



United States of America
Department of Transportation
Federal Aviation Administration

Supplemental Type Certificate

Number: **SR00925DE**

This certificate, issued to: Peregrine
7385 S. Peoria St Unit C4
Englewood, Colorado 80112

certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part 29* of the Federal Aviation Regulations. *See Page 3

Original Product – Type Certificate Number:	Make:
Multiple-AML STC	See Approved Model List (AML) SR00925DE for approved rotorcraft models and applicable airworthiness regulations.
	Model:

Description of Type Design Change:

Installation of Garmin GTX 335/335R and GTX345/345R transponders to provide ADS-B Out and In functionality in accordance with Master Drawing List, Peregrine Document Number E-AM-17-0002, Revision E dated 11/16/2018, or later FAA approved revision; Peregrine Rotorcraft Flight Manual Supplement (RFMS) E-AM-17-0009, Revision IR dated 5/18/18 or later FAA approved revision; Peregrine Instructions for Continued Airworthiness (ICA) E-AM-17-0008, Revision IR dated 9/13/18 or later FAA accepted revision.

Limitations and Conditions:

1. The installer must determine whether this design change is compatible with previously approved modifications.
2. If the holder agrees to permit another person to use this certificate to alter a product, the holder must give the other person written evidence of that permission.
3. A copy of this certificate, the approved RFMS and approved ICA must be maintained as part of the permanent records for the modified rotorcraft.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, and revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of Application:	January 19, 2018	Date Reissued:	
Date of Issuance:	December 26, 2018	Date Amended:	

By Direction of the Administrator

Signature

Title Michael R. Giambrocco, ODA administrator
Air Methods Corporation, ODA-635841-NM

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with 14 CFR 21.47. Possession of this Supplemental Type Certificate (STC) document by persons other than the STC holder does not constitute rights to the design data nor to alter an aircraft, aircraft engine, or propeller. The STC's supporting documentation (drawings, instructions, specifications, flight manual supplements, etc.) is the property of the STC holder. An STC holder who allows a person to use the STC to alter an aircraft, aircraft engine, or propeller must provide that person with written permission acceptable to the FAA. (Ref. 14 CFR 21.120).



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INSTRUCTIONS: The transfer endorsement below may be used to notify the appropriate FAA Aircraft Certification Office of the transfer of this Supplemental Type Certificate. The FAA will reissue the certificate in the name of the transferee and forward it to him.

Transfer Endorsement

Transfer the ownership of Supplemental Type Certificate Number: SR00925DE

To (Name and address of transferee)

From (Name and address of grantor)

Extent of Authority (if licensing agreement):

Date of transfer: _____

Signature of grantor: _____

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with 14 CFR 21.47. Possession of this Supplemental Type Certificate (STC) document by persons other than the STC holder does not constitute rights to the design data nor to alter an aircraft, aircraft engine, or propeller. The STC's supporting documentation (drawings, instructions, specifications, flight manual supplements, etc.) is the property of the STC holder. An STC holder who allows a person to use the STC to alter an aircraft, aircraft engine, or propeller must provide that person with written permission acceptable to the FAA. (Ref. 14 CFR 21.120).



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Supplemental Type Certificate
(Continuation Sheet)

Number: **SR00925DE**

Certification Basis:

Based on 14 CFR §§ 21.115 and 21.101, and the FAA policy for significant changes in FAA Order 8110.48, the certification basis for this change is as follows:

- a. The type certification basis for parts not changed or not affected by the change is shown on the attached AML.
- b. The certification basis for parts changed or affected by this change since the reference date of application, January 19, 2018 is based upon Part 29 as amended by Amendment 29-56 at the latest amendment: Original through 29-56.

-----END-----

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with 14 CFR 21.47. Possession of this Supplemental Type Certificate (STC) document by persons other than the STC holder does not constitute rights to the design data nor to alter an aircraft, aircraft engine, or propeller. The STC's supporting documentation (drawings, instructions, specifications, flight manual supplements, etc.) is the property of the STC holder. An STC holder who allows a person to use the STC to alter an aircraft, aircraft engine, or propeller must provide that person with written permission acceptable to the FAA. (Ref. 14 CFR 21.120).

