

We also reported on similar issues in **Sri Lanka when a state of emergency was declared** back in July, 2022. Fortunately, in this case the situation was resolved.

Mexico has seen a **rise in civil unrest** since the start of January 2023, in response to the arrest of a primary member of a cartel. The unrest has been limited to the Sinoloa region, but has seen three airports impacted significantly.

Bouts of civil unrest can occur without warning and have potential to close down airports, and put crew on the ground at risk. The US Department of State is our best source of travel advisories and warnings. For operations to less developed countries in particular, it is important to monitor the political and security situation before visiting unfamiliar spots *(and if you have, please share with us at team@ops.group or via Airport Spy).*

2022 also saw a notable number of less common security issues, including bomb threats, the use of fake airline IDs and even imprisonment of crew without charge. A keyword search on your Member's Dashboard will help you find more information on all these things.

Operation Orion: French Airspace Closures

OPSGROUP Team
25 January, 2023

France are worried about *"the deterioration of the international context"*. Basically, they are worried about the state of the world. So, they have decided to run a fairly major crisis management readiness, preparedness sort of a thing over a 3 year period.

As they put it, it will *"consider the hypothesis of a major engagement of high intensity as possible"* and help the armed forces prepare for it by practicing a whole bunch of exercise.

Or as we put it – **"a great big load of military mayhem in French airspace to look out for".**

Sounds big?

It will be. **The biggest in 30 years** in fact, involving a whole load of NATO members. But the main impact is going to be within French airspace.

Orion is the first of the 3 exercises which are planned over the next 3 years. It consists of 4 phases, expected to take place on the following dates:

- Phase 1 & 3 (computer assisted exercises, so no impact to ops)
- **Phase 2: from 21 Feb to 10 March** (taking place in the southern part of France)
- **Phase 4: from 17 April to 5 May** (taking place in the north-eastern part of France)

What does that mean for flight ops?

We heard someone say it will have a **"huge impact on the network"** with numerous flights impacted through re-routes, delays and probably cancellations because of airspace capacity reductions.

So, what do we need to worry about?

Phases 1 and 3 are computer assisted, but phase 2 involves real people and real military stuff including real military airplanes in **real bits of airspace we normally really like to fly in.**

The ramp up for this will start on **Feb 16** so you can expect disruption from them, through to **March 10** when the phase finishes.

The maps aren't the best quality but you can view them in the document here. We have recreated the two main upper level ones for you below.

Because there are various different areas scattered across the region, flights may be disrupted in the areas between resulting in significant re-routes for overflights, with the impact felt across France and into UK airspace with NATS managing the routings that end.

A summary of possible threats:

- Re-routes and inflight delays
- Congested airspace resulting in slots and disruption, possibly cancellations
- Reduced diversion options in France during exercises
- Military traffic to watch out for
- Complex danger and prohibited areas across multiple levels and regions to be aware of

There will be more information though right?

Yes, plenty hopefully:

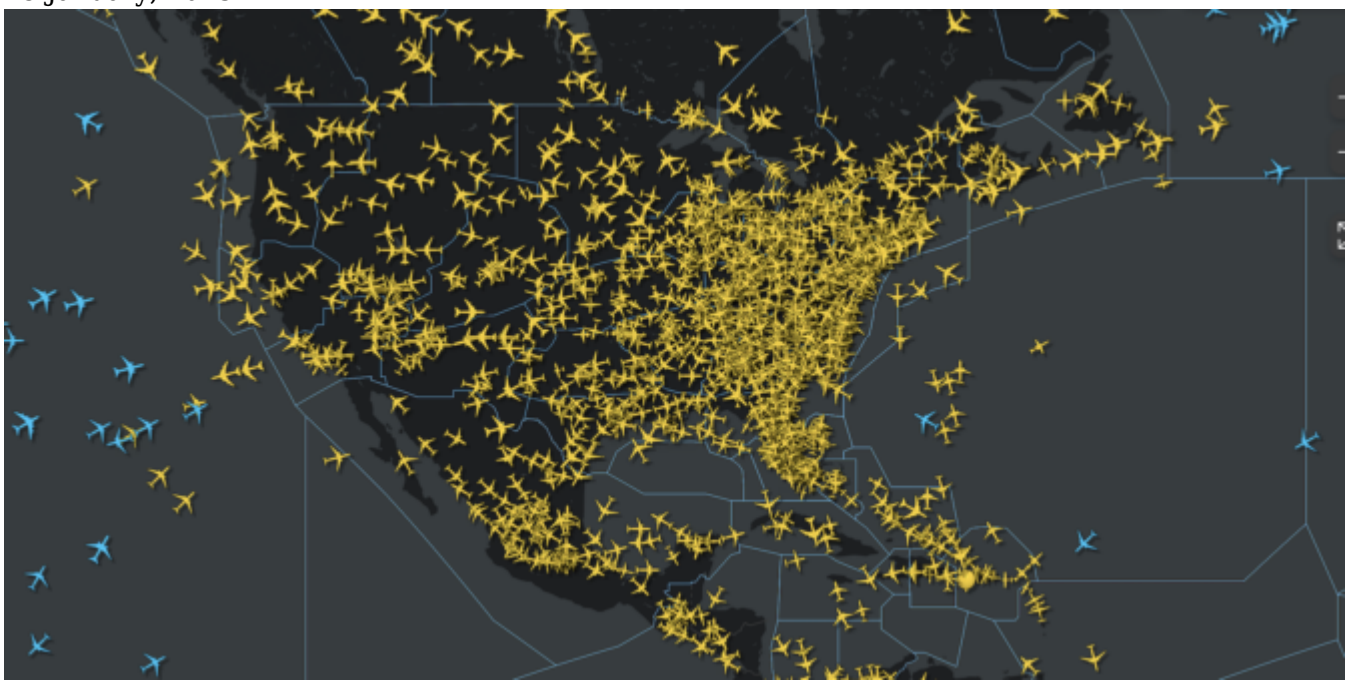
- AIP SUP is due out imminently.
- Eurocontrol are expected to run some conferences on this which will be announced by their Network Operations Portal here.
- The specific danger and prohibited areas will have notams issued closer to the dates.

You can find a *calendar* of NATO planned exercises here to give a heads-up on future plans (and AIPs and Notams to look out for).

So, watch this space and be prepared for some frustrating planning and routing disruptions through Feb and March, and again in April.

US Grounds All Flights After NOTAM System Failure

OPSGROUP Team
25 January, 2023

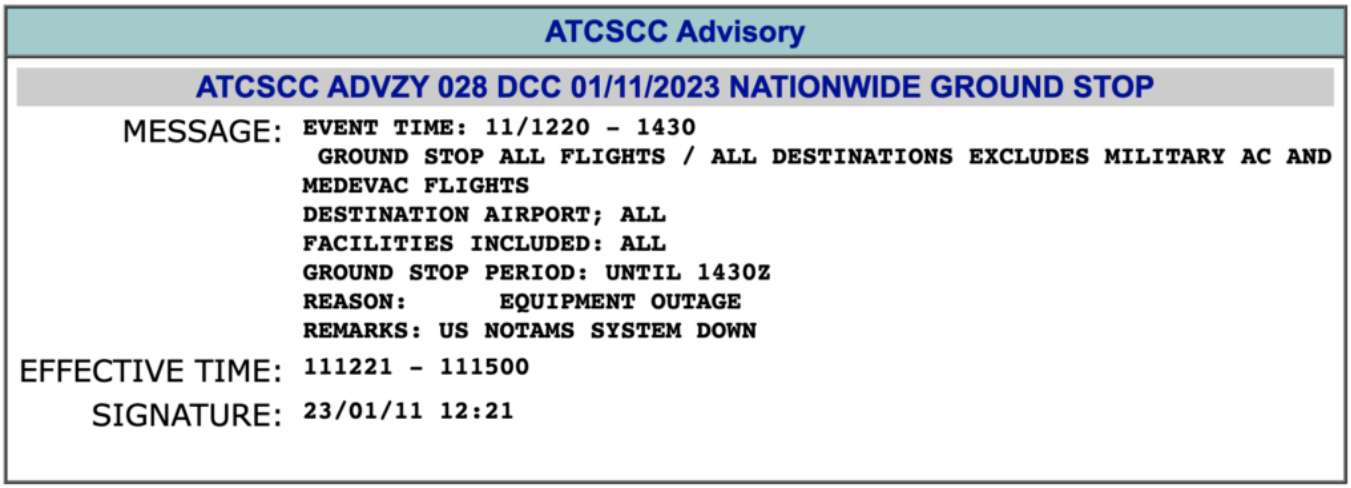


Update 12Jan 1100z:

The Misery Map of flight delays in the US isn't looking too bad today, following yesterday's Notam system meltdown that resulted in a nationwide ground stop and the cancellation of more than 10,000 flights according to FlightAware. The FAA has said the Notam system "continues to remain operational and stable" today. For ops to/within the US today, keep an eye on the latest FAA Advisories here.

The US grounded all flights on the morning of Jan 11, due to a glitch with the Notam system.

Here's the ATCSCC advisory giving the order:



ATCSCC Advisory

ATCSCC ADVZY 028 DCC 01/11/2023 NATIONWIDE GROUND STOP

MESSAGE: EVENT TIME: 11/1220 - 1430
GROUND STOP ALL FLIGHTS / ALL DESTINATIONS EXCLUDES MILITARY AC AND MEDEVAC FLIGHTS
DESTINATION AIRPORT; ALL
FACILITIES INCLUDED: ALL
GROUND STOP PERIOD: UNTIL 1430Z
REASON: EQUIPMENT OUTAGE
REMARKS: US NOTAMS SYSTEM DOWN

EFFECTIVE TIME: 111221 - 111500

SIGNATURE: 23/01/11 12:21

The Notam system failed at 2028 UTC on Jan 10, after which time no new Notams or amendments were processed.

The FAA lifted the ground stop shortly before 9am EST on Jan 11, saying that "normal air traffic operations are resuming gradually". Later that night, they announced that the outage was **likely due to a software issue.**

> Update 6: We are continuing a thorough review to determine the root cause of the Notice to Air Missions (NOTAM) system outage. Our preliminary work has traced the outage to a damaged database file. At this time, there is no evidence of a cyber attack. (1/2)
>
> — The FAA ✈ (@FAANews) January 11, 2023

Springer's Final Thought

We all hate Notams.

Let's qualify that. *A significant number of pilots and dispatchers have told us that they are concerned about Notams, and would like to see an improved system.*

The FAA has said last week's meltdown was due to a damaged database file. Our focus has never really been on the software on the back-end of the Notam system, but on the impact of Notams on pilots and operators.

We've been campaigning for changes to the current Notam system for a long time – **not because the system might crash, but because of the daily impact to pilots who are forced to use an archaic briefing system from the 1920's that causes critical flight information to be missed.**

If you've read the news today about this mysterious "Notam system" causing widespread travel misery,

and you want to learn more about this ongoing issue, you can start your adventure here.

North Korean Drones Over Seoul

OPSGROUP Team
25 January, 2023

On Dec 26, several North Korean drones entered South Korean airspace. Ops at both **RKSI/Seoul** and **RKSS/Gimpo** were disrupted while military jets were dispatched to intercept them.

While it's no secret that North and South Korea don't get along, this is the first drone incursion in the **RKRR/Incheon FIR** in half a decade. And it didn't go down well. So much so that there is now talk of ending a military pact that has stood since 2018 – especially if there is another incursion.

From an aviation standpoint, this has potential to spell trouble as it **threatens the status of a military no-fly zone** that buffers the two countries. In which case, the risk to aircraft in the skies of South Korea could deteriorate quickly – especially anywhere near its northern border.

In the **absence of any active airspace warnings**, here's what you need to know.

The Dec 26 Incident

At around 10:30am local time, at least five North Korean drones entered South Korean airspace over the Military Demarcation Line near the city of Gimpo – just northeast of Seoul.

It appeared to have caught South Korean military by surprise, who temporarily suspended ops at RKSI/Seoul and RKSS/Gimpo to scramble military jets to intercept them. They fired at least **one hundred rounds** at the drones supposedly as warning shots.

There are no reports that any of the drones were shot down. One returned to North Korea, while the status of the other four isn't known.

This has attracted some negative shade in the media, where some felt that the military's response was inadequate.

In the days that followed, South Korea responded by sending **surveillance aircraft into the ZKKP/Pyongyang FIR**. The South Korean president has also said that the drone incident could cast serious doubt on a military pact between the two countries – the one that protects border airspace from military incursions.

North Korea's recent ballistic missile tests haven't helped either – in recent weeks several unannounced launches have taken place with scant regard to civil aviation. The past twelve months have seen a **huge upswing** in these types of incidents, at one point triggering a ground stop on the US West Coast. And they send a very clear message to South Korea.

Political Posturing

So, are we about to see an outright conflict? Probably not, but 'quid pro quo' can be dangerous, **especially where airspace is being used as the stage.**

Add to that the potential for increased posturing on the border and civil aviation needs to take note. **Mistaken identity and mis-targeting is a very real threat.** This will escalate should the agreement which upholds the demilitarised buffer zone between them get dismantled.

