SERVICE LETTER

HONEYWELL GPS NAVIGATOR

MODELS AFFECTED: All MD900 rotorcraft that have MDHI Single-Pilot Instrument Flight Rules (SPIFR) Supplemental Type Certificate (STC) SR00436W1-D (formerly Honeywell) installed.

This Service Letter is issued to inform owners and operators that the Federal Aviation Administration (FAA) has released Special Airworthiness Information Bulletin (SAIB) CE-10-38, dated 15 July 2010 (attached), concerning an airworthiness issue of the Honeywell GPS software for eight-channel receivers. The FAA and MDHI recommend owners, operators, and flight crew of rotorcraft with Honeywell GPS Navigator (Model KLN-90B, PNs 066-04031-1121 and 066-04031-1122) installed to read FAA SAIB CE-10-38 and follow the FAA recommendation.

MDHI has contacted Honeywell and discussed the remote possibility that a MD900 may encounter the anomaly described in the attached SAIB. If the KLN-90B loses the required GPS signal, a "RAIM NOT AVAILABLE" message is displayed, acquisition of a new GPS signal is initiated, and the GPS resets. Interruption should not last more than a few minutes. Pilots should follow normal procedures for a "RAIM NOT AVAILABLE" message and rely on ground base navigation system until the GPS resets.

For further assistance, refer to attached FAA SAIB CE-10-38.

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FAA
Aviation Safety

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SAIB: CE-10-38
SUBJ: Navigation **Date:** July 15, 2010

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin advises you of an airworthiness concern regarding a missed 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.

These sensors are used in Honeywell's Flight Management System (GNS-XES, GNS-XLS, GNS-XLS Enchanced, GNS-XLS PRNAV, GNS-XLS Enhanced PRNAV, GNS-XL, GNS-XL PRNAV, CDU-XLS), GPS Navigator (KLN-89B, KLN-90B, KLN-94, KLN-900), 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), and 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.

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 GPS satellites being tracked 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 Global Positioning System (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)
GNS-XES	17450-0305-xxxx, 17450-0307-xxxx, 17450-0406-xxxx
GNS-XLS	17960-0101-0xxx, 7960-0102-0xxx
GNS-XLS Enhanced	17960-0203-0xxx
GNS-XLS PRNAV	17960-0103-0xxx
GNS-XLS Enhanced PRNAV	17960-0204-0xxx
GNS-XL	18355-0101-00xx
GNS-XL PRNAV	18355-0102-00xx
CDU-XLS	18420-0101-0xxx
KLN-89B	066-01148-x1x1, 066-01148-x1x2
KLN-90B	066-04031-xxx1, 066-04031-xxx2
KLN-94	069-01034-01xx
KLN-900	066-04034-0101 and -0201, 066-04034-0102 and -0104
KMH-820	066-01175-210x
KMH-920	066-01178-210x
KGP-560	066-01196-0x0x (RMD PN 965-1196-0xx)
KGP-860	066-01197-0205 (RMD PN 965-1198-00x)
MK-XXI	066-01227-0x01x (RMD PN 965-1227-00x)
MK V	965-0976-020-XXX-XXX, 965-0976-060-XXX-XXX
MK VII	965-1076-020-XXX-XXX, 965-1076-030-XXX-XXX, 965-1076-060-XXX-XXX
MK VI	965-1186-XXX, 965-1190-XXX
MK VIII	965-1216-XXX, 965-1220-XXX
MK XXII	965-1590-XXX, 965-1595-XXX
KGS-200	066-01201-0101
IC-615	7017000-XXXXX
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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