Terrain, Tehran, Terrain, Tehran

OPSGROUP Team
14 October, 2021

If you are operating to OIII/Tehran Mehrabad airport then watch out – **the minimum height thresholds might not be adequate.**

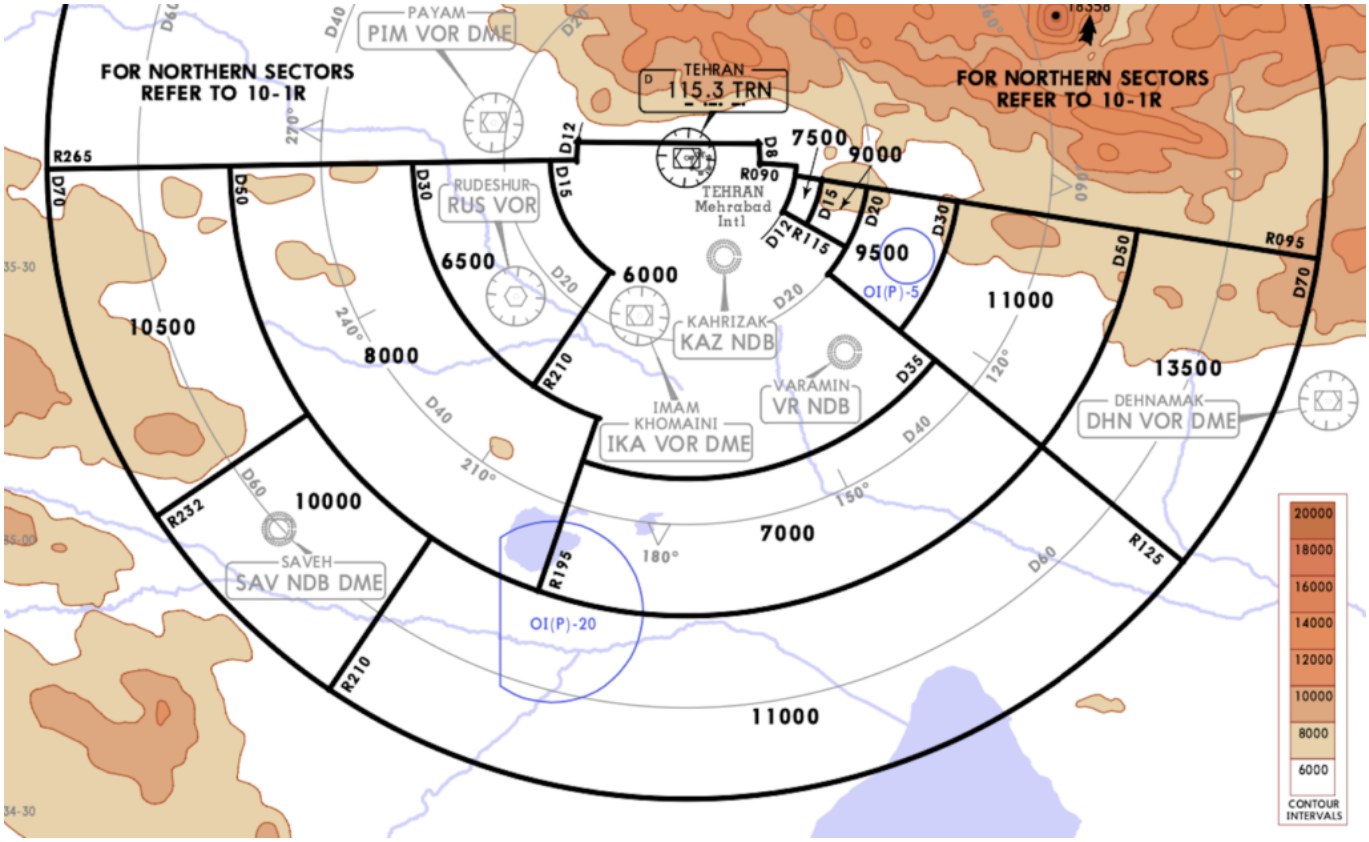
Sounds serious!

Well, earlier in the year it was.

A Zagros Airlines A320 operating from OIAW/Ahvaz to OIII/Tehran Mehrabad was cleared the SAVEH 1N arrival and descended, under radar control, to 6000 feet. They were then vectored to the KAZ NDB in order to intercept the ILS for runway 29L.

Which was when they received a **terrain alert and "pull up" order.**

A quick look at the radar minimum altitudes and there are a lot of high ones – there is a lot of terrain. The adjacent sector is 7,500′ but ATC take aircraft down to the 6000′ (which covers the sector over the airport), and depending on where you arrive from this can be an issue.



Thanks LIDO

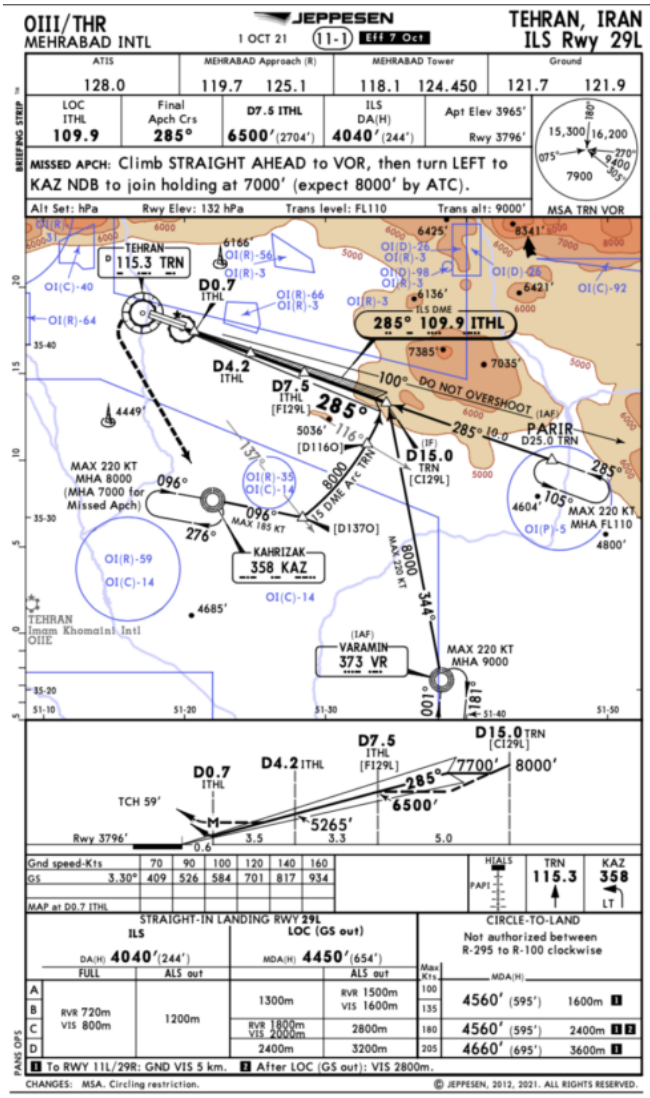
There is a **5,036 foot hill** sitting in close proximity to the ILS approach, called *Bibi Shahrbanoo.* For ATC to ensure you are not too high for the ILS, they manage your descent down to 6000′, but that **6000’ doesn’t actually provide the typical 1000’ separation** if you are near *Big Bibi.*

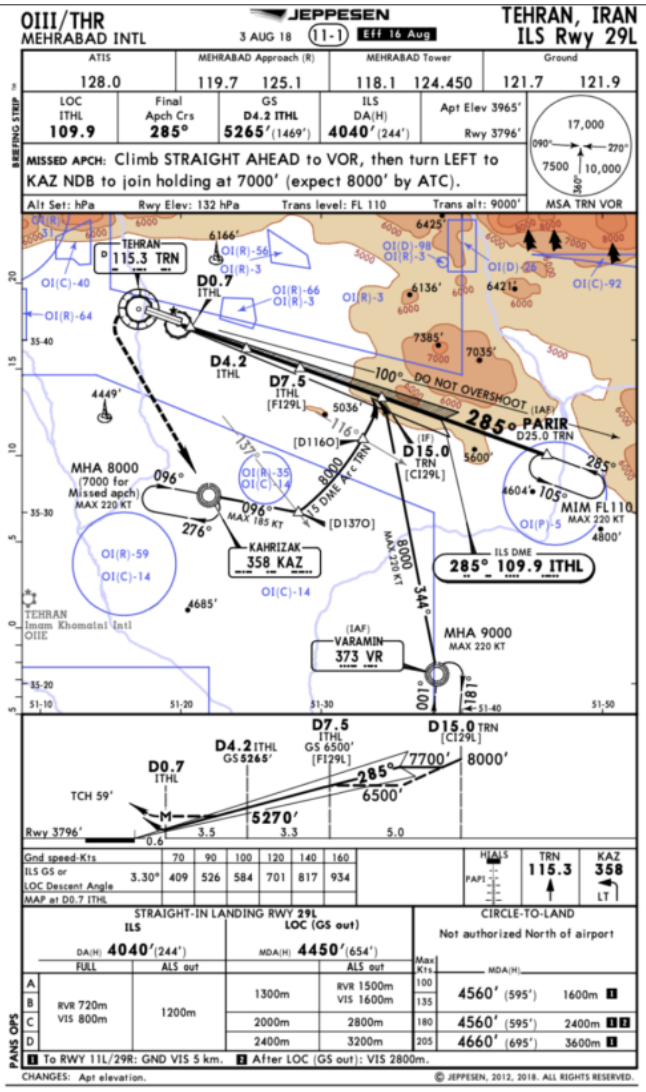
Combine all this with a higher rate of descent and you might get yourself a GPWS warning. The Zagros airlines incident was not the first.

Have they fixed the problem?

Well, Tehran’s runway positions and terrain make it a complex spot to decide what heights should be used, but it does appear that they have looked into it a bit more since a significant number of new charts have been published of late, with **validity dates of October 1, 2021.**

So let’s play spot the difference…





New vs Old

Let’s take a look at the ILS 29L chart from August 2018 and the new October 2021 chart.

First up, **some of the MSA’s actually appear to have shrunk.** The northerly sector from 090-270° used to be 17,000’ but now it is divided into two sections of **15,000’ and 16,200’.**

The circle-to-land restrictions have been revised, and they have also **amended the FAP** – it is now set to D7.5 and 6,500’ as opposed to D4.2 and 5265’ which was pretty low given the hills around.

You might also notice (at least on LIDO) a certain 5,600′ point from just beside the inbound course has now been removed… surprising given the hill is, presumably, still there.

This is a tricky airport anyway

The glide slope here is a **slightly steeper 3.3°**, and you only have precision approaches for runway 29 – runway 11 involves a fairly hideous circling approach.

The area is riddled with both high terrain, and also **restricted and prohibited areas,** so accurate navigation is important.

The conditions in Iran can be hot, and your **elevation is high – 3965ft,** leading to higher speeds, and higher rates of descent required. Having this in mind, monitoring your ROD and being aware of the GPWS

risk is probably the best mitigation against warnings.

Runway 11R/29L is **currently closed for "recarpeting"** (not a Persian rug joke, it really is what they call it). So keep an eye out for temporary charts and WIP notams. **The runway is closed until March 2022** and the latest AIP SUP 27/21 covers it.

There is also a lot of GPS Jamming across Iran and there are some significant airspace safety concerns to take into account.

It's not the only spot to worry about

OIIE/Iman Khomaini is the "main" Tehran airport and to be honest, if you are heading to OIII/Mehrabad airport (a.k.a the "other" Tehran) it is probably because you are using it as an alternate for OIIE. The terrain threat at OIIE is marginally lower than OIII, but still requires prior consideration before jetting in – as do most airports in Iran.

While you're at it, checking the Notams is a good idea too – OIKK/Kerman, for example, has no less than 34 cavities on one side of one of its runways. OIII/Mehrabad is better maintained (just 1 hole related Notam to be seen).

Hong Kong: King of the Airports

OPSGROUP Team
14 October, 2021

What is happening at Hong Kong airport?

They are working on something...

They are indeed. Hong Kong is adding a new runway and they've just finished building it! Six years in the making and due to open 2022, the new runway is set to *transform Hong Kong from a city airport* to an *airport city.*

What's it got now?

Hong Kong currently has two runways **07L/25R and 07R/25L, both offering 12,467' (3800m)** and a bunch of CAT II/III approach options.

The new one will be no less decent – planned to be the same length, and 60m wide.

Why do they need it?

Hong Kong is a major hub and currently sees around 419,795 traffic movements a year, which amounted to 71.5million passengers and 4.8millions tonnes of cargo moving through it (back in 2019).

Here is the bit you are probably more interested in – it can handle just under **70 flights an hour at peak time** and has 119 passengers stands, 55 cargo, 26 maintenance and 12 temporary stands.

The airport expansion will enable them to handle an **additional 30 million passengers and will add 57 new parking spots.**

We mentioned the slot and parking issue a few years ago. It is deceptively green at the moment, but this is probably more to do with a certain pandemic than any real improvement.

The current runways also do not run 24/7 though, there are **regular maintenance closures.** AIP SUP 08/21 updated on October 13 2021 has the info.

- 07L/25R closes 3 nights a week, and 07R/25L closing for 4, between 1601-2315 UTC
- 07L/25R also closes daily between 0116-1025 UTC.

So more runway and more parking will mean a big improvement on your chances of ad-hoc ops in.

(OK, we'll slot in a quick slot summary)

This was issued in June 2021: The Hong Kong slot getting guide.

In brief, you probably want to do this:

- Apply for a landing permit www.cad.gov.hk/english/efiling_home.html
- Apply for parking https://extranet.hongkongairport.com/baps/
- Apply for Ground Handling http://www.hkbac.com/en
- Apply for your slots http://www.hkgslot.gov.hk/Online_Coordination.ht

It it a confusing a frustrating process so if it is your first time you might want to get some help from an agent. Hong Kong Business Aviation Centre (HKBAC) are based at Hong Kong (and you'll be talking to them for your ground handling anyway.

Email: hkbac@hkbac.com

Phone: +852 2949 9000

Back to the expansion plan: What stage is it at now?

The runway work is complete. This will be **designated the North runway**, while the current north (07L/25R) will become “Centre”. The re-designation will happen at **0000 UTC on December 2** so don’t get confused!

The full ‘three runway system’ is only due for completion in 2024 as the new terminal is yet to be constructed.

What about arrivals and things?

The new charts are likely to only be introduced from 2022, however, the current set up bring aircraft into common points which link to approaches for either runway, so chances are they will just add the 07L/25R (new) to these as well.

The plan is to equip all three runways for takeoffs and landings, but primarily use the **northerly for landings,** the **central for take-offs** and the **southerly for both.**

The Hong Kong CAA is also working with the Chinese and Macao CAA to re-develop and **improve efficiency in the Greater Bay Area airspace.** This airspace refers to the areas utilised by Macao, Guangdong and Hong Kong airports which is high density.

VHHH/Hong Kong’s traffic is restricted by the so called “air wall” between Hong Kong airspace and Pearl River Delta region airspace, and this will also be improved for better traffic efficiency.

The point of control handover is BEKOL, and traffic must reach set altitudes by this point.

Improvements to the airspace are not *un-needed* – separation issues have cropped up a few times in the past. So watch this space for changes to routings and handover procedures through to 2024.

Want some more to read?

A full rundown of the expansion plan is written up pretty decently here.

Or read about it on the official HKIA Three Runway System website here

The main page for all things slot is here.

Major runway works in Sydney

Chris Shieff
14 October, 2021

From October 15 until late November, major work is taking place on the threshold of YSSY/Sydney's world famous Runway 16R – **the most used, widest and longest runway at Australia's busiest airport.**

During that time it will **not be available for any arrivals** (around the clock), and there will be a reduced length for departures.

Here's a quick rundown of what this means for operations at the airport, and what to expect if you're visiting the Emerald City in the coming months.

Crunch time

The threshold slab is over half a century old. Pavement failures have been on the rise leading to **FOD damage and temporary repairs** have become a common occurrence. With things being quieter at the moment, the airport is finally biting the bullet and replacing it completely.

Airport authorities looked at simply displacing the threshold for Runway 16R for arrivals but decided that operationally it **wasn't safe or efficient**. So instead, procedures at the airport will temporarily change.

Arrivals

In southerly conditions (which is half the time), all arriving aircraft can expect to land on the **shorter Runway 16L.** It has 8,000'/2438m of hard stuff, and is narrower at 148'/45m wide. The ILS is CAT 1 only.

First of all, **carry extra fuel.** With all arrivals being sequenced for one runway, you can expect extensive holding and/or slow-downs during peak times. Just like the freeways, these are early morning and early evening.

Wide body traffic can expect to vacate at T6 – right down the far end. From there it's a much lengthier (and potentially confusing) taxi to the international side of the airport which may see you cross two active runways. Remember that progressive taxi instructions are always available if you're unfamiliar with the airport.

Runway 07/25 is also available if you need it operationally, and it is around the same length. You'll need to request this early from ATC. Remember to use the phrase '*operationally required*' – it will help ATC to accommodate your request.

In northerly conditions, **Runway 34L** will still be used for arrivals at reduced length. The LDA will be approx. 11480’/3500m. Expect to see workers and trucks at the far end. Also, a head’s up – the ILS won’t be available during the works. The GLS approach will still be an option, but if you can’t fly one in your ride, you’ll need to do an RNAV approach. They’ll cancel work for the day and switch the ILS back on if things are starting to look murky out there.

Here’s a picture of what this all looks like:

Departures

You will still be able to depart from **Runway 16R**, but you’ll need to roll from between taxiways Foxtrot and Golf. Small jets and turbo props may be be cleared for take off from Foxtrot, but heavier jets can expect to taxi forward to Golf first due to jet blast. TORA from there is 9347’/2849m.

And here’s what that looks like:

Wet Season

Sydney can experience severe convective thunderstorms late in the year (the warmer months down under). If the winds are southerly, and there are thunderstorms forecast it's time to think extra hard about **fuel planning** during this time.

Being part of one the busiest air corridors in the world, and with only a single runway for arrivals the queue may begin to back up in a hurry during storms. **Extensive holding times and diversions** are not uncommon in these conditions.

There are a few decent options as alternates, but they're not right next door. The closest is **YSCB/Canberra** (132nm). A few things to think about though – it can be a challenging place in bad conditions due to the high terrain that surrounds it. Apron space can also become limited if it is receiving lots of diversions.

Most international operators use one of the below:

- **YMML/Melbourne** (384nm) to the **south**.
- **YBCG/Gold Coast** (368nm) and **YBBN/Brisbane** (395nm) to the **north**.

Looking for the official word?

YSSY Notam H5212/21 is the place to start. IFALPA has also published a Safety Bulletin based on the info available from airport authorities.

