(Adventurous) Flight Ops Assistant WANTED!

OPSGROUP Team
3 April, 2023

Hi there!

We're hiring again: this role is for a **Flight Ops Assistant** at **OPSGROUP**. Might this be you?

There are some hidden instructions in this post. Read carefully! At the end, you're going to go on an *adventure*, so be ready!

Let's get started!

The first question you might have is, what does a **Flight Ops Assistant** do? This role is a junior one, but you'll be a core member of the OPSGROUP Team. You'll assist with the daily work that we do for our members, and at the same time learn more than you can imagine about the weird and wonderful world of International Flight Operations. So for the right person, it's a win-win.

A day in the life of a Flight Ops Assistant…

When we say "Every day is different", it's actually true here. That's the beauty of international flight ops – Monday is a problem on the North Atlantic, Tuesday is an ATC strike in France (OK, that's every week right now, but …), Wednesday is a typhoon heading for Tokyo. But an overview of the things you would do are this:

– Keep an eye on **member messages** – a request for help, or a notification of something new.
– **Fact-check**: assess reports coming in, and communicate with CAA's, FBO's, ATC, Airports to nail down the skinny on the latest risks and changes.
– **Write** crisp, clear **ops alerts** in plain human-friendly English for our members.
– **Help** compile the Daily Brief for members.

– Research larger operational risks and changes for blog articles and guidance to members, and write helpful, clear articles.
– **Coordinate** our chats, meetings, events: Danger Club, Coffee & Waffle, OPSGROUP Local.
– **Help** with some of our focus work: NOTAM reform, Safe Airspace, Pilot-Controller workshops.
– Take part in our **Team chats**, and help track new ideas for member tools, resources, useful articles, maps, and other genius things.
– Keep our flight ops databases, member information, and airport info up to date.

Who are you?

Here's the first (*not so hidden*) instruction – when you start your adventure down below, make sure to give us a sense of **who you are**. For sure, some flight ops experience is important, but we like working with people we like. That doesn't mean "people like us", it just means that you bring great energy.

As this is a junior role for an assistant, we're not expecting you to have twenty years at the pointy end of international flight ops – but you should have a solid basis in flight operations: dispatch or flying, real world, a few years at least. We'll help take that foundation and expand your world; you'll learn, grow, and take on new challenges here.

The deets

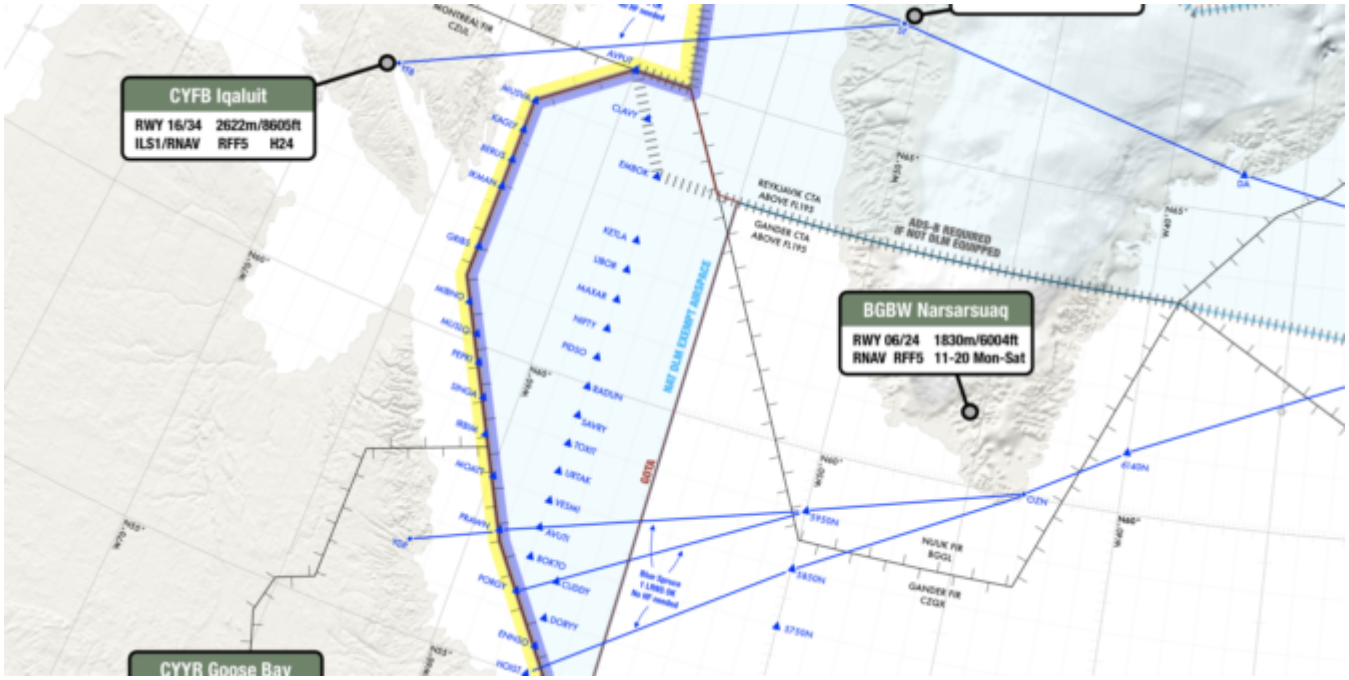
- **Working hours**: **Weekdays** (Monday-Friday), daytime hours, **full-time**. We have a target of 6 hours of good work each day, and most weeks will average out at 30-40 hours of work. You decide (mostly) when that happens – no night shifts or back of the clock grinding required!
- **Payment**: Monthly, fixed-rate. Some weeks more, some weeks less – depends what's going on.
- **Location**: Your island, cabin, apartment, garden, boat, tiny home, co-working space – wherever you have a quiet spot to yourself and some decent internet. We *might* have a preference for a US timezone in this regard (UTC-4 to UTC-8), but we're open.

Ready?

You can do your first interview already! It'll take about 20 minutes. We'll take you on a little adventure, ask you some things, tell you some things. All you need is your big computer (couple of practical things to do, so your phone isn't ideal) and a little time.

NAT Datalink Exempt Airspace – 2023 Update

OPSGROUP Team
3 April, 2023



There have been some changes to the boundaries of the datalink exempt airspace in the northern bit of the North Atlantic.

This used to extend down south to SAVRY, but now only goes as far as EMBOK.

So now you need datalink in the NAT oceanic airspace over Greenland controlled by Gander.

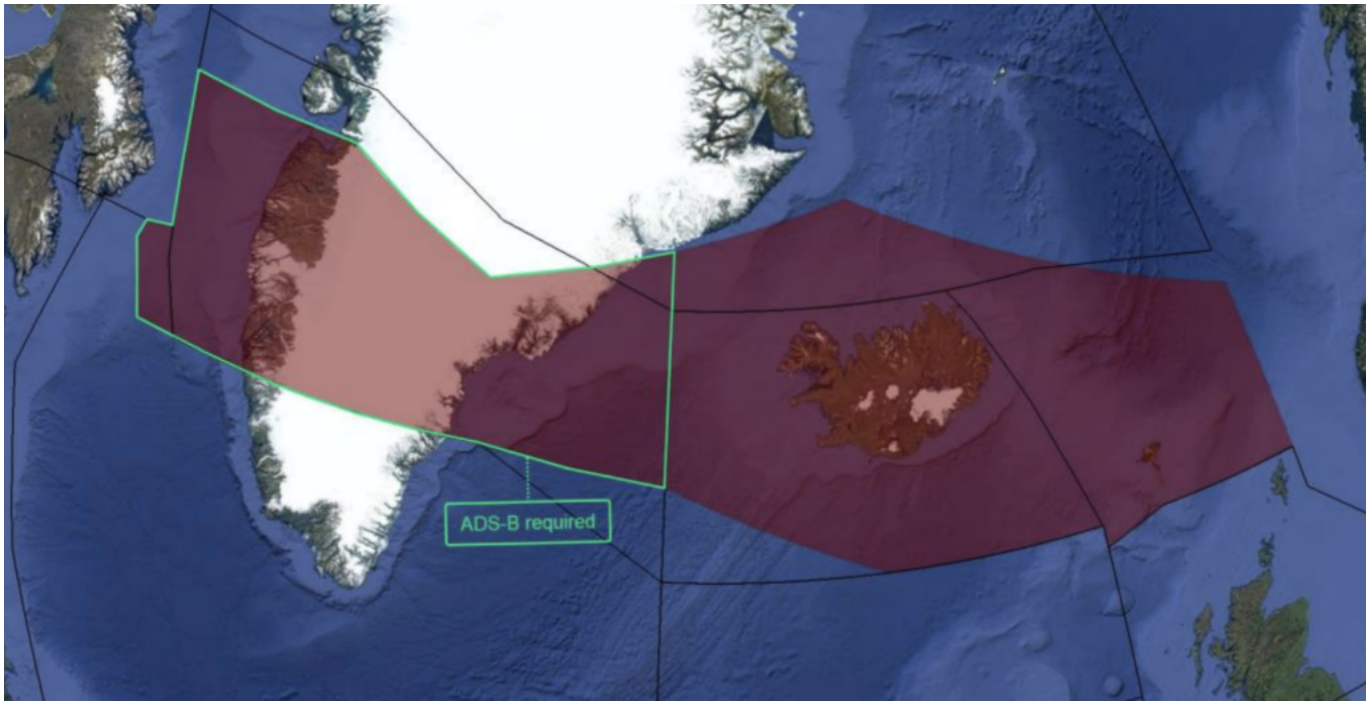
Here's a pic of what that now looks like:

You don't need datalink in GOTA airspace. We discovered this in Aug 2022, after some lengthy discussions with the authorities. (So that's why GOTA is shaded blue!)

You don't need datalink over the northern half of Greenland either, but if you don't have it, you must have ADS-B (as per the grey hatched line in the pic above).

When did this change happen?

It was actually published in the updated NAT Doc 007 in Jan 2023, but we only just spotted it now!



The new coordinates are as follows:

Northern boundary: 65N000W – 67N010W – 69N020W – 68N030W – 67N040W – 69N050W – 69N060W – BOPUT.
Southern boundary: GUNPA (61N000W) – 61N007W – 6040N010W – RATSU (61N010W) – 61N020W – 63N030W – 6330N040W – 6330N050W – EMBOK.

Why has this happened?

At the end of 2022, Canada decommissioned some VHF and ground based ADS-B sites in southern Greenland, and therefore no longer have the datalink exempt area in the northern portion of Gander oceanic HLA airspace. So at that point, **all Gander oceanic airspace became DLM airspace** (although GOTA stayed datalink exempt).

The 127.9 frequency continues to be used by Gander IFSS for the Blue Spruce Routes.

So, to recap…

- **Datalink Airspace:** Remember, NAT DLM airspace only applies from FL290-410. Below or above that, you don't need datalink in the North Atlantic.
- **If you have full datalink (CPDLC and ADS-C):** You can go where you like. But watch out here – "full datalink" means you have Inmarsat or Iridium. HF datalink alone (ACARS) does not meet the satcom part of the NAT DLM requirement. So if you want to fly in NAT DLM airspace (FL290-410 in the NAT region) "J2" in field 10a of your FPL isn't enough – you need "J5" for Inmarsat or "J7" for Iridium.
- **For GOTA airspace:** You need a transponder, automatic pressure-altitude reporting equipment and VHF. If you have ADS-B, that's helpful for ATC.
- **For oceanic airspace over Greenland controlled by Gander:** you need datalink.
- **For the Blue Spruce Routes:** You need datalink for the southerly ones, but not the northerly ones. (If you're flying on these then you're probably doing so below FL290 anyway, in which case you're below NAT DLM airspace and don't need datalink).

We've updated our dedicated NAT page with this info. This has a timeline of North Atlantic changes stretching back to the dawn of time (actually, 2015, but basically the same thing).

South Africa's Unapproachable Approaches

OPSGROUP Team
3 April, 2023

South Africa is going through some troubled times on the aviation front right now. Fuel issues, power outages, and now, apparently, they are losing a whole load of their instrument approaches nationwide.

The Fuel Thing

Not as serious as their 'fuel thing' in 2022 (when floods disrupted the main transport line to FAOR/Johannesburg and they had severe jet fuel shortages for months).

This is **limited to BP**, who are to **stop providing jet fuel** at airports across the country. They've already withdrawn from FACT/Cape Town, and will do so at other main airports FAOR/Johannesburg and FALE/Durban from the end of April.

Shortages have also been occurring FABE/Port Elizabeth, FALE/King Shaka, FAEL/East London and FAUT/Mthatha.

So if you're headed there, double-check with your local agent what alternative fuel suppliers are available, and what actual fuel is available for that matter.

The Power Thing

Load shedding is an ongoing issue. All airports have their own generators, so ops generally aren't the issue. However, it is causing some concerns (again) for fuel.

Airlines have been **tankering into FACT/Cape Town** due to potential limits after the load shedding

caused problems with the primary supplier.

There have been some Notams suggesting **limited tower availability** at some (generally smaller, regional) airports.

The Instrument Approach Thing

Authorities are **suspending instrument approaches** at a whole load of airports across the country. A check of South Africa's Daily Airspace Plan shows issues with **ILS, VOR, RNAV and GNSS approaches** at various airports:

Central Airspace Management Unit — **DAILY AIRSPACE PLAN 30 MARCH 2023**

Telephone Number: 011 928 6433
Email: camuhelpdesk@atns.co.za

Last Update: Thursday, 30 March 2023 06:02 South African local time
Next Telcon: Week days at 0630UTC excl. Public Holidays

ATC Overview – All times in UTC unless stated otherwise

Primary Aerodrome Issues

Location	Details	RWY	Approach Mode	Rate
CAMU				
FAOR	RAPID EXIT TWY INDICATOR LGT FOR RWY 03R/21L AND 03L/21R U/S. AWOS SERVER INTERMITTENT. RWY 03R/21L CLSD 2303300731-2303300801 RWY 03L/21R CLSD. 2303300700- 2303300730	21	VMC	53
FACT	**F0121/22 :** FACT ILS Z RWY 19 (ILS-02): PILOTS ARE PROHIBITED FROM FLYING THE PUBLISHED HOLD OR RACETRACK. REFER TO NOTAM FOR PROCEDURE. 5 PALS CAT II LGT RWY 01 U/S. CLR DELIVERY 122.1 MHZ OPS HR CHG TO: SAT-SUN 0400-1700. PWR LINE ON RWY 16 AND RWY 19 APCH BLW 2 PERCENT NOT CLEARLY VISIBLE DRG POOR WX COND. SID DEP-03 RWY 01 IMSOM 1A DATED 10 MAY 2007 SUSPENDED SID DEP-02 RWY 01 KODES 1A DATED 03 JAN 2019 SUSPENDED	19	VMC	30
FALE	ILS CAT II RWY 24 & 06 DOWNGRADED TO CAT I DUE SINGLE TRANS OPS. RWY 24 SUBSTATION UNINTERRUPTIBLE POWER SUPPLY (UPS) U/S. IN CASE OF PRI PWR FAILURE, THE FLW FAC WILL NOT BE AVBL FOR 10MIN:1. PAPI RWY 24, 2. TWY M AND H STOPBARS, 3. RTZL 24 U/S. DURBAN WX RADAR (294226.07S 0310453.91E) U/S. AFFECTED AREA 200KM RADIUS AROUND FALE. DURBAN S-BAND PSR (295853.39908S 0305757.11099E) OFFLINE. BIRD RADAR U/S.	24	VMC	24
FALA	ILS LOC LAI 110.7 MHZ RWY 07 U/S. ALL ASSOCIATED PROC SUSPENDED. 1830-2200	07	VMC	16
FAGG	IAC VOR-02 VOR RWY 29 DATED 01 MAY 2014 SUSPENDED. IAC VOR-01 VOR RWY 11 DATED 01 MAY 2014 SUSPENDED	29	VMC	15
FAPE	FOURTH ROW PAPI LGT ON THE RIGHT OF RWY 26 U/S. TWY LGT PANEL IN THE TWR U/S. TWY LGT INTST ON MANUAL AND IS ADJUSTED BY THE ELECTRICIAN IAC VOR-02 VOR RWY 26 DATED 07 JAN 2016 SUSPENDED.	26	VMC	17
FAEL	GRASS CUTTING TAKING PLACE ON ALL RWY, TWY EDGES AND RESA.DLY 0730-1930 IAC VOR-01 VOR RWY 11 DATED 03 JUL 2008 SUSPENDED IAC ILS-01 ILS Z RWY 11 DATED 03 JUL 2008 SUSPENDED	29	VMC	17
FABL	ALL STOPBARS & GUARD LGT U/S. IAC VOR-01 VOR RWY 02 DATED 11 DEC 2014 SUSPENDED IAC RNAV-01 RNAV (GNSS) RWY 02 DATED 30 MAR 2017 SUSPENDED SID DEP-01 RNAV (GNSS) RWY 02 DATED 30 MAR 2017 SUSPENDED STAR ARR-01 RNAV (GNSS) RWY 02 DATED 30 MAR 2017 SUSPENDED	20	VMC	12

Central Airspace Management Unit — **DAILY AIRSPACE PLAN 30 MARCH 2023**

Telephone Number: 011 928 6433
Email: camuhelpdesk@atns.co.za

Last Update: Thursday, 30 March 2023 06:02 South African local time
Next Telcon: Week days at 0630UTC excl. Public Holidays

Secondary Aerodrome Issues

Location	Details
FAKM	TWY A CLSD AD GRASS CUTTING TAKING PLACE. DLY 0600-1400. TWR/APP OPS HR CHG TO: SUN 0800-1600. IAC VOR-01 VOR/DME RWY 02 DATED 12 DEC 2013 SUSPENDED IAC VOR-02 VOR/DME RWY 20 DATED 12 DEC 2013 SUSPENDED
FAKN	KRUGER MSSR (252300.9S 0310633.94E) U/S.
FAPN	ATZ DOWNGRADED TO CLASS D AIRSPACE. TWR 118.4 MHZ OPS HR CHG TO: MON-FRI 0600-1400, SAT-SUN 90MIN PN CTC OIC 063 938 8670 IAC VOR-01 BREAKCLOUD VOR/DME 05 DATED 08 JUL 2004 SUSPENDED
FAPP	MIMIC PANEL U/S. ATC UNABLE TO CTL AD LGT IAC ILS-01 ILS RWY 05 DATED 12 OCT 2017 SUSPENDED IAC VOR-01 VOR A RWY 05 DATED 15 SEP 2016 SUSPENDED.
FAPM	IAC RNAV-02 RNAV (GNSS) RWY 34 DATED 18 JUL 2019 SUSPENDED IAC RNAV-01 RNAV (GNSS) RWY 16 DATED 20 JUN 2019 SUSPENDED
FARB	IAC VOR-04 BREAKCLOUD VOR 23 DATED 08 JUL 2004 SUSPENDED IAC VOR-03 BREAKCLOUD VOR/DME 23 DATED 08 JUL 2004 SUSPENDED IAC VOR-02 BREAKCLOUD VOR/DME 05 DATED 08 JUL 2004 SUSPENDED IAC VOR-01 BREAKCLOUD VOR/DME 05 DATED 08 JUL 2004 SUSPENDED
FAUT	PRIVATE CLOSE USER GROUP (PCUG) AND TEL LINES U/S. TEMPO CTC TEL NR 0664333871. NIL NGT OPS. MID WINDSOCK RWY 14/32 U/S. AERONAUTICAL AUTOMATED INFORMATION SYSTEM (ANAIS) AND AMHS AGENT TERMINAL INTERFACE SYSTEM (AMATIS) U/S. SAR CANNOT BE NML FOR VFR TFC AND THE APPLICABLE AD CANNOT BE NOMINATED FOR ANY SAR ACTION FOR BOTH VFR AND IFR TFC.
FAWB	ONE THR LGT ON RWY 29 U/S. FOURTH ROW PAPI LGT RWY 29 U/S. TWR CTL PANEL FOR RWY 11/29 LGT U/S.
FAUP	IAC VOR 01 VOR/DME 35 DATED 06 MAR 2014 SUSPENDED IAC RNAV 01 RNAV (GNSS) RWY 35 DATED 08 DEC 2016 SUSPENDED
FAGM	PAPI RWY 17 & RWY 11/29 U/S. ABN OBST LGT U/S.

