

Honeywell

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SERVICE INFORMATION LETTER

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A. Subject

Honeywell Flight Management System (FMS) Performance Based Navigation (PBN) Capabilities in Accordance with AC90-105A

B. Effectivity

(1) This service information letter is applicable to the part numbers listed in [Table 1](#).

Table 1. Applicable Units

Type	FMS Model	FMS Software Version	Part Number
All NZ-2000 Equipped Aircraft	NZ-2000	NZ6.0 or earlier	PN 7018879-02XXX PN 7018879-03008/0301X/0302X/03030
All NZ-2010 Equipped Aircraft	NZ-2010	NZ6.1 / NZ6.1.1 / NZ6.2.2	PN 7018879-03034/03036/03038 PN 7018879-03040/03042/03044/03046/03048
Bombardier Global Express	IC-800	NZ6.0 or earlier	PN 7017300-6100X
Bombardier Global Express	IC-810	NZ6.1 / NZ6.1.1	PN 7017300-61010/61013/61014
Cessna Sovereign	EPIC	NZ7.0	PN EB7031847-00106 (Phase 4) PN EB7031847-00108 (Phase 4.1) PN EB7031847-00109 (Phase 4.2)
Cessna Sovereign	EPIC	NZ7.1 / NZ7.1.2	PN EB7031847-00111 (Phase 5) PN EB7031847-00114 (Phase 5.2) PN EB7031847-00115 (Phase 5.3)
Cessna Citation X	IC-800	NZ6.0 or earlier	PN 7017300-312XX/313XX/314XX/31524/31534
Cessna Citation X	IC-810	NZ6.1	PN 7017300-31554/31564/31574

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Table 1. Applicable Units (Cont)

Type	FMS Model	FMS Software Version	Part Number
Dassault F900C/EX	IC-800	NZ6.0 or earlier	PN 7017300-4XX1X/4XX20/4XX22/4XX23/4XX24
Dassault F900C/EX	IC-810	NZ6.1 / NZ6.1.1	PN 7017300-4XX25/4XX26/4XX27/4XX28
Dassault F900DX/EX/LX	EPIC	NZ7.1.2	PN EB7036889-00114 (EASy II 1st Cert) PN EB7036889-00117 (EASy II 2nd Cert, Legacy I/O) PN EB7036889-00118 (EASy II 2nd Cert, Legacy I/O) PN EB7036889-00120 (EASy II 2nd Cert, NGIO) PN EB7036889-00121 (EASy II 3rd Cert, NGIO) PN EB7036889-00122 (EASy II 3rd Cert, Legacy I/O) PN EB7036889-00123 (EASy II 4th Cert, NGIO) PN EB7036889-00124 (EASy II 4th Cert, Legacy I/O)
Dassault F2000DX/EX/LXS	EPIC	NZ7.0	PN EB7036889-00203 (EASy I, Load 12) PN EB7036889-00205 (EASy I, Load 14)
Dassault F2000DX/EX/LXS	EPIC	NZ7.1.2	PN EB7036889-00207 (EASy II 1st Cert, Legacy I/O) PN EB7036889-00208 (EASy II 2nd Cert, Legacy I/O) PN EB7036889-00209 (EASy II 2nd Cert, NGIO) PN EB7036889-00210 (EASy II 3rd Cert, Legacy I/O) PN EB7036889-00212 (EASy II 3rd Cert, NGIO) PN EB7036889-00213 (EASy II 3rd Cert, NGIO) PN EB7036889-00215 (EASy II 4th Cert, NGIO) PN EB7036889-00216 (EASy II 4th Cert, Legacy I/O)
Dassault F7X	EPIC	NZ7.1.2	PN EB7034843-00107 (EASy II, 2nd Cert) PN EB7034843-00108 (EASy II, 2nd Cert, NGIO) PN EB7034843-00110 (EASy II, 3rd Cert) PN EB7034843-00112 (EASy II, 4th Cert, Legacy I/O) PN EB7034843-00114 (EASy II, 4th Cert, NGIO)
Dassault F8X	NG	NG	PN EB60001546-00109 (EASy III, 1st Cert) PN EB60001546-00111 (EASy III, 2nd Cert)
Dornier Do328	IC-800	NZ6.0 or earlier	PN 7017300-1XXXX
Dornier 328-100 Turboprop	IC-810	NZ6.2 / NZ6.2.1	PN 7017300-11200 / 11210
Embraer 170/175	EPIC	NZ7.1	PN PS7027709-00127 (Load 23.1) PN PS7027709-00129 (Load 23.2)

