

## LEVEL 1



Thu 0453 EDT

## ALERT

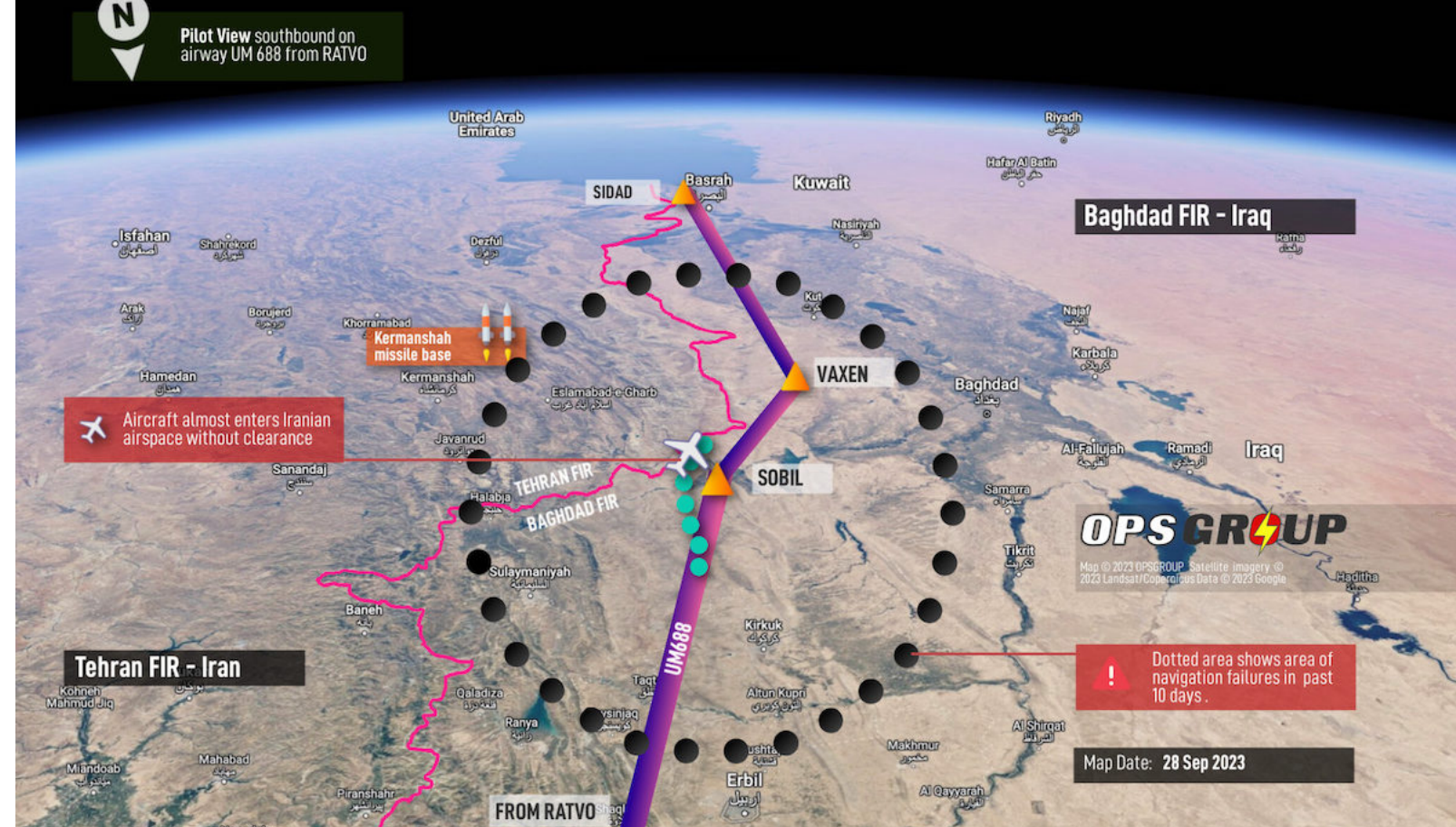
## FAA Warning Issued, Further Serious Navigation Failures Reported

Since publishing [Monday's risk warning](#) on complex navigation failures following fake GPS signals, we have received further concerning reports from operators, mirroring the same events. The impact of the nav failures is becoming clearer, with one operator almost **entering Iranian airspace without clearance**, and another left requiring ATC vectors all the way to their destination in Doha.

