Ops Down Under: Borders Opening Up

Chris Shieff
7 February, 2022

Throughout the pandemic, Australia and New Zealand have both had some of the strictest entry rules for foreigners in the world. They have remained firmly in place since the doors first slammed shut early in 2020, and haven't budged since.

Until now…there is finally light at the end of the tunnel. There have been two big announcements this week from both countries that they intend to open up in the coming months.

If you're planning to head down under, here's a rundown of how the current entry rules work, and what is set to change in the first half of 2022.

Australia

What's been announced…

Australia is reopening its borders to vaccinated travellers on Feb 21, after almost two years of restrictions. Passengers will need to have a visa, a pre-arrival PCR test, and must also complete an Australia Travel Declaration (ATD) at least 72 hours before departure. Unvaccinated passengers will still need a valid travel exemption to enter.

Travellers to Australia will also need to comply with requirements in the state or territory of their arrival, which may include quarantine and post-arrival testing requirements. Quarantine requirements in Australia are determined by State and Territory governments.

How things work right now

To enter Australia, all foreigners must currently apply for an exemption first. There is a long list of what qualifies but in almost all cases leisure travel is a no-go. The only exception to this rule is for citizens of New Zealand, Singapore, Japan, and South Korea.

To apply for an exemption, passengers have to use this online portal. It takes a least seven working days to process each one, sometimes longer, so it's important they apply early.

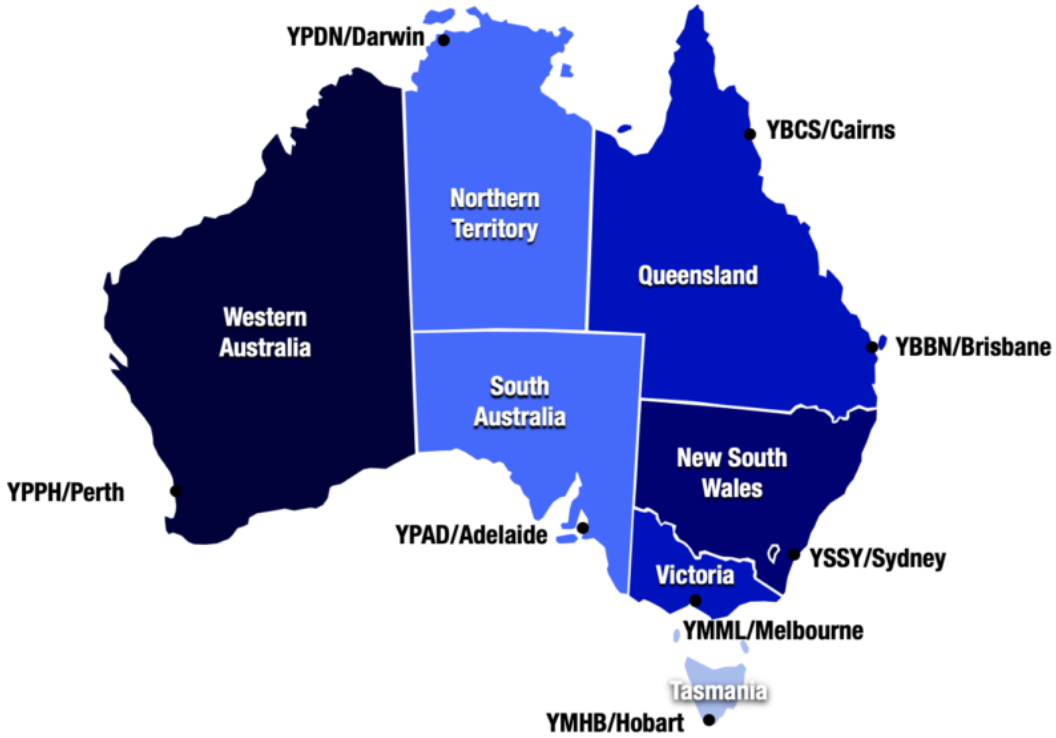
Testing and Quarantine

Pre-departure, all pax need to get a negative PCR or rapid antigen test that is **less than 72 hours** old.

After landing is where things can get a little tricky. Australia is made up of individual states and territories. Each one has their own subtle differences when it comes to pax testing and quarantine rules. So, what needs to be done next depends on where you're landing, and whether your passengers are vaccinated or not.

Rule hack: With the exception of Western Australia (YPPH/Perth), vaccinated passengers only need to self-isolate until they receive the results of a Covid test on arrival. Unvaccinated passengers have to apply for, and stay in managed hotel quarantine for 14 days. Passengers arriving in Perth still need to enter approved quarantine even if vaccinated for at least eight days, with a full two weeks required for unvaccinated pax.

For the official state rules of where you're headed, check out the attached links at the end of the article.



Individual territories and states publish their own rules – the good new is there are only subtle differences.

What about crew?

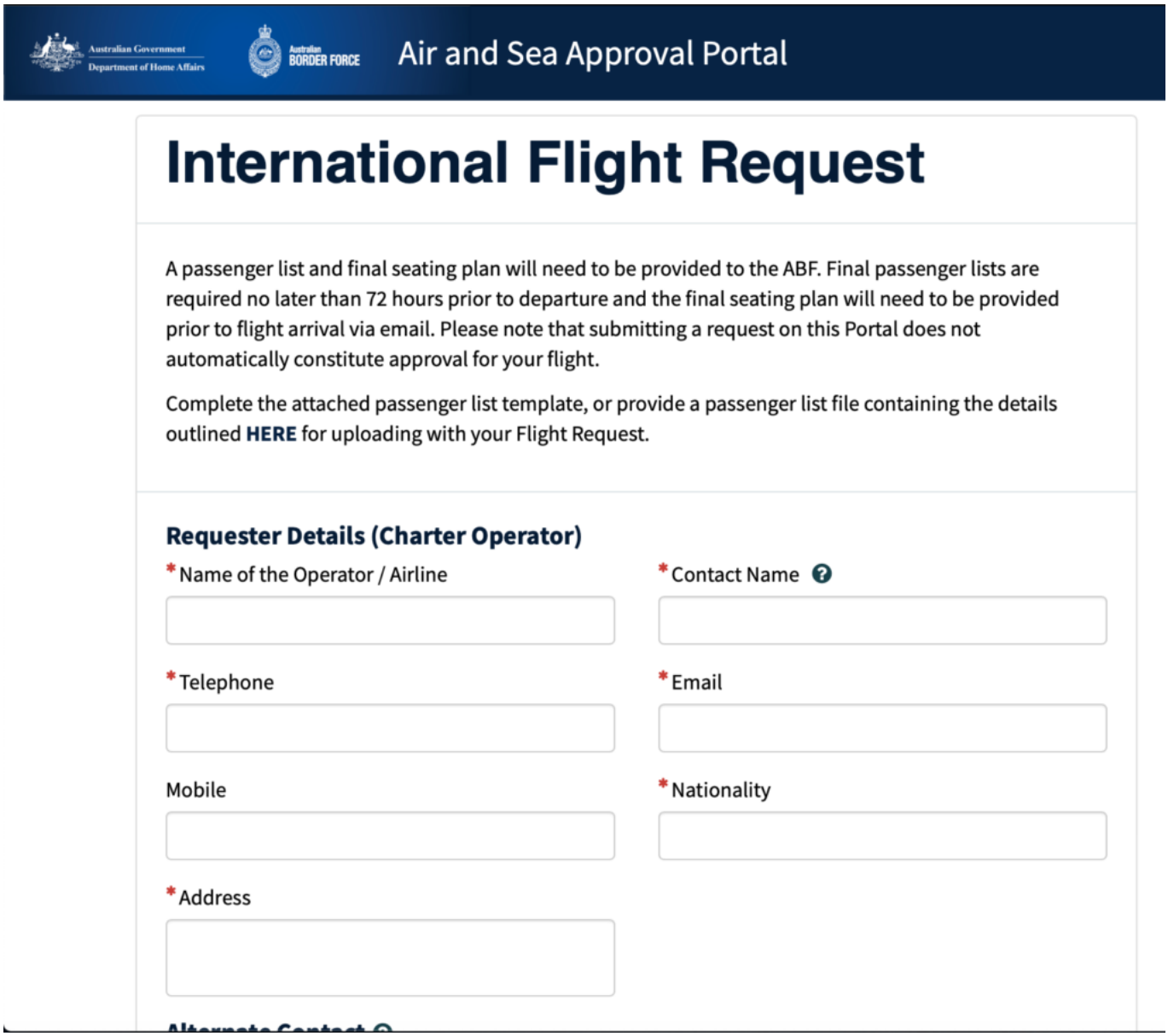
All crew are exempt from pre travel testing.

On arrival you will be health screened and given a Covid test. Fully vaccinated crew will only need to self-isolate until the result (approx. 24 hours) and then will be free to enjoy the layover.

Unfortunately unvaccinated crew will need to stay in their hotel until the flight out.

GA/BA Flight Approvals

If you're operating a charter flight, you'll need to apply for a bunch of approvals first (at least 72 hours in advance). You can find detailed information on that process here.



All non-scheduled flights to Australia have to fill in a request form.

New Zealand

What's been announced...

On Feb 3, the NZ Government announced they would be **getting rid of managed quarantine** for fully vaccinated travellers altogether. This will apply to citizens returning from Australia from the end of February, and from all other countries from the end of March. Unvaccinated travellers will still need to quarantine. It is unclear yet whether international crew will be allowed to enter the community under the same rules.

It was also announced that borders would be **progressively re-opened to foreigners** throughout the year. This will start for study and business visa holder from April, before all travellers (including tourists) will be allowed in by October.