Approved Model List (AML)

**for Automatic Dependent Surveillance – Broadcast (ADS-B) Out & In System
using the Garmin GTX 3X5 Transponder and a Qualified Position Source**

STC No. SR00925DE


FAA Approved: See Revision Log
Todd Dixon, Manager
Denver ACO Branch

Revision A: May 31, 2019

FAA APPROVED MODEL LIST
For Garmin GTX 3X5 ADS-B Out & In System Airworthiness Approval

STC No. SR00925DE

1. Revision Log

Revision	Pages	Description	FAA Approval	Date
IR	ALL	Initial Release	<u>/s/ Michael R. Giambrocco</u> ODA Administrator ODA-635841-NM Air Methods Corporation Date: <u>Dec 26, 2018</u>	Original Issue Dec 26, 2018
A	All 5-6 7	Updated footer. Added eligible models and MDL Revision. AFMS did not change from Rev IR of this document. Corrected § 29.773 amendment number.	 <u>Todd Dixon, Manager</u> Denver ACO Branch Compliance and Airworthiness Division Federal Aviation Administration Date: <u>5/31/19</u>	May 31, 2019

FAA APPROVED MODEL LIST
For Garmin GTX 3X5 ADS-B Out & In System Airworthiness Approval

STC No. SR00925DE

2. Introduction

This document is the Federal Aviation Administration (FAA) Approved Model List (AML) for Supplemental Type Certificate (STC) Number SR00925DE, for installing Automatic Dependent Surveillance – Broadcast (ADS-B) Out System (with optional ADS-B In functionality) using the Garmin GTX 335R and GTX 345R Transponders plus a qualified Global Position System (GPS) with Wide Area Augmentation System (WAAS) into eligible Part 29 rotorcraft. Qualified ADS-B equipage is listed in Section 4, and approved models are listed in Section 5.

This AML is only applicable to the 14 CFR, Part 29 rotorcraft listed in Section 5. Installations in 14 CFR Part 23, Part 25, and Part 27 aircraft are not authorized under this AML.

Revisions to the AML must be coordinated between the STC holder and the responsible Aircraft Certification Office (ACO) and require FAA approval.

2.1. Prerequisites

This AML installs assumes the following equipment is already installed on each rotorcraft eligible for this proposed modification. The equipment must be properly linked to meet the intended function for the system, as certified under this AML approval.

1. Transponder system, including
 - i. Standalone transponder, and,
 - ii. Technical Standard Order (TSO) Approved transponder antenna which meets the requirements of TSO-C66, TSO-C112, TSO-C74.
2. A TSO C88 digital altitude encoder.

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2.2. Specific Limitations

The following limitations apply to this AML STC:

1. The Garmin GTX 3X5/3X5R transponder(s) must be replacing existing transponder(s) on a one for one basis. No new transponder installations are allowed.
2. Installation of the following equipment is outside the scope of this AML STC.
 - i. GTX 3X5/3X5R transponder antenna(s),
 - ii. New or replacement GPS antenna,
 - iii. Digital Barometric Altitude source.
3. This AML STC does NOT allow or provide instructions for installation on rotorcraft equipped with Traffic Collision Avoidance System (TCAS) II.
4. ADS-B In data is for situational awareness only if ADS-B data is displayed on an onboard display, as defined by these instructions, or on a Portable Electronic Device (PED).
5. Use of the wireless equipment is subject to 14 CFR § 91.21, 121.306, 125.204 and 135.144 regulations (where applicable).
6. This AML STC does NOT allow or provide instructions for Enhanced Surveillance Mode functionality.
7. Use of transponder formats other than those identified within the STC Master Drawing List is not allowed.

3. Certification Basis

The certification basis for each qualified model found in Section 5 is specified in the type certificate data sheet (TCDS) and modified by the amendment levels noted in APPENDIX A.

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4. Equipage

Approved equipment pairing for the models listed in this AML is identified in **Table 1**.