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Table 1. Applicable Units (Cont)

Type	FMS Model	FMS Software Version	Part Number
Embraer 190/195	EPIC	NZ7.1	PN PS7027709-00214 (Load 23.1) PN PS7027709-00217 (Load 23.2)
Embraer 170/175/190/195/Lineage 1000	EPIC	NZ7.1.2	PN PS7027709-00302 (Load 25.2) PN PS7027709-00304 (Load 25.3) PN PS7027709-00305 (Load 25.4) PN PS7027709-00309 (Load 25.5.0.1) PN PS7027709-00310 (Load 25.6) PN PS7027709-00311 (Load 25.7) PN PS7027709-00312 (Load 25.8) PN PS7027709-00315 (Load 25.9)
Embraer 170/175/190/195/Lineage 1000	NG	NG1.0	PN PS60002067-0306 (Load 27.1) PN PS60002067-0308 (Load 27.2) PN PS60003259-0313 (Load 27.3) PN PS60003259-0314 (Load 27.4)
Embraer E-2 190	NG	NG	PN PS60003155-0103 (Load 5.0.1) PN PS60003155-0104 (Load 5.7) PN PS60003155-0102 (Load 7.0) PN PS60003155-0105 (Load 7.5)
Gulfstream GV	IC-800	NZ6.0 or earlier	PN 7017300-56020/56021/56022/56023/56025 PN 7018879-11009/1101X/11023
Gulfstream GV	IC-810	NZ6.1 / NZ6.1.1	PN 7017300-56026/-56027/-56028 PN 7018879-11024/-11025/-11027
Gulfstream G350/G450	EPIC	NZ7.1.2	PN EB7031236-00417 (ASC 910) PN EB7031236-00420 (ASC 911) PN EB7031236-00421 (ASC 912) PN EB7031236-00422 (ASC 912B) PN EB7031236-00424 (ASC 912C)
Gulfstream G500	NG	NG	PN EB60001034-0102 PN EB60001034-0104 (ASC 900) PN EB60001034-0106 (ASC 901)
Gulfstream G550/G500-5000	EPIC	NZ7.1.2	PN EB7031236-00321 (ASC 910) PN EB7031236-00323 (ASC 911) PN EB7031236-00325 (ASC 912) PN EB7031236-00328 (ASC 912B) PN EB7031236-00330 (ASC 912C)

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Table 1. Applicable Units (Cont)

Type	FMS Model	FMS Software Version	Part Number
Gulfstream G600	NG	NG	PN EB60001034-0103 PN EB60001034-0106 (ASC 901)
Gulfstream G650	NG	NG	PN EB7038683-00103 (ASC 901) PN EB7038683-00104 (ASC 902 / ASC 902A) PN EB7038683-00106 (ASC 902B)
HAIG Y-12F	EPIC	NZ7.1.2	PN EB60002734-0106 (Load 4.8)
Hawker 4000	EPIC	NZ7.0	PN EB7030192-00104 (Load 19) PN EB7030192-00105 (Load 19) PN EB7030192-00107 (Load 19) PN EB7030192-00108 (Load 19) PN EB7030192-00109 (Load 19) PN EB7030192-00111 (Load 19) PN EB7030192-00113 (Load 19)
Hawker 4000	EPIC	NZ7.1.2	PN EB60000578-0114 (Load 20)
Leonardo Helicopters AW139	EPIC	NZ7.0	PN EB7030191-00105 (Phase 4)
Leonardo Helicopters AW139	EPIC	NZ7.1 NZ7.1.2	PN EB7030191-00107 (Phase 5) PN EB7030191-00108 (Phase 6) PN EB7030191-00109 (Phase 6, DU HW3) PN EB7030191-00110 (Phase 7, v1) PN EB7030191-00111 (Phase 7, v3) PN EB7030191-00112 (Phase 7, v4) PN EB7030191-00114 (Phase 7 MC (sw 7.12)) PN EB7030191-00115 (Phase 7 MC (sw 7.14)) PN EB7030191-00117 (Phase 7 MC (sw 7.12.2)) PN EB7030191-00118 (Phase 7 MC (sw 7.14.2)) PN EB7030191-00113 (Phase 8)