The reason for these suspensions is not yet clear, but seems to be related to an **ICAO safety audit** that is currently taking place – as most of the suspensions got published by Notam half-way through their visit.

What does this mean for operations?

It means you might want to **see what is available at alternate airports**, because many approaches might not be and that could turn out to be a nasty surprise for pilots.

Beyond that, it is not currently clear why they are being suspended – whether audit findings suggest safety issues, or if some are due to problems with power outages and intermittent signals.

If you have any information, please get in touch at news@ops.group

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UK Air Passenger Duty Rate Hike

OPSGROUP Team
3 April, 2023

The UK Air Passenger Duty Rates are increasing!

What:

Air Passenger Duty rates – a charge for each passenger on flights originating in the UK.

Who:

It applies to **fixed wing aircraft weighing 5,700 kg or more** (12,500 lbs) and only applies to passengers you have onboard, not your crew. It applies to private non-revenue and charter flights too.

There are some exemptions:

- Emergency, training, military, humanitarian, search-and-rescue and air ambulance flights

- Cargo flights
- Transit passengers possibly
- Tech stops so long as no-one gets on or off
- Not really an exemption, but if a passenger has an onward connecting flight it only looks a the first leg when deciding what to charge

There is also an *'opposite exemption'* which applies to passengers on flights using aircraft of 20,001 kg (44,094 lbs) or more with fewer than 19 seats. For this they **apply a premium rate** which is in fact about double the standard business/first class rate.

When:

The new rates come in from **April 1, 2023**, and will be applied for the tax year 2023-2024. (So if you're reading this post after March 31, 2024 then this probably won't be accurate anymore.)

Where:

Everywhere in the UK.

They are based off where the journey ends outside of the UK. *"This is their final destination"*as HMRC state quite dramatically on their website.

How:

They are introducing new bands – specifically, **a new domestic band and a new ultra long-haul band.** Current rates will also increase.

- The new **domestic rate will be set at £6.50** (that's actually been reduced from £13)
- The new **Ultra long-haul rate will start at £91**

From April 1 there will be **4 (instead of the current 2) bands** – Domestic, A, B and C.

Band	Distance from London to destination capital city
A	0 to 2,000 miles
B	2,001 miles to 5,500 miles
C	over 5,500 miles

Of course, it is the UK so never just that simple. There are also **3 types of rate, based off seat pitch:**

- **Reduced:** seat pitch less than 40″ (1.016m)
- **Standard:** seat pitch more than 40″
- **Higher (the premium rate we mentioned earlier):** airplane weighs 20 tonnes or more but has 19 or less seats.

If you go to this page you can see all the destinations and which band they fit into, as well as a lot of info on how to calculate your seat pitch and the rate you need to pay.

Rates from 1 April 2023

Destination bands	Reduced rate	Standard rate	Higher rate
Domestic	£6.50	£13	£78
Band A	£13	£26	£78
Band B	£87	£191	£574
Band C	£91	£200	£601

So the new ultra long-haul rate is the one that will really sting. This is for flights to countries whose capitals are over 5,500 miles from London, and so that includes key hubs like Bangkok, Hong Kong, Kuala Lumpur and Singapore, where the rate will now be as high as £601 per pax depending on how much leg room they have!

If you want more information then you can find it in several places:

- The HMRC webpage on the changes
- The HMRC webpage for checking specific rates
- Talk to **Ann Little** on the phone at 03000 586096 or by email: ann.Little@hmrc.gov.uk

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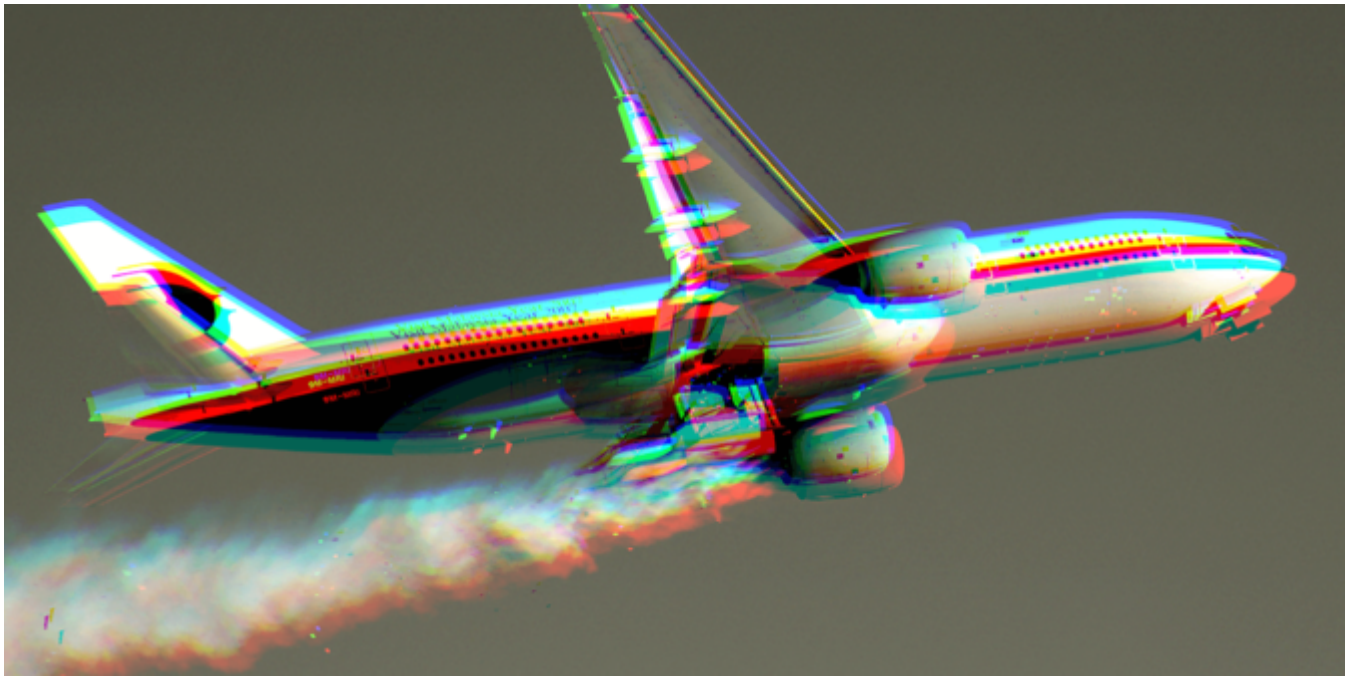
Emergency: We're all getting MAYDAYS wrong.

OPSGROUP Team
3 April, 2023



Pilots and Air Traffic Controllers communicate with each other every day. But it's not very often that we get to **talk to each other** in real conversation: sharing experiences, exchanging ideas, learning, and just having some fun and getting to know each other. Yesterday, in Danger Club #11, that's what we got to do, and it was eye-opening.

150 people came along to the meeting yesterday on **MAYDAY's and Emergencies**. For such a critical aspect of our intertwined worlds, we found a lot of unsolved mysteries, and a lot that we're getting wrong. We can both make life much easier on each other, it seems!

So, let's make this a starting point for figuring out some of these mysteries. With more collaboration, we can improve how emergencies unfold, and how we handle them in the cockpit and in front of the radar screen. In no particular order, let's jump in!

This is a living page. We'll update and revise this as we get more feedback, so please comment below ⬇ or email us with your thoughts!

~~Declaring an Emergency~~ 🚫 MAYDAY! 🚫

The first incident we looked at was a 747 on departure from Tokyo with a cargo fire warning. For two agonizingly long minutes, the crew tried to tell ATC they had a problem and neeeded to return: without success. Why? Primarily, **phraseology**. There was no mention of the word MAYDAY (or PAN-PAN). Key points on this:

- US pilots, in particular, tend to use the phrase "*Declaring an Emergency*". It's baked into the US aviation system, but it has **no legal or functional basis**. Officially, it's meaningless, but in the US it's just the way we do things (more on this below).
- When we go international, that becomes a problem, because it's not something controllers are trained to understand. In airspace where English is not the first language, we must say MAYDAY, or PAN-PAN. That, and only that, is the trigger for ATC to understand and help.
- **The FAA** AIM 6-3-1 covers Emergencies. **The wording needs urgent improvement**. The opening paragraph essentially says "*Say what you want, really*". It follows with "*The ICAO way*

(MAYDAY and PAN) is better, however", but it doesn't mandate using it. As a result, in the US, we have no solid guidance on how to handle emergency communications, and no phraseology guidance or examples. **This looks like the root of the problem**. **@FAA: fix this please!**

- If your GOM(Ops Manual)/SOP's suggest using "*Declaring an Emergency*" as the radio call, you're setting your pilots up for failure, especially when going international. Make it MAYDAY!

2. What does a perfect MAYDAY call sound like?

Like this:

- AAL001: "**MAYDAY, MAYDAY, MAYDAY, American 1, Engine failure, continuing straight ahead, STAND BY"**
- DFW TWR: "**American 1, Tower, MAYDAY roger**"

And especially internationally, these points are important (we cleared up some misunderstandings here as well):

- It doesn't matter if it's the first call or you're already in contact with ATC on the frequency, **always say MAYDAY**.
- **It's a trigger for ATC**. The frequency may sound quiet, but the controller may be on a phone call with another sector. Hearing "MAYDAY" will ensure immediate attention. Compare that to "*Uh, we gotta problem here, and blah blah*". There's no key phrase in there to force the controllers brain to listen immediately.
- **It's a trigger for other aircraft on frequency**. As soon as a MAYDAY call is made, everyone is listening and paying attention. If the controller doesn't come straight back with an acknowledgement, it's likely that another aircraft will jump in to try to get their attention. Also, everyone else will know to be silent.
- **Speak slowwwwwwwwly**. Like half normal speed. Say it once, say it clearly. When you describe the problem, use no more than three words, clear and slow "Cargo … FIRE .. warning".
- That ***STAND BY*** part is not in the books, but it's critical. If you're lucky, you'll get that ideal ATC response above which means "Got it, and I'll be quiet now for a bit, so you can do your thing". **You're not likely to be lucky**, so you need to ask for that silence. STANDBY will improve the chance of that happening.

3. Everyone's panicking for a minute

Listen to Shamrock 12G declare a MAYDAY here, just airborne from Orlando.

Listen to the voice change of the pilot. The physiological response, the startle effect: you can almost hear the increased heart rate. You can also hear the controllers stress response.

- Despite the startle, the Shamrock pilot makes a perfect MAYDAY call. **This is how it's done**. (And despite that, the controller asks "*Are you Declaring an Emergency*". Back to the FAA problem – very muddled guidance on emergency phraseology in the US. **@FAA: fix this**

please!)

- As pilots, **we might not think** that "our emergency" is stressful for the controller. It is. The controller is just as startled as we are. Every controllers heart skips a beat when you say "MAYDAY".
- For both of us – pilots and controllers – once you've sorted out the immediate actions, a moment to **sit on your hands** and breathe is essential. For pilots, Aviate, Navigate, Communicate – get the airplane safe – and then take a moment to get your physiology into a more helpful place. For controllers, Ack the call, separate the immediate traffic, and then … **Three deep breaths**, perhaps (IFALPA have been discussing this recently, as the startle effect become more understood). Bottom line is we don't make great decisions when we are responding instinctivly.

4. Dear ATC, here is our 5 minute wishlist.

This one is going to be a work in progress, but we discussed a few things that might help a controller to understand what a pilot really wants in those **first five minutes**. We should try to distill this into a flash card, after some more discussion?

So, "*American 1, MAYDAY, STANDBY*", ATC says "*American 1, MAYDAY, Roger*" … what then?

- **MAYDAY** is just what we say to get attention. It very, very, very rarely means that we're going down in flames like a bad Steven Seagal movie. Even though we'll be startled for a moment, our training kicks in and **we know exactly what we have to do**.
- The biggest obstacle to us doing that is **distraction**. Hence, the greatest gift you can give us is **SILENCE**.
- Start by letting us know that you heard us. Acknowledge the call, and "MAYDAY Roger" is just fine.
- Depending on traffic, terrain, and when it happens, give us an **altitude** and a **heading**. "*Continue runway heading, climb 3000 feet*". We'll tell you if we need something different. A heading is the most helpful form of lateral navigation, because we just twist the dial and engage heading mode. Don't give us a direct-to point (heads down in FMS takes time). Don't send us off to hold somewhere, just yet. **Heading, heading, heading**.
- **SILENCE**. The less you talk to us, the more it helps. That MAYDAY call we make is just a small part of the **procedure** we're trying to run. Getting that procedure done correctly requires both pilots to pay full attention, so stopping to talk to ATC is something we'd prefer to avoid.
- **The pilots will be having an essential conversation to** check the state of the aircraft, anlayse the issue, and decide on the appropriate action. A common workflow is *Power, Performance, Analysis, Action*: **Power:** Check Thrust, ATS engaged, set correct TOGA/CLB **Performance:** Flaps Up, Gear Up, Min Speed, Max Speed **Analysis:** MFDU Indication, OHP, Situation, Time Check, Priorities **Action:** [PNF] Memeory Items, MFDU, QRH, OMB, OMB Ch7, ILS minima conditions, MEL [PF] ATC call, Select approach considering situation, inform Cabin. For any engine issue, at the very least we will be retarding the throttle on the "bad engine". Pilot 1: "Confirm thrust lever 1"; Pilot 2: (points to Thrust lever 1) .. "Thrust lever 1,

idle". If it's a failure, we might shut it down: ""Confirm fuel lever 1" – "Fuel lever 1, Shut". If it's a fire, "Confirm fire handle 1" – "Pull, discharge" – "Fire bottle 1 discharged" (Start timing) … **That's a lot, right!** So, until we've done all that, we can't really tell you much about our plans, we don't know yet. We just need the space to work through all that.

- **We don't want to land right way.** In 49 cases out of 50, even with an engine failure, even a fire, we're not going to want to enter a downwind or make a 180 to land immediately. That's not in our training. We take any immediate action needed, but then sit on our hands, run the process, assess, analsyse, run some checklists, talk to the cabin, and form a plan. So the **best thing you can do is give us vectors**, keep us near the airport (within 15 miles, say).
- **Don't ask us for souls and fuel** in the first five minutes. Our brains are engaged in problem solving, and distraction make that difficult. Save that for later, if at all (more on that below!)

Question: What else should we add in here? What else is on our ATC wishlist?

More to come! But, please comment below on what we have so far …

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13 things we learned this Winter

OPSGROUP Team
3 April, 2023

More specifically, 13 things we learned about GRF.

What is GRF? This is the Global Reporting Format for runway surface conditions. It came in back in Nov 2021, and if you have flown anywhere wintery since then, chances are you have encountered it.

The aim of GRF? To have one worldwide standard for how runway surface conditions are reported – to help make things a bit safer and reduce runway excursions.

In Feb 2023, EASA held a webinar which involved a load of updates for various wintery airports on how GRF

was going.

We listened in to the webinar. Here are the 13 things we learned...

1. SPWR means Specially Prepared Winter Runway

And it seems to be quite EU specific (we haven't seen it in ICAO docs).

What it means: An airport where the temperature is **-15 degrees C or below, and which is covered in compacted snow or ice can be treated** *(usually with sand)* to improve the friction characteristics *(how well you'll decelerate)*. When it is done properly *(and checked and approved)* then authorities will designate it an SPWR and it will be **rated RWYCC 4** (or possibly 3, but 4 is probably what you need in order to land on it).

CC stands for condition code, 4 stands for a pilot braking action of good to medium, and **an observed braking deceleration or directional control of good to medium** on the runway condition assessment matrix.

2. Norway approved a bunch of airports for SPWR

It wasn't easy, but they did it. The approvals were only temporary (most expire at the end of the Winter season in April/May 2023), but still, well done Norway.

What it means: You can expect more and more SPWR spots in winter zones.