Table 1 Approved Transponder/GPS Pair

Configuration Number	Transponder* (Position, Model, and Part Number) (See Note 4)	Position Source	Transponder Control
1A	Transponder GTX 345 (011-03302-00)	External GNS Series (See Table 2)	GTX 345
1B	Transponder GTX 345 (011-03302-00)	External GTN Series (See Table 3)	GTX 345
1C	Transponder GTX 345 (011-03302-40)	Internal	GTX 345
2A	Transponder Position #1 GTX 345 (011-03302-00)	External GNS Series (See Table 2)	GTX 345
	Transponder Position #2 GTX 335 (011-03300-00)		GTX 335
2B	Transponder Position #1 GTX 345 (011-03302-00)	External GTN Series (See Table 3)	GTX 345
	Transponder Position #2 GTX 335 (011-03300-00)		GTX 335
2C	Transponder Position #1 GTX 345 (011-03302-40)	Internal	GTX 345
	Transponder Position #2 GTX 335 (011-03300-40)		GTX 335
3A	Transponder Position #1 GTX 345R (011-03303-00)	External GNS Series (See Table 2)	Gables G7614
	Transponder Position #2 GTX 335R (011-03301-00)		
3B	Transponder Position #1 GTX 345R (011-03303-00)	External GTN Series (See Table 3)	GTN 6XX/7XX Series
	Transponder Position #2 GTX 335R (011-03301-00)		
3C	Transponder Position #1 GTX 345R (011-03303-40)	Internal	Gables G7614
	Transponder Position #2 GTX 335R (011-03301-40)		

**The GTX Series equipment listed must be running Main System software version 2.02 or later, ADS-B System software version 2.01, and GPS software version 6.0 or later.*

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Table 2: Qualified Garmin GNS Series GPS/WAAS Position Sources

Model Number	Part Number*	Description
GNS 430W	011-01060-()	GPS/WAAS, VHF COM (10W) & VOR, & VHF NAV
GNS 430AW	011-01061-()	GPS/WAAS, VHF COM (16W) & VOR, & VHF NAV
GPS 500W	011-01062-()	GPS/WAAS functionality only
GPS 500W TAWS	011-01063-()	GPS/WAAS with Terrain Awareness & Warning System
GNS 530W	011-01064-()	GPS/WAAS, VHF COM (10W) & VOR, & VHF NAV
GNS 530W TAWS	011-01065-()	GPS/WAAS, VHF COM (10W) & VOR, & VHF NAV with Terrain Awareness & Warning System
GNS 530AW	011-01066-()	GPS/WAAS, VHF COM (16W) & VOR, & VHF NAV
GNS 530AW TAWS	011-01067-()	GPS/WAAS, VHF COM (16W) & VOR, & VHF NAV with Terrain Awareness & Warning System

**(Main GNS software version 5.30 or above and GPS software version 5.0 or above are required)*

Table 3: Qualified Garmin GTN Series GPS/WAAS Position Sources

Model Number	Part Number*	Description
GTN 625	011-02254-()	GPS/WAAS functionality only
GTN 635	011-02255-()	GPS/WAAS, VHF COM (16W)
GTN 650	011-02256-()	GPS/WAAS, VHF COM (16W) ,& VHF NAV & LOC/GS
GTN 725	011-02281-()	GPS/WAAS functionality only
GTN 750	011-02282-()	GPS/WAAS, VHF COM (16W) & VHF NAV & LOC/GS