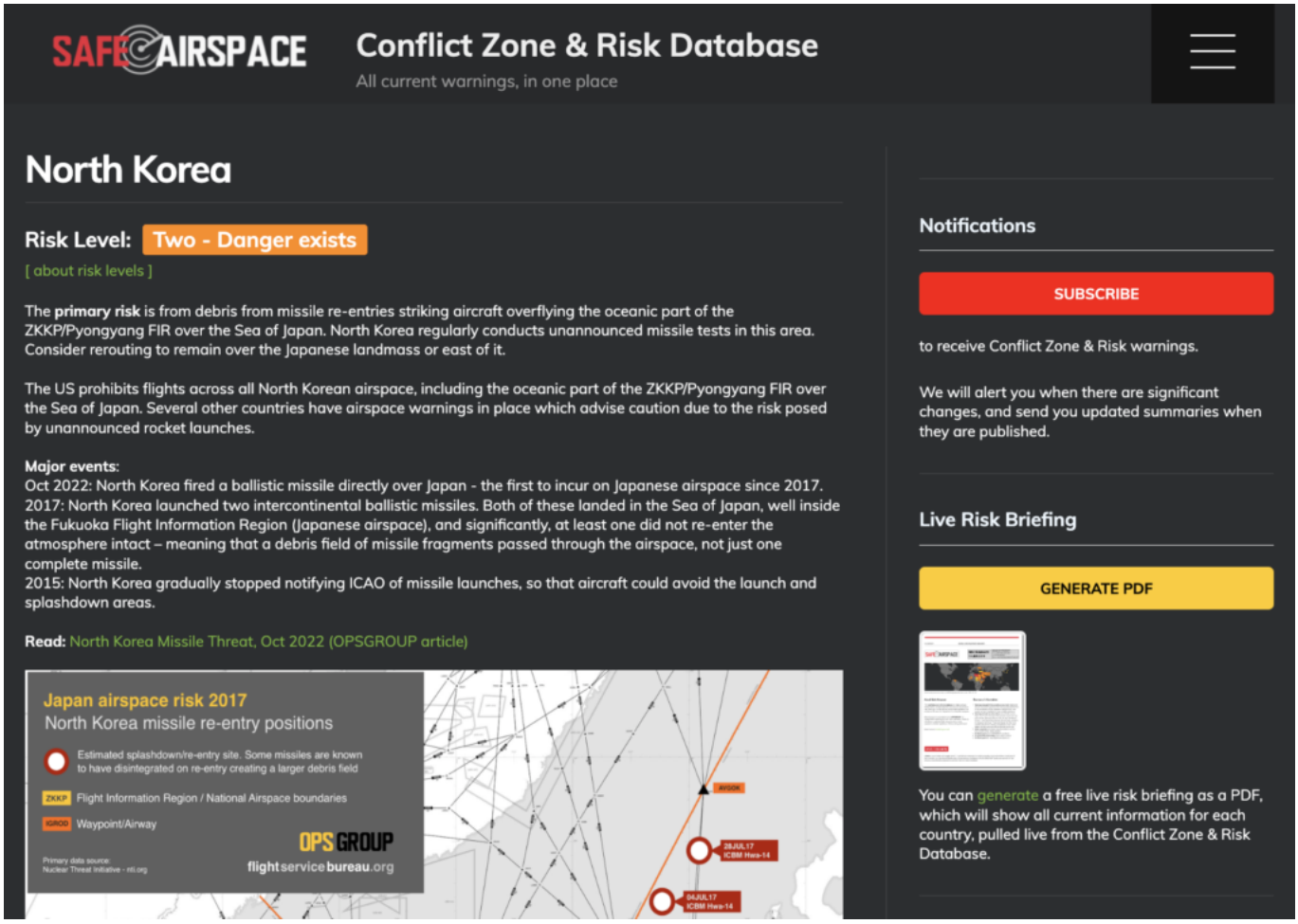
Previous Airspace Warnings

The FAA has previously had warnings in place for the RKRR/Incheon FIR, but they have long since **expired**.

The first related to unannounced North Korean missile tests and regional instability. The second was a Notam on **GPS interference** that was cancelled back in 2019. It was purely advisory – that caution should be taken near the border as the signal may be interfered with.

Since then, things have been quiet. But it is worth keeping in mind that operations in and out of Seoul particularly, are only 30nm away from the demilitarised zone. And beyond it lies the ZKKP/Pyongyang FIR, where US operators are currently **banned at all levels.**

You can check Safeairspace.net for a summary of the airspace risk, including warnings issued by each country.

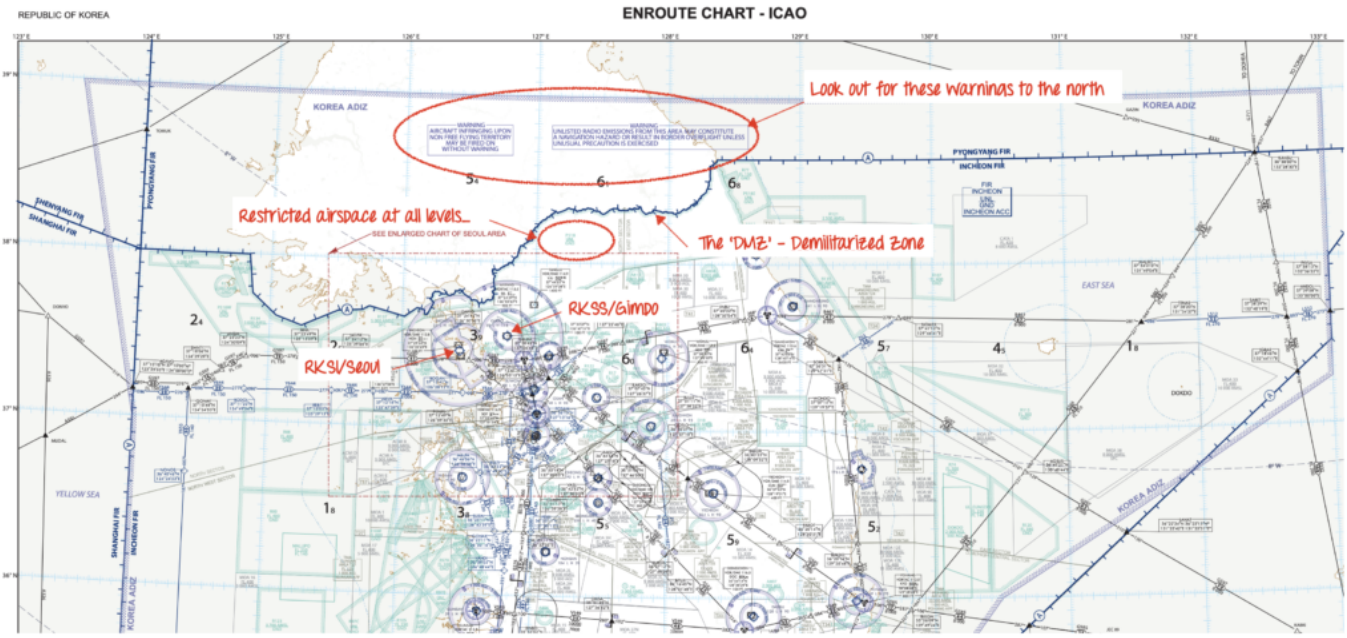


What does the South Korean AIP say?

Essentially, don't stray north.

There is a large area of **prohibited airspace** which runs along the military demarcation line – a strip of land around 2.5 miles wide which acts as a buffer between North and South Korea more or less defined by the 38th parallel.

No aircraft can enter the area at any level, 24 hours per day. As it is **just north of RKSI/Seoul**, operators there are advised to give it a wide berth. So much so there is a note to exercise extreme caution in a sector of airspace north of the field. **You don't want to bust it.**



As a general rule, the military can impact civil aviation operations without prior notice. This is precisely what went down on December 26.

Where to from here?

We watch and wait. Tension on the Korean Peninsula isn't new – but the December 26 incident is a reminder of just how volatile things can be at short notice. Should the military pact between the two countries genuinely implode, the risk to civil aviation could change overnight.

Mayhem in Mexico: Airports Closed Amid Cartel Violence

OPSGROUP Team
25 January, 2023

There were violent clashes between cartel members and security forces in Culiacan on Jan 5, after the arrest of a son of notorious drug kingpin “El Chapo”. Further clashes were reported throughout Sinoloa state in response – cartel members set up road blocks, set fire to vehicles and **attacked a local airport, where two planes were hit by gunfire.**

Airport closures

Several airports in the region were forced to close:

MMCL/Culiacan – during the clashes on Jan 5, an Aeroméxico E190 was hit by gunfire on departure here, resulting in an aborted takeoff. One bullet hit the tail of the aircraft.

Elsewhere in Sinaloa, other airports remain closed on Jan 6 – **MMMZ/Mazatlan, MMCN/Ciudad Obregon, and MMLM/Los Michos.**

All airports have now re-opened, but operators should continue to be cautious. It is recommended to pre-arrange transportation and hotels, and check that routes are not affected by any airspace closures.

Mexico overview

Up until now safety and security issues have been relatively few and far between for Mexico.

The following alerts are currently active **(Jan 2023):**

- **MMUN/Cancun** If you are a GA operator heading to Cancun then keep an eye on notams restricting when you can operate there. A0064/23 and A0065/22 are currently active, with restrictions on Jan 7 and 8. **Issued Jan 04, 2023**
- **MMTO/Toluca** There's a new form that all passengers and crew of international flights need to fill out before arrival at MMTO/Toluca. It's fairly standard stuff – just health screening. **Issued Jan 02, 2023**
- **MMZZ/Mexico** Local agents have reported that operators should expect increased ramp checks at Mexican airports through to Jan 20. Check our article for a list of everything you should carry on board for trips to Mexico in case you get ramp checked. **Issued Dec 22 2022**
- **MMZZ/Mexico** Mexico has scrapped daylight saving time (DST) in most parts of the country, which means that clocks won't change come April. Standard time will apply all year round, apart from in the municipalities that border the US – these will continue to observe it. **Issued Dec 06, 2022**
- **MMZZ/Mexico** Fifteen Mexican airports have changed their fuel from Jet A1 to Jet A (actually it happened back in March but we didn't spot it until now). The list includes some big international airports – MMMY/Monterrey, MMPR/Puerto Vallarta, MMCL/Culiacan, and a few more. The main difference is the freezing point (minus 40 degC for Jet A). So check what you're filling up with. **Issued Oct 20, 2022**
- **MMMX/Mexico City** A near-miss and last minute go-around at the airport on May 7 follows a series of other events which have caused concerns over safety standards at the airport. Many of these are attributed to the recent opening MMSM/Felipe Angeles airport leading to increased airspace complexity. The government plan to reduce capacity at MMMX/Mexico City over the next few months to improve the situation. **Issued May 11, 2022**

Do you have any further information?

Please contact us at team@ops.group if you have any more information on the current situation in Mexico.

We Want to Talk to Lebanon

OPSGROUP Team
25 January, 2023

We want to talk to Lebanon, more specifically, someone in the Lebanese Aviation Authority (the DGCA).

But since they probably won't speak to us, we'll talk to you instead… with a little warning about operating there.

What is this all about?

It is all about a tradition in Lebanon where **they fire guns about willy nilly**, often into the air, when they celebrate.

They do it at graduations, birthdays, weddings, and even funerals or when a political leader just talks on television *(although that one happens less now because a lot of folk there aren't so happy with the government).*

There was renewed attention from authorities in 2016, but reports of it occurring across Lebanon are still common despite the practice having been outlawed since then.

Reports suggest **OLBA/Beirut airport** sees an average of **7-8 incidents** involving indiscriminate gunfire per year.

New Year's Eve 2022 saw reports that **two MEA A320s** parked at OLBA/Beirut were **damaged by bullets** during the celebrations. A passenger was also almost hit as he left the terminal.

On Nov 10, 2022, a **stray bullet hit a commercial jet on the approach** to OLBA/Beirut.

> Two Middle East Airlines Airbus A321neos damaged by bullets fired during the New Year's celebrations while parked at Beirut International Airport. https://t.co/8VotXyDDlK pic.twitter.com/Rw2O0f1wwz
>
> — Breaking Aviation News & Videos (@aviationbrk) January 1, 2023

Why is there no security?

Actually, the reason Beirut airport seems to be at higher riskis as much to do with the fact it is the main international airport, as with the airport's positioning to the city and populated areas.

OLBA/Beirut's approaches both cross densely populated areas, and there is little separation between the airport area and land side areas. The final approach to runway 03 also passes over hotels along the coast where celebrations are often held.

What can you do about it?

Unfortunately, *person-with-gun spotting* on short finals probably isn't an ideal plan. There is **limited mitigation** for this without support of the authorities to improve security and safety.

- If you do spot anything then **report it immediately** to ATC
- **Be aware of the risk**, particularly if operating during holiday periods
- **Do not hold at low level** over populated areas of Lebanon (unlikely you will, but a reminder)
- **Consider climb performance** on departure (get up as quick as possible!)

Does this happen anywhere else?

Risk of low level weapons fire is usually associated with conflict zones. Here are a few, there are no doubt more *(and if you know of any, let us know. We'll add to the list so other operators have a heads-up too.)*

- **OPPS/Peshawar** The airport in Pakistan lies in close proximity to the mountainous region

which borders Afghanistan. The mountains are a known region for rebel groups. Crew are advised not to hold or overfly the area due to the risk of gunfire. More info

- **ORER/Erbil** The Iraqi airport is the main airport for Erbil, the capital of the Kurdistan region of Iraq. There is currently ongoing conflict in this region. The approach to Runway 18 / departure from Runway 36 both cross a region of high terrain where there have been multiple reports of gunfire risk. Crew are advised to avoid descending or holding, or crossing this region until they have reached a suitable altitude. More info
- In Sep 2022, a man was hit inside an aircraft flying at 3500′, routing to **VYKL/Loikaw airport in Myanmar.** The bullet source was unconfirmed, but linked to conflict between rebel and government groups in the area. More info

Turkey and the Philippines also (sporadically) see a similar tradition occurring.

