Here’s something we had Hima-layan around

OPSGROUP Team
25 January, 2022

Flying over the Himalayas can be tough. It’s a challenging place and there are a lot of things to think about. Big things – like the big mountains under you. Chilly things that can send shivers down your spine – like the chilly weather. Or things that might just trip you up – like converting meters to feet.

So we decided to make a handy guide for you, filled with things to think about if you are heading over the Himalayas for the first time, *or for the first time in a long time.*

What is the Purpa-se of the guide?

To provide some handy info to help you on your way. It is just a guide though. **Don’t use it** to replace your company ops manuals, AIPs or anything else. **Do use it** to refresh yourself on stuff you might want to know about before you go.

(And if you don’t get the Purpa pun then check out page 5.)

We also wrote a related post a while ago.

We called it ‘The Hills have Ice’ which we found amusing. This guide expands on some of the things we put in there.

What will you find inside?

Things to think about like what your safe altitudes might be, how to plan for a depressurisation, what airports are available or weather to watch out for…

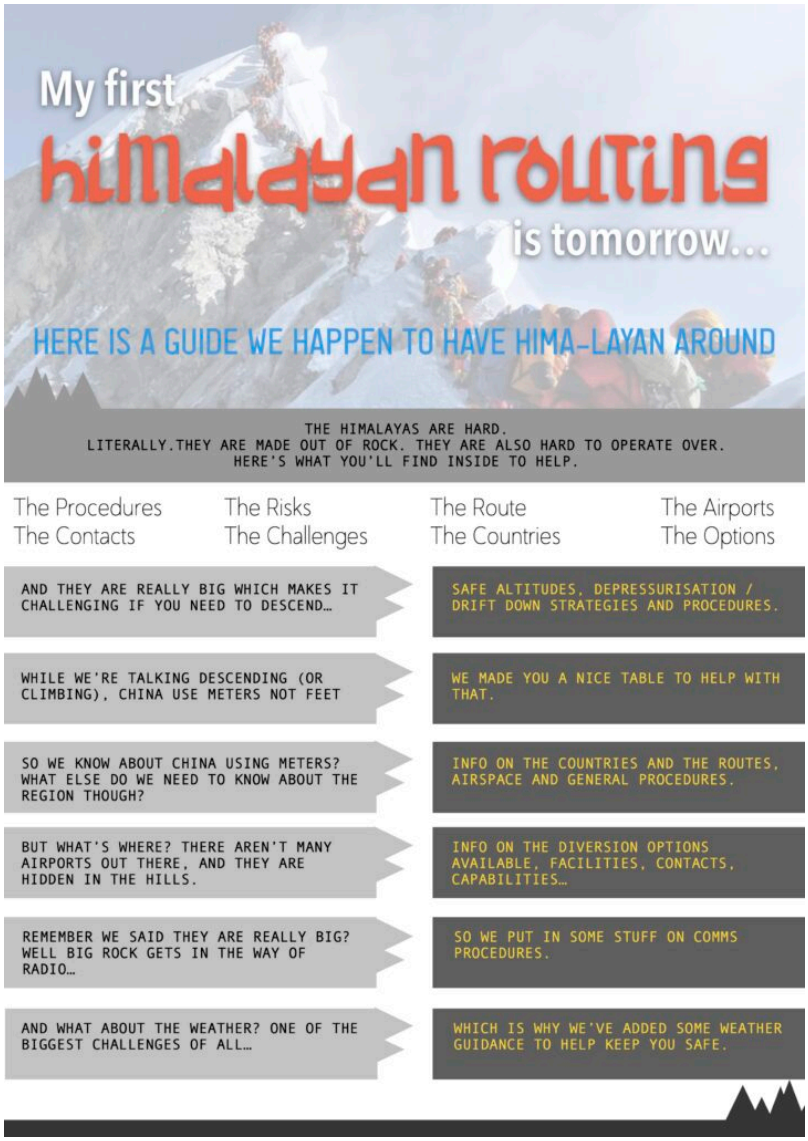
We also threw in some contacts, calculations, cold weather considerations, airspace info, comms advice and a couple more witty puns for good measure.

It won't help you move mountains...

But maybe it will help you move over them more smoothly.

Download the Guide

Opsgroup members can **download the guide as a PDF** direct from the dashboard here, or click on the image:

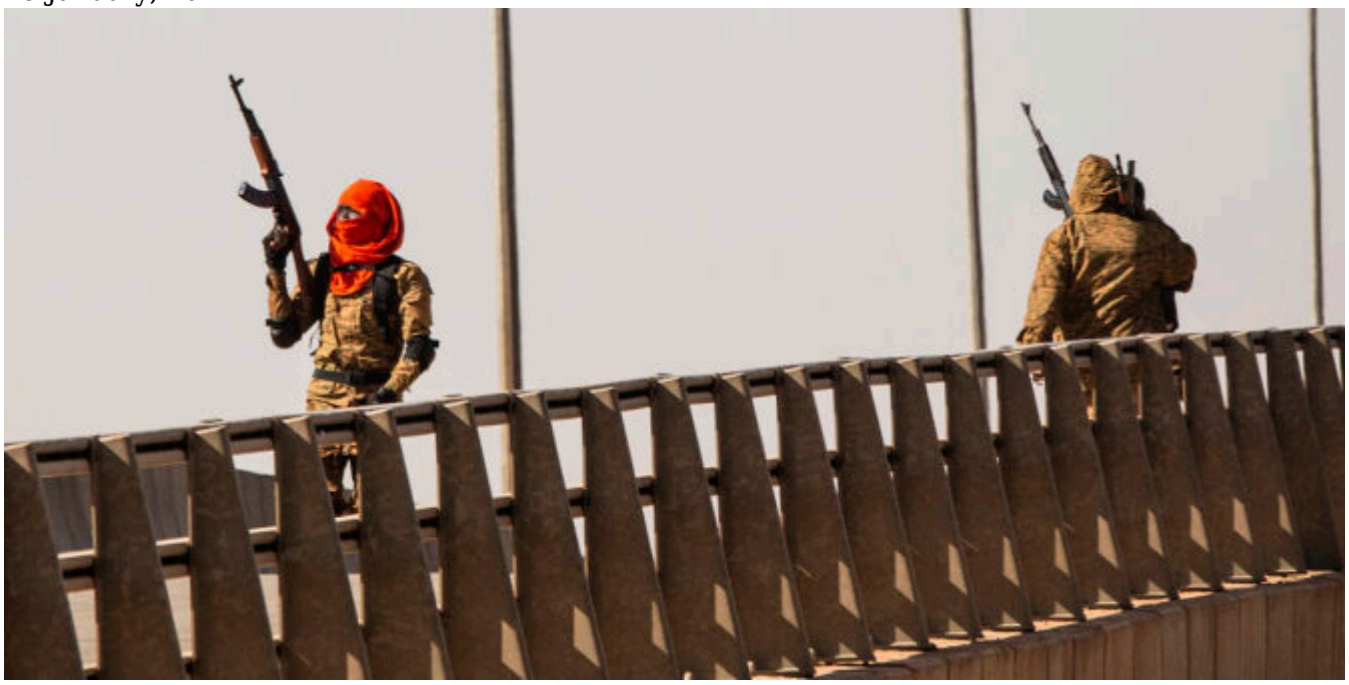


If you want to become a member of Opsgroup, click here.

Our little disclaimer: This really is just to provide some handy insights into what you might want to study up on more. Your operator will have their own procedures, official calculations etc and this is not to replace them, more to remind you that you might want to take another look at them.

Burkina Faso: Military Coup in Ouagadougou

OPSGROUP Team
25 January, 2022



On January 24, news broke that an attempted coup was underway by military rebels in Burkina Faso's capital, Ouagadougou. The president has since been detained.

Here is a look at the ongoing situation and the potential impact on international flight operations.

What is happening there?

The Western African region is an area of significant unrest and one we highlighted to watch throughout 2022 for potential conflicts.

Burkina Faso itself has been volatile since it gained its independence in 1960, and **several coups have been attempted** over the decades. It has also been struggling with increased levels of Islamist Insurgency given its proximity to Mali.

Tensions have been escalating for some time, and on January 22 there were reports of **anti-government protests** in the capital, Ouagadougou. Gunfire was reported near DFFD/Ouagadougou airport, and **several military bases were attacked.** There were fears an armed coup was underway.

Then on January 24, the president was reportedly detained by soldiers. It's not clear yet if the entire military is involved, or just a smaller faction.

What is the impact so far on international ops?

Security

The US Embassy advise that scheduled flights have been suspended at **DFFD/Ouagadougou** until the security situation stabilises. The airport itself appears to still be open, and on January 25 the government confirmed the **air borders were open**, but land borders remained closed.

The primary risk to aviation is **security on the ground.** As things could change quickly, it should be considered dangerous to stop here at this time. There are reports that non-essential embassy staff have

been asked to leave. The ability of embassies in Burkina Faso to help foreigners should be considered limited.

This may create problems for flight planning as DFFD is often used for en-route and destination alternates for aircraft transiting Africa. It is considered to have better infrastructure and support available. **GABS/Bamako** in Mali is another option, but things are volatile there as well. So extra thought may need to put into crew security in the event of diversions.

Consider **DGAA/Accra** airport in Ghana as a safer option. The security situation there is more stable than neighbouring countries, and the airport has good and reliable facilities. We recommend Apogee as your agent – you can contact them at fly@apogee.aero, or +971 4 295 40 41.

Overflights

Burkina Faso is not responsible for its en-route airspace. It is found within the **DRRR/Niamey FIR**, and controlled from neighbouring Niger. Therefore overflights are not likely to be affected by the events in Ouagadougou. Check Safeairspace warnings for Mali and impact on flights through the Niamey FIR.

The Mali Situation

There was also a **coup in Mali this month** and civil unrest is ongoing. It was condemned by other countries in the region and has led to sanctions against Mali. The US Department of State maintain its highest level of travel warning for Mali, which should also be considered a dangerous option.

The Overall Risk Assessment

The impact on aviation safety is generally low. However stops in Burkina Faso should be avoided until the situation stabilises. The risk is ground based – the security of crew and passengers cannot be guaranteed at this time. However airports and communication infrastructure remain up and running at time of writing.

L888 – The Silk Road Airway

OPSGROUP Team
25 January, 2022

We received this interesting question this week:

We said: "*There are four airways over the Himalayas (L888, Y1, Y2, Y3) which the Chinese authorities will only let you use if you have ADS, CPDLC and satellite voice communication, and operators need to verify their equipment with them at least 60 days in advance! So they recommend that only regular scheduled flights apply to use these airways."*

Member said: *"We've not been allowed to fly these routes, costing time between Europe and Hong Kong. I've been unable to get a direct answer of why not from our local Universal Aviation reps except, "the authorities won't allow it". Per above, there appears to be a procedure to use these airways.* ***What is the process to gain access to these airways?*** *Our equipment is Gulfstream with everything including the kitchen sink."*

We will start with the answer

The process to apply for access to these airways is found in AIP CHINA Section ENR 3.3.2.4 "L888, Y1, Y2".

Excerpt from AIP CHINA published by CAAC:

> 12.1 A formal application shall be submitted to Air Traffic Management Bureau of the Civil Aviation Administration of China before air carriers operate data-link route, the application shall include:
>
> " City pairs;
> " Schedules;
> " Starting time;
> " Type of aircraft used;
> " Satellite telephone numbers for the fleet;
> " Procedure of emergent escape. (Y1, Y2 exceptive)
>
> 12.2 Flight plan notification of data-link capability is required before data-link services can be provided.
>
> 12.3 Aircraft equipped with serviceable ATS data-link equipment shall fill in ICAO flight plan forms as follows:a. Advice of data-link capability shall be included in Field 10 (Communication

and Navigation) by using an abbreviation “J”. b. Advice of available data-link media shall be included in field 18 by use of the prefix DAT/followed by one or more letters, as follows:

” DAT/S for satellited data-link,
” DAT/H for HF data-link,
” DAT/V for VHF data-link,
” DAT/M for SSR mode data-link,
” DAT/SAT for satellite phone.

12.4 Serviceable ADS equipment carried will be annotated by adding the letter D to the SSR equipment carried.

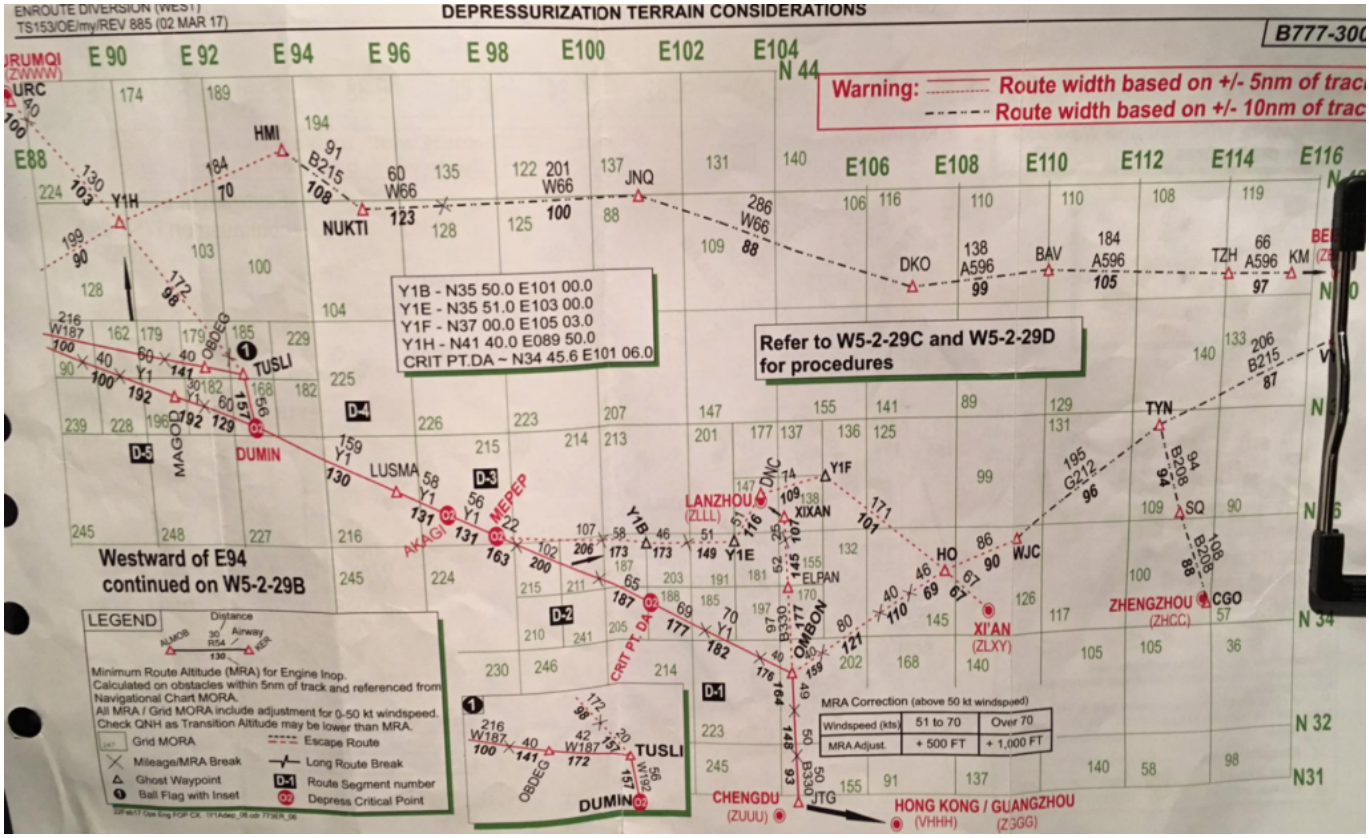
12.5 Air Carriers are required to provide a list of satellite telephone numbers with each aircraft which flying along route L888, Y1, Y2.

