

Mexico City Airport Safety Alert

Chris Shieff
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There have been several recent reports of **loss of GNSS signal** in the terminal area at MMMX/Mexico City Airport. This can lead to navigational errors, and a raft of related system failures all of which have potential to ruin your day.

GNSS interference is hardly new. The issue with MMMX is that the vast majority of procedures became RNAV based back in 2021. Add to that high altitude operations with a **healthy dose of terrain** and you begin to get the picture.

IFALPA have just published a **new safety bulletin** for MMMX/Mexico City Airport, which you can read here. But strangely, at the time of writing there has been radio silence on the issue from both Navigation Services for Mexican Airspace (SENEAM), and the Mexican Federal Civil Aviation Agency (AFAC).

Let's dig a little deeper.

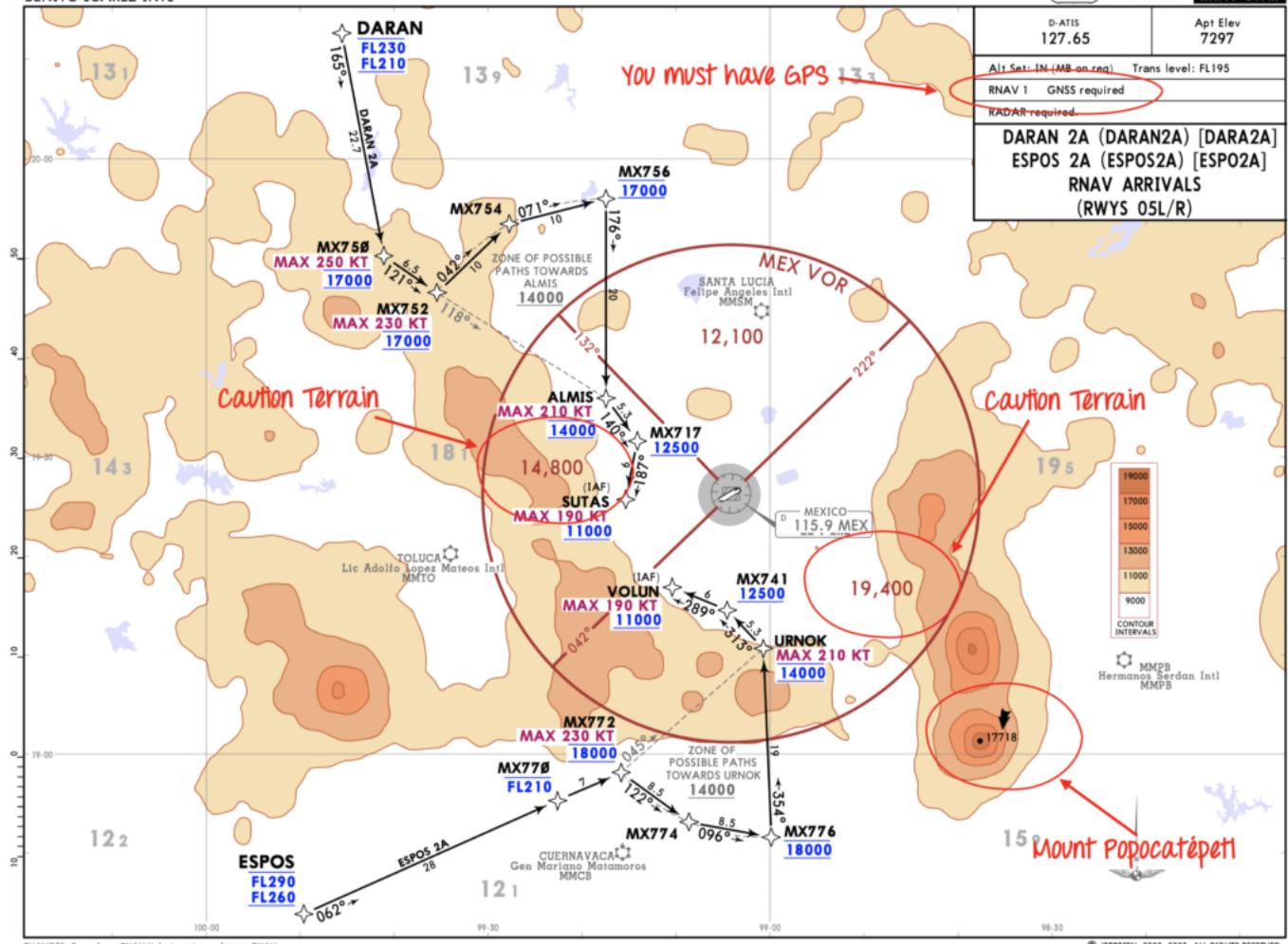
The Specifics

The first problem relates to the terminal area itself. All SIDs and STARs are **RNAV 1**. This means that to ensure terrain protection your aircraft must not exceed a track error of 1nm.

