

Outsmarting the GPS spoofers: A clever app

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GPS spoofing is fast becoming a real headache in aviation, causing **confusion and navigation problems for pilots** in several hotspots around the world.

We first saw this happening in September 2023, when we started getting reports of spoofing across the Middle East, including instances near **Iraq, Iran, Egypt, Israel, Jordan, Turkey, Cyprus, and Lebanon.**

Since then we've had reports from all kinds of strange places including **Pakistan, Niger, and China.**



And just like that - Spoofed.

GPS spoofing involves **sending false GPS signals to aircraft**, leading to potential navigation errors and safety risks.

Manufacturers have been slow to work out **what advice to pass on to pilots and operators** on how to counteract these issues. But the effectiveness of these measures can be limited without the right tools, especially during live spoofing events where the reliance on ATC becomes critical.

NaviGuard, developed by APG, is a **new tool designed to counter GPS spoofing threats**. It's a plotting application that uses traditional ground navigation aids (e.g., VORs, DMEs, NDBs) to cross-check and verify the aircraft's GPS-reported position. And best of all - **it's free**. You can download it here.

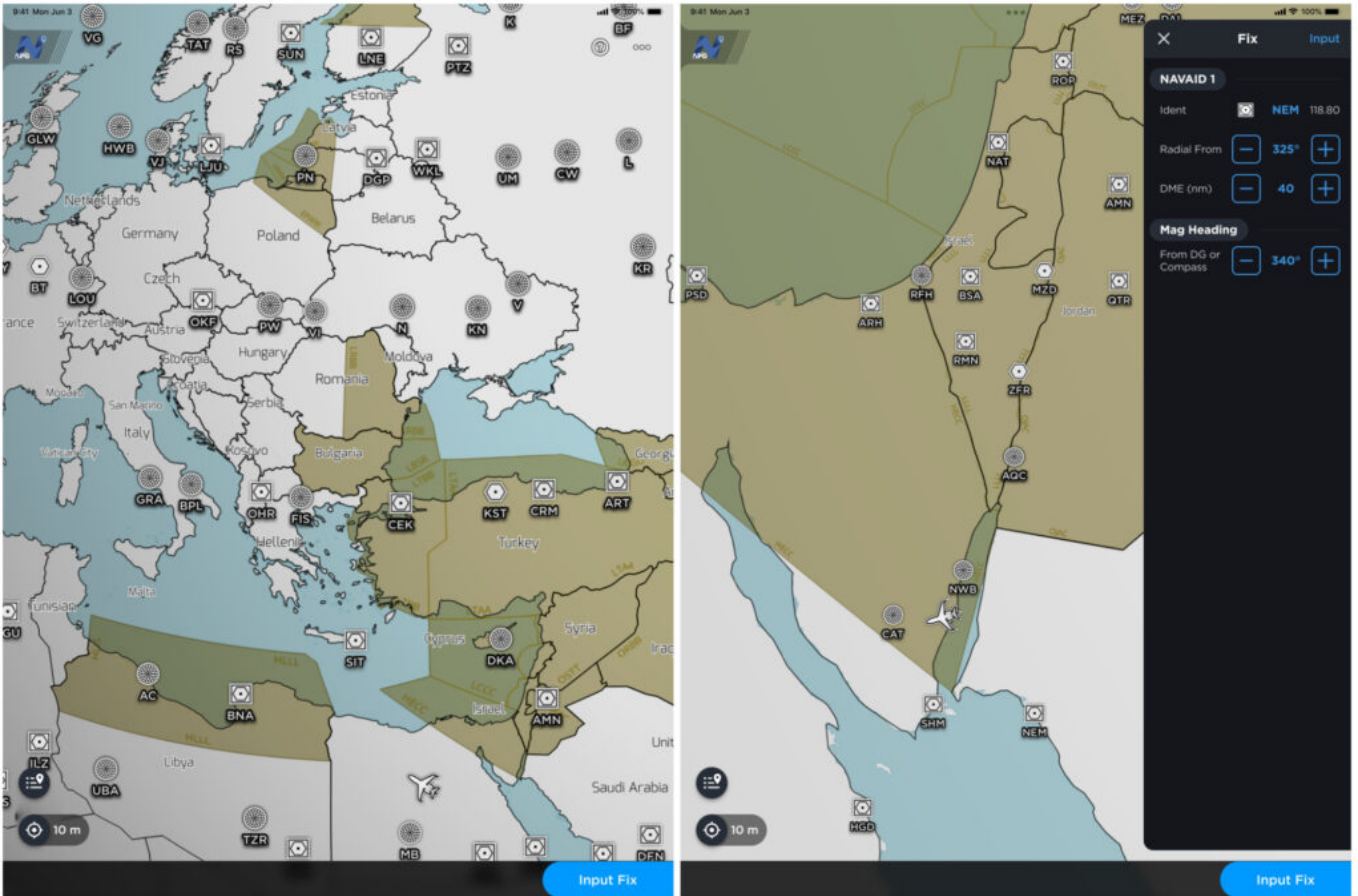
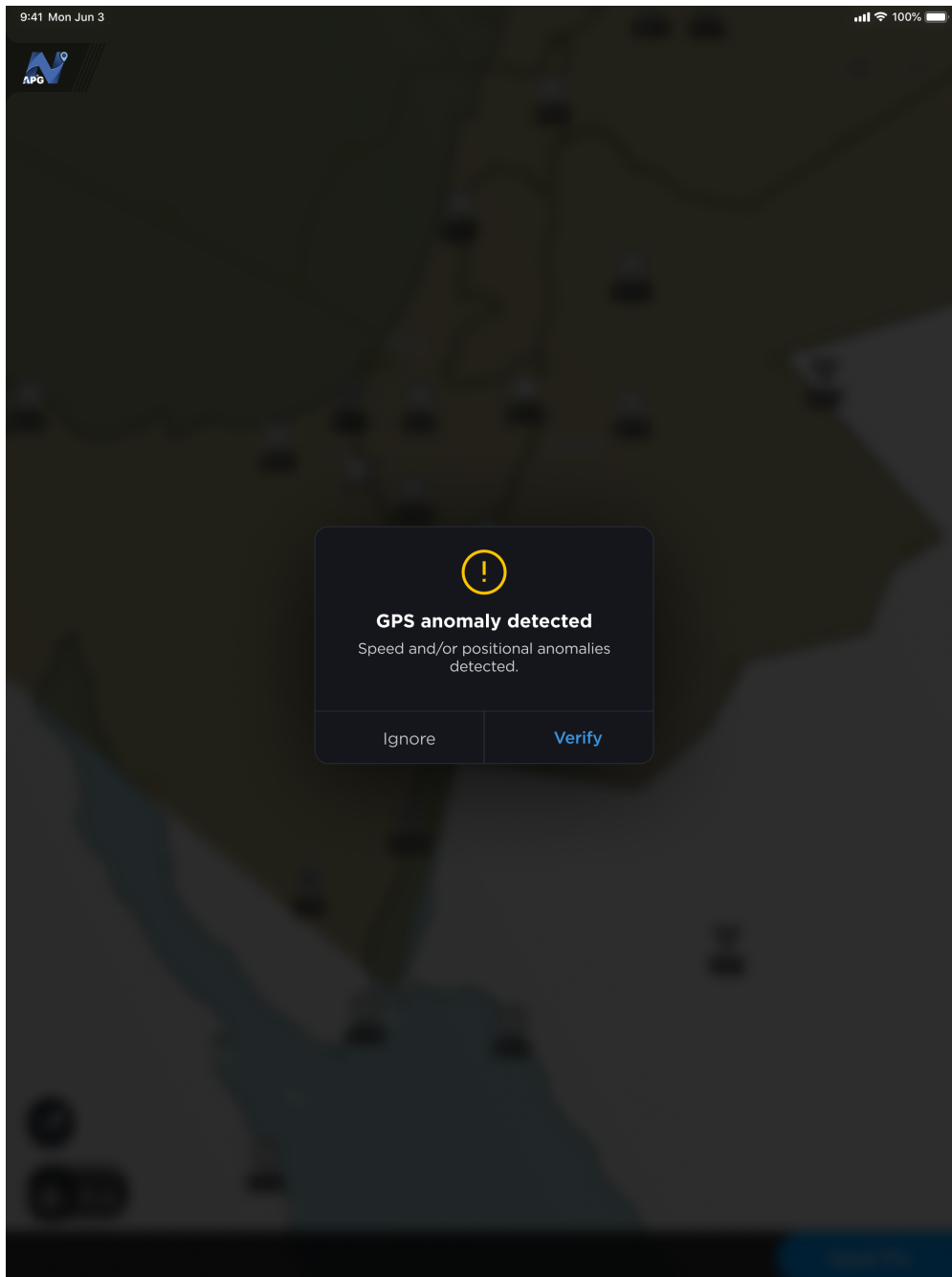


Chart to the rescue!

When NaviGuard **detects discrepancies indicative of GPS spoofing**, it alerts the pilots with a clear “GPS anomaly detected” message, enabling them to take corrective action promptly.



Hard to miss.

NaviGuard offers pilots a straightforward solution for maintaining navigational accuracy amidst GPS spoofing threats.

I used NaviGuard last month when I was spoofed whilst operating in Cairo. I got to try out the app for 30 minutes **while our GPS tried to convince us that we were flying on top of Beirut.**



Hello, Beirut.

As promised by Michael and the team at APG, the app was easy to use, and it allowed me to **quickly verify that my IRS position was not compromised** (we have a Hybrid IRS, so a spoofed GPS signal can corrupt the position data).

This is a no-bells-or-whistles solution, which I believe is an excellent addition to any pilot's EFB; after this flight, I installed the app on all of our aircraft's EFBs. It takes up very little space and is free. **This is the great insurance when doubting your GPS position's integrity.**