



SAIB: CE-10-38R1

Date: August 18, 2010

SUBJ: Navigation

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin advises you of an airworthiness concern regarding a missed Global Positioning System (GPS) Non-Precision Approach (NPA), which may be caused by the **Honeywell GPS sensor** when no backup navigation system is available on flights greater than 5 hours.

The sensors are used in the following products:

- Flight Management System: GNS-XES, GNS-XLS, GNS-XLS Enhanced, GNS-XLS PRNAV, GNS-XLS Enhanced PRNAV, GNS-XL, GNS-XL PRNAV, GS-2100, CDU-XLS
- GPS Navigator: KLN-35A, KLN-89B, KLN-90B, KLN-94, KLN-900, KLX-135, KLX-135A, KLX-189B
- TAWS: KMH-820, KMH-920, KGP-560, KGP-860, MK-XXI, MK V, MK VII, MK VI, MK VIII, MK XXII
- GNSS: KGS-200
- IC-615: IC-615
- EPIC Radio: VIDL-G

At this time, the FAA has determined that this airworthiness concern is not an unsafe condition that would warrant airworthiness directive (AD) action under Title 14 of the Code of Federal Regulations (14 CFR) part 39.

This SAIB revises SAIB CE-10-38, dated July 15, 2010, by updating the models and part numbers.

Background

On March 30, 2010, Honeywell International, Inc. (Olathe, KS) provided the Wichita Aircraft Certification Office (ACO) written notification of a possible safety issue (i.e., annunciated temporary loss of GPS navigation) against the Mercury PX Global Navigation System Sensor (GNSS) within its host VOR/ILS Data Link with GPS (VIDL-G) Receiver (Honeywell P/N: 7026207-802), which was initially discovered during an extended flight on a Dassault F7X airplane.

An end customer flying a Dassault F7X airplane with a Honeywell VIDL-G Navigation Receiver experienced an annunciated temporary loss of GPS navigation during an extended flight between ESGG (Gothenburg-Landvetter Airport, Sweden) and KBFI (Boeing Field, Seattle WA). Flight deck effects included steady reduction in the number of tracked GPS satellites resulting in related CAS messages (NAV: FMS/GPS 1+2 MONITOR), degradation of the GPS operating mode to altitude aiding, and ultimately temporary loss of navigation from the GPS. The end customer reported this issue to the airframe manufacturer who, in turn, notified Honeywell.

The VIDL-G navigation receiver incorporates a Mercury PX GNSS and is certified to TSO-C129a (Class B1/C1) Airborne Supplemental Navigation Equipment using the GPS. This annunciated

temporary loss of GPS navigation function had not been previously observed by Honeywell and was not revealed by TSO-C129a testing.

Honeywell has isolated the issue to a latent defect in the software that is common to all of Honeywell's 8-channel GPS receivers. The affected models and their part numbers are listed below.

Model	Part Number(s)
CDU-XLS	18420-0101-0xxx
GNS-XES	17450-0305-xxxx, 17450-0307-xxxx, 17450-0406-xxxx
GNS-XL	18355-0101-00xx, 18355-0101-01xx
GNS-XL PRNAV	18355-0102-xxxx
GNS-XLS	17960-0101-0xxx, 17960-0102-0xxx
GNS-XLS Enhanced	17960-0203-0xxx
GNS-XLS Enhanced PRNAV	17960-0204-0xxx
GNS-XLS PRNAV	17960-0103-0xxx
GS-2100	066-01160-2502
IC 615	7017000-21xxx,-25xxx,-94xxx, -95xxx, -98xxx, -99xxx
KGP 560	066-01196-0x0x (RMD PN 965-1196-0xx, 965-1198-0xx)
KGP 860	066-01197-0205 (RMD PN 965-1199-00x)
KGS 200	066-01201-0101
KLN 35A	066-01151-0101
KLN 89B	066-01148-x1x1, 066-01148-x1x2
KLN 900	066-04034-0101,-0201, -0102, -0104, -0202, and -0204
KLN 90B	066-04031-xxx1, 066-04031-xxx2, 066-04031-xxx4
KLN 94	069-01034-01xx
KLX 135	070-01029-0000, 070-01029-0001
KLX 135A	069-01029-0703
KLX 189B	066-01161-7000
KMH 820	066-01175-210x, 066-01175-220x
KMH 920	066-01178-210x, 066-01178-220x
MK V	965-0976-020-XXX-XXX, 965-0976-060-XXX-XXX, 965-1681-002
MK VI	965-1186-XXX, 965-1190-XXX
MK VII	965-1076-020-XXX-XXX, 965-1076-030-XXX-XXX, 965-1076-060-XXX-XXX
MK VIII	965-1216-XXX, 965-1220-XXX
MK XXI	066-01227-0x01x (RMD PN 965-1227-00x)
MK XXII	965-1590-XXX, 965-1595-XXX
VIDL-G	7026207-XXX

Recommendations

The FAA recommends that the pilot assure that he/she is prepared to revert to an alternative means of navigation appropriate to the flight if the above situation occurs.

For Further Information Contact

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