How things work right now

The rules for foreigners are even tighter than Australia's. Aside from exemptions for permanent residents and relatives, foreigners can only enter the country if they hold a 'critical purpose' visa. The application for this can take up to two weeks.

Testing and Quarantine

Anyone travelling to New Zealand needs to get a PCR test that is less than 48 hours old at time of departure.

All passengers must then spend ten days in managed quarantine when they arrive. Reserving a spot is extremely difficult – you basically need to enter a lottery to reserve one via the MIQ website and then keep your fingers crossed.

Even if a passenger can get in, reserving a quarantine slot in NZ is extremely difficult. This is set to change.

What about crew?

Crew must be fully vaccinated to enter, and provide the results of a PCR test taken within seven days of their flight down. They'll then need to isolate in an approved hotel until their flight out. You can find the full details here.

GA/BA Flight Approvals

You'll need to contact the Ministry of Transport. You can find more info on that process here.

Links to Official Rules

Australia

- Queensland (YBCS/Cairns, YBBN/Brisbane)
- New South Wales (YSSY/Sydney)
- Victoria (YMML/Melbourne)
- South Australia (YPAD/Adelaide)
- Tasmania (YMHB/Hobart)
- Western Australia (YPPH/Perth)
- Northern Territory (YPDN/Darwin)

New Zealand

See the official government website here.

The 2022 Big Events Calendar

OPSGROUP Team
7 February, 2022

We are barely into 2022 but there are already a bunch of events showing on the calendar which you might want to have a think about, because some events equal more traffic and more traffic means more restrictions in terms of slots and parking, while other "events" mean stricter security and possible safety measures…

So, from **major sporting events** to **general elections**, **airshows** to **other stuff** – here is your Major 2022 Events Calendar, with the *What, Where, When and Why* we think it could impact your international flight ops.

February

WHAT: 2022 Winter Olympics

WHERE: Beijing, China

WHEN: 4-20 February

WHY: The majority of events will take place in and around Beijing, but there are a few airports to think about.

Unless you are a scheduled passenger flight, maybe avoid these as there will be significant parking restrictions:

- ZBAA/Beijing Capital
- ZBAD/Beijing Daxing

Plan for more restrictions including parking, and higher traffic levels at:

- ZBNY/Beijing Nanyuan
- ZBZJ/Zhangjiakou

Keep an eye out for Notams advising of restrictions of traffic flow procedures at the major airports. We've also written a 'Top Tips on China Ops' post with some more info on navigating the Chinese airspace, rules and regulations, which you can read here.

WHAT: Super Bowl LVI

WHERE: Los Angeles, California

WHEN: 13 February

WHY: This is a big event. So big (in terms of the impact on flight ops) that we gave it its own post. In short, a lot of the big airports will be too busy to handle you unless you've made reservations. The smaller airports will also likely have traffic flow procedures in place, and you can expect disruptions throughout the surrounding airspace.

WHAT: Singapore Airshow

WHERE: Changi, Singapore

WHEN: 15-18 February

WHY: WSSS/Changi airport is going to be *busy busy busy* with airshow aircraft. In fact, they will be limiting traffic in and out from the 10th Feb. We've done a whole post on this for you which you can read here.

March

WHAT: South Korean Presidential Election

WHERE: South Korea

WHEN: 9 March

WHY: This is major election, or rather the outcome will have a potentially major impact on the democracy and economy of South Korea, which means protests, heightened security and ground transport disruptions are possible in major cities.

Most importantly, government services may well be unavailable on the day of the election, so **plan those permit applications** in advance.

Korea Airport Services (KAS) are a good agent to use. You can get hold of them on kbas@kbas.com / +82 32 744 3443

WHAT: Hong Kong Chief Executive Election

WHERE: Hong Kong

WHEN: 27 March

WHY: A relatively major political event, but this year marks the 25th anniversary of the Handover to China from British Rule. Hong Kong has seen several years of protests and riots against growing Chinese (mainland) government regulations. Protests, heightened security and ground transport disruptions are likely in major public areas.

Government services may well be unavailable on the day of the election, so **plan permit applications** in advance.

Hong Kong Business Aviation Centre are one agent to use if needed. Available at hkbac@hkbac.com / +852 2949 9000

April

WHAT: French Presidential Election

WHERE: France

WHEN: 10 April – 24 April

WHY: The French election this year could be quite a big deal because, well, every other time it has been, leading to a lot of protests, some riots and of course **strikes.** Keep an eye on the situation in France and stay in touch with your handling agent to check services and security if operating in during these dates.

May

WHAT: The Cannes Film Festival

WHERE: Cannes, France

WHEN: 17 – 28 May

WHY: It is a big film festival which sees a lot of people from all over the world flying in, and a lot of jets trying to park up. **LFMN/Nice Côte d'Azur** is the closest "big" airport and parking restrictions will be, well, restrictive, so expect to do drop and goes if operating here during this period.

WHAT: Monaco F1 Grand Prix

WHERE: Monaco

WHEN: 26 -29 May

WHY: The F1 moves all round the world, but this is the one that causes aviation ops the most hassle because of limited slots and parking at nearby airports. The most convenient is **LFMN/Nice Côte d'Azur** and this will take some early planning if you want to use it. Try **Aviapartner Executive** on +33 4 93 21 37 37 / executive.nce@aviapartner.aero

WHAT: UEFA Champions League Final

WHERE: St Petersburg, Russia

WHEN: 28 May

WHY: A big football event which is likely to bring slot and parking restrictions to ULLI/St Petersburg Pulkovo airport in the days leading up to and after the event. Don't plan on using nearby ULSS/Rzevka as a backup, it isn't clear if its actually operational or still being used as a car dealership…

A-Group at ULLI will have all the info on slots and parking if you want to plan in advance +7 812 677 76 45 / ledops@a-group.aero

WHAT: French Open

WHERE: Paris, France

WHEN: 22 May – 5 June

WHY: It is a big sporting event that folk like to attend. Parking and slots at LFPG/Paris Charles De Gaulle might prove hard to come by. LFPO/Paris Orly is the smaller, quieter next door neighbour. You also have **LFPB/Le Bourget** airport nearby which is the "business aviation" airport and LFOB/Beauvais airport which predominantly serves domestic flights.

LFPB/Le Bourget have confirmed they don't have slot restrictions during this time and parking shouldn't be a problem, but get planning early just in case.

There are several FBOs at Le Bourget:

- Advanced Air Support International +33 1 48 35 89 64 / handling@advancedairsupport.com
- AstonSky +33 1 84 87 03 00 / lfpb@astonsky.com
- Dassault Falcon Service +33 1 49 34 20 28 / handling@dassault-falcon.com
- ExecuJet Paris +33 1 48 35 97 97 / fbo.lfpb@execujet.com
- Jetex +33 1 74 37 25 22 / fbo-lbg@jetex.com
- Signature Flight Support +33 1 49 92 75 81 / lbgt1@signatureflight.fr
- Universal Aviation France +33 1 48 35 96 38

June/July

WHAT: US Open (the Golf)

WHERE: Boston USA

WHEN: 16 – 19 June

WHY: Mainly added so you don't confuse it with the tennis. This is a major golfing event that takes place up near Boston. There are a fair few airports in this area serving business aviation and private flights.

- KBOS/Boston Logan International (the main international airport in the area)
- KBED/Bedford
- KEWB/New Bedford
- A few regional and municipal ones… you know what, go check this page because they list them all with contact info as well.

WHAT: Wimbledon

WHERE: London, UK

WHEN: 27 June – 10 July

WHY: Another big sporting event. The major London airports – EGLL/London Heathrow, EGKK/London Gatwick and EGSS/London Stansted can be hard at the best of times to get a slot into, and this summer they have raised the "use it or lose it" requirement for the scheduled airlines.

So you might do better to look into the smaller airports. If you have the approval/training to land then EGLC/London City is right in the city! **EGKB/Biggin Hill** is a smaller airport south of London, but is very convenient for the city (and a lot closer than the big international airports).

You also have **EGTK/Oxford Kidlington** (London Oxford Airport) and **EGLF/Farnborough** airport which are both convenient for London and cater for predominantly business aviation.

WHAT: 2022 Commonwealth Games

WHERE: Birmingham, UK

WHEN: 28 July – 8 August

WHY: The next big summer sporting event. EGBB/Birmingham airport is going to see some heavy traffic loads during this period, and there isn't a huge amount of extra parking available here.

Thankfully, the UK is small and the big cities are well connected. EGTK/Oxford Kidlington is only 1 hour 30 down the road and might a better option if you want to park up for a few days. You can contact the FBO on ops@londonoxfordairport.com / +44 1865 290 600

August

WHAT: US Open (the Tennis)

WHERE: New York, USA

WHEN: 29 August – 11 September

WHY: Another big tennis tournament, and one that takes place in New York. You have a bunch of options for airports here, we ain't going to list them all.

One we will mention though is **KHTO/East Hampton** because this public airport is going private. It will close temporarily in February, and when it reopens it will have stricter limits on traffic numbers and prior permission will be required.

Later in the year...

WHAT: 2022 FIFA World Cup

WHERE: Qatar

WHEN: 12 November – 18 December

WHY: Big football event being held in a very small country… which luckily has two very large international airports, and is used to catering for private and business aviation.

- OTBD/Doha International
- OTHH/Hamad International

You can expect some parking and traffic restrictions during this period. **Keep an eye on Notams** nearer the time.

Qatar has had some political tensions with neighbouring countries. These are now resolved and the blockade on their airspace and traffic ended in 2021. The region is relatively volatile though. If operating in, check out Safeairspace for details on some of the other warnings and risk levels for the region.

