



Date : 11/10/2023 التاريخ :

Ref : 2023/481/OPS/41 الإشارة :

SAFETY INFORMATION BULLETIN -05/2023

Attn: All Kuwaiti Air Operator Certificate {AOC} Holders

Sub.: Fake GPS Signal Attacks, Loss of IRS/NAV Capability and GNSS/GPS Spoofing Risk

Reason :

The DGCA noticed a global report from different Airlines of receiving GPS spoofing activities leading to complete loss of navigational capability including IRS failure in northern Iraq-Baghdad FIR (ORBB), some involve eastern Turkey, Armenia, Azerbaijan and Iran.

Recommendation:

- (A) All Kuwait 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.
 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



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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 co-operate 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,

Aviation Safety Director

Engr. Hussam Al-Rasheed
Aviation Safety Director