**(Main GTN software version 6.11 or above and GPS software version 5.00 or above are required)*

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5. Approved Model List

Item	Aircraft Make	Aircraft Model	TC Data Sheet	Certification Basis	Master Drawing List/Date	RFM Supplement Number/Date	Instructions for Continued Airworthiness	Notes	Initial Approval / Amendment Date
1.	Airbus Helicopters Deutschland GmbH (AHD)	MBB-BK 117 A-1, MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK 117 B-1, MBB-BK 117 B-2, MBB-BK 117 C-1, MBB-BK 117 C-2.	H13EU	FAR 21.29 and FAR 29 plus amendments 29-1 through 29-14 per TCDS	Peregrine Doc. No. E-AM-17-0002 Rev E, dated 11/16/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0009 Rev IR, dated 12/26/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0008 Rev IR, dated 9/13/2018, or later FAA approved revision.	(1)	Initial Approval, Dec 26, 2018
2.	Airbus Helicopters	SA-365N1, AS-365N2,	H10EU	FAR 21.29 and FAR 29 plus amendments 29-1 through 29-16 except FAR 29.397 per TCDS	Peregrine Doc. No. E-AM-17-0002 Rev E, dated 11/16/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0009 Rev IR, dated 12/26/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0008 Rev IR, dated 9/13/2018, or later FAA approved revision.	(1)	Initial Approval, Dec 26, 2018
3.	Airbus Helicopters	AS 365 N3	H10EU	FAR 21.29 and FAR 29 plus amendments 29-1 through 29-16. In addition, FAA Special Condition number 29-002-SC for HIRF per TCDS	Peregrine Doc. No. E-AM-17-0002 Rev E, dated 11/16/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0009 Rev IR, dated 12/26/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0008 Rev IR, dated 9/13/2018, or later FAA approved revision.	(1)	Initial Approval, Dec 26, 2018
4.	Airbus Helicopters	EC 155B, EC155B1	H10EU	14 CFR 29 per TCDS	Peregrine Doc. No. E-AM-17-0002 Rev J, dated 5/22/2019, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0009 Rev IR, dated 12/26/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0008 Rev A, dated 5/27/2019, or later FAA approved revision.	(1)	Revision B, May 31, 2019
5.	Airbus Helicopters	AS332C, AS332C1, AS332L, AS332L1, AS332L2, EC225LP	H4EU	14 CFR 29 per TCDS	Peregrine Doc. No. E-AM-17-0002 Rev J, dated 5/22/2019, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0009 Rev IR, dated 12/26/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0008 Rev A, dated 5/27/2019, or later FAA approved revision.	(1)	Revision B, May 31, 2019
6.	Bell Helicopter Textron Inc	212, 412	H4SW	FAR Part 29 per TCDS	Peregrine Doc. No. E-AM-17-0002 Rev E, dated 11/16/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0009 Rev IR, dated 12/26/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0008 Rev IR, dated 9/13/2018, or later FAA approved revision.	(1)	Initial Approval, Dec 26, 2018
7.	Bell Helicopter Textron, Inc.	205A, 205A-1	H1SW	CAR 7 per TCDS	Peregrine Doc. No. E-AM-17-0002 Rev E, dated 11/16/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0009 Rev IR, dated 12/26/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0008 Rev IR, dated 9/13/2018, or later FAA approved revision.	(1)	Initial Approval, Dec 26, 2018