Qatar is also planning on changing the airspace structure, which probably won't take place in 2022, but keep an eye out just in case.

That's all folks.

We will update as we continue to hear or spot more events that might affect you. Email us at team@ops.group if you have queries or think of any we haven't covered.

Top Tips on China Ops

OPSGROUP Team
7 February, 2022

Where you can fly

China has a bunch of flight restrictions beyond the Covid related ones. You will need **overflight and landing permits** for anywhere in China.

They get grumpy if you make a lot of changes to your flight planning. Particularly **avoid last minute changes.** Avoid diverting to an airport that is not a planned alternate, unless an absolute emergency.

China only allow certain airways for usage by non Chinese registered aircraft. These mostly run north-south. It is often recommended to offset 1-5nm due congestion, but this is **only allowed by ATC.** Don't apply SLOP without confirming with ATC first. Any other airway requires you to have a Chinese navigator onboard, and you generally won't find these published in your Jeppesen or LIDO manuals. The same goes for some smaller domestic airfields.

There are **multiple restricted areas across the country.** Some of them are not always obvious… which means you will rarely get "Direct To…" clearances, and may often find your levels are restricted or you are given seemingly random re-routes. Fuel planning is critical, as is accurate route tracking.

How they do it.

China do it in meters. You should have procedures in place for this. If you are in RVSM airspace you might notice the 'feet' levels are all +100'. This is because the Chinese meter levels only provide 300m (900') separation, and RVSM requires 1000' minimum separation.

Flights departing China and heading east often report being **'held down' at sub-optimal flight levels.** Shanghai seems to be one of the worst spots for this, due to a corridor south of Korean and Japanese airspace.

What about parking?

ZBAA/Beijing has had **stricter parking restrictions in place since 2015.** If you are GA, you are limited to 24 hours**.** ZBTJ/Tianjin is a good and relatively nearby alternate for parking – it is also an airport of entry, and has less parking restrictions but be warned, it also has much less in terms of facilities and is not available H24.

ZBSJ/Shijiazhuang is another option, as is ZBHH/Hohhot.

What about maintenance?

If routing in the general region, **VHHH/Hong Kong and VMMC/Macau** are probably easier options for finding maintenance support, or **WSSS/Singapore**.

Of course, if you can't make it to these airports then ZBAA/Beijing, ZGGG/Guangzhou, ZSAM/Xiamen and ZPSD/Shanghai do have some big maintenance facilities available, but most other airports might struggle to help corporate aircraft.

Parts and support are usually sent in from Hong Kong or Singapore. Having contacts in place and a "plan" are probably a good call to avoid big delays though.

Anything else?

Different airports and regions have **different customs** within the airport, and outside. In Beijing you will find most social media and many websites blocked, including google. Some VPNs will enable use. Shanghai tends to be much less strict and Hong Kong is fine.

Ops Planning for the 2022 Singapore Airshow

Chris Shieff
7 February, 2022

The Singapore Airshow is back, and taking place from Feb 15-18 at WSSS/Changi airport.

As one of the largest aviation events in Asia, things are going to get busy.

If you're flying in, here is a rundown of everything you'll need to know before you get there.

Airport Closures

From Feb 10-18 Changi will close to all arrivals and departures for over an hour in the middle of each day. This is to allow for practice displays and then the main event.

The closures all commence late in the morning and vary slightly each time. You can find the exact timings below – Singapore's time zone is **UTC + 8**.

Closure of Singapore Changi Airport and Airspace during the Singapore Airshow 2022 Exhibition Flying Displays

Details of the period of closures of Singapore Changi Airport and Airspace are shown below:

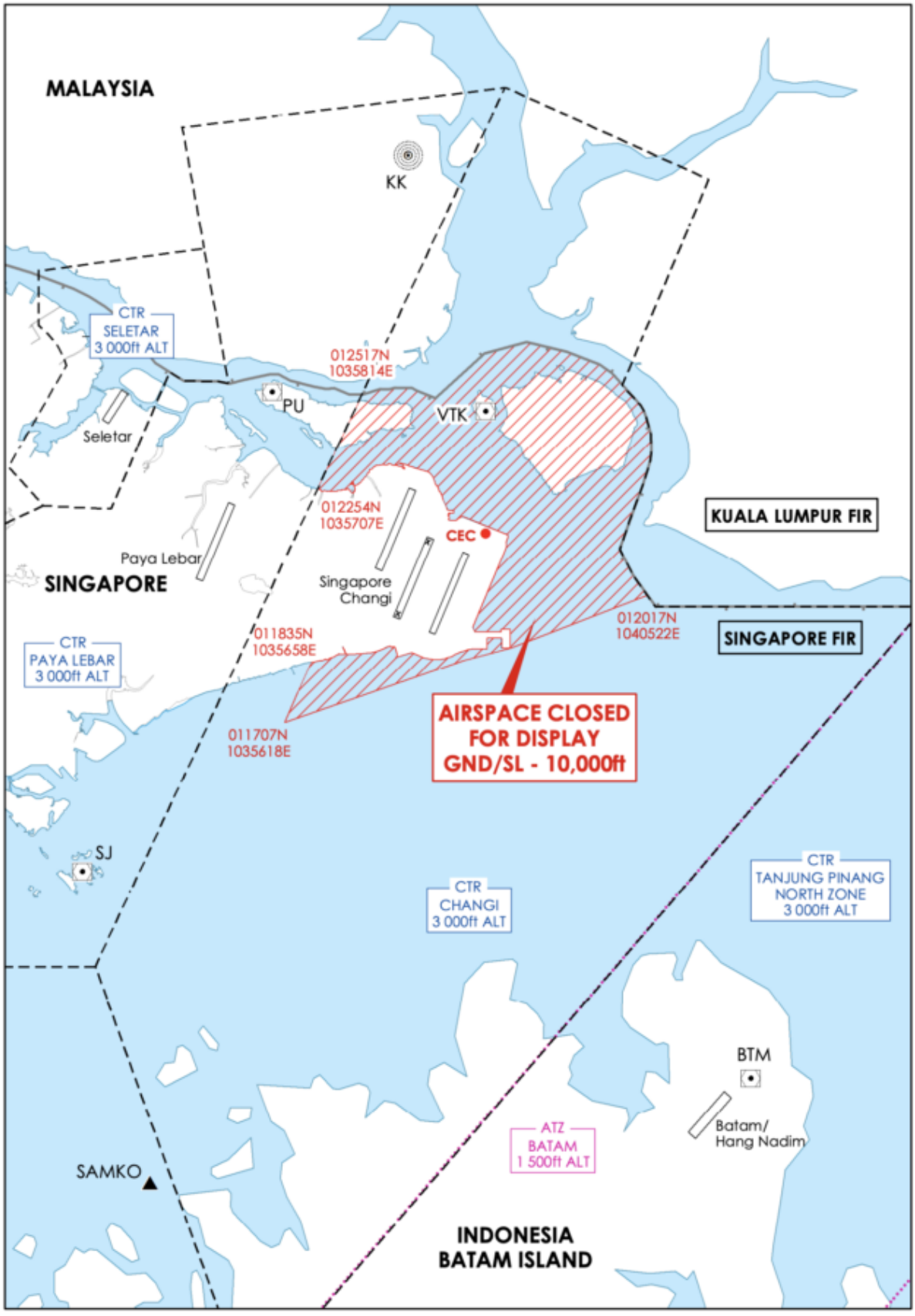
Type of Activity		Day / Date	Timing (UTC)
a)	Practices	Thursday, 10 Feb 22	0230 – 0328
		Friday, 11 Feb 22	0230 – 0338
		Saturday, 12 Feb 22	0230 – 0337
b)	Combined Rehearsals	Sunday, 13 Feb 22	0230 – 0407
		Monday, 14 Feb 22	0230 – 0407
c)	Flying Displays	Tuesday, 15 Feb 22	0430 – 0607
		Wednesday, 16 Feb 22	0330 – 0437
		Thursday, 17 Feb 22	0330 – 0446
		Friday, 18 Feb 22	0330 – 0439

The restricted airspace covers a large portion of Changi's CTR and will apply from surface to 10,000 feet.

Here's a picture:

ANNEX B

SINGAPORE AIRSHOW 2022 EXHIBITION
AIRSPACE CLOSURE FOR FLYING DISPLAYS



Singapore_Airshow_2022.mxd

Nearby **WSSL/Seletar** will not be affected by the closures.

Rush Hour

Avoid planning to take-off or land on either side of the closure windows. There will likely be a back log of traffic and extensive delays. Arriving aircraft are advised to plan for at least an extra twenty minutes of holding fuel.

If you're arriving from a major airport in the Asian region, also be aware of Singapore's ground delay program which may be activated. Here's the relevant page from Singapore's AIP, but if you are departing an affected airport for Changi, you may need to stick to a calculated take off time (CTOT). The allowance is -5/+10 min. Outside of this window you'll need to ask for a new CTOT.

Once airborne, if you get held up by more than 15 minutes make sure you let them know. Their AFTN address is WSJCZQZX.

Permits

Both private and commercial operators need a landing permit for Singapore. Commercial ones reportedly take a number of working days to process so apply early. You can speak to the CAA directly on +65 65 42 1122 or caas_atlas_admin@caas.gov.sg. If you'd prefer the help of a local agent, we'd suggest SG World Aviation Services. You can reach them on +65 85 774830 or ops@sgworld.net.

Weather

Singapore is found just one degree north of the equator, and so convective thunderstorms are common all year round, and can be quite severe. The worst times are in the afternoon and evenings. Expect to use additional fuel for deviations or holding.