Navigating the UK entry rules

David Mumford
14 October, 2021

England's entry rules became much simpler from October 4, with the scrapping of the traffic light system. Now, there is **just one red list**, and then the rest of the world. There's one set of rules for the red list, and one set of rules for everywhere else.

Red list rules

England **removed 47 countries from its red list** as of Oct 11. So from that date,the only countries remaining on the red list are now: Panama, Colombia, Venezuela, Peru, Ecuador, Haiti and the Dominican Republic.

Basically, passengers who have been to a red list country within the past 10 days can only enter England if they are a British/Irish National, or have residence rights in the UK. And when they arrive, they must stay in a managed quarantine hotel for 10 days.

Check here for full info.

Rules for everywhere else

This depends on whether a passenger has been vaccinated or not:

Vaccinated Passengers
There is no requirement to get a test prior to travelling, or to quarantine on arrival. Pax will still have to get

tested a couple of days later, but cheaper/easier options are coming.

Unvaccinated or Partially Vaccinated Passengers
It's not great news. Unvaccinated pax will still need to get a pre-travel test within three days of their flight but here's the real kicker: they will have to isolate for ten days on arrival (from anywhere). Fortunately, the test-to-release scheme is still be running to get out of self-isolation early.

Check here for full info.

Which vaccines are accepted?

Oxford/AstraZeneca, Pfizer BioNTech, Moderna, Janssen – plus a few other permutations.

On Oct 11, England added 37 more destinations to its list of countries and territories with approved proof of vaccination, meaning that arrivals from these places will be able to avoid more expensive post-arrival testing requirements.

The UK or England?

These rules in their entirety **only affect arrivals in England**. Scotland, Wales and Northern Ireland have all got their own sets of rules.

What about crew?

England has a dedicated page on the rules for crew, which you can read here.

The key points:

- Crew do not need a Covid test to enter England, even if they have been in a red list country.
- Crew who live in the UK do not need to quarantine, even if they have been in a red list country.
- Crew who **do not live in the UK** must quarantine in their hotel until departure if they are not fully vaccinated, or for a full 10 days if they have been in a red list country.

GPS Outages: The Hotspots

OPSGROUP Team
14 October, 2021

We are talking about it again. Satellite signal disruptions. Jamming. Issues with your navigation equipment…

IFALPA have just released a new “watch out for it” paper so we thought we’d have a mini recap on what it is, where it is and what you can do about it.

Here’s what we said earlier about the problem.

The Big Problem

A big rise in GNSS radio frequency interference occurred in 2018 and since then (with voluntary reporting) there has been a **2000% increase** sustained ever since.

A Eurocontrol Think Paper published in March 2021 suggests that **38.5% of European en-route traffic** operates through regions intermittently but regularly affected by RFI, and **5% of these needed special assistance,** which doesn’t sound like much until you check out the number of en-route traffic to Europe each day!

The Big Hotspots

The big hotspots remain around the **Mediterranean, Middle East and Caucasus** where they see, on average, 3,500 outages or so a year. Traffic routing along the UM860/688 airways in Iraq, and en-route crossing borders in **Turkey/Iraq/Iran** or close to the **Syrian border** are the most commonly reported areas of issue.

Reports from aircraft overflying regions near major Turkish airports have also reported signal jamming, while aircraft operating into **LCLK/Larnaca** or airports in the **Egypt/Israel/Jordan and Lebanon** areas have reported jamming during the climb, descent and approach phases.

Back in 2019, **LLBG/Tel Aviv Ben Gurion airport** was seeing a high number of issues with their RNAV departures and arrivals. Or rather, issues with aircraft not having the internal accuracy required (due to jamming through the Tel Aviv FIR) for them to fly RNAV procedures. Crew were advised to **plan for alternatives.**

IFALPA also reported on issues in Central Mexico, particularly in the area around **MMLO/Guanajuato airport.** The issue was further compounded by a lack of any Notams warning of potential signal

disruptions. A heads-up so you know to watch out for it is always helpful.

Other spots to watch

US Military tests on systems designed to block enemy signals are unfortunately indiscriminate in what they block – and so they often impact commercial aviation as well, sometimes affecting signal as far as 400nm and up to FL400. While Notams are issued for these tests, they often cover large areas and are overlooked by crew because of this.

A test back in 2019 in Washington state highlighted the big impact these can have – the possible area affected covered 67 airports including KSEA/Seattle-Tacoma.

The FAA is working with the military to find a solution to this. They previously made 25 recommendations including a requirement that N**otams be issued at least 120 hours** in advance. Here is what we mentioned on this before.

What to do if it happens to you

Your aircraft is going to have checklists covering it, but in a nutshell, if you think your aircraft's ability to accurately fly an RNAV procedure has been impacted then **plan for another approach and let ATC know.**

IATA and ICAO both have GNSS Interface Reporting Form which you can send to help them track areas of significant anomalies, and follow up with authorities to try and mitigate the problems.

If you experience an issue in **FAA airspace** then use their dedicated reporting site.

And keep up to date with outage areas here.

Any final thoughts?

The range of RFI jamming is a lot bigger than folk realise. While it is usually centered around conflict zones, it seems to go "*well beyond simple military mission effectiveness.*"

A cigarette light powered (illegal) personal privacy device is enough to disrupt the signals in an aircraft if the device is relatively nearby.

Thankfully ICAO, Eurocontrol, the FAA etc are on the case but until solutions are found, it will remain with the pilots to stay safe when signals are disrupted.

Kazakhstan: Improving Safety

OPSGROUP Team
14 October, 2021

Kazakhstan have been working with the UK CAA and ICAO to **improve their safety and compliance**, and they've done well. ICAO's recent audit of them, in August, noted an 84% effective implementation of ICAO standards and recommended practices.

So, what does this mean for you practically if you are operating into Kazakstan?

Some background info for you

Before all this, they were not doing so well.

The previous audit carried out in 2016 had them scoring pretty poorly on a bunch of areas, most noticeably their **Civil Aviation Organisation** was lacking and their **Accident Investigation** skills were poor, both scoring less than 50%. The operational impact of this was safety – a lack of information to operators and crew, and a lack of regulation and oversight.

Their Aerodromes and Radio Aids also fell short, scoring 60%. Which probably meant you would often see Notams advising of unserviceability, and potentially reduced approach or low visibility capabilities at airports, amongst other things.

And now?

Now they are 15% higher than the global average.

To improve their audit rankings they have done things like implement:

- better operational regulations
- improved oversight from the authority
- better trained technical personnel

Tell us what we need to know operationally

The new (and improved) Aviation Administration of Kazakhstan have **implemented legislation which aligns with EASA/EU legislation.** Their new regulator is bringing better technical control and is improving safety levels across the country to be more in line with international requirements.

This means **big changes to basic aviation law**, including 61 new by-laws and a bunch of legal acts. But if you operate into Kazakhstan, don't stress – this won't mean huge changes and new laws for you to learn – since they now are aligned with ICAO SARPs and EASA legislation it should be fairly familiar.

Airport names are changing

In June 2020, **UACC/Nursultan Nazarbayev** International Airport amended its **IATA code from TSE to NQZ** – the former code being one harking back to the old Soviet Union days when the capital city was called Tselinograd.

There are 25 certified airports in the country, including 18 international ones (although there are 9 main ones you would probably be interested in.) The point is – other airports may well follow suit and update their names and codes, so double check those IATA codes carefully.

They are implementing GRF

The new ICAO Global Reporting Format will be implemented meaning pilots should receive better contamination reports and standardised Snowtam info.

How else is safety improving?

They have done a big review of risks at airports. They've listed the problems, the risk scores, their targets and the trend for improvement.

The biggest problems seemed to lie in:

- Wildlife and habitat management seemed to be a big issue at some of the airports
- De-icing procedures, facilities and equipment was another high scoring risk
- Ground ops resulting in potential collisions, and FOD on the runway
- Contaminated fuel and general fuel and handling services

And all these are improving across the major airports.

I think I would like to head there now?

Great, well you are going to need an **overflight permit or a landing permit**, depending on what you want to do. They are easy to get direct from the authority.

Technically, the overflight permit requirement doesn't apply anymore, but it is easier if you do get one because they want all navigation fees paid in advance or they won't let you into the FIRs.

You can use **AFTN: UAAKQFNS / +7 7172 704 345 / caf@ans.kz**

Any recommendations on where to go?

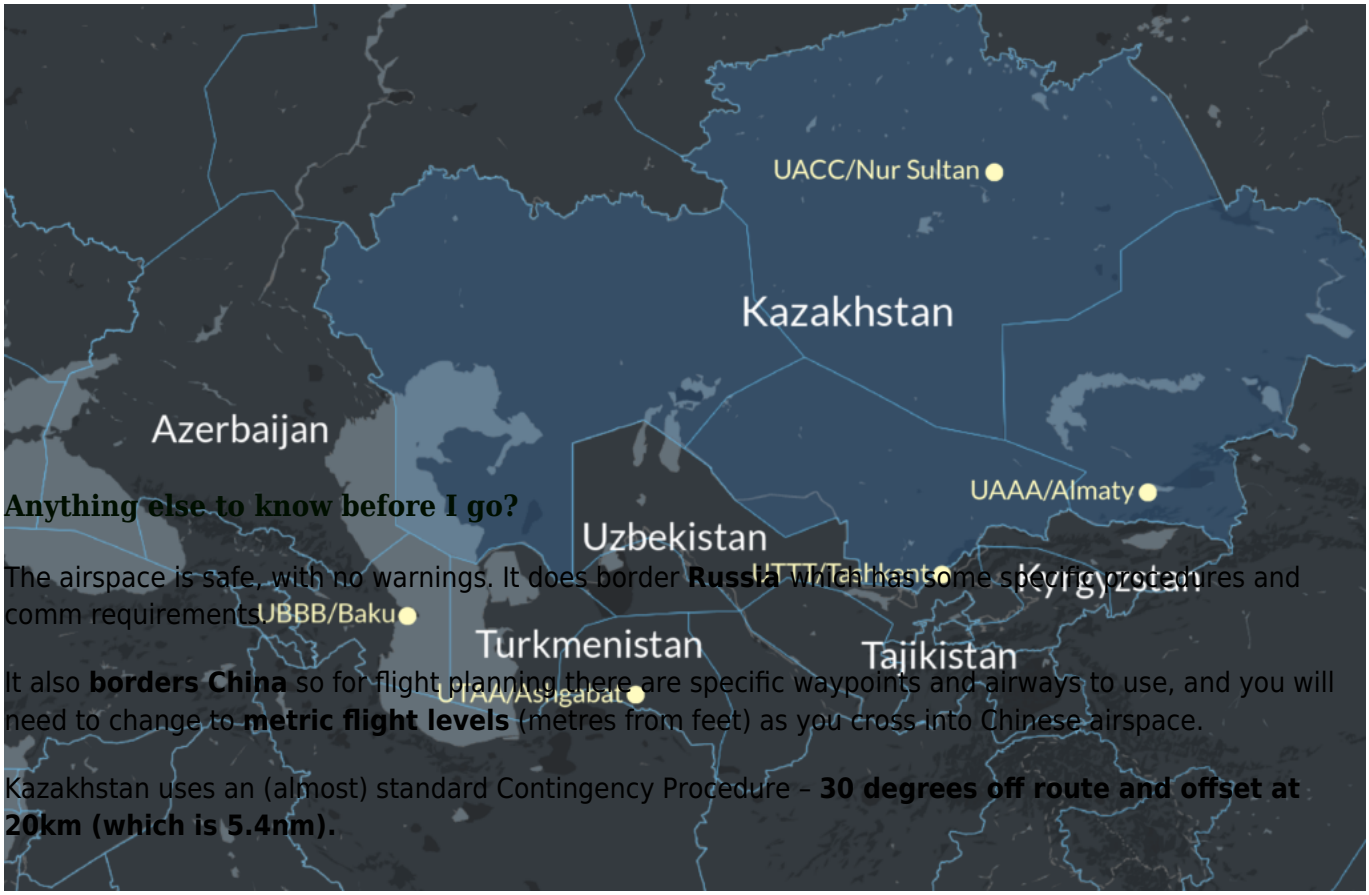
The main airports used for **Tech Stops** (if overflying) are:

- **UAAA/Almaty** Open H24 with a 14,764′ / 4500m and 14,436′ / 4400m runways with CAT III approaches
- **UACC/Nur Sultan (Astana)** H24 (but restricted) 11,483′ / 3500m runway with CAT III approach capability

Both airports apparently have Jet A1 fuel, although you might find TS-1 at other airports (the Russian “Jet A1′ with a -50°C freezing point).

You also have some decent ones in neighbouring countries:

- UBBB/Baku
- UTTT/Tashkent
- UTAA/Ashgabat



Anything else to know before I go?

The airspace is safe, with no warnings. It does border **Russia** which has some specific procedures and comm requirements.

It also **borders China** so for flight planning there are specific waypoints and airways to use, and you will need to change to **metric flight levels** (metres from feet) as you cross into Chinese airspace.

Kazakhstan uses an (almost) standard Contingency Procedure – **30 degrees off route and offset at 20km (which is 5.4nm).**

China steps up incursions into Taiwan's ADIZ

OPSGROUP Team
14 October, 2021

Relationships between Taiwan and China have become increasingly strained over the last month and officials are starting to question whether this might be impacting aviation safety in the region. Here is a look at the conflict and the potential impact it may have on commercial operations.

The background.

Taiwan and China have a long and ongoing dispute over whether Taiwan is *Taiwan – an independent country*, or *Taiwan – a breakaway province that is still part of China.* China is officially known as the People's Republic of China (PRC), while Taiwan refers to themselves as the Republic of China (ROC).

Similar to Hong Kong, Taiwan has retained a **high level of independence from mainland China**, and effectively governs itself, having its own constitution, democratically-elected leaders, and own armed forces.

Unlike Hong Kong however, **Taiwan rejected China's "one country, two systems" formula** which would have enabled them to retain autonomy, while reunifying with China. It remains a disputed country with few countries around the world recognising it as a sovereign nation independent of China.

This is at the root of this conflict, and in recent months China has become more assertive in their control over Taiwan.

Here is a good summary of the political situation.

What are China doing?

China have been "re-asserting" themselves over Taiwan by carrying out **repeated incursions into the Taiwanese Air Defense zone.** A recent incursion saw 39 military jets fly into the zone, for the second day in a row. The aircraft included 2 Y-8 anti-submarine aircraft, 26 J-16 fighter jets, 10 Su-30 fighters and a KJ-500 early warning and control aircraft.

They are reports of a 52 aircraft incursion which included 16 nuclear-capable H-6 bombers.

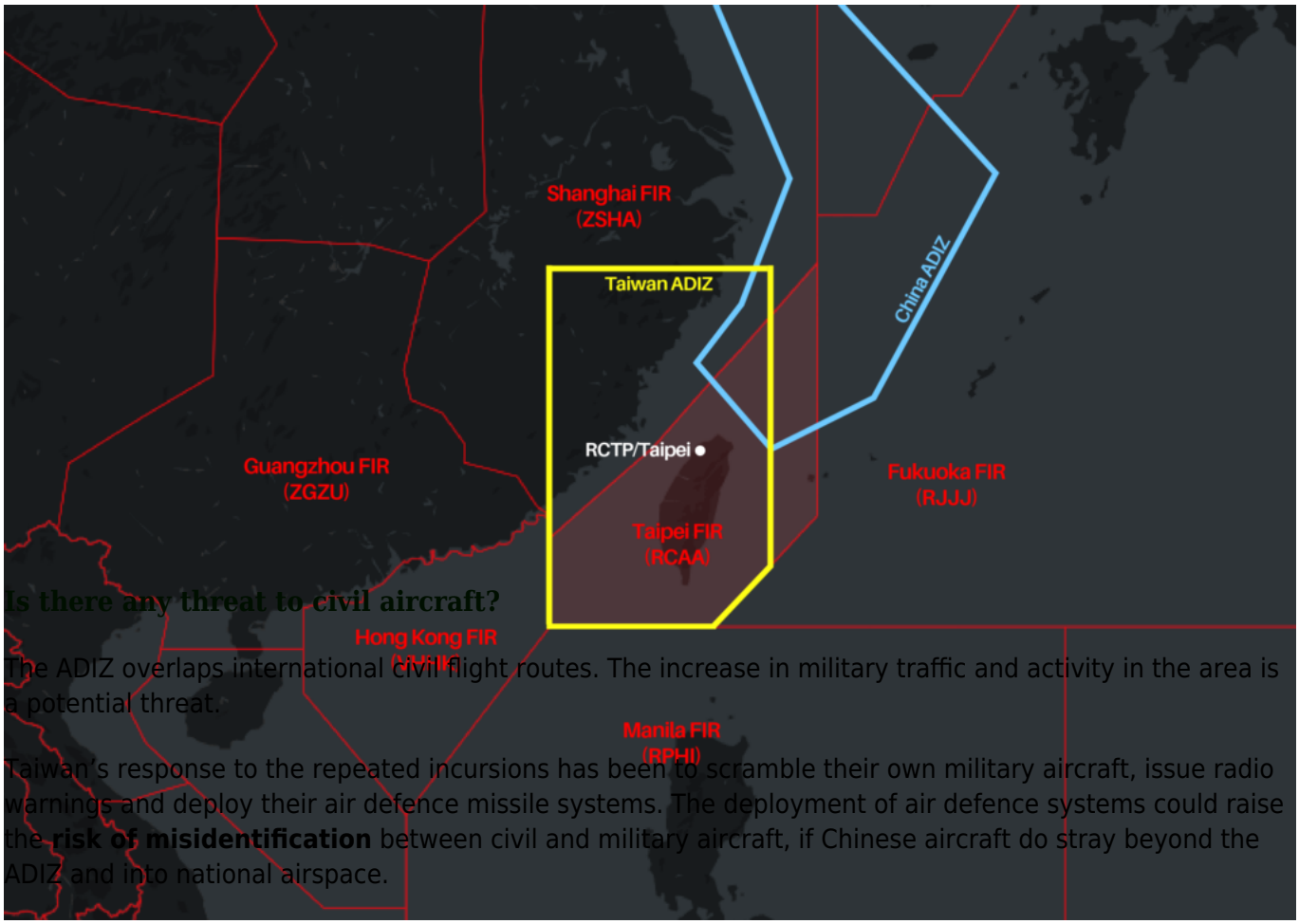
Where is the airspace?

Taiwanese national airspace is the airspace over Taiwanese land, extending to 12nm off their coast over the territorial waters. **Military aircraft are not allowed to enter any national airspace** without

express permission from the state. **China did not violate the national airspace**, but did violate the ADIZ.

An ADIZ is different to national airspace, and is specifically declared by a state for **reasons of military air defence**. Some states designate their entire airspace as an ADIZ (Iran being a good example).

