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US Department
of Transportation
Federal Aviation
Administration

## **MAJOR REPAIR AND ALTERATION**

OMB No. 2120-0020 Exp: 5/31/2018	Electronic Tracking Number
	For FAA Use Only

of Transportation Federal Aviation Administration	ion	(Airf	irame, P	Powerplant, F	orop	elle	∍r, or Appli	iance)							
instructions	s and dispos	sition of	f this form.					S.C. §4470	)1). Fai	ilure	to rep	ort can r			
4 Aircraft	N498H		Registration	n Mark					°. 324	46	121				
1. Alician	Make P	ipe	r					Model F	<sup>-</sup> А-;	32	2R-(	301	Series		
	Name (A:	s show	n on regist	ration certificate	)			1	•		-	gistration	certificate	;)	
2. Owner	GRAN	IGEF	₹ E DA	RRON				-			<u> </u>			State TX	_
								-				Cou	intry USA		_
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	pe					5. U	Init Identifica	tion							
Repair	Alteration	ļ	Unit		Ma	ıke			ļ	Mod	lel			Serial No.	
	X	AIRF	RAME	Piper	_			(As des	scribed	in It	tem 1 a	ibove)	3246	121	
		POW	ERPLANT												
		PROF	'ELLER												
		APPL	IANCE	Type Manufacturer											
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Zip 78154		untry U	SA	State TX	_	H				ation	$\overline{-}$		359	1172	
have be	een made in	accord	dance with d correct to	the requirement to the best of my	ts of F know	Part 4 wledg	entified in item 43 of the U.S. ge.	5 above ar	nd desc	cribe	ed on the	ne revers	se or attacl at the info	hments hereto mation	
			Signa	Dan	Co	M	Male	<u> </u>	<u> </u>	<u> </u>	20	7/ G	2		
	Name (As shown on registration certificate)   Address (As described in term 1 above)   USA   Attraction   As a continuation   As a con														
	Name (As shown on registration certificate)   Address (As shown on registration certificate)   As shown on registratio		prescribed by t	he 											
		ards	Mani	ufacturer		Mai	intenance Org	janization			Depart	tment of T		dian	
	\A Designee		Repa	air Station	X	Inst	pection Autho	rization		)the	r (Spec	:ity) 			
		At I		ture/Date of Aut	horiz	ed In	ndividual	- /	0/1	, 4	/2	019			

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished (If more space is required, attach additional sheets. Identify with a	aircraft nationality and registration ma USA	rk and date work completed.) Time 3050.6
	N498HP	10/11/2019
	Nationality and Registration	
		accordance with Garmin
Removed KT76C Transponder. Installed Garmin GTX335. Installed and tested Garmin GTX335 ADS-B Compliant Transponder in accordance with Gal Installation manual PN 190-01499-02 Rev 14 dated July 2019.  This installation is a follow on to STC No. SA01714WI. The installed ADS-B OUT system washown to meet the equipment performance requirements of 14CFR part 91.227.  Inserted FAA Approved Airplane Flight Manual Supplement, Garmin PN 190-00734-15 Rev. Pilot's Operating Handbook. Reference Instructions for Continued Airworthiness, Garmin PN 190-00734-11 Rev. 7 Sept.  Equipment list revised to reflect changes. See the aircraft records for Weight and Balance data functional test of the installation described in this 337 was performed in accordance with F 23.1301 and FAR 23.1431.  Operation was satisfactory and the installation did not adversely affect existing components systems in the aircraft.  END		
Pilot's Operating Handbook.		
Equipment list revised to reflect changes. See	the aircraft records for V	Veight and Balance data.
	ւ this 337 was performed	in accordance with FAR
systems in the aircraft.	·	
	END	***************************************
·	A A	
Additic	onal Sheets Are Attached	

#### United States of America

#### Department of Transportation -- Federal Aviation Administration

## Supplemental Type Certificate

Number SA01714WI

This certificate issued to

Garmin International, Inc. 1200 East 151<sup>st</sup> Street Olathe, KS 66062

certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon needs the airworthiness requirements of Part 23\* of the Federal Aviation Regulations.

Original Product Type Certificate

Sumber: Abake: Abodel: \* See attached Approved Model List (AML) No. SA01714WI dated May 1, 2013 or later FAA-approved revision for list of approved aircraft models and applicable airworthiness regulations.

Description of Type Design Change.

Installation of a Garmin transponders: (a) GTX 330/330D/33/33D with ADS-B Out functionality; (b) GTX 335/335R/345/345R with ADS-B Out and In functionality; or (c) GTX 335R/345R with ADS-B Out functionality in select airplanes installed with G950/G1000 systems.

#### Data Required:

- (1) Garmin Master Drawing List (MDL) 005-00734-04, Revision 1, dated May 1, 2013 or later FAA-approved revision.
- (2) Garmin Airplane Flight Manual Supplement or Supplemental Airplane Flight Manual (AFMS), 190-00734-15. Revision 1, dated May 1, 2013 or later FAA-approved revision.

Limitations and Conditions:

- (1) Compatibility of this design change with previously approved modifications must be determined by the installer.
- (2) Aircraft installations involving the Garmin transponder GTX 33/33D/330D models require the previous installation of an approved ADS-B position source. Refer to the design data specified in the Master Drawing List (MDL) listed above for specific hardware and software requirements.
- (3) Aircraft installations involving the Garmin transponder GTX 335/335R/345/345R models without an optional internal GPS require the previous installation of an approved ADS-B position source. Refer to the design data specified in the Master Drawing List (MDL) listed above for specific hardware and software requirements.

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

Tate of application: August 7, 2012

Late of issuance: May 1, 2013

Late reissued:

Late anneaded: April 29, 2014, March 8, 2016

By direction of the Administrator

SURAL AUGUSTRATION TOMINISTRATION

(Signature)
Michael Warren
ODA STC Unit Administrator
ODA-240087-CE

Garmin International, Inc.

(Title)

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#### FAA Approved Model List (AML)

#### STC Number SA01714WI

#### Installation of Garmin Transponder GTX 33X and GTX 3X5 with ADS-B

#### **FAA APPROVED**

#### **ODA ADMINISTRATOR**

#### DATE

ODA-240087-CE Garmin International 1200 E. 151st Street, Olathe KS 66062

Issued Date: May 1, 2013 Revised Date: August 27, 2013,

March 8, 2016 July 21, 2016

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#### FAA Approved Model List (AML) STC SA01714WI

## <u>Table I</u>: Approved Aircraft <u>WITHOUT</u> GX000 Equipped Flight Deck System for installation of GTX 33/330 or GTX 335/345 Transponders