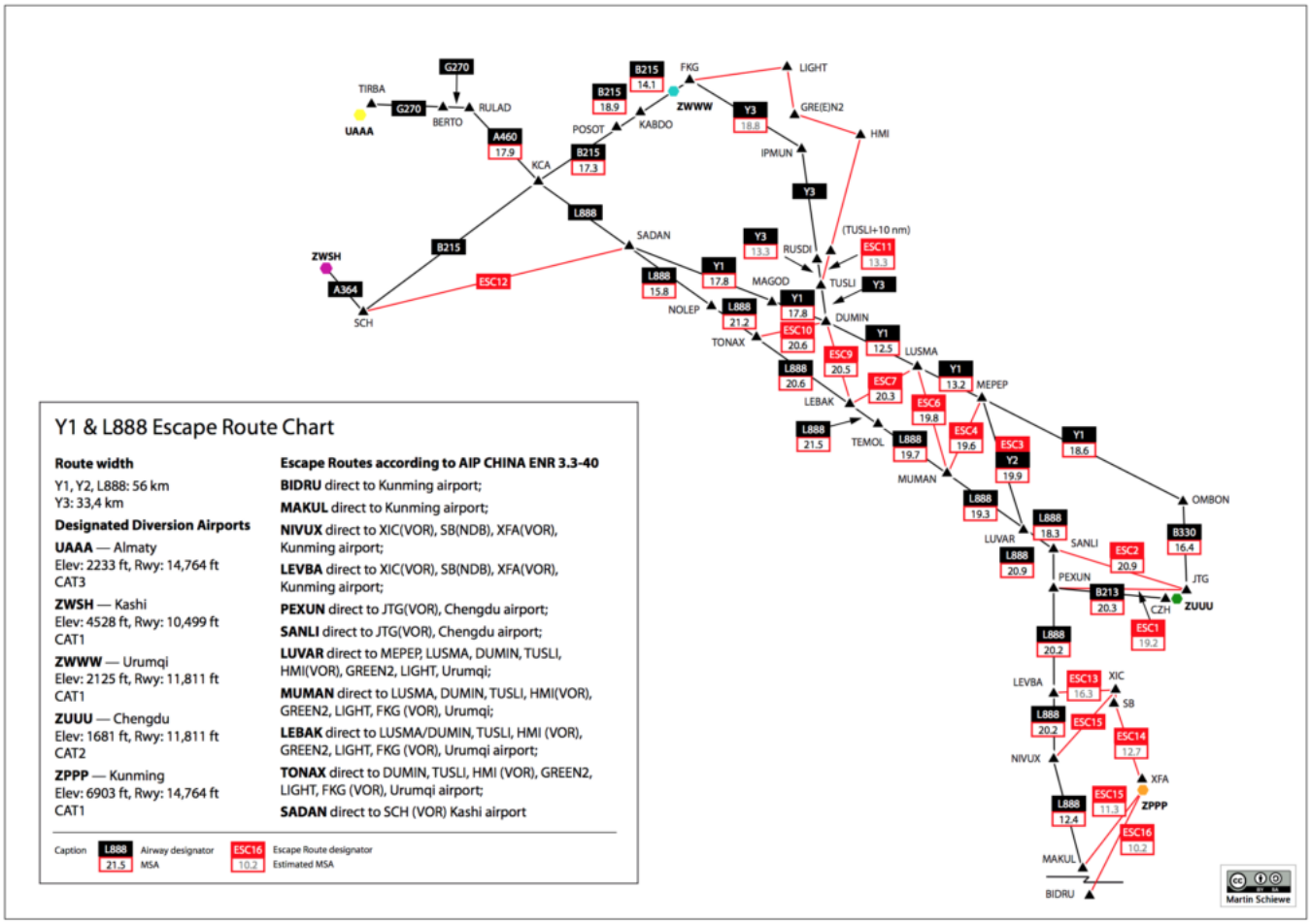
Now, onto the interesting stuff. The process requires submission of a “Procedure of emergent escape”.

The available alternate airports for route L888 are (according to the AIP);

- ZPPP/Kunming airport;
- ZUUU/Chengdu airport;
- ZWWW/Urumqi airport; and
- ZWSH/Kashi airport.

This is where it can get a little complicated. The handful of “air carriers” authorized to operate over these airways have type specific ‘escape’ procedures such as this example which shows a B777-300ER ‘Depressurization Terrain Considerations’ on Y1.





There is also the consideration of additional crew and passenger oxygen. The GRID MORA is over 20,000ft for several hours.

If you're flying routes over this airspace regularly with the same aircraft, meet the onboard aircraft requirements and are willing to invest in developing type specific escape procedures, then a submission to CAAC might be in order. Even then, it's a complicated approval process and there is always the potential requirement to carry an approved onboard navigator for travel to certain domestic airports.

Another tip we picked up was to make sure you don't change callsigns between the submission of your application and the date you fly. Some flight plans have been getting rejected close to departure due to callsign confusion.

Some history...

As you'll probably already know, the Silk Road or Silk Route was an ancient network of trade routes that were for centuries central to cultural interaction originally through regions of Eurasia connecting the East and West.

The concept behind the Silk Road initiative was not new. As long ago as 1997, the Australian airline QANTAS commissioned a study that crossed part of the Tibetan plateau which determined that there would be substantial benefits for their B747-400 aircraft, and that suitable depressurization escape routes were able to be determined.

As recently as 2013 ICAO was working to expand routes over this airspace:

> “ICAO presented information on a possible high density routing initiative for traffic from Southeast Asia or Southern China to Europe via north of the Himalayas, taking advantage of the latest Performance-based Navigation (PBN) navigation specifications. The Silk Road initiative was a proof- of-concept ATS route study, utilising RNP 2, RNAV 2 or RNAV 5 navigation specifications, and was first presented to the Asia/Pacific Regional ATM Contingency Plan Task Force (RACP/TF) as a possible future contingency system for traffic operating on Major Traffic Flow (MTF) AR-4, in case of airspace unavailability in South Asian FIRs.”

Further Reading:

- You can view a great overview of the QANTAS approval process here.
- Airbus also had some interesting insights when they flew a test A380 over the route a few years back including commentary of their application process and hurdles.
- Lastly a great flight safety read about escape route planning and the complexities involved in it.

NAT Doc 007 Changes 2022

OPSGROUP Team
25 January, 2022

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

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

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

The Very Simple Summary

MNPS is out

They have removed all historical references to it.

OWAFS is in

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

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

The Chapter by Chapter Review

Chapter 1

MNPS references have been removed, as have the old MNPS performance specs. Now it is all PBN. They have also taken out the old bits about trials and implementation because MNPS evolution to NAT HLA and PBN has happened.

Chapter 2

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

Chapter 3

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

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

Chapter 6

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

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

Chapter 7

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

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

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

Chapter 10

Another 'should' to 'shall' change.

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

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

That's all we saw.

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

Further reading

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

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

US 5G Roll Out: Launch Day, More Delays, New Notams and FAA Buffers

Chris Shieff
25 January, 2022

****Update, Jan 19 – New****

While most of the 5G network has been switched on, several 5G providers have **delayed** rolling out services at stations close to the major airports. It isn't clear how the long the delay is for.

Over the weekend, the US FAA said it had cleared **45 percent of the US commercial aircraft** fleet for operation in low-visibility conditions at **48 of the 88 airports** directly affected by 5G C-band interference. This latest delay is most likely to allow the FAA to continue confirming the safety consequences at the major airports, after **pressure from US and foreign carriers.**

****Update, Jan 19****

The big day has arrived for the new 5G networks. They are set to be **switched on.**

New FAA Notams with operating restrictions at a large number of airports across the US become effective. Make sure you check them for any airport you may be operating at (including alternates) – especially **if you are expecting low visibility operations**. You may not be able to carry out Cat II/III approaches. You can search for the new Notams here, using the keyword '5G.'

Several industry heavy weights have asked the US Government directly to further restrict 5G networks near major airports and the outcome is still pending. Both Verizon and AT&T has reportedly already agreed to limit services near *some* – more details will follow as they come to hand.

Major international carriers have also begun cancelling or restricting flights to the US until more is known about the safety implications of the new networks.

****Update, Jan 14****

At least **100 airports** have Notams banning or restricting operations such as Autolands, HUD usage, or any other manoeuvre reliant on radio altimeters, unless the aircraft is equipped with another means of compliance (with altitude monitoring).

The Autoland 'ban' is of significant concern due to its potential impact on safety and efficiency during **low visibility and poor weather conditions.** This could limit alternate options and result in significant delays and fuel situations if airports are **unable to accommodate traffic** during these conditions.

Several major airports are impacted including KORD/Chicago, KFDW/Dallas Fort Worth, KIAH/Houston, KJFK/New York, KSEA/Seattle, KBOS/Boston and KLAX/Los Angeles.

The Situation

The US FAA has published a list of fifty major US airports which will have 5G buffers in place to ensure safe operations.

Here's an update on the latest and what this all means.

Flicking the 'ON' Switch

Verizon and AT&T will activate major new 5G networks in the US on January 19. This follows a two-week delay as the industry scrambles to assess just how much of a safety risk this might be to civil aviation.

The Concern

These new 5G services will operate in a frequency band that is uncomfortably close to what radio altimeters use. This could lead to erroneous signals and mess with safety-critical systems – especially auto land and TAWS.

For more details information on these issues, including how you can mitigate them, see our recent article.

How will these 'buffer zones' work?

Both Verizon and AT&T have made an agreement with the FAA to turn off transmitters in close proximity to select major airports for a further six months. During this time the FAA will be able to better assess the potential for interference.

These buffer zones will apply within the last twenty seconds of flying time in all directions from the airport.

How did the FAA choose the list?

A number of factors were taken into account. These included traffic volume, how many low visibility days there are each year, and how close the airports were to the new antennas.

Other major airports were not included for various reasons such as those in areas where the networks aren't being rolled out, ones that are far enough away from the antennas, or fields with no CAT II/III facilities.

Important US Resources

In recent months the FAA has published a number of important documents for pilots dealing with this looming 5G issue:

- Special Airworthiness Information Bulletin (SAIB AIR-21-18R1) – recommended actions for manufacturers, operators, and pilots.
- Airworthiness Directive (2021-23-12)– for all commuter category airplanes with a radio altimeters. Contains new information about how 5G related hazards will be communicated by Notam.
- FAA Safety Alert (SAFP 21007) – Some more technical information along with which aircraft systems might be affected, and an example of how the new Notams will work.

….for a detailed breakdown of these, click here.

The US isn't alone.

There have also been some developments north of the border in Canada, where 5G networks are being progressively rolled out.

On Dec 23, Transport Canada published its own Safety Alert (CASA 2021-08) with some important recommendations for pilots. This was the big one – avoid flying RNP AR approaches that are not protected by buffer zones in IMC conditions, unless you have another way to identify terrain (such as weather radar). This is because the TAWS may not be reliable.

What next?

Industry efforts to understand the safety impact to aviation from these networks are ongoing. That means working directly with airlines and manufacturers, and it will take time. Temporary buffer zones help, but long-term solutions are needed.

But there's 5G in other countries. Why is this such a big issue in the US?

A few reasons. Signal strengths will be much higher in the US than in other countries' networks around the world.

Other design features and protections in place for aviation overseas have not been mandated on network providers. These include measures such as tilting antennas down, introducing permanent buffer zones, rules on how close antennas can be to airports and reduced power levels.

Stay Updated

There are two places to stay updated as this all develops. The first is the FAA's official 5G website found here. The NBAA have also published a handy resource you can access by clicking here.

Has The Yemen Conflict Reached The UAE?

OPSGROUP Team
25 January, 2022

On January 17, bomb laden drones reportedly struck oil tankers and a construction site in Abu Dhabi, UAE. The impact sites were close to **OMAA/Abu Dhabi International Airport**.

Around the same time, Al-Houthi rebels claimed the group would be launching an attack *"deep in the UAE".* While this attack in itself caused no disruption at the airport, it does highlight some serious concerns for safety in UAE airspace, and the wider impact of the conflict and volatility across the Middle East region in general.

What are the concerns?

The precise technical capabilities of the Yemeni rebel forces are not entirely known. In general their drone attacks have **primarily targeted Saudi airports OEAB/Abha and OEGN/Jazan** which lie close to the Yemen border. The capability and intent to send weapons through Saudi Arabia and to target the UAE is an escalation on what they have previously carried out.

Drone attacks in Saudi Arabia are a fairly common and persistent threat, however, Saudi Air Defence systems manage to intercept the vast majority before damage occurs. How these drones avoided detection is a concern.