One look at the Jepps and you can see why. 25nm MSA towers as high as 19,400' to the east of the field, and 14,800' to the west. Mount PopocatEpetl – an 18,000' volcano is just 35nm away from the field. It's easy to see why GNSS interference could become a **major safety issue**.

MMMX/MEX
BENITO JUAREZ INTL

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Mexico City Airport is surrounded by high terrain.

The second problem relates to the approaches. Only one of the two runways has ILS approaches available (05R/23L). The other runway relies entirely on RNP approaches - where the eye of the needle narrows to just 0.3nm in the final approach segment.

What could go wrong?

Aside from the obvious, a loss of GNSS can affect **other safety critical systems** too. IATA has also written about this, and it turns out losing the signal can open up a whole can of worms.

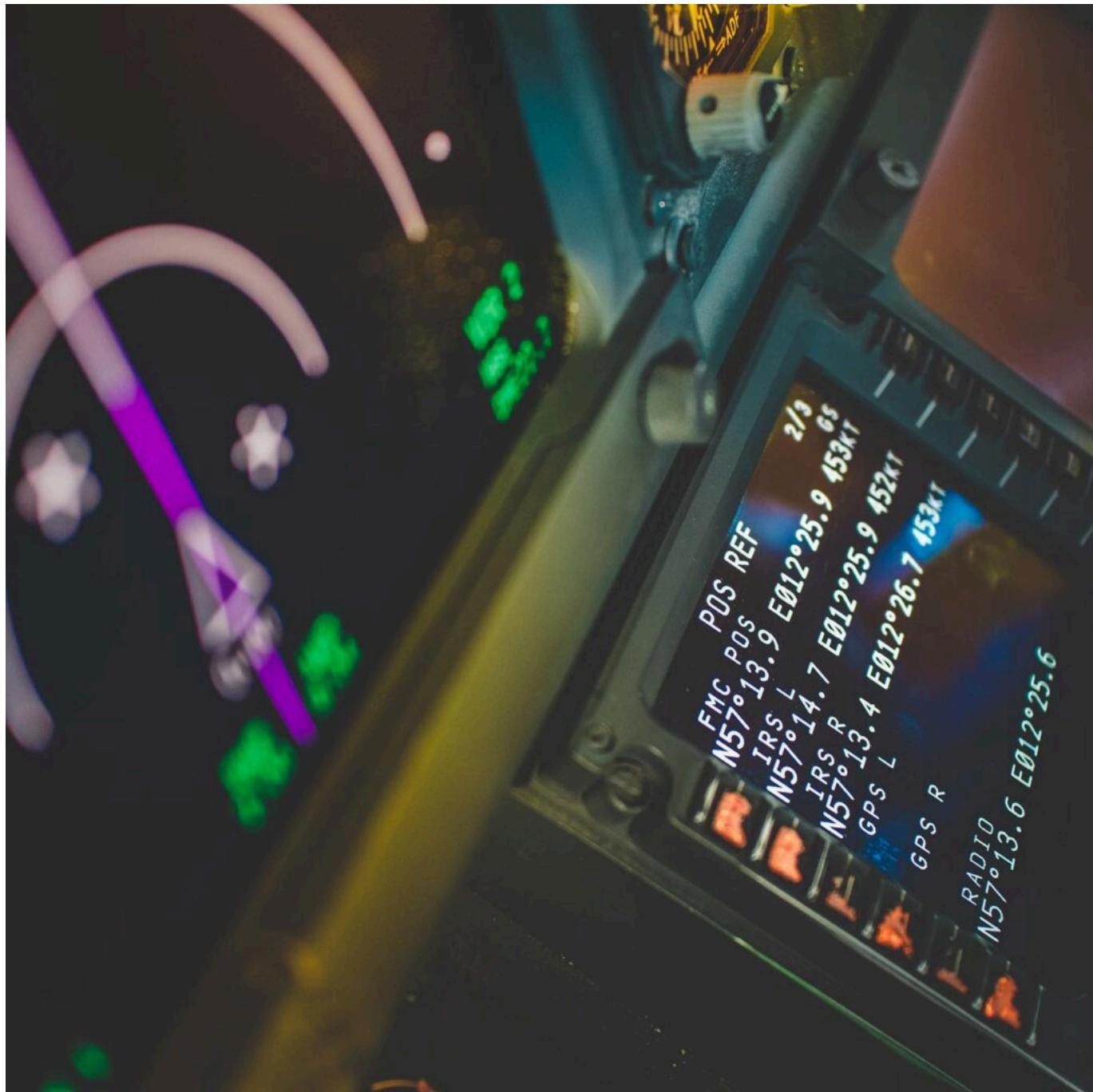
At the simpler end of the scale, a crew may receive a message that their navigational ability has been downgraded. And at worse, they may **lose GNSS navigation** completely including functions as simple as direct-to.