Covid Entry Rules

The rules for foreigners to enter Singapore are tight. But there are ways they can enter with no quarantine. The most common is via the 'Vaccinated Travel Lane,' which most travellers are eligible for. There's a bunch of boxes to tick here, so we recently put together this article that should help.

Crew have two choices. You can enter under the standard rules which don't require a vaccination or Covid test. But you'll be stuck isolating in the hotel until departure. If you want to get out (and enjoy the show) you can also apply for the VTL above if you follow the same requirements as your passengers.

Seletar

If you're planning on flying into nearby WSSL/Seletar, the biggest issue is likely to be parking. If you haven't already, make sure you get in touch with your agent to make sure you reserve a spot as the airport can quickly fill up.

The airport itself can be operationally challenging – there are no instrument approaches, and it is in close proximity to military airspace. Click here for a full briefing on what to expect.

The Official Word

You can find the official Singapore AIP Supp (026/2022) for the event here.

Last Line of Defence? Anti-missile Tech on Civilian Aircraft

Chris Shieff
7 February, 2022

According to an FAA document that's hot off the press, back in 2019 a major US cargo carrier asked the FAA for the nod to install surface-to-air missile defence systems on some of its narrow body jet aircraft.

The FAA was left scratching its head – there were no rules in place to allow them to respond with a yay, or even a nay. It is *almost* un-chartered territory for commercial aviation. So much so that they're asking the public for feedback.

But with surface-to-air weaponry a growing threat to aviation in conflict zones around the world, why is flying higher or avoiding them our *only* line of defence, when these counter-measures could be installed as our *last*? After all, they work for the military. Why not for us?

The answer may not be so simple. So let's take a closer look.

What do we mean by counter-measures?

Simply put, technology designed to deter surface-to-air missiles. How they achieve this depends on how the missile is guided. While there are different ways, the two biggest threats to civil aircraft are from missiles that use radar or heat.

Radar

Radar guided missiles tend to be more advanced. Which is why airspace warnings found around the world refer to 'advanced' anti-aircraft weaponry – they can fly further and higher. They need fancy equipment on the ground, and trained operators to deploy or use them. MH17 was shot down by a radar guided 'Buk' missile in 2014 at FL330.

The military's answer to this is Chaff. Or in other words, a cloud of small thin pieces of metal, metallized

glass or plastic to bamboozle the radar with a cluster of targets. The Chaff is then generally lit up or ‘illuminated’ by a signal from the target aircraft so that the radar can’t distinguish between the two.

Heat

This is the biggest danger. Why? Because the majority of MANPADS use it. MANPADS stands for ‘man portable air defence system’. As the name implies, they’re light, self-guided and can be fired by a single person with little or no training.

What’s worse is that they’re scattered around the globe in the hands of non-state actors such as terrorist groups and can remain useable in storage for over twenty years. Which is why they’re so hard to control. In fact, over a million of them have been produced and now exist in over one hundred countries the world over. Since 73’ there have been sixty-five MANPAD attacks on civilian aircraft.

MANPADS generally can’t reach aircraft above FL250, and are short range – typically around 25nm. Which is why aircraft landing and departing are most at risk.

MANPAD missiles lock on to the heat an aircraft’s engines produce. Which is why they’re deterred with heat decoys. Military aircraft deploy flares – pyrotechnic devices that light up like fireworks. They burn magnesium which is far hotter than an engine’s exhaust.

Another method is the use of infrared. This is what our friends at the cargo airline are hoping to use. There are no fireworks with this device. Instead, it can detect an inbound missile and direct an infrared beam towards it to confuse its heat seeking abilities.

Sounds great, sign me up.

The problem for civil aviation is that it is not the military.

For starters there’s the cost – which sadly is astronomical. That old chestnut. For instance, an infrared system like the one above would cost over a million USD to install – per airplane. This doesn’t include the extra cost of more weight and more drag.

Then there are the fireworks – chaff and flares. The military have specialists to install, service and store the equipment and the infrastructure to do it safely. And they are acutely aware of things that explode. Maintaining an industry-wide team of professionals who have the right training might be a step too far.

But here’s what the FAA are most concerned about. What happens if these systems deploy at the wrong time or accidentally? Especially over built-up areas, on the ground at airports or onboard an aircraft itself. Magnesium, for example, burns at four thousand degrees fahrenheit and can’t be extinguished with water or halon. It’s dangerous stuff.

Israel’s carrier El Al has previously installed missile counter-measures on their aircraft which were banned from operating at some European airports.

All of these factors add up to risk and cost. And when measured against the actual risk of an aircraft being actively attacked by a surface-to-air missile, it may simply be cheaper to rely on existing measures. In other words, **avoidance**.

Finding the right fit.

This doesn’t mean all hope is lost. There is likely some type of future for military style counter-measures in civilian aircraft – for the right operation. Operators with small numbers of aircraft who regularly fly in high-risk airspace could immediately benefit from current tech, such as infrared systems without necessarily bankrupting themselves.

Or we can wait for the tech to become cheaper and more accessible. As is often the case, technology can *develop* from a military application into a civilian one. We just might not be ready for a straight swap just yet.

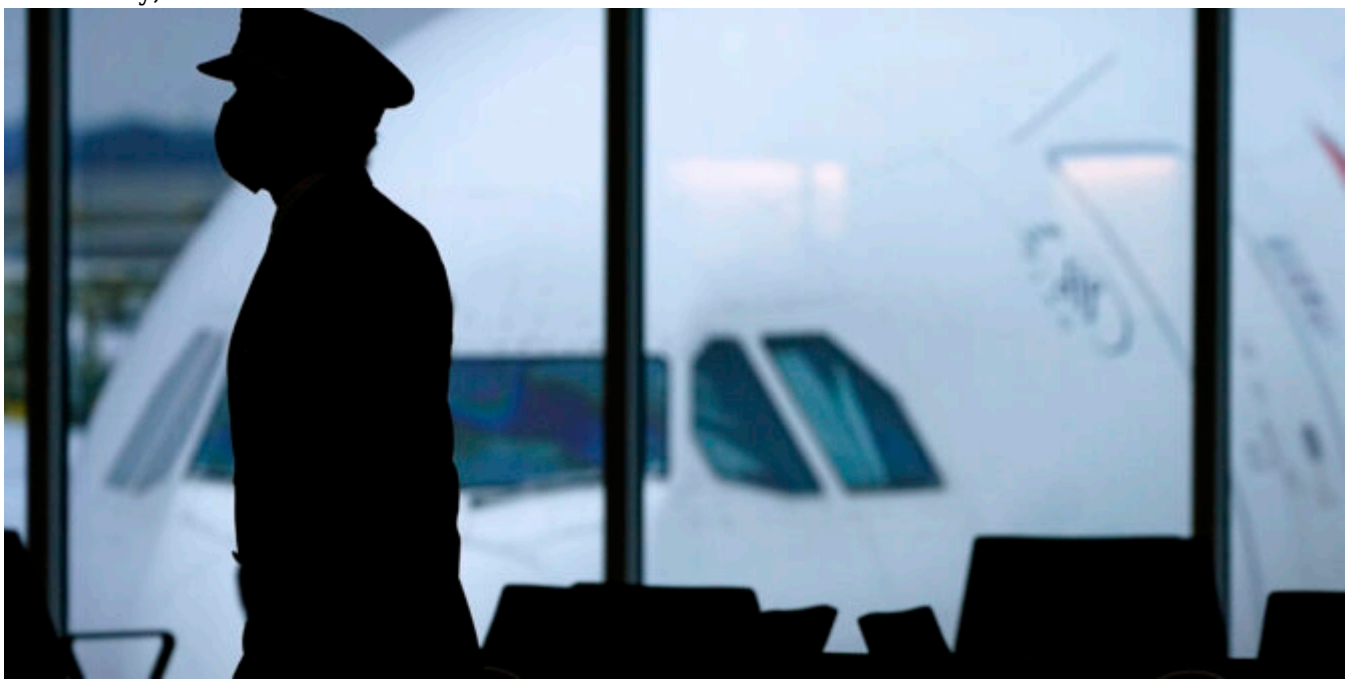
Back to the FAA.

It sounds like they think there is a future in it too. And work is underway to come up with a plan to approve applications for infra-red anti-missile systems on civil aircraft. This will include special safety conditions to mitigate some of the threats along with standard markings, training and other info to keep people interacting with these systems safe.

Want to contribute? You can read the FAA's proposal here, and submit your comments. Just make sure you do it before March 4.

Countries with crew vaccine mandates

David Mumford
7 February, 2022



Here's a simple thing: **a list of countries which require crew to be vaccinated to be able to enter.**

We will keep adding to the list if/when more countries adopt this requirement.

Note that the info for each country is just a quick heads-up summary, not an extensive explanation of the rules in detail. For that, click on the links provided, or contact local agents for more info.

Update Jan 27

Antigua

There are no special exemptions for crew in Antigua! So that makes the rules pretty straightforward here – everyone aged 18 or older needs to be vaccinated, have a pre-arrival test, and have a booking to stay at "certified accommodation". There's no quarantine on arrival as long as you tick all these boxes. Full guidance here. Contact local agent anu@signatureflight.com for more info.

Chile

Crew vaccination is not absolutely required, but local agents say it's highly recommended in order to avoid potentially having to quarantine in their hotel room until departure. Note that you need to validate your vaccination and obtain a "mobility pass" on this website and this process might take up 30 days. Essentially, crew should follow the same procedure as passengers – get the mobility pass, take pre-arrival test, take another test on arrival and remain in quarantine until they receive a negative test result.

