



Date : 25/10/2023 : التاريخ

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SAFETY INFORMATION BULLETIN - 06/2023**ATTN: ALL KUWAITI AIR OPERATOR CERTIFICATE {AOC} HOLDERS****Subj.: Operations Alert - New Variety of GPS Spoofing – LLBG, Cairo, Amman**

It has come to the attention of the Kuwait DGCA that **another new GPS spoofing scenario** has been reported. All have reported similar circumstances, where a false or spoofed GPS position is received by the aircraft, incorrectly showing the **aircraft position as being over LLBG / Tel Aviv**. Locations vary from airways over the eastern Mediterranean, Egypt, and also on approach into Amman, Jordan (OJAM). **Reports range from 100nm to as far as 212nm from LLBG.**

This is a different scenario to the multitude of reports in early October of GPS Spoofing in the northern Iraq region (Airway UM688). And as before, this is not jamming (loss of signal) – this is spoofing (faked signal). The industry appears to still be coming to terms with the problem. No useful operational guidance has been issued to date by the FAA, EASA, or any of the OEM's. However, Bombardier will publish a comprehensive FON for the CL300-650 aircraft range around October 27.

Recommend the following to all Crews operating in the Middle East and Mediterranean region aware of these GPS events, which can have sudden and severe impact on navigation capability:

(A) All Kuwaiti Air Operators when entering risk area should:

1. Check enroute FIR NOTAMs for any GPS spoofing advice (in time this will likely be published).
2. Cockpit Preparation: Perform full IRS alignment if entering known area with GPS spoofing risk.
3. Be aware of typical sensor hierarchy for FMS position: GS, then IRS, DME/DME, VOR/DME, DR.
4. Consider de-selecting GPS sensor input if option available.
5. Review differences between GPS Jamming and GPS Spoofing.
6. Perform time check and set correct time on personal device or watch.



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7. Ensure in the flight planning and execution phase, the availability of alternative conventional arrival and approach procedures (i.e. an aerodrome in the affected area with only GNSS approach procedure should be considered as destination or alternate).
- (B) Ensure that flight crews promptly report to air traffic control any observed interruption, degradation or anomalous performance of GPS.
- (C) Ensure that operational limitations introduced by the dispatch of aircraft with inoperative radio navigation systems in accordance with the Minimum Equipment List, are considered before operating an aircraft in the affected areas.
- (D) All operators shall co-ordinate with adjacent ATS units, including with those in adjacent States to ensure awareness of a possible strayed aircraft.
- (E) All Operators shall strictly contact any Air Military Defense to co-ordinate and cooperate to identify of Civil Air Traffic.

All Operators are urged to continuously monitor the safety of operations along the mentioned routes/airways and to conduct and provide their Risk Assessment and Mitigation Plans for their operation of flights and the contingency procedures in advance in line with the organizational Safety Management Systems (SMS).

Sincerely,

Director General of Civil Aviation

Engr. Emad F. Al-Jelwi

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