Depending on your aircraft type, you may find your aircraft reverting entirely to ground based and inertial navigation. Your nav display may tell you lies too, including nasty things like **map shift**.

EGPWS can also be affected - the system that has your back around terrain when you can't simply look out the window. Its predictive functions can be disabled, or spurious warnings triggered. Additionally the **position reporting function of ADS-B** can become corrupt, which is bound to upset ATC.

If your aircraft has them, **runway alerting systems** can also stop working properly. Things like **runway overrun protection** may simply now be redundant.

There's more to it than meets the eye.



Be alert for signs that your GNSS signal has been lost.

So, I've lost signal at Mexico City. What should I do?

Put extra attention towards **monitoring the performance of GNSS** during operations at MMMX, because it really matters. A sterile cockpit is also important here as distractions can help mask some of the more insidious symptoms of an interrupted signal.

If GNSS signal is lost, be prepared to fly **alternative procedures**.

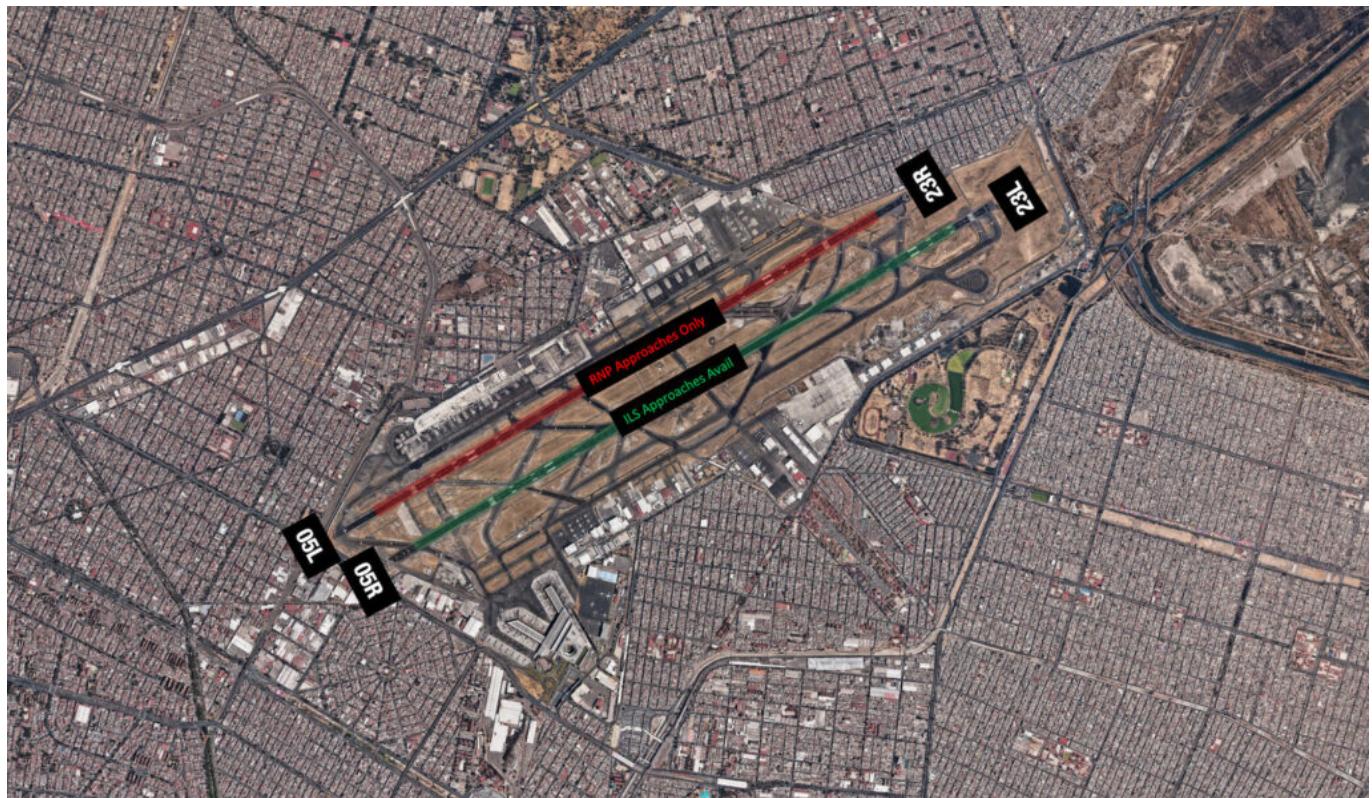
What are those you say?

There are no SIDs or STARs which use ground-based aids anymore at MMMX.

There are two options, radar vectors or the MEX VOR. The former is likely the easiest. **Otherwise, it is back to raw data** – the likely outcome being a descent in a hold or a procedure turn. Either way, you'll need to let ATC know.