What is the situation in Yemen?

Yemen has been an **active conflict zone since 2014,** with Saudi Arabia leading a coalition of countries from North Africa and West Asia against the rebel forces. OYSN/Sana'a airport has been impacted by multiple airstrikes throughout 2017 and 2018, and continues to be **targeted in response** to attacks such as this one, along with other regions of Yemen with known rebel activity.

Yemen **airspace is prohibited** by most major authorities. Saudi Arabian airspace has cautions for the **southern Jeddah FIR** bordering Yemen.

What is the general situation in the region?

While missile and drone attacks in Saudi territory have **intensified recently**, attacks against the UAE by the Al-Houthi group have never been confirmed until now.

OEJD/Jeddah lies almost 400 km north along the western coast and has seen some attempted attacks by drones throughout 2021, as well as attempted **missile attacks.**

OERK/Riyadh which lies in central Saudi Arabia has seem a number of attempts as well, however, Al-Houthi rebels denied they were responsible for a recent attempt in Riyadh. This took place in January 2021 and Saudi Air Defences destroyed the drone before any damage occurred. **It was attributed to an Iraqi militant group.**

Does this change the risk level for UAE airspace?

The rebels have suggested they will continue to target the UAE, however, they are targeting 'sensitive sites' on the ground such as oil refineries. There is no apparent intent to target aircraft or civilian airports. Unfortunately, such sites tend to be located along the coast and are in **proximity to busy airspace and major airports.**

Can we mitigate any of the risk?

The UAE have significant military defense capabilities as well. If you are operating into the region, **be aware of increased military helicopter traffic.** Maintain a good listening watch on frequency, and on 121.5.

The UAE do not use special procedures (like the Saudi ESCAT ones) but are **proactive in closing their airspace** if drones are identified within it – be aware of what your **route options and alternate options** are in case this occurs.

Keep an eye on Safeairspace for further updates or changes to the risk rating.

Noisy New Rule for EU Ops: The EASA Environmental Portal

Chris Shieff
25 January, 2022

There’s a new rule coming. And it’s about noise.

Both foreign and local operators of certain aircraft carrying out Part 91 and 135 operations to airports in the EU will need to register for EASA’s new Environmental Portal by the end of March 2022 (extended from Dec 31, 2021). They will need to upload important noise data about their specific aircraft.

Here’s a brief guide on what you need to know.

Who does this impact?

All foreign and local Part 91 and 135 operators using airports within the EU, with an aircraft that fits the following categories:

MTOW of 34,000kg (75,000 pounds) *or more.*

OR

An aircraft with 19 passenger seats *or more*. Excluding crew seats. *For this category, it’s important to note that EASA looks at the number of passenger seats as per the aircraft type’s certified ability, and not the number of seats actually installed on your particular aircraft – i.e. if you’ve only got 18 pax seats installed, but your aircraft is able to carry more, you’ll need to register for the Environmental Portal.*

Yep, that’s us. What exactly do we need to do?

Submit this form via email to environmentalportal@easa.europa.eu.

There are two options for the information you’ll then need to provide:

Either:

A stand-alone noise certificate issued by a state of registry. It will need to include your aircraft’s reg, its configuration and noise levels.

Or

Get that scanner warmed up. Pages from your aircraft’s flight manual which provide the following:

- Registration
- Serial number
- Engine variant
- Both MCTOW and MLW
- Airworthiness certificate
- Noise level data (stage/noise levels)

Isn’t this the same thing as the Third Country Operators Portal (TCO)?

Sadly, nope. The info is similar, but this is a separate requirement. The EU has nominated EASA to be the responsible authority tasked with collecting this info in a separate database.

A head's up for 'N'-Reg aircraft.

As the FAA doesn't currently issue stand-alone certificates, that only leaves the second option. Make sure you also carry this information onboard in case you win yourself a ramp check.

What's this all about?

The shortest answer is noise. The slightly longer one is this:

As traffic levels continue to grow at EU airports, noise is becoming more of a problem. The challenge is how to accommodate this growth in harmony with densely populated areas around airports – especially at night.

If sweeping noise restrictions were simply decided on a case-by-case basis, they could interfere with commercial competition or make the whole aviation network less efficient by under-utilising precious capacity.

Instead, ICAO suggests what they call a 'balanced approach' to noise. Or in other words, using a coherent and consistent method to measure noise across the board. From there they can use the actual data from aircraft operating in the EU to introduce consistent and fair operating restrictions throughout the EU.

The database is a big part of this. It's about allowing aviation to grow in a sustainable way. Or in other words, without riling up the neighbours.

Who can actually view the data?

It's not publicly available. Only the following groups will be able to access it:

- Competent authorities (such as CAAs)
- Air Navigation Service Providers (ANSPs)
- Airport Operators
- Aircraft Operators

They all have to apply for access first too.

Other things to look at (if you're really keen)

ICAO Resolution A33/7 – a rundown on the idea of a 'balanced approach' to noise abatement.

EU Reg No. 598/2014 – skip to article 7. The actual EU regulation.

Speaking of noise – any guesses for the loudest commercial aircraft still in service?

The mighty 727 at 90 decibels. In comparison, when Concorde was flying it would hit 120 decibels – as loud as a clap of thunder.

Tonga: Major Eruption in the South Pacific

Chris Shieff
25 January, 2022

On January 15, there was a major volcanic eruption in Tonga – an island nation in the South Pacific.

It was perhaps the most explosively violent eruption of the 21st century to date. Since then, the volcano has continued to produce ash as high as **FL630** and has potential to continue to cause major flight disruptions throughout the region.

Here's what you need to know.

Where is it?

The *Hunga-Tonga-Hunga-Ha'apai* volcano, or just **Hunga Volcano** for short, is found approximately 30nm north of Tonga's capital, Nuku'alofa. You won't find it on maps because it is hidden underwater. It is nestled squarely within the Tonga Trench, and is part of the Pacific's infamous Ring of Fire – where eruptions and earthquakes come with the territory.

Because it is submerged, the risk to airports in the region is actually two-fold – from **ash**, and from **tsunamis** caused by seismic activity under the sea.

What has been happening?

The Hunga Volcano has been stirring for a while. In December there were small eruptions which produced ash and disrupted flights at Tonga's main airport, **NFTF/Fua'amotu**. Then on January 15, there was a much more violent eruption.

Hunga produced a large ash plume, 150 nm wide and extending up to FL630 well west of Tonga. The remnant of this cloud is currently over New Caledonia. The current VAAC forecast is good, with ash emission expected to stop.

NFTF/Fua'amotu is currently **closed due to ash on the ground,** and is expected to re-open at 0630 local on Jan 21 (1730z on Jan 20) but this may well be extended. Airports nearby – especially in **Fiji**, **New**

Caledonia and **Vanuatu** have so far escaped major disruptions.

Over the weekend, widespread Tsunami warnings caused by Hunga were issued for coastlines as far away as **South America, the US and Japan**. These have since been lifted, however Tonga itself was badly impacted by waves. It remains in a state of emergency and is still cut off from the world as internet and phone services are reportedly down. Reports of damage are still coming through.

The majority of major airports in the South Pacific Islands are at or near sea-level which leaves them especially vulnerable to this threat. They are also very remote. If Hunga erupts again, widespread closures could happen with little notice.

Outlook

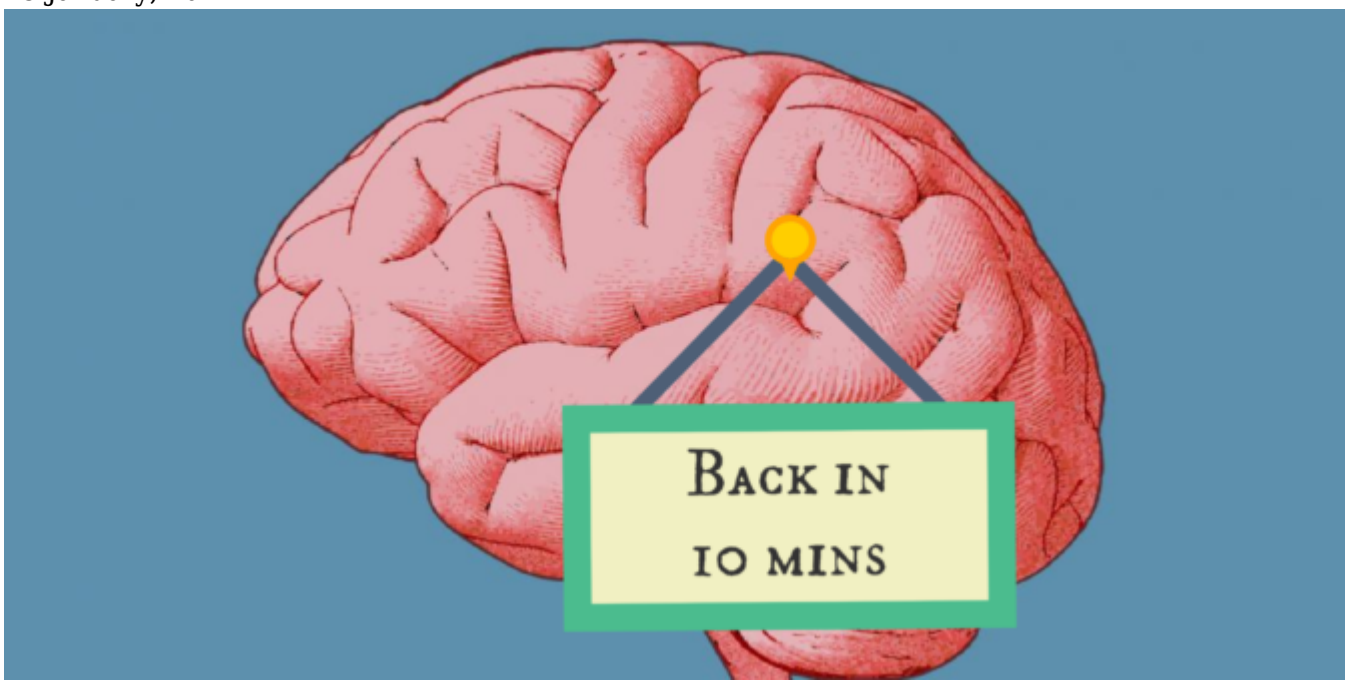
While things have started to subside since the eruption, it's not clear whether this was a one-off, or if we are in the middle of an 'eruptive sequence.' In other words, there may be more to come.

Stay Updated

VAAC Wellington handles volcanic alerts for the South Pacific region. You can view new advisories as they are issued, here.

Getting Your Head Back in the Game

OPSGROUP Team
25 January, 2022



In 2017, an Airbus 380 routing to UUDD/Moscow Domodedovo had a serious incident attributed to "*Descent below Cleared Altitude during Approach and FS not reconfigured following a reset doing the Second Approach.*"

What happened, in plain English (and minus 166 pages of report), was an aircraft carrying 422 passengers **descended to 395 feet AGL**, had an **EGPWS warning**, and then attempted a **second approach** which

they went around from before finally landing without incident from the **third approach**.

Now, it might come as a surprise, but if we are going to talk about either of those approaches, then we actually should talk about the second one. Here's why…

(But before that) The Report

A large number of the aforementioned 160 plus pages of this report discusses and analyses Airbus specific (and at times quite technical) factors involved in the second approach. Things to do with FMS sequencing, oscillations from mismatching position signals, FMC resets, multiple waypoints…

But if we sift through this technical stuff and really ask **what led an experienced crew, with a full functioning modern aircraft, into this situation** then the real root cause is simple.

Stress.

Stress caused by what had happened earlier clouding their ability to do what needed to be done next.

We've all been there.

We have all experienced a time where something has gone wrong and **our brain has refused to drop it.** Instead of getting to work, it's sat there reminding us what we just did, how silly it was, even when we've tried to move on and **get our focus back on the current situation.**

You no doubt have your own examples – the first manoeuvre in a sim assessment that is so messy you spend the rest of the session dwelling on it, wondering if it was too messy to pass. The time you did something silly on the line and sat there stewing away with the *"why did I do that?!"* and the *"What an idiot I am!"* thoughts.

And out on the line, this dwelling on **what happened just now, instead of what is happening <u>now</u> now** is particularly critical because, as we know, a flight is a pretty dynamic beast, and it doesn't stop at the mistake – it keeps moving on. If we don't get with the program, then where it is going to move us to might very well be another equally or even tighter spot than the one we are still stewing over.

Now, us pilots are tough on ourselves, often our own worst critic. We are also quite detail-oriented which means if we allow our brain the freedom to, it tends to start throwing a few additional ingredients into that stew pot, until there is a nice bubbling hot soup of worry filled with self blame, bruised ego, concerns about repercussions and just a little fixation on hindsight.

But if we let this soup spill into the remainder of the flight, we can get burned very quickly. **So, how can we get our head back into the game?**

Time

Yep, time is a wonderful thing. They say it heals all.

Alas, we don't always have it, and if you don't, then you're going to need to do two things.

One: Take just a few moments to throw everything into the stew pot.

Two: Stop stirring it and put it aside until you do have the time to really sit and look at your reflection in the probably quite thick, dark gloop (ok, enough with the stew analogies, I promise).

You are going to have to wait until you can sit and reflect, dissect, digest. This does not mean disregarding it immediately though.

After a stressful or surprising event, it can take between **20-30 minutes for adrenalin levels to really drop** down to normal again. In the flight deck SOPs, memory items, all our years of practice are there to help bring those levels back to normal quickly. But you still need time to acknowledge something happened, and to regroup. While you may not have time for the full self-trial, you do need to **make time for your brain to get it together again.**

But how long do you need?

That is very dependant on you and on the situation. A group of pilots were asked to give an estimate of how long they thought they'd need to reset and re-brief for a second approach following a "not their fault" event leading to a go-around. It wasn't particularly scientific, there was a hypothetical pig involved, but for the most part the group seemed to feel **5-10 minutes was adequate.**

This was a situation where they were not to blame though. Throw in the embarrassment and concern about repercussions and the time to put all that aside may be much more.

Admit it, Move on.

A key step in this seems to be simply **admitting something went wrong**. Acknowledging a mistake, out loud. Saying *"That happened, but now we need to do this..."* can be trigger to your brain to focus on that "now we need to" element which is so important to safety. It can also be the trigger to **bring the other person back into the now** as well.