A6225/22 – THE AIRPORT OPERATOR HAS OBTAINED TEMPORARY APPROVAL FROM CAA FOR REPORTING OF RWYCC 4 SPECIALLY PREPARED WINTER RUNWAY. FINAL APPROVAL WILL BE ISSUED ONCE THE VALIDATION PROCESS BASED ON ACTUAL AIRCRAFT DATA IS COMPLETE. A REPORTED RWYCC 4 SPECIALLY PREPARED WINTER RUNWAY MAY BE USED FOR DISPATCH AND LDTA CALCULATIONS WITHOUT RESTRICTIONS. FOR THE DURATION OF THE VALIDATION PROCESS, OPERATORS SHALL CONSIDER ADDING EXTRA MARGIN, FOR INSTANCE BY INCLUDING A RWY SHORTENING AS APPLICABLE. 05 OCT 04:32 2022 UNTIL 01 MAY 12:00 2023 ESTIMATED. CREATED: 05 OCT 04:38 2022

3. The ATIS reports at airports giving GRFs can be really, really long.

What it means: If a runway was contaminated and then becomes Dry or Wet (so not contaminated anymore), they don't necessarily cancel out the earlier report, which means all the info is going to be on the ATIS and that makes it really long (that's what Norway said).

They are working on it. Trouble is, the other options are SNOWTAMs (these work, but how do you get an up-to-date one when you need it?) or ATC (clogs up the radio).

So for now, if you head somewhere wintery you can probably **expect a pretty lengthy ATIS.**

That was the top 3 things we learned. Here's some more...

4. It isn't easy for airports to be approved for SPWRs.

To get approval you need data, and to get data you need folk to be landing on the runway. But to land on the runway while it is treated you need approval…

What it means: You might still find yourself flying to airports next winter which don't have their approval

fully sorted. They issue temporary approvals, but until the data is in **there may be some *'uncertainty'*** about the braking and directional control characteristics. But Norway got some done this year. Folk landed on them. It all went ok.

If you aren't sure, talk to the airport authority to find out what they have, what they will report and what it means for you.

5. There is an airport in Norway called ENHV/Hooningsvåg

And it gets real wintery there.

What it means: 50% of landings in winter are on a contaminated runway, and the other 50% are on an SPWR. Oh, and their 'winter season' can be 50% of the year long. The same actually goes for a lot of airports in the upper latitudes so be prepared for winter ops and GRF if you head up there.

5. They are 95% confident in their GRFings.

What it means: GRF works, even on SPWRs. Which is lucky because, according to Ronny Anderson:

OK, let's see what folk outside of Norway have to say…

7: Switzerland also have a lot of runways using GRF.

19 in fact.

What it means: Well, they probably have long ATIS-es too. But also, GRF is supposed to be Global but we seem to be seeing it used predominantly at winter airports. Hmm…

8. Spain use it too!

They have 46 airports, and only experience what they call 'soft' winters – basically snow and ice isn't that common, and actually **rain is the biggest issue.** In fact, only 20 of their aerodromes even have a snow plan.

What it means: They are probably pretty unfamiliar with handling snow and ice when it does occur… but

also that GRF should be used anywhere you find runway contamination, which can mean rain too!

9. According to Spain, GRF doesn't actually work very well for rain.

What it means: It means they discovered a bit of an issue with GRF when it comes to watery measurements… If there is **3mm or less of water then it is considered wet and the RWYCC is 5**, but add just 1 more mm of water and you are in the standing water category and now the RWYCC drops to a 2.

Which is a problem? They think so, because **measuring to that level of precision is difficult**, detecting big changes quickly is difficult, and when they try it generally messes with their runway capacity because, presumably, guys are having to go and wade about the runway trying to measure a 1mm change in water level.

What that means: There is no solution right now that is entirely excellent, so there is a level of 'subjective' in the GRF you might experience when flying into wet runways anywhere in the world in fact (and you don't want to be the first to discover that code 5 is actually a code 2 so be careful when hearing ATIS-es that talk about standing water).

Let's hear something positive again…

10. Germany consider their GRF implementation a total success.

We say Germany, actually we're talking about EDDL/Dusseldorf.

What it means: Well done them! We shall expect perfect runway condition reports whenever we operate there.

What are operators saying?

11. Crews need to understand the GRF works in runway thirds.

That means you use the lowest of the RWYCCs, you should check how much of the first third of the runway is 'flared' over, and should shorten the runway by a third if there is an RWYCC outlier (but always use an outlier crosswind).

What it means: Well, trying to **calculate takeoff performance using GRF is not always easy** because we don't tend to work in runway thirds for it, and it isn't necessarily clear how much 'conservatism' should be applied.

And then there is the fact you might only get an updated report just prior to takeoff which means trying to rework all your calculations under pressure.

What that means: There is probably **some training to do with your crew** if they aren't totally familiar with GRF, and you should make sure what you put in your company manuals is clear and answers all these questions so they aren't rolling down the runway thinking *"Is this actually ok?"*

12. Because GRF considers braking deceleration and directional control, it isn't just the contaminant or surface condition that impacts this.

Downgrade and upgrade criteria need to be defined to include things like wind speed, precipitation, temperatures, various vehicle behaviours, etc etc.

Which means: If you operate in somewhere you need to really **do your part reporting back.** This has been in for a couple of years, but there are still some creases (ice ridges if you like) that need ironing out.

And don't assume it is all spot on and a runway excursion will no longer be a possibility at a GRF using

airport. This is a tool for improving safety only.

The 13th thing we learned about GRF:

We need to read up on it a bit more. If you do too, then here are some links:

- An old post we wrote on it
- A link to a PDF EASA made about it
- EASA's actual page on it, complete with the regulations and a whole load of other presentations
- ICAO's page on it (because it is global, not just European)

Ops in Indonesia: Is it safe?

OPSGROUP Team
3 April, 2023

We last took a closer look at Indonesia back in 2021 and said *"It's fine at the big airports, but watch out on the ground at the smaller ones."*

Nearly two years on and we thought it might be a good time to take another look and see if the situation has changed…

What's happened in two years?

The security situation in the Papua region of Indonesia has worsened, with numerous reports of ground incidents at smaller, rural airports in the area.

- **11 March 2023:** An armed group targeted a passenger airport operating at WAVD/Dekai airport, wounding one passenger as it took off. Several operators have suspended operations to this airport since then.
- **8 March 2023:** An armed group opened fired at WAYB/Bilorai airport. One plane on the ground was hit and another diverted.
- **March 2023:** A landing aircraft at WAJO/Oksibil was shot at, a cargo aircraft was set alight on the ground in a separate incident.
- **February 2023:** A foreign pilot flying for Susi Air was kidnapped.
- **June 2022:** An armed group shot at an aircraft as it landed into Kenyam Airport.

On top of these security incidents we have heard of protests over fuel shortages and many, many volcano issues.

What are the official warnings?

IFALPA issued a security alert for commercial operations in the Papua region in March 2023. The alert advises that the Papua region is considered a **'high security risk area',** and that operations over mountainous and rural regions are strongly cautioned against.

The Indonesian Government has declared the entire region high risk, and **armed groups have shown continued interest in targeting aviation interests.** The official advice is a security assessment for each flight, along with limiting time spent on the ground.

A full briefing on the political and security situation on the ground in Indonesia, particularly with regards the Papua region conflict, can be found here. **The majority of Indonesia is considered low risk** – increased volatility is primarily in the Papua region only.

What is our warning level?

While there are security concerns on the ground, there are no active airspace warnings or cautions.

From an **overflight and operational perspective, the major airports remain safe with good security.** Crew security on the ground, if travelling beyond the airpots and cities, should be reviewed.

See Safeairspace.net for further information.

Checking for **Ashtams and Volcano warnings** is important because these do kick off fairy regularly, potentially impacting overflight and airport operations.

The ones to really look out for are:

- **Karangetang** – WAMO/Siau
- **Mount Merapi** – WAHS/Semarang and WAHH/Yogyakarta
- **Mount Semeru** – WARR/Surabaya, WADD/Denpasar and WARA/Malang.

Tell me more about Indonesia!

- Our earlier post about Indonesia's practice of intercepting aircraft outside their airspace can be found here.
- We also did one specifically focusing on Bali because we know a lot of folk like it there.

Get ready for more North Korean missiles

OPSGROUP Team
3 April, 2023

Exercise “Freedom Shield” is happening now – which means that **more North Korean missile tests are likely in the coming days.**

What is Freedom Shield?

Freedom Shield is a **joint US-South Korean military exercise**. They run joint exercises every year, but this one is the largest in a long while and so is likely to cause more ‘retaliatory responses’ from North Korea. Particularly as South Korea is specifically **simulating responses to potential North Korean threats.**

The exercises run for **11 days from March 12th.**

It is not clear where the exercises will take place, but the general advice is stick to flight plan routes, maintain a very good listening watch on the radio, follow ATC instructions and keep a good look out.

What is the risk?

North Korea tend to respond to these exercises with **significant missile activity**, which they never announce. This exercise is likely to see similar levels of response, if their ‘announcement’ is anything to go by…

Pyongyong is resolved to respond with **“overwhelming powerful forces”** to so-called military manoeuvres by the **“the US imperialists and the South Korean puppet forces”**. So probably a lot of missile launches.

The missiles rarely have any impact, generally falling into the East Sea (Sea of Japan) outside the EEZ. However, they do pose a threat within the Pyongyang FIR, and a higher level of activity is expected this year.

Here is an earlier post covering this is more detail.

While North Korea do not announce missiles, South Korea do release notams (although generally after the event).

As of March 14, they have fired:

- Two strategic **cruise missiles,** from a submarine off the east coast of North Korea
- Two short-range **ballistic missiles** fired towards the East Sea, from Jangyon
- They ran their own military exercises in Feb 2023, firing several long range cruise missiles
- At the end of 2022, **180 North Korean ‘warplanes**‘ were detected in North Korea, but did not infringe on South Korean airspace
- **5 North Korean drones** entered South Korean airspace in December 2022

In other North Korean news…

Not a lot.

They have been **trialling ADS-B** in their airspace since 2009, according to Notam A0050/09

For full updates on the airspace risk in North Korea, as well as Japan and South Korean, visit Safeairspace.

The 45.5T Elephant in the Security Room

OPSGROUP Team
3 April, 2023

What do 9 African elephants and a G700 have in common?

They both weigh over 45,500 kilograms.

And that's the weight threshold you need to know about if you're planning on heading to the UK anytime soon…

Why?

There are some rules about security screening for heavy jets! Here's how it works:

- **Any outbound public transport (charter, scheduled or commercial) flight on an aircraft over 10 tonnes (22,000 lbs) MTOW needs to be security screened**
- **All aircraft (including private flights) with a MTOW over 45.5 tonnes needs screening.**

And remember – the MTOW is what it says in your aircraft manual. We ain't talking the weight on the day.

What does 'Security Screening' mean?

Here is a link to the EU regulation.

Yep, it's an EU regulation but this is basically what still applies in the UK as well.

Why do they have this regulation? It is all about making sure people and their stuff are protected.

So "*acts of unlawful interference with civil aircraft that jeopardise the security of civil aviation should be prevented by establishing common rules for safeguarding civil aviation. This objective should be achieved*

by setting common rules and common basic standards on aviation security as well as mechanisms for monitoring compliance."

The common rules it speaks of are the screening of luggage, people, checking nothing is hidden on the aircraft, etc.

Why MTOW?

And why that particular MTOW? Why not something like number of seats?

No one knows (i.e. someone probably knows, but we don't know).

If YOU know then email us at news@ops.group We can't stop wondering now.

Why are we talking about it?

Well, there has been some confusion at some UK airports, particularly for **Part 91 folk**. And there has been some disruption at some UK airports with **operators experiencing lengthy delays.**

One member reported having to adjust their departure date and time by nearly 4 days...

There are actually two *things* worth highlighting:

First of all, specifically in the UK, there are **continuing staff shortages** and this can mean delays in security screening availability. **Airline operators are always prioritised** which means you might experience delays, and you might even find flights cannot be accommodated.

The solution?

- **Book in advance and use a handling agent** – preferably the main FBO for an airport. They are generally very helpful folk who want to help as much as possible (and can help deal with the airport authorities).
- **Don't make last minute schedule changes** and expect them to be able to leap in and immediately do a security screening for you.
- **Head to dedicated BA/GA airports** when you can. Somewhere like EGLF/Farnborough is going to be able to accommodate you more easily than the likes of EGLL/Heathrow (although even EGLF told us requests with less than 4 hours would be difficult on busy days).
- **Avoid operating into larger airports at peak times** (when the scheduled folk are heading in and out).
- **Have a backup plan airport** – if your agent is telling you it is going to be tough to accommodate you and you know you cannot delay your departure, then fly somewhere else that can!

UK rules aren't exactly the same as US.

In the US the **regulation applies to Part 121, 135** etc. Not necessarily part 91 though. In the UK it applies to anyone and everyone. If your MTOW is over 45.5 tonnes (100,309 lbs) then you're going to need a security screening.

Here is a link to the NBAA's handy article about the US side of things.

Anything else?

Here is a link to the UK Gov travel guide site.

You can find things on all topics from hand luggage restrictions to everything else on here so a good spot to head to if you want more info on the specifics (although we reckon just ask a handling agent at the airport you are heading to!).

Your 2023 Airshow Calendar

OPSGROUP Team
3 April, 2023

When we started this post, we didn't realise quite how many airshows there are out there in the world. So consider this more of a *'some of the big airshows that you might want to see (but that might also cause issues at airports you are likely to fly into)'* calendar. And let us know if you think you've spotted one to add!

The UK

The UK has loads of airshows planned for 2023. Go here for a full (but possibly not exhaustive) list. Most of these take place at smaller (and non-international) airports. So they might cause some airspace restrictions in their general vicinity, but we won't sit and tell you about them all in turn.

- **We will mention the Bournemouth Airshow though.**

Make that an 'Air Festival' actually. And not just air – land and sea too! This is a major airshow which takes place August 31- September 3. It will probably take **EGHH/Bournemouth** out as an alternate option for the days it is on, and you can expect some airspace *things* to be aware of in the general, just below London, sort of area.

- We will also point out the **Royal Air Tattoo.**

This is the largest military airshow in the UK, held on the July 15-16 at **EGVA/RAF Fairford.** This can have some impact on flights into London, and around the southwest region of the UK with aircraft heading in from all over the UK and beyond.

- The next **Farnborough Airshow is in 2024** so no comment on that today.
- **The Coronation of King Charles** is likely to involve an Air Show, with some airspace restrictions.

It takes place on May 6. You can also expect higher traffic into the UK around this period, probably some strict security and airspace restrictions around London during it.

Europe

From the **19th-25th June** what is probably the biggest air show and aviation exhibition event in the world will take place – **the Paris Airshow.** The skies of Paris will be thrumming with the sound of all sort of airplane engines, and all the airports will be fairly hideously busy.

- **LFPB/Le Bourget** will be off limits for all but those actually ‘at’ the show.
- **LFPG/Paris Charles de Gaulle** is right next door but this is a major international airport and unlikely to have all that much additional space to accommodate you.
- **LFPO/Paris Orly** is the ‘other’ international airport. Also busy, but less busy the de Gaulle.

- **LFPT/Paris Pontoise-Cormeilles** Airport is up the road and worth looking into for parking. They do not have customs there though so it would be an entry somewhere else then park here job.
- Slightly further afield **LFOB/Paris Beauvais-Tille** Airport offers customs.
- **LFOK/Paris-Vatry (Chalons)** Airport is also in the vicinity. This is mostly used for cargo.

Europe is of course quite big, and each country likes to hold an Airshow now and then. Many are smaller ones and to keep the length down, I have decided to only post ones that I have heard of, which take place at big international airports (or close enough to them to impact them).

So, for a more detailed list of airshows in Europe in 2023, check here.

Middle East

Dubai's big (trying, and might even succeed in being bigger than Paris) airshow takes place in November. Specifically November 13-17.

The airshow takes places at OMDW/Dubai World, also known Al Maktoum, which takes that out as an option for getting into the UAE, and parking your aircraft unless you've asked early enough. But worry not, one thing the UAE does well (and in quantity) is airports.

You have a whole bunch of options nearby:

- **OMDB/Dubai International**
- **OMAD/Al Bateen executive (Abu Dhabi)**
- **OMSJ/Sharjah**
- **OMAA/Abu Dhabi**
- **OMAL/Al Ain**

There are usually a fair few airspace restrictions and things to know nearer the time so keep an eye out for those.

North America

OK, we thought the UK had a lot. Turns out (unsurprisingly, given something like 50% of the worlds airports are in the US) that they win on the airshow quantity.

We found this rather handy site listing a whole load of them. It's a good resource for checking airshow dates at some of the smaller airports you might be heading into.

- We figured it would be worth highlighting Oshkosh

This takes place at **KOSH/Wittman regiona**l airport on **July 24-30.**

- One of the biggest airshow events in the US is the Miramar Air Show which takes place over 3 days (suggested to be September 23-25 this year).

It is held in **San Diego at KNKX/Marine Corps Air Station Miramar,** and sees a huge amount of military traffic heading into the area. You can expect some restrictions at KSAN/San Diego and its airspace during this time.

- Canada's main Airshow, the Abbortsford Air Show, takes place at **CYXX/Abbotsford** on August 11-13.

Again, not at an airport you might be heading directly to, but likely to result in some airspace restrictions in the area so keep a look out.

Around the Pacific and Asia sort of areas

- The Pacific Airshow takes place in the Gold Coast, Australia between **August 18-20.**

This is originally a US (Huntingdon Beach) based event. In true Australia style, it takes place over a beach, but the main airport used is **YBCG/Gold Coast**. There can be impact to the airspace for **YBBN/Brisbane** as well (and you probably don't want to plan YBCG as your alternate).

- You also have the Malaysia hosted LIMA 2023 Langkawi exhibition **May 23-27**.

This isn't just an airshow. It is actually a massive conference sort of thing, but they do a lot of air displays at it (military and civilian) and these may well impact **WMKK/Kuala Lumpur and WMSA/Sultan Abdul Aziz Shah** airports.

- The Seoul ADEX (Seoul International Aerospace and Defense Exhibition) 2023 event takes place between **October 17-22.**

Although not exactly just an air show either, it does involve some large amounts of air showing so we figured we would add it in here.