Taiwan's ADIZ sits between Taiwan and continental Asia, over the South China Sea (the Taiwan Strait), shown (approximately) below. The ADIZ itself is disputed as well though since it overlaps and includes disputed territories.



Is there any threat to civil aircraft?

The ADIZ overlaps international civil flight routes. The increase in military traffic and activity in the area is a potential threat.

Taiwan's response to the repeated incursions has been to scramble their own military aircraft, issue radio warnings and deploy their air defence missile systems. The deployment of air defence systems could raise the **risk of misidentification** between civil and military aircraft, if Chinese aircraft do stray beyond the ADIZ and into national airspace.

The Vice Defense Minster for Taiwan suggested the incursions *"are affecting the safety of international flights,"* but the statement was possibly political and as yet there has been no report of civil aircraft being impacted by the situation.

Procedures in Taiwan's ADIZ.

You can read the procedures in full in Taiwan's AIP ENR 1.12.1, or download a PDF here. But here's a summary of how it works:

- There are restrictions for non-tactical aircraft in the area including **no flight below 4000'**, and to **maintain flight along designated airways.** ATC contact must be obtained prior to entry.
- Aircraft will be intercepted by the Chinese Air Force if they fail to follow ADIZ procedures, or if they exceed 5 mins ETA of a designated reporting point, deviate more than 20nm from the airway entrance or have greater than a 2000' difference from assigned altitude.
- Basically, if you are flying in the ADIZ, make sure you're in contact with ATC, and don't do

anything without telling them first. Pretty standard stuff for operating through an ADIZ.

General ops.

We wrote about operations to Taiwan back in 2019 and it is worth having a quick read because **if you are a foreign registered aircraft** because:

- You are not allowed to operate directly between China and Taiwan
- If you need to make a tech stop between the two then aim for VHHH/Hong Kong or VMMC/Macau
- You probably aren't going to get permission to overfly China if you are routing to Taiwan from anywhere else.

You can read more on this here.

Back in 2018, there was also a dispute over **China's M503 airway.** The airway is a main north-to-south route for aircraft heading to Hong Kong or Macau from Southeast Asia. Taiwan didn't like it because it lies so close to the FIR boundary separating Chinese and Taiwanese airspace.

The result of the dispute seemed to be a sort of "tough luck" from China, and aircraft still regularly use the airway. More on this here.

The risk level?

While the ongoing conflict and aggressions do threaten the general peace and stability of the region, there is no immediate threat to commercial operations. Maintain a good listening watch if operating in the area and ensure you are in contact with ATC if operating through the ADIZ.

BACE in Vegas: Special Airspace Procedures

Chris Shieff
14 October, 2021

Caution! This is previous year info – 2023 to come!

If you're headed to Las Vegas in October, look out for special airspace procedures at three main airports – KLAS/Las Vegas, KVGT/North Las Vegas and especially **KHND/Henderson Executive.**

What's going on?

The NBAA Business Aviation Convention & Exhibition ('BACE' for those in the know) is happening at KHND/Henderson Executive airport from Oct 12-14, and things are going to get busy.

To keep the traffic flowing, the FAA has published special airspace procedures you'll need to know about. They will apply from **14z on Oct 8 until 06z on Oct 14.**

Here's how they work.

Watch how you file.

For starters if you're within **100nm of Las Vegas** don't try to pick up an IFR clearance once airborne.

In fact, they want all flight plans bound for any of the three major airports filed at least 12 hours in advance (but no more than 22). Any requests to change destinations between the airports once wheels up will be denied.

There may also be other methods that ATC use to put the brakes on the flow. This may include the use of *'expect departure clearance times'* – IFR flights bound for Vegas will need to depart within five minutes of them. And of course, don't rule out the chance of dreaded ground holds.

To keep track of these delays, the FAA NASS website is the best place to start.

Headed to Henderson?

Here's what the FAA have to say about it…

From **0900:LT on Oct 9 until 22:00LT on Oct 10** all landings of aircraft not based here will need a PPR. Contact HND Ops on (702) 261 – 4858 to reserve yours (and get in early as they can fill up). Make sure you include your PPR number in the remarks section of your flight plan.

You'll need to fly one of three **RNAV arrivals**. From the NW, the GAMES ONE. From the NE, the BOEGY ONE. And anything from the south, the NTNDO ONE.

Once you've landed, they want you off quickly. Take the first available exit. Stay on tower until they tell you to change ground.

Then there's parking. You probably would like to *stop* your airplane at some stage after landing? Good plan, but **you'll need a reservation** for that. Get in touch with the HND FBO on (702) 261 – 4800 or you can do it online here. But don't show up unannounced – there's a $1,000 fine, and the house always wins.

What about departures?

Don't try and jump the queue. They don't want you to ask for taxi until you have an IFR clearance and are clear to enter a taxiway from the ramp.

Showing off a ride at the show?

If you're exhibiting, there's a lengthy set of rules you'll need to follow. You can access those here.

There are also special procedures for **demonstration flights**. Issues with airspace make these tricky for ATC who may not be familiar with the profiles of demo flights. Be sure to let Las Vegas TRACON know if you need anything special in advance, and they'll do their best to help. You can contact them on (752) 600 7011.

Planning to go IFR? You'll need TRACON's **approval** on the same number. Your call sign will be 'DEMO' followed by the last three characters of the aircraft reg.

There will only be two routes available:

- **FL230 and below:** KHND.OYODA2.BOJAC..BYSEN.NTNDO1.KHND
- **FL240 and above:** KHND.SCAMR2.IWANS..BOEGY.BOEGY1.KHND

What about if you want to go VFR?

Yep, that's okay too. You'll need to use the practice area to the northwest of KVGT. Listen out on 122.75, and let others know where you are and what you're doing. Click here for the Las Vegas VFR chart.

Keep an eye on NOTAMs

Other procedures may be published before the event.

If we've missed something, we'd love to hear from you. Get in touch with the OPSGROUP team on team@ops.group.

Introducing MEL: A guide to Minimum Equipment Lists

OPSGROUP Team
14 October, 2021

Setting up your MEL can be a tricky business. It is definitely not something we know anything about. Thankfully though, we know some folk who do. AviationManuals have just issued an updated version of their **MEL guide** for clear info on what you need, how to use it, and how to maintain it.

So here is *a little guide to their guide*, plus some other things we think you might find helpful as well.

Why are we telling you about MELs?

Because it's easy to get confused about **what equipment is needed in certain areas**, or to do certain things, or to go certain places.

So, first up, a quick **"what's the difference?"** – when do you consult your MEL, and when do you consult the AIP or some other regulation document?

The MEL is all about your aircraft.

Actually, probably a better way to put it is it is all about your **aircraft's ability to fly *safely,*** *a*s opposed to being about **specific operations** it might want to do. The MEL can tell you whether, if you try to get airborne, it might become a bit of a *Lethal Weapon…*

More accurately, it is what **"makes it possible to temporarily operate with inoperative equipment or instruments."**

Can it safety fly without Datalink? Yes. Can it safely fly without the nose wheel attached? No. The MEL will make that clear. It will also tell you **how long you can operate** without something being fixed, provides **amended procedures** (if needed) and **maintenance guidance.**

So – the MEL is a "Can I fly?" tool.

What you need to remember though is even if your MEL allows you to go fly, you still need to check that ***where you are going to fly*** doesn't need that bit equipment or instrument. This is the gotcha.

Can I safely fly without Datalink working? Yes, the MEL says I can. So I am good to go on my flight through the NAT HLA? Well, hang on, that's a different thing you're asking. Your aircraft can can fly perfectly well without it, but you are going to have some **planning considerations.**

Do you have anymore examples of this?

We said it once, and we'll add it in again – even after establishing via the MEL that it is safe to go, you still need to confirm you are **capable and compliant in the airspace you are planning on flying through**, and that is not what your MEL is telling you.

The NAT HLA is probably the best and clearest one, but there are a lot of places and situations that this might be the case.

Your autopilot for example is not necessarily an **MEL items**, meaning you could take that airplane without it functioning. It would be annoying. It would make drinking coffee more difficult, but you could. However, if you want to fly through **RVSM airspace then an autopilot is a requirement.** So what the MEL might let you go without, the airspace you want to go to might not.

So, the MEL is confirming what your airplane needs to safely fly, but it is not (necessarily) confirming that your aircraft will meet all the capability requirements for where it is planning to fly.

When should you use your MEL?

Basically anytime before you start your takeoff roll, because it is the document that is going to guide you on whether your airplane needs what just broke to safely get up (and stay up) in the air. Once rollin' though, your failure warning system is what you're going to want to be consulting.

But an MEL is also a handy reference to consult in the air (when you've done everything else) because it will help you plan for the other end – can you dispatch without that 'whatever just broke' working. When you're back on the ground the MEL is going to become the "controlling" document once more, so it is worth a look.

OK, I understand the MEL's purpose, but…

We have gotten to the bottom of how, and what, to use the MEL for, and what its intentions and limitations are. But I know what your next question will be –

*"I already have an **MMEL**, so why can't I just use that?"*

The MMEL is a Master Minimum Equipment list. This is made by the authority and the aircraft manufacturer for the aircraft type *in general.* Some of what is in it might not be useful for you though because you might not actually have all the equipment installed. Maybe you didn't want it, or maybe your airplane is just a way more modern version of the *type* that the massive all inclusive MMEL is covering.

Which is why you want an MEL.

It is tailored to your actual aircraft, and your operation and procedures. This makes it shorter, easier to use and more relevant (but not less restrictive).

Now, the FAA do allow **Part 91** operators to use their MMEL as an MEL. You need a **D095 LOA** and some other paperwork for this. But a lot of places don't allow this, or just aren't used to it, so you're probably going to need an MEL (not just the MMEL) if you're heading abroad.

An MEL is actually a requirement for dispatch so if they don't accept your MMEL as an MEL you could be in for some lengthy debates and delays if you're ramp checked.

Here's something we wrote about it back in 2019 when it started to become a thing.

The FAA are also planning to do away with the D095 in the possibly not too distant future, meaning all US operators will need a D195 – the custom MEL.

In case you aren't familiar with the terms, **Part ORO** *"establishes organisational requirements to be followed by an* ***air operator conducting specialised and non-specialised commercial air operations*** *and specialised and non-specialised non-commercial air operations with complex motor-powered aircraft."*

Part NCC refers to "*non-commercial operations with complex motor-powered aircraft."* So chances are this is going to apply to you and your aeroplane.

Our Guide to their Guide

The AviationManual folk put it better than we can so go check out the website for info on what is involved in the MEL setting up process.

It does look fairly simple though:

- Complete a simple questionnaire
- Get a copy of the draft manual for your review
- Send feedback (and probably some money at some point) and receive your Final Copy. And off you go.

That's it!

A summary of who to ask?

"I need an MEL written up" – Talk to the folk at AviationManuals, they can help. Here is the link direct to their guide.

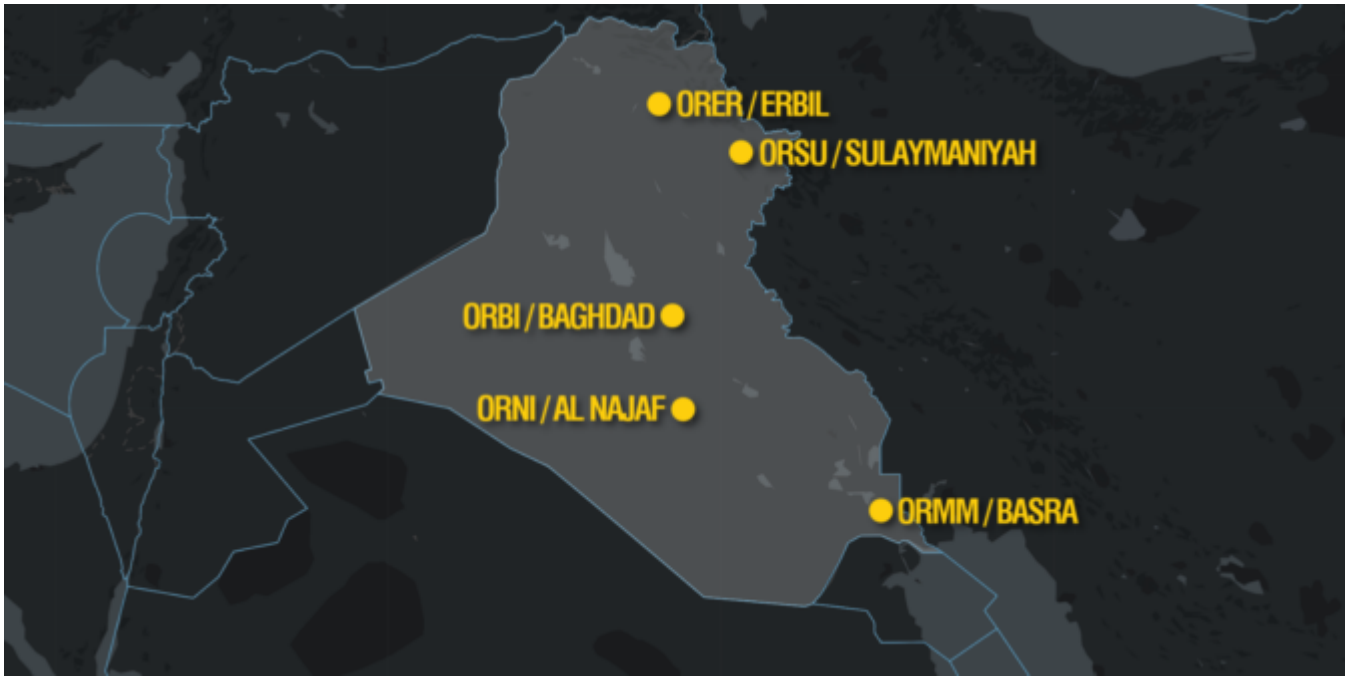
"I am on my airplane, ready to go on a flight and something has broken" – Consult your MEL.

"I am flying and something has broken, is my MEL useful now?" – Check your checklist and read through your FCOM. When you've done that, know the plan and have a few minute to spare, take a look in the MEL as well to see if it will cause issues for the return flight.

"I am a Flight Planning Person and I've just been told that an aircraft is flying tomorrow but its *insert something random* isn't working, can it still fly on the usual route?" – Check the AIP, or drop us a quick email and we'll see if we can fathom it out for you.

Oct 2021: Iraq Airport Closures

OPSGROUP Team
14 October, 2021



Please note the date on this story – Oct 2021. We're keeping the info here for reference purposes only.

Iraq is closing for a few days while their elections take place.

Here is a quick look at what this will mean for traffic who are planning to operate over or into Iraq over the closure dates.

Why and what are they closing?

They are closing all airports and border crossings for **security reasons.**

The election will take place Oct 10th. **The closures will run from 2300LT on Saturday Oct 9th to the morning of Oct 11th.** You will not be able to operate in or out of Iraq during this time.

Any further information on this has not yet been provided, but when elections took place in 2018, there were a number of strikes which reduced public services to nearly zero, as well as violent protests and riots across the country. This resulted in a 24 hour closure in May 2018.

In September 2018, several Katyusha rockets were fired directly at Basra airport during further protests against the government and elections.

It is volatile at the best of times.

ORBI/Baghdad airport is situated around 100nm southeast of a **major airbase** which is **often targeted by rockets and weaponised drones.** Baghdad itself is a target for rebel groups, and while attacks are generally low level, they do pose a risk to civil aviation and also heighten the **risk of misidentification** by air defense systems.

But can you still overfly?

The Notam published by ORBI/Baghdad Airport suggests you can:

A0239/21 - AD CLSD DUE TO IRAQ ELECTION DAY. WITH EXEMPTION TO EMERGENCY SITUATIONS DECLARED BY FLIGHTS OVERLYING IRAQ. 09 OCT 18:00 2021 UNTIL 11 OCT 03:00 2021. CREATED: 30 SEP 19:11 2021

ATC through Baghdad is provided by a large, international air traffic services provider, Serco, and you often hear US accents on frequency. Kuwait also provide some control of the southern sector when they hand over. So ATC control is not thought to be impacted.

The days leading up to and following the elections may well see some **increased traffic across Iraq** as dignitaries, government officials etc fly in, out and about.

Iraq and the ORBB/Baghdad FIR are a main connection between the Middle East and Far East to Europe. There are really only 4 options –

- Via Iraq
- Via Iran
- Via Saudi Arabia
- Via Pakistan into Eastern Europe

ORBB/Baghdad FIR Notams A0235/21 and A0236/21 advise on the routes available for civilian aircraft overflying the region. This is also covered in their AIP ENR 1.10-2 section 4.5.3.

Heading Northbound you can file TASMI SEPTU ROXOP UM860 NINVA

Heading Southbound you can file RATVO SISIN UM688 SIDAD

Airports

The airports will be closed. All international airports (ORER, ORSU, ORNI, ORMM) have published identical Notams to the one for ORBI/Baghdad, saying that they will remain available for emergency diverts, but they will not be available for "general" en-route alternates.

Iraq borders **Iran** (another region with airspace warnings in place) and **Syria** to the other side (which is a No Fly Zone) so you may be limited on where you can go – turning around and heading back to Kuwait and Saudi, or routing to Turkey (depending on which direction you are heading from).

Eastern Turkish airports are generally smaller and less capable than the larger ones to the West. There are also often skirmishes along the border between Iraq and Turkey, with military on both sides sometimes **closing portions of airspace during military activities.**

What should you do?

Continue to plan overflights, but be aware that diversions will likely not be supported during this time.

Be aware that government offices and services will likely be closed and unavailable during the election period, so don't submit overflight and permit requests last minute because they won't be handled until afterwards.

What is available (when they aren't closed for elections?)

Check out SafeAirspace – US Operators are banned from operating over or into Iraq, and other authorities **advise against flights below FL260.**

ORBI/Baghdad airport, in the capital, has a decent runway, however they do currently have **works on 15L/33R** and it is closed (when the weather permits) and between 0300-0500z.

Runway 15R/33L is only available during daylight hours and in VMC because the instrument approaches are suspended. 33L also currently has a **displaced threshold (400m)** and the declared distances are now 2901m.

