

12/15/2025

FOR YOUR INFORMATION

2025-320/10-25

2299129

To: Boeing Commercial Airplane Company

Info: FAA (AVP-1, AVP-200, AFS-200, AFS-900, AFS-260, AFS-100, AIR-720, AIR-780, AIR-360, SEA-AEG), A4A, ALPA, AMFA, ASAP, ATSG, CAPA, IAM, IBT, ICAO, ICASS, IFALPA, IPA, NTSB, PAMA, RAA, SWAPA, TWU

From: Becky L. Hooey, Director
NASA Aviation Safety Reporting System

Re: B787 GPS Anomaly Following Jamming Event

We recently received ASRS reports describing a safety concern that may involve your area of operational responsibility. We do not have sufficient details to assess either the factual accuracy or possible gravity of the report. It is our policy to relay the reported information to the appropriate authority for evaluation and any necessary follow-up. We feel you should be aware of the enclosed deidentified report.

To properly assess the usefulness of our alert message service, we would appreciate it if you would take the time to give us your feedback on the value of the information that we have provided. Please contact Dr. Becky Hooey at (408) 541-2854 or email at becky.l.hooey@nasa.gov.



Aviation Safety Reporting System
P.O. Box 189 | Moffett Field, CA | 94035-0189



ACN 2299129**DATE / TIME**

Date of Occurrence 202510
Local Time Of Day No Local Time Of Day Stated

PLACE

Locale ZZZZ.ARTCC
State FO

ENVIRONMENT

Flight Conditions VMC

AIRCRAFT / EQUIPMENT X

ATC / Advisory - Center ZZZZ
Make Model Name B787 Dreamliner Undifferentiated or Other Model
Operating Under FAR Part 121

COMPONENT 1

Aircraft Component GPS & Other Satellite Navigation

PERSON 1

Function - Flight Crew First Officer
Function - Flight Crew Pilot Not Flying
ASRS Report Number 2299129

EVENTS

Anomaly Aircraft Equipment Problem - Less Severe
Anomaly Airspace Violation - All Types
Anomaly Deviation / Discrepancy - Procedural - FAR
Anomaly Deviation / Discrepancy - Procedural - Published
Material / Policy
Detector - Automation Aircraft Other Automation
Detector - Person Flight Crew
Result - General Maintenance Action
Result - Flight Crew Overcame Equipment Problem

NARRATIVE 1

When coming back from our crew rest break, we were briefed from the Captain (CA) on the status of the aircraft and routing. He informed us that after they had left the last airspace with known GPS jamming/spoofing they followed the procedures established in pilot bulletin to re-establish our GPS receivers/navigation.

They were attempting to get both GPS receivers back online, but only the right came back on. We also had NAV SINGLE GPS ADVISORY EICAS. In addition to the EICAS advisory the CA, FO, and FMC clocks were not consistent with each other and the FMC was approximately 4 minutes behind the actual time (example: actual time XA:25, FMC time would be XA:29).

When the CA and flying FO went on break the other FO and I discussed the next course of action. We decided that since we were in ZZZZ airspace (ZZZZ) and in radar contact that we would rerun the GPS Interference Checklist to see if we could get the left GPS back online.

Before we did this we contacted Dispatch and Maintenance Control for any other input. They did not have any additional, but Maintenance Control did see a fault in the CA's GPS/ Inertial Reference Unit (IRU). We asked both Dispatch and Maintenance Control if they had any issue with us rerunning the checklist to attempt to restore the GPS, and they did not.

After rerunning the checklist the Left GPS did not come back online.

While our ANP was never more than our RNP (RNP 4) and we had one GPS and VOR/DME updating our navigation, we decided to utilize the techniques discussed in the FOM. We plotted our position on our EFBs multiple times for the remainder of the flight. We did this to ensure our position was accurate.

In addition to that after every position report was made in Oceanic and Remote Continental Airspace (ORCA) airspace we contacted the controlling agency to see what times were reported and used those times to verify we were remaining +/- 3 minutes. We did this because the times showing on the position report page of the FMC were not the times that were sent to the controlling agencies.

We contacted Maintenance Control one more time to see if they had any ideas on how to get the clocks to sync up again, they did not.

We operated the remainder of the flight in this manner while in ORCA and once in radar contact with ZZZZ1, ZZZZ2, ZZZ, and ZZZ1 we periodically verified our position with them.

We entered multiple maintenance write-ups pertaining to the single navigation GPS and CA and FO clocks inaccuracies.

SYNOPSIS

B787 First Officer reported the flight crew was unable to re-establish the left normal GPS operation after leaving an airspace with known known GPS jamming/spoofing and operated the remainder of the flight using alternative solutions to ensure accurate positioning.