Airplane Make (TCDS Holder) [common name or previous make]	Airplane Model Designation	Type Certificate Number	* TC Certification Basis	Master Drawing List Revision (005-00734-04)	F
	PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-180, PA-28-201T, PA-28-235, PA-28-236, PA-28S-160, PA-28S-180, PA-28R-180, PA-28R-200, PA-28R-201T, PA-28RT-201, PA-28RT-201T	2/13	CAR 3 FAR 23	1	
	PA-28-161, PA-28R-201, PA-28-181	2A13	CAR 3 FAR 23	1	
	PA-32-260, PA-32-300, PA-32-301, PA-32-301T, PA-32S-300, PA-32R-300, PA-32RT-300, PA-32RT-300T,	A3SO	CAR 3	I	
(continued) Piper Aircraft, Inc.	PA-32R-301(HP), PA-32R-301(SP), PA-32-301XTC PA-32R-301T, PA-32-301FT	A3SO	CAR 3	1	
(Piper Aircraft, Inc.) [The New Piper Aircraft, Inc]	PA-34-200, PA-34-200T	A7SO	FAR 23	1	
	PA-38-112	A18SO	FAR 23	1	
	PA-44-180T	A19SO	FAR 23	1	
	PA-44-180	A19SO	FAR 23	1	
	PA-31 (PA-31-310), PA-31-300, PA-31-325, PA-31-350	A20SO	CAR 3 FAR 23	1	
	PA-42, PA-42-720, PA-42-1000	A23SO	FAR 23	1	

Issued: May 1, 2013 Revised: 21-July-2016

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## MAJOR REPAIR AND ALTERATION

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{	Nationalit	y and Reg	istratio	n Mark				Serial No.				
1. Aircraft	N498HF	>						3246121	<u> </u>	_ <u></u>		
1. All Clair	Make				٠.			Model			s	Series
} 	Piper	·						PA-32R-30	)1			
	Name (A:	s shown or	regist	ration certificate)	,			Address (As s	shown	on reg	istration c	ertificate)
2. Owner		, ,						Address 18903	3 Win	dsor C	Crest Dr	
A. Owner				• •			1.1 1811	City Houst		· ).	<del></del>	State TX
; !	Grange	r, Darror	<u>1 E</u>					zip <u>77094</u>	1		Countr	y USA
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4. Ty	ре					5. U	Jnk Identifica	ition				
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F/	AA Designee	<u>,                                      </u>	Repr	air Station	✓	Ins	pection Author	orization	Other	(Spec	sify)	
Certificate or Designation N			Signa	ature/Date of Aut	horiz	ed li	ndividual		IJ		-62	melvet
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Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

			N498HP			6/24/2019	
			Nationality	and Registration M	ark	Date	
talled J.P. Instruments EDM-700 enging per STC SA2586NM, using installation ance and equipment list, incorporated	on manua	al Report 10	3, Revisio	n E, dated 1/20/	09.	Revised the w	Installatio
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US Department
of Transportation
<b>Federal Aviation</b>

## MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

	Form Approved OMB No. 2120-0020 2/28/2011	Electronic Tracking Number
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Administratio	NT .										
instruction	is and dispos	t or type all ei sition of this foi .C. §46301(a))	ntries. See Title 1 m. This report is r	4 CF requir	R §	43.9, Part 43 by law (49 U.	3 Appendix B, a S.C. §44701). F	and A	C 43.9 to rep	9-1 (or sub port can re	osequent revision thereof) for sult in a civil penalty for each
	Nationalit	y and Registra	tion Mark				Serial No.				
	N498HF						3246121				
1. Aircraft	Make	······································								Control	
							liviodei			l'	Series
***************************************	PIPER						PA-32R-3	01			
	Name (As	s shown on reg	istration certificate	;)			Address (As	show	n on re	gistration	certificate)
2. Owner							Address <u>1890</u>	3 WII	NDSC	OR CRES	T DR
Z. Owner								ISTO			State TX
	GRANC	SER E DAR	RON				Zip 7709	4-333	31	Coun	try US
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		PROPELLER									
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			Manufacturer				ı				
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7000	MARCOS		State TX	— I	_	Certificated F	Repair Station				
Zip 78666	<u> </u>	intry US				Certificated N	Maintenance Orga	nizatior	1	A&P 278	84226 IA
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Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

	N498HP		11/3/11
	Nationality and Registration I	Mark	Date
NSTALLED AIRWOLF FILTER CORP. AIR/OIL CCORDANCE WITH AIRWOLF FILTER COR REVISION C 08/24/06, DRAWING AFC-W315 F	P. INSTALLATION INSTRUCTIONS, DR	RAW	ING AFC-W360
NSTRUCTIONS FOR CONTINUED AIRWORT NRWOLF FILTER CORP INSTALLATION INST	HINESS LOCATED IN AIRCRAFT REC RUCTIONS PAGE 26.	ORE	OS REFERANCE
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VALTER IRVING LANSING &P 2784226 IA			
	******END***************************	****	***********
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US Department
of Transportation
Federal Aviation
Administration

2/28/2011	
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**MAJOR REPAIR AND ALTERATION** (Airframe, Powerplant, Propeller, or Appliance) INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a)) Nationality and Registration Mark Serial No. N498HP 3246121 1. Aircraft Make Model Series **PIPER** PA32 PA-32R-301 Address (As shown on registration certificate)
Address 18903 WINDSOR CREST DR Name (As shown on registration certificate) GRANGER E DARRON 2. Owner State TEXAS HOUSTON 77094-3331 Country USA 3. For FAA Use Only 4. Type 5. Unit Identification Repair Alteration Unit Make Model Serial No. **AIRFRAME** (As described in Item 1 above)  $\mathbf{V}$ **POWERPLANT PROPELLER** Гуре **APPLIANCE** Manufacturer 6. Conformity Statement A. Agency's Name and Address B. Kind of Agency JERRY B. PARKER U. S. Certificated Mechanic Manufacturer 919 MCKEEVER ROAD Foreign Certificated Mechanic C. Certificate No. ARCOLA State TEXAS City Certificated Repair Station A&P2150438 Country USA Certificated Maintenance Organization I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge. Signature/Date of Authorized Individual Extended range fuel per 14 CFR Part 43 09/20/13 Арр. В 7. Approval for Return to Service Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ✓ Approved Rejected FAA Flt. Standards Persons Approved by Canadian Maintenance Organization Manufacturer Department of Transport Inspector BY Other (Specify) Inspection Authorization **FAA Designee** Repair Station Certificate or Signature/Date of Authorized Individual Designation No. Keny B. Paho 09/20/13 A&P2150438IA

#### Work completed for [N498HP] on

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	ameting and appearance of the second	aircraft record. An alteration must	
be compatible with all previous alterations to assure c	continued conformity with the appi	cable airworthiness requirements.	
	N498HP	09/20/13	
8. Description of Work Accomplished	Nationality and Regis		
INSTALLED CHAMPION SLICKSTART MAGNE	TO BOOSTER SYSTEM IN A	CCORDANCE WITH STC	
SA593CH.	END		
	END		
		•	

#### United States of America

Bepartment of Transportation—— Wederal Aviation Administration

## Supplemental Type Certificate

Number SAS93CH

This coelificate issued to Champion Aerospace LLC 1230 Old Norris Road Liberty, SC 29657

certified that the change in the type design for the following product with the limitation and conditions therefor as specified hereon meets the airworthiness requirements of Part " of the "Regulations

Original Troduct -- Type Cortificate Number. \* \* See Attached FAA Approved Model List (AML) No.