Without GNSS, you are effectively down to **one runway** (unless of course you are flying the visual). 23R/05L has no ground-based approach option – it is all RNP.

That leaves 23L/05R where the news is better. There is an ILS at each end, and even a VOR approach on 23L in a real pinch.



If you need an instrument approach, and you don't have GNSS, you are runway limited.

Whichever option you choose, if you are in cloud you need to be sure of your **terrain clearance** reference something that's **not RNAV specific** – whether it be the controller, or the MSA sectors on your chart.

Do you have info to share?

If you've been to Mexico City (or anywhere else, for that matter) and can share some info on how the trip went, please file an Airport Spy report!

OPSGROUP members can see all the Airport Spy reports filed for airports around the world on the members Dashboard here.



Got some intel?

Are you an Airport Spy?

You go to unusual places and see curious things. Your turboprop friends envy you. Now, it's time to give back.

For your next trip, pack a notebook, and file your Spy Report below. You'll get a weekly ops briefing in return.

[File your report](#)

Mexico City says no to cargo

OPSGROUP Team
11 July, 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 Angeles.
- 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.

Mexico City: Safety concerns

OPSGROUP Team

11 July, 2023



What is going on around Mexico City (or should we say 'Mess-ico City) at the moment? Aircraft near misses, security and safety concerns, ATC errors...

IFALPA has issued a new safety bulletin for **MMMX/Mexico City airport**, highlighting several concerns.