The best site we've found for easy-to-read and clear guidance is the UK FCO page for Chile. Contact local agent fbo@aerocardal.com for more info.

Hong Kong

Hong Kong don't absolutely require crew to be vaccinated, but things get tricky if they're not. The Hong Kong crew rules are excruciatingly complex, but essentially, crew who have been to "High Risk Places" (i.e. pretty much everywhere) within the past 21 days will have to self-isolate on arrival. Here's where the vaccination status becomes important – vaccinated crew only have to self-isolate in an airport hotel until departure, but unvaccinated crew must stay at a designated quarantine hotel for a full 21 days.

Full guidance here. And for an up-to-date list of what countries are in the "High Risk Places" list, click here. Local agent Asia Flight Services have summarised all this pretty clearly in a crib-sheet which you can download here.

Qatar

Crew are allowed to enter as long as they are vaccinated and have a pre-arrival test. How long they must quarantine for depends on which country they are flying in from. The US, Canada, and most European countries are currently on Qatar's "Red List", which means a 2 day hotel quarantine on arrival with a Covid test conducted at the end of the second day.

Full guidance here. Contact local agent handling@qatarexec.com.qa for more info.

Thailand

Crew need to be vaccinated and have a pre-arrival test, and must self-isolate in their hotel room until departure (yep, the room).

However, vaccinated crew are free to apply for the "Test&Go" or "Sandbox" options instead, if they prefer. These are the two schemes Thailand has in place for travellers to avoid lengthy quarantine. The requirements for each scheme are bit complex (read about Test&Go requirements here, and Sandbox requirements here), but they are probably worth considering if crew are planning on staying in Thailand for longer than just a night or two.

Update Jan 25

Anguilla

Crew need proof of vaccination, a pre-arrival test (various different types accepted, within varying timeframes), and will get tested again on arrival. They then have to stay in their hotel until the results come back – usually within 24 hours. Crew staying for more than 8 days may be tested again on day 4. Full guidance here.

Argentina

Crew must be vaccinated to enter. They don't need a pre-arrival test, but must take a test between the 3rd and 5th day after arrival. Contact local agent info@transair-fbo.com for more info.

Canada

Effective Jan 15, all foreign crew must be vaccinated to enter Canada. There are several exemptions for Canadian citizens and residents, one of which is for crew. You can use Canada's online tool to quickly work out what the entry rules are for you, depending on your circumstances.

Cambodia

All foreign crew must be vaccinated. They must take a pre-arrival test if travelling to VDPP/Phnom Penh or VDSV/Sihanoukville, but this is not required for flights to VDSR/Siem Reap. At all airports, crew will be tested on arrival – results take up to 20 minutes. Contact local agent occ@asiaflight.aero for more info. Full guidance here.

France

Crew operating domestic flights need either a pre-arrival test, proof of vaccination, or a certificate of recovery. These rules do not apply to crew operating international flights as they are still exempted from all requirements. Full guidance here.

French Polynesia

Crew need to be vaccinated to enter, unless they have a "compelling motive" and obtain permission from the High Commissionaire's Office in advance – in which case they must quarantine on arrival. A pre-arrival test is also required. Contact local agent nuutea@tascfbo.com for more info.

Galapagos Islands (Ecuador)

Crew traveling to the Galapagos Islands need proof of vaccination plus a pre-arrival test. Also not that SEGS/Galapagos airport is not an airport of entry – you must do customs and immigrations through SEQM/Quito or SEGU/Guayaquil on Ecuador's mainland first. Contact local agent info@pike-aviation.com for more info.

Singapore

Crew and pax entering Singapore via the Vaccinated Travel Lane scheme need to jump through a lot of hoops: proof of vaccination, a pre-departure test, another test on arrival plus self-isolation until they get an SMS with a negative test result (this is likely to arrive within 24 hours, but for scheduled arrivals at Changi airport it is taking 6 hours or less). Full guidance here.

But from Jan 24, if they can prove they had Covid and recovered from it (between 7-90 days before the date of departure for Singapore) they are exempt from all these requirements. Full guidance here.

If you know of somewhere not on the list, but which should be, send us an email at news@ops.group

Russia-Ukraine Conflict Timeline

OPSGROUP Team
7 February, 2022

The tensions between Russia and the Ukraine continue to rise, and questions over whether Russia will mobilise troops into the Ukraine is raising concerns for the safety of the region and its airspace.

For a full background to the situation, you can read this post.

Here is a timeline of the current situation and risk warnings, with latest updates on any changes as they occur.

Timeline – Airspace Risk

Jan 26 2022 – **Latest Update**

- Belarus and Russia advise they will holding **joint exercise** through to February 20. These will take place near the southern border with the Ukraine. The drills will involve **tests of the air defense systems** which use advanced anti-aircraft weaponry, able to reach all levels of civilian utilised airspace.

January 2022

- Russia warned of *"the most unpredictable and grave consequences for European security"* in relation to plans for the Ukraine to join NATO which is further **destabilising** the situation.

- NATO has increased **air forces in Eastern Europe** in case intervention is required.
- Warnings and prohibitions remain in place for the **airspace along the border between Russia and Ukraine.**

December 2021

- The FAA published updated information on **overflight risks near the border**, particularly in the URRV/Rostov FIR near the UKDV/Dnipro FIR boundary. This is the region where MH17 wash shot down in 2017.

November 2021

- **Russia increased military activity** along their border with the Ukraine, and based significant numbers of troops around URRP/Platov International Airport in Roston-On-Don Oblast.
- The Ukraine hold drills of their **airborne units in the Kyiv** region, in response to increased Russian activity.

October 2021

- **The FAA extended their ban** on US operators overflying the eastern part of the UKDV/Dnipro FIR. This is in force until October 2023.

April 2021

- Russia established several **large danger areas** throughout the UKFZ/Simferopol FIR airspace over the Crimea, increasing tensions between Russia and the Ukraine. ICAO does not recognise Russia's jurisdiction over this airspace.
- Increasing reports of **GPS jamming** along the border and in east Ukraine suggestion heightened surveillance. Increasing military presence was reported.
- The FAA and Canada published updated airspace warnings. Canada recommended operators avoid the **UKFV/Simferopol** and the **UKDV/Dnipro FIR.**

Within the Ukraine

January 2022

- **Cyberattacks** caused disruption to government and public services, and are likely to continue.
- Several countries including the UK and Canada have now **advised their nationals to leave**, and advise against all but essential travel.
- Provinces located in the eastern and northern regions of Ukraine, including capital Kyiv and Odessa are on **elevated travel alert,** with significant concerns about safety and security on the ground.

December 2021

- **Protests in major cities**, particularly Kyiv, occurred as civil unrest increases. The **security situation** in major cities is worsening.

Here’s something we had Hima-layan around

OPSGROUP Team
7 February, 2022

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

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

What is the Purpa-se of the guide?

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

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

We also wrote a related post a while ago.

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

What will you find inside?

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

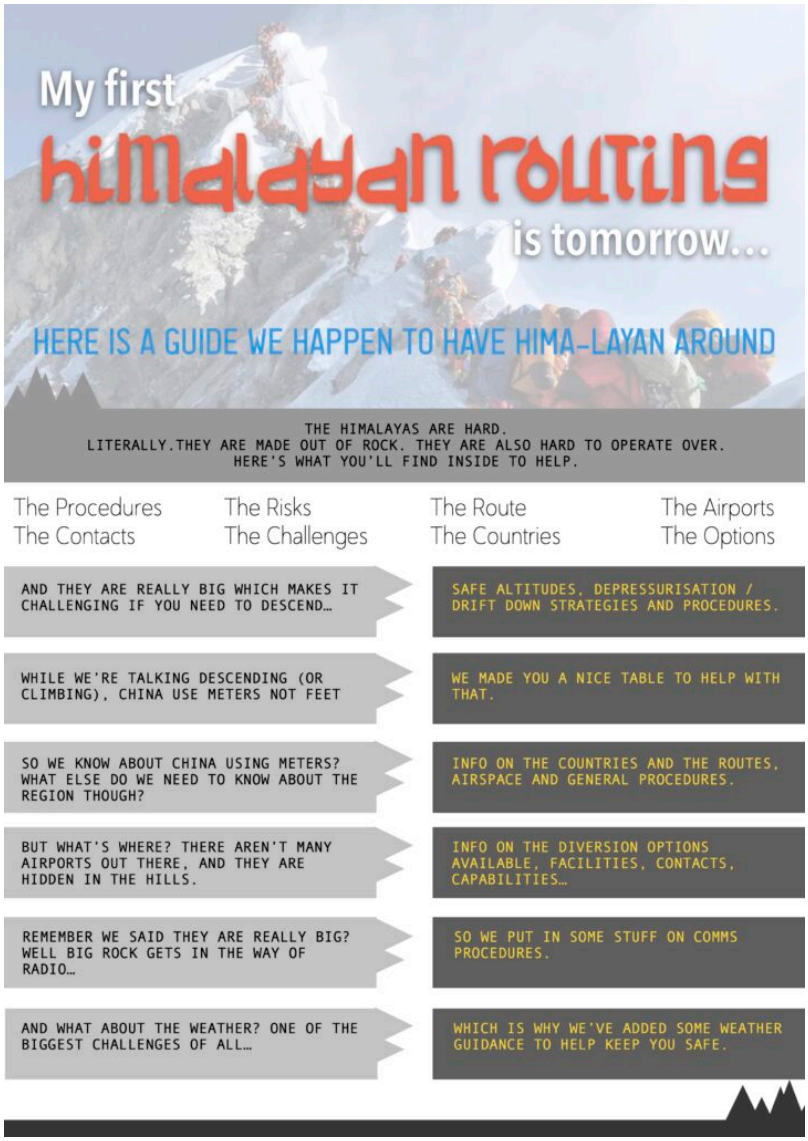
We also threw in some contacts, calculations, cold weather considerations, airspace info, comms advice and a couple more witty puns for good measure.