In total we now have **20 reports** of almost identical situations. Full reports are in Version 2 of our Risk Warning (PDF, 1.7Mb).

On Wednesday evening, the **FAA issued a warning memo** to aircraft operators as a result of the situation, warning of increased "safety of flight risk to civil aviation operations".

## Embraer Legacy 650: We nearly entered Iran airspace with no clearance



One of the **new reports** received since Monday was from an Embraer 650 crew enroute from Europe to Dubai. They tell us, "In Baghdad airspace, we lost both GPS in the aircraft and on both iPads. Further, the IRS didn't work anymore. **We only realized there was an issue because the autopilot started turning to the left and right**, so it it was obvious that something was wrong. After couple of minutes we got error messages on our FMS regarding GPS, etc. So we had to request radar vectors. We were showing about 80 nm off track. During the event, we nearly entered Iran airspace (OIIX/Tehran FIR) with no clearance.

## Challenger 604: Required vectors all the way to Doha

Another new crew report received since our first warning informs us: "Nearing north of Baghdad something happened where we must have been spoofed. We lost anything related to Nav and the IRS suggested we had drifted by 70-90 miles. We had a **ground speed of zero** and the aircraft calculated **250kts of wind**. The FMS's reverted to DR (Dead Reckoning) and had no idea where they were. We initially took vectors to get around the corner at SISIN. Nav capability was never restored, so we **required vectors all the way from Iraq to Doha for an ILS**. We never got our GPS sensors back until we fired up the plane and went back to home base two days later.

[Read the full briefing article.](#)

## OPSGROUP concern for international flight operations:

With these additional reports, **OPSGROUP has increased concerns over the situation:**

**Security risk:** Navigation failures are occurring in close proximity to the Iranian border. One aircraft reported almost straying into Iranian airspace (Tehran FIR, OIIX) without a clearance. This area of the border is considered sensitive by Iran: there are **two large missile bases** just across the boundary: one at Kermansah (a huge facility with dedicated anti-aircraft weapons), and another at Khorramabad. For context, Iran shot down a passenger aircraft in 2020 in Tehran (accidentally), and has been heard in September 2023 issuing warnings on 121.5 with threats to shoot down aircraft entering the FIR without a clearance.

**The Navigation failures are severe:** The second report above highlights how the crew had no option but to request radar vectors - all the way to their final destination. In many other reports, most aircraft have no reliable on board navigation, for periods of 20-30 minutes and in some cases an hour or more.

**Compounding failures:** Individually these incidents can mostly be resolved with the help of ATC. Consider however, an ATC comms failure, ATC radar failure, or an emergency situation: engine failure, decompression, or even a medical divert. The workload would quickly become extreme, and diverting at night (when most flights are transiting the area) without basic navigation capability is not a scenario we want to deal with.

**Inadequate guidance for crews:** Current FCOM/AOM procedures available to aircrew are insufficient to capably deal with this new GPS spoofing issue. Having been shown to be possible, there is potential for it to occur elsewhere in the world.

[Further details in full briefing article.](#)

This information covers a developing event: further versions will likely follow. Check your members Dashboard / Daily Brief for updates.

Much of the information is compiled from member feedback. If you have any expertise to share, or information to add - please email [team@ops.group](mailto:team@ops.group), or send a WhatsApp message to +1 747 200 1993.

Feel free to share with any non-members as well, **especially any colleagues operating in the Middle East**. Being aware of this will reduce the surprise and risk.

Thank you!

The OPSGROUP Team  
[team@ops.group](mailto:team@ops.group)

RISK

COMMENT

## FLIGHT OPS CHANNEL ACTIVE

## More on this in the OPSGROUP Crewroom

For the latest on this, head to the [#Ops\\_Kitchen channel](#) on OPSGROUP Slack. We've just posted a copy of this alert there, and you can discuss and share updates on this specific topic with other members. The team will also post updates and further info there as we get news.