It's not the only threat in Lebanon

Lebanon has seen a period of **growing instability and unrest** because of political and economic turmoil. Riots and protests are a particular security concern in Beirut.

Lebanon's relationship with neighbour Israel has had its ups and downs. Lebanon has not yet followed in the footsteps of other countries in the region to improve ties (and airspace access) with Israel. **Saudi Arabia and the UAE have both entered a 'normalisation' agreement**, also known the Abraham Accords Peace Agreement, which opened up (some possibilities) for using Israel's airspace.

The country also sees increasing **spillover risk from the Syrian conflict.** The conflict often results in **Israeli fighter jets transiting their airspace with no clearance.** It is repeatedly a persistent issue, and raises concerns over airspace risk and safety in the border areas of Lebanon. The Israeli airforce sometimes target Syria from this region resulting in missile **attacks and airstrikes close to OLBA/Beirut.**

The primary risk in Lebanon's airspace (the OLBB/Beirut FIR) from the Syrian conflict is that **civil aircraft may be targeted in error**, or caught in crossfire during ongoing air attacks involving Israel, Russia, Iran. Missiles may erroneously lock on to civil aircraft. There is a risk to civil aircraft operating on **airways UL620, UW74, UR18, and UP62.**

Several countries have issued **airspace warnings for Syria**, banning operators from entering the OSTT/Damascus FIR. Many of these warnings include include the note that there is a potential risk to aircraft within **200nm of the Damascus FIR which includes the OLBB/Beirut FIR**. There is also risk of GPS interference and communication jamming.

For a full briefing and information on current warnings visit Safeairspace:

- Lebanon
- Syria
- Israel

Back to our call to the DGCA

The risk of indiscriminate gunfire impacting flight operations is a growing concern and the DGCA need to put measures into place to better protect aircraft operating into the country, particularly at OLBA/Beirut International.

So, here is our call to them to do something.

New US Rule for China Arrivals

OPSGROUP Team
25 January, 2023

There's mixed news from China.

On the one hand, it is finally about to get rid of quarantine on arrival. On the other, Covid is surging badly. Which means that nations around the world are beginning to introduce new rules for people who have been there – including the US.

News from the US is that from Jan 5, all passengers will need to provide a negative Covid test, or proof of recovery, to board a flight to the US.

Here's everything you need to know.

What's going on in China?

Its zero-covid strategy is being abandoned amidst sky-rocketing case numbers. So much so that it is estimated that up to forty percent of its 1.4 billion have had it.

It's not panic stations yet though, as the same path has been well-trodden by other countries in the past twelve months. But there is international concern over the accuracy of the statistics being reported, and more importantly the tests that identify new or potentially dangerous strains of the virus that might emerge.

Which is why we're seeing new rules again for passengers who have been there.

Ironically there has also just been a big announcement that anyone headed to China **no longer has to quarantine** from Jan 8. Which means **demand for travel back to the US for those who return is**

about to soar.

Enough of that. What's the impact?

From 00:01z on January 5, anyone allowing a passenger to board a flight from China to the US will need to see **proof of a negative Covid test** taken within two days of departure, or certified proof of recovery that is less than 90 days old.

The rule will apply to all flights from mainland **China**, **Hong Kong** and **Macau** including GA/BA flights.

It will apply to all passengers, including US citizens, regardless of vaccination status.

You can check the official announcement of all this from the US here.

What type of tests will be accepted?

Viral tests that have been **approved by the CDC**.

Self-tests (including rapid antigen) are allowed, but must include at least a tele-health service to oversee the test, and certify the results along with the traveller's identity.

I've just had Covid. Do I need to test?

A certified proof of recovery is also acceptable, provided it meets two requirements – it has to be more than ten days old, but no more than 90.

I've only transited through China, do I still need to test?

No, provided passengers have stayed airside, they do not need to meet the new requirement.

What about crew?

Good news, you will be **exempt**. But you'll need to be either operating, or positioning on the aircraft. It's recommended you travel with a letter (paper or electronic) from your employer certifying you meet the requirements of the exemption. Another option for deadheading crew is that they are included on the gendec.

If you're commuting, travelling for training (such as sims) or flying for other business reasons, bad luck. You will need to meet the same requirements as passengers.

Another gotcha.

The rule is also extended to passengers who have been in China, Hong Kong or Macau in the past ten days, and are arriving on flights from **RKSI/Seoul, CYYZ/Toronto** or **CYVR/Vancouver.**

What is the rest of the world doing?

It is likely we'll see similar testing rules introduced globally, at least in the short term.

Several countries have already announced similar restrictions to the US: **Canada, UK, France, Italy, Spain, Australia, India, Japan, Malaysia, Taiwan, South Korea, Morocco.**

The good news is that there doesn't appear to be any suggestion of **quarantine or entry bans** being added back to the mix. Just typical uncertainty of a pandemic-weary world. But we'll continue to report on major changes that might affect you operationally as we see them.

If you're headed to China, we recommend calling ahead.

Especially for **crew**.

China has had some of the most **confusing and inconsistent** entry rules since the start of the pandemic. They seem to vary from port-to-port. With the promise that crew no longer need to quarantine on a widespread scale, we'd love to hear from you if you're headed there – especially if you encounter something you weren't expecting.

The Day After Tomorrow is Now...

OPSGROUP Team
25 January, 2023

Pilots and operators are definitely not the ones hoping for a white Christmas because it means **horrible weather, delays and disruption.**

Unfortunately for all, weather news sites are calling **a 'storm of epic proportions' is heading towards North America.** It might already have reached you even...

So here is the update on the weather forecast, and a hopefully handy refresher on some of the challenges this might mean for aviation. *(So you know we care and are thinking about you while we sit cosy in our warm houses drinking Eggnog).*

The Forecast.

On a scale of 1 to bad, they are calling this a *'once in a generation'* weather event, a *'looming winter storm of historic proportions'.* Not quite A Day After Tomorrow level weather phenomena, but not far off...

The weather is being caused by a **severe low pressure system** known colloquially as a 'bomb cyclone' because of the **rapid and significant pressure drop** that occurs – around 24 millibars in 24 hours (and that right there is one thing to be cautious about).

The arctic storm is expected to fully impact the **east coast of the US and Canada** later on December 23, and the following warnings are in place:

- Powerful winter storm bringing sharp cold front and severe snowfall from **Midwest to Ohio Valley:** *Dec 23 onwards*
- Powerful winter storm bringing sharp cold front and severe snowfall through **Great Lakes and interior Northeast:** W*eekend Dec 24-25 onwards*
- Extreme cold and high gusts over **central an eastern US:** *Dec 23 onwards*
- Flooding in the **Northeast:** *Weekend Dec 24 onwards*
- **States of emergency** declared across New York, Kentucky, North Carolina, West Virginia, Georgia and Oklahoma. An 'energy emergency' in Wisconsin.

What is the impact for aviation?

Here is a general 'things to look out for' list:

- Airports are likely to see **significant disruption, cancellations and closures** leading to limited alternate options. En-route airspace will be more congested with diversions and detours taking place
- Significant **ground delays for de-icing/anti-icing**, and during periods of extreme weather operations will be grounded leading to significant backlogs, parking issues and congestion
- **Power outages** are likely in the Midwest and Canada which may have a knock on effect for airports
- **Staff shortages** may occur if folk are unable to commute to airports
- **Oil prices** are leaping up. Check the costs for fuel.

You can find the **National Weather Service** page on the storm warnings here. They post regular updates via their Twitter page as well.

You can monitor the current US **National Airspace System Status** here.

Is there anything you can prepare for?

The weather conditions are severe, they are saying things like "*life-threatening wind chills"* so think about that before sending your poor First Officer out, unless you want a fingerless icicle trying to fly with you. It really is going to get nasty in places.

Here is our list of ***Winter Chillers & Thrillers*** to look out for:

- **Conditions might really get too severe** so *don't push it* if they do. Look after yourselves!
- There are going to be **significant delays in the air and on the ground**. Take fuel and make a plan B (preferably before you need it).
- **HOTs are going to be hard to manage:** Anyone who has ever operated out of JKF on a winter's day and has waited 7+ hours for de-icing knows what I am talking about. With queues of traffic and bad weather there is a good chance you'll go out of your HOT so keep an eye on

the clock.

- **The Global Reporting Format** is great but if it is saying things like 1/1/1 then you might find you can't stop so well, so check that performance. Some operators don't allow takeoff on icy runways unless treated, for example.
- Ice pellets, hail etc, and severe icing ain't great. Check them SigWx charts too.
- Refresh on **Cold Weather operations procedures**.We found some that might or might not be helpful:
    - IFALPA put this guidance out on Finland airport operations (but it is applicable to anywhere cold)
    - The FAA published this (which is geared to GA but still has some handy info in it)
    - AOPA published this and it looks pretty helpful
- **Look after your batteries** – they have minimum temperature limits and you might need to take them off if you're parking up outside.
- **Watch the fuel temperatures** – JET A1 freezes at -47°C, Jet A at -40°C.
- **Check your altitudes** – apply those cold temperature corrections
- Snow and blizzards bring **LVPs**

We have a few posts which you might find handy for swotting up on all things chilling:

- Fuel Facts: Let's get to the (freezing) point
- De-ice De-ice Baby

Be careful!

Not much more to say than that. Stay warm and safe.

UK Airport Border Force Strikes

OPSGROUP Team
25 January, 2023

Border Force workers are planning to strike at several major UK airports from December 23 – 31. In some case the impacts are expected to be **major**, and will affect GA/BA operations along with scheduled airlines.

Here's a rundown of everything we know so far.

What's happening?

The UK's Border Force union has announced one thousand workers will strike over the holiday period amidst an ongoing dispute over pay and conditions.

It goes without saying it is a busy time of year – ten thousand flights, and hundreds of thousands of passengers, are set to be directly affected. The Government has rushed to bring in **military staff, civil servants and other volunteers** to temporarily try and take up some of the slack.

Which airports are affected?

Six big ones:

- EGLL/Heathrow (Terminals 2 – 5)
- EGKK/Gatwick
- EGBB/Birmingham
- EGFF/Cardiff
- EGPF/Glasgow
- EGCC/Manchester

Signature FBO advise that impacts will be felt at all airports, but **EGLL/Heathrow** looks set to be the most heavily affected.

Dates and Times

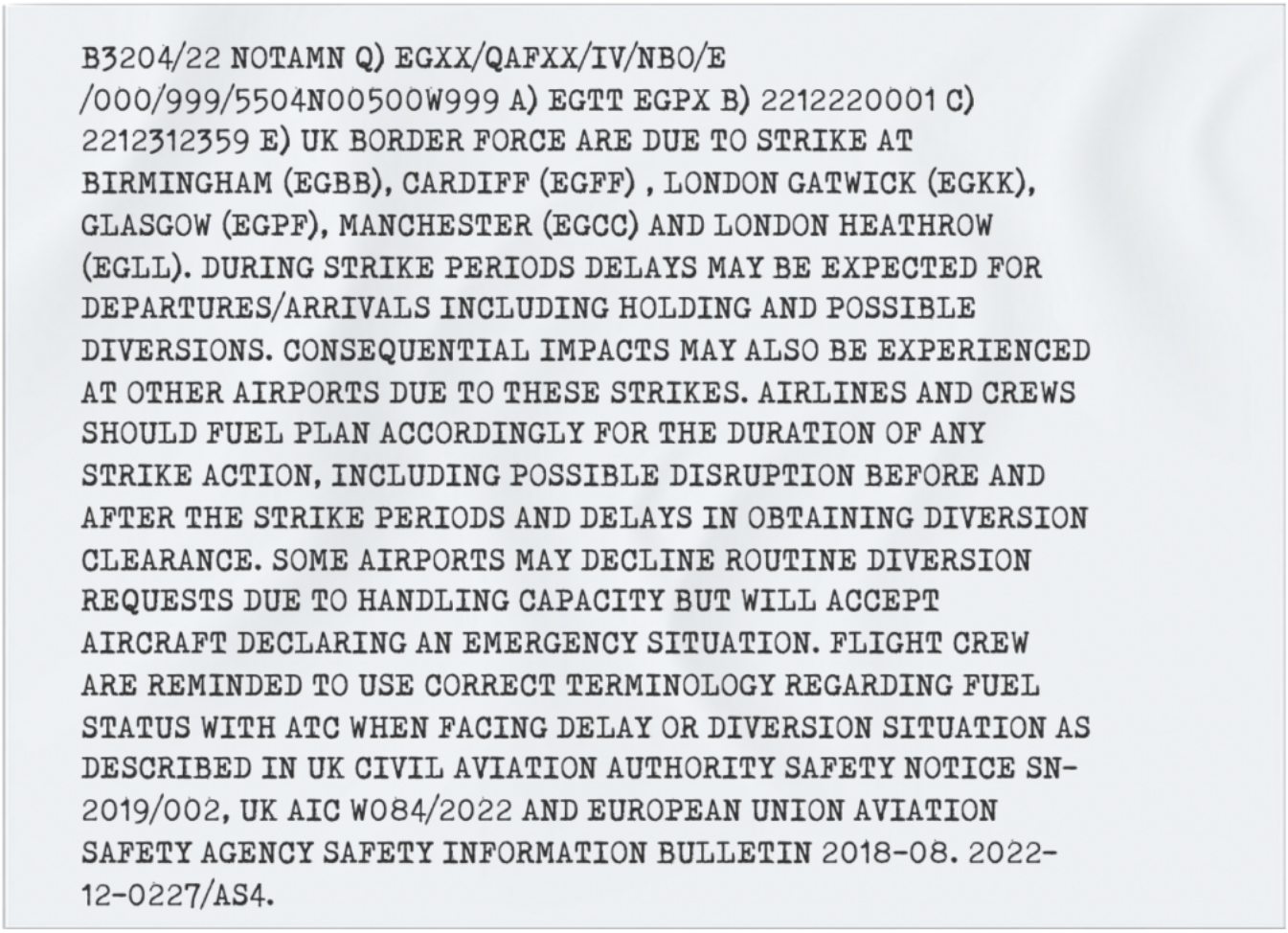
The strike action will be **24 hours a day**, with the exception of December 26 and 31, where it will end at 7am.