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Table 1. Applicable Units (Cont)

Type	FMS Model	FMS Software Version	Part Number
Pilatus PC-12 NG	EPIC	NZ7.1.2	PN EB7037248-00104 (Build 7.2) PN EB7037248-00105 (Build 8) PN EB7037248-00106 (Build 8.3.3) PN EB7037248-00107 (Build 8.5) PN EB60000487-0108 (Build 8.6) PN EB60000487-00109 (Build 8.7) PN EB60000487-0111 (Build 8.8) PN EB60000487-0110 (Build 10) PN EB60000487-00112 (Build 10.9) PN EB60000487-00113 (Build 11) PN EB60000487-00114 (Build 11.1)
Pilatus PC-12 NGX	EPIC	NZ7.1.2	PN EB60003299-0116 (Build 12.6.1)
Pilatus PC-24	EPIC	NZ7.1.2	PN EB60000491-0100 (Load 3.6) PN EB60000491-0101 (Load 3.6.1) PN EB60000491-0102 (Load 3.10) PN EB60000491-0104 (Build 5.0)
Viking DHC6-400	EPIC	NZ7.1 / NZ7.1.2	PN EB7032889-00101 (Load 1.3) PN EB60002734-0104 (Load 4.4)

C. Reason

- (1) The purpose of this service information letter is to state the PBN capabilities for the following Honeywell FMS products: EPIC, FMZ-2000 and NGFMS (Next Generation FMS). The intent is to provide the required information needed to support Letter of Authorization (LOA) requests as outlined in Federal Aviation Administration (FAA) Order 8900.1 Vol 3, Chapter 18.

D. References

- (1) To find, see, and download Honeywell Technical Publications, go to <https://aerospace.honeywell.com>.
- (2) FAA Advisory Circular AC 90-105A and FAA Order 8900.1.

E. Summary

- (1) Advisory Circular AC 90-105A provides a guidance to operators conducting Required Navigation Performance (RNP) operations in United States, in oceanic and remote continental airspace, and in foreign countries that adopt the International Civil Aviation Organization (ICAO) PBN standards (ICAO Doc 9613).

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- (2) Approval for airworthiness and operation guidance for RNP Authorization Required (AR) APCH is covered by AC 90-101A and is not covered in this document.
- (3) The Honeywell FMS hardware and software versions listed in [Table 2](#) meet the applicable requirements of AC 90-105A and are capable of meeting the navigation specifications listed below using Global Positioning System (GPS).

Table 2. FMS Model to Navigation Specification

Hardware Models	Software Version	Navigation Specifications	Additional Capabilities ¹	Limitations	RNP Time Limits ²
EPIC	NGFMS all versions	RNP APCH ⁴ including baro VNAV, A-RNP, RNP 1, RNP 2, RNP 4, RNP 10	FRT	None	UNL
NZ-2000, IC-615, IC-1080, IC-800	NZ6.0 or earlier ³	RNP APCH ⁴ including baro VNAV, RNP 1, RNP 2, RNP 4, RNP 10	not applicable (NA)	None	unlimited (UNL)
NZ-2010, IC-810	NZ6.1 or higher	RNP APCH ⁴ including baro VNAV, A-RNP ⁵ , RNP 1, RNP 2, RNP 4, RNP 10	NA	None	UNL
EPIC	NZ7.0 ³	RNP APCH ⁴ including baro VNAV, RNP 1, RNP 2, RNP 4, RNP 10	NA	None	UNL
EPIC	NZ7.1 or higher	RNP APCH ⁴ including baro VNAV, A-RNP, RNP 1, RNP 2, RNP 4, RNP 10	NA	None	UNL
EPIC (AW139)	NZ7.1 or higher	RNP 0.3 ⁶	NA	None	UNL

NOTES:

