@
US Department
of Transportation
Federal Aviation
Administration

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

E	xp: 5/31/2018	Electronic Tracking Number
		For FAA Use Only

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ins	structions	TONS: Print and dispos on. (49 U.S	ition c	of this	form.	es. See Title 1 This report is i	14 CF requir	R	§43.9, Part 4: by law (49 U.	3 Append S.C. §447	lix B , a 701). F	nd AC 43. ailure to re	9-1 (or si port can i	ubsequent revision thereof) for result in a civil penalty for each			
		Nationalit	y and			n Mark				Serial	No. 24	 l-1563					
1. Ai	1. Aircraft N5813F								Model	Series							
		M				M20J											
						ration certificate)						gistration certificate)				
2. O	wner	EAGLE CAP AIR LLC								City		TLAND	ANDY BLVD # 473 State OR				
										Zip	9723	intry <u>USA</u>					
								3. 1	For FAA Use	Only							
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	4. Ty _l								Unit Identifica	ation							
R	epair	Alteration						ke ——	,			Model		Serial No.			
		X	AIRFRAME MOONEY							(As d	lescribe	d in Item 1	above)	24-1563			
			POWERPLANT														
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Addres	ss <u>53770</u>	Airport Roa							1710					ficate No.			
City Zip	Scap 97056		_{untry} L	JSA		State OR		X	Certificated F		53NR597D						
	I certify	that the rep	air and	d/or al	with:	on made to the uthe requirement of the best of my	s of f	⊃art	43 of the U.S	5 above	and de	scribed on	the revers	se or attachments hereto at the information			
Extended range fuel per 14 CFR Part 43 App. B							pd P	Intrividual			02/2	8/2025	5				
								_	val for Return								
Pu Ad	ministrat	or of the Fed	deral A	iven Aviatio	perso n Adn	ns specified be ninistration and	elow, is	/th	e unit identif	ed in ite Approv	em 5 v red	vas inspec Rejecte		e manner prescribed by the			
BY		A Flt. Stand spector	ards		Manu	ufacturer	Maintenance Organization Persons Approved by Canadian Department of Transport										
	FA	A Designee	1	Х		air Station			spection Auth	orization		Other (Spe	ecify)				
Certif Desig	ficate or gnation N	_{lo.} 53NR	597[O	Signa	ture/Date of Aut	thoriz	ed	Individual			02/2	8/2025	5			

NOTICE

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 natio	nality and registration mark and dat	e work completed.)
	N5813F	02/28/2025
	Nationality and Registration Mark	Date
Removed existing OEM fuel senders PN 610242-001 at both inbotom and 610243-003 at left outboard position. Installed new CiES digitor MY2073 in the inboard, and PN CC284022-(0707)-(101) SN MY2CC284022-(0706)-(102) SN MY2074 in the inboard, and PN CC2positions of the right tank. Ran new fuel quantity cables from sent performed with reference to CiES installation instructions CC-TR-	tal fuel senders; PN CC2840 2075 in the outboard position 284022-(0707)-(102) SN MY2 ders and terminated them at	022-(0706)-(101) SN s of the left tank; and PN 2076 in the outboard GEA 24B. All work
Removed existing JPI OAT PN 400510 SN 00418. Removed existing SN 168, oil pressure transducer amplifier PN 950D0311-002 SN 371, manifold pressure gauge PN 6414 SN 106, SDI Hoskins Temperature Indicator PN 302661 Rev. 1.0 SN 1154, B&D Inst. Tammeter PN 5-90012. Removed existing EGT probes PN M-111 from each of 4 cylinders. Removed existing Tanis engine heater	SN 029, fuel pressure ampli FT-101 fuel flow indicator P achometer PN 0513-016 Re and spark plug gasket-style	fier PN 950 D 0311-001 N 702165-1 SN 1560, JPI ev. E SN 57255, and
Installed new Garmin GEA 24B Engine Adapter PN 011-05991-0 module. Installed new Alcor EGT probes PN 494-70001-00 and constalled new UMA oil temperature transducer PN 494-70009-00 transducer PN 011-04202-20 SN 74D203303, oil pressure transducer PN 011-04202-00 SN 74D004838 and connepickup RPM sensor.	CHT probes PN 494-70008- SN B4402. Installed new Ga lucer PN 011-04202-30 SN 7	00 on each of 4 cylinders. armin fuel pressure 74D306728, and manifold
Fabricated wiring harness and installed new Garmin GI 275 instructions instrumentation system (EIS) display. Interfaced to existing GI 27 Updated software on all Garmin GI 275 indicators to software rev Configured EIS. Verified all sensors function correctly. Increment fuel quantities. Ran-up engine. No leaks found and ops check OI Part 23 AML Installation Manual 190-02246-10 Rev 19, and STC	75 indicators via HSDB and to 3.20 per Garmin STC Servically filled fuel tanks and calib K. All work performed with r	to GEA 24B via serial. ce Bulletin 24044B. orated Garmin GI 275 EIS
END		
Additional Sheets	Are Attached	