Without this, it is often hard to stop your brain from running through the events again and again, self-preservation kicking in as your brain *so thoughtfully* tries to find reasons, evidence, excuses as to why it wasn't really your fault.

We need to Rebuild

In the A380 incident, this seems to have been what happened. Added to that was a likely loss of trust – in themselves or potentially in the aircraft – because there was not time to review and work out what had really happened. And this is the next thing you need to give yourself time to do – rebuild.

Just as we rebuild our automation after a wind shear event, or a TCAS RA, **we need to rebuild our own mental model of the situation** as well, and using a structured method – sticking to SOPs, ANC, what we know – will help reset your brain back into the 'now' far more quickly, and with far more useful context to keep you safe. By going back to basics, **starting simple with a good bit of ANC** and working up again, you can determine where to place your trust and then go from there.

The Process

The process look simple:

- Give yourself time to take in what happened and to acknowledge it.
- Mentally put it aside until there is time to think on it again.
- Rebuild the situation and your own mental model, bring your brain back into the game.

But can we prepare for this even earlier?

Train to Fail

We probably don't spend anywhere near as much time thinking about failing as we should. I mean, it's not nice to. Adding some Kobayashi Maru exercises into sim profiles probably isn't the way to go about it, but

in fact **building resilience is something that can only really be done through practice.**

By resilience, we mean *that ability to bounce back. The capacity to recover from difficulties. Mental toughness.* Some of this can be prepared with briefings on mitigation strategies, threat and error managements and all that good stuff.

But the resilience to bounce back from a real unexpected, unprepared for event – **that only comes through actual experience** of those sort of situations.

How can we train to fail in sims though? And especially in the sort of scripted sims that are all many smaller operator pilots have exposure to?

The Element of Surprise

Sim scenarios which involve an element of surprise are critical. It doesn't have to be something huge, but it does have to be something that actually tests the pilot's decision making, situational awareness and resilience skills. They also don't have to fail, but **they do have to experience that *"not going to plan, what do you do now?"* moment** where they need to reset their brain, rebuild their SA, and regroup with the other crew member.

If Resilience is the key, how to build it is the question.

The resilience to bounce back needs to be **developed, practiced and thought about.** And a process for doing it needs to be identified.

Resilience, or a lack of, is unfortunately what led the crew of the Moscow A380 into having to discontinue a second approach. While the factors leading to the first may seem so much more important to review because that first approach led to a so much more dangerous condition, the really critical Human Factor in this, and in so many experiences on the line, lies in the question of **"How can we get our head back in the game following an event?"**

Think you have an answer to this? We would love to hear it. You can reach us on team@ops.group.

Danger Club .. the story so far

What happens in Danger Club? Top secret of course, but very simple: we get together as pilots to talk about ~~safety~~ **danger**. This isn't the usual safety meeting

(hence the strikethrough): we're just fallible humans figuring out where our faults may lie.

The first six meetings have been met with enthusiasm from all attending, and some really interesting discussions have resulted.

Top topics so far: *Taking control from the PF, finding your voice as the F/O, MAYDAY calls and emergencies, over-experienced captains, automation vs hand-flying, the risks of a too shallow cockpit, whether there is such a thing as too much experience, and the question of when do we become too comfortable with risk?*

It's been fun and fascinating. Bec wrote a great article on one of the topics after one of the sessions: Fighting for Control, and Chris wrote another one: Grandchildren of Magenta.

OPSGROUP members – keep an eye on the OPSGROUP forum for details of the next event!

Iraq Overflights: A Recent Report

OPSGROUP Team
25 January, 2022

The US FAA recently amended their long standing Notam prohibiting US Operators from entering the ORBB/Baghdad FIR. The KICZ Notam A0036/21 used to bar flights at all levels, but now US operators are allowed to overfly Iraq provided they **remain at or above FL320**, as per the SFAR.

So, what can you expect if you elect to use this newly available routing, and what risks remain?

You can still expect risk

Iraq remains a political volatile country and the **security there is unpredictable.** Terrorist groups remains active, and have access to **anti-aircraft weaponry.**

What should you do?

- Continue to monitor alerts and sites such as Safeairspace to confirm what the current situation is.
- Flights should **remain above FL320** to avoid risk from MANPADS.
- Do not use Iraqi airports as **diversion options** unless it is an absolutely critical emergency situation.

All going well, here's what expect

Plan to use the **UL602, UM860 and UM688 airways.** These are major airways utilised by traffic routing between Europe and the Middle East. Iraq offers the slightly shorter route compared to Iran (and Iran remains out of bounds for US operators).

The routings to plan are as follows:

Northbound:
– TASMI DCT SEPTU DCT ROXOP UM860 NINVA
– TASMI UL602 ALPET L718 DEBNI DCT EMIDO L718 KABAN (all flights need to be at or above FL280 before DEBNI to stay clear of restricted area OR/R 401).

Southbound:
– TASMI RATVO UM699 SIDAD (via airway)
– RATVO DCT SISIN UM688 SIDAD (DCT – subject to availability)

Kuwait are good at handing you over, and Bahrain and the UAE airspace is all well managed.

ATC standards are good, and standard VHF throughout, with radar. It is worth keeping your headsets on though because a good listening watch is required at all times in this region.

Routing south you might find yourself **slowed down or shifted levels**, or given early descents, as they manage the flow into some of the major hubs in the Middle East. If you fly into the Bahrain FIR (via RABAP or LONOS) be aware there are high levels of congestion here, particularly military traffic.

Any other considerations?

Iraq borders **Syria** which is an absolute no go area. There is a **large prohibited area** in the northwest quadrant of Iraqi airspace along the Syrian border. If you are looking to use LCLK/Larnaca as a diversion airport, consider how you will manage routing around Syria.

The main southerly airway lies extremely **close to the Iranian border.** The border is not a straight line so consider whether you might accidentally cross it if detouring for weather, or if offered a direct routing which cuts the corner.

You do occasionally get some **major storms** in this region. When they are there, they aim to be impressive!

GPS jamming is a problem, usually in the northern region from around 40nm north of the border and through about one third of the airspace. Of course, if you have INS and/or VOR/DME RNAV etc then you'll be ok, but if you're using something like Garmin avionics which rely solely on GPS then not so much. UAE airspace requires at least one GPS too, so update ATC if you need support!

What if I have to land there?

Security and safety on the ground is unknown and likely to be high risk.

The US have pulled their troops out and so there is little protection at the major airports. Leaving the airports will result in possible security issues and is unadvisable. While the airports are generally well maintained and serve some major international airlines, **conditions are challenging** particularly in the summer when temperatures regularly exceed 40°C. **Terrain is also a consideration.**

Cultural and religious regulations must be taken into account, and **political conflict with certain nationalities** should be considered. Alcohol and drugs are banned with severe penalties.

ORBI/Baghdad is a common target for rocket attacks, particularly because of its proximity to an air base. Rebels and terrorists are active in this area. The facilities and runways are decent with two ILS approaches and two runways of 4000m and 3301m. **This should only be used in absolute emergencies.**

ORMM/Basra is the second largest airport in Iraq and has a good length runway and an ILS. **This should only be used in absolute emergencies.**

ORER/Erbil offers a very decent length runway and facilities. The main area of issue is over the hills to the north of the airport. **This is the only airport which may be recommended for use as a possible en-route diversion.**

Almaty airport open again following civil unrest

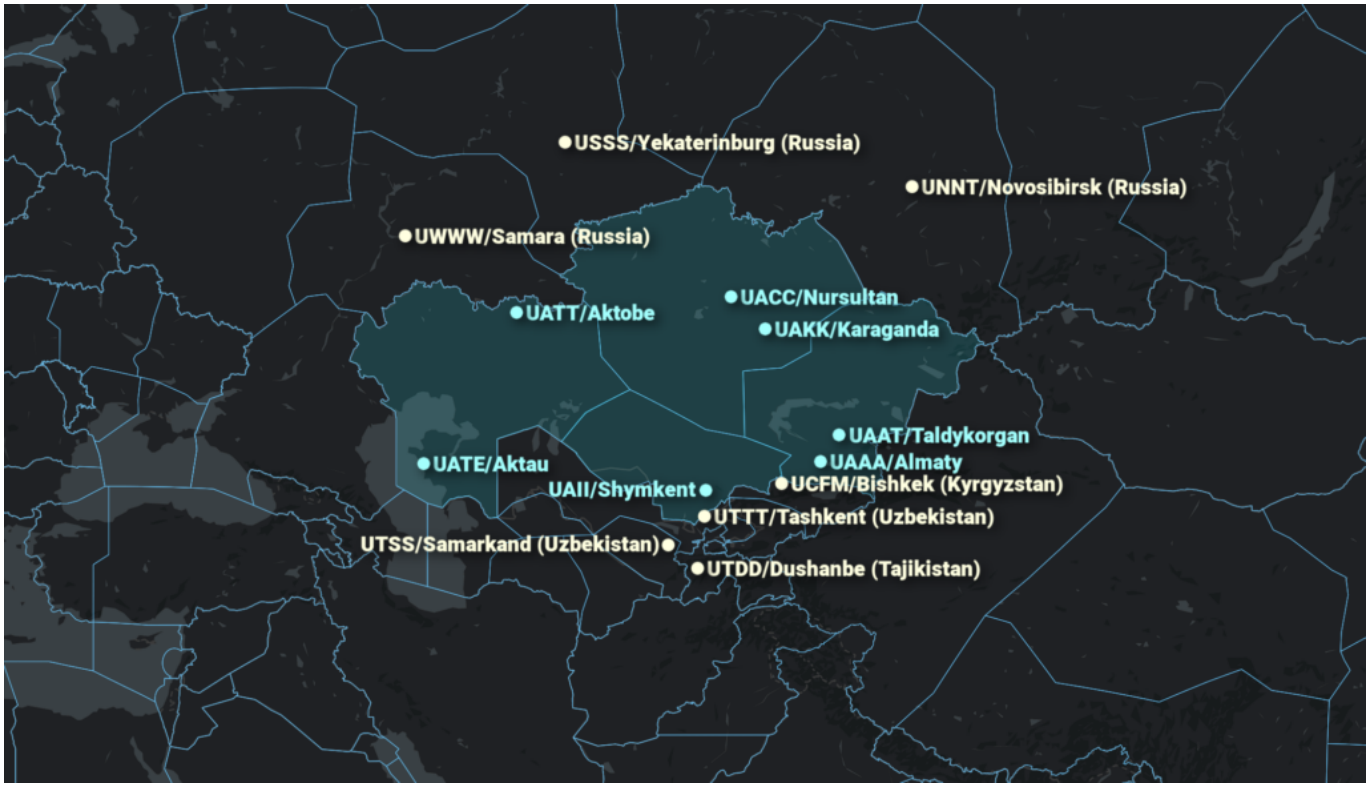
OPSGROUP Team
25 January, 2022

****Update, Jan 14 – 12:00z****

- **UAAA/Almaty airport has reopened** following the recent riots. But the a state of emergency will remain in place until at least Jan 19 – carefully consider security if planning crew overnights here. Until Jan 19, the airport is only open between 0800-2100 local (0200-1500z), as per Notam A0032/22.
- **Report from OPSGROUP member on the ground:** *"We have been in Almaty since Jan 12th. The city is safe with no security issues at his time. Restaurants and hotels are open. Internet and cell service is back to normal as well. Fuel may still be an issue as Kazakhstan was experiencing Jet Fuel shortages before the riots. Check with your handler before landing to confirm uplift."*

****Update, Jan 12 – 12:00z****

- Police and military report that civil unrest has been brought under control, including in the city Almaty.
- Troops from Russia and other countries have secured **UAAA/Almaty airport**. Kazakh government authorities issued a statement on Jan 12 saying that the airport will **resume operations on January 13.** *"Starting January 13, 2022, the international airport of Almaty will resume operation. According to the preliminary information provided by the airport's management, domestic and international flights will be performed from 8:00 am (5:00 am Moscow time) to 9:00 pm (6:00 pm Moscow time),"* the report said.
- Other Kazakhstan airports remain open and operational. **UACC/Nursultan airport** is open with several scheduled services operating in. A flight dispatch report suggests the airport is secure but telephone contact may be difficult if contacting from abroad.



UAAA/Almaty airport had been closed since Jan 2, following mass riots in many cities across the country.

Thousands of people were injured, and the number of casualties remains unknown. On Jan 5, the President declared a state of emergency until at least Jan 19. There were also curfews put in place across Almaty city, from 8pm to 7am. The US Embassy raised the Travel Advisory for Kazakhstan recently to reflect level 4, “Do Not Travel” due to civil unrest.

Overflights

No Notams have been issued indicating that overflights are affected. Keep a close eye on things if operating in the region. It may also be worth familiarising yourself with TIBA contingency procedures.

One other thing: Fuel

We have previously reported on rumours of fuel issues across Kazakhstan **–** particularly for GA flights operating to **UAAA/Almaty, UACC/Nur-Sultan and UAKK/Karaganda.** Initially agents at airports advised this was not the case, but later informed us that fuel was only available to airline flights and locally registered charter operators. Foreign registered non-scheduled flights would be unable to uplift fuel. The official word is that you need prior permission from airport authorities to take any on.

US West Coast flights halted: North Korean missile threat, or coincidence?

Chris Shieff
25 January, 2022

The US FAA has released a brief statement confirming that on Jan 10, a ground stop was put in place at major airports on the West Coast due to **“precautionary measures.”**

Around the same time, North Korea carried out a missile test – the second in a week. The missile landed well off the coast of the Korean Peninsula, in the Sea of Japan.

It is now being widely speculated that **the two events were likely related**, however no authority has

confirmed this as fact.

Here's what happened.

At approx. 14:30 PST (2230z) on January 10, a ground stop was ordered by the FAA at airports throughout the Western United States. There are also reports of airborne aircraft being directed to land.

The disruption was short lived (about twenty minutes), before operations went back to normal.