Make: \* SA593CH for list of approved engine models and

Model: \*applicable airworthiness regulations

Description of Type Design Change.

Install Champion SlickSTART™ magneto booster system in accordance with Slick Installation Instructions as listed on AML No. SA593CH or later FAA Approved revision.

Limitations and Conditions.

- 1. Compatibility of this design change with previously approved modifications must be determined by the installer.
- A copy of this Certificate and FAA Approved Model List (AML) No. SA593CH, or later FAA approved revision, must be maintained as part of the permanent records for the modified aircraft.
- 3. SlickSTART™ Model SS1001 may only be used with Slick 4200, 6200, 4300, 6300 series magnetos.
- SlickSTART™ Model SS1002 may only be used with TCM/Bendix S-20, S-200, S-1200 series magnetos.

	ISSUED			R	EVISE	D	CHAMPION AEROSPACE LLC 1230 Old Norris Road	PAGE NO.	REVISION
M	0	DAY	YEAR	МО	DAY	YEAR	Liberty, South Carolina, U.S.A. 29657		_
[1	0	31	96	09	24	09	° 2009 Champion Aerospace www.championaerospace.com	17 of 34	G

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**SL2-96** 

- Do not install SlickSTART™ Model SS1001 with Teledyne Continental Motors/Bendix S-20, S-200, and S-1200 series mag-
- If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

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

Date of application. December 18, 1995

Dals scienced: February 10, 2009

January 24, 1997

*Data amondad:* May 2, 1997; March 9, 1998, April 20, 2000; March 12, 2004

By direction of the Administrator



Signed original on file at Champion

Thaddeus D. Krolicki, Jr. Manager, Propulsion Branch Chicago Aircraft Certification Office

(Title)

This certificate may be transferred in accordance with FAR 21.47

	ı	SSUÈI	2	R	EVISE	D	CHAMPION AEROSPACE LLC 1230 Old Norris Road	PAGE NO.	REVISION
ļ	MO	DAY	YEAR	MO	DAY	YEAR	Liberty, South Carolina, U.S.A. 29657		
	10	31	96	09	24	09	2009 Champion Aerospace     www.championaerospace.com	18 of 34	G

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**SL2-96** 

#### FAA APPROVED MODEL LIST (AML) NO. SA593CH CHAMPION AEROSPACE LLC FOR INSTALLING SIICKSTART™ MAGNETO BOOSTER SYSTEM

Date of Issuance January 24, 1997

			ORIGINAL TYPE	CERTIFICATION BASIS		LLATION	* AFM	AML
LINE	AIRCRAFT	AIRCRAFT	CERTIFICATE	FOR	TUSTR	• REV.	SUPP	AMEND
LINE	MAKE	MODEL	NUMBER	ALTERATION	NUMBER		NO/DATE	DATE
151	Piper Aircraft Inc.	PA-30, PA-39, PA-40	A1EA	CAR 3, FAR 23	SL2-96	Rev. D	N/A	3/12/04
131	riper roccarcine.	17-34, 17-33, 17-40		Jul 3, 1701 25	34.30	1/01/00	147	7.25
152	Piper Aircraft Inc.	PA-31, PA-31-300,	A205Q	FAR 23	SL2-96	Rev. D	N/A	3/12/04
	1	PA-31-350, PA-31-325	i i			1/01/00		l
153	Piper Aircraft Inc.	PA-31P, PA-31T, PA-31T1, PA-31T2, PA-31T3, PA-31P-350	ABEA	FAR 23	SL2-96	Rev. D 1/01/00	N/A	3/12/0
154	Piper Aircraft inc.	PA-32-260, PA-32-300, PA-325-300, PA-32R-301(HP), PA-32-301, PA-32-301T	A3SO	CAR3	SL2-96	Rev. D 1/01/00	N/A	3/12/0
155	Piper Aircraft Inc.	PA-34-200, PA-34-200T, PA-34-220T	A750	FAR 23	SL2 <del>-9</del> 6	Rev. D 1/01/00	N/A	3/12/0
156	Piper Aircraft Inc.	PA-36-285, PA-36-300, PA-36-375 (Normal Category)	A9SO	FAR 23	SL2-96	Rev. D 1/01/00	N/A	3/12/0
157	Piper Aircraft Inc.	PA 36-285, PA-36-300, PA-36-375 (Restricted Category)	A105O	FAR 23	5L2-96	Rev. D 1/01/00	N/A	3/12/0
158	Piper Aircraft Inc.	PA-38-112	A1850	FAR 23	5L2-96	Rev. D 1/01/00	N/A	3/12/0
159	Piper Aircraft Inc.	PA-44-180, PA-44-180T	A1950	FAR 23	SL2-96	Rev. D 1/01/00	N/A	3/12/0
160	Piper Aircraft Inc.	PA-46-310P, PA-46-350P	A255O	FAR 23	SL2-96	Rev. D 1/01/00	N/A	3/12/0
161	Pirtie, J.C.	Pirtle (Johnson) Rocket 185	776	CAR 4a	SL2-96	Rev. D 1/01/00	N/A	3/12/0
162	Interceptor Aircraft	200, 200A, 200B, 200C, 200D, 400	3A18	CAR 3	SL2-96	Rev. D 1/01/00	N/A	3/12/0
163	Joe Rankin	CP-65	A-720	CAR 4a	5L2-96	Rev. D 1/01/00	N/A	3/12/0
164	Hawker Beechcraft	19A, B19, M19A, 23, A23, A23A, A23 19, A23 24, B23, C23, A24, A24R, B24R, C24R	A1CE	CAR3	SL2-96	Rev. D 1/01/00	N/A	3/12/0
165	Hawker Beechcraft	35, A35, B35, C35, D35, E35, F35, G35, 35R	A-777	CAR 3	5L2-96	Rev. D 1/01/00	N/A	3/12/0
	-							

	ISSUED REVISED		ISSUED REVISED CHAMPION AEROSPACE LLC 1230 Old Norris Road				PAGE NO.	REVISION
MO	DAY	YEAR	МО	DAY	YEAR	Liberty, South Carolina, U.S.A. 29657		
10	31	96	09	24	09	° 2009 Champion Aerospace	30 of 34	G
	1		1	1	1	www.championaerospace.com		ر اا

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C.A., C.

