



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

JUL 17 2003

In Reply  
Refer To: 130S-03-358

Ms. Colleen M. Porch  
Certification Services Administrator  
Honeywell International Inc.  
15001 NE 36th Street  
P.O. Box 97001  
Redmond, WA 98073-9701

**Transport Airplane Directorate  
Aircraft Certification Service**

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

**RECEIVED  
JUL 22 2003**

Dear Ms. Porch:

Technical Standard Order (TSO) Approvals for  
TSO-C151b Class B Authorization of  
Terrain Awareness and Warning System (TAWS) Functions for the  
Honeywell MK XXI, part number (P/N) 965-1227-005,  
Enhanced Ground Proximity Warning System (EGPWS) and  
TSO-C151b Class B and Class C Authorization for the Configuration Module  
used with the EGPWS, part number 700-1710-021

We received your letter ref: 03FAA119, dated June 24, 2003, in which you certified that a major change was made to the MK XXI software along with a minor change to the MK XXI hardware. A new configuration module was also created to include a Real Time Clock feature. You certified that the TAWS functions for the Honeywell MK XXI EGPWS, P/N 965-1227-005, and the configuration module used with the EGPWS, P/N 700-1710-021, meet the Federal Aviation Regulations (FAR) Part 21.611, and the standards of TSO-C151b. Your certification is acceptable. The following documents, submitted with your letter, have been added to our TSO files:

Item	Title	Document #	Rev.	Date	Effectivity	Chg
1.	Interface Control Document for the General Aviation and Helicopter Enhanced Ground Proximity Warning System (GA-EGPWS)/(MK XXI EGPWS)	993-1196-403	A	05-JUN-03	ALL	Y

Item	Title	Document #	Rev.	Date	Effectivity	Chg
2.	Plan for Software Aspects of Certification for the GA-EGPWS	992-1196-000	New	15-FEB-00	ALL	N
3.	Plan for Software Release -005 and Boot Loader Mod B101.1 for the KGP 560, KGP 860, KHM 820 and MK XXI Enhanced Ground Proximity Warning Computer (EGPWC)	060-4210-057	New	09-APR-03	ALL	Y
4.	Configuration Index Document (CID) for the GA & MK XXI EGPWS	993-1196-000	G	10-JUN-03	ALL	Y
5.	TSO-C151b Test Procedure for the GA Enhanced Ground Proximity Warning System (GA-EGPWC)	060-4331-001	New	04-JUN-03	ALL	Y
7.	TSO-C151b Test Results for the MK XXI Enhanced Ground Proximity Warning System (Part Number 965-1227-005)	070-4646-001	New	04-JUN-03	MKXXI	Y
8.	TSO-C151b Class C Test Procedure for the GA Enhanced Ground Proximity Warning System (GA-EGPWS)	076-1010-000	New	04-JUN-03	KGP560 KGP860	Y
9.	TSO-C151b Class C Test Results for the GA Enhanced Ground Proximity Warning System (GA-EGPWS)	070-4684-000	New	04-JUN-03	KGP560 KGP860	Y
10.	Software Accomplishment Summary for the GA-EGPWS and MK-XXI EGPWS	992-1196-802	New	06-JUN-03	ALL	Y
11.	Test Results Summary Document for the GA-EGPWS	997-1196-702	New	04-JUN-03	ALL	Y
12.	Hardware/Software Acceptance Procedure for the Enhanced Ground Proximity Warning System (MK IV/VI/VIII/XXI/XXII/GA EGPWS)	076-0901-001	Y	21-APR-03	ALL	Y
13.	General Aviation Enhanced Ground Proximity Warning System - Cold-Temp with GPS	965-1198	E	08-MAY-03	KGP 560	Y
14.	Outline - GA EGPWC (Cold-Temp with GPS)	965-1198-201	New	07-JUN-01	KGP 560	N

Item	Title	Document #	Rev.	Date	Effectivity	Chg
15.	General Aviation Enhanced Ground Proximity Warning System – Cold-Temp with GPS	965-1199	A	14-APR-03	KGP 860	Y
16.	Outline – GA-EGPWS (Cold-Temp with GPS)	965-1199-201	New	10-MAR-03	KGP 860	Y
17.	Enhanced Ground Proximity Warning System – MKXXI EGPWS with GPS	965-1227	E	08-MAY-03	MK XXI	Y
18.	Outline – MKXXI EGPWC (with GPS)	965-1227-201	New	08-JUN-01	MK XXI	N
19.	Assembly, Configuration Module – GA & MK XXI EGPWS	700-1710-002	E	03-APR-00	ALL	N
20.	Assembly, Configuration Module – GA & MK XXI EGPWS	700-1710-004	New	08-JUN-01	ALL	N
21.	Configuration Module Assembly – GA and MKXXI EGPWS	700-1710-021	A	14-APR-03	ALL	Y
22.	Label, Software Version	402-6070	C	03-JUN-02	ALL	N
23.	Label, GA-EGPWS	402-6080	N	08-MAY-03	KGP 560 KGP 860 Config. Module	Y
24.	Label – MKXXI EGPWS	402-6084	B	08-MAY-03	MK XXI	Y
25.	Failure Modes Effects and Criticality Analysis for the GA-EGPWC w/wo GPS	993-1196-600	New	09-MAY-00	KGP560 KGP 860	N
26.	Failure Modes Effects and Criticality Analysis for the MK XXI Enhanced Ground Proximity Warning Computer	993-1227-600	New	01-NOV-01	MK XXI	N
27.	Flammability Report for GA and MK XXI EGPWS	070-4617-000	A	26-OCT-01	ALL	N
28.	Qualification by Similarity Report for Cold Temperature General Aviation Enhanced Ground Proximity Warning Computer With GPS, HI PN 965-1198-403	965-1198-403	New	24-OCT-01	KGP560	N