The speculation about why the ground stop came into effect arose for three reasons;

- **Information** on why a ground stop is in place is usually provided
- The air traffic control measure is generally used to slow or stops the flow of aircraft to a **particular airport**, due to weather or an operational hazard. This one impacted all west coast airports, and airborne aircraft
- An **unannounced test launch** of a missile took place in North Korea, landing approximately 400nm off the coast around the same time.

Hypersonic missiles

North Korea state outlet KCNA has claimed these latest two tests were hypersonic missiles. Of course, North Korean is known for its own propaganda…

But hypersonic missiles are dangerous, for two main reasons:

- Unlike ballistic missiles, which have a fairly predictable trajectory, hypersonic missiles can fly much closer to the earth's surface and are **more difficult to intercept**.
- Hypersonic missiles can travel up to five times the speed of sound, meaning they can **hit a target in a much shorter flight time.**

Only a handful of countries are reported to be working on the development of hypersonic missiles: the US, Russia, India, and China, and North Korea.

What could explain it.

The launch in North Korea was **not announced beforehand**, and it is possible that it was detected as a threat leading to the activation of protocols that include notifying the FAA.

Although this looks likely, it's important to remember that **nothing official has been announced to confirm this yet.** The North American Aerospace Defense Command (NORAD) have since advised that it did not issue an official warning.

It did however *detect* the launch, which was assessed not to be a danger to the mainland US. It is also standard procedure for the FAA to be in constant contact with them and so the FAA may have been **compelled to act as a precaution.**

The North Korean Missile Threat.

There have been several test launches carried out from North Korea in the past six months. These are typically intended to be a display of capability, rather than an intent to use them.

For aviation the threat is primarily based in the **oceanic portions of the ZKKP/Pyongyang FIR, and UHHH/Khabarovsk FIRs west of Japan.** As the launches have repeatedly been carried out with no advance warning, aircraft are exposed to **risk from falling debris from missile tests.** You can find more information on this in a previous article which you can read here.

Outlook for 2022

Most experts seem to agree that North Korea faces some big challenges on the home front this year, including its economy and a worsening humanitarian crisis. Its missile program has continued and there has been no recent reassurance that it intends to work on bettering its relationship with the US, or South Korea, nor any intent to provide **advance warning of test launches.**

These events might not be related, but the speculation itself demonstrates an ongoing concern regarding North Korean actions. The events of January 10 also show how a **large impact on US airspace with little or no warning** can, and does occasionally occur, and is a reminder to all operators to have policies and preparations in place for dealing with such events.

Do you have more intel, or were you flying as it happened?

We'd love to hear from you. You can reach us at team@ops.group.

Airspace Risk: Conflicts to watch in 2022

Chris Shieff
25 January, 2022

Conflict zone risk assessments aren't easy. Airspace dangers are heavily dependent on what is happening on the ground, which can improve or deteriorate quickly and with little warning. For an aircraft to be at risk, there must be someone present who has both the *ability* and *intent* to either deliberately target an airplane, or endanger one indirectly.

But in order to prove that these two things are present in any given airspace, regulators and operators

have to rely on intelligence and inherently limited information to make educated decisions about what is safe, and what is not.

The best defence? Know what is happening down there. Or in other words, an idea of the geo-politics playing out thousands of feet beneath you. Often the warning signs are there, even before Notams have had a chance to catch up. The best defence is always *situational awareness.*

Here is a summary of some the conflicts making headlines that are worth keeping a close eye on in 2022 which may have an impact on the safety of overflights.

Ukraine

Tensions are high near the eastern border with Russia right now. In the latter half of 2021, the Russian military began to mobilise equipment and troops on their side of the border. This has continued to cause international concern that a major offensive may be possible in 2022.

There is advanced anti-aircraft weaponry present on both sides of the border which could present risks to civil aviation at all levels if things escalate. There are also separatist groups active in the region, and it is possible they have access to the same weapons. MH17 was shot down in this region in similar circumstances in 2014.

Overflights near the border – especially in the western part of the **URRV/Rostov FIR** near the **UKDV/Dnipro FIR** boundary should keep monitoring the situation closely.

Click here for a full briefing.

Israel/Palestine

Events in April-May 2021 lead to a sudden escalation involving hundreds of Hamas rockets being fired at Tel Aviv and Israeli air strikes in Gaza. Civilian traffic was heavily impacted, while **LLBG/Tel Aviv** airport was forced to close on several occasions.

Recent events have hinted that things may be no better in 2022. On Jan 1, several rockets were fired at Tel Aviv, followed by airstrikes in Gaza. Surface-to-air missiles were launched at military helicopters during the strikes.

Aircraft in the **LLLL/Tel Aviv FIR** may continue to be at risk from these types of events with little notice this year.

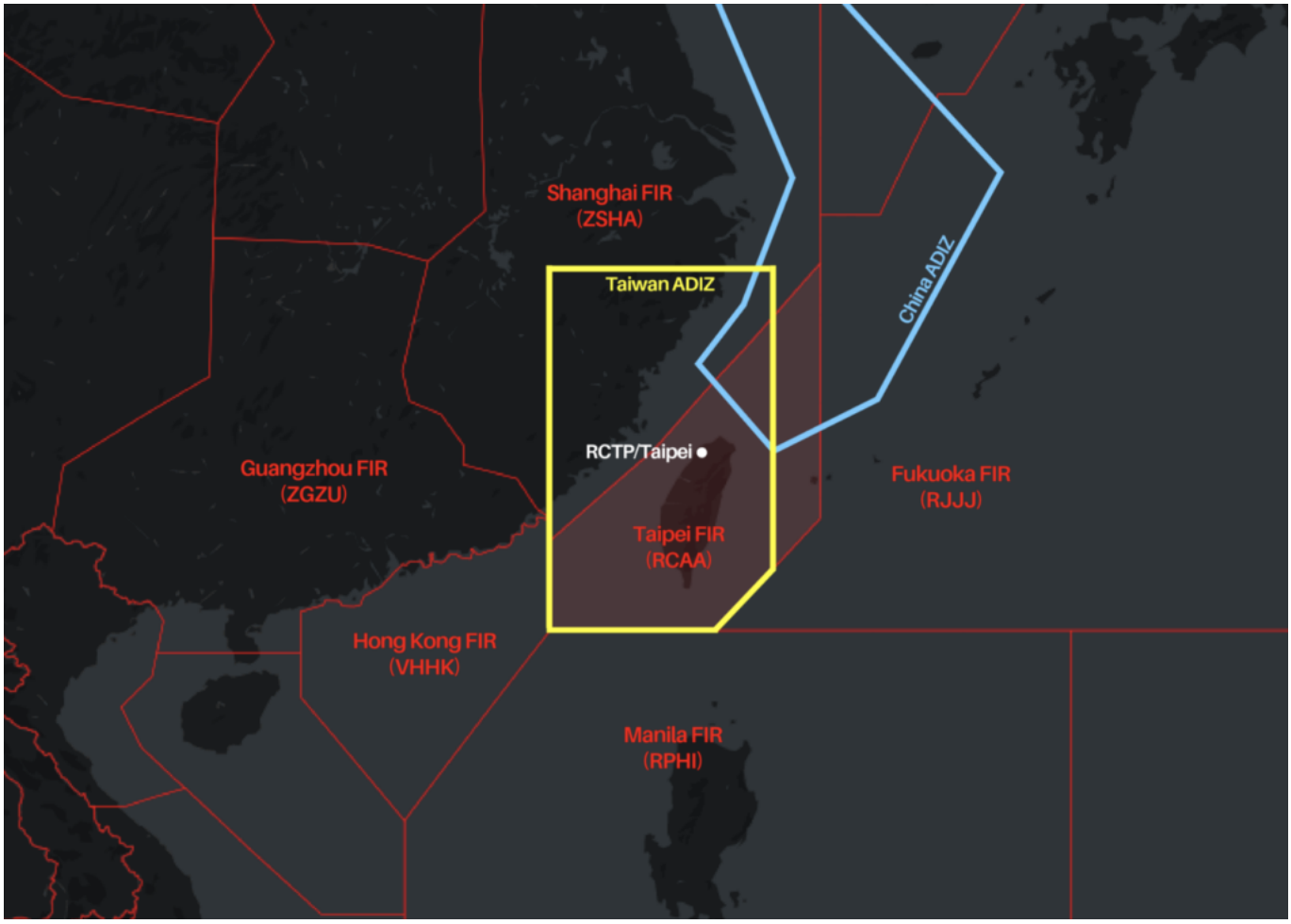
Click here for a full briefing.

Taiwan

Mainland China continues to show political interest in Taiwan. While an armed conflict is still unlikely, it is not impossible. And the consequences of one would be a big deal with other major world players likely to become involved.

Last year a record number of Chinese military aircraft carried out exercises near Taiwanese airspace, while in October a wave of aircraft entered Taiwan's air defence identification zone (ADIZ). This caused authorities to issue warnings by radio and mobilise their air defence systems.

In 2022, the primary risk to aircraft in the region continues to be risk of being misidentified by the Taiwanese military. It is important to follow the correct procedures when entering Taiwan's ADIZ airspace.



Click here for a full briefing.

Iran

Tensions between Israel and Iran are at an all time high. Various sources are speculating that airstrikes on nuclear targets in Iran could rapidly escalate the situation. If this were to happen, the overflight risk in the **OIIX/Tehran FIR** would increase dramatically. Anti-aircraft weapons are present there that can reach all levels. Iran has previously shown willingness to use them during heightened tensions and in close proximity to heavily flown international air routes. In January 2020, a Ukrainian 737 passenger jet was shot down over Tehran by the military after being mistaken for a missile.

Click here for a full briefing.

Militant activity in Africa

Militant groups throughout several African countries with links to terrorist organisations such as Al Qaeda or Al Shabaab have been mobilising in recent years. Often engaged in fighting with weakened states, these militia may have a desire to make international statements, and are known to actively target civilians which could include overflying aircraft.

Hotspots to look out for: In the west, Nigeria, Mali and Burkina Faso. In Central Africa, Niger, Chad and the Democratic Republic of Congo. And to the east, take particular care when operating over the Horn of Africa – especially Somalia and Sudan. New groups are also emerging in Mozambique, and Uganda.

These groups typically have access to man portable air defence systems (MANPADS), rockets and other similar weapons that pose a primary threat to aircraft at lower levels (below FL250). Although this should be considered carefully on a case-by-case basis.

Other mentions

In Libya, an election has been delayed indefinitely and armed groups are mobilising throughout country, which could see the civil war escalate in 2022.

The conflict in the Tigray region of Northern Ethiopia remains unpredictable. Despite signs of improvement in Dec 2021, the conflict in the north has intensified again with military operations in western and southern Tigray. The Amhara region north of Addis Ababa is also under curfew. The 6 month state of emergency remains in place. Several states continue to warn aircraft throughout the **HAAA/Addis FIR** to maintain minimum flight levels due to anti-aircraft weaponry.

The situation in Afghanistan also remains volatile for 2022. The country is firmly under Taliban control, and the **OAKX/Kabul FIR** without ATC. A humanitarian crisis is developing there and it's hard to predict what the international response (if any) will be, and how the Taliban might respond. Watch this space.

Stay updated

Safeairspace.net is our conflict zone and risk database. Our team updates it constantly with risk, security and hazard alerts from around the world. Click below for a full PDF briefing on hotspots around the world, or add your email to our risk briefing that goes out every second Monday.

Honduras has a New Airport

OPSGROUP Team
25 January, 2022

Here is the lowdown on the new international airport in Honduras, for anyone who might be thinking of heading there.

Where is it?

MHPR/Palmerola, also known as **Comayagua International,** has been built on what was the Soto Cano Air base. Inaugurated in October 2021, it is now the new civil and commercial international airport for Honduras.

What has it got?

The new airport boasts a **2441m / 8009′ runway** with an RNP approach to both runway 17 and 35, and backup VOR approaches. **There is no ILS** and there are currently no approach lighting for night or IMC ops.

It is planned for **24/7 operations,** but for now it is only open during **daylight hours (06-18L)**. After hours permission may be available by contacting the airport manager on +504 3140 3317 in advance.

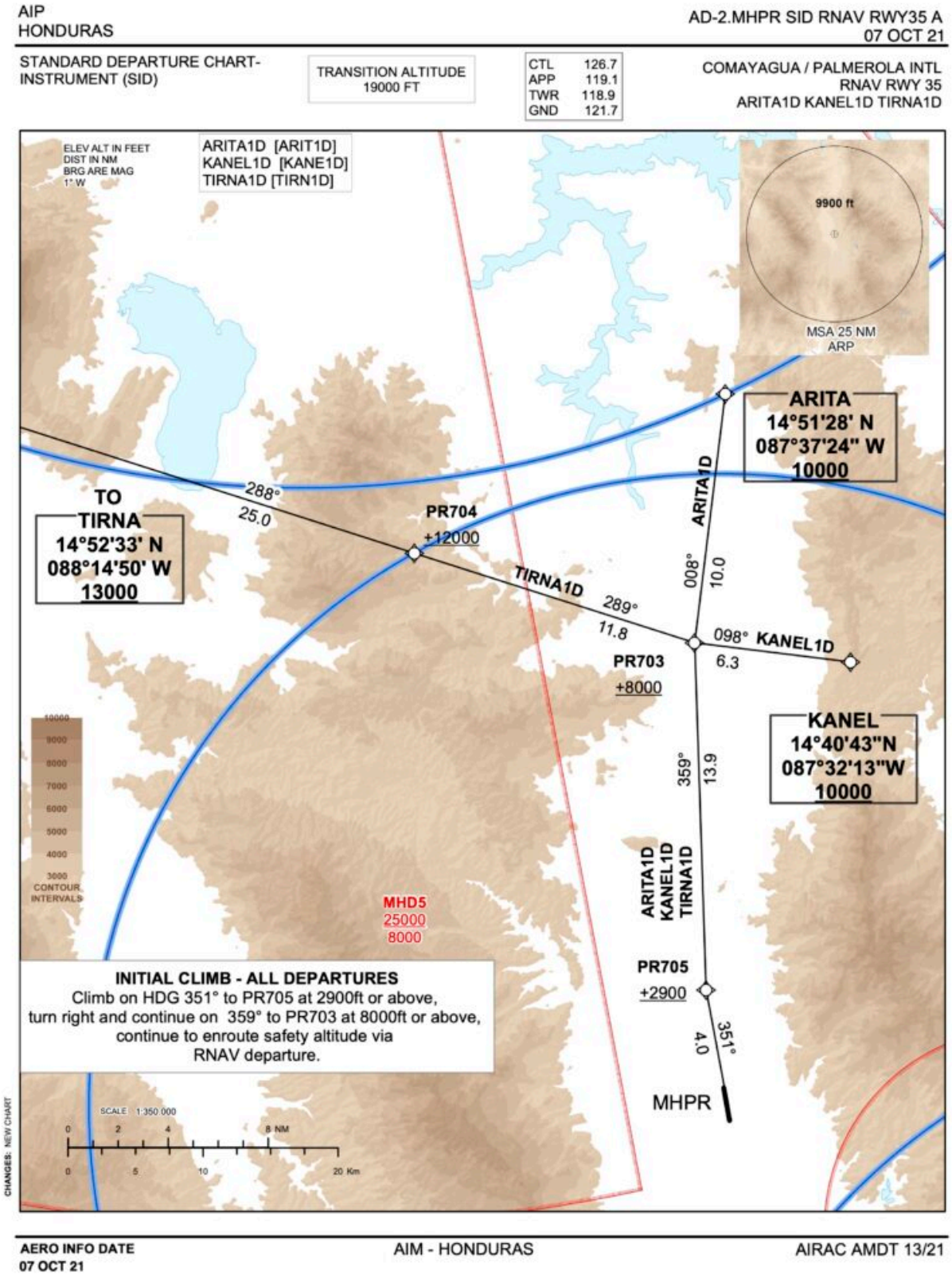
A report from someone who has headed in recently suggested that *"All traffic is routed mostly via TGU and in contact with TGU approach as far as I know for traffic landing north."*

The old airport, MHTG/Toncontin, has a 2021m / 6631′ runway with an RNP (AR) approach to runway 20, and a VOR to runway 02.