What will the impact be?

Passengers are likely to experience **extensive delays** through passport control. For FBOs, it is important to **advise them of your planned arrival as early as possible** so they can make arrangements. They may struggle to find available staff to attend to you and your passengers.

Inbound aircraft may also be hit with traffic jams leading to **extended holding and possible diversions.**

On December 22, the UK CAA published the following Notam:



B3204/22 NOTAMN Q) EGXX/QAFXX/IV/NBO/E
/000/999/5504N00500W999 A) EGTT EGPX B) 2212220001 C)
2212312359 E) UK BORDER FORCE ARE DUE TO STRIKE AT
BIRMINGHAM (EGBB), CARDIFF (EGFF) , LONDON GATWICK (EGKK),
GLASGOW (EGPF), MANCHESTER (EGCC) AND LONDON HEATHROW
(EGLL). DURING STRIKE PERIODS DELAYS MAY BE EXPECTED FOR
DEPARTURES/ARRIVALS INCLUDING HOLDING AND POSSIBLE
DIVERSIONS. CONSEQUENTIAL IMPACTS MAY ALSO BE EXPERIENCED
AT OTHER AIRPORTS DUE TO THESE STRIKES. AIRLINES AND CREWS
SHOULD FUEL PLAN ACCORDINGLY FOR THE DURATION OF ANY
STRIKE ACTION, INCLUDING POSSIBLE DISRUPTION BEFORE AND
AFTER THE STRIKE PERIODS AND DELAYS IN OBTAINING DIVERSION
CLEARANCE. SOME AIRPORTS MAY DECLINE ROUTINE DIVERSION
REQUESTS DUE TO HANDLING CAPACITY BUT WILL ACCEPT
AIRCRAFT DECLARING AN EMERGENCY SITUATION. FLIGHT CREW
ARE REMINDED TO USE CORRECT TERMINOLOGY REGARDING FUEL
STATUS WITH ATC WHEN FACING DELAY OR DIVERSION SITUATION AS
DESCRIBED IN UK CIVIL AVIATION AUTHORITY SAFETY NOTICE SN-
2019/002, UK AIC W084/2022 AND EUROPEAN UNION AVIATION
SAFETY AGENCY SAFETY INFORMATION BULLETIN 2018-08. 2022-
12-0227/AS4.

The moral of the story seems to be to **take more fuel.**

If you do find yourself in a queue and low on gas, they want you to be familiar with the **correct terminology with ATC** to get the message across. The Notam above references the following three docs:

UK CAA Safety Notice – Protecting Final Reserve Fuel and The Minimum Fuel Declaration.

UK AIC W084/2022 – Diversion Requests in UK Airspace.

EASA Safety Bulletin 2018-08 – In Flight Fuel Management.

I don't have time for that. Just give it to me straight.

The docs all deal with **unanticipated delays** and give a reminder that it is up to the crew to monitor fuel in flight and advise ATC if they will be landing with minimum legal reserves, or less.

There are two ways to do it:

Say '*minimum fuel*.' This isn't an emergency, but you're already landing close to final reserve fuel. You cannot accept any further delays without chewing into your FRSV.

Declare an emergency, *'Mayday, mayday, mayday fuel....'* The rule is pretty clear cut on this one. If you will be landing at the nearest suitable aerodrome with less than your planned reserve fuel, you must declare an emergency.

There is also some guidance on **how to request a diversion.** In a nutshell, ask for it early. The CAA advise it takes ATC 5-10 minutes to grant a request, sometimes longer. Behind the scenes, there are phone calls to be made.

It is also not uncommon in the UK for a **requested diversion to be refused** – it is at the aerodrome operator's discretion. Stand availability, handling and other factors all come into play. They recommend operators pre-arrange their options for diversion.

Bear in mind the weather is also a challenge at the moment and may compound the situation!

More Information About the Strikes

The UK FCO has the official word. You can find it here.

We'll Keep You Updated

We'll update this article, along with any operational impacts, as more info comes to hand. If you experience disruptions yourself, we'd love to hear from you. You can reach us on news@ops.group

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2022 Flight Ops Changes: The Big Ones

OPSGROUP Team
25 January, 2023

Dear Santa…

We do hope we've been good little boys and girls this year. Last Christmas we received no presents from you at all, which was disappointing.

We did get one from ICAO that got lost in the post and then turned up in January – an update to the NAT Doc 007. *Truth be told, Santa, we didn't actually like that very much.*

It's been another busy year of international flight ops changes, Santa!

We thought you probably missed most of it, hunkered down in your Arctic grotto, beavering away on all the presents you must be making for us this year. **So we've written you a little list** – just the big stuff that's happened this year.

If you don't want to read it all, that's okay, we know you're busy! You can get nearly all the same info by playing our **Snakes On A Plane & Ladders game** that we made!

We designed it in bright **RED** and **YELLOW** colours to make it easier for you to play in the dim pre-dawn light as you're zipping around the skies on Christmas Eve!

You can **download a PDF of the game** here, or just click on the picture!

In fact, before we get to the long-version list of stuff that's happened…

Our Christmas Wishlist

- *No more hurricanes, volcanic eruptions, floods, domestic conflicts, international invasions, drone and missile attacks, or global pandemics please.* We've put this one at the top, because this is the one we **really want the most.**
- **An EU-LISA teddy bear.** The one where you press its tummy and it tells you a nice clear definition of what a "carrier" is.
- **A set of walkie-talkies.** We'll keep one and give the other to North Korea, so they can use it to tell us when they're launching test missiles.
- **A big pair of scissors.** So when we're doing flights over Greece or Turkey we can snip out all the pages of whingey, irrelevant Notams they publish about each other.
- **Some earplugs.** We'll use them in January when the postman knocks on the door with ICAO's annual NAT Doc 007 present, late again.

Ok, Santa, on to the good stuff – *here's* the long-version list of stuff that's happened…

January

- The US went into a **ground stop** at their west coast airports after North Korea launched a missile. Read
- The US delayed their **5G roll out** because of concerns at airports. Read
- Honduras got **new airport** – MHPR/Palmerola. Read
- UAAA/Almaty airport, **Kazakhstan closed** (and later reopened) due to violent protests and unrest across the country. Read

- The Yemen conflict reached the UAE when several **ballistic missiles** targeted Abu Dhabi. Read
- NFTF/Fua'amotu airport in Tonga closed after the **eruption of Hunga-Tonga-Hunga-Ha'apai**, and the ash also disrupted some overflights in the South Pacific. Read

February

- Airlines started to avoid Ukrainian airspace after Russia's invasion, and **insurance companies started cancelling cover** for flights in Ukraine. Read
- Singapore mandated **RNP4 and RNP10** on some of its main oceanic airway from FL290 and above. Read
- **NAT Tracks were abolished** from FL330 and below. Read

March

- As the Russia-Ukraine conflict escalated, Russia brought in **"tit for tat" flight bans**, including bans on all US operators, and operators had to start finding new routes avoiding Ukraine and Russia. Read
- **Spillover into Europe** from the conflict and "traffic jams" in other airspace started occurring. Read
- We first heard mention of EASA's new dreaded **EU-LISA (EES/ETIAS) system.** Read
- Iran kicked off against Iraq again, sending **missiles towards ORER/Erbil** region. Read
- In the US, the military ran tests on **GPS interference** and it jammed civilian aircraft. Read
- **Fuel shortages in Nigeria** and bandits at the airport raised concerns. Read
- Ethiopia announced a **ceasefire** between fighting factions in the Tigray region. Read

April

- **EASA's new fuel policy** was announced and it was really hard to read. Read
- A new airport opened in **Mexico City** (MMSM/Santa Lucia) and everyone said don't use it. Read
- **Fuel prices started rising** due sanctions particularly on US east coast; and in other countries they started to announce shortages, particularly across Africa. Read
- FAA announced **new flight planning codes** for advanced capabilities. Read
- Iceland became completely **covered with ADS-B.** Read
- The **mass ATC walkout in Poland** was narrowly avoided. Read

May

- Reports of **flights being tracked** for nefarious reasons started to concern BizAv folk. Read

- We talked about **EMAS** because no-one seemed to know what it was. Read
- **ATC returned to Somalia** with Class A reinstated above FL245 during the day. Read
- We took a look at some common **NAT Conundrums!** Read
- US eased rules for **flights to Cuba.** Read

June

- Everyone was still **confused by EU-LISA**, who still couldn't make it clear which operators need to register to use the new system (i.e. who counted as a "carrier"). Read
- The **South China Sea dispute** got worse with China building islands and putting weapons on them and running lots of military drills. Read
- Sri Lanka completely **ran out of fuel** Read
- Bahamas delayed their **Click2Clear** because no-one understood it. Read
- Antigua brought in **new Nav/ATC fees** that they want in advance if you're overflying up to FL245. Read
- Saudi Arabia risk level was reduced as **Houthi attacks drop off.** Read
- We published a book on **European Slot Rules.** Read
- **Kathmandu got RNP** (and you should use it). Read
- The **5G rollout was delayed** in US. Read

July

- We decided **Safety used to be far more sexy** and tried to bring it back again. Read
- Flights to/from Israel got easier as **Israel got friendlier** with their neighbours. Read
- EASA published **new All Weather Operations** stuff and we were all confused by it. Read
- **EU-LISA is postponed** (thank goodness!). Read
- **VHHH/Hong Kong's new runway** finally opened. Read
- ICAO **expanded SELCAL** to include new codes. Read
- The FAA postponed the final phase of **Northeast Corridor Atlantic routes** project until April 2023. Read
- We made a picture book to help people understand the new **EASA fuel rules.** Read

August

- Qatar finally got the go-ahead from ICAO to set up their **own airspace.** Read
- China got angry with Taiwan and held massive drills that **shut Taiwan** because they effectively surrounded it with prohibited areas. Read
- Canada delayed their **ADS-B mandate** until Aug 2023 to give folk time to install equipment.

Read

- **NAT 006** is updated, and we're proud of our James Bond pun which no-one else got. Read
- **EIDW/Dublin** opened a new runway. Read
- We put together on the **London Airport options**, made with help from the London Underground tube map publishers, circa 1962. Read
- EASA updated their RIM and we posted a reminder of all the things people keep getting into trouble with during **ramp checks!** Read

September

- The **hurricane season** was in full force with Earl closing Bermuda, Kay closing La Paz in Mexico and then the massive Fiona reaching Canada, and Ian devastating parts of Florida.
- A big military exercise threatened to close a chunk of **EGGX/Shanwick** impacting the NAT, but then it didn't. Read
- EASA delayed their **ELT mandate** by 2 years. Read
- **Azerbaijan and Armenia** kicked off again and the border airspace closed, then quickly reopened. Read
- CYYZ/Toronto c**apped slots for GA/BA** flights. Read
- African ATC went on a **mega strike!** They brought in fake ATC and we put out a big safety alert over it. Read
- The **FAA extended** their Iran and Iraq warnings for another 2 years. Read

October

- North Korea sent a **missile directly over Japan** causing them to issue a public warning. Read
- **Major airways** in Iraq are in close proximity to areas of airspace with high risk from drones and missiles. Read
- Florida airports reopened after **Hurricane Ian** raged through.
- We discovered more info on the **CPDLC trial** in the US and how BizAv are (or aren't) involved. Read
- The FAA published new **winter holdover times.** Read
- Everyone started planning for the **Qatar world cup** because Doha is small and no-one was sure where to park. Read

November

- A **cyber attack** brought down a fair few Jeppesen planning products. Read
- **ADS-B privacy issues** reared its head again with more groups questioning the privacy and security. Read
- Shannon published info on **level busts** and US BizAv are to blame for a lot of them! Read

- **KTEB/Teterboro** added new waypoints to help with the challenging circle for RWY 01. Read
- Canada published a **safety watchlist** that applies to everyone, everywhere really. Read
- The Russia-Ukraine spillover impacted more countries, with **a wayward missile** hitting Poland and concerns about UAS. Read
- Saudi Arabia got **CPDLC from FL150 up.** Read
- We started to **worry about Turkey** – they are fighting with Syria and Iraq and their southern region is higher risk. Read
- Germany issued a warning against low level **flights in Myanmar.** Read
- An Emirates aircraft might have been **hijacked.** Read