- The Singapore Air Show isn't due until **February 20-25 2024** so we'll mention that more another time.

It isn't just Air Shows...

Of course, it isn't just Air Shows specifically which limit capacity at airports and cause disruption. **Major sporting events** tend to cause them to fill up fast, busy aviation conferences see higher traffic numbers heading in, while big political stuff sees higher levels of security and often flight restrictions...

But my fingers hurt so we'll post about all of that another time

Nicaragua's Silly New System For Overflight Permits

OPSGROUP Team
3 April, 2023

Nicaragua's CAA has recently implemented a silly new system for overflight permit requests.

They talk about the changes in AIC numbers 89-93. But even when translated into English, the docs are **bamboozling, and it's not really clear exactly what has changed.**

So we called on the help of Consorcio Aviation — a flight support company in the region, and our old pals — for help to understand all this, and how overflight permit requests now work.

So, how does it work?

Before, the process would go as follows: you would make one request with all the flights you wanted to do in a month, and the CAA would reply with one unique permit number for the entire list that was requested.

The new system is different. **Now each flight must have its own permit number, and it is sent in the format of a QR code.**

QR codes? Yuck.

Yep. You scan the QR code, and a webpage opens with your permit number – **the one that you add to your FPL.**

Is that it?

No, it gets worse. To make things more confusing, the QR codes are not all sent at once, but in partial batches of five, two or sometimes even one at a time, depending on how many flights you're doing, further increasing the need for **constant follow-up.**

What do these hideous QR codes look like?

Here's a sample. The QR code there is fake for confidentiality reasons, but if you scan a real one you get just a text with the permit number.

INSTITUTO NICARAGÜENSE DE AERONAUTICA CIVIL
INAC

Unidad de Atención a la Aviación General Internacional
y Vuelos Oficiales

Aprobación Solicitud de Sobrevuelo

Fecha: lunes, 01 mayo 2023
Trámite: 01234
Operador: OPERATOR NAME

Código IAC

Fecha de Vuelo: 02/05/2023

TIPO	MATRICULA	ORIGEN	DESTINO	AEROVIA	MOTIVO
B733 FLIGHT	TAIL NO.	ORIGIN	DESTINATION	UB767	TYPE OF

Esta Autorización es valida para la ida y el retorno.

Watch out for the **TRAMITE number** on this doc. This is like an internal code for the CAA – it's not the permit number. If you have inquiries and need to get to the authorities, they will ask you this TRAMITE number, not the permit number itself.

Is this QR code / permit system online?

No, they don't have an online system for the requirements. **You need to request it directly from the authorities – and easier to do this through an agent.** Although some of the authorities' staff understand English, it's easier to communicate in Spanish in case they request more information or something is not very clear to them.

What about Nav fees? How do these get paid?

At the end of every month they send the billings to all the operators/companies that requested permits. In our case for example we usually give the options to our clients to pay directly or we pay for them. Usually they choose the second option for the reasons stated above.

Who are you, Consorcio?

Consorcio Aviation is a leading Flight Support Company headquartered in Paraguay, with a global footprint. It provides full-service ground handling to the main airports in Latin America and the Caribbean, for both cargo and passenger flights. With over 40 years of experience in the aviation industry, Consorcio Aviation is a suitable partner to assist ground operations with world-class standards. Email us at fltops@consorcioaviation.com

Sounds swish. Got any pics?

Yep. Here we are.


YOU MUST PLAN TO WIN,
CONSORCIO
Holding

New FAA Airspace Warning: Mali

OPSGROUP Team
3 April, 2023

On Feb 23, the US FAA re-issued its warning for overflights of Mali, with one essential difference:

It is now dangerous to overly Mali's airspace at all levels, not just below FL260.

Here is what the new KICZ Notam says:

KICZ A0001/23 NOTAM SECURITY.. SECURITY..UNITED STATES OF AMERICA ADVISORY FOR MALI

THOSE PERSONS DESCRIBED IN PARAGRAPH A (APPLICABILITY) BELOW SHOULD EXERCISE CAUTION WHEN FLYING INTO, OUT OF, WITHIN, OR OVER THE TERRITORY AND AIRSPACE OF MALI AT ALL ALTITUDES DUE TO A WORSENING SECURITY SITUATION, INCLUDING ONGOING FIGHTING, EXTREMIST/MILITANT ACTIVITY, AN EXPANDING FOREIGN PRIVATE MILITARY PRESENCE, AND THE INTRODUCTION OF AN ADVANCED AIR DEFENSE SYSTEM.

A. APPLICABILITY. THIS NOTAM APPLIES TO: ALL U.S. AIR CARRIERS AND COMMERCIAL OPERATORS; ALL PERSONS EXERCISING THE PRIVILEGES OF AN AIRMAN CERTIFICATE ISSUED BY THE FAA, EXCEPT SUCH PERSONS OPERATING U.S.-REGISTERED AIRCRAFT FOR A FOREIGN AIR CARRIER; AND ALL OPERATORS OF CIVIL AIRCRAFT REGISTERED IN THE UNITED STATES, EXCEPT WHERE THE OPERATOR OF SUCH AIRCRAFT IS A FOREIGN AIR CARRIER.

B. PLANNING. THOSE PERSONS DESCRIBED IN PARAGRAPH A (APPLICABILITY) PLANNING TO FLY INTO, OUT OF, WITHIN, OR OVER THE ABOVE-NAMED AREA ARE STRONGLY REMINDED TO REVIEW CURRENT SECURITY/THREAT INFORMATION AND NOTAMS; COMPLY WITH ALL APPLICABLE FAA REGULATIONS, OPERATIONS SPECIFICATIONS, MANAGEMENT SPECIFICATIONS, AND LETTERS OF AUTHORIZATION, INCLUDING UPDATING B450; AND, TO THE MAXIMUM EXTENT POSSIBLE, PROVIDE AT LEAST 72-HOUR ADVANCE NOTICE OF PLANNED FLIGHTS TO THE FAA AT FAA-WATCH@FAA.GOV WITH SPECIFIC FLIGHT DETAILS.

C. OPERATIONS. WEAPONS COULD POSE A POTENTIAL RISK TO AIRCRAFT AT ALL ALTITUDES, INCLUDING DURING OVERFLIGHT, THE ARRIVAL AND DEPARTURE PHASES OF FLIGHT, AND/OR AIRPORTS AND AIRCRAFT ON THE GROUND. THOSE PERSONS DESCRIBED IN PARAGRAPH A (APPLICABILITY) MUST REPORT SAFETY AND/OR SECURITY INCIDENTS TO THE FAA AT +1 202-267-3333.

ADDITIONAL INFORMATION IS PROVIDED AT: HTTPS://WWW.FAA.GOV/AIR_TRAFFIC/PUBLICATIONS/US_RESTRICTIONS/

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S

o what's changed there, and why is the FAA so concerned?

The Stage

Mali is a large land locked country in Central Western Africa and borders several states including Niger, Algeria, Mauritania, Guinea and Burkina Faso.

Several major **high altitude airways** run through the country facilitating traffic both north and south, and east and west. They are major thoroughfares through the heart of Africa, which is why this new warning is significant.

In the past three years Mali has suffered from continuous **political instability** after two armed coups – the first in 2020, and then again in 2021. This has been compounded by delays in holding an election.

It was dropped from ECOWAS (Economic Community Of West African States) as a result, and has faced several international sanctions.

It has a long history of **insurgent militant activity** who oppose the government, along with the intervention of foreign military to try and restore peace and stability.

Despite best efforts, insurgent militia have continued to spread and strengthen in Mali allowing well funded groups such as Al Qaeda to increase their presence there. Military operations and terrorist attacks have become more frequent.

Of special concern is the fragmented tri-border region that divides Mali, Burkina Faso and Niger. It is a hotspot for fighting that targets both the existing government, along with the foreign military presence.

What has changed?

Hot on the heels of the new KICZ Notam, the FAA has published a new information note which raises **major red flags** to anyone considering overflights.

Historically the concern to aviation in Mali has been from militant use of MANPADs (man portable air defence system) to target low and slow flying aircraft **up to FL250.**

However as the transitional government continues to fight against insurgent militia, their emphasis has moved from the support of foreign peacekeeping forces to the use of private military. **One in particular is of major concern – the Wagner Group.**

In Spring last year, this Russian backed paramilitary group has deployed over one thousand troops in Mali near Bamako, along with an **advanced radar guided air defence system** capable of targeting aircraft as high as **FL490**. A similar system was used to shoot down MH17 in 2014.

While there may be no specific intent to target civilian traffic, the FAA suggests the Wagner Group have a sordid history of **unprofessional and heavy handed air defence activity**. This was previously evident in Libya, where US operators have been completely banned for some time.

What we're now seeing in Mali is that civilian aircraft may be at far greater risk of advanced anti-aircraft fire through **mistaken identity or mis-targeting**, which can likely reach higher than you can fly.

The risk is now two-fold.

The existing risks are still present – militant groups continue to be active with MANPADS. They are likely to target foreign and local military forces which are often located close to international airports including **GABS/Bamako.**

At higher levels, aircraft are now at risk from radar guided air defence systems that may be used with little verification that their target is correct.

It is a dangerous brew.

Why the FAA has only cautioned US operators, rather than ban them as is the case in Syria, Libya and Iran among others where similar weapons are also present is a question we don't have an answer for yet.

We are actively seeking more information.

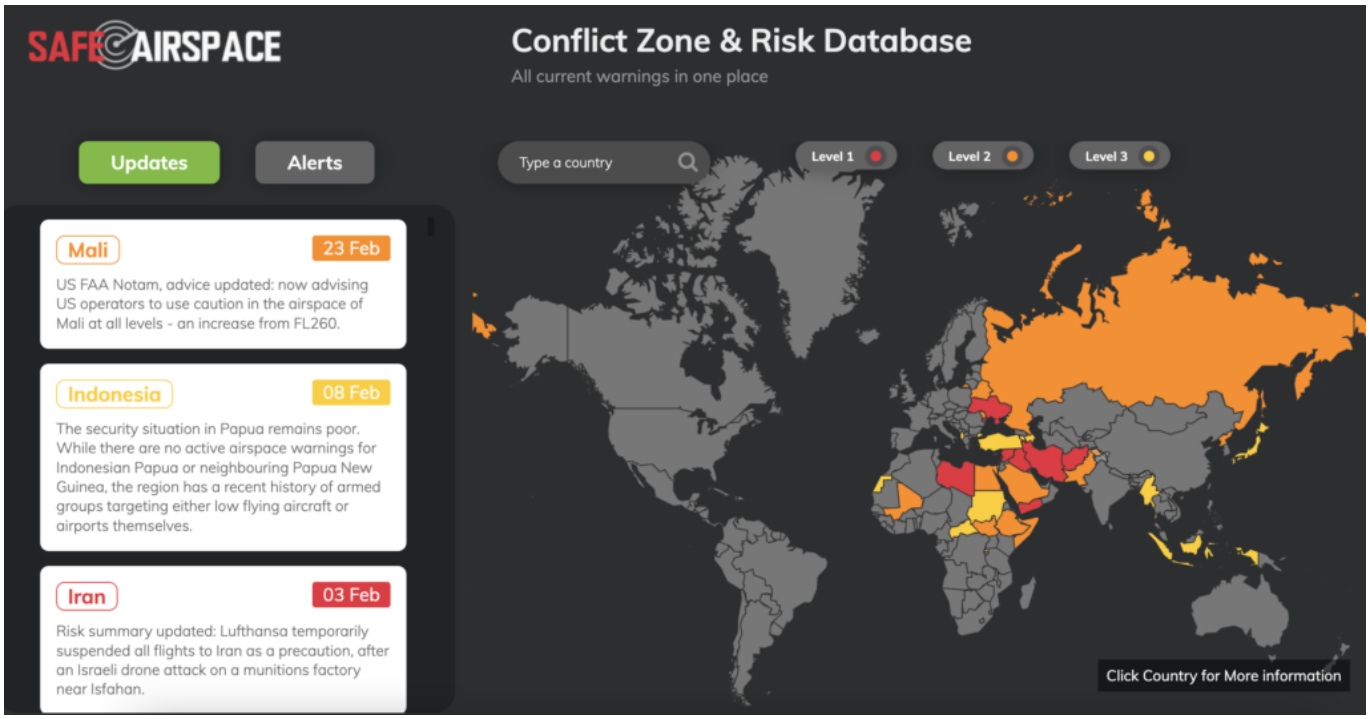
I still want to overfly. Can I?

Yes you can, but it's dangerous at all levels. Once again, the new Notam is a **precaution**, not a ban. The new KICZ Notam allows room for you to do so, provided you:

- Take into account all current security and airspace warnings and perform your own risk assessment.
- Comply with and update your OPSPEC/LOA B450 approval to operate in internationally sensitive ares.
- Where possible, provide the FAA with at least 72 hours notice via FAA-WATCH@FAA.GOV
- Report any safety or security issues ASAP to the FAA on +1 202-267-3333.

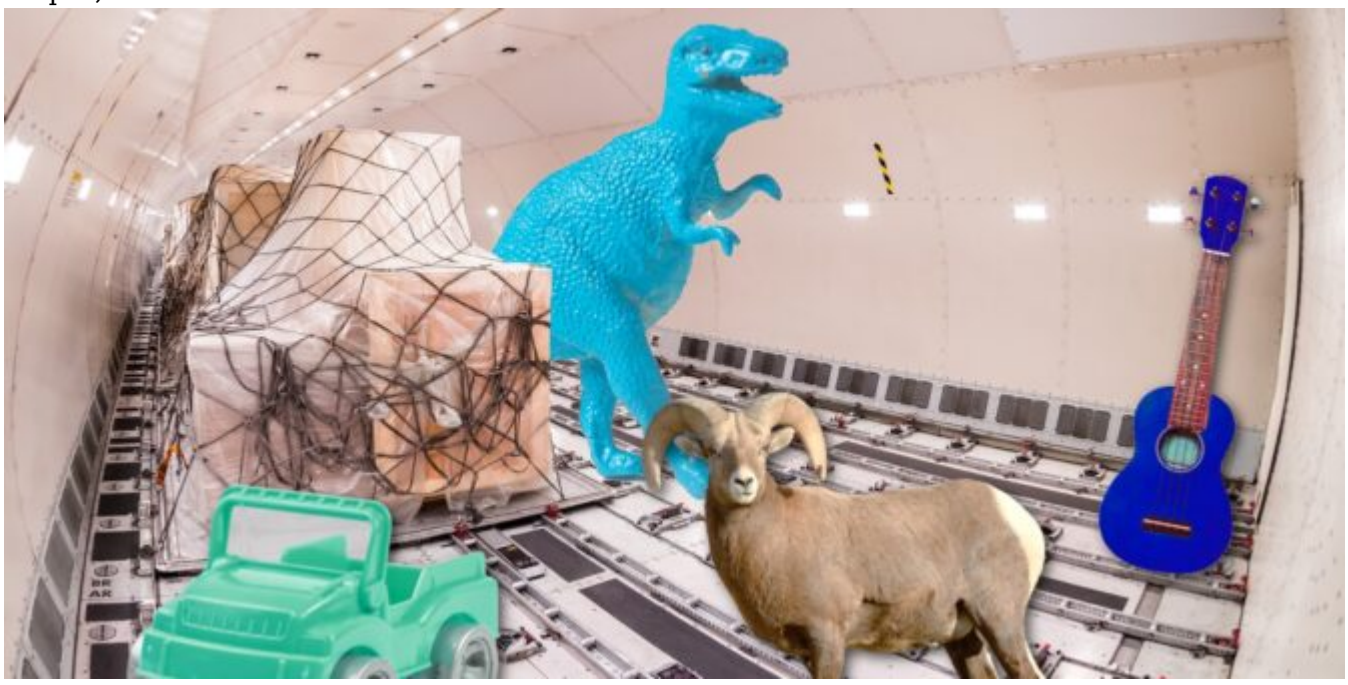
Where to from here?

We will report on any new FAA information on the situation in Mali as it becomes available, along with any other security or risk alerts. These will be published on OPSGROUP, along with safeairspace.net – our free risk and conflict zone database.



Mexico City says no to cargo

OPSGROUP Team
3 April, 2023



The Mexican government hinted at it in December 2022, and IATA got involved and said *"please don't do that"*, but then the government decided to do it anyway.

So here is a little summary on the *Cargo Conundrum* at MMMX/Mexico City for all those who fly cargo into Mexico. And also for anyone who flies into Mexico because we have added some other handy things in for you too.

The Cargo Ban

MMMX/Mexico City will no longer allow cargo operations. This means scheduled and Ad-hoc cargo only ops.

This doesn't apply to belly cargo on passenger flights. You are still fine to head in.

The Presidential order came out **sometime around 18 February**, and gave airlines 90 days to shift their operations. It was then extended to 107 days because folk pointed out that 90 days would be a bit tight.

Anyway, by sometime in May/June you won't be able to operate cargo flights into MMMX/Mexico City.

Good news though – right up the road (literally about 40km) is **MMSM/Felipe Ángeles International Airport**, and they would love to handle your cargo.

No-one likes MMSM though...

OK, that isn't entirely true. The problem is, according to IATA, that **it lacks the infrastructure** and getting the entire cargo chain to up sticks and move in 90 (or even 107) days is problematic and challenging.

Here is what IATA said about it all.

Why do we care if we don't fly cargo?

Well, on the one hand it might be good news for you because it will mean **more capacity at MMMX/Mexico City**, and that is something it is definitely lacking.

On the other hand, it might cause issues for operators who carry belly cargo in on passengers flights in large quantities, because **cargo handling companies might not want (or be able) to maintain the capacity and standards** to handle it across both airports, and the cargo only airport is going to get priority.

For operators who fly both dedicated freighters and cargo on passenger flights it also means one more airport now having to be operated into, with all the **support, contacts, coordination** and what have you to worry about.

There are questions over whether MMMX/Mexico City will accept diversions from MMSM/Felipe Ángeles. We haven't heard no so will assume it is a yes, but it is worth considering where you will go.

No-one likes MMSM…

It is not that they don't like it, but the airport has issues. Or at least it did.

The main issue is to do with its proximity to MMMX/Mexico City (only about 40km away). Back in 2022 this led to a fairly severe near miss between aircraft operating into the two airports.