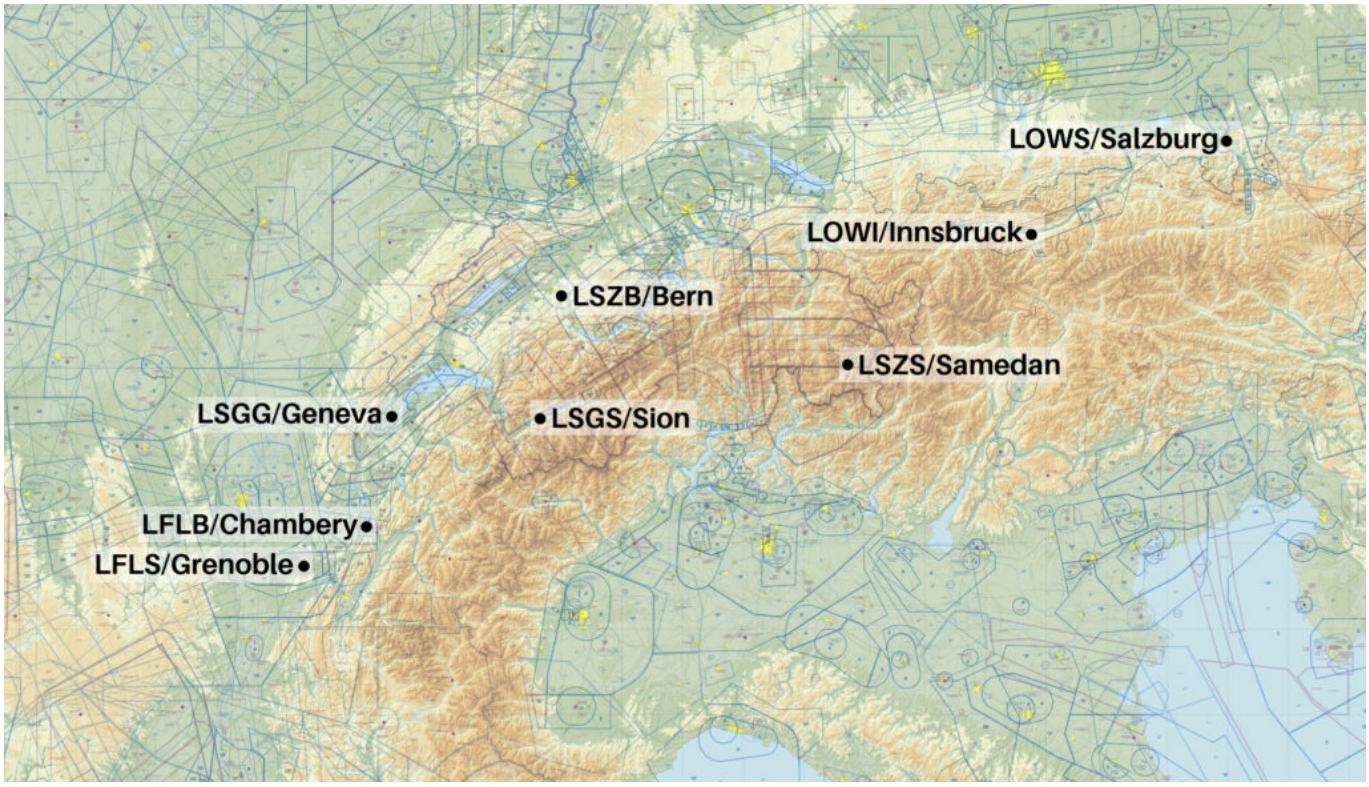
So keep an eye on the weather and be aware of what might or might not be available. **Notams A0222/21 and A0193/21** are the ones to read.

Don’t snow where to go? Here’s an Alps Ski Airports Guide

OPSGROUP Team
14 October, 2021

Winter is coming, and that means two big things to think about in aviation. Operating in **cold, wintery conditions** and operating into **cold, wintery ski destinations**.

So, to help you avoid getting ‘piste’ with airport restrictions, parking problems and other annoying operational obstacles, here is a look at some of the main Alpine ski destination airports which you might be thinking about flying into later in the year.



Innsbruck – Austria

LOWI/Innsbruck will get you as close as you can to **Lech, St Anton, Zurs and Kitzbuhel.**

It is 1hr 15 from Kitzbuhel by road, 90 minutes from Zurs or Lech, and 70 minutes from St Anton. Or about 25 minutes by helicopter from them all.

Innsbruck is one that you need to be familiar with, and have briefing material set up for, prior to operating in. The airport administration can provide a sample briefing, but you'll need to tailor it for your operation. ernst.wieser@austrocontrol.at / ernstwieser@hotmail.com can help with that.

The full info is available in the Austria AIP, but you basically needed to have **practiced in an FSTD before heading in** with weather less than 3000' ceiling or 5km visibility.

Slots are required here and the best folk to talk to are operations@innsbruck-airport.com

Innsbruck is not a big airport so parking is likely to be limited.

Airport Spy reviews give this a **3.5/5 rating.**

Salzburg – Austria

LOWS/Salzburg requires **special permissions** from Austrocontrol – special.procedures@austrocontrol.at

This is a larger airport with a **9022′ runway, ILS to 15 and CAT III capability.** However, terrain at the end of runway 15 means there is a specific and challenging missed approach procedure fo runway 15, and a very challenging RNP procedure for runway 33.

Historically, a PPR has been required during the busy season from mid-December. Notams are usually issued in November confirming this, along with confirmations of charter and corporate slot availability.

Get your requests in early with +43 662 8580-261 / sas.ops@salzburg-airport.at

Chambery – France

LFLB/Chambery is best used if you want to head into **Courcheval, Meribel or Val d'Isere.**

You have probably heard of **LFLJ/Courcheval Airport** – it is the one in the mountains that is always on the top 10 scariest airport list. Chambery is *less of a challenge but you're still going to need some training before heading in here, particularly if you plan to head in after dark, if the ceiling is less than 3500 or visibility is below 5000m. The airport has some terrain challenges of its own, sits at an elevation of 779′ and offers an **ILS (in only one direction) to a 6627'/2020m runway.**

The AIP says *"Due to mountainous terrain in the vicinity of Chambery APT, it is considered essential that pilots are well familiar with approach, missed approach, circling maneuvers, and departure procedures. Therefore, concerned operators have to set specific operational instructions for the use of Chambery APT as well as provisions for their pilots' training. The responsibility for the preparation of such information rests on the operator (or pilot-in-command for non-commercial flights)."*

If you need ops assistance, the main business aviation FBO is available at +33 4 79 54 49 52 / fbo@chambery-airport.com

All the fees and charges are available here on the airport website.

The first 60 minutes of parking are free, after which they start to charge you 0.36 euro per ton (MTOW) per hour. Parking is arranged though SEACA (handling@chambery-ariport.com).

There is a **dedicated business terminal** and a good 30 parking spots at the airport, however, during peak times where forecast traffic exceeds capacity, they do ave scheduling in place. This means **any take-off needs a PPR from the COHOR association.**

Peak time is weekends (and some Fridays) from mid December to April, and the first week of January. You can email hdqcoxh.scr@cohor.org or slots@chmbery-airport.com to organise, or cy.myhandlingsoftware.com if you are a general or business aviation operator.

Contact the BRIA de Bordeaux : +33 5 57 92 60 84 and ensure you have a gendec for customs at least 24 hrs before arrival/departure.

Airport Spy reviews give this a **4/5 rating.**

Grenoble – France

LFLS/Grenoble airport is well situated for at least **10 different ski resorts.** It is an hour's drive from Saint Pierre de Chartreuse, Chamrousse and Lans en Vercors, and up to 2 hours from other major resorts.

The airport has a **3050m runway and no specific qualification requirements** for the ILS or RNAV procedures. They also up their RFF to a level 7 during the peak winter season (normally an RFF 5 with 7 on request).

The opening hours during the winter season will be **0700 to 2100 local time** and can offer full security and customs without PPR.

However, it gets busy! It is the second most convenient after Chambery and particularly during February tends to fill up fast so you are going to need PPRs, slots and to confirm parking in advance. Slots and apron space are handled though the same myhandlingsoftware.

You can find the fees and charges on their main site.

We got in touch with businessaviation@grenoble-airport.com / +22 4 76 93 49 24 and they are very

helpful and can assist in handling support.

We don't have any Airport Spy reports for here yet! Send us one!

Bern – Switzerland

LSZB/Bern airport will get you close to **Gstaad.**

They have a very handy airport site with info for GA flights including an airport manual.

They don't require slots and advised that they **rarely see restrictions or capacity issues** even during the busy season. As with many of these airports, they are not H24, but can offer different hours on request if required.

There is **no pre-training required, but the airport is challenging**. They have **cold temperature corrections** for the terrain (highest MSA is 15,800') and the airport elevation itself is 1675'. The arrivals also take you through **Class E airspace and VFR traffi**c without transponder and radio is common in the vicinity.

Reports for the airport suggest you may get terrain alerts, and preparing for the circle to land runway 32 with waypoints is a good idea. Our **Airport Spy** reviews gave it **4/5 stars** and called it 'tricky'.

Ground handling is mandatory here so get in touch with groundservices@bernairport.ch / +41 31 960 21 31 for info.

Gstaad does have its own airport – LSGK/Saanen – which, like so many, requires pre-training before you head there. You will need a PPR as well, but only a few hours before. The airport can handle jets up to at least a **MTOW of 15,000kg** and requiring up to RFF 5, but in winter they don't have jets landing because of runway condition. So if you're anything other than a Pilatus PC-12 or equivalent, stick with Bern.

You can get in touch directly with them at +41 33 748 33 22 / info@gstaad-airport.ch

Engadin (Samedan) – Switzerland

LSZS/Engadin, also known by some as Samedan is the closest airport for the **St Moritz** ski spot. It is actually a **dedicated private jet airport *just* for St Moritz**, and is barely a 10 minute drive from the ski chalets.

Parking here can get tight during Christmas, New Year and White Turf (weekends in February). There are limitations for jets with fire & rescue category 4 and higher.

Engadin was built, literally, into the mountains and you need **prior training** (and have to pass an exam) before going here. The main website provides some good briefing info on all this.

There are also some specific **flight plan filing requirements** for the airport – which you can read about here.

For handling support, get in touch with +41 81 851 08 51 / info@engadin-airport.ch

Airport Spy reports rated this airport **4.5/5 stars.**

Geneva – Switzerland

LSGG/Geneva is the closest airport for the **Chamonix** resort, and is about 1 hour 20 minutes drive away, or has multiple helicopter transfer options.

There is no particular pre-training required to operate into Geneva, however it is a relatively challenging airport with very high terrain in close proximity. Check out our Airport Lowdown here.

Geneva is busy in the summer and busy in the winter. All year around really. But it does get *particularly* busy from December 15 to the end of April, and there are generally restrictions (and Notams) issued around this time.

You will need a **PPR slot for arrival and departure**. In the past there has been a maximum slot reservation window of 21 days.

This is where you need to head to check for info on all things PPR at Geneva.

Geneva has a **dedicated business aviation terminal** which is pretty convenient for the main terminal. There are three big hangars here, however, hangar space is limited during peak times and in the busiest part of winter often only the hangar run by the airport is available to "general public". So get in touch and make arrangements early if you need them!

The main FBOs are:

- Dassault Aviation Business Services +41 22 710 4434 / fbo@dassault-business.com
- Signature Flight Support +41 22 817 0123 / gva@signatureflight.ch
- Swissport Executive +41 22 306 1250 / eva.privatport@swissportexecutive.com
- Jet Aviation +41 58 158 1811 / gvafbo@jetaviation.com

You can find full details of Geneva Airport charges direct from the airport website.

Our **Airport Spy** reviews gave it **4/5 stars.**

Sion – Switzerland

LSGS/Sion is the main airport for the **Verbier, Zermatt and Villars resorts.** The really posh ones.

Before we go any further into planning and operating there, you need to know that **Sion does require special authorisation from the Swiss Authority** because of the challenging procedures due terrain.

This authorisation requires pilots to undergo training before operating there, but there is a decent list of places where you can do this training, including **training facilities in the US**. They also have some great airport briefing info on their website.

Possibly because it is so challenging (guessing less folk fly there), the FBO we contacted advised that they **don't have any parking limitations at the airport**, and that aircraft can stay for as long as they like, in a hangar too if needed.

For queries on handling, try Signature Flight support +41 27 305 2424 / sir@sigantureflight.ch

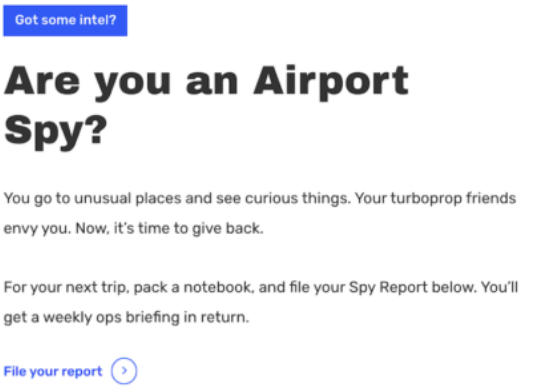
Our **Airport Spy** reports only rate this **3.5/5 stars.** The VFR traffic makes it tough, but less challenging than some.

Where else?

We haven't covered some of the **bigger European airports** which can be used for parking and to reach Alpine ski destinations.

LSZH/Zurich and the Milans (LIML/Milan Linate and LIMC/Milan Malpensa), as well as EDDM/Munich are all relatively convenient for ski destinations in the Alps and are larger airports which offer better parking, hangarage and easier operating options.

If you are familiar with other airports which are good options for winter ski destinations, then please share those "gotchas" or need to know "heads ups" – and we will share them on to everyone in the group. **You can file an Airport Spy report here:** ops.group/blog/spyreport



Canary Islands Volcano: What's the Operational Impact?

OPSGROUP Team
14 October, 2021

Eruptions have been ongoing since Sep 19 at the Cumbre Vieja volcano on La Palma in the Canary Islands.

Volcanic Ash

The latest VAAC report (eff 29 Sep 08:55z) shows the **ash cloud only up to FL050** around the vicinity of the volcano and GCLA/La Palma airport.

If the wind changes it may impact GCTS/Tenerife airport and arrivals from the south of Tenerife may be impacted.

GCLA/La Palma Airport

Operations were suspended at the airport on Sep 19 and again on Sep 25 after ash fall reduced visibility at the airport.

The volcano continues to release ash at low levels, and further short notice closures are possible.

La Palma is an international airport which also serves as an alternate for GCTS/Tenerife and GCLP/Gran Canaria.

The Airspace

UN741 is a major airway for routing south southwest. Currently the ash cloud is not impacting this area.

UN981 is a major northerly routing airway crossing the area of ash, but the level of the ash cloud is not impacting it.

GCCC/Canarias ACC, who control the airspace, have said they currently do not plan to close any airways due to the volcanic activity, but recommend using specific SIDs and STARs if operating to airports in the area – check the ‘Latest News’ section on the NOP homepage for details.

The US rules for carrying Covid in the air

Chris Shieff
14 October, 2021

Since January this year, any passenger boarding an international flight bound for the US must have a Covid test within 3 days of their departure.

Great when it's negative. **Not so much if its positive – what happens then?** How do you carry them back to the US? And what about their close contacts? Are they good to go?

Let's take a closer look...

The US law says you cannot knowingly carry someone with known or suspected Covid-19 to or within the US on regular passenger flights. You can't even board them.

Instead, as a general rule they won't be able to travel until they meet CDC quarantine or isolation guidelines (typically staying put for ten days and more testing), in addition to whatever local laws apply. A great reason to have travel insurance.

But what if they *have* to travel?

There are important reasons why a Covid-positive passenger might *have to fly.* The most common one is that they are being medically evacuated or transferred to better medical facilities. It may also be part of the passenger's insurance policy.

Either way, it falls upon charter or medevac operators to make it happen because the rules say that this is the *only way*. The airlines just can't be used.

If you're chartered to carry Covid positive passengers – or those suspected of having it – you need to be familiar with the CDC's procedure for transport by air. Spoiler alert: *you need permission*, so whatever you do don't show up unannounced.

You can read that procedure here in all its glory. But here's a quick rundown of how it works.

It starts with the phone.

If you're operating an international flight, the first step is to contact the relevant US Embassy. There may be local laws or restrictions that prevent a Covid positive patient from being allowed out of quarantine early.

Then, over in the US, there are three important agencies that you'll need approval from:

- **The FAA** – yep, make sure they're cool with it.
- **Customs and Border Protection** – they will work with you to decide on the best port-of-entry.
- **The CDC** – This involves contacting the relevant quarantine station for where you're headed – and you'll need to give them at least 24 hours' notice before you take-off. There's a bunch of info they'll need – click here for that list.

You'll also need to think about the logistics of your flight including transport, permission from other CAAs and airport authorities – including where you may need to divert to.

Pre-travel.

Prior to the big day it goes without saying that your unwell passenger(s) should stay in isolation. They'll need a medical exam beforehand to make sure they are well enough for the level of care you can provide them in the air.

You'll also need to work with airport authorities for a plan. If you have to enter a terminal, your passengers will need to be separated from the public.

Choose your ride.

When it comes to transporting unwell passengers, not all airplanes are created equally.

The CDC has guidelines for this too. They were developed back when MERS was thing. Remember MERS? It was like Covid's lesser known cousin that appeared a few years back but was way less memorable at the party.

In a nutshell they need to be large enough to be able to separate passengers and crew into different parts of the airplane. Ventilation is also important – ideally, cockpit air should have positive pressure relative to the main cabin and not be mixed.

Don't forget to think about range. Every stop you make will become a logistical challenge to manage. If you can make it in one go, you should.

On-board.

First things first, keep that air flowin'. At all times. Even on the ground during long delays, you need to keep ventilating the airplane.

Passengers and crew must wear masks – don't worry you can remove them to sip on your coffee. You can get away with basic ones, but the CDC recommends the fancier N95 masks or better.

Here's the kicker – crew need to remain separated from passengers unless there is an emergency or to provide single-serve meals. You can put up placards or barriers but they need to be obvious and not stop anyone from reaching emergency exits or seeing cabin signs.

If you can, seat passengers at the rear of the aircraft and keep cabin crew at the front – at least six feet away. The reasons for six feet will become clear in a sec. Pax should have their own bathrooms.

After landing.

The airplane will need to be thoroughly cleaned. As in *squeaky clean*. There are rules for what types of products need to be used – you can read about that here.

As for crew, as long as you've followed the rules, you don't need to be tested or quarantine. But make sure you self-monitor for symptoms for 14 days afterwards, just in case.

The 'close contact' conundrum.

This is where things start to get tricky…

Being a 'close contact' of a known Covid case for all intents and purposes means you have been exposed.

But what counts as 'close'? Brace yourself, because the CDC have that base covered – it means anyone who has been within six feet of a confirmed case for a cumulative total of 15 minutes over 24 hours. *Cumulative* being important here – so for example, three 5 minute exposures counts as 'close'. It doesn't need to be all in one hit.

So, what happens when a known close contact still tests negative?

There's effectively three scenarios here:

- The close contact is fully vaccinated and has **no symptoms:** Okay, they can still travel.
- The close contact is fully vaccinated but **has symptoms:** **No bueno**, it's off to quarantine.
- The close contact **hasn't been vaccinated:** **No bueno**, it's off to quarantine.

Cool, so can Covid positive passengers be transported with their close contacts?