Item	Title	Document #	Rev.	Date	Effectivity	Chg
29.	QUALIFICATION TEST PROCEDURE FOR EGPWC MK-XXI HONEYWELL PN 965-1227-003 WITH INTERNAL GPS	965-1227-103	A	09-NOV-01	MKXXI	N
30.	QUALIFICATION TEST REPORT FOR EGPWC MK-XXI HONEYWELL PN 965-1227-003 WITH INTERNAL GPS	965-1227-403	New	12-NOV-01	MKXXI	N
31.	Qualification By Similarity Report for EGPWS, PN 965-1198-005 HW MOD 2 and EGPWS PN 965-1227-005 HW MOD 2	904-0164-401	New	03-JUN-03	KGP560 MKXXI	Y
32.	Qualification By Similarity Report for GA EGPWS PN 965-1199-005	965-1199-405	New	03-JUN-03	KGP860	Y
33.	Qualification By Similarity Report for Configuration Module PN 700-1710-021	904-0166-401	New	03-JUN-03	ALL	Y
34.	Database Development Process for Enhanced Ground Proximity Warning System (EGPWS)	992-0109-100	G	28-MAY-03	ALL	N
35.	Component Maintenance Manual with Illustrated Parts List, General Aviation and Helicopter-Enhanced Ground Proximity Warning Computer	012-0711-001	4	04-APR-03	ALL	Y
36.	Configuration Module II Hardware-Software Interface Document	993-0157-500	New	14-APR-03	ALL	Y
37.	System Installation Manual KGP 560 GA-EGPWS	006-10611-0003	3	JUN-2003	KGP 560	Y
38.	System Installation Manual KGP 860 GA-EGPWS	006-10618-0000	New	JUN-2003	KGP 860	Y
39.	System Installation Manual MK XXI	060-4314-101	A	JUN-2003	MKXXI	Y
40.	Pilots Guide – KGP 560/860	006-18254-0001	3	JUN-2003	KGP560 KGP 860	Y
41.	Pilots Guide – MK XXI	060-4314-100	A	JUN-2003	MKXXI	Y

Item	Title	Document #	Rev.	Date	Effectivity	Chg
42.	KGP 560 Terrain Database	071-00167-01	New	MAY -2000	KGP560 KGP 860	N
43.	IIDS "Bill of Materials – Parts List" KGP 560 Americas Database	071-00167-0101	G	-	KGP560 KGP 860	N
44.	IIDS "Bill of Materials – Parts List" KGP 560 Atlantic Database	071-00167-0102	G	-	KGP560 KGP 860	N
45.	IIDS "Bill of Materials – Parts List" KGP 560 Pacific Database	071-00167-0103	G	-	KGP560 KGP 860	N
46.	EGPWS Terrain Database	071-00182-01	New	JUL-2001	MKXXI	N
47.	IIDS "Bill of Materials – Parts List" EGPWS Terrain Database, North America	071-00182-0110	B	-	MKXXI	N
48.	IIDS "Bill of Materials – Parts List" EGPWS Terrain Database, South America	071-00182-0120	B	-	MKXXI	N
49.	IIDS "Bill of Materials – Parts List" EGPWS Terrain Database, Europe	071-00182-0130	B	-	MKXXI	N
50.	IIDS "Bill of Materials – Parts List" EGPWS Terrain Database, Eastern Europe	071-00182-0140	B	-	MKXXI	N
51.	IIDS "Bill of Materials – Parts List" EGPWS Terrain Database, Africa	071-00182-0150	B	-	MKXXI	N
52.	IIDS "Bill of Materials – Parts List" EGPWS Terrain Database, Pacific	071-00182-0160	B	-	MKXXI	N
53.	IIDS "Bill of Materials – Parts List" EGPWS Terrain Database, Asia	071-00182-0170	B	-	MKXXI	N
54.	IIDS "Bill of Materials – Parts List" EGPWS Terrain Database, South Pacific	071-00182-0180	B	-	MKXXI	N
55.	IIDS "Bill of Materials – Parts List" EGPWS Terrain Database, Middle East	071-00182-0190	B	-	MKXXI	N
56.	Compact Flash Card Loading Procedure, Americas Region Terrain Database Version 426N for GA-EGPWS B & GA PN 071-00167-0101	718-1404-426	C	01-OCT-01	ALL	N