

Service Bulletin No: 45-005

Ref No: 265

Modification No: EC-09-0685

ATA Chapter: 45

**UPGRADE THE HONEYWELL PRIMUS APEX OPERATIONAL SOFTWARE TO BUILD 7****1. Planning Information****A. Effectivity**

PC-12/47E aircraft MSN 545 and MSNs 1001 thru 1270.

This modification will be accomplished during production on MSN 1271 and subsequent.

**B. Concurrent Requirements**

Service Bulletin 22-005 - MSN 545, 1001 thru 1170 - Replacement of the Flight Guidance Panel for coupled VNAV functionality (see AFM Supplement No. 9).

**NOTE:** It is acceptable to select the coupled VNAV option in the option file without the correct Flight Guidance Panel installed.

Service Bulletin 34-026 (latest Revision) or Service Bulletin 34-032 (latest Revision) - MSN 545, 1001 thru 1230 - Introduction of a Honeywell Satellite Based Augmentation System (SBAS) Global Navigation System Sensor Unit (GNSSU)

Service Bulletin 45-003 (latest Revision) - MSN 545, 1001 thru 1170 - Upgrade the Honeywell Primus APEX Software to Build 6.

**NOTE:** It is NOT acceptable downgrade the Primus APEX Operational software (i.e. to install Primus APEX Operational software Build 7 software in an aircraft that has an Operational software Build higher than Build 7 installed).

**C. Reason****(1) Problem**

The following new options have been introduced with the new Honeywell Primus APEX Software Build 7:

- Coupled VNAV (for MSN 545, 1001 thru 1170 - Service Bulletin 22-005 is prerequisite)
- Dual Primus APEX Electronic Charts (software only)
- Second FMS (software only).

Several new functionality and product improvements have been introduced with the new Honeywell Primus APEX Software Build 7, including:

- Vertical Situation Display
- Flight Log Page
- Sunset and Sunrise Table
- Cursor Control Device (CCD) display focus function
- Improved FMS (removes AFM TR 15 and 16 limitations)
- Additional INAV functionality
- Synchronization improvement for the yaw damper.

## **(2) Solution**

Upgrade the Honeywell Primus APEX Operational Software to Build 7 standard.

**NOTE:** New options (which could not be offered at the time of specifying the aircraft standard) are now available for retrofit with Service Bulletin 45-004.

## **D. Description**

This Service Bulletin gives the data and instructions necessary to do a full software load to update the Honeywell Primus APEX Operational Software to Build 7. It also gives the instructions necessary to upgrade the Cursor Control Device (CCD) functionality (if installed).

Revision 1 to this Service Bulletin clarifies the instructions to re-identify the CCD. Customers who have already incorporated this Service Bulletin must make sure that the re-identification of the CCD has been done. A Note is also added to highlight that the Option File is security protected.

Revision 2 to this Service Bulletin adds an instruction to remove AFM TR 18. Customers who have already incorporated this Service Bulletin at a previous issue must remove AFM TR 18 if it has been inserted into the AFM.

Revision 3 to this Service Bulletin adds a reference to Service Bulletin 34-032. Customers who have already accomplished this Service Bulletin at a previous issue are recommended to accomplish Service Bulletin 34-032 Part 1 or Part 2.

## **E. Compliance**

Recommended.

## **F. Approval**

The technical content of this Service Bulletin is approved under the authority of DOA No. EASA. 21J. 357.

PILATUS advises Operators/Owners to check with their local Airworthiness Authorities for any changes, local regulations or sanctions that may affect the embodiment of this Service Bulletin.

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**H. Manpower**

	Total	
	CCD not installed	CCD installed
Preparation	0.5	1.0
Modification	3.0	7.0
Close up	0.5	1.0
<b>TOTAL MAN-HOURS</b>	<b>4.0</b>	<b>9.0</b>

**I. Weight and Balance**

Not changed.

**J. Electrical Load Data**

Not changed.

**K. Software**

The Honeywell Primus APEX Operational Software is updated to Build 7.

**L. References**

Aircraft Maintenance Manual (AMM): 12-B-06-20-00-00A-040A-A, 12-B-24-00-00-00A-901A-A, 12-B-45-45-00-00A-550A-A, 12-B-45-45-00-00A-553A-A, 12-B-46-30-03-00A-920A-A, 12-B-46-30-07-00A-903A-A, 12-B-46-30-07-04A-920A-A.

AFM Revision 10.

**M. Publications Affected**

AMM, AFM, IPC, Honeywell Primus APEX Pilot Guide.

**N. Interchangeability of Parts**

Not applicable.

**2. Material Information****A. Material - Price and Availability**

Operators should send orders for Service Bulletin Modification Kits, to their Authorized Pilatus Service Center.

If you want more information about the retrofit of software Build 7, please contact us as follows:

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**B. Warranty**

- (1) Honeywell agrees to cover the costs for labor of affected aircraft on approval of a warranty claim, provided the work is accomplished by an appropriately rated Honeywell Service Center within 12 months of the issue date of this Service Bulletin. A properly completed warranty claim may be filed by accessing the Honeywell Aerospace web page at: <https://portal.honeywell.com/wps/portal/aero/serviceprograms/warranty> and selecting the Bendix King logo.
- (2) Pilatus will issue a credit for 5 manhours and the CCD related parts (listed at paragraph 2.C.3) for all affected PC12/47E aircraft on approval of a warranty claim, provided the work is accomplished by an authorized Service Center within 12 months of the issue date of this Service Bulletin.

**C. Material Necessary for Each Aircraft**

**NOTE:** Part Numbers given in this Service Bulletin are correct at the time of approval. Pilatus Aircraft Ltd. reserves the right to change the part numbers as necessary. Part numbers of items delivered with the Modification Kit are correct when the kit is dispatched. This could lead to differences between those part numbers quoted in this Service Bulletin and the Modification Kit if parts are superseded. Operators are requested to check the IPC for delivered parts which differ from those listed in the Service Bulletin Materials Kit List.