Here's a quick look at the new airport:

Things to look out for at MHPR/Palmerola

- The airport **elevation is 2064 feet**, and there is some tricky terrain all round with the airport sitting in a valley, giving it an **MSA of 9900′.** The terrain also means departures (unless you’re in a super climb-achieving military jet) are **limited to runway 17.**
- RNP Rwy 17 brings you in from point PR702, at 5600′. There is a chunky **hill right under it** with a mast on top sitting at 3675′, so after you pass here you need to descend to 4300′ by PT701, which is only 4 nm away. The vertical approach path is a nice standard 3 degree, but you’re going to want to **look out for the climb gradient** for the missed approach because it requires a minimum of 300’/nm.



- The **missed approach** is also quite complicated with a bunch of *"head here once you've reached xxxx altitude"* instructions. The approach and missed approach for runway 35 is a little less complicated since (once you're over the terrain to the south of the airport) it is less challenging.
- Not that you would be there anyway (because of the terrain) but to the east, south and west lie various **Danger or Restricted areas** to look out for.
- The airport lies in a **valley.** With terrain either side. That means there is a chance of some mean **topographic turbulence** if the wind is blowing the right way. The old Toncontin airport overview suggests wind shear and downdrafts on short finals. The new airport will probably have similar threats.
- The old MHTG/Toncontin airport requires a specific 'Mountainous Terrain' Airport Qualification. While the new airport does not, the **terrain is a challenge** so look out!
- The region sees fairly nice temperatures through the year with **highs of 29°C (85°F) and lows of 16°C (60°F)**. Rainfall peaks in September to November with an average of 119mm (4.7″). Watch out for **thunderstorms** though which occur throughout the year, particularly between June and August.

What happened to MHTG/Toncontin?

All scheduled international services have been transferred from MHTG/Toncontin to MHPR/Palmerola, but the old airport is still available for international bizav flights.

Any contacts?

If you want to head to either **MHPR/Palmerola** or **MHTG/Toncontin** then try talking to one of the following:

- **ASMCorp.** Email at ops@asmcorp.com.mx or by phone +52 81 8122 5100.
- **Consorcio Aviation.** Email at fltops@consorcioaviation.com / occ@consorcioaviation.com or by phone +5955 981 193063.

Any other info to know?

- The official website for MHPR/Palmerola Airport is here.
- To check airport charts and other info, the Honduras AIP can be found online here.

Venezuela Aviation Situation: Anything to Report?

OPSGROUP Team
25 January, 2022

In April 2019 the US FAA issued a **“Do Not Fly”** instruction to US operators, barring all operations into or over Venezuela, unless operating at or above FL260. This came after several years of steady decline in the situation in Venezuela, and an attempted uprising.

This is what we said about the FAA notice back in 2019, but now we thought we would take a look at the current situation in Venezuela and consider what the ongoing impact to international aviation might be.

Give us some background.

The basic story, without getting into the politics of it all, is that there is a political power struggle between the government of President Nicolás Maduro and the opposition party led by Juan Guaidó.

The growing political discontent has led to **skyrocketing fuel prices, power cuts** and shortages in things like food and medicine. This has all, in turn, led to rising crime levels and security concerns.

Tell us about the general situation for aviation.

SVMI/Caracas Airport lies in an area of extremely high risk for armed robberies and kidnappings. In fact, Caracas was rated the **most dangerous capital city** in 2017 and has continued to hold a Top 3 spot since.

A report received in 2019 said the following:

“Foreign maintenance providers were evacuated last week… Runway surface has worsened and now there are big potholes and loose asphalt.”

Other reports suggested ATC controllers were under-qualified with poor English speaking standards. Inappropriate IFR and terrain clearances were being issued and *“tremendous caution”* should be exercised if operating in.

Pre-pandemic, **most major airlines had been ceasing operations** for a variety of reasons, the main one being an issue with onward payment of ticket monies which the Venezuelan government put a stop on.

What about neighbouring countries?

The border between Colombia and Venezuela is more volatile with disputes and armed conflict occurring along it. Bombs targeting local airports in Colombia have occurred through the end of 2021/ start of 2022, and a major attack occurred near **SKNA/La Macarena airport**, 100nm south of Bogota, on Jan 6.

A **US travel warning remains** in place for Colombia due to terrorism and other security related threats.

And a quick mention of the Covid situation?

Covid led to major restrictions on international flights into Venezuela. In October 2021, only scheduled flights from Bolivia, Mexico, Panama, Dominican Republic, Russia and Turkey were authorised. The government also allowed 13 specific flights to Spain with approved operators.

What has the US's response been?

The US has had sanctions in place against Venezuela for sometime now. The FAA notice is a Permanent Notam A0013/19 with no expiration date.

"ALL FLIGHT OPERATIONS IN THE TERRITORY AND AIRSPACE OF VENEZUELA AT ALTITUDES
BELOW FL260 BY THE PERSONS DESCRIBED IN PARAGRAPH A BELOW ARE PROHIBITED UNTIL
FURTHER ADVISED DUE TO INCREASING POLITICAL INSTABILITY AND TENSIONS IN VENEZUELA
AND THE ASSOCIATED INADVERTENT RISK TO FLIGHT OPERATIONS."

The FAA's Background Info document states there is an **"increasing inadvertent risk" to civil operations below FL260** due to increasing political instability and tensions. They also advise that the Venezuelan military has large stockpiles of MANPAD defence systems which has the capability to reach 25,000ft. There have also been reports of temporary GPS outages in the territory and airspace of Venezuela.

At the end of 2019, the US FAA also downgraded the **safety status to Category 2** under their IASA program, deciding the Venezuelan CAA was not adequately complying with ICAO safety standards with regards to regulating and supervising their own airlines.

What has the rest of the World said?

Surprisingly little, perhaps because few operators fly there…

EASA have **no Conflict Zone Information Bulletin (CZIB)** relating to Venezuela at all.

ICAO has not flagged Venezuela under their AUSOPS Safety Audit Program, and in fact rates them fairly well alongside the US with the exception of their aerodrome standards.

We have rated Venezuela as a **Risk – Level Three Caution** on Safeairspace because of the FAA prohibition, and due to a lack of information on the situation within the country.

However, there are many reports on the number of MANPADS which Venezuela are armed with and it is considered amongst the most highly unstable countries politically. Libya and Syria are the most unstable with the highest number, but Iraq, Pakistan, North Korea, Afghanistan and Venezuela come not too far behind.

A Quick NOTAM Review.

Several years ago, Venezuelan NOTAMs appeared to, well, disappear. They also stopped sending out METARs. Thankfully, the systems seem to be up and running just fine nowadays.

There are currently (as of Jan 2022) a few NOTAMs which may impact navigation, or which have a minor impact to operations, but given few international flights are operating in right now, there is not much to consider.

A0488/21 – SVMG/Margarita Island primary surveillance radar is U/S and not expected back until January 2022.

A0494/21 – SVMG has also been downgraded to RFF 7 (from 9).

A0486/21 – SVPR/Ciudad Guayana Airport radar systems are all U/S.

What is the 'Risk Rating'?

If you are a US operator it remains a no-go. If you are any other operator… well, that is the question.

The FAA's notice remains in force, but there has been little update on the situation since. No other authority or state has put out a notice, but the conflict within the company is not easing and reports of fuel shortages and a growing refugee crisis suggest there may be some threat to operations which are not being reported. We asked the question and received just 10 responses, all of which said **the situation remains "neither safe nor secure".**

If you have operated into Venezuela in 2021 we would be interested in hearing your report on what the operational situation was like. Send us an email at news@ops.group

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Mexico ADS-B Mandate Coming Soon

OPSGROUP Team
25 January, 2022

Mexico's ADS-B mandate, delayed a year, is coming into effect **January 1, 2022.**

Why was it delayed?

Apparently it came down to supply of ADS-B equipment issues meaning a lot of Mexican registered aircraft were unable to get it installed in time.

What do you need?

Mexico have mandated the use of **1090-MHz Mode S** squitter transponders and as yet have not agreed to extend the mandate to allow 978 MHz Universal access transceivers, which are allowed in the US. The main difference is 978 MHz transponders are not allowed above 18,000′ while 1090MHz ones can be used at any altitude.

The mandate is for ADS-B Out. If you're unsure on the difference then the FAA have a handy page on it here, but the simplified difference is *Outtie's* broadcast an aircraft's GPS location, altitude, groundspeed etc to ATC ground stations and other aircraft. *Innie's* provide the aircraft with weather and traffic info delivered directly to the flight deck.

Where will you need it?

The rules look **similar to those in the US:**

- Class A
- Class B
- Class C
- Class E above 10,000 feet
- Class E over the Gulf of Mexico, above 2,500 feet
- Within 12nm of the Mexican coast, above 3,000 feet
- Within 30nm of MMMX/Mexico City International Airport, above 10,000 feet

What if mine breaks?

There is a process for operators to **request permission, in advance,** if their ADS-B is inoperative. You can also request to fly without ADS-B equipment installed if you submit the request at least an hour before departure (probably a good idea to do it a little earlier).

Where is the official info?

All we have discovered so far is this Advisory which unfortunately is in Spanish. **Watch this space** for info on how to request the no ADS-B permission.

Where else do I need ADS-B?

We have a whole post on 'ADS-B Mandates Around the World' which you can read here.

Yemen: Airstrike on Sanaa Airport

Chris Shieff
25 January, 2022

On December 20, an airstrike was carried out on Yemen's major airport, **OYSN/Sanaa** by Saudi-led coalition forces.

It follows months of persistent drone attacks launched by Houthi Rebels on targets in Southern Saudi Arabia – the latest being on December 19.

At the time of writing, it isn't clear how badly the airport was damaged. However, no reports have emerged yet of any significant disruptions to civil traffic.

But does this attack represent an increase in risk to civil aviation inside the **OYSC/Sanaa FIR**? Let's take a closer look.

The situation.

Yemen is an active conflict zone and has been since 2014. Houthi rebels in Yemen are at war both at home and with Saudi Arabia – who lead a coalition of countries from North Africa and West Asia. If you'd like to read a little more about the background of the conflict, a good starting point would be here.

The war itself is in stalemate and so while the attack on OYSN was unexpected, it is not the first time it has happened.

In fact, the airport was also attacked and badly damaged in similar coalition airstrikes back in 2017 and 2018.

So why now?

The Houthi's primary means of attacking Saudi Arabia continues to be through the use of **weaponised drones**. The attacks have been happening on an almost daily basis recently and are a persistent threat to Saudi Arabia.

The weapons they are using are becoming increasingly sophisticated and are supplied to the Houthi from other political interests in the region.

Despite having sophisticated air defence systems, the challenge for Saudi Arabia is to work out how to stop these attacks.

Drone launches from Sana'a Airport

The Houthi have control over a large section of Western Yemen which includes the capital, Sanaa (and its airport). Recent intelligence has shown that the Houthi are using sites at the airport to store and launch these drones. It is these sites that were targeted in the December 20 airstrike.

Changes to Risk

In terms of *overflights* of the **OYSC/Sanaa FIR**, the December 20 airstrike hasn't changed anything – Yemeni airspace was, and still is, **extremely dangerous**. Several states (including the US) ban operators from entering it due to the risk of anti-aircraft fire from militant groups at all levels. The only exceptions are airways well off the coast – primarily UT702 and M999.

But when it comes to operations in and out of OYSN airport itself, these events may indicate a renewed threat. Of particular concern is that the Houthi seem to have been carrying out cross-border military offensives in **very close proximity to civil aviation.**

The risk of this is two-fold:

- The airport may continue to be **targeted by coalition airstrikes** which can occur without warning and with little regard for civilian traffic.
- The Houthi may have a renewed intent on protecting the airport using **anti-aircraft weaponry** which puts civil aircraft at risk from being misidentified or mis-targeted while operating over or near the airport.

What type of air defence systems do the Houthi have?

In recent years there has been credible evidence that the Houthi have been supplied with advanced anti-aircraft weaponry by proxy, along with aircraft tracking systems that could pose a threat to aircraft at all

levels.

There have also been several unverified claims made by the Houthi during the conflict that they successfully shot down numerous military aircraft – although these are sometimes known to be false.

Either way, the December 20 airstrike may serve to encourage their intent to **protect their airspace.**

Want to know more?

Safeairspace.net is our conflict zone and risk database. Head over there for a full briefing on the OYSC/Sana'a FIR, along with a summary of major state warnings for Yemeni airspace.