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Item	Aircraft Make	Aircraft Model	TC Data Sheet	Certification Basis	Master Drawing List/Date	RFM Supplement Number/Date	Instructions for Continued Airworthiness	Notes	Initial Approval/ Amendment Date
8.	Bell Helicopter Textron	222, 222B, 222U, 230	H9SW	FAR Part 29 per TCDS	Peregrine Doc. No. E-AM-17-0002 Rev E, dated 11/16/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0009 Rev IR, dated 12/26/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0008 Rev IR, dated 9/13/2018, or later FAA approved revision.	(1)	Initial Approval, Dec 26, 2018
9.	Bell Helicopter Textron	430	H9SW	14 CFR 29 per TCDS	Peregrine Doc. No. E-AM-17-0002 Rev J, dated 5/22/2019, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0009 Rev IR, dated 12/26/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0008 Rev A, dated 5/27/2019, or later FAA approved revision.	(1)	Revision B, May 31, 2019
10.	Columbia Helicopters	Model 234	H9EA	14 CFR 29 per TCDS	Peregrine Doc. No. E-AM-17-0002 Rev J, dated 5/22/2019, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0009 Rev IR, dated 12/26/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0008 Rev A, dated 5/27/2019, or later FAA approved revision.	(1)	Revision B, May 31, 2019
11.	Columbia Helicopters	107-II	1H16	CAR 7 per TCDS	Peregrine Doc. No. E-AM-17-0002 Rev J, dated 5/22/2019, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0009 Rev IR, dated 12/26/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0008 Rev A, dated 5/27/2019, or later FAA approved revision.	(1)	Revision B, May 31, 2019
12.	Erickson Air-Crane	S-64E, S-64F	H6EA	14 CFR 29 per TCDS	Peregrine Doc. No. E-AM-17-0002 Rev J, dated 5/22/2019, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0009 Rev IR, dated 12/26/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0008 Rev A, dated 5/27/2019, or later FAA approved revision.	(1)	Revision B, May 31, 2019
13.	Leonardo S.p.A.	AW139	R00002RD	14 CFR 29 per TCDS	Peregrine Doc. No. E-AM-17-0002 Rev J, dated 5/22/2019, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0009 Rev IR, dated 12/26/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0008 Rev A, dated 5/27/2019, or later FAA approved revision.	(1)	Revision B, May 31, 2019
14.	Sikorsky	S-61L, S-61N, S-61R, S-61NM	1H15	CAR 7 per TCDS	Peregrine Doc. No. E-AM-17-0002 Rev J, dated 5/22/2019, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0009 Rev IR, dated 12/26/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0008 Rev A, dated 5/27/2019, or later FAA approved revision.	(1)	Revision B, May 31, 2019
15.	Sikorsky	S-92A	R00024BO	14 CFR 29 per TCDS	Peregrine Doc. No. E-AM-17-0002 Rev J, dated 5/22/2019, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0009 Rev IR, dated 12/26/2018, or later FAA approved revision.	Peregrine Doc. No. E-AM-17-0008 Rev A, dated 5/27/2019, or later FAA approved revision.	(1)	Revision B, May 31, 2019

NOTES:

(1) Eligible serial numbers are those that have been examined, tested, and found to comply with the type design approved under U.S. TC.

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Appendix A: All Models

Based on 14 CFR § 21.115 and 21.101, and the FAA policy for significant changes in FAA Order 8110.48, the certification basis is as follows:

- a. As determined by the Type Certificate Data Sheet (TCDS) of the aircraft for parts **not changed or not affected** by this STC.
- b. Regulations at the amendment levels listed in Table 1 below for parts **changed or affected** by the STC since the reference date of application, January 2018.

Table 4: Certification Basis Including Amendments

Regulations	Amdt.	Regulations	Amdt.
§ 29.301	29-0	§ 29.777	29-0
§ 29.303	29-0	§ 29.853(a)(4)	29-23
§ 29.305(a)	29-0	§ 29.1301(a)(b)(c)(d)	29-0
§ 29.307(a)	29-30	§ 29.1309(a)(b)(c)(d)(e)(1)(2)(3)(i)(f)(g)	29-53
§ 29.337(a)	29-30	§ 29.1316(b)	29-53
§ 29.341	29-0	§ 29.1317(c)	29-49
§ 29.471	29-0	§ 29.1321(a)(f)(g)	29-21
§ 29.561(a)(b)(3)	29-38	§ 29.1322	29-12
§ 29.601(a)	29-0	§ 29.1351(a)	29-42
§ 29.603	29-17	§ 29.1353(a)(b)	29-15
§ 29.605(a)	29-17	§ 29.1357(a)(c)(d)(e)	29-24
§ 29.607(a)	29-5	§ 29.1359(a)(c)	29-42
§ 29.609	29-0	§ 29.1381	29-0
§ 29.610	29-53	§ 29.1431	29-0
§ 29.611(a)(b)	29-0	§ 29.1501	29-15
§ 29.613	29-30	§ 29.1529	29-20
§ 29.619(b)(1)	29-0	§ 29.1541	29-0
§ 29.625(a)(b)	29-42	§ 29.1555(a)	29-24
§ 29.671(a)	29-24	§ 29.1581(a)(b)(d)	29-15
§ 29.771(a)	29-24	§ 29.1583(c)(e)	29-24
§ 29.773(a)(1)	29-56	§ 29.1585(a)	29-24