No. But you *can* transport multiple positive pax together, you just can't mix positive ones with those who have tested negative.

Still have questions? We don't blame you. Here are some handy places to start.

The CDC website, you can visit it here.

The US FAA, their Covid specific stuff is found here.

If you're trying to reach Customs and Border Protection, you can reach em' here.

Mount Etna Operational Impact

OPSGROUP Team
14 October, 2021

Mount Etna erupts a lot! Opsgroup have issued about 20 alerts in 2021 because of its continued activity.

Here is a brief summary on the airspace sectors and contingency procedures to know about for if (when) it next erupts.

The Airport

Mount Etna is situated approximately **33km in a straight line from LICC/Catania-Fontanarossa** international airport. Which is why, when she blows her top, it often results in an alert for the airport and surrounding airspace – the main issues being ash in the atmosphere and the potential risk to engines, and ash fall at the airport reducing visibility.

Mount Etna, on a good non-exploding day, is still a 10,922' hulk of a hill requiring an **MSA for LICC/Catania airport of 13,300'** in the North quadrant.

The volcano also causes **an area of magnetic abnormality.**

LICR/Calabria airport is a smaller, domestic and VFR traffic airport on the SW tip of Italy which is also impacted by ash from Mount Etna when the wind is from a westerly direction.

The Airspace

The airspace surrounding LICC and Sicily is broken down as this rather tidy chat from Jeppesen shows. The sectors are centred on Mount Etna and allow ATC to close those which ash drifts into.

The 21 Sep 2021 eruption has **initially closed sector A3** and is impacting sector A2 BIS and low level traffic into Calabria airport.

The ash cloud often reaches altitudes above FL150 impacting both local traffic, and overflight traffic at lower levels.

Contingency Procedures – Arrivals and Departures

Arrivals and Departures to LICC/Catania avoid overflying Mount Etna entirely – **the 13,000' MSA area is from radial 300° to radial 050°** based off the CTF VFR.

However, variable winds in the region mean forecasting the impact of ash clouds is difficult.

The sectors help establish which SIDs/STARs can be utilised on a given ash day. The full list is fairly long, but worth having a look over in advance to ensure you are aware of which arrivals, departures and approaches are being suspended or utilised.

Notams

Eurocontrol publish and share Notams advising of airspace closures and contingency procedures. You can view these in the 'Latest News' section on the NOP homepage.

What's the news at Newark?

OPSGROUP Team
14 October, 2021

KEWR/Newark Liberty International is the *other,* other international airport serving the New York metropolitan area – the busiest airport system in the US – along with **KJFK/New York JFK** and **KLGA/La Guardia**.

Whilst JFK airport is the largest, Newark is actually the busiest in terms of number of flights. It is also the 6th busiest airport in the US in terms of international traffic, and 15th busiest in general in the country.

So, what is happening now?

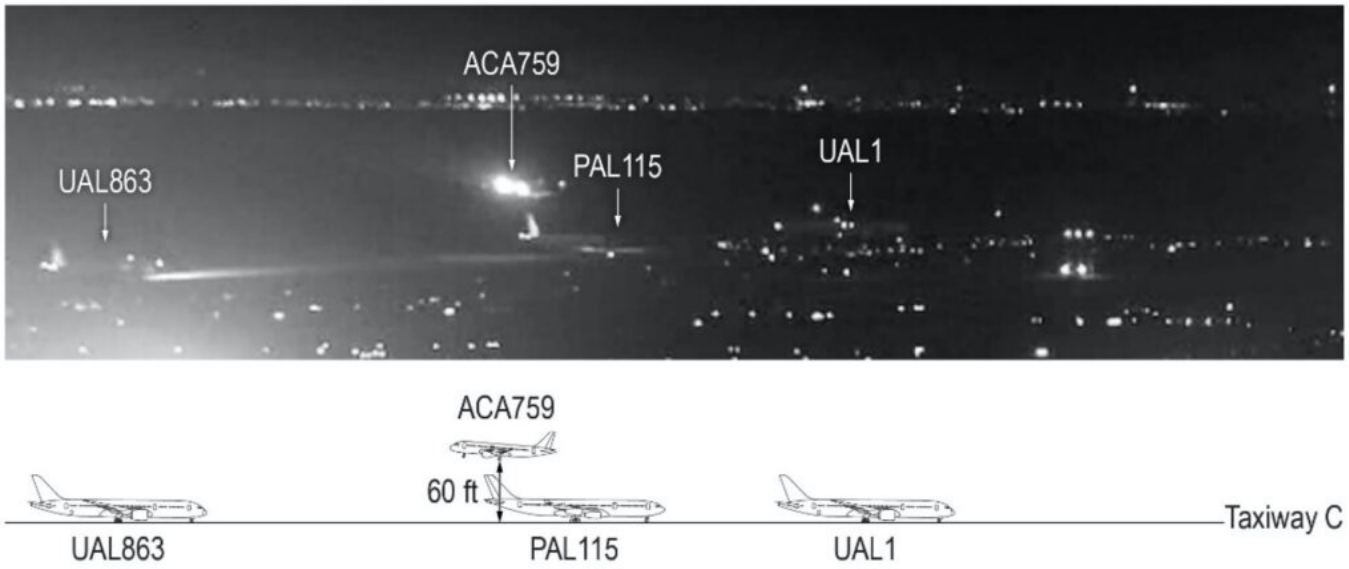
Runway works. And a general redevelopment program which includes a plan to replace Terminal A, due to be fully finished by 2022. You can read about that here.

But it is the runway rehabilitation we are most interested in, because it involves **runway 04R/22L**. The runway was last upgraded in 2012 so this is long overdue, particularly given that it **serves 47 percent of the airport's traffic load.**

Of course, there is a Notam to warn everyone about the closure.

Does anyone remember AC Flight 759?

Air Canada Flight 759 is the one that, in 2017, *very nearly* had a very nasty accident at KSFO/San Francisco. By *very nearly*, we mean **avoided it by less than about 14 feet**. That was the reported distance between the bottom of the Air Canada aircraft and the tail of a Phillippine Airlines A340 sitting on Taxiway C.



One of the probable causes the NTSB cited was the pilots mistaking taxiway C for runway 28R because they had **overlooked the closure of runway 28L in the Notam report.**

So, let's take a look at the Notams you will see for KEWR/Newark should you operate in there today.

We downloaded a report straight from the FAA Notam site, and it is here if you would like a look.

This may well differ to what you would receive in your flight plan pack, we have not included any filters and the layout is a little less user friendly. It is possible your flight planning department / system / whatever you use does present this in a clearer way, but it is also possible it does not.

We had this highlighted to us by a member whose exact words were *"Talk about getting lost in the weeds – that's just crazy."*

So, what is the concern?

Well, there are **5 pages,** with **108 Notams** in total and hidden away on page 4 is **Notam 07/045**

Which is why we mentioned the KSFO incident.

Newark's runway layout looks like this –

San Fran's runway layout is this –

And while KSFO's layout, with taxiway C to the outer side of runway 28R led to a more likely visual mistake, **the mixing of this Notam within a swamp of over 100 others** does mean it might be missed, particularly by an operator who is not familiar with the airport.

Notam 07/045

The Notam advises that runway 04R/22L will be closed from 06 July 2021 until 01 October 2021.

There is, if your filter includes it, also a construction plan.

What about the other 107 notams?

Nothing can substitute flight planners and pilots reading the Notam packs thoroughly. However, faced with 108 Notams for an airport (especially if you're not familiar with it), it might be daunting.

So here is a summary of what to look out for, (as of September 15 2021).

In the air:

- Rwy 11 has PAPIs but no VASIs. The **visual glide slope indicators should not be used** as they do not coincide with the ILS of RNAV glide paths
- There are a lot of **VORs which have been permanently taken out of service,** but many of the arrivals and some of the missed approaches require them. If you don't have a suitable **GPS equipped RNAV system** then you are not gong to be able to fly a fair few arrivals and departures to the airport, or the ILS or VOR DME approaches for runway 11
    - TEB, COL, CRI, OTT, SBJ
- The ILS and the LOC/DME **procedures for 04L are not available**
- You **cannot circle** to runway 29 or 11 **at night.** The RNAV visual for 29 is also unavailable
- There are a lot of **cranes** in the area. Some as high as 150′
- The approaches for 04R/22L are not available… probably because the runway is closed
- **Runway 04R/22L is closed**

On the ground:

- A lot of the ground markings are faded so watch out while taxying.
- The centre line markings for 11/29 are also in pretty poor condition. Actually, a lot of lead off lines and other runway markings for the other runways are faded too
- And a lot of signs are missing or are missing lights, or are non-standard. **So a general caution while on the taxiways.**

Any other notices to know?

There is a long list of **Letters to Airmen** published for Newark. If you have not been there before, or seen these, then they are worth a read because they give helpful info on operations for the airport, and for the general NY area.

LTA-EWR-47 highlights the procedures for *engrossing* and *egressing* the ramp. So in plain English, entering and exiting. If you have just arrived then call ground control with your ramp entrance once you've

crossed 04L/22R. If you're departing then let ground control know which ramp exit you want when you request your taxi clearance.

LTA-EWR-44 talks about the big Hotspot at the end of 22R/04L. A lot of GA flights make the mistake here. You're going to be told to taxi PAPA, cross runway 11 then turn left on SULU and hold short runway 04L". The turn is tight and the hold short is right there so don't go too far!

And the others…

- LTA 51 is warning operators about non-visible areas – basically where ATC can't see you so be extra careful of other traffic.
- LTA 45 says be ready for takeoff when cleared, don't dawdle on the runway.
- LTA 46 is about helicopter departures.
- LTA 48 is your info on LAHSO.
- LTA 49 warns that ATC might issue multiple runway crossings using various different taxiways. Watch out for other traffic, but its not a race!
- LTA 50 is all about line up and wait clearances at night.
- LTA 52 is about simultaneous intersecting runways ops for arrives to 4Rand 29 – and the fact ATC are allowed to do it.
- LAT 53 is your available distances for intersection departures.
- LAT N90-67 warns to watch your climbs and descents in busy NY airspace.
- LAT N90-73 It is really busy and aircraft often get vectored in and out of Class B airspace. This lists the airspace "hotspots" for traffic in the areas surrounding each major airport.

Any other things to share?

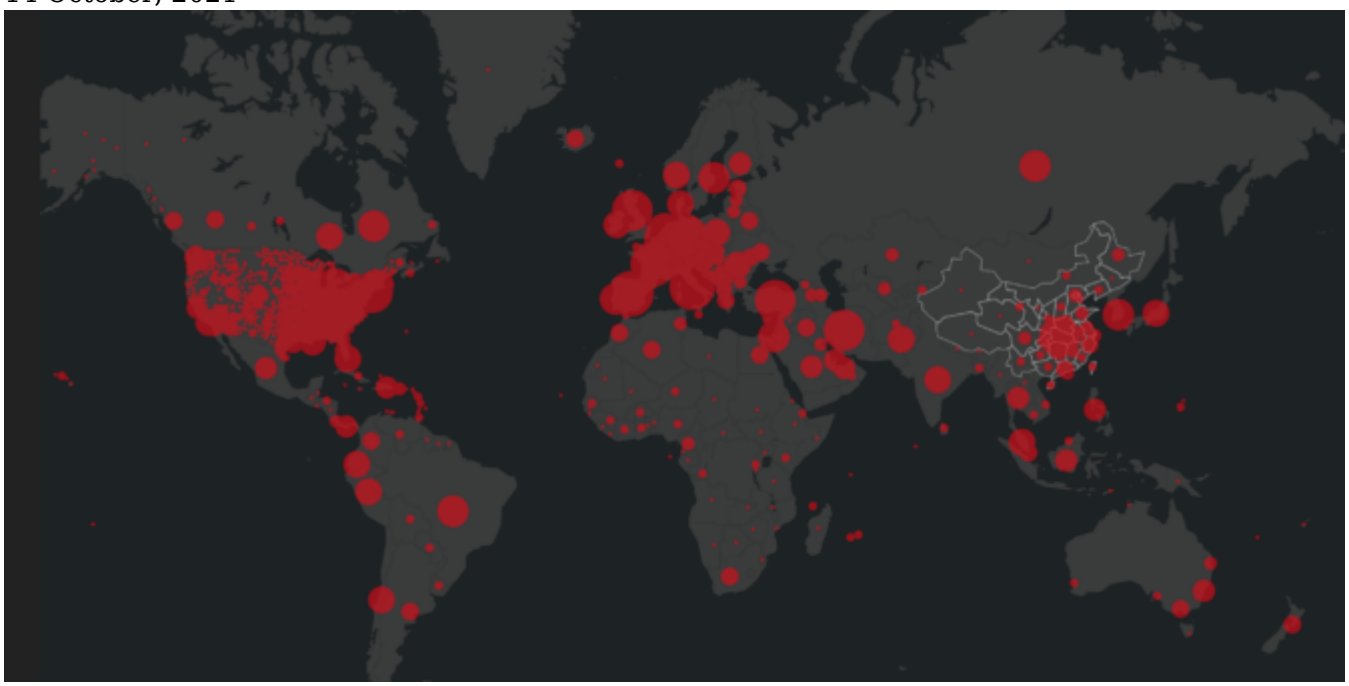
Aircraft are reporting they have been given the **Stadium Visual** when heading in from the North. One to look over if not familiar, particularly if you're not familiar with visual approaches and are expecting a nice straightforward ILS of some sort.

We only have one Airport Spy review for KEWR/Newark and yet it is a challenging airport in a challenging region where we know a lot of folk have flown. **So here is our call for your operational hints and tips!**

If you are familiar with KEWR/Newark then please share those "gotchas" or need to know "heads ups" – and we will share them on to everyone in the group. **You can file an Airport Spy report here:** ops.group/blog/spyreport

How to find the latest Covid flight restrictions

David Mumford
14 October, 2021



With Covid now present on every continent except Antarctica, travel restrictions for countries around the world are changing almost daily. Keeping tabs on everything is hard work, but if you want to know what the restrictions are for specific countries, there are some really good resources out there to make this easier.

1. Check the Notams!

We never thought we'd say it, but we are seeing these slowly starting to improve, with most countries issuing Notams containing specific information about exactly what kind of flights are allowed. Make sure to check the FIR ICAO code of the country (check here if you're unsure what code to use). Search the Notams using the updated FAA Notam Search site; or if you prefer the old-fashioned version, use this site instead.

2. UK Foreign and Commonwealth Office website

Click here. The UK has eyes on the ground pretty much everywhere. Each country has a dedicated page, with a specific section on the coronavirus and the latest restrictions on inbound travel, which gets updated regularly. The focus is on the rules for UK travelers, but it's still very useful.

3. US website

Click here. This US TravelStateGov website lists the Covid-related entry rules and requirements for all countries around the world, as published by the US Embassy in those countries. So pretty handy for US travelers.

4. OPSGROUP Dashboard

For more info on the latest travel and flight restrictions, OPSGROUP members can head over to the Dashboard and use the search function.

If you're still stuck for an answer, ask other members in the group in the **#questions** channel, or shoot us an email and we'll see what we can dig up.

5. Travel within the EU

The EU has created a simple tool for us to check exactly what travel rules are currently in place for each European country – check it out.

Changes at Teterboro: What you might have missed

Chris Shieff
14 October, 2021

The skies over New York have been quieter over the past year or so, and it's not hard to guess why. With lower traffic levels, there have been **a number of operational changes at nearby KTEB/Teterboro**. Here's a rundown of what you might have missed recently…

Noise is a bigger issue than ever

It may seem ironic, but Covid hasn't helped. With less airplanes in the skies, nearby residents have become more aware of Teterboro's noise, and complaints have been on the rise.

If you're headed to KTEB, be aware that there are **extensive noise abatement procedures.** There's a handy summary of these available online, but here are some of the biggest gotchas to get you started.

If your ride is a jet and you're new to KTEB, you'll need permission first. There's a form to fill out for that.

The most noise sensitive time is between 22:00 and 06:00LT, and it's when you're the most likely to get yourself into trouble. There's a 'voluntarily restraint' in place after 23:00 – in other words if your flight isn't essential, it should wait.

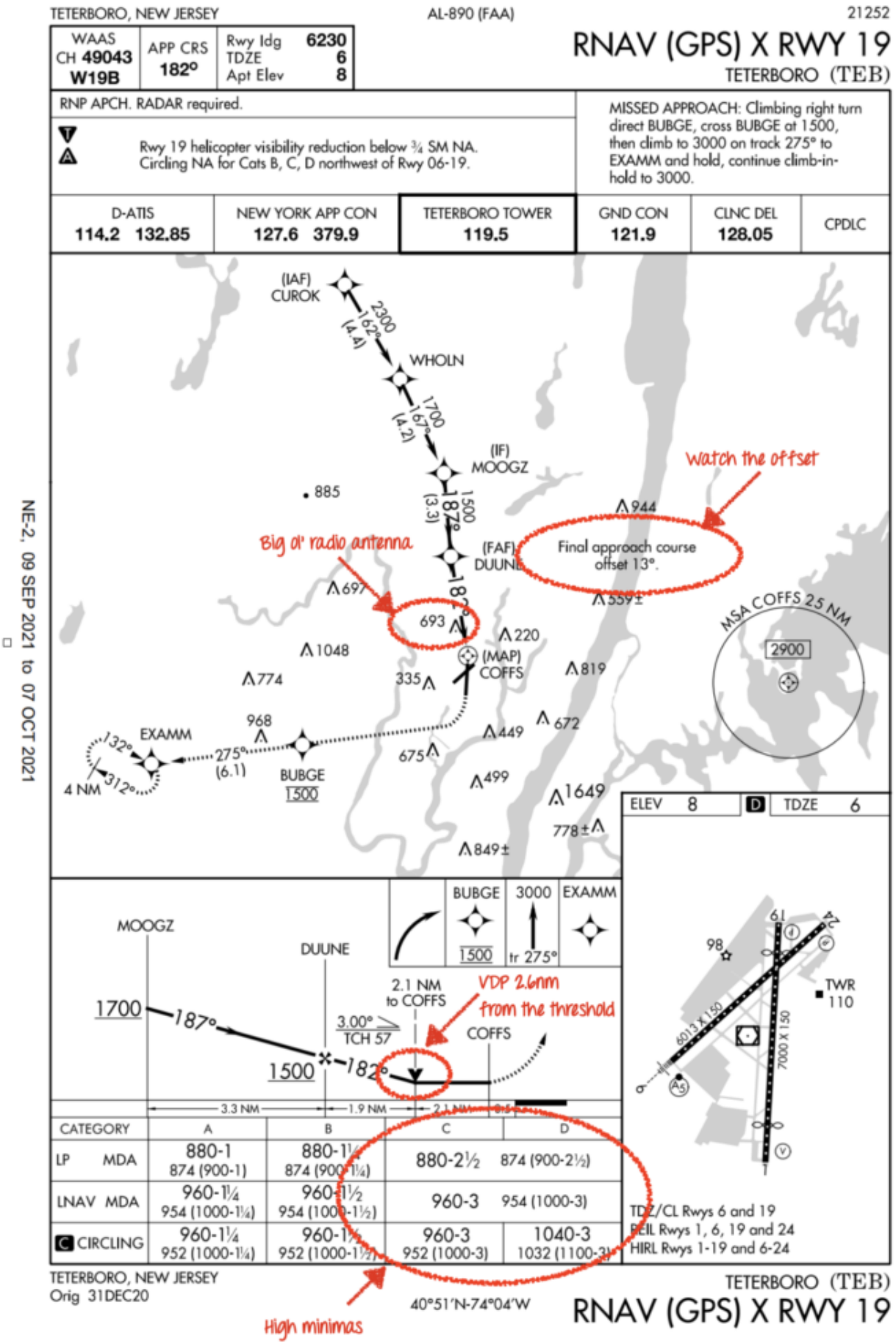
Sprinkled through the surrounding suburbs are noise monitoring devices, and there are strict decibel limits. The most restrictive is Runway 24 at night (only 80dB). Bust em', and you can be served a violation – too many of those and you can say sayonara to operating there. And they take two years to expire.