It won't help you move mountains…

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

Download the Guide

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



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

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

them, more to remind you that you might want to take another look at them.

Burkina Faso: Military Coup in Ouagadougou

OPSGROUP Team
7 February, 2022

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

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

What is happening there?

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

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

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

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

What is the impact so far on international ops?

Security

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

The primary risk to aviation is **security on the ground.** As things could change quickly, it should be considered dangerous to stop here at this time. There are reports that non-essential embassy staff have been asked to leave. The ability of embassies in Burkina Faso to help foreigners should be considered limited.

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

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

Overflights

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

The Mali Situation

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

The Overall Risk Assessment

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

L888 – The Silk Road Airway

OPSGROUP Team
7 February, 2022

We received this interesting question this week:

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

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

We will start with the answer

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

Excerpt from AIP CHINA published by CAAC:

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

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

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

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

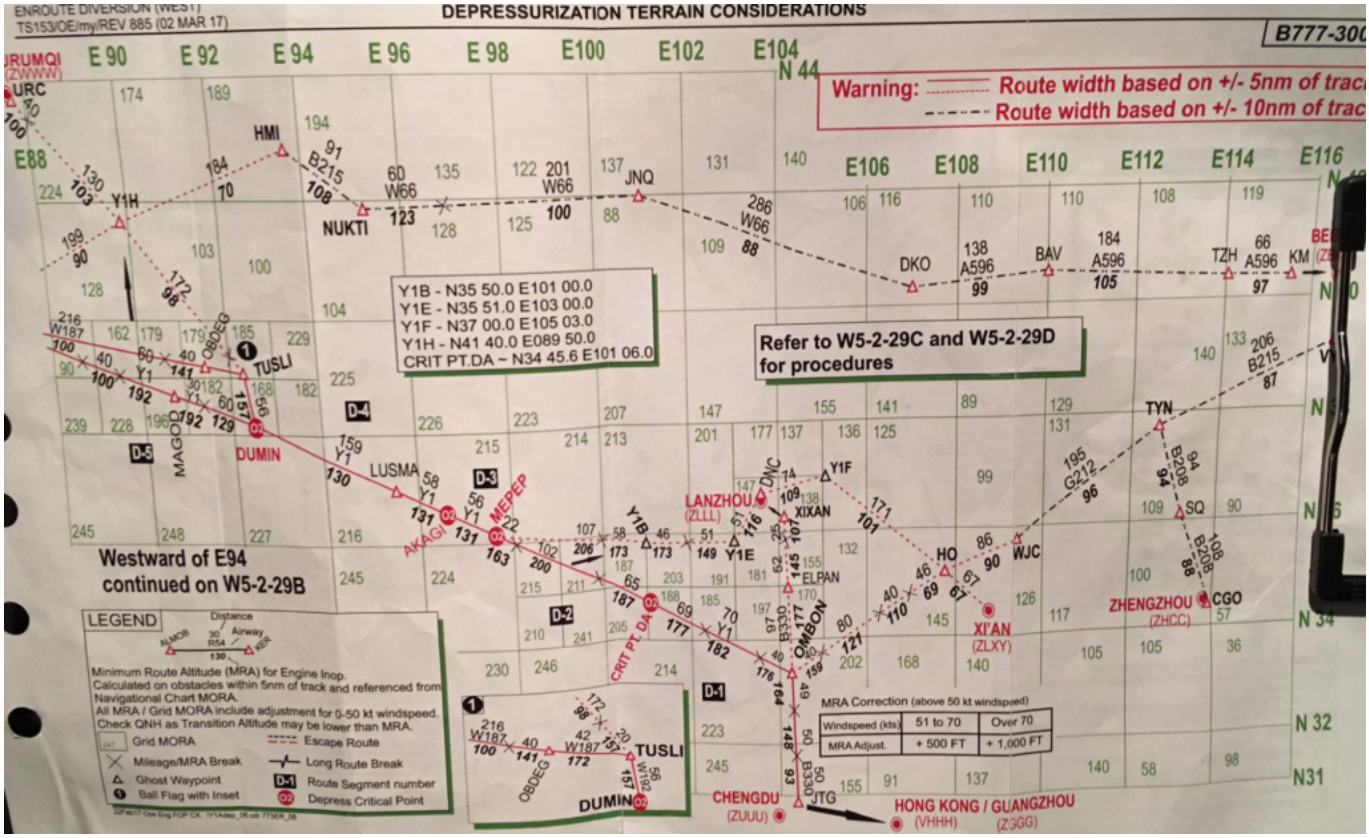
12.5 Air Carriers are required to provide a list of satellite telephone numbers with each aircraft which flying along route L888, Y1, Y2.

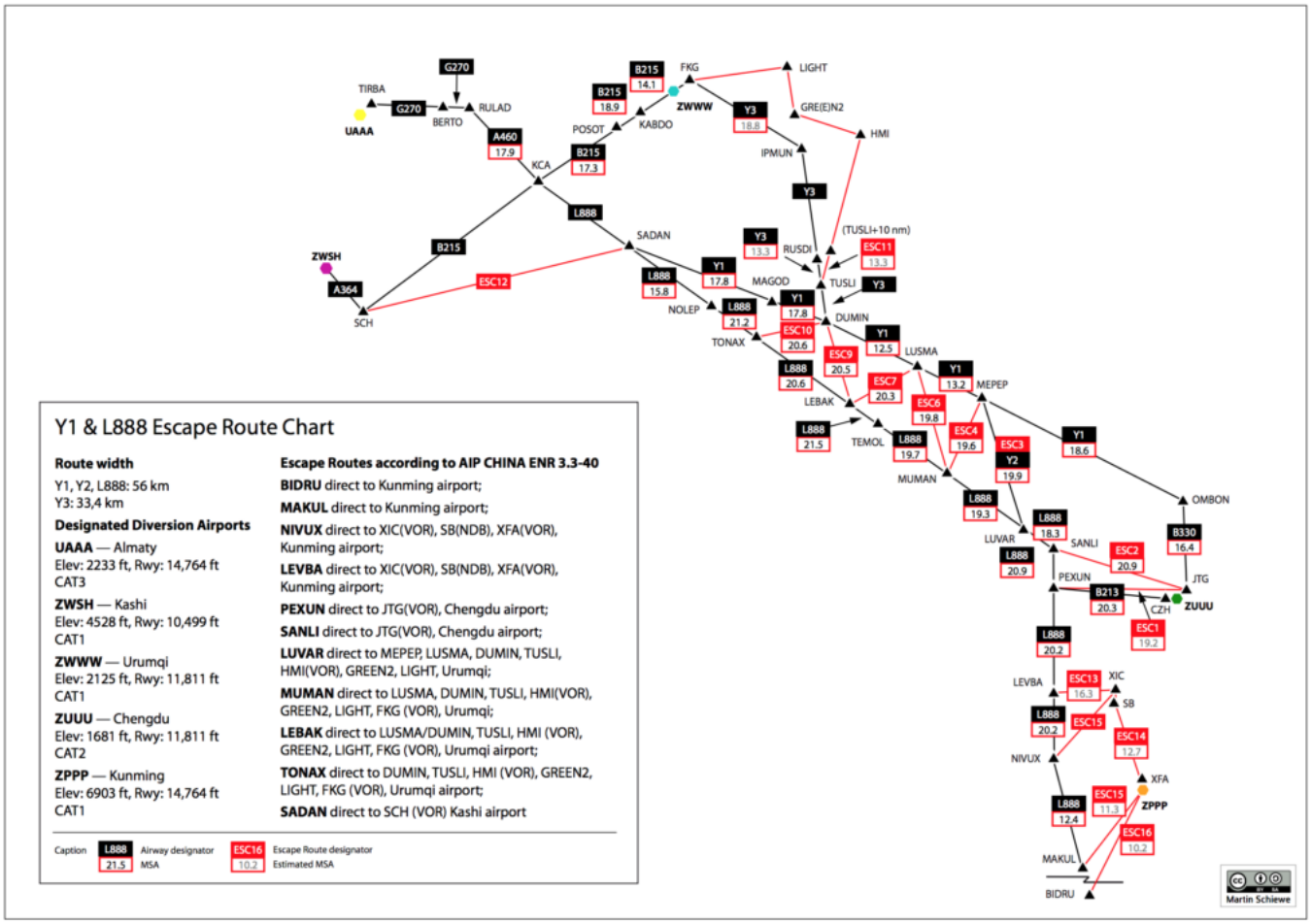
Now, onto the interesting stuff. The process requires submission of a “Procedure of emergent escape”.

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

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

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





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

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

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

Some history...

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

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

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

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

Further Reading:

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

NAT Doc 007 Changes 2022

OPSGROUP Team
7 February, 2022

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

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

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

The Very Simple Summary

MNPS is out

They have removed all historical references to it.

OWAFS is in

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

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

The Chapter by Chapter Review

Chapter 1

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

Chapter 2

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

Chapter 3

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

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

Chapter 6

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

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

Chapter 7

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

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

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

Chapter 10

Another 'should' to 'shall' change.

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

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

That's all we saw.

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

Further reading

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

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

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

Chris Shieff
7 February, 2022

****Update, Jan 19 – New****

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

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

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

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

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

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

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

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

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

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

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

The Situation

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

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

Flicking the 'ON' Switch

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

The Concern

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

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

How will these 'buffer zones' work?