December

- Possibly because of power outage issues, but **South Africa lost CPDLC** and FAOR/Johannesburg Oceanic airspace turned into one big IFBP area for a day or so. Read
- **Ski season started** in Europe with parking restrictions and PPR requirements aplenty. A lot of folks also head off to the **Caribbean** this time of year. We made our own pirate map. Read
- **Auckland** got bad fuel. Not ideal for long haul flights (so any flight trying to get to Auckland). Read
- Someone asked us about weird **Mexican timezone changes** and we realised that in April 2023 most of Mexico will stop using DST but some places along the border won't. Highly bamboozling. Read
- **France banned domestic airline flights** under 2.5 hours. Read
- **KPHL/Philadelphia** decided they didn't want international GA flights heading in there anymore. More

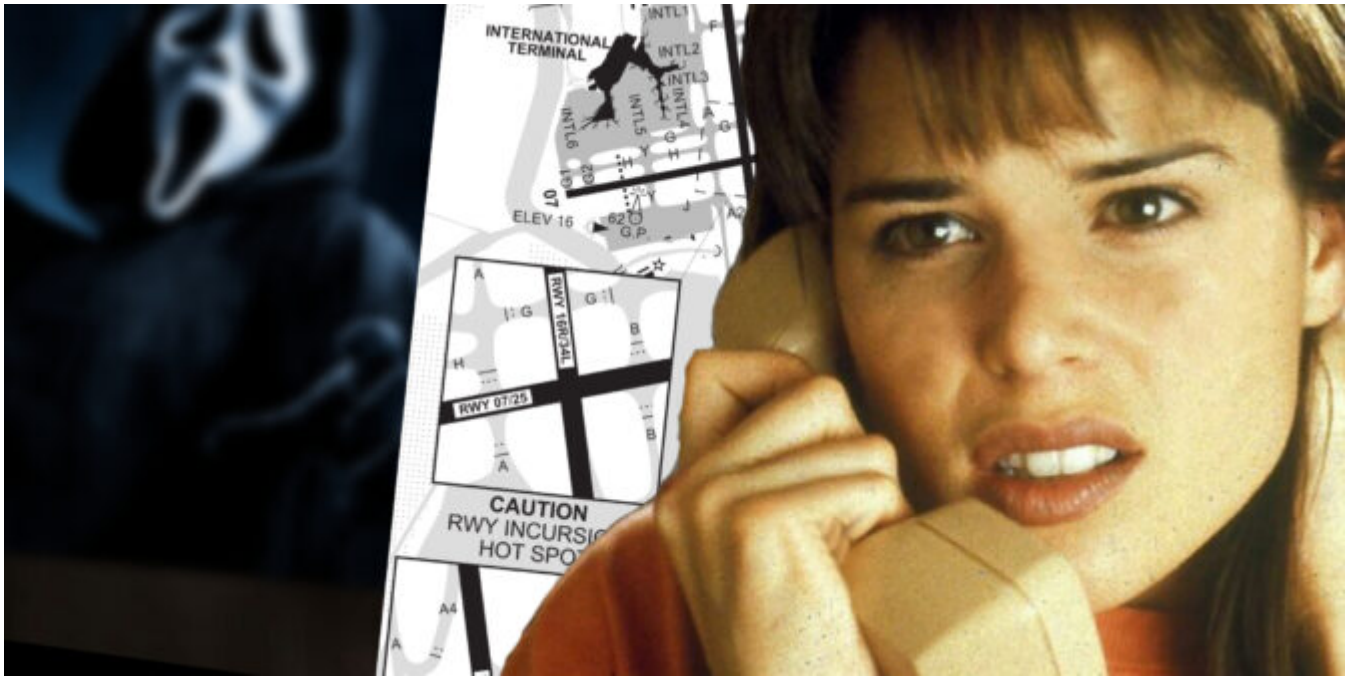
Fare-thee-well, 2022

And that brings us bang up to date, Santa, if you're still reading.

If not, we hope this whirlwind of flight ops bulletpoints has been of interest to someone out there. **Maybe a few of you weary aviation folk** who have stuck with us throughout the year

Sydney Near Miss!

OPSGROUP Team
25 January, 2023



On November 14, a **major runway incursion** was narrowly avoided involving an Airbus A380 and Boeing 737. It sounds like the incident may have been caused by an ATC error – although an ATSB investigation is still underway.

Despite millions being spent in recent years to improve runway safety at the airport, this incident is a timely reminder that incursions can and will continue to happen in Sydney.

Here's a look at why, and what you can do about it.

The Layout.

Sydney's runway layout is complex. There are three runways – two parallel ones (16/34 LR) and another runway that runs perpendicular to them (07/25). The airport itself sits perched on the edge of Botany Bay, with the parallel runways extending well out over water. And all terminals and FBOs are found clustered together on the northern side of the airport, near the 16R threshold.

Which means taxis to/from all the other runways are **lengthy and potentially confusing**. And during those taxis, **almost every aircraft will need to cross a runway**. Often twice.

That's a lot of crossing traffic when you consider that the airport processes up to eighty movements an hour at peak times – it is literally Australia's busiest.

Mistakes Happen.

Authorities are well aware of the risk of runway incursions at Sydney airport. So much so that they have spent a commendable amount of time and money to improve runway safety.

Possibly the best advancement in recent years has been the installation of **stop bar lighting** at every single runway holding point, along with improved signage and markings.

And yet mistakes keep happening. The November incident is a great example – here's what went down.

The November 14 Incident.

- In CAVOK conditions, a Boeing 737-800 was **cleared to land on Runway 25.** With their clearance they were informed that an Airbus A380 was holding position on Runway 34 waiting to depart.
- When the 737 had cleared the intersection of the two runways, the A380 was **cleared for take-off and began to roll.**
- After landing the 737 received its taxi clearance from ground which instructed them to **cross runway 34L** on Golf back to the domestic terminal.
- As the 737 crew approached the active runway, they were surprised to see it was **still occupied with the departing A380.** They queried the clearance with ATC who immediately told them to hold short.

- The closest the two aircraft came to each other was **300m** (just shy of 1000') thanks in part to the vigilance of the 737 crew. While not a particularly close shave, there was potential for this to have become a major accident. Which is why the ATSB are asking questions they are.

Here's a simple animation of the incident with a bird's eye view:

What can we learn from this?

Future incursions, although rare, will happen. But there are **steps that all crew can take** to help reduce those statistics and stay safe.

A good place to start is this. **To cross a runway in Sydney always remember the 'hat-trick.'** You know all about cricket right? Well if you're headed to Australia, this phrase can also be used to impress Aussies at the bar over a cold Fosters (disclaimer: no one drinks it there, and whatever you do never call a prawn a shrimp). It means three successes of the same kind. Or in other words: **a set of three good things.**

So, there are three things that you'll need:

- **A clearance from ATC**
- **Confirmation that the stop bar is out**
- **Runway is visually clear out both sides**

If any of them are missing (or uncertain), **do not enter the runway.**

The crew of the 737 above **captured a potential accident** because at least one of their hat-trick was missing.

The stop bars themselves are worth a mention too. What's more obvious than a big row of blazing hot red lights to make you get on the brakes, right? They work really well, but in their simplicity, there can be **confusion**.

A while back, IFALPA released some pretty good stuff that is still relevant today. You can read it here, but there are a few scenarios to take away:

The stop bar's out, but we haven't been cleared…
Stop. An extinguished stop bar on its own is not an indication you are cleared to cross. It may have been turned off in error, or for a preceding aircraft.

We're cleared, but the stop bar is still lit…
Yep you guessed it, stop. And this happens really often. You'll need to ask ATC to turn it off. Never, ever cross a lit stop bar.

Help from ICAO

Did you know they have a whole manual dedicated to helping controllers and pilots alike **avoid runway incursions?** You can download it here.

Have some stories of your own to share?

We'd love to hear from you. They don't need to be from Sydney, **but we can all learn from them.** You can reach our team completely anonymously at news@ops.group.

MOT for aircraft? It's actually a tax

OPSGROUP Team
25 January, 2023

We had a question sent in about "MOT' and three things crossed my mind.

One – I need to get my car's MOT booked, it is due really soon, thanks for reminding me *(possibly something only UK folk will get).*

Two – Do aircraft have to have MOTs? I don't think they do.

Three – Ah, they mean Mineral Oil Tax… of course… I've definitely heard of that…

What is MOT, and why do you need to know about it?

So, MOT (in aviation) stands for **Mineral Oil Tax**, which basically means a big tax on your fuel.

It also goes by the names TIPP, TICPE, fuel tax, excise tax, excise duty, fuel duty tax, oil tax… you get the idea.

It is usually added to the fuel price so you're paying it without knowing you're paying it. The MOT can be as much as **43% of your fuel bill**, so if you don't know about it you might want to.

Good news though – you might be able to reclaim some of it.

Can I reclaim it?

The rules seems to be that if you are one of the following then yes, you probably can:

- A private air charter company
- An executive airplane-leasing company
- A business who owns its own private jet which is used for business purposes only

Some countries specify that you must be a 'non-established aircraft operator'.

Great, I'm one of those. So where can I reclaim it?

Here is a handy table to give you some idea of where you might be able to:

I don't see a 43% in there, but a fair few in the 20% region. So some big savings to be had, if this does apply to you.

If I should be exempt can I just not pay it?

You can't reclaim it everywhere – some places just don't have an exemption at all, and in some places you can't reclaim after paying, so you have to make sure it is taken off the bill before you pay.

So make sure:

- Your crew know about it, and to ask about it.
- Make sure your AOC is available for crew to show to fuelers to confirm they are exempt.
- Make sure the fueling company and customs have the right info on your flight so everyone knows you're exempt.

Tell me more about all this.

Well, that is actually all we really know on it.

The cost, as we said, is often added in at the fuel truck, and the rules for reclaiming it seem to be a little 'uncoordinated' (messy!) This is particularly the case, it seems, for France, Germany and Austria.

So much so that the EBAA wrote this very thorough guide on the legal impact of the 'European Energy Taxation Directive on Business Aviation in Germany, France and Austria'.

In case the word 'thorough' put you off reading it, here's our little, much less thorough summary of it:

- It is an analysis of the legal impact of the European Energy Taxation Directive on Business Aviation in **Germany, France and Austria.**
- It says that states can exempt aviation fuel from excise duties (tax), provided aircraft are use for purposes other than **private pleasure flying.**
- **But it isn't always consistently applied or understood**, and operators have to provide a whole load of info which is often very annoying, verging on impossible.
- **It also takes ages to get the money back**, so folk are missing out on interest which doesn't

seem very fair.

There is a lot of info in the guide (we won't try and re-write it all out) but it is definitely worth a read if you are running into difficulties reclaiming your MOT in any of these three spots.

The main issue in France

France won't let you reclaim it if the **passenger is also (directly or indirectly) the owner of the aircraft** carrying them, but of course it isn't that simple. What they define as 'commercial' is often confusing, and it gets even messier for charters.

The main issue in Germany

No-one is entirely sure how it is all applied in Germany, it seems to be **really inconsistent and dependent on where you file** your reclaim. It is also very complicated when it comes to corporate flights.

And it hasn't been decided whether to apply it to training flights, maintenance flights or positioning flights…

The main issue in Austria

Austria apparently have **the worst 'burden of proof' on the operator** of any country.

Basically you have to disclose loads of information, including stuff about your passengers, which could breach any NDAs you have. So it might be worth highlighting this to them and saying *"if we try and get you money off the fuel, we're going to have to share loads of info about you, is that ok?"*

OK, I know enough. How do I reclaim it?

You need to make sure you have your AOC to hand (to move you are worthy of exemption) along with the purchase invoice (showing the MOT levied) and fuel delivery notes (showing the correct aircraft registration, signed etc).

Some but not all countries allow for retrospective refunds which is why not paying it where possible is a better option. For those that do, you have to **submit your claim to the local customs office** (there isn't a centralised claims office), and there are deadlines for this.

Gimme some links

We shall. We discovered **VATIT** who have the title of *"world leading expert in aviation tax"* (self-titled). We got a lot of this info, including that rather handy table, off their site so reckon **they might be the folk to talk to**. Here's their website, and here is a very useful post they wrote on **Canadian Excise Duties on Fuel Bills** if that's something you want to find out about as well.

The EBAA posted the legal guide we mentioned above so also worth getting in touch with them if you have some specific questions or concerns.

New Zealand Fuel Supply Issue

OPSGROUP Team
25 January, 2023

Update 19 Dec: The fuel shortage at NZAA/Auckland due the contaminated batch has been resolved now (they got more fuel delivered).

New Zealand is facing a (hopefully brief) jet fuel shortage after receiving a batch which failed quality control testing.

What is the current situation?

On December 7, a fuel shipment into the main import terminal on New Zealand's north island **failed a quality check.** The fuel was bound for NZAA/Auckland, the country's main international airport.

The next fuel shipment is expected on December 18 and will hopefully resolve the temporary shortage.

How short is the shortage?

Airlines have been told to **expect rationing at NZAA/Auckland.** Initial reports suggest uplifts will be limited to **75% of an operator's usual allotment.**

However, it is not clear if other airports will receive reduced fuel supplies, with some diverted to support NZAA/Auckland or if the only airport affected is the main international one.

Air Centre One FBO at NZAA/Auckland has told us that World Fuel Services (WFS) has **canceled all releases** due to the current fuel shortage. Uplifts are still available via the FBO's account which will be invoiced with your handling charges, but they are recommending **refueling elsewhere** if possible. WFS releases are apparently still being accepted at other major airports in New Zealand.