That's all in here if you want a read.

They do want your cargo though

They say on their website that they are –

"Equipped with the most advanced security technology for the transport of national and international merchandise, this terminal has 22 bonded areas and 8 MARS positions (Multi-Aircraft Remote Stands), in an area of 345,881 m2. Its purpose is to meet the need for infrastructure for handling foreign stuff things blah exciting something about a gate nose and containers 12 meters long."

Wonderful stuff.

We also noticed two things about the website:

- **There is no FBO contact.** We can't find any contacts except for their social media email. If you have any contact info for FBO, cargo handling or anything other useful airport contact please share it because we can't find it anywhere.
- **They are really proud of their themed toilets.** Two of the home page slide show pictures are of toilets and they have a dedicated section discussing them (fourth on the corporate Airport Services list in fact). Check out the photos!

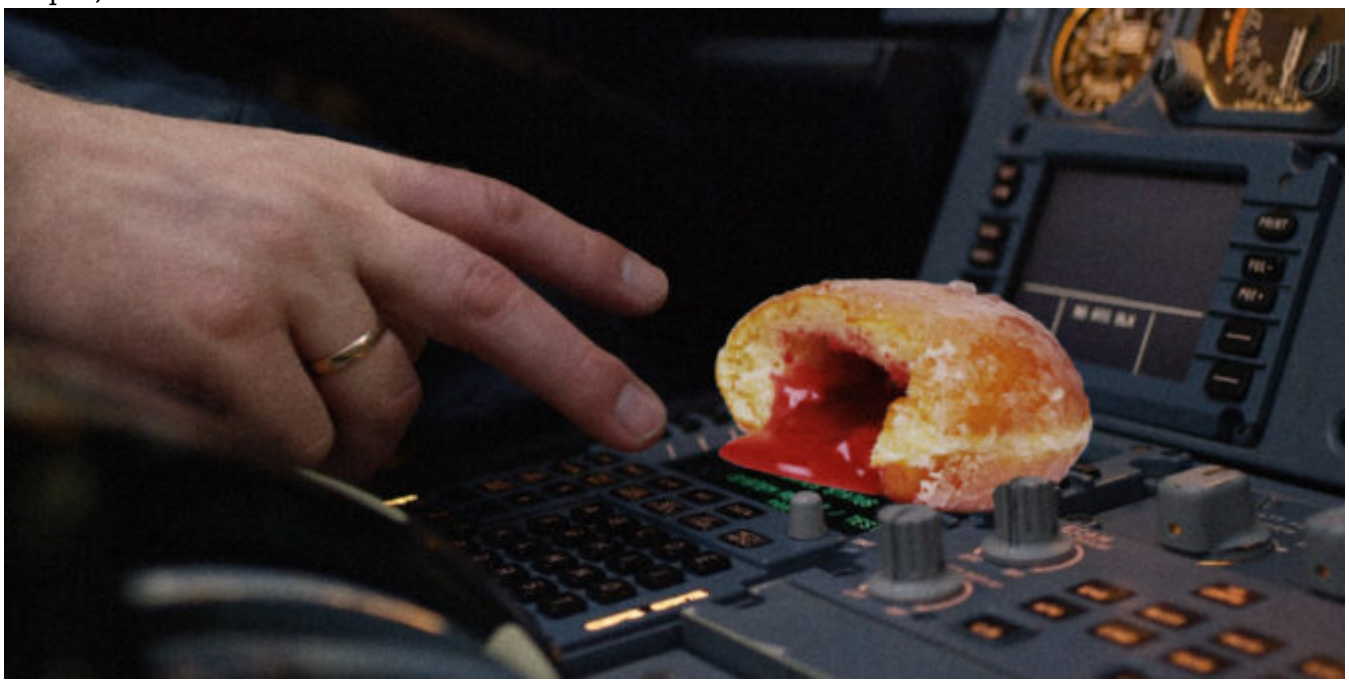
So, in summary

- **Don't plan on flying cargo** into MMMX/Mexico City from Mayish time.
- **Do let us know** if you have any contacts for MMSM/Felipe Ángeles.

- Do send us Airport Spy reports on both (all) Mexican airports so other pilots and operators can see what horrors/joys befell you and can plan for them.

GPS Jamming (again)

OPSGROUP Team
3 April, 2023



This whole GPS jamming thing is really starting to G-PS us off! Unfortunately, it isn't something that can be resolved at the source anytime soon.

While they can't fix it, EASA have come along with a nice new SIB to help us deal with it though.

What's the (new) story?

There isn't really anything new, but there is a slightly updated list of places where you can most expect to 'get jammed'.

SIB 2022-02R1 was issued on Feb 17, and you can read it here.

It lists the most common spots that pilots are reporting jamming occurring:

- **The Black Sea area:**
  - FIR Istanbul LTBB, FIR Ankara LTAA
  - Eastern part of FIR Bucuresti LRBB, FIR Sofia LBSR
  - FIR Tbilisi UGGG, FIR Yerevan UDDD, FIR Baku UBBA

- **The southeastern Mediterranean area, Middle East:**
    - FIR Nicosia LCCC, FIR Beirut OLBB, FIR Damascus OSTT, FIR Telaviv LLLL, FIR Amman OJAC northeastern part of FIR Cairo HECC
    - Northern part of FIR Baghdad ORBB, northwestern part of FIR Tehran OIIX
    - Northern part of FIR Tripoli HLLL
- **The Baltic Sea area (FIRs surrounding FIR Kaliningrad UMKK):**
    - Western part of FIR Vilnius EYVL, northeastern part of FIR Warszawa EPWW, southwestern part of FIR Riga EVRR
- **Arctic area:**
    - Northern part of FIR Helsinki EFIN, northern part of FIR Polaris ENOR

We made a map:

This map is quite possibly not 'anatomically' correct. It is just a 'sort of around there' map. Also, I definitely think that bit of land between Poland and Lithuania gets its fair share of jamming.

Anyway, the SIB also contains some really handy information on what to look out for **(signs you've been a-jammed)**, and what to do about it if you think you have. We aren't going to list all of that though, you're better off checking out the SIB.

There is also a new poster

Here is it:

DON'T GET JAMMED

REPORT, RISK ASSESS, TAKE ACTION

Reporting

- Report any observed interruption or degraded performance of GNSS equipment or related avionics via a special air report (AIREP) to air traffic control (ATC).
- Once you land, report full details of what happened through your organisation's occurrence reporting system.

Risk Assess

- Depending on your route and level of reliance on GNSS based systems, asses the risk jamming might pose to your flight.
- Consider the availability of alternative, conventional arrival and approach procedures.
- Think about the impact that any operational limitations caused by dispatch the aircraft with inoperative radio navigation systems in accordance with the Minimum Equipment List.

Take Action

- Be aware of possible GNSS jamming and/or spoofing.
- Verify the aircraft position by means of conventional navigation aids when flights are operated in proximity to the affected areas.
- Check that the navigation aids critical to the operation for the intended route and approach are available and;
- Be ready to revert to a conventional arrival procedure where appropriate and inform air traffic controllers if such a situation arises.

EASA
European Union Aviation Safety Agency

together 4safety

We like it a lot. Of the man who made it, you might say that 'EASA' great sense of humour

We liked it so much, we wanted to make our own one too…

So here it is:

Yes, we did take it way too far and realise that now.

We have mentioned GPS jamming before.

That we have. You can find the previous posts here:

- GPS Jamming: All the wrong signals
- GPS Outages: The hotspots

Filled with lots of juicy, jammy information so help you become a ‘Jammin Dodger’:

Ops in Europe vs USA: The Differences

OPSGROUP Team
3 April, 2023

Someone asked us what pilots can expect if they fly their plane to Europe compared to what they can expect in the US, and we suddenly thought to ourselves *"Good question! What are the differences?"*

So here's a quick rundown of some of the main ones.

Altimeter Stuff

Both countries use altimeters, and they use them in feet. *Here's a question for you – why are they not called Altifeeters?* Anyway, they work the same, except for one key difference…

Europe uses millibars, which are hectopascals, sort of. They give QNH's which sound like ***"one zero one three"*** and that is in mb (or hPa, because 1 of one is the same as the other one). The US however does it in Inches of Mercury (inHg) which means theirs sounds more like ***"two niner daysimal niner two".*** So plenty of room right there to set wrong thing and for things to go wrong…

Europe also doesn't use standard transition altitudes and levels. They change them all over the place, and sometimes they are really low. Which means there is room (or rather no room) for things to go wrong here too, and they do. Particularly in **EINN/Shannon** which we mentioned on behalf of Shannon airport right here.

CPDLC Stuff

CPDLC in the US is **FANS 1/A**, as it is across the NAT HLA and even into the UK. But leave those green and frosty pastures for the European Mainland and you will find yourself in a land of **ATN B1** fun.

It isn't that fun actually because your FANS equipment won't work, and there are also a lot of rules about who needs CPDLC and at what levels. You can read about it all here, and if you click on the map in the post (or here) then you will get transported straight to an **implementation table** which is very handy.

There is also a thing called a **Logon List** in Europe, which used to be called the White List, which you need to fill out in order to **register to use CPDLC in Switzerland, Germany, and Maastricht-UAC**.

The US has CPDLC but has not really mandated it. They are running trials on it though, which some BizAv aircraft might be able to join in on. We recommend reading this to find out more about that.

Flight Planning

In the US, the FAA has different codes and we aren't sure when they will become codes for using in Europe too. So your flight plan filings might be a little different.

The codes mainly apply to new RNP type stuff and they go in Item 18 of your FPL.

EU-LISA

No Comment.

Fine, EU-LISA

The currently delayed EU-LISA thing is sort of like the **ESTA visa waiver stuff in the US**. It is a system to allow for better monitoring and recording of people heading into Europe.

And that is all we are going say on it.

ADS-B

ADS-B privacy is a bit of a question anywhere, but in the US (in their territorial bit) you can sign up for certain stuff to make yourself less *conspicuous* – the LADD system, PIA etc. **These won't work in Europe.**

Both the US and Europe have **ADS-B mandates**, although they apply at different levels.

MAYDAY calls

That's right, even these differ. Sort of.

In Europe you really need to say *"MAYDAY, MAYDAY!"* and when you do everyone still generally shush up, although ATC will start asking your intentions and trying to help you. You can tell them to standby if you want to.

In the US you might find you need to say *"We are declaring an emergency"* and might get a whole lot of questions straight after. They of course use ICAO calls (you can find the whole FAA info on that here) but occasionally (so we're told) that this is something *confirmed* as well.

You can listen to an example here.

Europe also uses '**Minimum Fuel'**, which you should let ATC know about if you find yourself getting low on it (but are still fine so long as nothing else changes). They'll help if they can, but will only properly be able to jump you in the queue if you call 'Mayday Fuel'.

Strikes

I mean they have these both sides of the Atlantic, but they happen fairly regularly in Europe, particularly in **France and Italy.** If it is an airport workers type strike then your best point of call is going to be your local agent.

If it is an **ATC strike** then the Eurocontrol Network Operations Portal is going to have the info on it.

While we are talking about France and ATC, it is worth noting that **they generally speak French** here, especially at LFPG/Paris, and it can make things confusing at times.

Strikes tend to happen over major holidays so summer is a time to watch, Christmas and Easter coming in

close second and third.

Airspace Issues

First up, Europe is the continent and **the UK is still part of Europe.** As, actually, is Russia and also Turkey, although since they border other continents they are often thought of as part of them.

EASA is the main authority for EU countries, which means the UK is not covered by them but by the UK CAA. **So where you get your permits from is different.** Emissions schemes are also separate.

Eurocontrol is the main *airspace manager* for want of a better title. Turkey and Ukraine are both member states, Israel and Morocco are sort of semi members. That doesn't mean you are going to get the same level of **ATC standards** across them all though.

Turkey has a lot of issues with **GPS jamming**, and it borders certain countries with major conflicts meaning areas of the southern border and border with Iraq are not always risk free. They also have *disputes* with Greece over certain bits of airspace which is worth knowing about because it makes the **communication and radio work more complex.**

Ukraine's airspace is currently closed due to the ongoing conflict with Russia. Moldova is mostly out of bounds. Poland has some safety concerns in the regions bordering Ukraine.

As far as we know, the US airspace is all considered fairly safe although there are some **local procedures** and airspaces to look out for – New York and the Florida metroplex area are two which spring to mind *(although there are probably others? Let us know!).*

Europe, because it is loads of countries not one big one, tends to see a fair old number of **military airspaces activated** so Notam and AIP SUP checks are important for info on those. Major military exercises in Europe are published through the NOP. The US of course has TFRs and other restricted and danger areas which are published here.

Ramp Checks (and MELs because they sort of fit into it as well)

Ramp Checks are rife in Europe. We recently received intel on the main issue items in French ramp checks, but these probably apply everywhere.

One big area of difference it the **MEL vs MMEL thing**. In Europe an MMEL is not usually accepted – they want an MEL specific for your aircraft. That said, there are some exemptions.

General 'vocab'

This might just be something only I struggle with, but I once had a humiliating experience flying into **KIAD/Washington Dulles** international where ATC asked if we *"have Dulles insight?"* I (pompously) informed him that no, we did not have 'Dallas' in sight, because we were heading for Washington.

Not used to being asked if visual, and not used to referring to airports by name got me good on that one.

And accents, 'colloquialisms' and of course actual differences in clearances can catch you out. **There are differences in things like your arrival and descent clearances even.**

In the US, in airports like KLAX/Los Angelas *(an example I am familiar with)* then often clear you *(and there is a chance I am getting this wrong now)* on the arrival which includes the descent clearance as per the arrival as well. I want to say *"descend via"* or maybe *'cleared via'* (it's a while since I've been there…)

Anyway, the clearance is for you to descend down to the lowest altitude on the arrival, but in Europe we

don’t tend to do so without **explicitly hearing the altitude.**

Low Vis Stuff

OK, someone asked me to add this and I have to go get the old manuals out and look it up. In the meantime – watch out because we do stuff like RVR differently. And TERPS.

Fuel Tax, Curfews and other random things

Fuel tax is a thing in Europe, but also a thing you can attempt to claim back. In some places anyway.

A lot of European airports have curfews. It is worth knowing which countries have them so you don’t get caught out.

What’s Suriname?

OPSGROUP Team
3 April, 2023

Hello Suriname. Tell us about yourself.

Who are you?

Ik ben een klein land*... Translating Translating...* I am a small land in norther South America, bordering the Atlantic Ocean, and sandwich between Guyana, French Guiana and Brazil.

Tell us an interesting fact about yourself

I am the only country outside of Europe where Dutch is the main language.

Wow, cool, so why are we interviewing you today?

Well, folk flying over from Europe and Africa probably overfly me if they are **routing to the western side of South America**.

And I have had two big 'issues' recently that might impact them..

Uh oh, that doesn't sound good...

No, it hasn't been.

On February 17, 2023 a load of my **ATS staff were not available** so we had to **close the airspace in SMPM/Paramaribo.** It was only from 1800z to 0100z on Feb 18, but it means contingency routes and levels were in place, and we had to coordinate with adjacent centers for everyone trying to get in and out of SMJP/Paramaribo.

We did issue a Notam on it – **A0024/23**

Well done on the Notam. Tell us about this other issue?

Well, as it it turns out, people aren't very happy. Actually, this might have been where all my ATS staff were.

On February 17 there was a lot of **civil unrest in the capital Paramaribo**. Folk were storming about and a state of emergency was declared.

The US embassy issued a warning on **security concerns**, and advised there could be a suspension of ops at SMJP/Paramaribo if it happens again.

What can folk do who are heading to the area?

Keep an eye out for Notams and news related to:

- **More ATC zero** events (and contingencies)
- **Suspension or disruption** at SMJP/Paramaribo (Johan Adolf Pendel) airport
- Think about **security on the ground** if you do head in
- Contact **SMJP tower** – 00597325176 / 00597325313 – if you have queries
- *Share your contact for handling agents on the ground there if you have*

Give us some last handy tips

Alright.

If you do want to head in or overfly then **you'll need a permit** (a permit for everything!)

You need to give **three days notice** and apply direct to the authorities. *Dionne Paskald* is very helpful in the CAA. Send a fax with all of the documents, then send those same in an email. If landing you will need to provide copies of **vaccination certs for yellow fever** with the permit application for all crew members. You should also **send passenger and crew manifest** when applying for a landing permit.

The CAA of Suriname contact info is: +597 498 901 / +597 498 901 / d.paskald@cadsur.sr /

dca@cadsur.sr / airtran@cadsur.sr

We told a story about Suriname in 2021

They had an ATC zero event back in 2021 as well, and we wrote about it here with much more info on the contingency procedures (in case you need them again in the future).