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

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

How did the FAA choose the list?

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

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

Important US Resources

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

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

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

The US isn't alone.

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

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

What next?

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

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

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

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

Stay Updated

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

Has The Yemen Conflict Reached The UAE?

OPSGROUP Team
7 February, 2022

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

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

What are the concerns?

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

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

What is the situation in Yemen?

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

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

What is the general situation in the region?

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

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

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

Does this change the risk level for UAE airspace?

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

Can we mitigate any of the risk?

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

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

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

Noisy New Rule for EU Ops: The EASA Environmental Portal

Chris Shieff
7 February, 2022

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

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

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

Who does this impact?

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

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

OR

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

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

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

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

Either:

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

Or

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

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

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

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

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

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

What's this all about?

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

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

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

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

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

Who can actually view the data?

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

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

They all have to apply for access first too.

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

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

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

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

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

Tonga: Major Eruption in the South Pacific

Chris Shieff
7 February, 2022

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

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

Here's what you need to know.

Where is it?

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

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

What has been happening?

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

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

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

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

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

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

Outlook

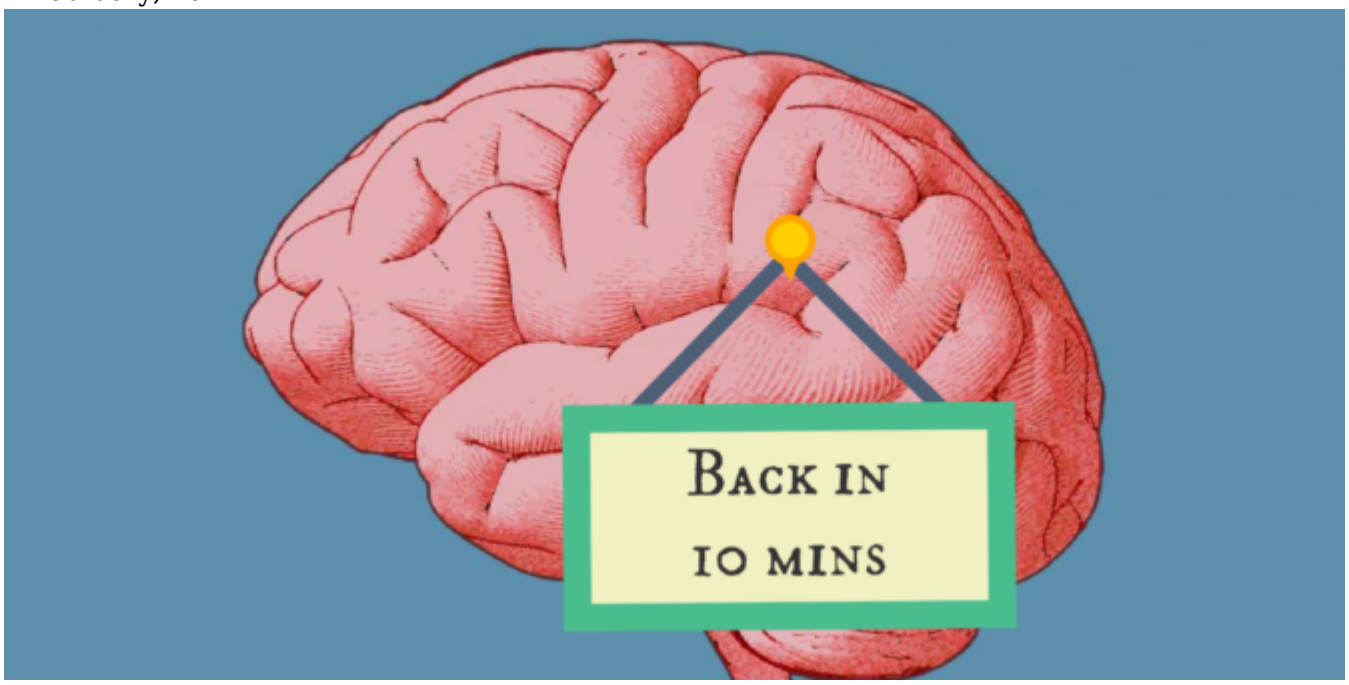
While things have started to subside since the eruption, it's not clear whether this was a one-off, or if we are in the middle of an 'eruptive sequence.' In other words, there may be more to come.

Stay Updated

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

Getting Your Head Back in the Game

OPSGROUP Team
7 February, 2022



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

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

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

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

(But before that) The Report

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

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

Stress.

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

We've all been there.

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

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

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

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

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

Time

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

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

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

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

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

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

But how long do you need?

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

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

Admit it, Move on.

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

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

We need to Rebuild

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

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

The Process

The process look simple:

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

But can we prepare for this even earlier?

Train to Fail

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

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

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

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

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

The Element of Surprise

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

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

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

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

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

Danger Club .. the story so far

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

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

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

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

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

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

Iraq Overflights: A Recent Report

OPSGROUP Team
7 February, 2022

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

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

You can still expect risk

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

What should you do?

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

All going well, here's what expect

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

The routings to plan are as follows:

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

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

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

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

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

Any other considerations?

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

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

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

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

What if I have to land there?

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

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

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

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

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

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

Almaty airport open again following civil unrest

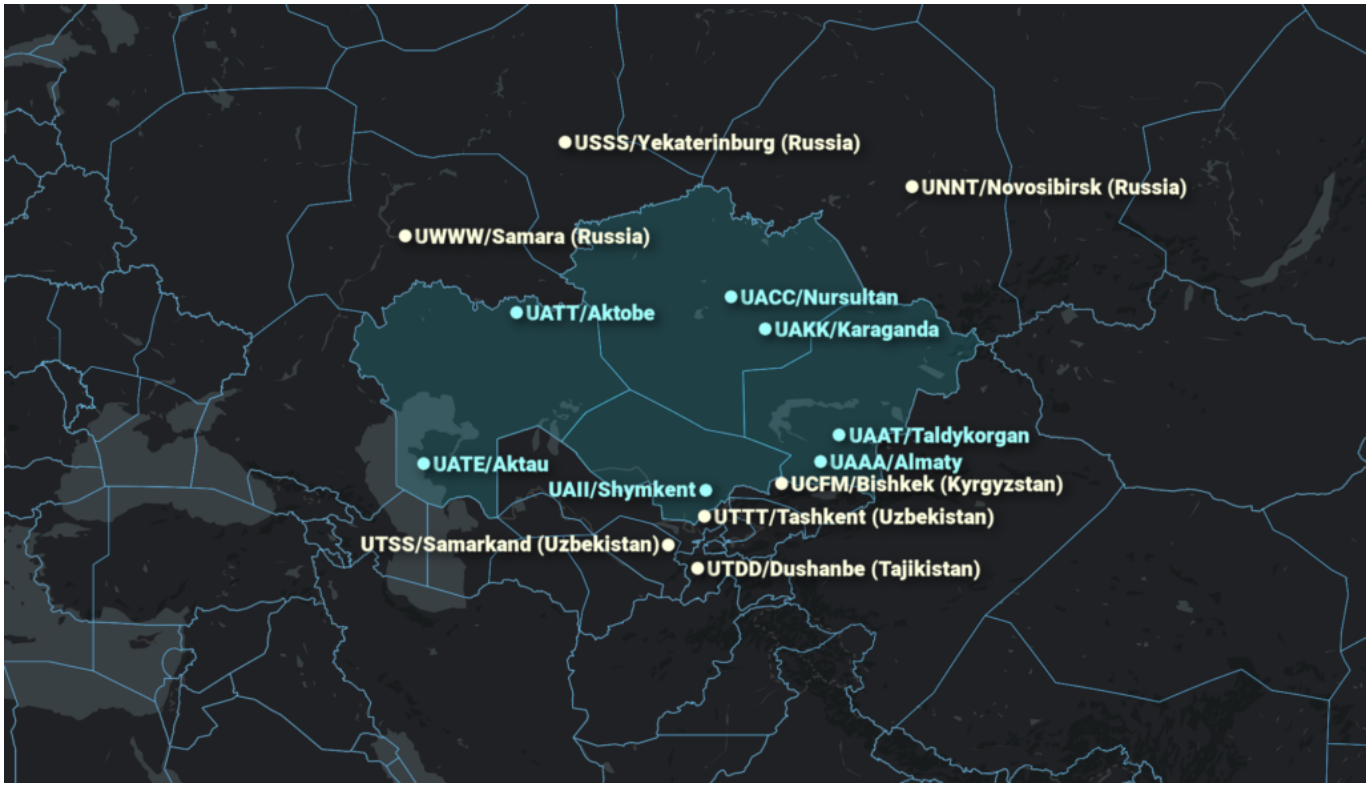
OPSGROUP Team
7 February, 2022

****Update, Jan 14 – 12:00z****

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

****Update, Jan 12 – 12:00z****

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



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

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

Overflights

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

One other thing: Fuel

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

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

Chris Shieff
7 February, 2022

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

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

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

confirmed this as fact.

Here's what happened.

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

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

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

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

Hypersonic missiles

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

But hypersonic missiles are dangerous, for two main reasons:

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

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

What could explain it.

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

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

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

The North Korean Missile Threat.

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

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

Outlook for 2022

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

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

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

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

Airspace Risk: Conflicts to watch in 2022

Chris Shieff
7 February, 2022

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

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

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

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

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

Ukraine

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

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

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

Click here for a full briefing.