Here are the Notams we've spotted so far:

NZAA/Auckland B7158/22 - AIR BP, EXXON MOBIL/CHEVRON AND Z ENERGY JET A1 FUEL RATIONING IN PLACE. CHECK WITH YOUR FUEL SUPPLIER FOR AVAILABILITY.
08 DEC 01:56 2022 UNTIL 17 DEC 10:59 2022.

NZWN/Wellington B7097/22 - Z ENERGY JET A1 FUEL (WESTERN APRON) NOT AVBL.
06 DEC 02:33 2022 UNTIL PERM. CREATED: 06 DEC 02:33 2022

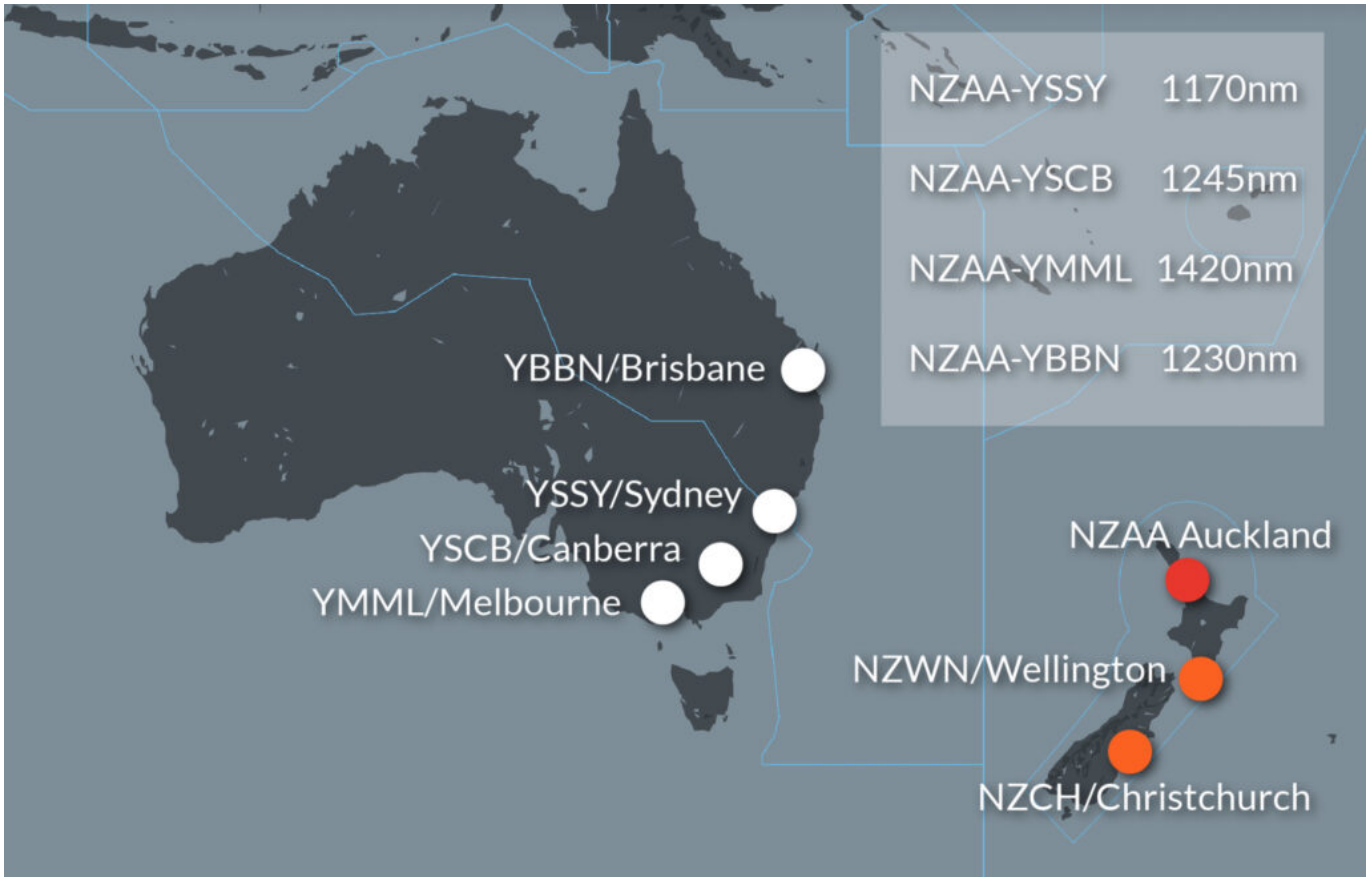
What should you do?

Speak to your agent or supplier at NZAA/Auckland and **confirm what the allocation will be** for you prior to operating in so you can plan accordingly.

Check with other New Zealand airport agents in advance if you plan to make fuel stops at them, since the **fuel availability is not currently clear.**

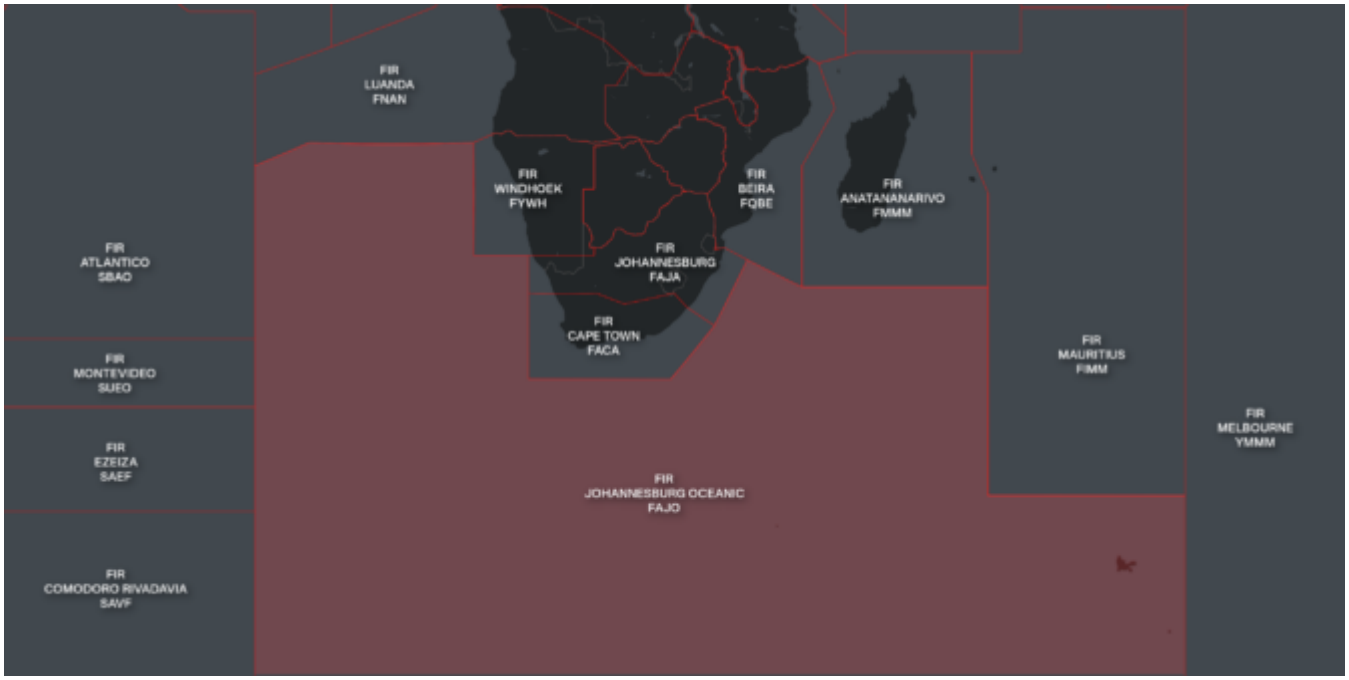
Look at fuel tech stop options if you are operating long haul, or consider payload adjustments to manage the reduced fuel uplift.

Tanker fuel if you are able to.



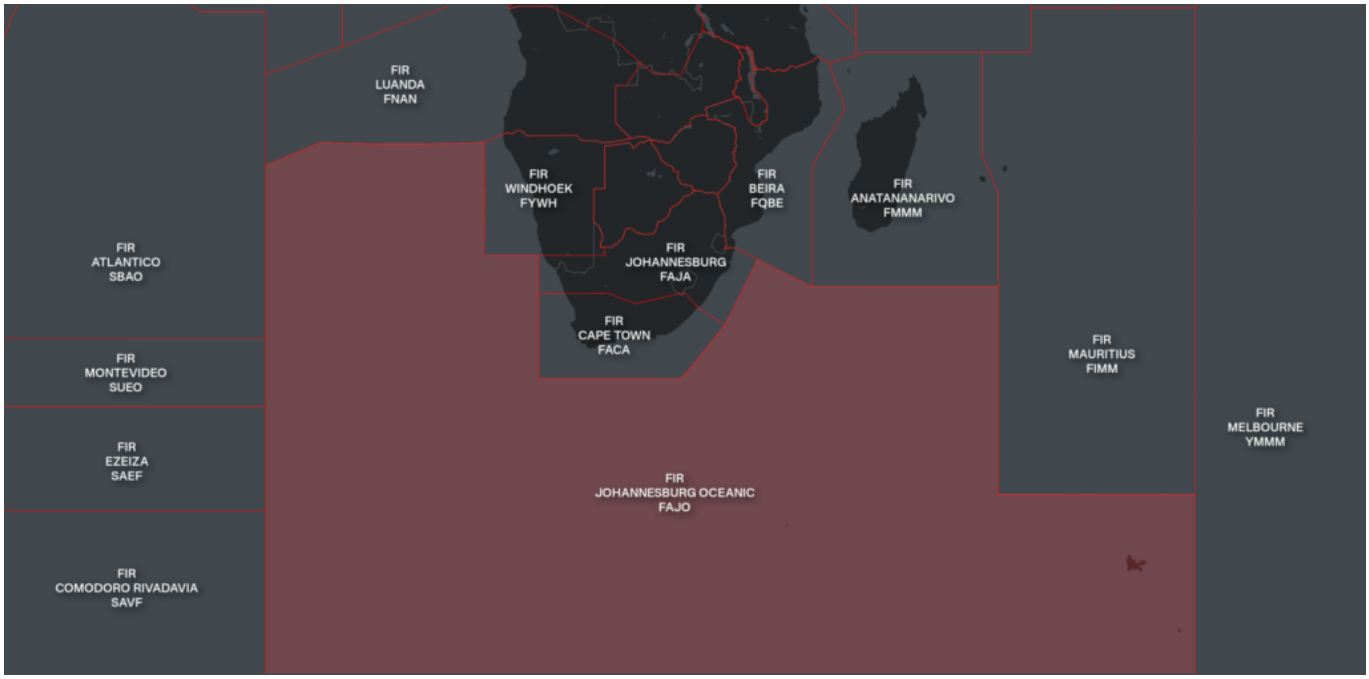
ATC radio outage in Johannesburg Oceanic

OPSGROUP Team
25 January, 2023



CPDLC has been fixed in the FAJO/Johannesburg Oceanic FIR following yesterday's outage. That's the only thing ATC have currently got to communicate with aircraft, as their radios have been out of action since November.

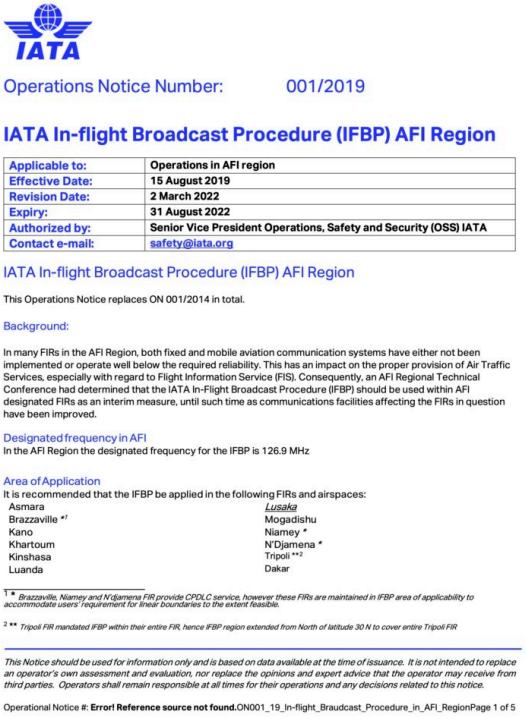
The FAJO/Johannesburg Oceanic FIR covers a pretty big chunk of airspace:



Aircraft not equipped with CPDLC will have to broadcast on the emergency **In-Flight Broadcast Procedure** (IFBP) VHF frequency 126.9, and maintain a continuous listening watch on 123.45. Here's the Notam for that:

A3931/22 - TRANS AND REC U/S. PRI COM IS CPDLC. ACFT NOT CPDLC/ADS-C EQUIPPED MUST BCST
AND MNT IFBP (IATA IN-FLIGHT BROADCAST PROCEDURE) ON 126.9 MHZ.
11 NOV 17:57 2022 UNTIL 31 DEC 23:59 2022 ESTIMATED. CREATED: 11 NOV 18:06 2022

You can check IATA's doc for a quick summary of IFBP here:



IATA

Operations Notice Number: 001/2019

IATA In-flight Broadcast Procedure (IFBP) AFI Region

Applicable to:	**Operations in AFI region**
Effective Date:	**15 August 2019**
Revision Date:	**2 March 2022**
Expiry:	**31 August 2022**
Authorized by:	**Senior Vice President Operations, Safety and Security (OSS) IATA**
Contact e-mail:	**safety@iata.org**

IATA In-flight Broadcast Procedure (IFBP) AFI Region

This Operations Notice replaces ON 001/2014 in total.