US Department
of Transportation
Federal Aviation
Administration

### **MAJOR REPAIR AND ALTERATION**

2/28/2011	For FAA Use Only
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of Transportati Federal Aviati Administratio	on I <b>on</b>	(Airfra	me, F	Powerplant, l	Prop	pell	ler, or App	liance)					······ <del>··</del> ··
instructions		ition of th	is form									osequent revision to sult in a civil penal	
	Nationalit N498HP	y and Reg	gistratio	n Mark			-	Serial No. 3246121					
1. Aircraft	Make							Model			Series		
	PIPER	······································								32			
		s shown o	-	tration certificate	)			Address (As	Address (As shown on registration certificate) Address 18903 WINDSOR CREST DR				
2. Owner				city <u>HOUSTON</u> zip 77094-3331				Cour	State T	EXAS			
						3. 1	For FAA Use	Only					
											***************************************		
4. Ty	<del></del>			Τ		-	Unit Identifica	ation				<u> </u>	
Repair	Alteration	Ur	rit		Ма	ke			Mo	del		Serial	No.
	Z	AIRFRA	ME					(As descrit	ed in	item 1 a	above)		
		POWER	PLANT										
		PROPE	LER					· · · · · · · · · · · · · · · · · · ·					
				Туре									
		APPLIA	NCE	Manufacturer									
					6	·	onformity Stat					<u> </u>	
A. Agency's	Name and A RY B. PAR					B.	Kind of Agenc	y ated Mechanic			Mar	ufacturer	
Address 919	MCKEEVE				_	•		ficated Mechanic				icate No.	
city ARC		UC		_ State <u>TEXAS</u>	_			Repair Station			Δ&P21	50438	
zip <u>7758:</u> D. I certify	that the rep	untry <u>USA</u> pair and/or	r altera	tion made to the	unit	(s) i	dentified in ite	Maintenance Orga em 5 above an	d des	cribed o	on the rev	erse or attachment	s hereto
				the requirement to the best of my				. Federal Aviat	ion Re	egulation	ns and tha	at the information	
Extended rar per 14 CFR I App. B			Sign: 09/0	ature/Date of Au 6/13	thoriz	zed	Individual 3. Pah	<u> </u>					
				7	'. Ap	prov	val for Return	to Service					
				ons specified b ministration and		, the		ed in item 5 Approved		inspect Rejecte		e manner prescrib	ed by the
l I I in	AA Flt. Stand spector	lards	Man	ufacturer		Ма	aintenance Or	ganization			ns Approve tment of Ti	ed by Canadian ansport	
BY F/	AA Designee		Rep	air Station	×	In	spection Author	orization	Oth	er (Spe	cify)		
Certificate or Designation N			1 -	ature/Date of Au 06/13			Individual Pake		1				

#### Work completed for [N498HP] on

	N498HP	09/06/13	
8. Description of Work Accomplished	Nationality and Registration		
INSTALLED BRACKETT AERO FILTER INC. IN	ACCORDANCE WITH STC SASS	33CE	
	END		
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		,	

Muited States Of America

# Bepartment of Transportation - Aederal Abiation Administration Supplemental Type Certificate

## Number SA693CE

AIR FILTER MODEL NUMBER

BA-104

ITEM

3

Brackett Aero Filters, Inc. This Contificate issund to

Kingman, Arizona 86401 7052 Government Way

conditions therefor as specified hereon weets the airecordinoss requirements of And Specified cretifies that the change in the type design for the following product with the limitations and under:"Certification Basis" on the applicable Data Sheets or Aircraft Specifications

TOP DRAWING

NUMBER

BA-104

(6485710)

REVISION

& DATE

D

10/17/85

Criginal ! Product Sgne Certificate . Hamber : As shown on Approved Model List(s) Regulations.

. Make .

Model.

Note: FAA - Approved Model List(s) form a part of this Certificate.

Unverjetion of Type Drign Change. Replace existing engine induction air filter with AC Spark Plug Division filter in accordance with Approved AC Filter List(s).

AIRCRAFT MAKE

PIPER

PIPER

PIPER

models on which other previously approved modifications are incorporated unless it is determined that the Kindliens. This approval should not be extended to other specific airplanes of these introduce no adverse effect upon the airworthiness of the airplanes. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of interrelationship between this change and any of those other previously approved modifications will that permission.

This cortificate and the supporting data which is the basis for approval shall remain in effect until sucrendered, suspended, revoled or a termination date is otherwise established by the Administrator of the Federal" Assintion Administration

State of application . March 2, 1970

AIRCRAFT

PA-32-260 PA-32-300 (S/N 32-7640001 and

up) PA-32R-300 PA-32RT-300 PA-32-301 PA-32R-301

PA-34-200T

PA-34-220T

PA-36-285 (with Continental 6-285B

engine) PA-36-300 PA-36-375 March 26, 1970 State of issummer:

ORIGINAL TYPE CERT.

NUMBER

A3S0

A7S0

A9S0

CERT. BASIS

1983, June 20, 2000

Tate amended :

Lan missend: February 22, 1978, March 3,

.By diocetion of the Administrato

Manager, Tech. and Admin.

Support Staff Los Angeles Aircraft Certification Office Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

AML AMENDMENT

Page 1 of

FAA Form #110-2(10-64)

This certificate may be transferred in accordance with 4749, 21.47.

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U.S. Department
of Transportation
Federal Aviation
Administration

## MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

rm Approved Electronic Tracking Number		
130/2007	orm Approved MB No. 2120-0020 /30/2007	Electronic Tracking Number

G3SR222J / EASA.145.5128

For FAA Use Only

Administrati				,		•	•	•	• •	•		
instructions	TIONS: Prins and disposition. (49 U. 5	ition of	this	form.	s. See Tilte 14 6 This report is re	CFR §	43.9, Pad by law	art 43 Ap (49 U.S.	pendix B, and A C. §44701). Fai	C 43.9-1 (or s llure to report	can resu	ent revision thereof) for ult in a civil penalty for each
	Nationality		-		rk				Serial No.			
1. Aircraft	USA	N	498	HP					3246121		T = "	
	Make PIPER								Model PA-32R-301		Serie	s
2. Owner	Name (As shown on registration certificate) ARTISAN AVIATION LLC  . Owner								Address (As shown on registration certificate) 5977 WHITESVILLE ROAD, STE 2 COLUMBUS, GA 31904 USA			
							3. F	or FAA l	Jse Only			
4. T	ype						5. Un	it Identif	ication			
Repair	Alteration		Unit			Make	!			Model		Serial No.
	X	AIRFI	AIRFRAME					(As described	l in Item 1 ab	ove)		
		POW	ERPI	LANT								
		PROF	ELL	.ER								
		APPL	.IAN	CE	Type  Manufacturer				-			
								<u>_</u>	y Statement			
	's Name and						B. F	Kind of A	<u> </u>			
_	AVIATIO ATION WA			ALIST	r, inc.				ertified Mechanic Certified Mecha			iufacturer ficate No.
	EE CITY,		,				X	Certified	Repair Station Maintenance C			22J / EASA.145.5128
D. I certif	y that the re been made in	accor	danc	e with	ion made to the the requiremen to the best of my	ts of F	Part 43 c	ied in iter	n 5 above and d	escribed on th	ne revers	se or attachments hereto nat the information
Extended ra per 14 CFR App. B				Signa	ature/Date of Au			1	anuel)	M. Plas	ies	SAMUEL M NIPPER 18-September-2007
									n to Service	//	im #1	and a supposite of the state of
Administra	to the authoritor of the l	ority gi Federa	ven I Avi	person	ns specified be Administration	and is	tne unit		ed in item 5 wa oproved	Rejecte	d	manner prescribed by the
1 1	AA Flt. Standanspector	erds		Manu	ufacturer		Mainter	nance Orga	anization	Departm	ent of Tra	d by Canadian ansport
BY	AA Designee		х	Repa	air Station		Inspect	ion Author	ization	Other (Specify	')	
Certificate Designation	or n No	1		Signa	ature/Date of Au	thorize	ed Indiv	idual	1 1	20 1		SAMUEL M NIPPER
Designation								X.	- m . m/d	11 1/10	10-	18-September-2007

