



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**  
JUL 18 2002

**Transport Airplane Directorate  
Aircraft Certification Service**

1601 Lind Avenue S.W.  
Renton, Washington 98055-4056

In Reply  
Refer To: 130S-02-368

Ms. Colleen Portch  
Certification Services Administration  
Honeywell International  
15001 NE 36th Street  
Redmond, WA 98073

Dear Ms. Portch:

Technical Standard Order (TSO) C92c and C151a Minor Change Approval for  
Honeywell International Enhanced Ground Proximity Warning Computer (EGPWC)

We received your letter 02FAA134, dated June 12, 2002, in which you certified changes to  
the following EGPWC part numbers:

| EGPWS Type | Certification Baseline | New Part Number |
|------------|------------------------|-----------------|
| MK IV      | 965-1686-010           | 965-1686-011    |
| MK VI      | 965-1176-010           | 965-1176-011    |
| MK VI      | 965-1186-010           | 965-1186-011    |
| MK VIII    | 965-1206-010           | 965-1206-011    |
| MK VIII    | 965-1216-010           | 965-1216-011    |
| MK XXII    | 965-1590-010           | 965-1590-011    |

The FAA concurs these changes minor in accordance with Federal Aviation Regulations (FAR) Part 21.611 and are in compliance with TSO C92c and C151a. We concur with your certification. The minor design change data, submitted with the referenced letter above, has been reviewed and added to our TSO files. The FAA also acknowledges receipt of the 8110-3 paperwork accompanying your design data.

If you have any questions, please contact Mr. Shaun Ripple at telephone (425) 227-1892.

Sincerely,

Lirio Liu-Nelson  
Manager, Seattle Aircraft  
Certification Office

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JUL 24 2002

**Aerospace Electronic Systems**

15001 Northeast 36<sup>th</sup> Street, P. O. Box 97001  
Redmond, Washington 98073-9701  
(425) 885-3711  
(425) 885-2061 FAX

Date: June 12, 2002  
Ref: 02FAA134

Department of Transportation  
Federal Aviation Administration  
Northwest Mountain Region, ANM-100S  
1601 Lind Ave SW  
Renton, Washington 98055-4056

To: Ms. Lirio Liu Nelson, Manager  
Seattle Aircraft Certification Office ANM-100S

Attention: Ms. Sheila Mariano  
Mr. Varun Khanna  
Seattle Aircraft Certification Office ANM-130S

Subject: Notification of Minor Change and DO-178B Software Data Approvals for  
Honeywell MK IV, MK VI, MK VIII and MK XXII EGPWC

- References:
- (1) TSO-C92c
  - (2) TSO-C151a
  - (3) 02FAA107, 9 May 2002, Plan for Release -011 of the Enhanced MK IV/VI/VIII/XXII Ground Proximity Warning Computer
  - (4) 130S-02-107, Feb 15 2002, Technical Standard Order (TSO) Approval, TSO C151a, Class A, Authorization of Terrain Awareness and Warning System Functions Enhanced Ground Proximity Warning Computer (EGPWC) Part Number: 965-1590-010
  - (5) 130S-02-108, Feb 15 2002, Technical Standard Order (TSO) Approval, TSO C151a, Class B Equipment, Authorization of Terrain Awareness and Warning System (TAWS) Functions of Honeywell Enhanced Ground Proximity Warning System (EGPWS) MK IV Part Number 965-1686-010
  - (6) 130S-02-109, Feb 15 2002, Technical Standard Order (TSO) Approvals, TSO C92c, Authorization of Ground Proximity Warning Functions; TSO C151a, Class A, Authorization of Terrain Awareness and Warning System (TAWS) Functions Enhanced Ground Proximity Warning Computer (EGPWC) MK VI and VIII Part Numbers: 965-1176-010, 965-1186-010, 965-1206-010, 965-1216-010

Dear Ms. Mariano & Mr. Khanna:

In accordance with Subpart O of Federal Aviation Regulations (FAR) 21, in compliance with FAR 21.611(a), Honeywell is providing notification of a Minor Design Change to the MK IV, MK VI, MK VIII and MK XXII Enhanced Ground Proximity Warning Computer (EGPWC) identified as Release -011. The Plan for this change was submitted to the FAA per reference (3), and creates new -011 part numbers from the current -010 part numbers which Honeywell received Technical Standard Order (TSO) -C92c and -C151a authorization per references (4), (5), and (6).

The new MK XXII part number is 965-1590-011; the new MK IV part number is 965-1686-011; and the new MK VI and MK VIII part numbers are 965-1176-011, 965-1186-011, 965-1206-011, 965-1216-011.

This change primarily affected the configuration database. The majority of the new or changed configurations are for the rotorcraft MK XXII EGPWC applications, however, a few are for fixed wing versions, including a fix for a customer option problem noted in the field. Please refer to the enclosed Software Accomplishment Summary for details.

Date: June 12, 2002

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A Honeywell DER has reviewed the changed software data items for compliance with DO-178B and approved them via the enclosed form 8110-3. All EGPWC software documentation is available at Honeywell's Redmond facility for your further review if required, including on-line information..

This configuration change and all allowable previously certified configurations are listed in the enclosed Configuration Index Document (CID). This change does not affect TSO-C92c or TSO-C151a performance, and the previously certified configurations remain in compliance with requirements.

The following documents have changed as a result of incorporation of this minor change. All are being submitted as part of this minor change notification, and represent an up-to-date data package for all versions of MK IV/VI/VIII/XXII EGPWC.

| Item | Document Title   | Document Number & Revision             |
|------|--|--|
| 1.   | Configuration Index Document (CID) for MK IV, MK VI, MK VIII and MK XXII EGPWS | 993-1176-000, Rev L<br>Dated 30-May-02 |
| 2.   | MK VI ENHANCED GPWS (WITHOUT GPS)  | 965-1186, Rev AC<br>Dated 2-May-02     |
| 3.   | MK VI ENHANCED GPWS (WITH GPS)   | 965-1176, Rev AD<br>Dated 2-May-02     |
| 4.   | MK VIII ENHANCED GPWS (WITHOUT GPS)  | 965-1206, Rev AB<br>Dated 2-May-02     |
| 5.   | MK VIII ENHANCED GPWS (WITH GPS)   | 965-1216, Rev AB<br>Dated 2-May-02     |
| 6.   | MK XXII ENHANCED GPWS (WITH GPS)   | 965-1590, Rev K<br>Dated 18-April-02   |
| 7.   | MK IV ENHANCED GPWS (WITH GPS)   | 965-1686, Rev D<br>Dated 2-May-02      |

Honeywell certifies that all configurations of the MK IV/VI/VIII/XXII Enhanced Ground Proximity Warning Computer continue to meet the applicable requirements of TSO-C92c and TSO-C151a.

It is further certified that Honeywell meets all requirements of Subpart O of Part 21 of the Federal Aviation Regulations and that our Quality Assurance Manual Policy/Procedure Index has been submitted to the Engineering and Manufacturing District Office No. 41.

If you have any questions or concerns regarding this information please contact Barry C. Breen at 425-885-8836 or Kevin Allen at 425-885-8729.

Sincerely,

Greg Francois  
Director EGPWS Products

Attachments:

- (1) 8110-3 approving DO-178B Software Data Items
- (2) Software Accomplishment Summary for the MK IV/VI/VIII/XXII Enhanced Ground Proximity Warning Computer (EGPWC).
- (3) Data package per above table.