You can also add your email to our Airspace Risk Update that is issued once a fortnight – only what you need to know, and zero spam. Click here for that.

Italy ATC Strike on Dec 16

David Mumford
25 January, 2022

A general strike is planned in Italy all day on Dec 16, which **could include ATC personnel.**

The impact of the strike is hard to assess until the day itself, but if it does go ahead, the usual rules would apply:

- No impact to overflights, inbound intercontinental flights (i.e. those from outside Europe), and other essential traffic
- Expect delays for all other flights to/from Italian airports.

LIBB/LIMM/LIRR Notam A9236/21 has the current information, and keep an eye on the Eurocontrol NOP for

further announcements on what services will be impacted.

Clearing the way for no more NAT Clearances

OPSGROUP Team
25 January, 2022

ICAO have released a *Concept of Operations* paper discussing the plan for the **removal of Oceanic Clearances in the North Atlantic Region**. Here's what it says...

The "Executive Summary" bit

There have been **big improvements in safety and monitoring capabilities** in the NAT region. Things like ADS-C, CPDLC, ADS-B, NATS and NAVCANADA using a common Flight Data Processor Platform (something to do with aligned procedures) etc have really improved everything.

Because of all this, the big wigs in the POG (real acronym – stands for NAT Procedures and Operations Group) have started to think about **discontinuing the Oceanic Clearance in NAT airspace.**

How does it work at the moment?

Right now, to enter NAT controlled airspace at or above FL60, you need an oceanic clearance. This clearance contains your **Route, Level and Speed**.

These three elements are important because they are what enables the management of the **lateral, vertical and longitudinal separation.**

So, when you are zooming along towards your **Oceanic Entry Point**, and despite having a flight plan filed, you still need to actually be cleared – meaning ATC have to confirm (and then you sort of reconfirm back at them) what Route, Level and Speed you'll be flying through the region at.

So you send your **RCL (Request for Clearance)** to the ATC who manages the first OCA you'll be entering

and **they send you the clearance.**

Simple, until stuff goes wrong.

Why change it?

Like we said, it's all straightforward, until it isn't.

Each OCA has its own published "when to send the RCL" rules. There often isn't a huge amount of time between receiving a clearance and reaching the OEP, and during this time you have to check the clearance, possibly reprogram bits, and from experience on long haul flights, it always seems to happen around the time the augmenting crew are returning from the bunks. **So the risk of errors creeps up.**

Then you have things like Radio Comms failures, loss of HF etc. and all the "what to do if" procedures related to what to do if you do have clearance, don't have clearance, are in the region or aren't in the region…

The general rule is **if you're already in the NAT HLA then stick with your clearance.** If you aren't in yet but have a clearance then enter and stick with it, and if you don't have a clearance then follow what is in your flight plan.

But all this does cause confusion. *Can I enter? Should I not enter? Where do I send the RCL to? When do I send it? What if I haven't heard back?*

So removing the need to request a clearance prior to entry would **align the NAT region with normal global procedures** and would mean less training and simplified procedures for crew, and everyone like simple.

It isn't actually an entirely new concept either – **New York Oceanic removed oceanic clearances** some time ago and it was a fairly simply procedural change for ATC and flight crew, so it does work.

So what will change?

Simply put – **Oceanic Clearances to operate in oceanic airspace will no longer be issued to flight crew prior to reaching the OEP**. Instead, crew would send an RCL and would get back some common message along the lines of:

"RCL RECEIVED. FLY CURRENT FLIGHT PLAN OR AS AMENDED BY ATC"

Any changes will be sent via CPDLC or advised by voice comms.

Will it work?

Well, making stuff more simple usually means less mess-ups.

In this case crew will have their clearances already – they will know what to fly and potentially have **more time to check and crosscheck.**

When changes do occur it will be clearer that there is a re-clearance and this could minimise the risk of missing a change to the clearance, or mis-entering it and flying the wrong thing.

Procedures for what to do if you cannot make contact prior to entry will also, hopefully, be simplified, so the stress of "what if I don't hear from ATC before the OEP" will be reduced.

But when is it going to happen?

Well, that's the less exciting bit. If they decide that it is something worthy of implementation then i**t will probably only go ahead by 2030.**

Details of planned **implementation dates will be published in common NAT Ops Bulletins** and in State AICs/AIPs so keep a look out.

Can I read the CONOPS paper?

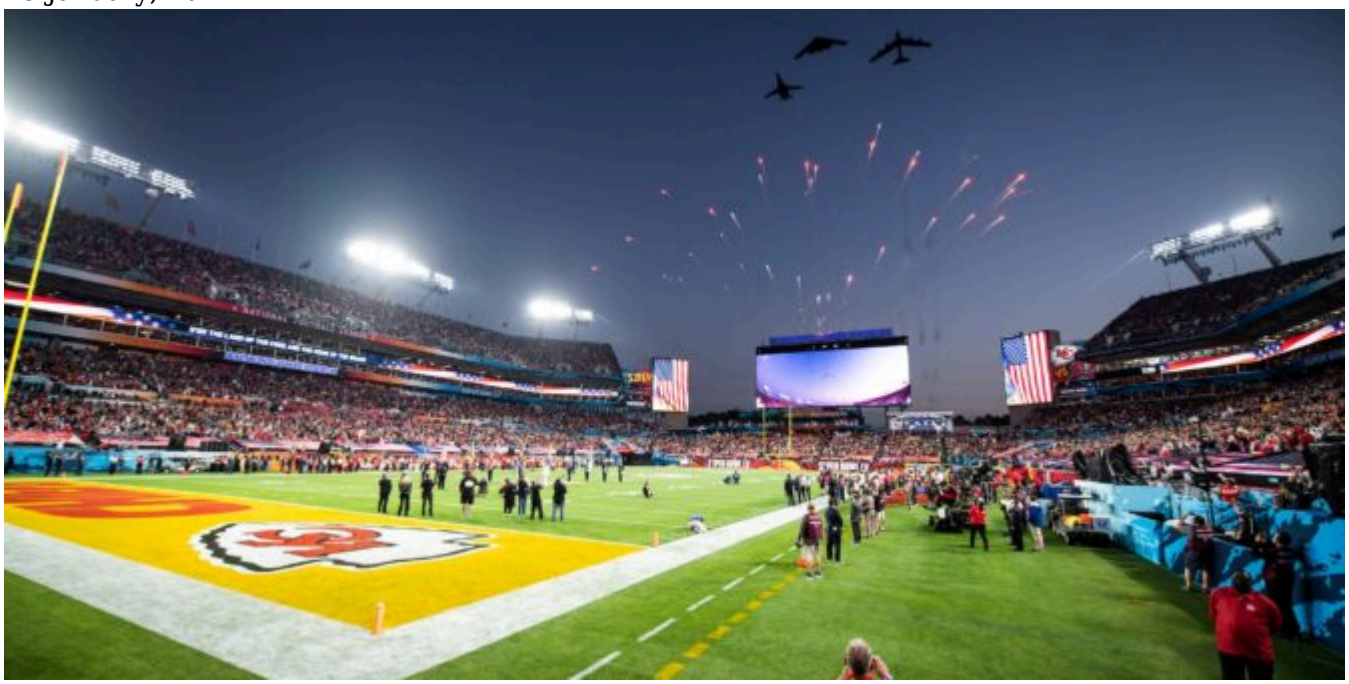
Yes you can. It is right here.

Not sure about the current clearance process?

We wrote a little brief on it a while back which you can read here.

Flying to the L.A. Super Bowl in Feb 2022

OPSGROUP Team
25 January, 2022



The Super Bowl is coming around again which means traffic procedures, prior reservations, a big TFR and various other things to plan for.

Save the date

The Super Bowl officially takes place on **February 13 2022**, but restrictions will start to come in from at least February 9th, and probably be in place to around the 15th. You might also want to start planning for this soon because spots fill up fast and reservations are already being taken.

(By soon, we mean now).

Compared to the last two events held in Florida, traffic is expected to be even more limited this time around! Business Aviation flights are being recommended to **plan and book 'drop-n-go' reservations** and not overnight parking.

The main airports in the area will also more than likely be Prior Permission Required (PPR) for the game day weekend so get in touch with those FBOs and start confirming.

Which airports?

The big ones you **definitely need reservations for** in the area are these:

- KLAX/Los Angeles
- KVNY/Van Nuys
- KBUR/Burbank
- KLGB/Long Beach
- KHHR/Hawthorne Municipal
- KSNA/Orange Country

On a good note, **KVNY/Van Nuys will be extending its operation hours** on the Sunday and **KLAX/Los Angeles over-ocean overnight ops** restrictions will be available later into the night.

It is probably a good idea to get a reservation for any of these too if these if you think you'll be heading there:

- KONT/Ontario
- KSBD/San Bernardino
- KSMO/Santa Monica

Where else?

A few other places. These **aren't included in the reservation program**, but they will be heavily utilised for overflow traffic and for their parking spots because the ones above will be extremely limited on availability. All this means ramp congestion, delays in and out and the possibility that they are included in FAA initiatives to manage the traffic levels if it all gets too busy.

So keep an eye on:

- KPSP/Palm Springs
- KSAN/San Diego
- KLAS/Harry Reid
- KPHX/Phoenix Sky Harbour
- KSDL/Scottdale

Who to talk to for your reservation

Talk to your FBO. They are the ones with the slot allocations and will be able to keep you updated on any changes nearer the time.

There will be Special Air Traffic Procedures & FAA Initiatives…

The increase in operations mean delays, and delays mean unhappy airplanes with rapidly emptying fuel tanks. So, in attempt to reduce these and manage the traffic more efficiently there will be special procedures in place for the main, and the surrounding airports. Keep an eye out for info on these nearer the time.

ATC will also be under a lot of pressure, particularly in the LA basin airspace. **The peak traffic times** are expected to be:

- **Arrivals:** Feb 9 -12, 1000 to 1800 local, Feb 13 0900 to 1400 local
- **Departures:** Feb 13, 2000 to 0300 local, Feb 14 0700 to 2000 local

If you can avoid flying in the area during those times the do. It will save you (and ATC) a lot of hassle. If you can't avoid it though then be prepared for the usual initiatives – from Ground Delay Programs to Airspace Flow Programmes, metering, holds and ground stops…

Route Structures will be in force

There are going to be preferred IFR arrival and departure routes to help ATC manage the traffic flows. These can change because it can be a bit of a dynamic situation. Keep an eye out for updates on them.

The TFR

The exact details will be out **10 days before the event in NOTAM form**, but you can expect a 10 mile no-go ring around the event for all general aviation traffic and some other restrictions in a 30nm ring. Standard TFR stuff. This is usually active several hours prior to the event to at least an hour after.

KLAX will have TSA screening and gateway procedure in place during this time.

Anything else to think about?

Consider you alternates. Options are going to be limited and restricted because of the high traffic levels. Unless you are in an emergency situation, you're going to need a plan in advance and know where you can go.

Consider your fuel. There are going to be BIG delays possible even with all the initiatives and reservations in place.

Check your documents. Ensure you have your pilot's license, company ID (if applicable), applicable aircraft documentation, and access to copies of all reservations/confirmations. Increased security operations may involve ramp checks, security searches, or routing through a gateway airport for TSA screening.

Really plan in advance. We mean from about now to avoid disappointment and disruption. File your flight plan between 22 and 6 hours ahead of departure. Preferably nearer the 22 hours end of that limit to help ATC build their initiatives.

Keep the bigger picture in mind. Airspace and airports will be congested, ATC will be working hard,

and there are going to be TFRs to think about as well. Know what is going on and what to expect before you get airborne.

The ball is in your court.

(I couldn't think of a football related pun).

Check out the FAA's Super Bowl Safety Plan here.

Get in touch with your FBO to make your reservations and start planning early.

Be prepared! There will be delays, high traffic levels and all the risks and threats that come with these. So... again... be prepared!

Is the 5G rollout a new threat to aircraft safety?

OPSGROUP Team
25 January, 2022

The FAA issued a statement on Dec 7 regarding the expansion of 5G networks across the US, and its impact on aviation. It doesn't sound good – which is something folk have been saying for a while now...

What's the background?

5G is being rolled out across the US in the form of massive antennas. No issue so far. The problem comes in when they turn them on because they use frequencies which are part of **the 'slice' of radio spectrum usually reserved for GPS signals.** Which means they will probably interfere with those signals, and disrupt the equipment in the aircraft utilising those frequencies.

That equipment concerned are **Radio Altimeters** which, as we all know, are fairly critical to certain

operations. Some big accidents have been attributed to malfunctioning Rad Alts like Turkish Airlines Flight 1951.

Radio Altimeters transmit on frequencies between **4.2GHz and 4.4GHz,** while the 5G network will use a C-Band range of **3.7GHz to 3.98GHz.**

Why the concern?

The big problem in all of this is the lack of information on **how much interference** will actually occur.

It is not clear which airports will be impacted or to what degree equipment might be disrupted because it depends on the location and the strength of signals. While the RTCA (Radio Technical Commission for Aeronautics) has conducted measurements and found that **high levels of inaccuracy and outright failure** of Radio Altimeters can be expected when operated near base stations – many of which are located near major airports – **until they are turned on it is hard to know…**

The FAA also suggested that while issues with RAs are the primary problem, it is **unknown what else may be impacted** so crew are going to have to be extra vigilant of their instruments, and of passengers potentially connecting to 5G networks while airborne because the impacts are just not known.

What has the FAA done?

The FAA has issued **two airworthiness directives**, one for aircraft and one for helicopters, in an attempt to enable *'the expansion of 5G and aviation'* to *'safely co-exist'.*

This is in addition to an earlier Special Airworthiness Information Bulletin issued in November 2021 highlighting the **Risk of Potential Adverse Effects on Radio Altimeters.**

Let's take a look at the new directive.

The FAA determined that – *"at this time, **no information has been presented that shows radio altimeters are not susceptible** to interference caused by C-Band emissions"* and because they don't know, they have to mitigate against the possibility that they will be.

So, **AD 2021-23-12** requires the "*revising of the limitations section of the exiting airplane/aircraft flight manual (AFM) to incorporate limitations prohibiting certain operations requiring radio altimeter data when in presence of 5G C-Band interference as identified by NOTAMs."*

In other words, you're going to need to **amend your AFM** so it takes into account the possible impact of 5G.