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

Description	of Work Accompl	ishod				
(If more space	ce is required, attacl	n additional sheets. Idei	ntify with aircraft nationalit	y and registration mark a	nd date work cor	mpleted.)
				USA N49	8HP	Sep-18-2007
				Nationality and Regis	stration Mark	Date
EQUIPMENT MFG GARMIN GARMIN	REMOVED: MODEL GNS530 GA56	DESCRIPTION GPS/NAV GPS ANTENNA	PART NUMBER 011-00550-10 011-00134-00			
EQUIPMENT MFG GARMIN GARMIN	INSTALLED: MODEL GNS530W GA35	DESCRIPTION GPS/NAV/COM GPS ANTENNA	PART NUMBER 011-01064-40 013-00235-00	PUBLICATION UPGRADE MANUAL UPGRADE MANUAL	P/N 190-00357 190-00357	
UNIT. THE FOR EXTER AML INSTA	EXISTING LOCAT NAL ANNUNCIATIO LLATION DATA. 7	TION OF THE UNIT WARDON. THE EXISTING W	R THE STC AML. GNS5: AS DETERMINED TO MEI IRING AND SHIELDING ANTENNA WAS REMOVED LLATION.	ET FIELD-OF-VIEW RE WAS INSPECTED AND	QUIREMENTS W DETERMINED T	ITHOUT THE NEED O BE IAW THE STO
			LED NEW GA35 GPS/WA UPGRADE MANUAL AND !		E PREVISIONS	LEFT BEHIND
			D WITH GNS530W USING IN UPGRADE MANUAL A		T BEHIND FRO	M THE REMOVED
4. THE GN GNS530W I	S530w WAS CONFI NSTALLATION MAN	GURED IDENTICAL TO	O THE ORIGINAL GNS5	30 UNIT. EACH INTER	FACE WAS CHE	CKED OUT IAW THE
5. REMOVE 190-00357	D THE AIRPLANE -63, REV. B OR	FLIGHT MANUAL SUPLATER, FAA APPROV	PLEMENT FOR THE GNS! ED 12/21/2006 INTO	530 AND INSTALLED A THE AIRCRAFT FLIGHT	500w SERIES MANUAL.	AFMS P/N
		GLIGABLE. THE CUR OR LESS AS ORIGI	RENT ELECTRICAL LOAD NAL UNIT.	O ANALYSIS REMAINS	VALID SINCE	THE NEW UNIT
	ED GARMIN DOCUM AFT MAINTENANCE		-65 500w SERIES INS	TRUCTIONS FOR CONTI	NUED AIRWORT	HINESS (ICA) IN
			. CRS G3SR2220 W.O.			
			25			
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			,			

ADDITIONAL SHEETS ARE ATTACHED

United States Of America

Bepartment of Transportation - Federal Abiation Administration

## Supplemental Type Certificate

Number SA01933LA

Mis Certificato issued to

Garmin AT, Inc. 2345 Turner Road S.E. Salem, Oregon 97302

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part \* of the Regulations

Original Product Type Certificate Number:

\* See attached Approved Model List (AML)

Mako:

No. SA01933LA for list of approved aircraft

Model:

models and applicable airworthiness regulations.

Description of Type Design

Elargo. Installation of Garmin Model 400W / 500W Series GPS-WAAS Navigation System in accordance with FAA Approved Garmin 400W Series Master Data List, Drawing No.: 005-C0221-00, Revision "A", dated October 31, 2006, or later FAA approved revision; or FAA Approved Garmin 500W Series Master Data List, Drawing No.: 005-C0221-01, Revision "A", dated October 31, 2006, or later FAA approved revision. For Garmin 400W installations: FAA Approved Garmin 400W Series Airplane Flight Manual Supplement, Document No.: 190-00356-63, Revision "Original", dated November 6, 2006, or later FAA approved revision. For Garmin 500W installation: FAA Approved Garmin 500W Series Airplane Flight Manual Supplement, Document No.: 190-00357-63, Revision "Original", dated November 6, 2006, or later FAA approved revision.

Limitations and Conditions. This approval should not be incorporated in any aircraft unless it is determined that the interrelationship between this installation and any previous approved configuration will not introduce any adverse effect upon the airworthiness of the aircraft. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

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

Date of application. January 31, 2006

Date reissued:

Dale of issuance:

November 6, 2006

Date amended :

TOMMISTRATION

By direction of the Administrator

Manager, Systems & Equipment Branch, Los Angeles Aircraft Certification Office

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both



February 22, 2007

Subject:

STC Permission to use STC SA01933LA for

Garmin Model 400W / 500W Series GPS-WAAS Navigation System

Consistent with Order 8110.4B and AC 21-40, Garmin AT, Inc. grants permission to Garmin dealers, installers, and owners of the Garmin Model 400W / 500W Series GPS-WAAS Navigation System to use STC SA01933LA and the data associated with it, for the sole and express purpose of installation and approval of the installation of the Garmin Model 400W / 500W Series GPS-WAAS Navigation System, and associated interfaces to other previously approved equipment.

John Macnab General Manager Garmin AT, Inc.

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U.S. Department of Transportation Federal Aviation

## MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved OMB No. 2120-0020

For FAA Use Only

Office Identification

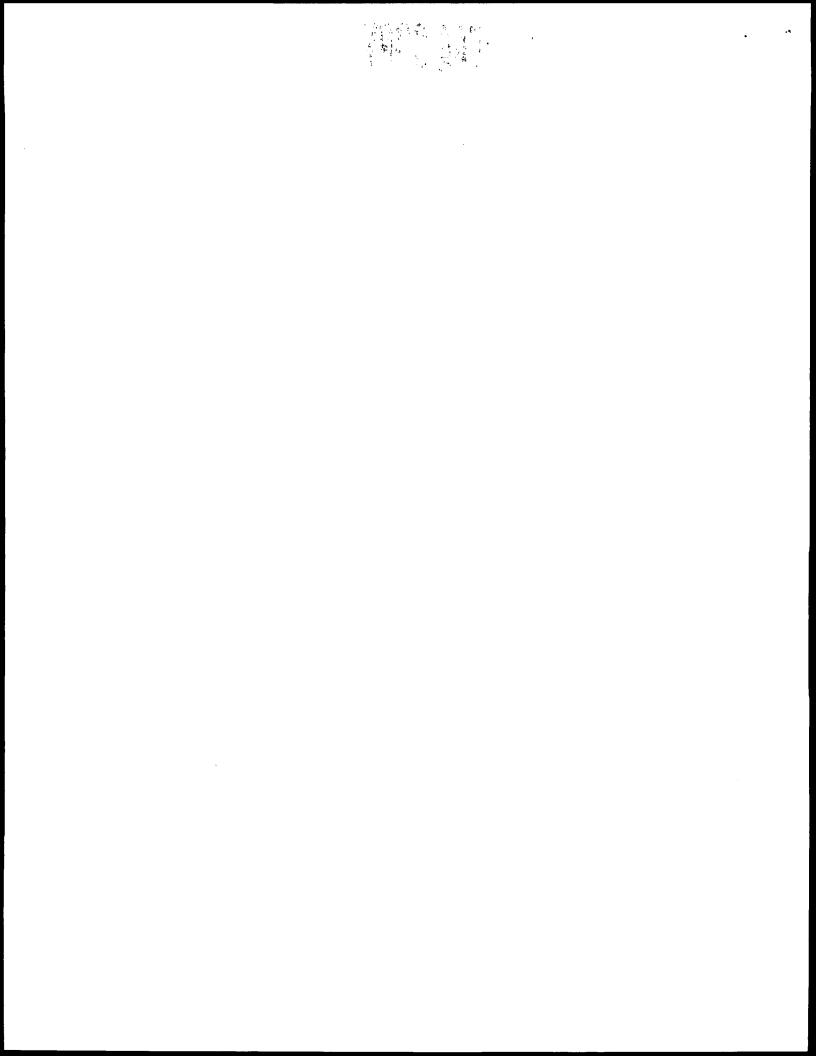
are

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$ 1000 for each such violation (Section 901 Federal Aviation Act of 1958). Make Model PIPER PA-32R-301 1. Aircraft Serial No. Nationality and Registration Mark 3246121 N498HP Name (As shown on registration certificate) Address (As shown on registration certificate) BLUE RIDGE AIR SERVICE, INC SUITE 300 CITIZENS BANK PLAZA 2. Owner ELIZABETHTON, TN 37643 USA 3. For FAA Use Only The data herein compries with applicable airworthiness requirements and is approved only for the above described aircraft subject to confermity inspection by a person authorized in FAR 43. Date AUG 2 5 2005 Signature ANTHONY B. BROWNE 4. Unit Identification 5. Type Unit Make Model Serial No. Repair Alteration **AIRFRAME** (As described in Item 1 above) X **POWERPLANT** PROPELLER Type **APPLIANCE** Manufacturer 6. Conformity Statement A. Agency's Name and Address B. Kind of Agency C. Certificate No. GARDNER AVIATION SPECIALIST, INC. U. S. Certified Mechanic G3SR222J / EASA.145.5128 500 AVIATION WAY B-5 Foreign Certified Mechanic AIRFRAME PEACHTREE CITY, GA 30269 Certified Repair Station RADIO CLASS I, II, III G3SR222J INSTRUMENT I, II, III, IV Manufacturer D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U. S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge. Date Signature of Authorized Individual 25-August-2005 SAMUEL M. NIPPER 7. Approval for Return to Service Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is X APPROVED ☐ REJECTED FAA Flt. Standards Other (Specify) Manufacturer Inspection Authorization Inspector RY Person Approved by Transport Canada Airworthiness Group FAA Designee Repair Station Date of Approval or Rejection Certificate or Signature of Authorized Individual

SAMUEL M. NIPPER

Designation No.

G3SR222J



Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. DESCRIPTION OF WORK ACCOMPLISHED (If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

#### N498HP PIPER PA-32R-301 3246121

PART NUMBER

1.00

THE FOLLOWING WORK WAS ACCOMPLISHED ON WO # 20634

DESCRIPTION

KING KING KING	KN72 KX155A KLN89B	VOR/LOC CONVERTER NAV/COM GPS	066-4009-00 069-01032-0101 066-01148-0101	FS217.4 FS63.0 FS63.1		
EQUIPMENT IN	ISTALLED:					
MFG	MODEL	DESCRIPTION	PART NUMBER	MANUAL	REV	LOC
RYAN	9900B, TCAD	XPDR COUPLER	70-2040	32-2301	4	FS59.6
RYAN	9900B, TCAD	REMOTE PROCESSOR	70-2400	32-2301	4	FS215.6
RYAN	9900B, TCAD	ANTENNA, BOTTOM	S72-1750-32L	32-2301	4	F\$115.6
RYAN	9900B, TCAD	ANTENNA, TOP	S72~1750-31L	32-2301	4	FS116.6
RYAN	9900B, TCAD	DISPLAY	70-2500	32-2301	4	F\$63.4
GARMIN	GDL69	XM SATE RADIO	011-00986-00	190-00355-02	В	FS39.6
DAC	GDC31	DATA CONVERTER	1049-4000-01	1049-2510-01	G	FS41.6
GARMIN	GNS 530	GPS/NAV/COM	011-00550-10	190-00181-02	N	FS63.0
GARMIN	GA56	ANTENNA	011-00134-00	190-00181-02	N	FS100.6
GARMIN	GS 5 5	WX ANTENNA	001-01033-00	190-00355-02	В	FS100.6

\* >INSTALLED THE GARMIN GNS530 UNIT & GA56 ANTENNA PER: INSTALL MANUALS LISTED ABOVE, AND AS A FOLLOW-ON TO STC: SA00864WI.THIS SYSTEM HAS BEEN EVALUATED IN ACCORDANCE WITH THE CRITERIA CONTAINED IN AC 20-138A FOR IFR FLIGHT. SYSTEM ACCURACY IS WITHIN SPECIFIED LIMITS.