Someone told us a story about SMJP/Paramaribo ages ago (2015)

"We arrived on a flight from Sao Paulo Guarulhos (SBGR) from UL776. We were cleared from our last enroute fix to the Paramaribo FIR boundary fix Tirios (TIR) NDB. Communications with Amazonica Control became broken at best and unreadable most of the time. We tried contacting Paramaribo Control without handoff as we approached TIR but all the frequencies on the Hi en route chart did not work. After numerous tries back to Amazonica on last assigned frequency we finally picked up 133.3 as a good frequency for Paramaribo. We were instructed by Paramaribo to fly 080 degree heading out of TIR to intercept the YZ (VOR) 200 degree radial to YZ. Out of 6000"

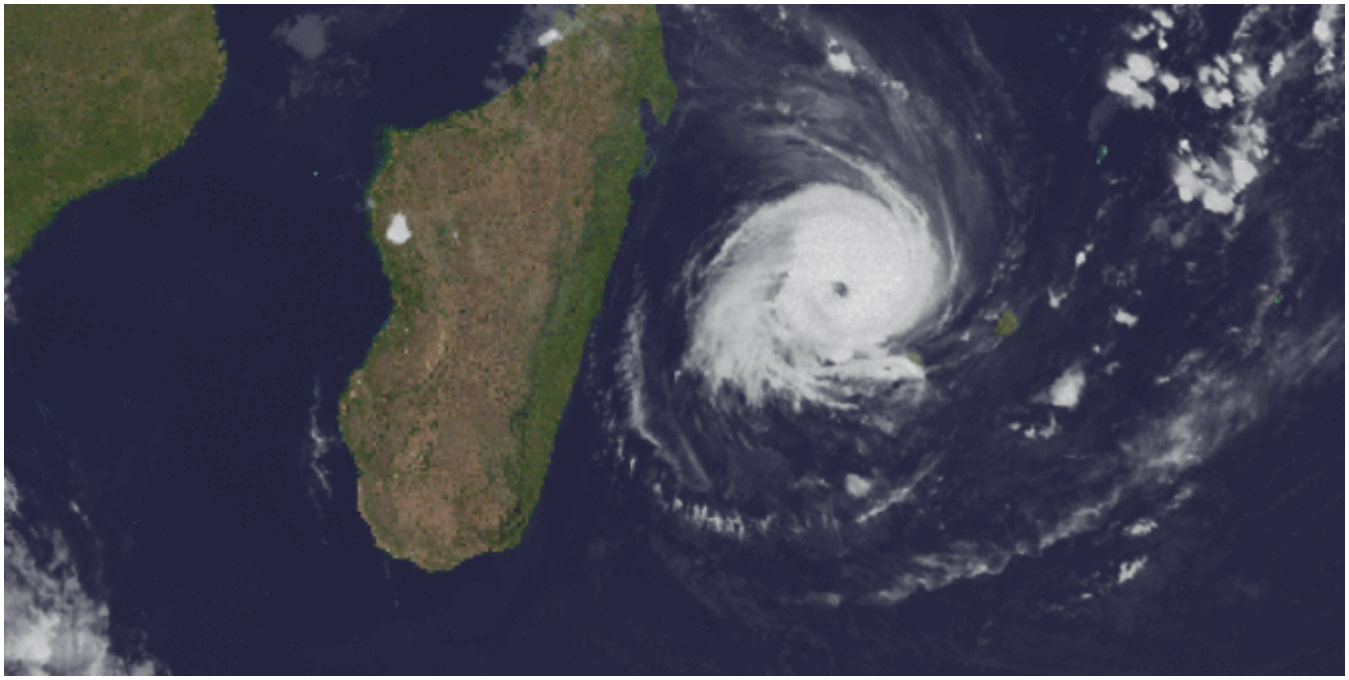
If you have a new one, file it at Airport Spy.

Here is some other info we dug up:

- SMJP/Paramaribo airport has **one runway (11/29)** which is 11,417′ (3480m) and has an ILS for 11 and an RNP for 29
- There us another international airport, for GA – **SMZO/Zorg en Hoop** – but its runway is only 750m long so probably not one you want to plan on using
- **SOCA/Cayenne**, French Guiana is the closest alternate (173nm)
- **SYCJ/Georgetown**, Guyana is the next closest (194nm)

Hurricane Freddy: Still going strong

OPSGROUP Team
3 April, 2023



Update 7 March: Freddy has passed over Madagascar and initially deintensified, but with the warm waters of the Mozambique Channel feeding him, he is growing again. He is expected to reach category 2 levels with winds over 90knot. Landfall over Mozambique is forecast on March 11. The west coast of Madagascar, and the coastal regions of Mozambique, including FQMA/Maputo will see some bad weather for the next few days.

Update 21 February: Freddy is decreasing to a category 1 hurricane with wind speeds between 80-85knots. It is due to make landfall over Madagascar in the afternoon of Feb 21.

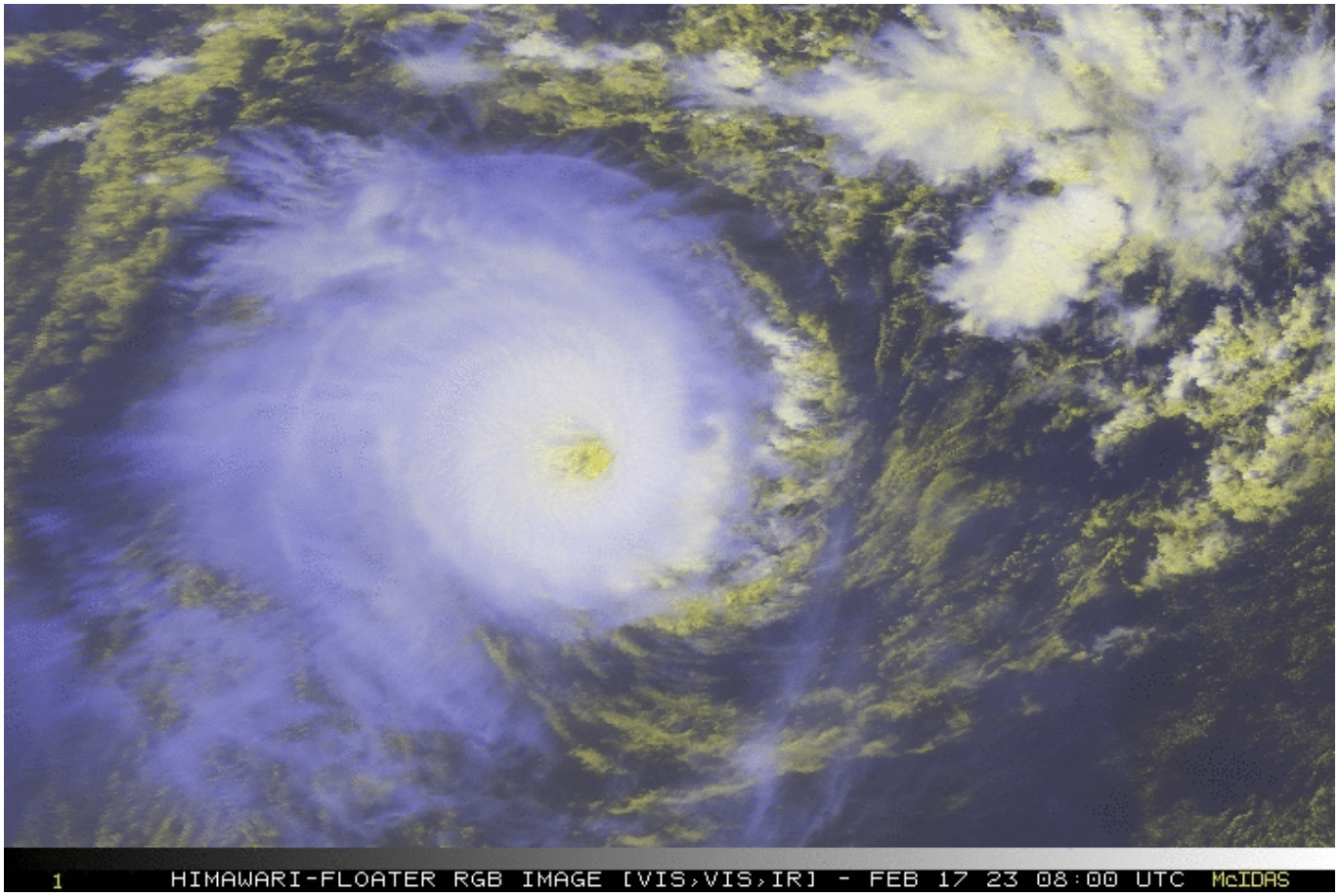
We don't often post about tropical storms unless they are monumental and expected to cause a severe level of disruption and damage.

Freddy is fairly big, and it's a Friday, so I figured I would give him his 10 minutes of fame.

Just how big?

He is currently a **Category 4 hurricane** which means his wind speeds are topping **120 knots.** The likes of Hurricane Katrina reached Category 5 levels (although she was only a 3 when she made landfall). Hurricane Harvey was a 4 when he hit Texas in 2017.

So Freddy is big, and Freddy is bad. But Freddy is also, currently, still **swirling about the Indian Ocean** and nothing more than a blob on your SigWx chart that you might detour around slightly.



Where is Freddy heading?

Freddy is heading west, towards **Mauritius and Madagascar.**

He will reach the Port Louis area in the next 2 days, and is forecast to have **de-intensified to a Category 3**, with wind speeds around 110 knots. The following airports will likely experience severe weather conditions as the storm passes:

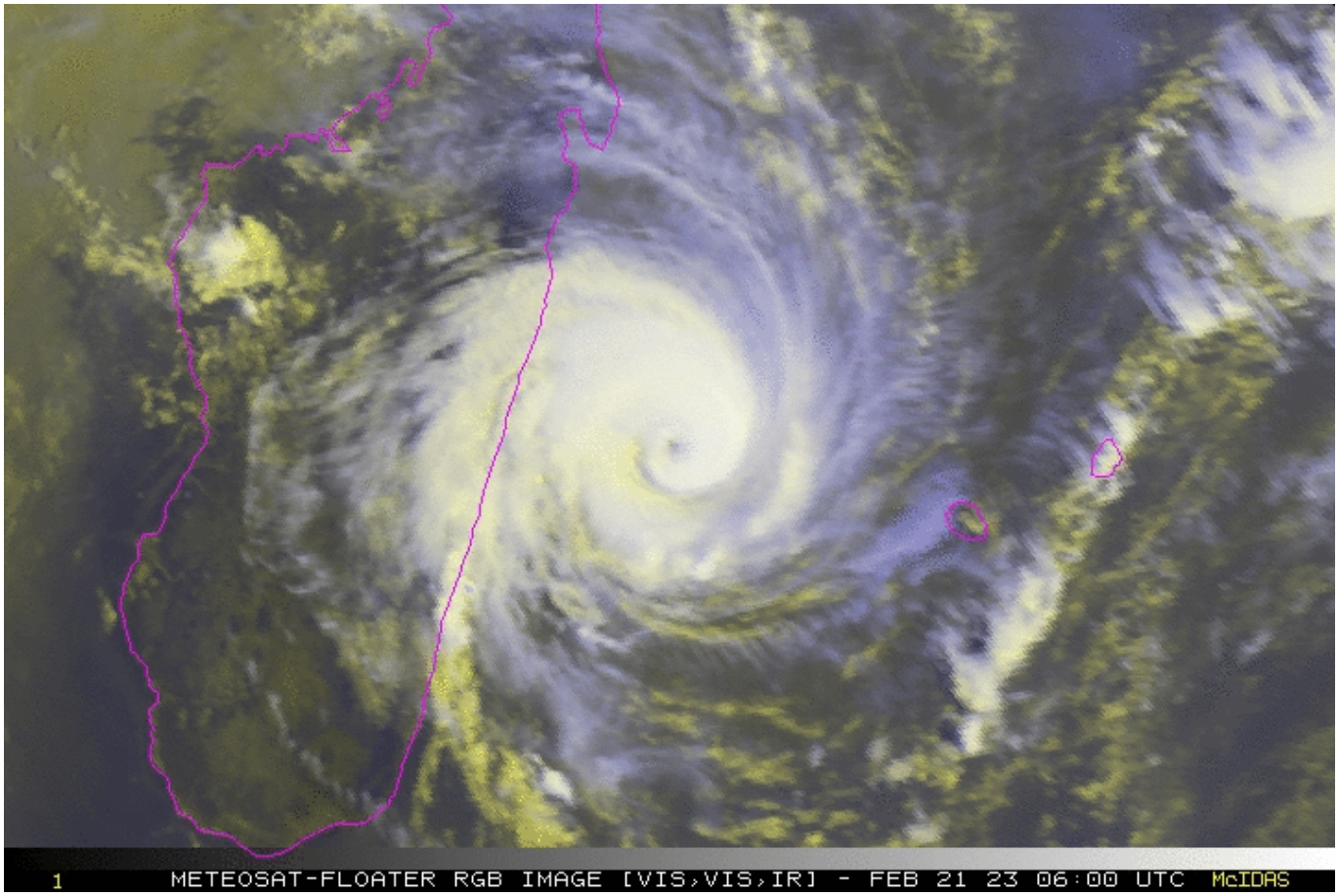
- **FIMP/Sir Seewoosaur Ramgoolam (Port Louis)**
- **FMEE/Roland Garros (Reunion)**

Landfall is forecast around Feb 22, south of **FMMI/Ivato (Antananarivo)** Madagascar.

How much disruption is expected?

When Freddy makes landfall he is expected to have reduced to a **Category 2 hurricane**, with winds around 90 knots. However, **the region lacks good infrastructure** and damage may be increased because of this.

The airports in this area are relatively remote, island airports, with **few diversion options** (particularly if the weather is hammering them all) so plan that fuel and those alternates accordingly if you are in the region over the next few days.



Follow Freddy

You can track Freddy here.

We also recommend staying in contact with handling agents and confirming conditions with them prior to operating. Here are two contact suggestions in case you need:

- General Aviation Mauritius, FIMP: ops.mru@yulounge.com / +230 603 6666
- General Aviation Service, FMMI: info@gasaviation.com / +255 743 775 439

Cow Farts and Aviation

OPSGROUP Team
3 April, 2023

Did you know that **cow farts** are one of the major contributors to global warming?

Go ahead – google it. Just know that your search history will take some explaining later.

In fact they account for eighteen percent of the problem. They're flatulent creatures, and their trouser coughs contain methane gas which is almost one hundred times more powerful at trapping heat than good ol' carbon dioxide. In fact their flatulence is so strong, it can cause acid rain. Umbrella anyone?

Why are you reading this on an aviation website? Fair question.

Because regardless of where you stand on the cause of global warming, we know for a fact that the earth *is* heating up. **And aviation is poised to be one of the victims**.

Let me explain.

Bumpy Road

As the earth warms, jet streams will become **stronger** – along with wind shear. As we hitch a ride on those long routes eastbound, **clear air turbulence** is set to become much more frequent, and much more dangerous.

They've done studies, you know – and those jet streams are already fifteen percent more sheary than they were back in the 70s. And things are **accelerating.**

The bottom line is this: scientists believe there is going to be two to three times as much severe turbulence in the next few decade thanks to cow farts (and of course all other contributing factors).

How severe is severe?

We're not talking light chop.

There are two levels of turbulence we're most concerned with. The first is **severe** – essentially large and abrupt changes in altitude or attitude. Your aircraft may even be out of control momentarily.

Beyond that turbulence can also be **extreme**. It doesn't make for pleasant reading, but the official definition is when the aircraft is violently tossed about and almost impossible to control. You may even

take damage.

Both are nasty.

What does this mean for ops?

Perhaps the most at risk are **flight attendants**. The NTSB reckons they are twenty-four more times more vulnerable to injury from CAT than their passengers. They account for eighty percent of all turbulence related injuries. This make sense as they are often on their feet, pushing carts that can weigh upwards of 300lbs.

Here's another startling statistic – between 2009 and 2018, in almost thirty percent of turbulence related incidents, **there was no warning.**

CAT is the enemy you cannot see, because it mostly happens in clear air. It isn't associated with storms or clouds, and weather radars need moisture to work. Our eyes are useless too.

Granted, planes aren't about to start falling from the sky. But we can expect the amount of time spent in turbulent conditions on an average flight across the Atlantic to exceed thirty minutes in the years to come. **Darn cows**.

Great, what can we do about it?

Actually three things. Protect your crew, predict where it will happen, and care about sustainability. Let's dig a little deeper.

Crew

The absolute best way to protect everyone on board during CAT is to have them **seated** with their belts on. The head of a major flight attendant union is calling for changes. It is becoming increasingly dangerous for them to still be on their feet, while passengers are strapped in.

The NTSB agrees and is recommending more stringent rules when those seatbelt signs turn on – especially for crew. The notion is a seat for everyone – including infants and young children who may be sitting on an adult's lap and riding gratis.

While it may feel reassuring that all pax are safely seated, don't underestimate how at risk cabin crew are if they are still up and working.

Spotting the stuff.

Predicting CAT isn't an exact science, and this ain't no met class. But in a nutshell it is caused due to the difference of speed at high altitude (usually well above FL150) when flying near the boundary of two air masses.

Jet streams are typically strongest in colder months, and weaker in warmer ones.

Two things to look out for: dramatic changes in **temperature**, and dramatic changes to **wind** speed and direction.

Both are tell tale signs of CAT.

Along with that information in your flight plan, shear rates, sig wx charts and pilot reports (pireps) are also valuable sources of information.

Likewise, if you find some let ATC (and the traffic around you) know.

There are also turbulence information sharing platforms available to crew which provide real time updates on where the rough air is.

Sustainability

There is a lot of noise at the moment about sustainability, alternative fuels and ‘net carbon zero.’ It can all get a little dry.

But it is the operational impact of global warming that is really going to matter to us on a day to day basis, which is why we need to care. **More than numbers.**

Asides from clear air turbulence, as the jets grow stronger, westbound flights will take longer, burn more fuel and cost more. Not to mention more time away from being poolside at the Holiday Inn.

Then there’s the **sea level**. It is rising as the polar ice cubes melt. One study suggested by 2100, one hundred airports around the world will be below sea level, and close to half a thousand will be at serious risk of flooding and storm surges unless things change – affecting up to **twenty percent of all routes.** That’s a lot of water.

Where to from here?

The cows aren’t about to stop farting, so we need to **mitigate**. This may mean spending more time and attention on the risk that clear air turbulence poses while we flirt with the time saving benefits of the world’s jet streams on a daily basis.

We can also support the overall industry push to operate cleaner in the long run. A great no-nonsense source to keep track of these industry trends are **IATA updates** – you can view those here.

Beware Big Balloons

OPSGROUP Team
3 April, 2023

It started with a balloon. A rather large one, sent by the Chinese for 'purposes unknown', and rapidly removed from the skies as soon as it became safe to do so.

However, there has been a spate of further 'unidentified objects' wafting about the upper levels of the northern American atmosphere, and they are potentially something of a hazard.

The Balloon

This was spotted over the US, working its way northwards around February 3.

There isn't much to say on this that hasn't already been said – **it was big, it came from China** and it was almost definitely not one that had just accidentally drifted of course. Politics and conspiracies aside, this did not post much of a risk for civilian aviation because of the altitude it was operating at.

The (probably a) surveillance balloon operated from around **80,000 to 100,000**′ – well above the levels which would impact commercial airliners.

Object Number 2

On February 10, an unidentified object was spotted overflying the **northern coast of Alaska** towards the North Pole region, at around 40,000′, moving at approximately 20-40mph.