US Department
of Transportation
Federal Aviation
Administration

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

			MAJ	IOR REPAIR A	ND	AL	TERATION	Į					For FAA U	se Only		
US Departm of Transport Federal Avi Administrati	tation lation	(Air	frame,	Powerplant, P	rop	eli	er, or Appl	iance)					701783	oc omy		
instructio		ition o	f this for	m. This report is re										revision thereof) for civil penalty for each		
	Nationalit N581		Registra	tion Mark		Serial No. 24-1563										
1. Aircraft	Make	00N	IEY			Model M20J							Series			
	Name (As	s show	n on reg	istration certificate)	1			Addre	ss (As s	show	n on reg	gistration	n certificate))		
2. Owner	EAGLE	CAP	AIR LI	LC		Address 3439 NE S						SANDY BLVD #473 ID State OR				
						Zip <u>97232</u> Coun							antry USA	1		
				,												
4.	Туре					5. t	Jnit Identifica	ation								
Repair	Alteration		Unit		Ма	ke				Мо	del			Serial No.		
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		PRO	PELLER													
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	's Name and A Sense Avionic					В.	Kind of Agend U. S. Certific	•	anic			Ma	anufacturer			
	70 Airport Roa						Foreign Cert				C. Certificate No.					
	appoose		JSA	State OR	_	X	Certificated I	Repair Sta	tion			53NR597D				
D. I cert	tify that the rep	air and	d/or alter	ration made to the u ith the requirement ct to the best of my	s of I	Part	43 of the U.S	5 above	and de	scrib	ed on t	he rever	se or attac	hments hereto		
Extended r per 14 CFF App. B				Individual			(8/10/	2024							
Duren versa	t to the suite	oritr -	ivon ne	mono onocifical			val for Return					od i= 4		r proporthed by the		
Administ	rator of the Fe	deral A	Aviation A	rsons specified by Administration and i	eiow, is	, tno		K Abbton			nspecte Rejecte		ne manne	r prescribed by the		
	FAA Flt. Stand Inspector	dards	М	anufacturer		М	aintenance Oi	ganizatio	on	C41:	Persons Approved by Canadian Department of Transport					
	FAA Designee			epair Station	\bigcap	<u> </u>	spection Auth	orization	·	Otne	er (Spe	шту)				
Certificate of Designation	or n No. 53NR	597[gnature/Date of Aut	Horiz	ed i	Individual				8/10/	2024				

NOTICE

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.