Description of the Alteration:

EQUIPMENT REMOVED:

MODEL

- Installation of the Garmin (GNS530), as a follow-on to STC:SA00864WI, with interface to external altitude encoder and CDI or HSI. Refer to section 4 of this manual for interconnect information. Antenna installation, removal and replacement should be in accordance with applicable provisions of AC43.13-1B and 34.13-2A. THIS SYSTEM HAS BEEN EVALUATED IN ACCORDANCE WITH THE CRITERIA CONTAINED IN AC 20-138A FOR IFR FLIGHT. SYSTEM ACCURACY IS WITHIN SPECIFIED LIMITS.
- Control, Operation Information Refer to the (GNS530) Pilot's Guide.
- Servicing Information N/A.
- Maintenance Instructions: Maintenance of the (GNS530) is "on condition" only. Periodic maintenance is not required. Refer to the (GNS530) Maintenance Manual.
- Troubleshooting Information: Refer to the (GNS530) Maintenance Manual. Removal and Replacement Information: Refer to section 3.8 of this manual. If the unit is removed and reinstalled, a functional check of the equipment should be conducted in accordance with section 5.3 of this manual.
- Diagrams: Refer to section 3 & 4 of this manual. Special Inspection Requirements: N/a

- 10. Application of Protective Treatments: N/A
  11. Data: Relative to Structural Fasteners: Antenna installation, removal and replacement should be in accordance with applicable provisions of AC43.13-1A and 43.13-2A. Also, refer to section 3.7 of this manual.
- 12. Special Tools: N/A
- 13. This section is for Computer Category Aircraft Only
- A. Electrical loads: Refer to section 1.3.2 of this manual.
  B. Methods of balancing flight controls: N/A
  C. Identification of primary and secondary structures: N/A
- D. Special Repair methods applicable to the airplane: Antenna installation, removal, and replacement should be in accordance with applicable provisions of AC43.13-1B and 43.13-2A.
- 14. Overhaul Period: No additional overhaul time limitations
- Airworthiness Limitation Section: Refer to the (GNS530) Sample Flight Manual Supplement.
- 16. Revision: To revise this ICA, a letter must be submitted to the local FSDO with a copy of the revised FAA Form 337, and revised ICA.

\* >INSTALLED THE RYAN 9900B & (2) ANTENNAS PER INSTALL MANUALS LISTED ABOVE, AND AS A FOLLOW-ON TO STC: SA1763GL.

ADDITIONAL SHEETS ARE ATTACHED

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. DESCRIPTION OF WORK ACCOMPLISHED (If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

#### N498HP PIPER PA-32R-301 3246121

- 2. Installation of the Ryan 9900B TCAD, with interface to an onboard altitude encoder, transponder(s), audio system, and aircraft power. See block diagram in the Installation Manual for interconnect information. Antenna Installation, removal and replacement should be in accordance with applicable provisions of AC43.13-1B and 43.13-2A. . Control, Operation Information See Pilot's Operating Handbook. 4. Servicing Information /None. 5. Maintenance Instructions: See Ryan TCAD Instructions for Continued Airworthiness.
  6. Troubleshooting Information: If any error indications are displayed on the TCAD, or if the TCAD fails to detect traffic for reasons that could include a malfunction of the equipment, discontinue use of the TCAD and seek avionics assistance. and seek avionics assistance.

  7. Removal and Replacement Information: See Instructions in the Ryan TCAD Installation Manual. If the unit is removed and reinstalled, a simple functional check of the equipment should be conducted using targets of opportunity. This is accomplished by turning the system on, pressing the ENRT mode button, and verifying traffic in the area is displayed on the TCAD, and the traffic indication agrees with visual estimates. If any work has been done on the aircraft that could affect the TCAD wiring, antenna cables or any interconnected equipment, a thorough checkout in accordance with the Installation Manual should be conducted. Antenna Installation, removal and replacement should be in accordance with applicable provisions of AC43 13-14 and 43 13-24
- of AC43.13-1A and 43.13-2A. 8. Diagrams: See Ryan TCAD Installation Manual Special Inspection Requirements: None, N/A

10.Application of Protective Treatments: None, N/A

- 11.Data: Relative to structural fasteners, Antenna Installation, removal and replacement should be in
- accordance with applicable provisions of AC43.13-1A and 43.13-2A. 12.Special Tools: A transponder test set is necessary for a thorough checkout of the Ryan TCAD. See Ryan TCAD Installation Manual.

- 13. This section is for Commuter category aircraft only:

  A. Electrical loads: See Ryan TCAD Installation Manual

  B. Methods of balancing flight controls: N/A

  C. Identification of Primary and Secondary Structures:

  D. Special Repair Methods applicable to the airplane: Antenna Installation, removal and replacement
- should be in accordance with applicable provisions of AC43.13-1B and 43.13-2A.
- 14.Overhaul Period: No additional overhaul time limitations.
  15.Airworthiness Limitation Section: See Ryan TCAD Flight Manual Supplement
  16.Revision: To revise this ICA, a letter must be submitted to the local FSDO with a copy of the revised FAA form 337, and revised ICA. The FAA inspector accepts the change by signing Block 3 and including the Following statement:

>INSTALLED THE DAC GDC31 GPS CONVERTER, GARMIN GDL69 DATA LINK WITH GA55 WX ANTENNA, ALL PER INSTALL MANUALS LISTED ABOVE. THE UNITS LISTED IN THIS ALTERATION WERE INSPECTED, CALIBRATED AND TESTED IN ACCORDANCE WITH MANUFACTURES INSTRUCTIONS AND FOUND TO OPERATE AS INTENDED. ALL FUNCTIONS ARE COMPATIBLE TO OTHER AIRCRAFT SYSTEMS.

WEIGHT & BALANCE AND LOGBOOK ENTRIES MADE PER FAR 43.9 AND 91.407 

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#### United States of America

### Bepartment of Transportation -- Federal Abiation Administration

# Supplemental Type Certificate

Number SA1763GL

This certificate issued to

Ryan International Corporation 4800 Evanswood Drive Columbus, OH 43229

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon moets the airworthiness requirements of Parl 3 of the Civil Air Progulations. (See Type Certificate Data Sheet No. A7CE for complete certification basis)

Original Product . Typo Certificato Number: AT

A7CE

Nbako:

Cessna

414A

`Description of Type Design Change.

Installation of a Ryan International Corporation Traffic and Collision Alert Device (TCAD) Model ATS-9000, in accordance with Ryan TCAD Installation Manual, 32-2101, Rev. 2, dated December 6, 1993, or as applicable, Ryan TCAD Installation Manual 32-2101, Rev. 4, dated April 14, 1997. Installation of a Ryan International Corporation TCAD Model 9900, Model 9900A, or Model 9900B, in accordance with Ryan TCAD Installation Manual, 32-2301, Rev. 4, dated December 17, 1998, or later FAA approved revision. Installation of Ryan International Corporation Traffic Advisory System (TAS) Model 9900BX, in accordance with Ryan TCAD Installation Manual, 32-2351, Rev. 2, dated July 26, 2001 and drawing SA.0213.01, Rev. -, dated August 15, 2001, or later FAA approved revisions.

Limitations and Conditions:

1. Compatibility of this design change with previously approved modifications must be determined by the installer.

(See continuation sheet 3 of 3)

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

Date of application : April 19, 1992

Dalo of issuance . June 19, 1992

Dalo reissuod :

Date amended: June 13, 1994, June 2, 1997, October 31, 1997, September 19, 2001

By direction of the Administrator

(Signature)

Charles L. Smalley

Manager, Systems and Flight Test Branch Chicago Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both

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United States of Ancereu

Department of Transportation — Federal Abiation Administration

## Supplemental Type Certificate

Number SA00864WI

This carlificate issaed to

GARMIN International 1200 E 51st St. Olathe, KS 66062

certifies that the charge in the type design for the following product with the limitations and conditions therefor as specified hereon moets the aircorthiness requirements of Purt 3 of the Civil Air Begulations.