- Aircraft have been landing with **low fuel** due to unexpected holding
- **Diversions** (due excessive holding) have increased

- There have been reports of **EGPWS** warnings
- And reports of **confusion** over STAR clearances

IATA report there have been at least 17 incidents of EGPWS warnings in the past year, and have written to the Mexican Airspace Navigation Services expressing concern -

"As you know, these alarms, without the quick action of the flight crew, can lead to a scenario of controlled flight into terrain, CFIT, considered by the industry to be one of the highest risk indicators in operational safety, and with the highest accident rate, as well as fatalities," their letter said.

The situation seems to be compounded by the recent opening of nearby **MMSM/Felipe Ángeles** which is causing control challenges for ATC (more on that below).

The near-miss incident at MMMX/Mexico City

On May 7, two Volaris aircraft had a near-miss, potentially due to controller error, when an aircraft was **cleared to land runway 05L** while another had been cleared to depart 05L. The last minute go-around was prompted by crew in another aircraft:

What's being done about it?

The Mexican Government have launched an investigation, but have already commented that the incident was most likely caused by an **ATC mistake**, noting Mexico has a **shortage of about 250 controllers**, which means they work longer hours.

They have also said that the airport will **reduce capacity by 25%** over the next 12 months while the situation is sorted. This is reportedly due to start in August 2022, with flights transferring to Mexico City's new MMSM/Felipe Ángeles airport as well as MMTO/Toluca airport.

The MMSM problem

MMSM/Felipe Ángeles (formally known as Santa Lucia) opened in March 2022. The government decided to upgrade an existing airbase following the scrapping of the **Texcoco airport project**.

MMSM boasts three runways, all with **CAT I ILS** approach facilities, and two **4,500m (14,764')** in length. The airport sits at an elevation of 7362', and has an MSA of 15,700' making it a relatively challenging spot (although MMMX/Mexico City is arguably more challenging).

The proximity to MMMX

Both airports serve Mexico City and are **only about 40km** apart meaning ATC have suddenly found themselves dealing with much more complex airspace, and still have that pesky terrain threat to contend with as well.

According to air traffic controllers cited in local press, **the number of aborted landings has doubled** at MMMX/Mexico City airport this year due to the redesign of airspace to allow MMMX and MMSM airports to operate simultaneously. **Insufficient training** and lower than **standard phraseology** are not helping the situation. You can read more on this [here](#).

Reports on MMSM

Sometimes folk write in with reports on airports. Someone did this about MMSM, and it wasn't great.

We have paraphrased below -

"The airport is still not fully constructed from the sounds of it, having been opened speedily by the government. The airport is not ready to support international operations and to reach it from Mexico City involves a pretty bad 2 hour drive through so rough neighbourhoods. Be safe - don't use this airport."

Safety and security

Mexico does have some **safety and security issues**, and these do impact operations, particularly into MMMX/Mexico City international.

The airport comes out one of the highest for:

- Security incidences at the airport - from illegal cargo being loaded to passenger documents not adding up
- "Follow-home crime" (ie getting followed back to your hotel and then robbed)

Both airports lie near (or in) neighbourhoods with high crime rates, so crew security if on a layover should be taken seriously.

Mexico, overall

The FAA downgraded Mexico's safety rating back in June 2021. Here's our post on it if you want a read.

This downgrade doesn't mean the FAA thinks the country isn't safe to operate into. It is generally aimed more at the safety of the airlines registered there. But it is often based off the level of oversight, quality assurance and maintenance in the country.

Which means when you see a downgrade, you should **have a little more caution** because the infrastructure, training for the likes of ATC etc, or general regulatory oversight might not be up to scratch and this could have some safety impact for you.

What to do with all this info?

Well, avoiding going would be extreme, but being **extra cautious** when you do - especially with regards to looking out for other traffic, and paying special attention to your terrain clearance - might not be a bad call.

You might want to **carry extra fuel** as well to deal with those holding issues as well.

Please send us your reports.

We can only share on the info we receive from folk heading there so if you do, we would love a report from you (and will keep it anonymous if you want) - news@ops.group