The least noise sensitive area is to the south of the airport. So if departing on the back of the clock and the weather is playing ball, try to use Runway 19 for departures and Runway 01 for arrivals.

Speaking of noise, the new RNAV X RWY 19

Back in July, an offset RNAV noise sensitive approach was introduced for Runway 19. It's a quieter alternative to the straight-in ILS. It's recommended for night ops at KTEB on request (and you may hear it mentioned on the ATIS). But there's some important stuff you should know *before* you go ahead and shoot it.

If conditions are less than 'tropical', keep in mind the approach is significantly offset (13 degrees) and minimas are high. The visual descent point is almost three miles from the threshold. There's also a big unfriendly radio antenna at the business end of the approach. At the VDP on the correct 3 degree path, you'll be uncomfortably close to it – check out this article for just *how* close.



What's the moral of the story? In marginal conditions, the approach can quickly become challenging –

consider the ILS if in doubt.

Escape Routes

Tired of waiting at the hold? We don't blame you!

There are new departure routes to help business jet operators get airborne out of KTEB when the weather is bad, or New York's majors airports are especially busy. New York TRACON is responsible for co-ordinating those with the tower.

A head's up though – they are designed with the performance of business jets in mind and may require steeper climb profiles than you're used to.

You need to fly them from start to finish too. Don't accept the clearance unless you are sure you can meet the requirements, and asking for track shortening after wheels up is a no-no.

Works

Construction and runway maintenance are ongoing. Single runway closures are common and can happen during the day. The good news is that full closures are pretty rare.

Something to look out for – if Runway 06/24 is closed in southerly conditions, extended delays are common at KTEB due to the flow at nearby KEWR/Newark, just 10nm to the South. You might need to carry some extra gas.

The Teterboro Users Group publish weekly Maintenance Bulletins for Runway and Taxiway closures which you can access here. Of course, if you prefer your info capitalised and abbreviated, you'll find the information in Notams too.

Covid

We're all well over it. But there are some procedures to follow, especially if operating an international flight into KTEB.

US Customs and Border Protection are up and running at the airport, but will only accept international arrivals between 07:15 and 23:15 local. Don't show up after hours. Standard CDC rules apply here including the pre-travel testing requirement for all pax.

For a full break down of these and other health protocols, you can view a full rundown here.

Have we missed something?

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

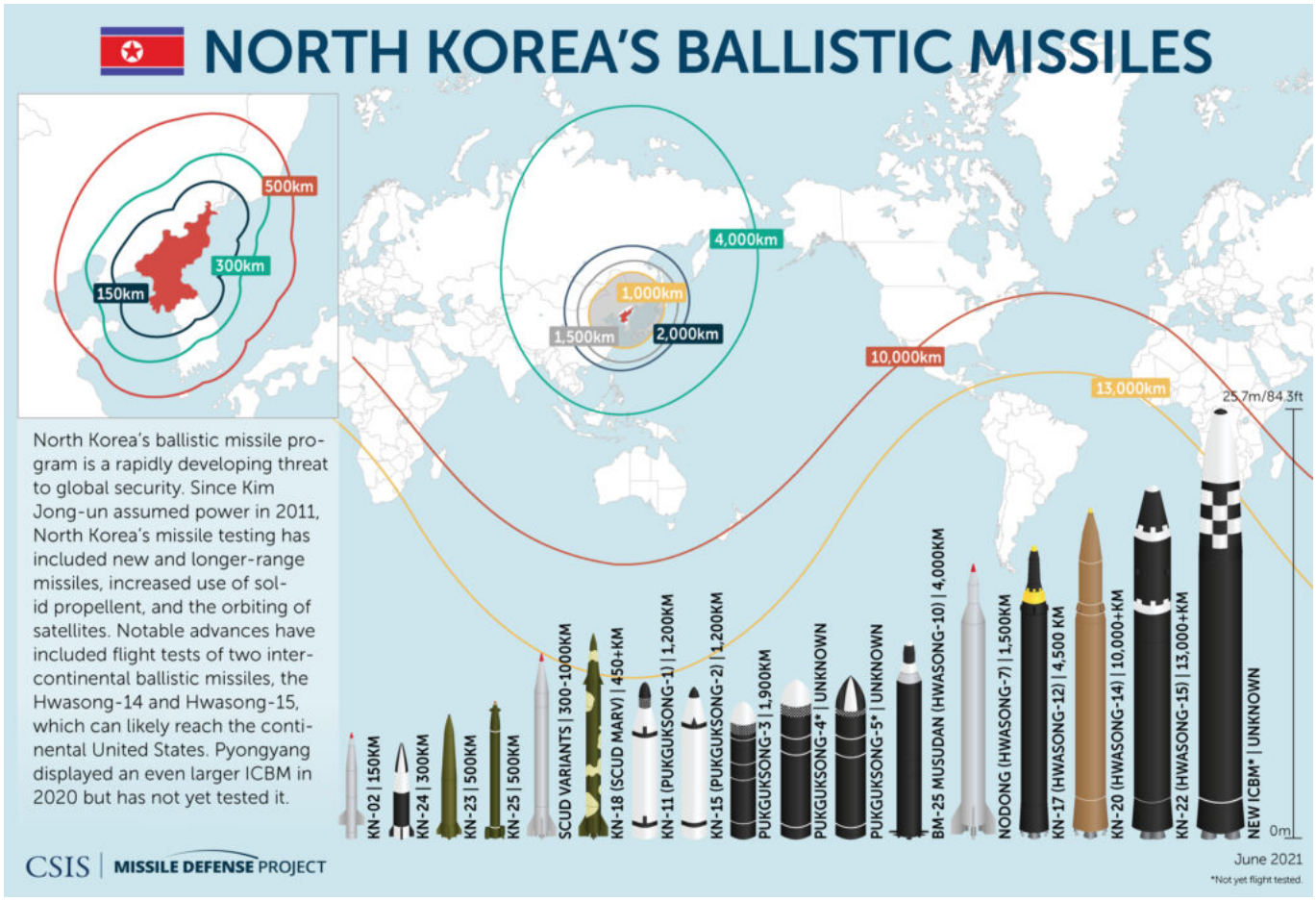
Also check out our recent Airport Lowdown for **KTEB/Teterboro** – it's the biggest threats all in one place, built by pilots who have been there.

North Korea missile risk in the Sea of Japan

David Mumford
14 October, 2021

North Korea fired two **short-range ballistic missiles** across its east coast and into the Sea of Japan on Sep 15. It was North Korea's second weapons test in recent days, after the launch of a **new long-range cruise missile** at the weekend, which state media claim has a range capable of hitting much of Japan.

North Korea has in the past tested **intercontinental ballistic missiles (ICBMs)** said to be capable of reaching nearly all of the US mainland and western Europe.



UN sanctions forbid North Korea from testing **ballistic missiles** (the ones that go up into space and then back down again, spraying debris all over international airways), but not **cruise missiles** (the ones that fly at low altitudes).

As usual, **North Korea did not provide any warning** prior to these recent tests – which is the key issue with regards to the airspace safety risk.

A quick history of developments in the last few years:

- Until around **2014**, North Korea notified ICAO of all missile launches, so that aircraft could avoid the launch and splashdown areas.
- In **2015**, they gradually stopped doing this, reaching a point where there could be no confidence in an alert being issued to airlines by North Korea.
- In **2016**, airlines and aircraft operators started avoiding the Pyongyang FIR entirely, by the end of 2016 almost nobody was entering the airspace.
- In **2017**, more and more of these missiles came down in the Sea of Japan, increasingly closer to the Japanese landmass. OPSGROUP researched the locations and produced a map of the risk area, together with the article: "Here's why North Korean missiles are now a real threat to Civil Aviation". In September 2017, the US announced a ban on flights across all North Korean airspace, including the oceanic part of the ZKKP/Pyongyang FIR over the Sea of Japan. That ban is still in effect today. Several other countries have airspace warnings in place which advise caution due to the risk posed by unannounced rocket launches.
- In **2018**, following talks with the US, North Korea agreed with ICAO that it would provide adequate warning of all "activity hazardous to aviation" within its airspace.
- In May **2019**, North Korea resumed its practice of launching missiles into the Sea of Japan

without providing any warning by Notam.

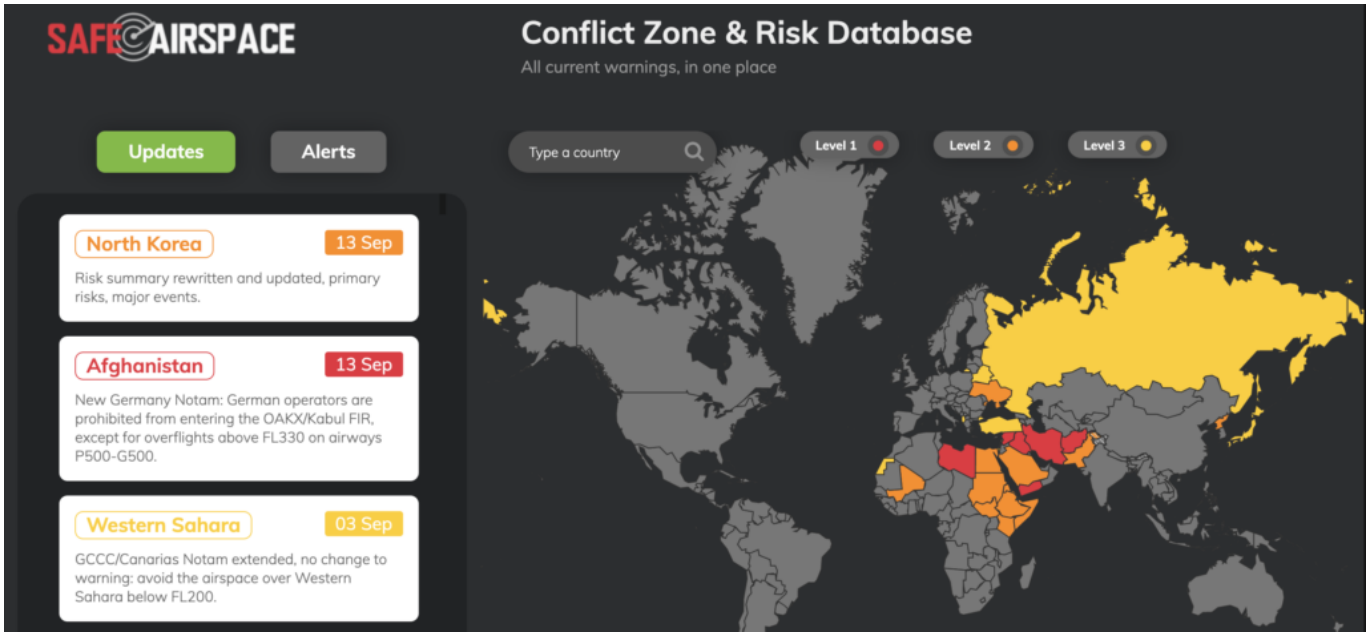
Determining risk

The critical question for any aircraft operator is **whether there is a clear risk from these missiles in the airspace through which we operate**.

The chances of a missile, or part of it, striking the aircraft are not as low as they may initially appear – particularly given that all the **missile re-entries in recent years are occurring in quite a focused area** over the Sea of Japan. The risk to overflying traffic is arguably greater from ballistic missiles than cruise missiles, because these can break up on re-entry to the atmosphere (as happened with the 2017 tests) meaning that a **debris field of missile fragments** passes through the airspace, not just one complete missile.

Advice to operators

- **Consider rerouting to remain over the Japanese landmass** or east of it. It is unlikely that North Korea would risk or target a landing of any test launch onto actual Japanese land.
- **Check routings carefully for arrivals/departures to Europe from Japan**, especially if planning airways which connect with the UHHH/Khabarovsk FIR at waypoints IGROD and AVGOK.
- **Read OPSGROUP's** Note To Members #30: Japan Missile Risk published in Aug 2017.
- **Monitor** safeairspace.net for latest updates to airspace warnings issued for North Korea.



Afghanistan Update – September 2021

OPSGROUP Team
14 October, 2021

The situation in Kabul remains dynamic. An update was issued today regarding ongoing changes within the OAKX/Kabul FIR and at OAKB/Kabul airport.

The full notice **issued by ICAO** following their most recent video-teleconference is available here.

The ongoing situation

Qatar and Turkey continue to work with the new Afghanistan government to help bring **Kabul airport back to operational status**, and to restore safe overflights. This includes the repair of damaged radar and other facilities, as well assisting in restructuring the CAA.

Qatar officials are coordinating with the Afghanistan CAA are conducting assessments on capacity and needs. They have apparently **deployed a technical team** to Kabul to carry out work. The DME has been re-established but notams suggest the VOR remains out of operation.

Turkey maintains a military presence at Kabul airport to assist and is apparently in discussions to help run the airport again – having done so for 6 years previously.

ICAO remain in contact with the Afghanistan Civil Aviation Authority who have provided updates confirming newly appointed members, and a designated point of contact.

Operational updates

- **OAKB/Kabul airport** and **OAMS/Mazar-e-Sharif airport** are both reported to now have **limited ATS services.** There is a limited tower service to support VFR operations at Kabul between 0330-1330 UTC. Mazar-e-Sharif has an FIS available, but the scope of this is unknown.
    - A shortage of ATC staff continues to reduce capability.
- **Pakistan** is assisting Afghanistan in the **restoration of the Afghanistan NOTAM service**. The service has been **partially restored as of Sep 6**, and is available via **https://www.afgais.com/**
    - Out of date Notams remain in the system so caution is advised using the site.

- The Kabul FIR remains effectively **closed to overflights** – the OAKX/Kabul FIR is uncontrolled.

Updated OAKX Notams

The following Notams are the up-to-date Notams issued by the restored office.

- **A0721/21** address **contingency procedures** and advises that aircraft requiring emergency descent should follow ICAO Doc 4444 procedures, but rather than advising ATS, should **broadcast on the relevant TIBA frequency.**
- **A0720/21** advises flights will encounter **delaying action prior to entering the Kabul FIR** to ensure **15 minute separation.** This is as per Notam A0715/21 which requires all traffic below FL280 to be spaced at 15 minutes prior to the FIR entry point.
- **A0719/21** advises that the AIS services including Notam office is now operational 24/7.
- **A0718/21** advises that all **flight plans must be filed at least 24 hours prior** to the flight. The contact email is permissions.acaa@gmail.com.
- **A0717/21** advises **PSR and SSR are now available** at OAKB/Kabul, with an advisory information service only.
- **A0716/21** advises that OAKB/Kabul is open for domestic and international flights. **Operating hours are 0330-1330 UTC.**

Our previous post covering the background to the situation can be read here.

The ICAO presentation from the recent video teleconference is available to view here.

IFALPA have updated their Safety Bulletin

Following the notice issued by ICAO, IFALPA updated their safety bulletin for the OAKX/Kabul FIR.

Here are the key changes:

- Unknown aircraft have been observed on random tracks between FL220 and FL250.
- There is limited ATS at OAKB/Kabul – radar services are advisory only.
- The ILS is working, but should be monitored closely.
- People and vehicles have been seen entering the runway.
- The status of other airports isn’t known.

Germany have changed their warning

EDWW has issued a new Notam B1244/21 valid from Sep 13. **German operators are prohibited from entering the OAKX/Kabul FIR, except for overflights above FL330 on airways P500-G500.** The only change is the exception of those airways which connect Pomir in Tajikistan to Peshawar for alternate routing from Europe to Pakistan and Asia.

The US has published some new background info

On Sep 14, the US FAA published a new **Background Information** note for Afghanistan, following their flight ban issued in August as per KICZ A0029/21.

The primary risk on the ground and at lower altitudes relates to the ongoing threat of weapons activity and terrorist attacks – and following the withdrawal of US and coalition forces there are no longer any risk mitigation capabilities available at OAKB/Kabul airport. Although it is unlikely that Taliban would target civil aviation now that they have assumed control of the country, ISIS and other militant group are still operating in Afghanistan outside of Taliban control.

The primary risk for overflights relates to the lack of ATC service, functioning CAA and air navigation service provider.

Bottom line, US operators are banned from the OAKX/Kabul FIR except for airway P500/G500.

To view all current published airspace warnings for Afghanistan, head to SafeAirspace.net.

What's SATVOICE I can hear?

OPSGROUP Team
14 October, 2021

SATVOICE. Easy peasy. Well, until until you're routing from San Francisco to Tokyo for the first time in your shiny new G550 and its 2am, you're passing W177°, you think you filed M3 but aren't sure if you're actually M2, and there is a full moon and now you're not so sure anymore…

Here is a look at **some common questions about SATVOICE** which we have seen come up.

Feel free to send us more. We aren't experts but know one folk who are.

What is SATVOICE?

Satellite voice communications. Sometimes it is lumped in with SATCOM but this can include messaging systems as well (your Datalink type things). The 'VOICE' bit is the giveaway – we are specifically talking about *talking.*

What is it used for?

Communicating.

More specifically, **communicating over big areas** where there are not many ground stations (which you need for VHF comms). SATVOICE systems *can be (and note the asterix there) used as a **Long Range Communications System (LRCS).**

So, SATVOICE is talking, via satellites, and it can be used to do things like **give voice position reports**. It is also sometime used as a backup when HF is not functioning. **What it is not (currently) is a replacement for HF.** Just as CPDLC isn't allowed as a replacement because it is not suitable for emergency of non-routine comms.

Where can I use it?