	N5813F	8/10/2024
	Nationality and Registration M	ark Date
emoved existing King KI-256 vacuum ADI PN 060	0017-00 SN 13320 and KI-525A DG	PN 066-3046-00 SN 24606,
MA suction gauge PN 3-310-55 SN A1344, Temp		
gulator PN 482001-0101 no SN, Rapco air filter f	· ·	•
aving switch PN 8071-1242-05 SN 4238, and KM		
S indicator PN 066-3034-04 SN 15911. Stripped		• '
emoved Aero-Safe electric standby vacuum syste		·
stalled Garmin GMU 11 magnetometer PN 010-0	-	
AT probe PN 011-00978-00 SN 47978148 (for G vo GI 275 indicators PN 010-01912-20 SN 5MZ20	-	
avigators, audio panel and KFC autopilot. Plumbe		
terface/charger PN 010-02201-10 SN 63M06594		
reaker module essential and avionics busses. Co		
nits) to rev 3.20. Calibrated magnetometer. GI 2		•
ML Installation Manual 190-02246-10 Rev 19 and	•	
rovided owner with GI 275 Pilots Guide 190-0224	01 Rev P. Added Garmin GI 275 AF	FMS 190-02246-12 Rev 12 t
e POH. Added the GI 275 Maintenance Manual	90-02246-11 Rev 9 to the aircraft pe	rmanent records. Provided
wner with all STCs and permission letters. Updat	d aircraft weight & balance and equip	ment list.
E	D	
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US Department
of Transportation
Federal Aviation

Electronic Tracking Number Form Approved ONB No. 2120-0020

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US Depar		/A. A. M M								Γ		For F	AA Use Only				
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Administ											1						
INSTRUC	TIONS: Pr													ereof) for instructions a			
disposition §46301(a)		rm. Th	iis report	is r	required by	/ law (49 U.S.0	C. §447	'01).	Failure	to report can res	sult in a civi	l penalty f	or each	such violation. (49 U.S.			
				egis	stration Ma	ark		Serial No.									
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		lame (A	s shown	on i	registratioi	n certificate)				Address (As she 3439 NE SAND)			tificate)				
2. Owner EAGLE CAP AIR LLC								PORTLAND, OREGON 197232-1959									
				_			3. F	or FA	A Use	Only							
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			APPL	_IAN	1CE	Manufacturer											
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	y's Name a			_					nd of A	gency				Manufacturer			
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	rport Road regon, 970						:	XXX	Certifi	cated Repair Sta	tion	OPXR455L					
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in accorda		the requ												ts hereto have been ma is true and correct to t			
Extended	range fuel			s	ignature/D	ate of Authoriz	zed Indi	vidual		· <u>-</u> . <u>-</u> .	<u>-</u>						
Per 14 CF	R Part 43					u	1		() ,	/							
App. B				F	rank Palm	ier Dia	nh	J.	cs	n-				June 28, 20			
						7. /	Approv	al for	Return	To Service							
Pursuant	to the auth	ority giv	en perso	ns	specified b	elow, the unit	identifie	ed in it	em 5 w	as inspected in the	he manner p	rescribed	by the				
Administra	ator of the I	Federal	Aviation	Ad	ministratio	n and is 🗸	APPR	ROVED)	☐ REJECT	ED						
	FAA Flt Inspect	t. Standa tor	ards		Manufacti	rrer	Mainte	enanc	e Orgar	nization		Person Approved by Transport Canada Airworthiness Group					
BY	FAA De	signee		x	Repair Sta	ation	Inspe	ction A	Authoriz	thorization Other (Specify)							
Certificate	or Design	ation N	0.	-		/Date of Autho	<i>/</i>				<u> </u>	****					
OPXR455	L					£	<i>y</i>		6	Men							
					IFrank Pal	mer / /১٠٠٨	ainn		1172	IVLE				June 28, 20			

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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 aircraft nationality and registration mark and date work completed.)

N5813F

June 28, 2024

Nationality and Registration Mark

Date

Description of Type Design Change:

Installation of Garmin GTN 750Xi GPS/NAV/COM in accordance with FAA approved Garmin STC SA02019SE-D and Master Documents List 005-00533-C0 Rev 44, dated June 2024, or later FAA approved revision.