Original Product . Type Certificate Number :

Mako:

Model: PA-32

Description of Typo Designs Changa Installation of the Garmin GNS 530, 530A, or GPS 500 (GNC 500 Series TAWS Option) in accordance with the installation data and FAA Approved Airplane Flight Manual Supplements (AFMS) listed on the Continuation Sheet (See page 2 of 2).

Binitations and Conditions. Compatibility of this design change with previously approved modifications must be determined by the installer If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

This certificate and the supporting data which is the basis for approval shall romain in offect until surrenderech suspended, revoked or a termination dute is otherwise established by the Administrator of the Foderal Aviation Sodministration.

Date of application. November 10, 1998

Dalo of issuance . March 21, 2000

Dalo roissuod :

Dato acranded . April 13, 2001; July 25, 2002; November 22, 2004

Harvey E. Nero

Program Manager

Wichita Aircraft Certification Office

(Title)

**US Department** of Transportation

#### MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved OMB No. 2120-0020

For FAA Use Only

Office Identification

Federal Aviation Administration INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This form is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958). Make Model Piper PA-32R-301 1. Aircraft Serial No. Nationality and Registration Mark 3246121 N498HP Name (As shown on registration certificate) Address (As shown on registration certificate) AMR Combs, Inc. 4050 SW 11th Terrace 2. Owner Ft. Lauderdale, Fl. 33315 3. For FAA Use Only 4. Unit Identification 5. Type Unit Make Model Serial No. Repair Alteration AIRFRAME 🏎 🔾 (As described in item 1 above) X POWERPLANT **PROPELLER** Type APPLIANCE Manufacturer 6. Conformity Statement A. Agency's Name and Address B. Kind of Agency C. Certificate No. U.S. Certificated Mechanic Sun Aviation, Inc. ECWR470D 3106 Cherokée Dr Foreign Certificated Mechanic Vero Beach, Fl. 32960 Certificated Repair Station Manufacturer D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge. Date Signature of Authorized Individual 10-31-1998 7. Approval for Return to Service Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is X APPROVED ☐ REJECTED FAA Fit. Standards Other (Specify) Manufacturer Inspection Authorization Inspector BY Person Approved by Transport Canadian Airworthiness Group FAA Designee Repair Station Date of Approval or Rejection Certificate or Signature of Authorized Individual Designation No. Meaden

ECWR470D

10-31-1998

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Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished (If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)
N498HP PIPER PA-32R-301 S/N 3246121
NATIONAL THE ENTRACE CONTROLL OF THE CONTROL OF THE CONTRO
Installed BFGoodrich WX-1000+ Weather Mapping System and Avionics Innovations Al-CD Audio Player w/Comant Cl -222 FM Antenna.
The WX-1000+ is protected by a 2A Circuit Breaker and the Al-CD by a 3A Circuit Breaker, both from the Avionics Buss.
The WX-1000+ Display was mounted in the Pilot's Instrument Panel, lower LH side below the Turn Coordinator and the AI-CD in the RH Avionics Stack. A shelf was fabricated and attached to the aircraft aft of the aft Avionics shelf. The WX-1000+ Processor was then mounted on this shelf. The MKR BCN Ant was repositioned 16" Fwd and the WX -1000+ Antenna mounted in the position vacated by the MKR BCN Ant. The CI-222 FM antenna was mounted in the Wing Spar box, Pilot side.
All work was performed in accordance with the Airframe and Equipment Manufacturer's installation instructions, AC43.13-1A Chapter 5 Section 1, Chapter 11 Sections 2,3,4,5 and 7, and AC43.13-2A Chapters 2 and 3.
Aircraft Weight and Balance and Equipment List were amended to reflect this installation.
Instructions for continuing airworthiness: None.

### **SUN AVIATION AVIONICS**

3106 Cherokee Dr. Vero Beach, Fl. 32960 (561)567-0603

#### **UPDATED WEIGHT & BALANCE/EQUIPMENT LIST**

Reg. Number: Make/Model:

N498HP

Piper PA-32R-301 1998

Date: Hobbs: 11-02-1998

Year: Serial Number:

3246121

Max Weight: Work Order:

6.8 3615 08918

New A/C Empty Weight:

2465.9

New A/C Empty C.G.:

87.98

New A/C Useful Load:

1149.1

Description	Serial Number	Weight	Arm	Moment	Installed	Remove
Previous Aircraft Empty	3246121	2450.4	87.49	214376.9	n/a	n/a
Removed						
Installed FM/CD Player WX-1000+ Display WX-1000+ Processor WX-1000+ Antenna CI-222 FM Antenna	2352 JSD09804161 JXP09803915 JSA08802348	3.50 2.30 6.67 2.00 1.00	64.00 64.00 235.00 256.00 123.00	224.0 147.2 1567.5 512.0 123.0	X X X X	
New Aircraft Values		2465,9	87.98	216950.6	1	

R. C. Peavley, ECWR470D

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#### UNITED STATES OF AMERICA

## DEPARTMENT OF TRANSPORTATION-FEDERAL AVIATION ADMINISTRATION

# STANDARD AIRWORTHINESS CERTIFICATE

I NATIONALITY AND REGISTRATION MARKS	2 MANUFACTURER AND	MODEL	3	AIRCRAFT SERIAL NUMBER	4. CATEGORY
N498HP	PIPER	PA-32R-301		3246121	NORMAL

### 5 AUTHORITY AND BASIS FOR ISSUANCE

This airworthiness certificate is issued pursuant to the Federal Aviation Act of 1958 and certifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate therefor, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation, except as noted herein.

Exceptions:

## NONE

## **6 TERMS AND CONDITIONS**

Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator, this airworthiness certificate is effective as long as the maintenance, preventative maintenance, and alterations are performed in accordance with Parts 21, 43, and 91 of the Federal Aviation—Regulations, as appropriate, and the aircraft is registered in the United States.

DATE OF ISSUANCE FAA REPRESENTATION NUMBER DOA SO-1

Any alteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.

## FAA FORM 8100-2 (7-67) FORMERLY FAA FORM 1362

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**OCTOBER 28, 1998** 

FAA AIRCRAFT REGISTRY CENTRAL RECORDS UNIT ATTN: AFS-753 P.O. BOX 25504 OKLAHOMA CITY, OK 73125

#### **AIRCRAFT STANDARD PAPERWORK**

ISSUED:

10/26/98

MODEL:

PA-32R-301

SERIAL #:

3246121

**REGISTRATION #:** N498HP

ISSUED BY:

K.S. McGLOTHLIN

#### **PACKAGE CHECKLIST**

<u>X</u> STANDARD AIRWORTHINESS CERTIFICATE (8100-2)

<u>N/A</u> **REGISTRATION ASSIGNMENT CARD (8050-56)** 

X APPLICATION FOR AIRWORTHINESS CERTIFICATE (8130-6)

FAACoverLetterStandard Revised: 4/21/97

148-10 500.15.003