1. Additional Capabilities - Per Order 8900.1 Fixed Radius Transition (FRT) and Time of Arrival Control (TOAC) may be listed for systems that also qualify for A-RNP. Only existing NGFMS certifications have the FRT capability. No FMS can claim TOAC capability.
2. RNP Time Limits – For multi-sensor navigators that include GPS, RNP time is UNL.
3. NZ6.0 or earlier and EPIC NZ7.0.X - Although these software versions meet the requirements of AC90-105A as listed per the FAA, the performance monitoring requirements for RNP per ICAO PBN manual 9613 are not implemented. An upgrade to NZ6.1 is necessary to meet the ICAO RNP specifications.
4. RNP APCH is the ICAO terminology for RNAV (GPS/GNSS) approach.
5. A-RNP - The aircraft systems include the capabilities listed below. The limiting factor for NZ-2010/IC-810 is the requirement for arc display capability (most common is radius to fix legs, known as RF legs). A complete listing of which NZ-2010 and IC-810 equipped airframes have the arc display capability is shown in [Table 3](#).
 - Radius to Fix (RF) Legs
 - RNP Scalability
 - Parallel Offset
 - RNAV Holding.

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6. RNP 0.3 is a rotorcraft navigation specification for en route and terminal operation.

Table 3. RF Leg Capability

Aircraft	Platform	EFIS	RF Legs
L-382	CDS/R	CDS/R	Yes
F900B	SPZ-8000	CDS/R	Yes
Hawker 800XP	SPZ-8000	CDS/R	Yes
C601-3A	SPZ-8000	CDS/R	Yes
GV	SPZ-8500	SPZ-8500	Yes
F900EX/C	P2000	P2000	Yes
Citation X	P2000	P2000	Yes
Global Express	P2000	P2000	Yes

F. Action

- (1) The aircraft configuration listed in [Table 1](#) meet the requirement of AC90-105A as documented in [Table 2](#) and the corresponding notes.
- (2) For any instance in which the information in this service information letter conflicts with the Airplane Flight Manual (AFM), or Rotorcraft Flight Manual (RFM), the AFM/RFM is the controlling documentation.

G. Contact Information

- (1) The Honeywell Aerospace Technical Support (ATS) team can be contacted for additional information on this service information letter.
 Honeywell Aerospace Technical Support (ATS)
 Telephone: 800-601-3099 (Toll Free U.S.A./Canada)
 Telephone: 602-365-3099 (International Direct)
 Option 1 for Avionics or Option 2 for Mechanical.
 E-mail: AeroTechSupport@honeywell.com
 Website: <https://aerospace.honeywell.com>

H. Summary of Change

This revision is a FULL replacement. This revision includes the changes that follow:

- [Table 1](#). Added PN 7018879-03048 to All NZ-2010 equipped aircraft, PN PS7027709-00315 (Load 25.9) to Embraer 170/175/190/195/Lineage 1000 (EPIC), PN PS60003259-0314 (Load 27.4) to Embraer 170/175/190/195/Lineage 1000 (NG), PN PS60003155-0105 (Load 7.5) to Embraer E-2 190, PNs EB7030191-00117 (Phase 7 MC (sw 7.12.2)) and EB7030191-00118 (Phase 7 MC (sw 7.14.2)) to Leonardo Helicopters AW139, and PN EB60000491-0104 (Build 5.0) to Pilatus PC-24.
- [Table 1](#). Added FMS Software Version “/NZ6.2.2” to All NZ-2010 equipped aircraft.

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- [Table 1](#). Changed part number from "PN EB60000487-0110 (Build 10.7)" to "PN EB60000487-0110 (Build 10)" for Pilatus PC-12 NG.
- [Table 1](#). Added row for type Pilatus PC-12 NGX.
- [Table 3](#). Added row for aircraft L-382.
- Changed the content and format to agree with Honeywell processes in effect at the time of the release of this revision.

I. Revision History

This service information letter has had four revision(s) as shown in [Table 4](#).

Table 4. Revision History

Revision Number	Revision Date
0	20 Jul 2017
1	17 Apr 2018
2	5 Jun 2019
3	20 Aug 2020
4	3 Jun 2021

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ECCN: 7E994.