The AFM revision will look something like this –

What's the impact?

In short – possibly a lot, possibly nothing, and **the only way to tell is to check NOTAMs.** Start checking them now, because operations **using the new spectrum started December 5.**

The key word in the revision is ***'interference'*** because again, that won't be entirely known until base stations are switched on and reports received. Which puts operators in a tough spot because those approaches that are prohibited (because of interference) are effectively all your **precision approaches and means of landing in reduced weather conditions:**

- ILS CAT I, II, III.

- RNP (AR) procedures.
- Automatic Landing.
- Manual flight control guidance system operations to landing/HUD to touchdown operations.
- Use of EFVS to touchdown.

Where is the impact?

The US currently has around **279 cities, across 46 states**, connected to the 5G network. Of course, it is only the base stations in close proximity to airports which will be operating on the C-band at interfering levels that are a problem. The FAA are currently working with telecoms providers to **establish which airports will have C-Band base stations** near them.

This shows the anticipated coverage across the USA. The magenta is **5G Ultra Wideband**, the bright red is 5G Nationwide, and the pinkish/orangey red is the current 4G LTE coverage.

It could be a worldwide problem

The issue is not necessarily restricted to the US. **5G is growing globally**, with China equally far ahead in their implementation of it, which raises concerns of where else this might pose a potential threat.

Thankfully some countries, like Canada, have opted to prevent or restrict services near major airports, at least until further data is received.

What you need to do.

- As an operator, you will need to ensure your aircraft are compliant with the new directive, so read **AD 2021-23-12** and ensure you update your AFM when required.
- Right now, the biggest thing to do is to **check NOTAMs.**
    - Base stations are still being activated, and the interference levels due variable power levels and locations means it is not clear where or what the impact will be. NOTAMs will therefore be **issued for specific airports** confirming the restrictions for them, as and when this is known. And this could change daily.
- Staying updated on the situation at airports you operate into, as well as encouraging crew to **review the weather and alternative approaches** in case they become required is critical.
- **Review the function of radio altimeters** on your aircraft and understand the implications to capability and performance of malfunctions.

What else can you do?

You can write in and express comments, written data, views and arguments on the directive to the FAA. Ensure you title the correspondence with this – *"Docket No. FAA-2021-0953 and Project Identifier AD-2021-01169-T"*

You can **Email** this feedback to operationalsafety@faa.gov. Alternatively, you can send via Fax: 202-493-2251 or Post: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

You can also **request further information** from Mr Brett Portwood, Continued Operational Safety

Technical Advisor, COS Program Management Section, Operational Safety Branch, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712-4137.

Any interference should be reported to the FAA to assist them in building up a better picture of the impact and safety concern.

You can also follow AOPA's work on 5G as they continue to monitor and ask the FAA to address the situation urgently.

De-Ice De-Ice Baby: Cold Weather Opsicles

OPSGROUP Team
25 January, 2022

In the Northern Hemisphere the winter season is well and truly upon us, which means various extra things to think about – like different procedures, low visibility challenges, cold temperature corrections, where you left the other glove, and of course de-icing!

So, to help you out if you aren't so familiar with all things Winter Ops we have put together a little series of **Opsicles –** *Refreshing bits of ops info, just for members.*

Winter Opsicle #1: De-Ice De-Ice Baby

Most operators we've met apply a **"Keep it clean, keep it safe!" policy** meaning *don't risk it; if there is anything on the airplane get it off before you take-off.*

There are some caveats to this – less than **3mm of frost on the underside of the wing** around the fuel tanks is generally acceptable. If you don't have a tiny frost ruler to hand then a general rule of thumb is clear paint markings showing through means it's ok. A light dusting of hoarfrost on the fuselage is also fine (if your manual says so).

The areas where **anything is unacceptable** are your **critical surfaces** – the upper surface of the wings,

horizontal stabilisers, leading edge devices… Basically any lift and/or control surface on the aircraft. If you've ever done a Winter Ops Refresher you probably know this statistic off-by-heart but "a *very small amount of roughness, in thickness as low as 0.40mm (1/64in) can disrupt the airflow and lead to severe lift loss…"*

So keeping it clean seems like a good rule. Alas, a rule not all follow…

The trouble is, it can get confusing (no, that crew in the video weren't confused, just negligent). But when you are out there, under pressure, managing a bigger and more complex workload, it can quickly get complicated especially when you throw in some **variable weather conditions** to the mix, and some **different mixtures into your HOT calculations.**

So our **Winter Opsicle #1** is a handy guide to help with just that.

What's in them?

De-Ice De-Ice Baby is looking at de-icing/anti-icing. It comes in three parts, and you can download all, none, just one depending on what you find helpful.

- **A De-Icing Decision Process** checklist – to help you determine whether or not to consider de-icing/anti-icing.
- **Caution: Hot Stuff** – a sort of FAQ on Holdover Times.
- **Too HOT to Handle** – a generic guide on what HOT to expect.

None of these are designed to be used in place of official (and possibly much more accurate) documents and manuals, but we do hope they will provide some refresher info on things to think about during the winter season.

Over the winter season, we'll try and post more so you can **build up your own Winter and Cold Weather Ops Pack**.

If you're an OPSGROUP member you can click on each thumbnail to head to the Opsicle PDF download page.

Further reading

There is a huge amount of info out there (from more official sources) including:

- This very informative AOPA article on all things ice.
- This FAA Guide for Pilots on de-icing big aircraft.
- This EASA Safety Bulletin on proper de-icing procedures.
- This Airbus Manual on Getting to Grips with Cold Weather Ops.

Updated US Entry Rules

Chris Shieff
25 January, 2022

The US has tightened its entry protocols in response to the new Omicron Covid strain – effective Dec 6. It affects anyone over two years old. Here's a brief summary of the changes.

A shorter window

All inbound passengers to the US (including citizens) must now get a Covid test within just **one day** of their flight's departure – previously this was **three days**. This applies to everyone, regardless of whether they are vaccinated. The only exemption is for those who can prove they have recovered from Covid within the previous ninety days.

What type of tests are accepted?

Compared to some countries, the US rules are pretty flexible, with most types of Covid test accepted:

- PCR – the gold standard everywhere. Brace yourself for a stick up the nose and a longer wait for the results.
- RT-LAMP tests
- TMA tests
- NEAR tests
- HAD tests

Ever wonder why the US entry rules are based on days, not hours?

It is to provide more flexibility for passengers – things get can pretty specific when you're counting minutes.

Do pax need to quarantine on arrival?

This one has come up quite often. It's never been mandated – the CDC recommends that international arrivals self-isolate for 7 days if you're not vaccinated with additional testing. If you don't want to be tested this is extended to ten days.

Mask up

Yep, at all times on an airplane. This mandate has just been extended until March 18, 2022. So, it's not going anywhere in a hurry. Be careful too, hefty fines apply.

New travel bans

The Omicron Covid variant was **first detected** in South Africa, with cases observed in several other southern African countries which is why the majority of the world jumped to implementing travel restrictions from this area. These countries include **South Africa, Botswana, Eswatini, Lesotho, Malawi, Mozambique, Namibia and Zimbabwe.**

The US is no exception – non-US citizens who have been in one of these places in the last 14 days cannot enter.

Crew rules

There have been no indications that the new rules will affect crew. For these, you can read the CDC guidelines here. Essentially, if you're operating or positioning then you should be good. To dispel any confusion, it might be helpful to carry a letter from your employer along with a declaration of your exemption – the folk at NBAA prepared a form earlier this year which may be useful to get the message across.

Remember though that the exemption rules don't apply to deadheading crew or those travelling for training, such as recurrent sims. You'll need to meet the same requirements as pax.

Looking for official guidance? The CDC is where you need to start.

You can access that here.

UK Free Route Airspace

OPSGROUP Team
25 January, 2022

December 2 has been a big day in the UK – it marks the **biggest airspace change ever implemented in the United Kingdom.**

A big portion of UK airspace is now free route airspace, and here's what you need to know about it.

What is 'free route' airspace?

In '*not* free route airspace' you are confined to what is effectively a motorway (freeway if you're American) in the air – a big corridor, defined by points along it, and you follow these until you reach your junction ad turn off. It is rarely the most direct route.

Free route airspace allows you to route from a defined entry to a defined exit point direct. Straight through the fields if you like. It also allows more freedom for operators to fly the most time or fuel efficient route, taking into account weather.

The benefit is big.

That it is.

The new airspace structure in the UK is expected to **save around 500,000 nm a year** of flying and that means a big reduction in CO2 – they are estimating around **12,000 tonnes a year.**

Here is NATS own article on it.

Where is this airspace?

It is in northern UK and **consists of 150,000 nm2 of airspace** over the North Sea, Scotland, North Atlantic, Northern Ireland and a small portion of northern England – so within the Scottish UIR, London UIR and Shanwick OCA, and affecting the route network over some international waters. There will also be FRA in the London UIR within the region known as the PEMAK Triangle and TAKAS box.

This airspace accommodates up to **2000 flights a day** and supports around **80% of transatlantic traffic.**

The Free Route Airspace is **H24** and between **FL255-FL660.**

You can find the full info on the relevant airspace here, including dimensions and how it links with other high seas airspace.

Where else is this happening?

You might want to take a look at the Free Route Airspace implementation taking place across **the rest of Europe** as well. This has been going on a little longer, and large areas of Europe already have it implemented.

They are also working on cross-border activities which may create even more direct routings in the future.

Norway's AIC A03/21 published Oct 2021 provides info on the operations between the FRA in the Finland FIR, Copenhagen FIR, Polaris FIR, Riga FIR, Sweden FIR, Tallinn FIR (known as the **NEFAB FRA** meaning the North European Functional Airspace Block) and, of course, the Scottish FIR. **These are known as the "Borealis Alliance".** *(Here's a link to the Borealis Alliance Presentation, if you want to find out more about the background and current stages of the overall project.)*

Norway's AIC tells us that flights routing through these airspaces will be eligible for Free Airspace Routings if they have a **planned trajectory within the following vertical limits:**

- DK-SE FAB FRA FL285-FL660
- NEFAB FRA FL095-FL660 (EETT/EFIN FIR FL095-FL660, EVRR FIR FL095-FL660, ENOR FIR FL135-FL660)
- EGPX FRA (FL255-FL660)

Additionally, if you are routing to/from the UK FRA to the NEFAB FRA then you are going to have to **file some intermediary waypoints** because they have a lack of radar cover there. These Entry/Exit points are ATNAK, ALOTI, BEREP, GUNPA, KLONN, NINUN, ORVIK, PEPIN, PENUN, RIGVU.

There is additional information for flight planning in there so we recommend reading it through, and heading to the relevant ANSP for any of those countries if more info is needed.

Anything else to know?

While cross border operations are in place for much of it, the interface between Shanwick OAC and Reykjavik OAC will not change.

FAA NOTAM Change: It's not all about the Missions

OPSGROUP Team
25 January, 2022

On December 2, the FAA introduced some amendments to NOTAMS. Amongst these revisions, was a change to the meaning of the acronym 'NOTAM' to create more inclusive terminology.

The acronym change has been stealing the limelight from the other revisions, so we thought we would take a look at what the other changes are, and what the **overall impact might be for you** when reading NOTAMS.

ICAO Standards

There have been various revisions to terminology used within NOTAMS, in order to bring the FAA issued ones more in line with that of ICAO.

Braking action will no longer be termed as "good"

Which is good, because 'good' doesn't really mean an awful lot. What's good for one aircraft might not be for the next. This is part of an update in **Change to Field Conditions (FICON)** reporting and a second change is that FICONs will not be issued for closed runways.

This is in line with the new Global Reporting Format for runways which ICAO brought into force in November 2021.

"Unserviceable" is being clarified

Where certain systems are not functional, **the impact** of this on the primary systems which they are a component of will be identified. For example, if the runway alignment lights are u/s a NOTAM stating this doesn't give us much information on what the reduced condition of the full ALS is. **So NOTAMS will clarify this better.**

Housekeeping

- **KLAS/Las Vegas'** (formerly known as) McCarran airport has had its name change added into the system. It is now known in NOTAMs as **Harry Reid.**
- **ASOS and AWOS** automated weather systems are now treated the same in NOTAMs. For info, AWOS is an automated weather observing system which provides continuous real time info and report and which can be fully configured while ASOS is an "all in one" Automated Surface

Observing System which also provides continuous weather reports.

The Acronym

Because it is getting so much attention, we figured we would add a little perspective here on it.

A NOTAM is still a NOTAM. We've not heard anyone ever call it anything except that. But what it stands for has changed – rather than Notices to Airmen, it now stands for **Notices to Air Missions.**

A very quick history lesson on the NOTAM – they **first came into being in 1947** after the Convention on International Civil Aviation. There was even a special NOTAM meeting in 1949 which was when AIS really came into being. But NOTAMs themselves actually originated from the older **Notice to Mariner** system, set up for navigational safety in the seas. Later, SNOWTAMs came into being (1968) and then they branched out into ASHTAMs (1980s).

What I find interesting with the NOM is just how close this one (written in 1858) is to some of our modern day NOTAMs. All wordy and full of complex and confusing bearing to work out, similar to the Lat/Long ones we see nowadays.

Anyway, why the change in terminology? Well, because 'Airmen' is not very inclusive of any other gender. Now, a lot of folk feel this change is unnecessary and we aren't going to weigh in on either side. All we have to say on the matter is:

- If you **don't** think it is necessary – it doesn't actually impact anything. Keep calling them NOTAMS like you always did.
- If you **do** think it's necessary – hopefully this is a step towards everyone feeling that aviation is inclusive.

If you are looking for further discussion on the FAA's move to gender neutral language then you can find a link here to the FAA 'Medium' page where the discuss this.

JO 7930.2S CHG 2

Who is Jo? Actually, it is the official FAA notice of change which you can find here.

Here are the full list of changes pages:

The Impact?

Well, not a tremendous amount overall. The acronyms is worth knowing about to avoid confusion should you ever see it written in full, while the move to more ICAO standard terminology will hopefully bring a little more clarity and standardisation to NOTAMs for any international operators.