It was deemed a **"reasonable threat"** to civilian aviation due to its size and altitude, despite being quite a bit smaller than the Chinese Balloon (very big, these sort of small car sized).

Reports suggest several aircraft were diverted, with one stopping at PANC/Anchorage and another to PAOM/Nome due to airspace closures.

Object Number 3

Another object was spotted and shot down on **February 11**. This one was routing over **Canada, approximately 100 miles from the US border**, and at around 40,000′

The airspace over the Great Lakes region was closed while the object was taken down, but a Canadian TFR is still in force in the area.

The Notams and TFRs related to this are labelled ‘active air defense operation’.

Object Number 4

The third of the smaller UFOs (yep, I said it, but just mean unidentified flying object) occurred on **February 13**, near to **Lake Huron** which shares a border with Canada.

There are unverified reports suggesting pilots reported interference from it with their “sensors”.

The FAA temporarily shut down a chunk of airspace over Northern Wisconsin and Northern Michigan to *‘support Department of Defense activities’.* Reopened now, but the a smaller TFR remains in place.

FDC 3/4532 ZAN PART 1 OF 3 AK..AIRSPACE DEADHORSE, AK..TEMPORARY FLIGHT RESTRICTIONS. PURSUANT TO 49 USC 40103(B)(3), THE FEDERAL AVIATION ADMINISTRATION (FAA) CLASSIFIES THE AIRSPACE DEFINED IN THIS NOTAM AS 'NTL DEFENSE AIRSPACE'. PILOTS WHO DO NOT ADHERE TO THE FOLLOWING PROC MAY BE INTERCEPTED, DETAINED AND INTERVIEWED BY LAW ENFORCEMENT/ SECURITY PERSONNEL. ANY OF THE FOLLOWING ADDITIONAL ACTIONS MAY ALSO BE TAKEN AGAINST A PILOT WHO DOES NOT COMPLY WITH THE RQMNTS OR ANY SPECIAL INSTRUCTIONS OR PROC ANNOUNCED IN THIS NOTAM: A) THE FAA MAY TAKE ADMINISTRATIVE ACTION, INCLUDING IMPOSING CIVIL PENALTIES AND THE SUSPENSION OR REVOCATION OF AIRMEN CERTIFICATES; OR B) THE UNITED STATES GOVERNMENT MAY PURSUE CRIMINAL CHARGES, INCLUDING CHARGES UNDER 49 USC SECTION 46307; C) THE UNITED STATES GOVERNMENT MAY USE DEADLY FORCE AGAINST THE AIRBORNE ACFT, IF IT IS DETERMINED THAT THE ACFT POSES AN IMMINENT SECURITY THREAT; OR D) UAS OPERATORS WHO DO NOT COMPLY WITH APPLICABLE AIRSPACE RESTRICTIONS ARE WARNED THAT PURSUANT TO 10 U.S.C. SECTION 130I AND 2302101930-PERM END PART 1 OF 3 FDC 3/4532 ZAN PART 2 OF 3 AK..AIRSPACE DEADHORSE, AK..TEMPORARY FLIGHT 6 U.S.C. SECTION 124N, THE DEPARTMENT OF DEFENSE (DOD), THE DEPARTMENT OF HOMELAND SECURITY (DHS) OR THE DEPARTMENT OF JUSTICE (DOJ) MAY TAKE SECURITY ACTION THAT RESULTS IN THE INTERFERENCE, DISRUPTION, SEIZURE, DAMAGING, OR DESTRUCTION OF UNMANNED AIRCRAFT DEEMED TO POSE A CREDIBLE SAFETY OR SECURITY THREAT TO PROTECTED PERSONNEL, FACILITIES, OR ASSETS. PURSUANT TO 14 CFR 99.7, SPECIAL SECURITY INSTRUCTIONS, ALL ACFT FLT OPS ARE PROHIBITED: WI AN AREA DEFINED AS 703557N1463405W TO 702934N1465705W TO 702202N1463751W TO 702821N1461458W TO THE POINT OF ORIGIN. SFC-10,000' MSL EFFECTIVE IMMEDIATELY UNTIL FURTHER NOTICE. EXCEPTIONS: A) NATIONAL SECURITY ACFT OPS UNDER DIRECTION OF DEPARTMENT OF DEFENSE; AND B) LAW ENFORCEMENT, AIR AMBULANCE, AND 2302101930-PERM END PART 2 OF 3 FDC 3/4532 ZAN PART 3 OF 3 AK..AIRSPACE DEADHORSE, AK..TEMPORARY FLIGHT OTHER URGENT GOVERNMENTAL RESPONSE ACFT OPS WITH AUTHORIZATION FROM ATC (ATC MUST SECURE PRE-APPROVAL BY THE ON DUTY NATIONAL TACTICAL SECURITY OPERATIONS AIR TRAFFIC SECURITY COORDINATOR). ALL AIRCRAFT, WHICH ARE ALREADY AIRBORNE WITHIN THE DEFINED AIRSPACE WHEN THIS TFR BECOMES EFFECTIVE, MUST EXIT THE AREA USING THE MOST EXPEDITIOUS ROUTE CONSISTENT WITH SAFETY AND IN COORDINATION WITH ATC AS APPROPRIATE. THE ANR AOC TEL 907-552-6222 IS THE CDN FACILITY. 2302101930-PERM END PART 3 OF 3

Risk for aviation

The objects are generally **cruising at around 40,000**’ – well within the altitude range commercial airliners operate at. **They pose a hazard** because of their size and speed.

However, they are ‘spotted’ easily and early, and both the US and Canada are maintaining a constant watch for further objects.

Crew operating in these areas should be aware of the ongoing possibility for further hazards. **Report sightings to ATC.**

If an object is identified, expect possible re-routes around the surrounding ‘Danger’ area whilst military traffic operates to deal with it.

It isn't just the US..

Moldova closed the LUUU/Chisinau FIR on Feb 14, reportedly because of a "balloon shaped object". And on Feb 10, they had concerns with a Russian missile reportedly crossing their airspace...

Storm in the Cockpit: Tales of Conflict and Clashes

OPSGROUP Team
3 April, 2023

We've said it before, and we'll say it again – the flight deck is a weird little world to work in. We lock ourselves into our button-filled booth, with one other person, and sit there for hours on end, putting ourselves through no end of challenging things.

I am talking things like fatigue, boredom, stress and, yep, dealing with people.

You're one, I'm one, they're one *(if they're not then you've got an even bigger problem)*. Point is, we're all people, people can be challenging. and dealing with those challenges is a big part of our jobs. But we rarely talk about it. At least not in a very *human* way.

Well that stops now!

We want to talk about human stuff. The good, the bad and the ugly stuff that makes us human, and often 'not such ok' humans from time to time.

We wrote a little book.

It's just 3 stories. Tales of things that happened to pilots (to us!) where there was a storm brewing, a conflict growing, a nugget of irritation and anger flowering.

You can download the PDF here.

We want pilots (people) to share *these* stories, because these are the experiences we can all learn from, think about, probably have happen to us.

So, if you have a story, share it – please – we will even add it in (anonymously if you prefer). Send it to team@dangerrr.club

A normal day at work, as a pilot, is often anything but normal.

Just think about it for a moment – everything you do is monitored, you are strapped into a little box and expected to work away for hours on end, doing things where one little error can easily escalate, where one small slip can slide you into a catastrophe. And you can't step out if you feel off.

You can't even step out to have a simple bathroom break with having to prioritise it, and awkwardly announce it to the other person.

The airplane "office" is a strange spot to work in at the best of times, and then we add in a whole load of challenges that make living up to the 'ok pilot' standards even more difficult.

What are we talking about?

All the things that make our little, puppy brains act even more strangely:

Fatigue – flying at crazy hours of the day and night, across timezones, and expecting our brains to go *"yeah, ok, I'm good with this! I don't need sleep."*

Boredom – yeah, I've said it. Sitting in the cruise in the middle of the night, monitoring monitoring *monitoring* can get tedious, and a bored brain can be a bad (or at least not as good as usual) brain.

Stress – The pilot job can be a tricky one. Things happen. Often they are things we don't like having happen, but we're the only two up there in that cockpit who can sort it.

Random pressure – it's all over the shop. At home, from the company, from the passengers, from inside your own little brain.

And of course… People – The behaviour, attitude, values, ideas, smell, sounds*, way they put a glove on to fly* all impacts how we act too.

Whether it's a **'Stranger Danger'** (working with someone you don't know at all, and maybe are struggling to find any common ground with) to the '**Friendly Foe'** (flying with the same person you always fly with, who you know really, really well…), and all the others in between. They all have their challenges. People do weird stuff from time to time, but we never talk about how to deal with it.

Not really.

I mean *really talk* about how to deal with someone doing something weird, or how to spot it in yourself when you're getting cranky, grumpy, grouchy, slouchy, slack or mad or mean.

So, we're here to talk about it.

Now, before we do, let's have a quick chat on CRM courses. These are of course great.

Sometimes.

Especially the ones where you have to pick which shape appeals to you most. In fact, let's do it now quickly –

Which shape appeals to you most?

Right, so, whichever shape you have picked tells us ***so much*** about you as a person…

- **The square** is a tireless worker. Diligent, patient, methodical, neat, organised, logical. Predictable, rational, data driven.
- **The Rectangle** is a transitional shape which means this person is curious, inquisitiveness, adventurous, motivated. Always trying new things, always lively and interested.
- **The Triangle** is the shape that symbolises leadership. This person focuses on goals, analyses situations fast, is confident, thinks they're always right, assertive and argumentative. Their career gives their life meaning.
- **The Circle** is a harmonious person who loves good interpersonal relationships. They value people and wellbeing, are the glue that holds the team together. They have sympathy, and empathy, lots of emotional IQ and often super creative.
- **The Zigzag** is (not a shape!) but a symbol of creativity, imagery, conceptualism and aesthetics. They live for experience and reflection, new ideas and methods, possibilities rather than actual realisation.

I bet you fit perfectly into one, and not any others right?

No? No! Of course you didn't! Because we aren't defined by one shape and a couple of sentences about said shape.

We can change on a fairly daily basis *(or by the minute, if you're like me and particularly susceptible to things like hunger rage).* What's more, this does very little to actually help us establish how to work with a triangle if I'm a circle, or to deal with that flimsy whimsical zigzag while you, the square, are trying to get a basic job done.

Human Factors has some answers though.

They do indeed have *some*.

We have (thankfully) moved a long way from **simple symbols and SHELL models** to tell us what sort of errors and mistakes, biases and behaviours can cause concerns in the cockpit. We know about our non-tech competencies, we know about those hazardous attitudes. We know that a too steep cockpit gradient might lead to an unassertive FO not speaking up, and we even know that there is a risk of the too friendly flight deck and the risk of complacency.

The thing is, we read the reports, accident investigations, and we think about how *that crew crashed.*

But what we rarely talk about is the bits that lead to that. The off day, the slight challenge, the things we see and experience all the time which never lead to the big bad accident, but which could, one day, if we don't deal with it right. **The reason we don't is… well, why would we?** Unless you bring them up yourself then they aren't in an accident investigation report, they generally aren't covered in a CRM manual, because they just aren't big enough.

Which means we are never talking about us, each other, our experiences. **We assume we all know how to deal with them, because they are everyday human things.** But in the cockpit, in that locked chamber, these are what often amplify.

Major Earthquake in Turkey

OPSGROUP Team
3 April, 2023

A major earthquake has disrupted operations at several airports in Turkey. Here is the current situation (Feb 9).

Magnitude 7.8 earthquake

The main earthquake registered at **3:17am on February 6**, with the epicentre approximately 20nm west-northwest of Gaziantep. Tremors were fell through parts of Syria and Lebanon.

Several large aftershocks have been felt, with aftershocks expected to continue through February 6.

Turkish airport closures

This website was shared with us and provides a **good resource for the current status of airports** and which are receiving flights providing **relief aid.**

Severe damage has been reported in Gaziantep, and **all civilian flights** to **LTAJ/Gaziantep** are currently suspended as the airport is being used as the primary airport for relief flights.

LTAF/Adana Reports suggest Adana airport closed initially but is not open for relief aid flights. It is not clear whether it is available for passenger flights. The airport always requires a **PPR due parking capacity** so confirm with an agent prior to heading there.

LTDA/Hatay airport, in the most southerly region, bordering Syria to the west is closed indefinitely due severe damage to the runway.

LTCN/Kahramanmaraş airport north of Gaziantep is also reportedly closed to civilian traffic.

LTCS/Sanliurfa airport has als0 been closed to civilian flights while being used as a relief airport.

Reports suggest **some airspace in Southwestern Turkey may be impacted** due power outages. Flightradar shows aircraft operating on the main airways.

The southwest region bordering Syria is considered a high risk area due to the conflict with Syria and is generally avoided due to the risk of military traffic, USA, and the proximity to airstrikes.

For further information on the airspace risk, see Safeairspace.net

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Optimise your Descent

OPSGROUP Team
3 April, 2023

Thee FAA has ‘stepped up’ their game in reducing emissions and save fuel by reducing the number of ‘step down’ approaches into some major airports.

Here is a mini *‘what you need to know’* about CDAs, OPDs and how and where to fly them.

What's the difference?

Seems a good question to answer first.

There are generally **three types of descent** you can expect when you head into a big, controlled airport.

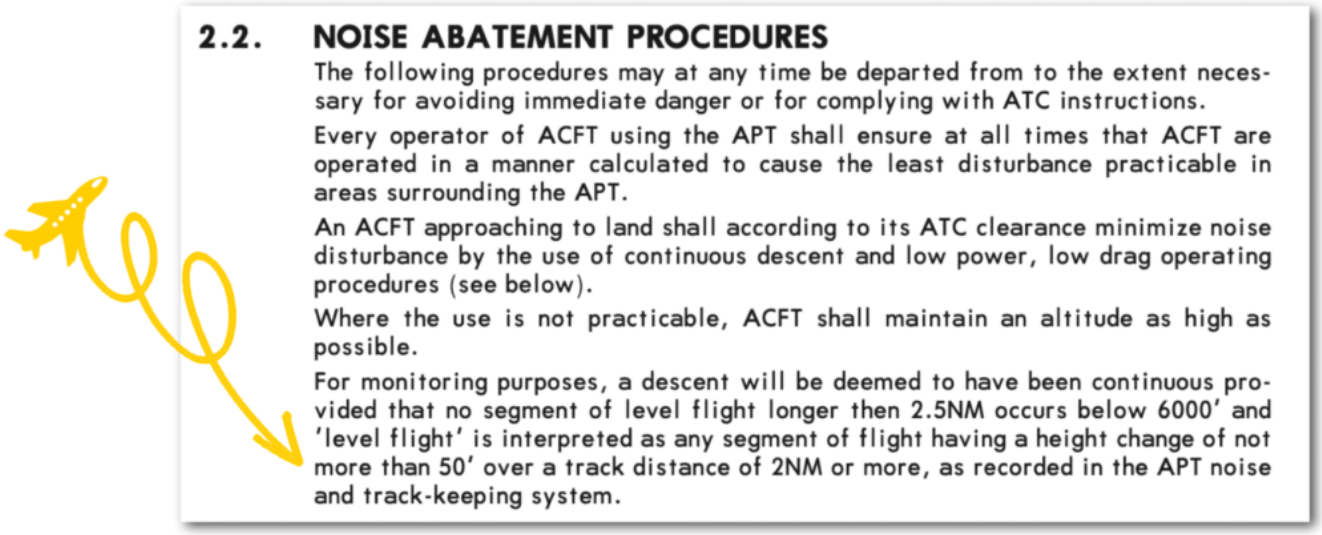
- **The Step Down**
- **A CDA**
- **An OPD**

The Step Down is exactly what it sounds like – you descend, level off, maintain that for a bit, then descend again, level off again, maintain it for a bit again…

This generally sucks for three reasons. One it is annoying for pilots because it means you have to do more. Two it can be a lot noisier on the ground if airplanes are roaring along low level, at lower speeds and three it is obviously **a lot less fuel efficient.**

Next up, you have **the CDA** – the constant descent approach. Again, exactly what it sounds like. (*I feel like I don't really need to explain this to pilots reading this but who knows, maybe a non-pilot has taken a random interest in it because of the excellent picture I used for the header).*

So, with a CDA ATC, or the pilot, attempts to continue descending without levelling off. This is better for the reasons already stated above, but it is not the best because a CDA can mean descending with thrust on. A good example is **EGLL/London Heathrow** who still consider it a CDA if you've descend more than 50 feet in 2nm, and don't have a level segment of more than 2.5nm below 6000′.



2.2. NOISE ABATEMENT PROCEDURES

The following procedures may at any time be departed from to the extent necessary for avoiding immediate danger or for complying with ATC instructions.

Every operator of ACFT using the APT shall ensure at all times that ACFT are operated in a manner calculated to cause the least disturbance practicable in areas surrounding the APT.

An ACFT approaching to land shall according to its ATC clearance minimize noise disturbance by the use of continuous descent and low power, low drag operating procedures (see below).

Where the use is not practicable, ACFT shall maintain an altitude as high as possible.

For monitoring purposes, a descent will be deemed to have been continuous provided that no segment of level flight longer then 2.5NM occurs below 6000' and 'level flight' is interpreted as any segment of flight having a height change of not more than 50' over a track distance of 2NM or more, as recorded in the APT noise and track-keeping system.

Which brings us to the OPD.

This acronym stands for **'optimised profile descent'.** Sorry, optimized (because its an American name so I'll give it the 'z').

Not to be confused with **ODP (Obstacle Departure Procedures)**. I feel like we may have reached a point in aviation where every acronym possible has been used.

Anyway, the ODP tries to have the aircraft **descend with close to idle thrust**, meaning they will be at a more fuel efficient altitude for longer, and descend in the most fuel efficient way.

If you're still confused, then the FAA made this video explaining it, and I made this excellent visual representation of it below.

Where in the USA are these happening?