Installation of Garmin GTX 345 Transponder in accordance with FAA approved Garmin STC SA01714Wl and Master Documents List 005-00734-04 Rev 23, dated May 2024, or later FAA approved revision.

The FAA approved Garmin GTN 750Xi Airplane Flight Manual Supplement 190-01007-C2 Rev 8, dated April 2024; and the FAA approved Garmin GTX 345 Airplane Flight Manual Supplement 190-00734-15 Rev 6, dated May 2024 are required for in flight operation of the systems when installed and have been placed in the Aircraft.

Alteration Notes:

Removed Garmin GMA 347 Audio Panel s/n 47000868, Garmin GTX 330 Transponder s/n 84122174, Garmin GNS 430 GPS/NAV/COM s/n 97134466, Garmin GNS 530W GPS/NAV/COM s/n 78416170, and all associated installation kits, trays and wiring to facilitate other maintenance.

The Garmin GTN 750Xi GPS/NAV/COM has been installed in the radio stack at F.S. 17.24. It receives power from the Avionics buss using an existing 10 amp circuit breaker labeled "COM 1" and a newly installed 7.5 amp Klixon 7274-2-X series circuit breaker labeled "NAV I". The GTN 750Xi was installed, inspected, configured and tested IAW the FAA approved Garmin GTN 750Xi document 190-01007-C0 Rev 11, dated May 2024 approved under STC SA02019SE-D.

The Garmin GTX 345 Transponder has been installed in the radio stack at F.S. 17.1. It receives power from the Avionics buss using an existing 3 amp circuit breaker labeled "XPDR". The GTX 345 was installed, inspected, configured and tested IAW the FAA approved Garmin GTX 345 document 190-00734-10 Rev 17, dated May 2024 approved under STC SA01714WI.

The aircraft weight and balance, equipment list, and flight manual have been amended to reflect changes made to the aircraft. An electrical load analysis required by 14 CFR 23.1351(a)(2) was performed in accordance with AC 43.13-2B, Chapter 2, paragraph 208(b) and ASTM F2490-05 and the continuous load of the charging system was found not to exceed 80% of its capacity.

Instructions for Continued Airworthiness:

End
records.
Garmin GTX 345 Instructions for Continued Airworthiness 190-00734-11 Rev 8, dated June 2021 have been included with the aircraft maintenance
The FAA approved Garmin GTN 750X1 instructions for Continued Airworthiness 190-01007-C1 Rev 5, dated May 2024; and the FAA approved

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U.S Department Transportation	of	(Airframe, Pow	erplant	t, Pr	opeller, or A	ppliance)		······Fo	r FAA Use Only		
Federal Aviation											
and dispo	sition of this f	t or type all entries. See FAR orm. This report is required t (Section 901 Federal Aviation	y law (49 l	J.S.C	ppendix B, and AC 1421): Failure to	43.9-1 (or subsequ report can result in	ent revision a civil pena	n thereof) f	or instructions exceed \$1,000		
		lity and Registration Mark			1	Serial No					
1. Aircraft	N5813	3F			24-1563		100	ries			
	Make Moon	ev			лоdel Л20		J	ies			
Name (As shown on registration certificate) Address (As shown on registration certificate)								ate)			
2. Owner	KOEN	IIGSKNECHT STEVEN			4	Address 935 Robinson Lake Rd					
z. Owner	KOEI	NIGORNECHT STEVEN		city <u>Trout Creek</u> state <u>Michigan</u>							
					Į	zip <u>49967-9516</u>	Country <u>U</u>	<u>SA</u>			
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Repair	Alteration	Unit		Make Mo			l	Serial Number			
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			Туре								
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				6.	Conformity State	ement					
A. Agency's	Name and A	ddress		B. K	ind of Agency						
-		Services, Inc.	-		U.S. Certificated I	Mechanic					
	Riverhills			旦	Foreign Certificate	ed Mechanic	C. Certificate No.				
City Kingsf	<u>ord</u>	State MI		⊠	Certificated Repa	ir Station	2	KAR596	SC .		
		country United States air and/or alteration made to taccordance with the requirer			ied in item 5 above		he reverse				
		true and correct to the best of			or the U.S. Federa	i Aviation Regulatio	na anu mal	are illivill	IGUOTI		
Extended rai		, -	Date of Au Kubick	thoriz	ed Individual				11/29/2017		
App. B		_			1160						