If you know more about this situation, **please share** an update in the channel, or [email the team](#). Thank you!

[GO TO #FLIGHTOPS ON SLACK](#)

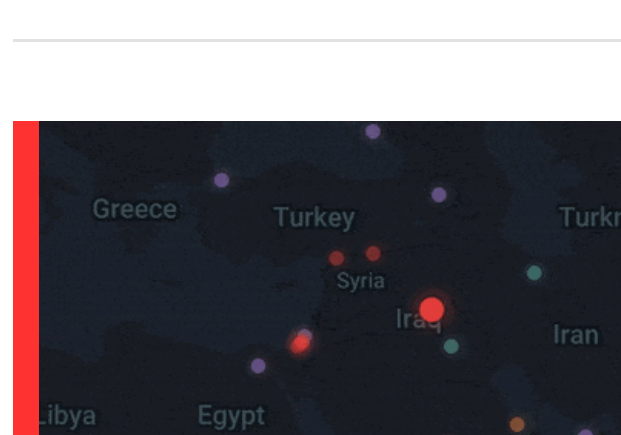
## FURTHER INFORMATION

## What do you know?

If you have more information about this alert, please share with the group. Thank you! Just email [team@ops.group](mailto:team@ops.group) and we'll get the word out. All reports are anonymous.

## About this Level 1 Alert

Routine Ops Alerts are published in #Ops Alerts on Slack, and available in your member Dashboard as we post them. We use a simple criticality ranking from 1 to 5 - this is a **Level 1 Alert** (most critical) so we also notify you by email.

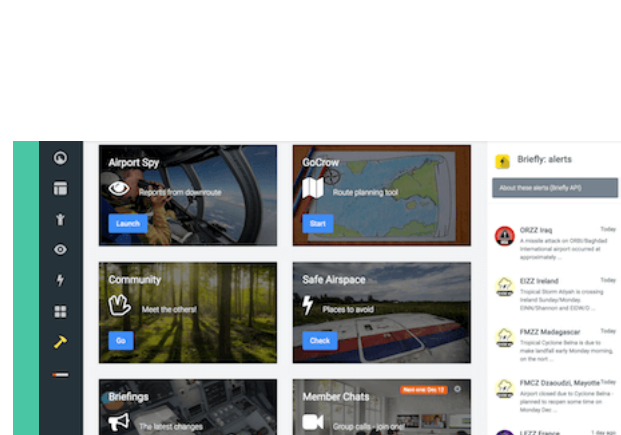


## REPORT

SAY SOMETHING!

## Have you something to share?

We all rely on your help! If we missed something, got something wrong, or you know something that others should know - [tell us anonymously](#): email us.

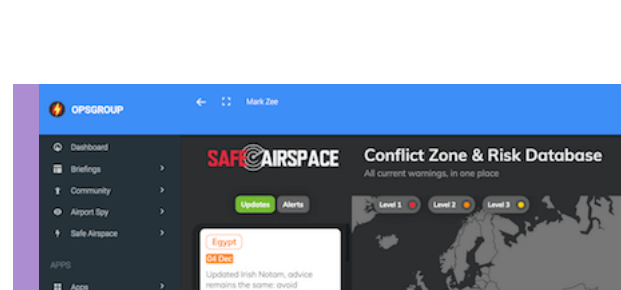


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DASHBOARD

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## RISK

SAFE AIRSPACE

## Check current Risk Alerts

Safe Airspace will give you the latest Conflict Zone warnings, Risk, Hazard, and Security Alerts, Risk Radar (see what others are avoiding), and Country Analysis. [Log in](#) to view the full version in your Dashboard.

## About the Daily Brief

We make this every weekday for our members. The idea is to give you a one-shot summary of the most important alerts issued in the last 24 hours. We usually send it at 1330Z (ish). If you don't want these every day, then just [stop](#) daily updates (won't affect your weekly bulletin).

We run a pretty in-depth vetting process to verify and investigate the member reports we get, but we won't always get it 100% right. We err on the side of giving you the picture as we know it. **So, please tell us if you know about something we missed**. Just [email us](#).

## Quick Links

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