Anywhere where there is satellite coverage. And anywhere where ATC are using it as a means of LRCS. They may not be capable.

For example, the FAA provide Inmarsat and Iridium SATVOICE services for air-to-ground (and vice versa) calls directly with Oakland, NY and Anchorage ARTCCs, and New York and San Fran radio. These are, again, supplemental to HF which means **they don't expect you to use it unless there is some issue with HF**. Times of bad HF propagation like HF blackouts would be a good time to give SATVOICE a go.

Right now, **SATVOICE is not the primary means of communication** in many spots. VHF and HF remain the main ones, with Datalink comms (CPDLC). So it is unlikely you will be using it all that much, unless something else is not working. When you are in CPDLC/ADS-C airspace, the controller is normally going to communicate via Datalink. They might elect to use SATVOICE, but **it is not a replacement for ADS-C/CPDLC or HF/VHF.**

So you also need to check out the airspace you're flying into. The AICs will generally contain info on whether an airspace/ ATS has SATVOICE capability.

ICAO says – *"Some ANSPs may allow the flight crew to use SATVOICE only for certain types of communications (e.g. of an urgent nature) or may place limitations on use of SATVOICE directly to the controller. Other ANSPs may allow its use only as an additional capability to existing radio equipment carriage requirements." (Section 3.4, SVGM).*

So, where CAN'T I use it?

Inmarsat satellites are geostationary and orbit around the equator which means **above a latitude of 82° North (and South)** you are in a satellite-less areas because of the (often debated, definitely real) curvature of the earth means a lack of line of sight which is required for your communications to be able to bounce back and forth from the satellites.

Some manuals suggest you **might start to run into a bit of trouble from 70°N**, and that trouble is **most pronounced on the W120 longitude.** It is also dependant on atmospheric conditions, where your antenna is and what services are contracted though.

Iridium satellites do not suffer the same SATCOM shadow because they operate in a low earth (as opposed to geostationary) orbit.

So, in the **NAT HLA** where HF is mandatory, and where Datalink is also mandatory (except for the bits where it isn't), **you are going to need HF and Datalink**. Not one or the other. If an airspace requires two LRCS then one can be SATVOICE, but the other must be HF.

If the airspace requires 1 LRCS then that means HF.

So, you cannot use your SATVOICE system as a "get out of cancelling a flight" free card if your HF is broken and you are routing through somewhere which requires LRC systems onboard.

Which brings us to the asterix…

The Asterix

***SATVOICE can be approved as a Long Range Communications System (LRCS)** but whether it qualifies is something you will need to check, and that is most easily found in your MEL. It comes down to the **Required Communications Performance (RCP)** of your system.

In other words, just because you have a SATVOICE system onboard and are in a spot where ATS utilises SATVOICE, does not mean you are automatically allowed to do so. Not even if you put it on your flight plan.

RCP240 is the number to know – to be PBCS (performance based communication and surveillance) eligible your aircraft system must achieve **RCP240 (and RSP180) standards.** RCP240 is the max number of seconds (the transaction time) taken for a controller to issue an instruction and receive a response.

Your RSP180 is the surveillance standard, the RCP240 is the comms standard. We wrote all about PBCS here if you need a recap.

What do I need to do to use it then?

Go back up to our bit about having an approved system and it being in your MEL…

And read this bit as well.

So, **you need it in your MEL/MMEL**, and what that means is having a system which meets the requirements laid out by your authority.

The FAA put out this info on getting approved. AC 20-150B – 'Airworthiness Approval of Satellite Voice (SATVOICE) Equipment Supporting Air Traffic Service (ATS) Communication.

It is an AIC about getting airworthiness approval for SATVOICE, and contains all the design considerations, software requirements, minimum performance requirements, CVR, and a lot of other things you probably need to know about.

ICAO recommend that Operators need to establish policy and procedures for crew involved in SATVOICE ops. This includes descriptions of the system operating procedures, limitations, flight planning requirements, what to do if it does't work… Check out **section 3.3.3 of the ICAO SVGM manual** for more on this.

In summary – your system needs to be approved. To be approved it needs to meet certain standards and criteria. You also need to have procedures and policy in place for the operation of the system.

Where is all the official info on this?

In **ICAO Doc 9869**, also known as the **PBCS manual**, also known as the **GOLD manual** (because its full title is Global Operational Data Link). You can find the 2017 edition of this in our Doc Library if you want to take a look.

Here is the ICAO SVGM (Satellite Voice Guidance Manual) which we mentioned.

Then there is **ICAO Doc 7030** which contains regional supplementary procedures and will contain some info on Datalink, for example, over the North Atlantic.

I have the system and the approval, but need to find a number?

Well, this is where it can get a little tricky. There are different systems. **Inmarsat** and **Iridium.**

There is also **MTSAT**, the Japanese geostationary satellite network.

If you have Inmarsat satellite compatible system then you can use those **SATCOM short codes (the six digit ones starting with a 4).** You can also dial the 10-digit PSTN phone number. The 6 digit numbers are converted to the PTSN number as they wiggle through the Inmarsat system.

PTSN, incase you're going to ask, is the **Public Switched Telephone Network** which is what the aeronautical SATVOICE system uses. So these are what you want to call via your Iridium system.

Numbers are generally to be found in places like the AICs, in your Jeppesen, LIDO, or whatever other chart and manual provider you are signed up to.

One tip, when you do dial up – don't be yakking away like you're on a normal telephone. The operator the other end is going to expect standard radio etiquette. Callsigns, readbacks and all that.

What do I put in my flight plan?

You need to include your SATVOICE capability and you do this in **Item 10** by inserting either:

- **M1** for Inmarsat RTF capability;
- **M2** for MTSAT RTF capability;
- And/or an **M3** for Iridium RTF capability.

In **Item 18** you insert the aircraft registration and also the **indicator code** and the **aircraft address** expressed in the form of an alphanumerical code of 6 characters.

If you are operating through airspace requiring HF and yours is broken, then you may be able to file with only your SATVOICE system as the LRCS if it is a flight to return the aircraft for HF maintenance.

Again, just having a system and whacking the info about it onto a flight plan does not qualify you to use it. **It needs to be approved.**

What if I get a random SATVOICE call?

You should only act on the clearances or instructions given to you if a SATVOICE call has a priority level 2/High/Q12 or 1/EMG/Q15. You might have to disconnect and initiate a new call to get confirmation that it is something to act on, and not just some rogue person who has discovered a way to call you on it.

I am not signed up to any provider. Can I still just sort of call?

If you can answer this then please send us your info

Coming soon: a new global format for runway surface conditions

OPSGROUP Team
14 October, 2021

ICAO's new Global Reporting Format methodology comes in on November 4, 2021, but a few authorities have decided to implement it sooner than that.

So here is a quick rundown on what GRF is, and what the requirements are for implementing it.

Runway Excursions

We have talked about these before. So have ICAO. They are a big deal, but they shouldn't be. Or rather, **they shouldn't still be happening.**

Despite numerous incidents, accidents, reports, mitigation plans, you name it, runway excursions are still one of the most common (and often most dangerous) aviation events that are occurring.

A runway excursion is any lateral of longitudinal overrun (not due to any system or component failure of malfunction, or because of an abnormal runway contact).

The primary causes for runways excursions are pretty much an unstable approach was flown, or proper performance calculations weren't done. **Or a combination of both.**

A study of commercial aircraft accidents between 1999 and 2019 showed that **16% of all fatal accidents and 36% of all hull loss accidents** were due to runway excursions.

So, if we can stop them from happening, a lot of aircraft and people will be saved.

What is GRF?

GRF stands for **'Global Reporting Format'** and it is a new methodology which ICAO are implementing which aims to standardise how **runway surface conditions assessments and reporting** is done.

The issue in the past is that some places still give braking coefficients (not really handy because it means different things for different aircraft). Some places were not really assessing surface contamination properly, and some pilots were not really understanding the implications of what they were being told.

RCAM

So GRF will use **RCAM – a runway condition assessment matrix** – and this will give pilots a runway condition code.

1-6. Nice and easy.

The code is determined by an assessment of what it is contaminating the runway. Snow, ice, water, spilt tomato soup… and then a downgrade assessment criteria is applied. This looks at how the contaminant will impact the deceleration and the directional control of aeroplanes.

It is simplified. No more coefficients and frictions. Just simple "yep, that's slippery and slide-y" assessments. Pilots will also give braking action reports, rating the action they experience from "Good" down to "Less than Poor".

This matrix ties in with the new Snowtam reporting format which you can read about here.

Who does it impact?

It impacts a lot of people because it is not just a case of "here is a new format, go".

Airport authorities will be required to train their staff to ensure they are aware of how to carry out the assessments and to ensure reporting is standardised.

Operators will need to ensure their staff (flight planners and pilots) are aware of the new format, and more importantly – that they are aware of why and how to use it!

Pilots will also need to familiarise themselves with it, and ensure they have a decent grip on what the assessments mean, how to apply them to their performance calculations, and also **how they too can assist in the reporting.**

What's the official source?

ICAO Annex 14. Or rather **amendment 13-B to Annex 14.**

Here is the amendment letter.

Here is the main ICAO page for all things GRF.

The U.K. CAA GRF page has a nice summary of all the official references too.

November 4, 2021

This is the date to know because this is the implementation date. However, familiarising yourself with all the info on it before then might be a good idea because **several authorities have already implemented this.**

NAV CANADA and EASA have both brought it in on **August 12, 2021**

EASA have a bunch of handy info on it from how it was developed to Q&As.

And here is NAV CANADA's page on it.

The FAA have their own project – TALPA – which has pretty much already implemented exactly this so you might not notice much of a change.

Bottom line

- **Pilots** should familiarise themselves with the new format and understand what it means and how to use it.
- **Operators** should ensure all their staff are trained on it (and throw in some additional unstable approach, excursion mitigation and performance calculation training and awareness too if you fancy).
- **Airports and authorities** should be ensuring they are implementing the new format, and training their staff on its use and importance.

Hopefully this helps **reduce the number of runway excursions** due contamination and performance issues. Of course, for this to work we need to make sure we are also flying a stabilised approach, and flying one to the runway we did the performance calculation for…

Surviving Seletar: Singapore's Second Airport

Chris Shieff
14 October, 2021

Update Oct 2025

OPSGROUP members can access an updated version of this guide, effective Oct 2025, on the members Dashboard here.

Original Article from Sep 2021

If you're planning to operate a business jet into Singapore, there's a good chance you won't be bound for WSSS/Changi Airport at all. Instead you may be headed for the lesser known WSSL/Seletar – Singapore's secondary commercial airport, and it can be *a lot* more challenging.

Here's a basic rundown of just what to expect to keep you ahead of the game next time you are flying into Seletar.

The Basics

Seletar is a stone's throw (8nm) northeast of WSSS/Changi. It has a single 6020ft/1840m long runway and serves predominantly turbo prop and corporate jet traffic. It has fuel and good facilities for business ops.

Just getting in there at all can be a pain – the airport is surrounded with prohibited and restricted airspace, noise abatement areas, training areas, military airports; as well as a bunch of buildings, cranes, boats, and other obstacles to the north of the airport on the Malaysian side – just across the Strait of Johor.

And since Malaysia effectively killed the plans for ILS at Seletar back at the start of 2019, there are **no available instrument approaches at all**, requiring **visual approaches** to be flown onto both runways.

The Airspace Picture

Operations at Seletar are difficult because of the complicated airspace that surrounds it, and it is the reason why there are no instrument approaches. *There just isn't enough room.*

Seletar is literally boxed in by a variety of restricted airspace. To the west lies the Sembawang airbase, and to the east the Payar Lebar airbase. Both are strictly military.

Then just a smidge to the north is the boundary with Malaysian airspace, the WMFC/Kuala Lumpur FIR. South of the airport is highly noise sensitive, with three noise abatement areas where hefty fines await.

Throw these things together and you have the Seletar 'Fish Bowl' – a small bubble of airspace where there is precious little room to manoeuvre. Here's a picture of what this all looks like.

Arrival Procedures

To keep things simple, the end game is to join the circuit and fly a visual approach, **without busting any airspace.** To help you with this there are a number of visual arrivals that require you to be in VMC

conditions. If you can't get visual, you'll need to hold or divert to nearby Changi.

There are essentially two arrival procedures – **North** and **South**. And all arriving aircraft will join them through one of three feeder points – Jaybee NDB (JB), Sinjon VOR (SJ) or Kong Kong NDB (KK). From there you will either join downwind, straight in or even overhead if you need the extra track miles.

You can view the current plates for those procedures in the Singapore AIP online. But to make it easy, here's a couple of pictures.

Things to look out for

Day and night closures: The airport is closed every night between 22-07 local time except for medevac and SAR. And then during the daytime, there are several infuriating closures to accommodate training flights. So essentially, GA/BA flights can only operate to Seletar at these times : 0700-0930, 1030-1200, 1300-1500, 1600-1700, 1800-2200 local time.

The circuit is tight. It is always on the western side of the airport and you cannot fly your circuit wider than 1.5nm due to Sembawang's airspace. Which means the turn onto final is also going to be tight.

The profile is steeper than normal. 3.2 degrees on Runway 03, and 3.5 degrees on Runway 21. Which means you will need higher rates of descent than a standard visual circuit 'outta the book'.

You need to be visual. If you're not VMC, you can't land at Seletar. Thunderstorms are common in Singapore with heavy rain, and they tend to be slow moving. The worst times are afternoons and evenings.

'Steel Structures and Silos' – You'll hear it on the ATIS, and you need to report you have them in sight if arriving on Runway 21. They're on the Malaysian coastline north of Seletar. Spot them early and you'll get an earlier approach clearance from ATC which will make your job easier.

Mistaken Identity: Both nearby Sembawang and Paya Lebar airports have similar runway orientations to Seletar and it is easy to line up with the wrong one. Tune up Seletar's NDB (220) – the needle doesn't lie!

Missed Approaches. Expect to re-enter the circuit for both runways – which means a prompt turn downwind and not above 1500ft.

Ops on the Ground

You'll be pleased to know, pretty straight forward. Parking can become limited, and so it always pays to book a spot with your handling agent well in advance.

Departures

Both runways have noise abatement. Just the standard stuff here – NADP 1 or 2. Your call.

There are published visual departure procedures for both runways. Essentially they involve a climb straight ahead to 1000ft, followed by a turn onto a radar heading.

For departures downwind, the challenge is to stay within the 'Fish Bowl.' Which means keeping your turn tight, and your speed down. Ironically the noise abatement procedures help here.

Your Layover

Assuming Covid isn't still ruining the party, Singapore is famous for food. Three words: Chilli Mud Crab. Jumbo Seafood Restaurant in Clarke Quay is the place to go. And if you're beer inclined, Tiger is the perfect accompanying drop. For the time being, you may need to rely on Uber Eats. Don't worry though, Jumbo also delivers.

Handling

There's a few good options to choose from. Here are some contacts:

- Wings Over Asia: Ph +65 9455 5615 Email: fltops@wingsoverasia.com
- Jet Aviation: Ph +65 6335 7420 Email: sinfbo@jetaviation.com
- Universal Aviation: +65 6484 4848 Email: singapore@universalaviation.aero

Other options?

Technically, bizav operators are still allowed to go to **WSSS/Changi**, but will normally only be allowed quick turnarounds subject to runway/bay availability, and then you'll have to go elsewhere for parking.

Another option is **WMKJ/Johor Bahru**, on the Malaysian side, around 25nm north of Singapore. It's open from 06-00 local time, with extensions possible with prior notice. It has a separate FBO with its own VIP lounge and hangars with maintenance support, and has no slots or parking restrictions for bizav ops. Check out the brochure!

The only downside in WMKJ is that it can sometimes take a bit of time for immigration when you cross the road border heading south into Singapore – sometimes 2-3 hours during busy travel periods.

Opsgroup members can **read reports on all these airports** in Airport Spy.

Permits and stuff

If you're operating as a **private flight** to either Changi or Seletar, things don't get too complicated, as permits are not required for private flights. Just make sure you have parking arranged, and file your inbound ATC flight plan 12 hours in advance, being sure to copy in the Singapore ATC AFTN address

WSJCZQZX.

If you're doing a **charter flight** on the other hand, you're going to need a landing permit, which means you're going to have to jump through a few hoops.

For this, you'll need to get an **Operations Permit** from Singapore CAA, which is basically a blanket approval to conduct revenue flights to Singapore, valid for up to one year. You'll then need to get an **Air Transport Permit**, which is required for every individual charter schedule into Singapore (Changi or Seletar). Save yourself some hassle and get a local handler to help arrange these for you.

Airport Lowdowns

Have you heard of them? We make a bunch, especially if you ask for one! They're what you need to know from crew *who have been there.* And they're on one small, simple piece of paper. You can read more about them here.

We've got you covered. Check out Seletar's here.

Coup in Guinea: Conakry Airport Reopens

Chris Shieff
14 October, 2021

A military coup took place in Guinea's capital, Conakry, on Sep 5. Following hours of heavy gunfire near the presidential palace, the head of the country's special forces announced that his soldiers had detained the president and seized power.

Initially, the coup leaders announced that the country's land and air borders were closed, including the country's international airport – GUCY/Conakry, where all flights were temporarily suspended.

However, on Sep 6, a military spokesman announced that **land and air borders have now reopened.** Local handling agent Astra Aviation have advised that the airport is open and operating normally again,

with all services available, but they advise against overnight stops for the time being.

GUCY/Conakry airport has issued the following Notam:

```
A0095/21 - AD HOURS OF SERVICE ARE NOW 0400-2100 UTC.
DAILY: 0400 - 2100 UTC, 07 SEP 04:00 2021 UNTIL 06 OCT 21:00 2021 ESTIMATED.
CREATED: 07 SEP 14:40
```

A night curfew is now in place and there have been no signs of unrest in Conakry in response to the military takeover.

Where is Guinea?

Guinea is a country on the northwest coast of Africa, bordering Guinea-Bissau to the North, and Sierra Leone to the South.

While it has a long history of civil unrest, and crime remains a risk for visiting foreigners, Guinea is generally considered a safer option when compared to its neighbours. Which is why GUCY/Conakry is often used by civil aviation as a reasonable option for tech stops in West Africa.

What about overflights?