Background:

In many FIRs in the AFI Region, both fixed and mobile aviation communication systems have either not been implemented or operate well below the required reliability. This has an impact on the proper provision of Air Traffic Services, especially with regard to Flight Information Service (FIS). Consequently, an AFI Regional Technical Conference had determined that the IATA In-Flight Broadcast Procedure (IFBP) should be used within AFI designated FIRs as an interim measure, until such time as communications facilities affecting the FIRs in question have been improved.

Designated frequency in AFI
In the AFI Region the designated frequency for the IFBP is 126.9 MHz

Area of Application
It is recommended that the IFBP be applied in the following FIRs and airspaces:

Asmara	*Lusaka*
Brazzaville *[1]	Mogadishu
Kano	Niamey *
Khartoum	N'Djamena *
Kinshasa	Tripoli **[2]
Luanda	Dakar

[1] * *Brazzaville, Niamey and N'djamena FIR provide CPDLC service, however these FIRs are maintained in IFBP area of applicability to accommodate users' requirement for linear boundaries to the extent feasible.*

[2] ** *Tripoli FIR mandated IFBP within their entire FIR, hence IFBP region extended from North of latitude 30 N to cover entire Tripoli FIR*

This Notice should be used for information only and is based on data available at the time of issuance. It is not intended to replace an operator's own assessment and evaluation, nor replace the opinions and expert advice that the operator may receive from third parties. Operators shall remain responsible at all times for their operations and any decisions related to this notice.

Operational Notice #: **Error! Reference source not found.**ON001_19_In-flight_Braudcast_Procedure_in_AFI_RegionPage 1 of 5

As far as we can tell, South Africa hasn't published its own Contingency Plan to help us work out what to expect when we're flying through their oceanic airspace and we can't reach ATC.

But ICAO harmonized the contingency procedures for all oceanic airspace worldwide back in 2020. The basic rule is this: **turn from the route by at least 30°, offset by 5 NM, stay at your current level or descend below FL290, then apply a cheeky little vertical offset.**

Power Outages

Power outages are an ongoing issue in South Africa. **Airports remain unaffected, directly**. However, yesterday's CPDLC outage coincided with a breakdown of several ESKOM powerplants. We aren't sure whether this was a coincidence on not.

The continued power outage crisis may lead to delays with certain services which have a knock on effect on your operation. The likelihood of civil unrest is also growing so caution on the ground in the country is recommended at this time.

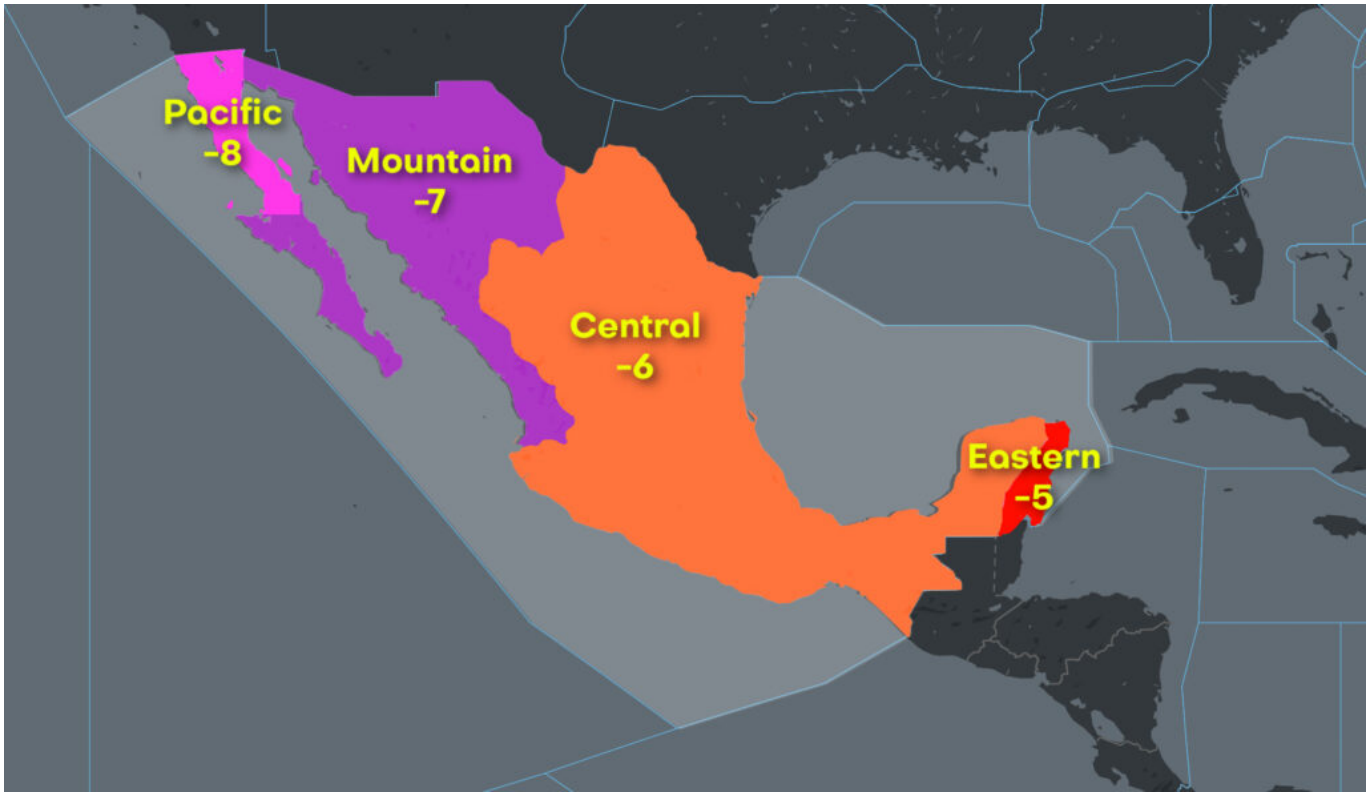
What's the Time, Mr Mexico?

OPSGROUP Team
25 January, 2023

Mexican time is changing! They currently have 4 time zones:

- **PST** (Pacific standard time) GMT-8 (which is just Tijuana)
- **EST** (eastern) GMT-7
- **CST** (central) GMT-6
- **MST** (mountain) GMT-5

Here is a map (complete with ticking times) showing these. Or a more fixed one below if you prefer.



So what's the problem?

Daylight saving is the problem!

Most of us forget/are confused by it/just let our phones do their thing and wake up feeling slightly less/more well rested depending on which way they're moving. (Just remember: **Spring Forward, Fall Back**.)

In other words, when daylight saving starts *(in the summer which frankly is confusing because there is already more sunlight then so why is it called 'saving')* then you wind the clock forward an hour, losing one, and you wind it back again in the fall (autumn) meaning you live the same hour twice, to help make better use of the natural daylight.

Then there is the confusion of who does it and who doesn't. Arizona, USA for example opted out of DST. Except for the Navajo Nation who opted in.

Who should we thank for this confounding thing? Some say the USA's Benjamin Franklin, some say NZ's George Hudson, some say the UK's William Willett, some say *"I have no idea who two of those three people are, tell me something useful?!"*

Back to the Mexico problem

Mexico is cancelling DST from 2023. Which isn't the worst thing ever given the confusion (see above)

The problem is… not all of Mexico is going to. **Some border towns are not not going to do DST.**

Wait, now I'm confused.

The ten municipalities bordering the USA have decided to stay synched with their American neighbors, presumably to avoid confusion with border crossing.

- **Acuna**
- **Anahuac**
- **Juarez**
- **Matamoros**
- **Mexicali**
- **Nuevo Laredo**
- **Ojinaga**
- **Piedras Negras**
- **Reynosa**
- **Tijuana**

So all of these **will** still apply DST, which means it will look something like this:

When is this all happening?

Well, the no-more-DST starts in April 2023 when the rest of Mexico just won't wind their clocks forward.

The clocks will still wind forward in those 10 places though. Which, for you, might mean confusion if you're heading into any airports along the border area. Like **MMCS/Ciudad Juárez International.**

Some fun time zone facts

If asked which country has the most time zones, most probably guess the USA or Russia. Both actually "only" have 11 though. **The top spot goes to France** with a whopping 13 different zones (ok, they own random bits of land all over the world so not really a fair game).

Next up are the countries with 9, which includes **Australia, Antartica and the UK.** Yup, the UK boast a fair few 'unattached' areas in the world too.

China is another oddity. It should have 5 time zones. It only has 1, based off what suits the Beijing sun best! □ □□

France says take trains not planes

OPSGROUP Team
25 January, 2023

France have implemented their ban on short-haul domestic flights, with it going into effect on December 2, 2022.

So what, and who, does this apply to?

The What.

It applies to short-haul domestic flights. In France.

Basically any route that can be **reached by train within 2.5 hours** is now a no-go for flights.

There are three initial scheduled routes that meet the criteria, and they're all from LFPO/Paris Orly:

- **LFPO/Orly to LFBD/Bordeaux**
- **LFPO/Orly to LFRS/Nantes**
- **LFPO/Orly to LFLL/Lyon**

Originally there were 8 proposed routes which also included LFPG/Charles de Gaulle to LFBD/Bordeaux and LFRS/Nantes, LFPG/Charles de Gaulle to LFRS/Rennes and LFLL/Lyon, and also LFLL/Lyon to LFML/Marseille.

However, the train services aren't quite there yet in terms of frequencies and timings. As soon as they are though… **expect these to be reviewed as well.**

The Who.

The official notice? Treaty? Regulation? Amendment to a treaty? Journal of the EU… We're not actually sure what to call it, but the official *thing* says (and before we forget, here it is for you to read yourself), that the routes are ***"prohibited for any carrier"***.

Which means, we guessed, all flights including BizAv. But, this is the EU, and we all remember the misery of working out what they meant by the term "carrier" for all things EU-LISA related…

And of course, there is the big question of **whether this applies to non-French registered 'carriers'** as well?

So, who else?

Well, we had a little re-read and what it actually says is this:

8. *Article 145.I of the Law prohibits, on the basis of Article 20 of the Regulation,* ***scheduled public passenger air transport services*** *on all air routes within French territory for* ***which there are several direct rail connections per day of less than two and a half hours.***

Phew, ok, that is actually not so bad.

So, we figure it means this:

- It only applied to **scheduled services.**

- It only applies to **public** (so not your private) flights.
- It might apply to any **EU registered** (not just French registered) aircraft though.
- They have **specifically listed routes** with connections that make this ruling applicable.

So if you are heading to France (and have some cabotage deal), and want to fly internally, then chances are you are still fine to do it. If you are an EU registered aircraft then you might want to have a closer look at what it means for you on these specific routes though.

And while they do say **“scheduled public service”** if there is a sudden uptick of private services on these routes it probably won’t go down very well, so perhaps don’t go having a cunning plan about setting up a ‘private’ route.

Still fine… for now…

France has the **highest number of private aircraft movements** of any country in Europe (over 120,000 at the last proper count in 2019), and there is a plan to crackdown on this too.

What this means right now is that if you regularly fly private jets into France, have a think about how to reduce this because it is being monitored and could have a big impact in the future.

The Why.

Well, for **environmental reasons** mostly.

The prohibiting of these three routes alone will lead to a reduction of around 55,000 tonnes of CO2 emissions from air transport. Using more trains on them is still calculated to lead to an overall reduction of around 50% (worst case) and as high as 98% (in a really best case world).

The impact on BizAv.

The impact on BizAv is not big now. In fact, the reduction of scheduled services into LFBD/Bordeaux, LFLL/Lyon and LFRS/Nantes **might mean some additional space** for your private flights. Not so much LFPO/Orly because its a fairly busy airport and 3 routes probably won’t mean much extra space. But this might also mean an **increase in charges** as the airports look to reduce the loss in revenue from having these routes cancelled.

Bali bound and no place to go…

OPSGROUP Team
25 January, 2023

If you're bound for Bali there are a few things you need to know, especially if it is your first time there. **Ops there often seem to get disrupted, and you'll need the option of having someplace else to go.** Figuring out where – especially at night – may be harder than you think.

Let's take a closer look.

At face value, ops at Bali seem straight forward. The runway is long, there is an instrument approach at both ends, SIDs and STARs link everything up and the place is towered 24/7.

But after years of flying in there with a scheduled operator, **the number one biggest threat** remained fuel in the tanks when it all went pear-shaped – which it sometimes did.

The airport just seems to have a habit of eroding your fuel margins. You may be carrying a healthy alternate enroute, but **beware of giving it all away** while holding once you arrive.

Delays and short notice closures.

The airport is especially vulnerable to them, and they can be unpredictable. Here's why.

1. Weather

If you're flying into Bali during rainy season (November – March), weather is likely to be a major factor. Like clockwork, towering cumulus clouds strengthen throughout the day into powerful thunderstorms in the afternoon and evening.

While the TAF may look identical day in and out, it is luck of the draw whether the airport itself will be affected. And when it is, **traffic backs up quickly.**

2. Volcanic Ash

Indonesia rests on the western portion of the Ring of Fire which renders it the **third most volcanically active region on earth.** There are no less than one hundred and forty-seven volcanoes there, seventy-six of which are currently active.