There are **11 airports that have had OPDs implemented recently:**

- **KBCT**/Boca Raton Airport
- **KFXE**/Fort Lauderdale Executive Airport
- **KMCI**/Kansas City International Airport
- North Palm Beach County General Aviation Airport (F45)
- **KOMA**/Eppley Air Field, Nebraska
- **KOFF**/Offutt Air Force Base, Nebraska
- **KMCO**/Orlando International Airport
- **KLNA**/Palm Beach County Park Airport
- **KPBI**/Palm Beach International Airport
- **KPMP**/Pompano Beach Airpark
- **KRNO**/Reno Tahoe International Airport

But wait! These are not the only ones. There are in fact others which got them in 2021:

- **KDFW**/Dallas-Ft. Worth International Airport
- **KFLL**/Fort. Lauderdale-Hollywood International Airport
- **KLAS**/Harry Reid International Airport
- **KNEL**/Lakehurst Maxfield Field
- **KDAL**/Dallas Love Field
- **KMIA**/Miami International Airport
- **KVGT**/North Las Vegas Airport
- **KMCO**/Orlando International Airport
- **KCMH**/Port Columbus International Airport
- **KPDX**/Portland International Jetport
- *Numerous other mid-size airports*

There might even be more. This isn't really a new thing and any US based folk reading this are probably thinking "*why did we read this?*" But we figured some of the non-US based folk might find it useful or vaguely interesting.

Especially as **it can make things trickier** – check out the likes of **KRNO/Reno Tahoe.** If you are flying *All the Way to Reno* then *You're Gonna be (flying) a STAR* and it might involve an OPD. This airport is at a nice high elevation of 4415′, and has some decent terrain around it (the MSA is 12,000′) so there ain't much room to mess up if you mess up your OPD.

Where else in the world can I expect these?

Eurocontrol have a whole task force dedicated to this. You can read their action plan here.

They refer to them as CCO and CDOs (constant climb or descent operations), and I'm not sure specifically which airports use them, but I'm thinking a fair old few.

OPSGROUP is coming to AIROPS23!

OPSGROUP Team
3 April, 2023

AirOps is an event for business aviation flight ops people, put on by the European Business Aviation Association, where ground handlers, airports and FBOs meet with trip-planners and operators. And this year, we're going to be there too!

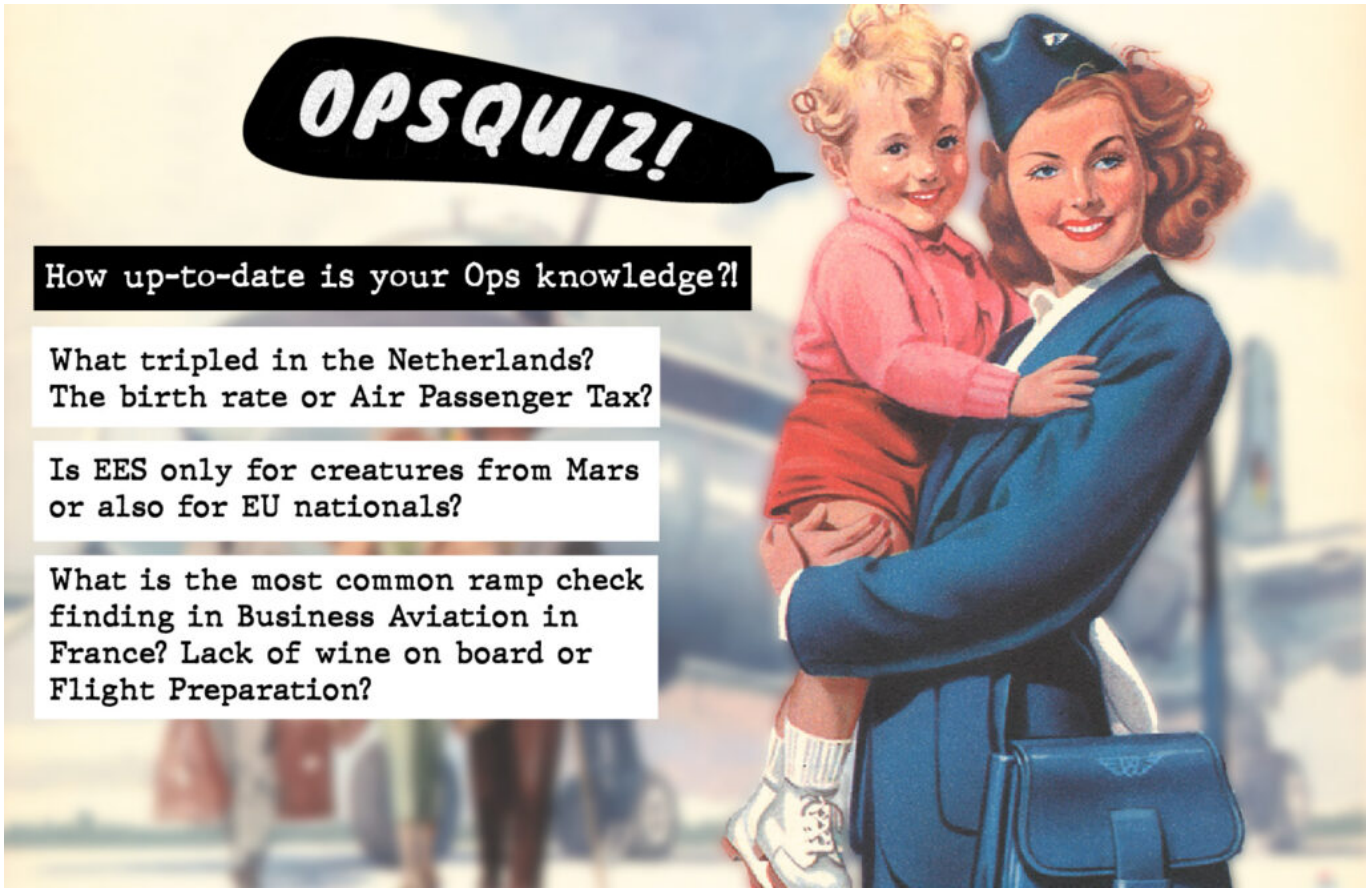
When and where?

The Event Lounge in **Brussels, Belgium.** It's a three-day event, from **Feb 13-15**, featuring an exhibition, along with training and flight ops info sessions.

For more info on **what to expect** and **who's going to be there**, check the AirOps23 page here. (And to see some snaps of the last event in 2020, click here).

Come see us!

We'll be running our world famous **Ops Quiz** at the end of Day 2. Test your ops knowledge with questions like these ⬇, pit your wits against other teams, and ease into the evening with a fun, interactive session. (And yes, there will be prizes for the winning teams!)



If you're able to make it, we'd love to see you! Come meet OPSGROUP's Rebecca and Dave in person, share your knowledge, swap stories, and discover some recent ops updates you might have missed.

OPSGROUP members can take advantage of discounted rates – just enter the code **AIROPS2023_OPS_GROUP** in the 'coupon' section when registering. See you there!

Africa Airspace Risk: Jet Shot in Rwanda

OPSGROUP Team
3 April, 2023

On Jan 24, the Rwandan military shot at a fighter jet from the Democratic Republic of Congo which they claimed had busted Rwandan airspace near Goma.

This has captured our attention for three major reasons:

- **There are no active airspace warnings for either the FZZA/Kinshasa or HRYR/Kigali FIRs.**
- **The incident occurred at low level, but in an area of open airways.**
- **The aircraft was hit in close proximity to an international airport**.

This was a major escalation following months of conflict between the two countries – so much so that the DRC announced the shooting as an 'act of war.'

Here's a look at exactly what happened and what this might mean for risk to civil aviation operating into, or overflying the Central African region.

The January 24 Incident

During daylight hours, a Sukhoi-25 military jet operated by the Democratic Republic of Congo reportedly violated Rwandan airspace between Goma and Gisenyi, without a clearance.

There are several unverified videos circulating of the jet being struck at low level by a **surface-to-air missile**, fired from a MANPAD. These are small, light, shoulder launched anti-aircraft weapons

The jet landed safely but sustained heavy damage. The incident raises concerns because there are **contradictory accounts** of how the situation unfolded, debate over which side is responsible, and so a lack of reliable information over what the safety implications might be for civil aircraft.

Escalating Conflict

This is the latest escalation of a conflict that has been worsening for months, and a strong indication that it may be putting overflying aircraft at risk as it grows – especially near the shared border.

In late 2021 heavy tensions erupted between the Democratic Republic of the Congo and Rwanda. An armed insurgency is underway in the DRC by a recently re-emerged militant group known as the March 23 Movement (or just M23 for short).

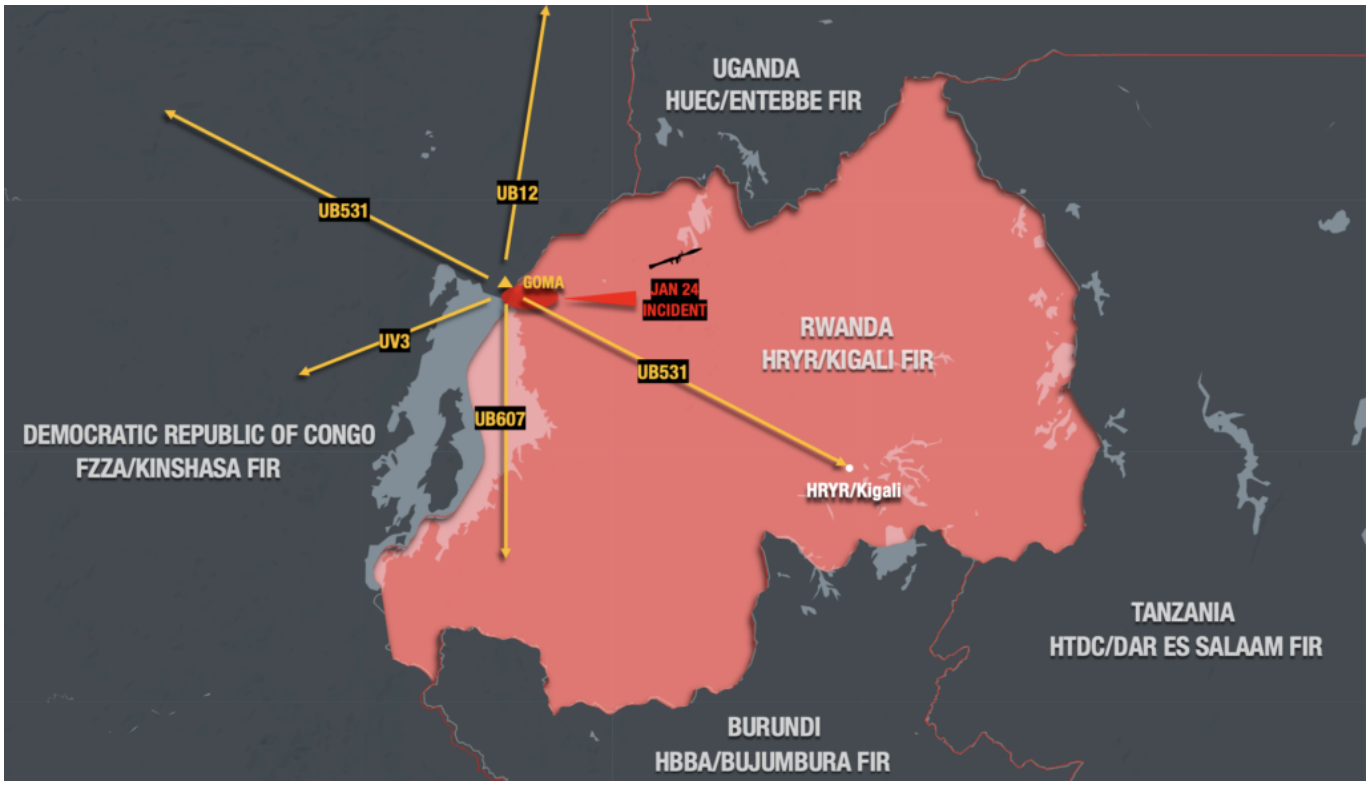
The DRC (along with the US and UN) have accused Rwanda of supporting M23, and in some cases even fighting alongside them. Although this hasn't been proven.

The ethnic and political background to the conflict run deep and are beyond the scope of this article, but the bottom line is **frequent skirmishes** by both Congolese and Rwandan forces in each other's territory.

Airways

The January incident happened near Goma – a city that lies on the DRC side of the border, and straddles the boundary between the **FZZA/Kinshasa** and **HRYR/Kigali FIRs.**

Several international airways run through the same airspace where the incident occurred.



Also use caution on airways UM216, UA618 and UL442 away from Goma but which skirt the shared border where skirmishes have been occurring.

Is this a high or low-level threat?

Short answer, low – but there's more to it than that.

Militaries from both sides, along with the M23 rebels, are all known to have **anti-aircraft weaponry.**

The most common is the MANPAD. They are easy to use, portable and require little if any training. They are unfortunately prolific throughout Africa in both legitimate and illegitimate hands – Rwanda and DRC are **no exception**. And the intent to use them is now clear.

They typically target aircraft flying low, and slow. Which means aircraft taking-off and landing are most at risk. However publicly available information indicates MANPADs can reach aircraft **as high as FL250.**

Anti-aircraft guns along with ballistic weapons such as rockets and other artillery are also known to be

present, and are potentially dangerous to aircraft, once again at low level.

Neither side has shown any intent to actively target civilian aircraft. But there are several risk factors at play.

The DRC/Rwandan border is an **active conflict zone**, where military activity and the transport of troops and equipment is common. Aircraft surveillance in the area is rudimentary, and the conflict has become territorial not just on the ground, but **now in the air** too.

All the warning signs are there, only with no actual warnings.

Once again, mistaken identity has become the number one threat.

With this in mind, overflying jet traffic at higher flight levels are not at risk – if ops are normal.

The problem becomes if you need to descend or divert. And aircraft operating into the region's airports are especially exposed. Extra caution needs to be taken at **FZNA/Goma** – the site of the January incident.

Official Warnings

There are none.

History has taught us that we need to be more responsive to airspace threats – a danger may exist or develop before states publish official airspace warnings or restrictions. All of that takes time. And if your flight is today, you need to know now.

We'll continue to report on changes in Rwanda and DRC as they happen over at safeairspace.net – our conflict zone and risk database.

NAT Doc 006/008 Changes 2023

OPSGROUP Team
3 April, 2023

Read all about it! ICAO are changing up the NAT docs!

Here, for you, is our summary of the *_exciting_* amendments to our *_favourite_* documents.

*They aren't that exciting. Also aren't our favourites, clearly that is 007.

First up, Doc 008

NAT Doc 008 *'Application of Separation Minima North Atlantic Region'* contains exactly what the title suggests: info on the application of separation minima. The standards that it doth contain apply to aircraft in the NAT Region who are **communicating via a radio station or via CPDLC and also when in 'Direct Controller Pilot VHF voice Communication'.**

Excellent. We saw an amendment notification and we headed over to see what the change was. With baited breath we clickethed upon the link. Fingers tapping as it slowly downloaded itself and opened. We scrolled with frantic enthusiasm to the 'amendments' table. *What would the change be? Is it big? Is it exciting?*

It is not.

They have just amended paragraph 3.4.2.D to say that longitudinal separation is '*10 minutes between aircraft on same/intersecting tracks, whether in level, climbing or descending flight, provided the aircraft have ADS-C periodic contracts with a maximum reporting interval of 20 minutes or are being tracked by an ATS surveillance system.'*

'or are being tracked by an ATS surveillance system' appears to be the only change, at least that we can see anyway.

Doc 006

This one looks more interesting. First up, a review of what Doc 006 is.

In case you aren't familiar with this one, it used to be:

- Part I – Contingency Situations Affecting ATC Facilities
- Part II – Contingency Situations Affecting Multiple FIRs
- **Now it has Part III** – Contingency Situations Caused By Space Weather Events, which '*considers events which are likely to affect one or more than one facility within the NAT region, specifically the contingency processes applied to minimize operational impacts of space weather events.'*

You can find the updated Doc 006 parts here.

Part I of Doc 006 – Air Traffic Management Operation Contingency Plan.

The only change in this bit is the insertion of some text onto Page 1 about Part III – The Space Weather Contingencies.

There is also this **newly amended table** which, while grey and joyless, is actually very handy indeed. This covers general loss of ATC which could be space weather related, but could also not be space weather related.

Doc 006 Part III

I've given it a section of its own. This is the Space Weather bit, but, there is **an actual document – Doc 10100 – which talks about space weather.** 10100 can be found here and this is where you should go for *all your space weather knowledge needs.

Not all, but a good start.

Doc 006 Part II is all (only) about the contingencies in the event of issues with ATC, navigation, systems etc because of space weather.

A little bit of space weather info before we dive all the way in:

Space weather can play havoc on our GNSS systems, satellite stuff, HF, RF, power grids, even our microwaves (*microwave links whatever they be*). It can also have effects beyond just one FIR, or even the whole NAT region. So it's a great thing that we now have a document to help.

Space Weather peaks around every 11 years, but we've seen a load of pretty decent (but not severe) space weather stuff of late. Things like:

- **Disruptions and even total unexpected loss** of HF, SATVOICE, CPDLC etc
- Issues with GNSS (that impacts out **ADS-B and C**)
- Weird and **random reboots** of electronic stuff onboard
- Passengers and crew growing **extra limbs/glowing green** etc

The Contingency Phases

They've broken the actions down into a few phases.

Initial Action (Reactive Phase):

What is happening during this phase is some space weather is whizzing its way over and an ANSP has become aware of it and so they start telling everyone about it, putting contingency plans into action, getting in touch with other ANSPs for support etc.

If you're an airplane that is not yet in the NAT region then the general plan is to warn you about what might be awaiting you, and possibly (if it is really bad) re-route you.

If you are already in the NAT then you should do what you would normally do if you lose comms, or have some technical issue and that's follow the published contingency procedures.

Subsequent Action (Proactive Phase):

What is happening in this phase depends on the severity of the situation, but basically a whole load of communication (about the severity of the situation) and stuff to help manage it.

Long term contingency plans:

This is for the really bad stuff that knocks out comms or satellites of what have you for really long amounts of time.

That… wasn't very helpful

Doc 006 is really just more of an outline of what ATC will do (and so what the pilots can expect).

So, refer to the nice table, refer to the AIPs, go read your actual contingency procedures, and use this Doc 006 Part III as a helpful guide on what to expect.