Guinea isn't responsible for managing the overflights in the airspace above it. That job falls to the **GLRB/Roberts FIR** which collectively manages the upper level airspace of **Guinea, Sierra Leone and**

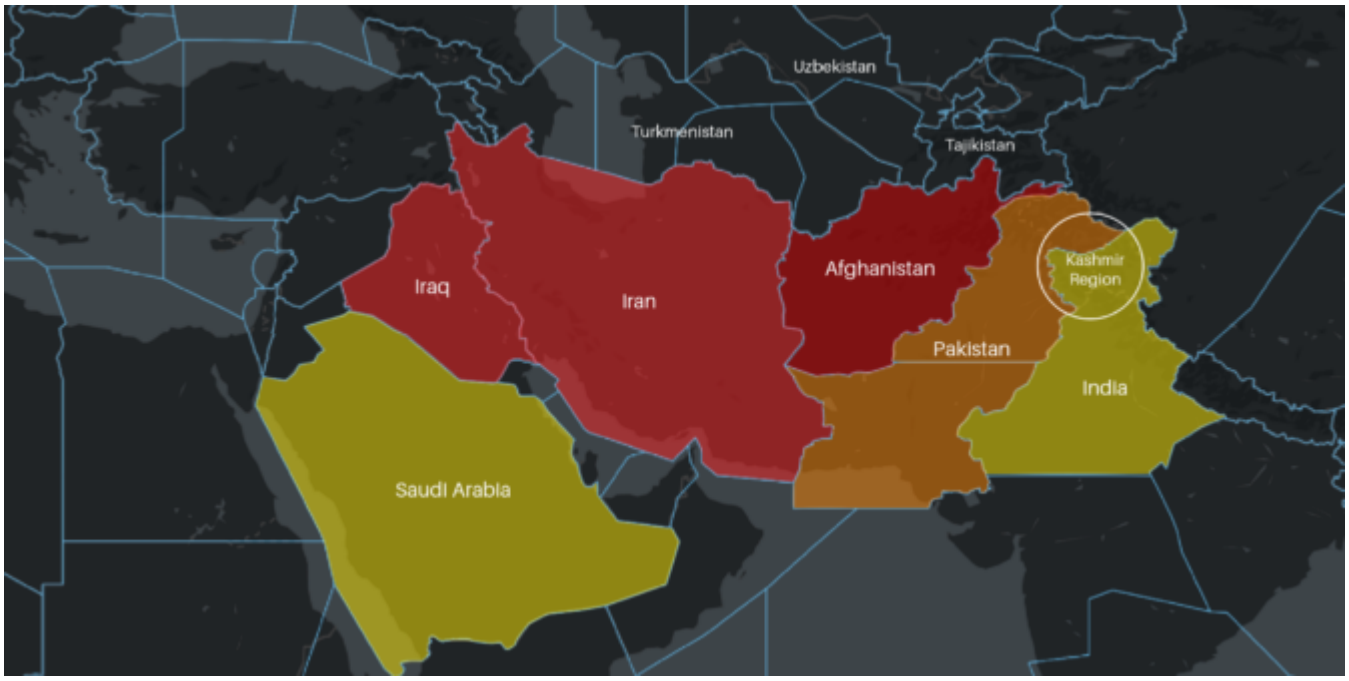
Liberia together. It has yet to issue any warnings or restrictions for its airspace, but data from Flightradar shows that overflights through the airspace have continued today.

Where to from here?

The situation is evolving, and the ongoing impact to operations there is unpredictable at the moment. We will continue to update this article as more details become available.

The India-Pakistan Conflict: Impact on Flight Operations

OPSGROUP Team
14 October, 2021



The current situation in Afghanistan has led to the **effective closure of the OAKX/Kabul FIR to overflights**, which means that some traffic routing between Europe, India and the Far East may now need to **plan routes which cross the northern Pakistan/India border.**

This post will take a look at the additional operational threats and info to be considered here, particularly due to the ongoing dispute over the Kashmir region, and the airspace warnings in place for Pakistan because of this.

The conflict in brief.

This conflict is rooted in **who controls the region**, with both India and Pakistan laying territorial claim to it. In fact, this **conflict has been ongoing since 1947** and shows no signs of resolving in the near future.

Currently India control around 55% of the area, Pakistan approximately 35% and China have a third party hand in the remaining 20%.

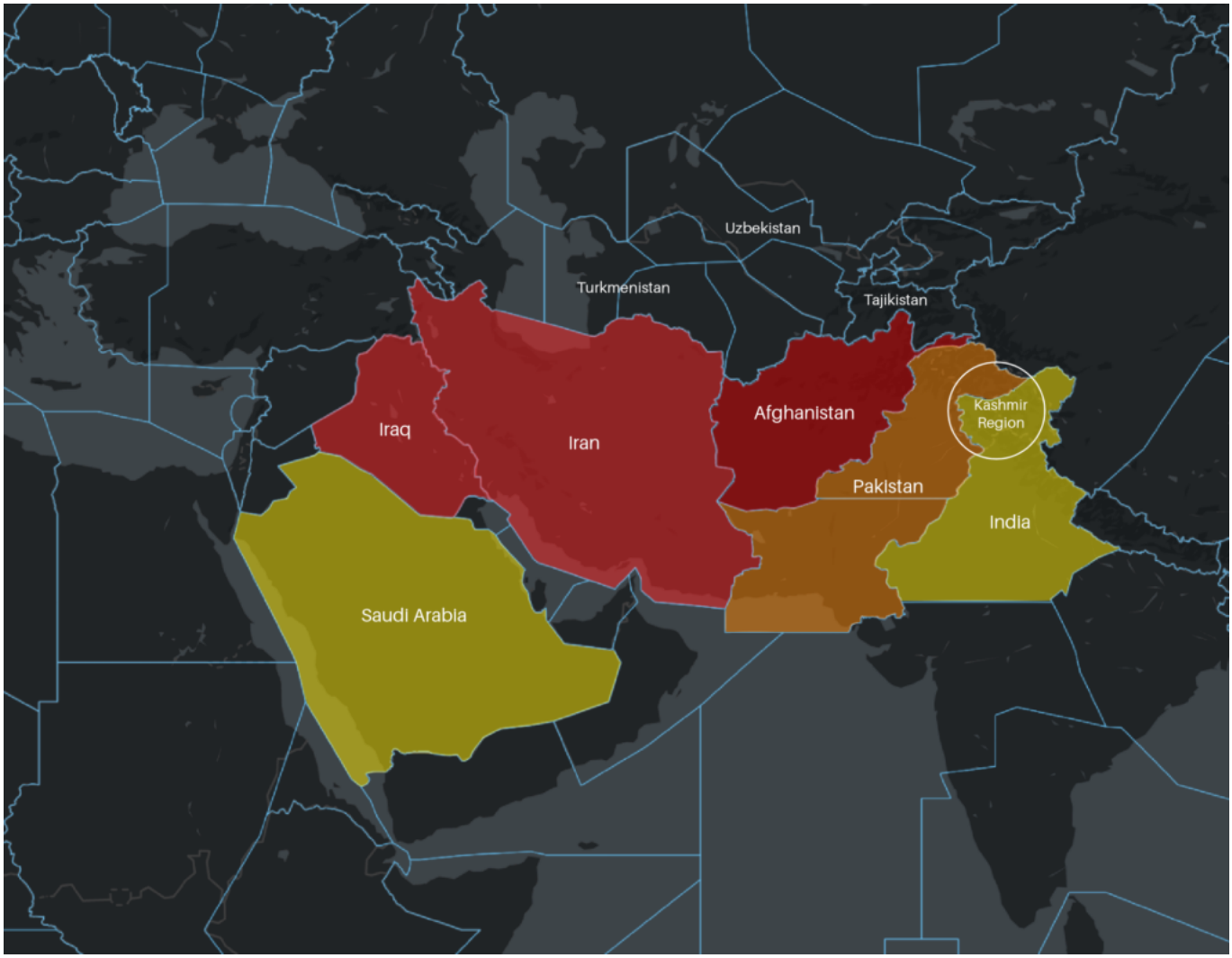
There is also a secondary focus on the region from both sides due to **cross-border terrorism and**

security and safety issues. Pakistan's border with Afghanistan on the other side poses a similar threat.

The route structure of the region.

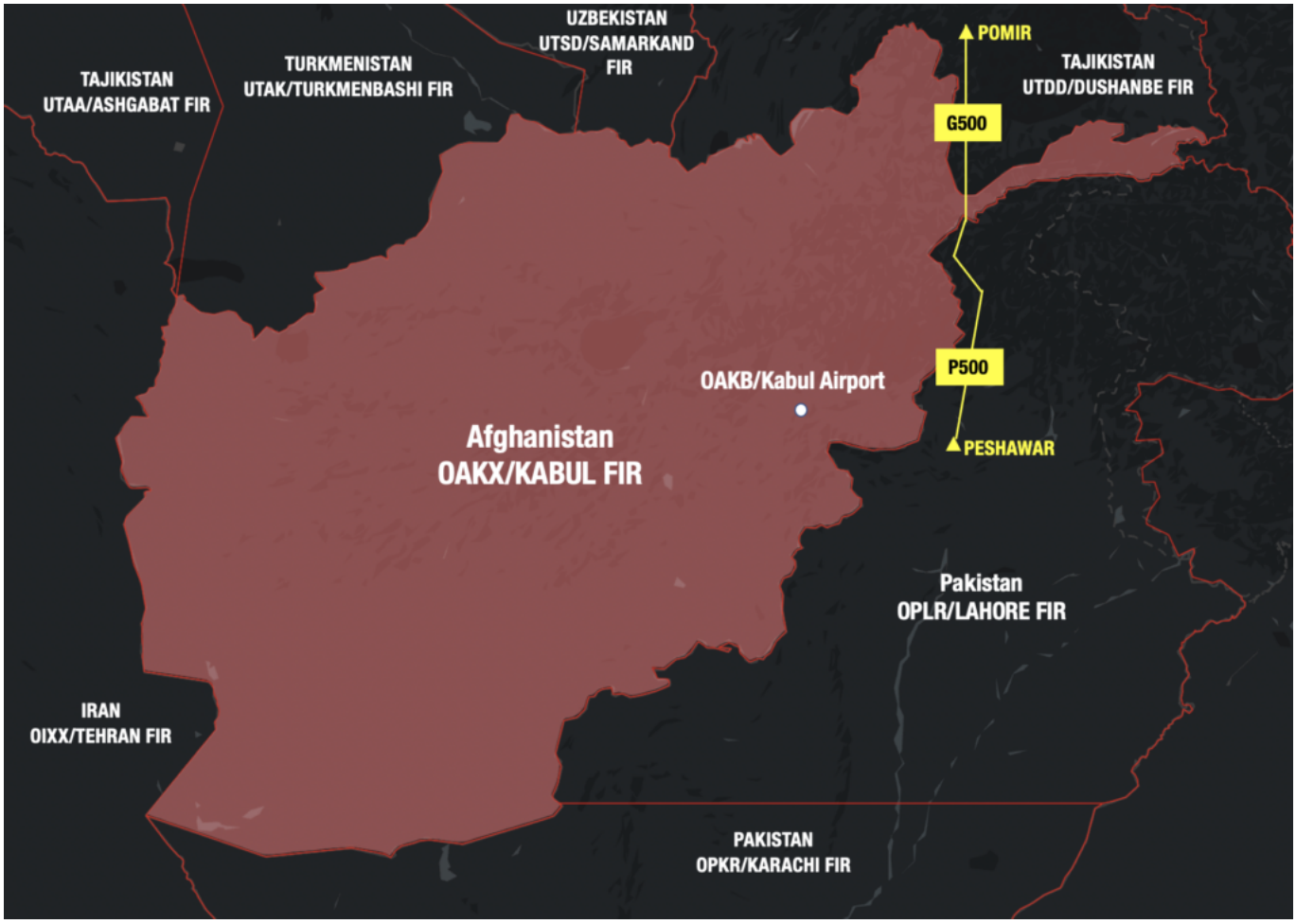
Aircraft routing from Europe and across to India and beyond have historically had **3 general routing options** available to them:

1. Via **Saudi Arabia** and then east direct to India. This avoids Pakistani airspace, or crosses just the most southerly portion of the airspace;
2. Via **Turkey** and down through **Iraq/Iran** and then east via southern Pakistani airspace and into India;
3. Across **Eastern Europe** via Azerbaijan, Turkmenistan and then south east crossing Afghanistan's central airspace, avoiding the northerly Kashmir region.



That third routing option which utilised Afghanistan's airspace, bypassed Saudi Arabia, Iran and Iraq – all of which have airspace safety considerations. Overflights across Iran and Iraq, for instance, are prohibited to US operators.

While Afghanistan also had airspace safety risks associated with it, these were previously generally low level and not "all altitude" concerns. **That has recently changed with the Taliban takeover of Afghanistan.** However, though the US and several other countries have since issued airspace bans and warnings for Afghanistan, **overflights are still generally allowed on airways P500 and G500** which run along the eastern boundary of the Kabul FIR.



Aircraft now needing to re-route to avoid Afghanistan's uncontrolled OAKB/Kabul FIR, and who do not wish, or are unable to utilise Saudi, Iran or Iraq airspace, **may now be limited to this more northerly routing** – via the G500/P500 airway in eastern Afghanistan, the northern portion of Pakistan and into India, potentially through the Kashmir region.

What is the risk in this region?

Several countries have long-standing airspace warnings for Pakistan which **advise against overflights below FL260,** due the risk posed by small-arms fire and indirect weapons fire. There is also a potential anti-aircraft fire risk, and there have been previous attacks against airports.

What is the current situation?

An escalation in activity across the border has been seen of late, with the number of drone attacks and activity across the line of control increasing, including several attacks against Indian Air Bases since 2019.

India possess strong air defense systems and an active air force. Historically, they have employed both fighter jets and conventional SAM systems to mitigate attacks. With the increase in both drone size and capability, and the escalation in number of attacks, there is **a risk they will resort to SAM systems and fighter jets** once again. If this happens, this will lead to a **higher risk at all altitudes for aircraft mis-identification.**

General considerations for operating over or into Pakistan.

Operators to **OPIS/Islamabad** have been reporting an increase in security measures and crew procedures. Crew can expect more stringent security and ID checks. Pakistan are actively guarding against

terror threats at the airport and passengers may experience stricter security and ID controls as well.

Pakistan is an ADIZ and requires crew to check-in prior to entry. **Comms handover between India and Pakistan** can also be difficult so an advance confirmation of next frequencies is advisable when routing across any part of the border.

There traffic levels in Pakistan's airspace have also increased recently, and crew should be aware of **potential separation and traffic conflict concerns.**

Pakistan airspace closures.

Pakistan have previously closed sections of their airspace. In Feb 2019, **conflict between India and Pakistan** resulted in Pakistan closing its airspace to overflights. The conflict was a result of escalating clashes between the two countries in the **disputed Kashmir region**, with numerous airstrikes on both sides. The airspace slowly reopened, and only became fully open again in August 2019.

Diversion options.

Both India and Pakistan **allow tech stops (up to 24 hours)** and are **accommodating of diverting and emergency aircraft**, however, avoiding Indian Military Air Bases (unless a dire emergency) will save you a fair amount of extra security checks, paperwork and grief on the ground.

OPIS/Islamabad is a major Pakistani international airport close to the border, and is used as a southerly Himalayan diversion airport. It offers two well equipped CAT II/III runways of 12,001′.

OPST/Sialkot has a single runway, 11,811′, with an ILS and an RNP approach available.

VISR/Srinagar on the Indian side has s single 12,090′ runway.

VIAR/Amritsar also offers a single CAT II/III equipped 12,001′ runway.

There are also several other smaller airports which serve domestic routes.

Permits and overflights

Both India and Pakistan **require overflight and landing permits.**

For **India**, the lead in time for overflights is 3 days, while for landing it is 7 days. All permit applications are sent to the Ministry of Civil Aviation (MOCA) and then pass through several other government departments for security checks. You need your PPR overflight number available before reaching Indian airspace and they do often ask for it so have it handy.

India have fairly strict slot policies at several of their airports. During peak times they also might change your slot at short notice, or give you lengthy delays (2 hours+).

We recommend the use of an agent to assist with the permit process:

Freedom Air +91 11 2981 3311 / ops@freedomair.aero / freedomair@airtelmail.in

The CAA of India contact info is +91 11 2462 0784 / +91 11 2462 9221 / dgoffice.dgca@nic.in / irsec.dgca@nic.in

For **Pakistan,** overflight and landing permits are issued through the Pakistan CAA. These take around 96 hours for overflight and 6 days for landing.

An agent can also assist with the process:

Aircraft Aviation Services (ACAS) +92 213 468 0109 / ops@acas.com.pk / ops1@acas.com.pk

CAA of Pakistan contact info – +91 21 997 1111 extn: 2288/2289 / +91 21 9924 2004 / support@caapakistan.com.pk / AFTN: OPHQYAYX

In summary

With the exception of US operators, flights between Europe and India/the Far East generally opt for routings via **Saudi Arabia, Iran or Iraq.** While routings via Tajikistan are possible, the lack of coordination between Pakistani and Indian ATC, and with few established airways, presents a **planning and potential safety risk**.

Pakistan has airspace safety concerns, particularly in the northern airspace (OPLR/Lahore FIR). With the closure of Afghan airspace, flights routing from Europe to Pakistan may benefit from routing via Tajikistan. However, most international flights continue to **use the southerly routing for overflights.**

Further Information

Information on Pakistan airspace can be found on the Pakistan CAA website.

If any operators or crew have experience of overflying this region please send us any insights you have on it so we can share the information team@ops.group.

Afghanistan: Do Not Fly

David Mumford
14 October, 2021

US and allied forces have now pulled out of Afghanistan, and the Taliban have taken control of the country. **Afghanistan's airspace is now effectively closed to overflights** – the OAKX/Kabul FIR is uncontrolled, and overflying traffic should route around the country.

Overflights

For overflights of the region, flights between Europe and parts of Asia will be those most affected by the effective closure of the OAKX/Kabul FIR. All major international airlines have now stopped using Afghanistan's airspace for overflights, most electing to route **south via the airspace over the United Arab Emirates and Arabian Sea** off the south coast of Pakistan.

However, there are **risk warnings** to consider for the airspace here too. Several countries have warnings in place for **Iran's airspace** (the OIIX/Tehran FIR), including a total flight ban by the US, which were issued following the shoot-down of Ukraine Int Airlines flight 752 over Tehran in Jan 2020. The southern part of **Saudi Arabia's airspace** (the OEJD/Jeddah FIR) carries risk as well, with increasing Houthi drone and missile attacks over the past year.

To the north of Afghanistan, the options for overflights are fairly limited – via Kyrgyzstan, Kazhakstan, or even farther north via Russia. So these are not really practical unless operating from northern Europe to China, Hong Kong, Japan, etc.

Airspace Warnings

Following the Taliban takeover, several countries have updated their airspace warnings for Afghanistan. **The FAA now bans US operators from Afghanistan's airspace**, only permitting overflights on **airways P500 and G500** in the far east of the OAKX/Kabul FIR. EASA, along with authorities in several western countries, are now advising operators to avoid Afghanistan's airspace entirely.

At **SafeAirspace.net** we are now listing Afghanistan as **Level One: Do Not Fly**. Check here for a full briefing.