Person Approved by Canadian Department of Transport FAA Flt Standards Manufacturer Maintenance Organization Inspector BY Other (Specify) FAA Designee Repair Station Inspection Authorization Certificate or Signature/Date of Authorized Individual Designation No. Chad Kubick 11/29/2017 2KAR596C

7. Approval for Return to Service

REJECTED

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the APPROVED

Administrator of the Federal Aviation Administration and is

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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.

 Garmin GTX330 Transponder P/N 011-00455-00 King KR 87 ADF system including ADF receiver P/N 066-1072-00, indicator P/N KI 227, antenna P/N 071-1234-00. 	Description of Work Accomplished		
Nationality and Registration Mark Date Nationality and Registration Mark Date Date Nationality and Registration Mark Date Date Date Noved the following equipment: Garmin GTX330 Transponder P/N 011-00455-00 King KR 87 ADF system including ADF receiver P/N 066-1072-00, indicator P/N KI 227, antenna P/N 071-1234-00. Alled the following equipment: Garmin GTX330ES ADS-B out Transponder P/N 011-00455-60 in accordance with STC SA01714W and Installation Manual P/N 190-00734-10 rev 8. GTX330ES interfaced to existing Garmin GNS530V Navigator. Provided Instructions for Continued Airworthiness in accordance with manufacturer's instructions from system maintenance manual P/N 190-00734-11 rev 3 Mar 2016 Chapter 4 and GTX330ES AFMS P/190-00734-15 rev 2, March 08, 2016.	If more space is required, attach additional sheets. I	dentify with aircraft nationality and registration	n mark and date work completed.)
- Garmin GTX330 Transponder P/N 011-00455-00 - King KR 87 ADF system including ADF receiver P/N 066-1072-00, indicator P/N KI 227, antenna P/N 071-1234-00. - Garmin GTX330ES ADS-B out Transponder P/N 011-00455-60 in accordance with STC SA01714W and Installation Manual P/N 190-00734-10 rev 8. GTX330ES interfaced to existing Garmin GNS530V Navigator Provided Instructions for Continued Airworthiness in accordance with manufacturer's instructions fror system maintenance manual P/N 190-00734-11 rev 3 Mar 2016 Chapter 4 and GTX330ES AFMS P/190-00734-15 rev 2, March 08, 2016.		N5813F	11/29/2017
 Garmin GTX330 Transponder P/N 011-00455-00 King KR 87 ADF system including ADF receiver P/N 066-1072-00, indicator P/N KI 227, antenna P/N 071-1234-00. alled the following equipment: Garmin GTX330ES ADS-B out Transponder P/N 011-00455-60 in accordance with STC SA01714W and Installation Manual P/N 190-00734-10 rev 8. GTX330ES interfaced to existing Garmin GNS530V Navigator. Provided Instructions for Continued Airworthiness in accordance with manufacturer's instructions fror system maintenance manual P/N 190-00734-11 rev 3 Mar 2016 Chapter 4 and GTX330ES AFMS P/190-00734-15 rev 2, March 08, 2016. 		Nationality and Registration Mark	Date
 King KR 87 ADF system including ADF receiver P/N 066-1072-00, indicator P/N KI 227, antenna P/N 071-1234-00. alled the following equipment: Garmin GTX330ES ADS-B out Transponder P/N 011-00455-60 in accordance with STC SA01714W and Installation Manual P/N 190-00734-10 rev 8. GTX330ES interfaced to existing Garmin GNS530V Navigator. Provided Instructions for Continued Airworthiness in accordance with manufacturer's instructions fror system maintenance manual P/N 190-00734-11 rev 3 Mar 2016 Chapter 4 and GTX330ES AFMS P/190-00734-15 rev 2, March 08, 2016. 	moved the following equipment:		
 Garmin GTX330ES ADS-B out Transponder P/N 011-00455-60 in accordance with STC SA01714W and Installation Manual P/N 190-00734-10 rev 8. GTX330ES interfaced to existing Garmin GNS530V Navigator. Provided Instructions for Continued Airworthiness in accordance with manufacturer's instructions fror system maintenance manual P/N 190-00734-11 rev 3 Mar 2016 Chapter 4 and GTX330ES AFMS P/190-00734-15 rev 2, March 08, 2016. 	- King KR 87 ADF system including Al	11-00455-00 DF receiver P/N 066-1072-00, indica	ator P/N KI 227, antenna P/N
 and Installation Manual P/N 190-00734-10 rev 8. GTX330ES interfaced to existing Garmin GNS530V Navigator. Provided Instructions for Continued Airworthiness in accordance with manufacturer's instructions fror system maintenance manual P/N 190-00734-11 rev 3 Mar 2016 Chapter 4 and GTX330ES AFMS P/ 190-00734-15 rev 2, March 08, 2016. 	stalled the following equipment:		
	 and Installation Manual P/N 190-007 Navigator. Provided Instructions for Continued a system maintenance manual P/N 19 	734-10 rev 8. GTX330ES interfaced a Airworthiness in accordance with ma 0-00734-11 rev 3 Mar 2016 Chapter	to existing Garmin GNS530W anufacturer's instructions from
END	ecomputed aircraft Weight & Balance and r	revised Equipment List this date.	
	·····	END	
	•		
Additional Sheets Are Attached	· г	Additional Sheets Are Attached	