Israel/Palestine

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

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

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

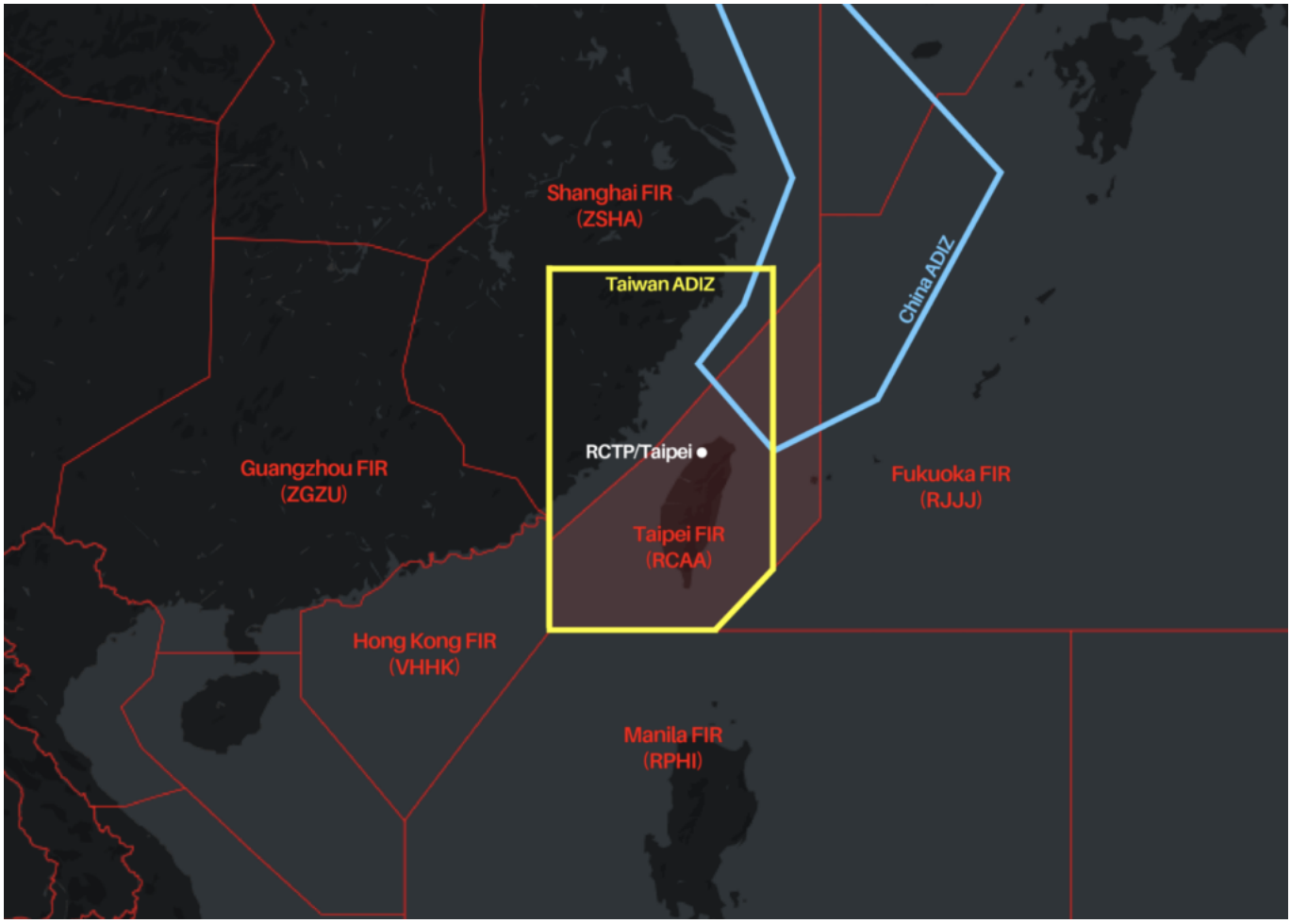
Click here for a full briefing.

Taiwan

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

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

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



Click here for a full briefing.

Iran

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

Click here for a full briefing.

Militant activity in Africa

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

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

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

Other mentions

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

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

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

Stay updated

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

Honduras has a New Airport

OPSGROUP Team
7 February, 2022

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

Where is it?

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

What has it got?

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

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

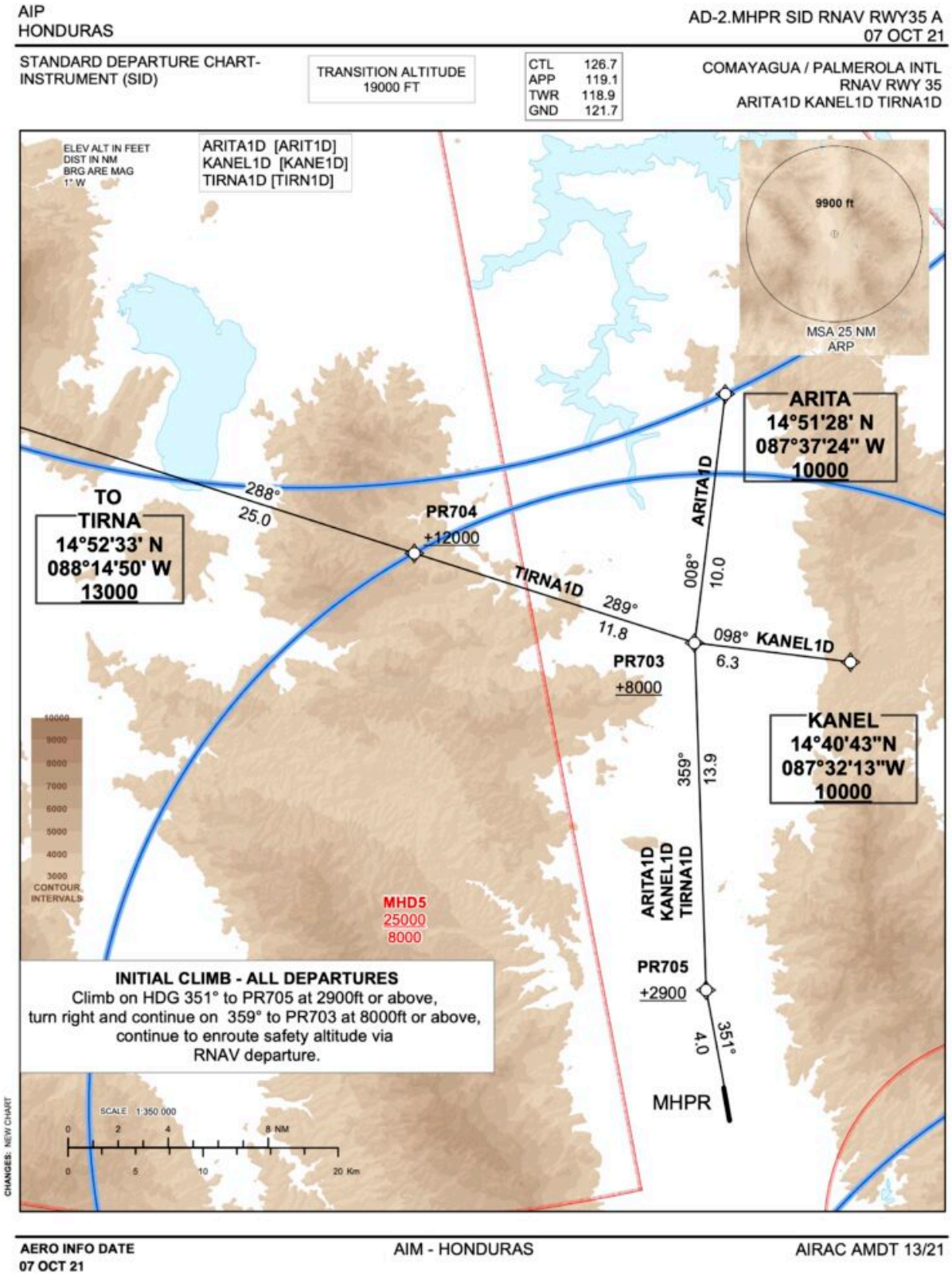
A report from someone who has headed in recently suggested that *"All traffic is routed mostly via TGU and in contact with TGU approach as far as I know for traffic landing north."*

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

Here's a quick look at the new airport:

Things to look out for at MHPR/Palmerola

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



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

What happened to MHTG/Toncontin?

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

Any contacts?

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

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

Any other info to know?

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

Venezuela Aviation Situation: Anything to Report?

OPSGROUP Team
7 February, 2022

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

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

Give us some background.

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

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

Tell us about the general situation for aviation.

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

A report received in 2019 said the following:

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

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

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

What about neighbouring countries?

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

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

And a quick mention of the Covid situation?

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

What has the US's response been?

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

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

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

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

What has the rest of the World said?

Surprisingly little, perhaps because few operators fly there…

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

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

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

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

A Quick NOTAM Review.

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

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

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

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

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

What is the 'Risk Rating'?

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

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

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

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Mexico ADS-B Mandate Coming Soon

OPSGROUP Team
7 February, 2022

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

Why was it delayed?

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

What do you need?

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

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

Where will you need it?

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

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

What if mine breaks?

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

Where is the official info?

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

Where else do I need ADS-B?

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

Yemen: Airstrike on Sanaa Airport

Chris Shieff
7 February, 2022

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

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

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

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

The situation.

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

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

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

So why now?

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

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

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

Drone launches from Sana'a Airport

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

Changes to Risk

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

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

The risk of this is two-fold:

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

What type of air defence systems do the Houthi have?

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

levels.

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

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

Want to know more?

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

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

Italy ATC Strike on Dec 16

David Mumford
7 February, 2022

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

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

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

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

further announcements on what services will be impacted.