

**2010-09-04 Honeywell International Inc.:** Amendment 39-16269. Docket No. FAA-2010-0385; Directorate Identifier 2010-NM-068-AD.

**Effective Date**

(a) This airworthiness directive (AD) is effective May 14, 2010.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Honeywell International Inc., Primus EPIC and Primus APEX flight management systems (FMS), having the FMS part numbers (P/N) listed in Table 1 of this AD, installed on, but not limited to, Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model ERJ 170 and ERJ 190 airplanes, and Pilatus Aircraft Ltd. Model PC- 12/47E airplanes, certificated in any category.

**Table 1--Part Numbers**

<b>FMS Part Number</b>	<b>Model</b>
Primus EPIC FMS P/N PS7027709-00127 (Load 23.1), and PS7027709-00129 (Load 23.2), both with NZ7.1 VAR12ZS FMS software	ERJ 170 airplanes
Primus EPIC FMS P/N PS7027709-00214 (Load 23.1), and PS7027709-00217 (Load 23.2), both with NZ7.1 VAR12ZS FMS software	ERJ 190 airplanes
Primus APEX FMS P/N EB7037248-00103, with NZ7.1 VAR12 FMS software	PC-12/47E airplanes

**Subject**

(d) Air Transport Association (ATA) of America Code 34: Navigation.

**Unsafe Condition**

(e) This AD results from discovery of software anomalies which, in certain situations, can cause the FMS to generate misleading navigational guidance to the pilots and to the autopilot system of various airplanes having this same system software. The Federal Aviation Administration is issuing this AD to provide the flightcrew with procedures to recover from or work around these software anomalies during flight, which could lead to an airplane departing from its scheduled flight path, and result in possible collision with other aircraft or terrain.

## Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

### Revise the Airplane Flight Manual (AFM)

(g) Within 14 days after the effective date of this AD, revise the Limitations section of the applicable AFM to include the information in the applicable service information letter (SIL) specified in Table 2 of this AD.

**Table 2--Service Information**

<b>Honeywell Service Information Letter –</b>	<b>Revision –</b>	<b>Model –</b>	<b>Dated –</b>
D201002000007	Original	PC-12/47E airplanes	February 16, 2010
D201002000051	1	ERJ 170 and ERJ 190 airplanes	March 26, 2010
D201002000052	Original	ERJ 170 and ERJ 190 airplanes	March 3, 2010

Note 1: The actions required by paragraph (g) of this AD may be done by inserting a copy of the applicable SIL specified in Table 2 of this AD into the applicable AFM. When the applicable SIL has been included in the general revisions of the applicable AFM, the general revisions may be inserted into the AFM, provided the relevant information in the general revision is identical to that in the SIL.

### Alternative Methods of Compliance (AMOCs)

(h) The manager of the office having certificate responsibility for the affected airplanes has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Before using any approved AMOC on any aircraft to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(1) For transport airplanes: Send information to ATTN: Chip Adam, Flight Test Pilot, Flight Test Branch, ANM-160L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5369; fax (562) 627-5210.

(2) For small airplanes: Send information to ATTN: Doug Rudolph, Aerospace Engineer, Small Airplane Directorate, FAA, 901 Locust Street, Room 301, Kansas City, Missouri 64106; telephone (816) 329- 4059; fax (816) 329-4090.

### Material Incorporated by Reference

(i) You must use the applicable service information contained in Table 3 of this AD to do the actions required by this AD, unless the AD specifies otherwise.

**Table 3--Material Incorporated by Reference**

<b>Document</b>	<b>Revision</b>	<b>Date</b>
Honeywell Service Information Letter D201002000007	Original	February 16, 2010
Honeywell Service Information Letter D201002000051	1	March 26, 2010
Honeywell Service Information Letter D201002000052	Original	March 3, 2010

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Honeywell Technical Operations Center, 1944 E. Sky Harbor Circle, Phoenix, Arizona 85034; telephone 602-365-3099 or 800-601-3099; fax 602-365-3343; e-mail AeroTechSupport@Honeywell.com; Internet <http://portal.honeywell.com/wps/portal/aero>.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).