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United States of America

Department of Transportation -- Federal Aviation Administration

Supplemental Type Certificate

Number SA01714WI

This certificate issued to

Garmin International, Inc. 1200 East 151st 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 meets the airworthiness requirements of Part 23* of the Federal Aviation. Regulations.

Original Droduct Type Certificate

Number: Marke: Model: * See attached Approved Model List (AML) No. SA01714Wlidated 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/345R with ADS-B Out functionality; (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/330/3 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/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 offect until surrendered, suspended, received or a termination date is otherwise established by the Administrator of the Federal Acciation Administration.

Date of application. August 7, 2012

Date reissned

Dule of issumnce. May 1, 2013

Date amended April 29, 2014, March 8, 2016

direction of the Milministrator

TOMMISTRATO

(**S**gnature)
Michael Warren
ODA STC Unit Administrator
ODA-240087-CE

Garmin International, Inc.

(Title)

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United States of America

Department of Transportation -- Federal Aviation Administration

Supplemental Type Certificate

(Continuation Sheet)

Number SA01714WI

Date of issuance: May 1, 2013

Date Amended: April 29, 2014, March 8, 2016

Limitations and Conditions (continued):

- (4) Aircraft with G950 or G1000 display systems are limited to Garmin transponder GTX 335R/345R models; see Table II of the attached AML. Refer to the design data specified in the Master Drawing List (MDL) listed above for specific hardware and software requirements.
- (5) Aircraft modified by this STC must be operated in accordance with the Airplane Flight Manual Supplement or Supplemental Airplane Flight Manual (AFMS) identified above.
- (6) Aircraft modified by this STC must be maintained in accordance with the Instructions for Continued Airworthiness (ICA) listed in the Master Drawing List (MDL) identified above.
- (7) If the holder agrees to permit another person to use this certificate to alter the product, the holder must give the other person written evidence of that permission.