Eruptions are frequent and occur with little warning causing major disruptions to airports throughout the country – and extensive ash plumes. They can close airports like Bali for days on end, like one did in 2017.

And the situation can develop when you're already airborne.

The closest volcano to WADD/Bali airport is **less than 40nm away.**

Mount Agung erupted in 2017, closing Bali for several days. Courtesy: IBTimes UK

3. VIP Movements

Yep, someone important is inbound. And guess who has to make way? The airport often gets **closed for short periods for VIP movements.** You'll find them in the Notams from time-to-time. Take it from me – apply a healthy buffer to either side as ATC will not necessarily be able to provide you with an accurate time the airport will re-open while you're racing around that holding pattern.

4. Traffic Jams

WADD/Denpasar is Indonesia's **second busiest airport** second only to Jakarta. Which means it sees a lot of traffic. It also occupies a busy air corridor linking Europe to Oceania. Controllers manage a steady flow of both regional and international traffic from both directions.

It can be difficult to predict the effect of this ahead of time, but it is not unusual to **hold inbound** on your STAR. And you likely won't have a head's up beforehand that it is coming. **Extra fuel for traffic holding is absolutely necessary.**

5. Congested Frequencies

If you're getting low on fuel, make a decision early. **Don't wait.**

ATC has to manage large pieces of airspace here. On Ujung especially it can be challenging getting heard. **Controllers are often managing multiple frequencies** – it may seem like you're being ignored, but you may not be able to hear everyone else talking to controllers over the top of you.

The language barrier can also be an issue – English will likely not be your controller's first language, and their accents can make them hard to understand. The moral of the story is to be assertive on the radio, and speak slowly and clearly. Try and stick to **standard phraseology** such as '*minimum fuel.'* And don't take a back seat when trying to get an urgent request granted.

But where to go?

If you're heading into Bali late, you'll need to pay special attention to alternate planning. All the airports in the region still have special operating hours in place to "avoid the spread of Covid", as per their notams. At present, **WADD/Bali itself is open until 18z (02:00am local) but its closest alternatives are not.**

Lombok (WADL/Praya), 85nm. Closed each night from 12z (20:00 local). [Notam B2226/22, valid until Feb 19].

Surabaya (WARR/Juanda) , 160nm. Closed each night from 14z (22:00 local). [Notam A2938/22, valid until Feb 18, actually due to runway closure for works].

Semarang (WAHS/Semarang), 295nm. Closed each night from 12z (20:00 local). [Notam B2231/22, valid until Feb 18].

If it's late, you'll need to carry more fuel than usual to reach **WAAA/Makassar** 320nm away, or **WIII/Jakarta** 512nm away.

And finally – watch out for terrain!

There are some **big hills** out there. If you're flying into Bali, there's a good chance you may yourself under radar vectors at night or in IMC nearby. Protect your aircraft – keep a close eye on where you are relative to that terrain at all times. Especially when it's busy!

Aircraft arriving from or departing to the northwest need to be particularly wary. Sector MSA just north of the airport rises steeply to 9700'. Further west you'll find Central and East Java with grid MORAs as high as 14,000'. Also be aware of escape routes if your cabin springs a leak.

China Crew Hotel 101

OPSGROUP Team
25 January, 2023

This is one for any crew who head into China.

What happened in Urumqi?

People in China are angry.

There are currently protests across many major Chinese cities, including Beijing and Shanghai. Which is unusual because protests are very frowned upon in China, and generally lead to quite **a heavy handed police response.**

So when they do protest, you know it is over something they feel strongly about.

They are **angry over Covid lockdown rules** which saw a 10 people perish in a tower block fire in Urumqi. Questions have been asked over whether residents were allowed to leave their homes, and whether the fire exits were clear.

What does this have to do with crew?

There are two things worth considering if operating into China:

- The security situation
- The hotel room safety situation

The Security Situation

Crew are not allowed out of their quarantine hotels, so the protests themselves will not impact you directly. However, **a stricter level of Covid rule compliance** might.

Currently, crew are required to don full 'anti-Covid' suits on arrival (while still on the aircraft), and are accompanied through airports, bused to hotels, and required to remain within their hotel rooms.

Member Top Tip: *"They don't generally provide big sizes. If you need an XL it might be worth getting your local agent to arrange this, or you're going to find yourself trussed up like a sausage inside an 'average"'sized suit."*

The rules have eased a little, but are still subject to change at short notice, and entry requirements for crew are not always entirely clear. **The best people to ask are your local agents at whatever airport you are heading into.**

We recommend that you:

- Follow the rules pretty strictly. Easier in the winter months when it is not baking hot (those suits are the worst in the summer). Non-compliance is likely to lead to fines, potentially banning your operator from returning to China, or you may be subject to more quarantine.
- Prepare for lengthy delays in and out of the airport and factor this into your report times.
- Do not vocally criticise in a way that might be perceived as a protest against Chinese law or the government.

But what's this about hotel room safety?

Some crew have reported that they are not only quarantined in their hotel rooms, but they are *locked inside* their hotel rooms, **unable to open the door from the inside.**

This is not safe.

If you or your operator has experienced this, please let us know at news@ops.group. We might not be able to do anything to help, but we can share the hotel info with other operators so they know about it.

You must be able to unlock your hotel room from the inside in order to **evacuate in an emergency**. Your hotel room should also be **equipped with a smoke mask.**

- **Checking with the hotel prior to operating in** and raising this is a good idea. Doing so once there may prove difficult. Bear in mind, these are generally government selected hotels for crew as well. You don't get much say in where to stay.
- On arrival, **crew should pay particular attention to how to access emergency exits** because these hotels tend to have significant 'plastic coating' on their interiors, and it may be

difficult to locate exits in an emergency.

- If in doubt over your safety, **don't remain in the room because they've told you to.** Get yourself out and safe, and worry about the repercussions of that afterwards. I'm pretty certain they'll be less serious than the consequences of staying locked inside a burning hotel!
- Make sure your crew have **contact information in case of a medical emergency** while in China.

Monitor the food situation

Folk report this is slowly improving.

If you haven't been, then here's the deal – basically your hotel is going to provide you with meals. These are usually **left in boxes at specific times outside the room**, and you're allowed to open up and take them inside.

There are two issues here:

- They are not always catering to 'Western' food preferences.
- There doesn't appear to be any way to report allergies.
- Chinese good often contains MSG, which you may have an allergy to without knowing.
- They often provide them based on Chinese meal timings, which can be tough with jet lag/sleep plans etc.

Good news is you can get in touch in advance and ensure you request food that your crew can eat, and that it is provided at times they will want to be eating at. Alternatively, recommend **crew take their own food with them.**

A little note on Customs

China readopted their Health Declaration Measures, since November 16. Make sure you submit the form and **download the QR code before** heading over. There is an APP for it that makes it handier, and the website is here for all the info you might need.

Don't say Hi to Jack!

OPSGROUP Team
25 January, 2023

Attempted hijackings of major airlines have decreased because of big advances in security and safety.

But, reports of an apparent attempt on an Emirates aircraft surfaced on November 10, so we thought we would take a look at those security procedures, ops procedures and some FAA door related news, to help you stay safe in the skies.

The 'was it a hijack attempt?' reports.

Look, we don't know, and **we aren't into speculation.**

All we've seen is a bunch of news sites saying a 777 was diverted back to Athens after taking off for New York, possibly accompanied by F-16s, possibly with reports of a possible suspect onboard, possibly under a *'Code Renegade'.*

It landed safely, and there will likely be detailed reports out about it at some point so we are going to leave it there.

Hijack attempts are not common anymore, mainly because security procedures have been developed so much to help prevent them.

But we don't want to get complacent about it, because most of those procedures fall on us (the operators and the air crew).

So we figured a recap on what some of these procedures are, and what it might mean for you ops-wise could be handy.

On the ground

Security stuff starts on the ground. Actually it hopefully (if the systems work) should start and also end here.

If you're up for a lengthy read, then check out the **minutes of a major meeting** which took place 10 years after Sep 11th (in 2011, so over ten years ago now) on changes to TSA procedures and processes. Here they are. Read away.

Basically, there are A LOT of procedures and processes for ensuring only 'good' passengers get on

airplanes, and a lot of this lies in the Customs systems that are now in place.

We are going to be **super lazy here** and say *'go read this NBAA post'* if you have questions on the specifics of customs and regulations stuff. It's a big old topic and all we're really trying to do here is say **"make sure you get the customs bit right"** (not actually tell you how to).

**But if you do have questions, let us know and we'll root out some answers for you.*

- In general, if you're a big airline or commercial operator, a lot of this is going to be done for you at the airport
- If you're a **private or business jet operator** *(that doesn't just fly the owner around)* then you might need to do some more checks yourself *(or more stuff to ensure you're compliant with required security and document checking regulations)*.

Here are some vaguely helpful links:

- The US CBP website is filled with info on all things US Customs and Bordery, along with a bunch of info on things to help speed up the process for pax.
- Your US pre-clearance airports are listed here, along with info on that.
- For international folk arriving into the US, you might want to look at APIS (Advance Passenger Information System Manifest) Transmissions if you don't already know what these are.
- There are fairly hefty fines for the PIC of a private aircraft if you don't follow the US regulations. If you have any questions, try these folk – GAsupport@cbp.dhs.gov
- There is some CANPASS info here for if you want to fly to Canada.
- There is some ETIAS info here for those of you planning trips to Europe.

In the air

Let's jump right in with some **regulatory stuff:**

The US, UK, Europe (and a fair few other places) have fairly strict procedures in place for who can sit in the flight deck jump seat. This doesn't just apply to aircraft registered in whichever place either. **If you are operating into their airspace you probably still need to be thinking about this.**

And we're talking about what the authorities say, not what your company says. This might be stricter (so check that out for yourself).

The basic rule for most places is that during the flight **anyone in the flight deck needs to be authorised to be in the flight deck.**

What this means can vary though.

In the UK for example, only members of the operating crew (the pilots actually flying the thing on that flight) may be in there. No supernumerary crew. No pilots who work for the company, have that type rating, but are just positioning.

There are other authorised folk too:

- Like an aviation authority air carrier inspector.

- A DOD commercial air carrier evaluator.
- An ATC person (but only if authorised by the administrator, and only so they can observe ATC procedures).

You know what, rather than us writing it all out:

- Go look here for the FAA stuff.
- You can try here for the UK CAA stuff.
- And here for EASA (Europe) regs.

Remember German Wings?

The German Wings event brought in **a bunch of big new regulations in the EU.** The main ones being:

- **Regulation 175** which requires airlines ensure all pilots receive a psychometric evaluation within 24 months of employment and before they start their line flying
- A requirement to always have more **than one person in the flight deck**

The second one was problematic. It added an extra layer of hassle when pilots needed to leave the flight deck to use the toilet, (and an added layer of embarrassment when you've had to ask for the fourth time in under an hour). This has been removed and is now just a requirement within certain operator policies, rather than a state or authority requirement.

Not letting random passengers in, in flight, is still a thing though. As is looking after the well-being and mental resilience of your crew and colleagues.

The FAA Flight deck barrier policy.

September 11th brought about a new focus on flight deck security. Namely, **folk can no longer fly with their doors open, and access must be controlled.** This applies to commercial aircraft, it may not apply to your private aircraft.

So, for those it does definitely apply to – a secured door with an access code, or a secure access procedure is required. This is covered in *§ 121.587 Closing and locking of flightcrew compartment door* and says:

> (a) Except as provided in paragraph (b) of this section, a pilot in command of an airplane that has a lockable flightcrew compartment door in accordance with § 121.313 and that is carrying passengers shall ensure that the door separating the flightcrew compartment from the passenger compartment is closed and locked at all times when the aircraft is being operated.
>
> (b) The provisions of paragraph (a) of this section do not apply at any time when it is necessary to permit access and egress by persons authorized in accordance with § 121.547 and provided the part 119 operator complies with FAAapproved procedures regarding the opening, closing and locking of the flightdeck doors.
>
> [Doc. No. FAA-2001-11032, 67 FR 2128, Jan. 15, 2002]

Recently, the FAA have recently published a new thing on **flight deck door barriers.** Something the likes of ALPA have been asking for since 9/11.

The summary is that it will apply to **“certain airplanes used to conduct domestic, flag, or supplemental passenger-carrying operations”.** This won’t apply to Part 129 (which is foreign operators heading into the US, or US registered ones that only operate outside the US).

The ‘secondary barrier’ creates an extra level of security by requiring that, prior to the flight deck door being opened, this must be secured shut like a sort of cattle gate.

Knock knock. Who’s there? Jack!

If you do have a hijacker onboard then remember three things:

- Don’t open the flight deck door
- **Don’t open the flight deck door!**
- Do squawk 7500

If you don’t want ATC thinking you have a hijacker onboard:

At any point in flight, (sort of goes without saying, but we’ll say it anyway), **maintain good radio communication.**

There are a lot of ADIZ (military airspaces) out there where you must check in, in advance. There are also a lot of **conflicts** going on which mean countries are particularly cautious when it comes to aircraft not in contact with who they should be in contact with.

If you don’t want some F16s to come swooping up alongside you then:

- Don’t miss radio calls.
- Do check in (in advance) if the airspace requires you to.
- Do try other systems or get relays if you lose contact.
- Don’t accidentally stray into airspace you aren’t cleared to fly into.

And if you don’t have an attempted hijacking going on then definitely don’t do what a South African crew accidentally did in 2016, or what a 747 crew for a major US airline did in 1999. You read about those embarrassing incidents here.