*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 certification basis for parts not changed or not affected by this change is shown on the attached AML.
- b. The certification basis for parts changed or affected by this change is:

Section	Amdt	Section	<u>Amdt</u>	Section	<u>Amdt</u>
23.301 a	23-48	23.773 a(2)	23-45	23.1357 a, b, c, d	23-43
23.303	Original	23.777 a, b	23-62	23.1359 с	23-49
23.305	23-45	23.853 a	23-62	23.1365 a, b, d, e	23-49
23.307 a	Original	23.863 a, b	23-34	23.1367 a, b, c, d	Original
23.337	23-48	23.1301 a, b, c	23-62	23.1431 a, b	23-62
23.561 b(3), e	23-62	23.1306 a, b	23-61	23.1501 a, b	23-21
23.601	Original	23.1307	23-49	23.1525	23-45
23.603	23-23	23.1308 a, b, c	23-57	23.1529	23-26
23.605 a	23-23	23.1309 a(1)(2),b, c, d	23-62	23.1555 a, b, e(2)	23-62
23.607 a, b	23-48	23.1310	23-62	23.1581 a, b, c, f	23-50
23.611	23-48	23.1311 a(2)	23-62	23.1583 h, m	23-62
23.613 a, b	23-45	23.1322 b, d, e	23-43	23.1585 j	23-62
23.627	Original	23.1351 a	23-49		
23.771 a	23-14	23.1353 h	23-62		
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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

21- JUL-2016

ODA-240087-CE Garmin International 1200 E. 151#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 Number SA01714WI

AML Revision Log

Date	Description
5/1/2013	Initial Release
8/27/2013	Defined which aircraft were certified with 14CFR 23.1353(h) being part of the certification basis.
08-Mar-2016	Added GTX 3X5 along with additional aircraft models. Split the AML into two tables as noted below
21-July-2016	Corrected typographical error regarding LC42-550FG in Table II

NOTE

This AML contains 2 Tables as part of the 08-Mar-2016 revision.

- <u>Table I</u> identifies Aircraft approved for the GTX 33X and GTX 3X5 <u>WITHOUT</u> GX000 Equipped flight deck system
- 2. <u>Table II</u> identifies Aircraft approved for the GTX 3X5R only <u>WITH</u> G950/G1000 Equipped flight deck system

All notes are listed at the end of the document

Table of Tables

TABLE	PAGE
Table I – NON-GX000 Equipped Aircraft for the GTX 33X and GTX 3X5	
Table II - G950/G1000 Equipped Aircraft for the GTX 3X5R ONLY	
Table III - Notes Information	27

Issued: May 1, 2013 Revised: 21-July-2016 And the second s

FAA Approved Model List (AML) STC SA01714WI

	Table I: Approved Aircraft WITHOUT GX000 Equipped Flight Deck System for installation of GTX 33/330 or GTX 335/345 Transponders	<u>VT</u> GX000 Equipp 0 or GTX 335/345 T	ed Flight Deck Sy ansponders	stem		
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)	AML Revision/Date	Notes
Mooney (Mooney International Corporation) (Mooney Aviation Company Inc. Mooney	M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, M20S,	2A3	CAR 3 FAR 23	-	Original 5/1/2013	
Airplane Co; Mooney Aircraft Corporation; Aerostar Aircraft Corp.]		2A3	CAR 3 FAR 23	-	Original 5/1/2013	
Mooney (Mooney Aircraft Corporation)	M22	A6SW	CAR 3	_	Original 5/1/2013	
Morane-Saulnier (SOCATA - Groupe Aerospatiale) [Rallye]	M.S. 760, M.S. 760 A, M.S. 760 B	7A3	CAR 3	1	Original 5/1/2013	
NARDI (NARDI S.A.) [Siai Marchetti]	FN-333	7A5	CAR 3	-	Original 5/1/2013	
Navion (Sierra Hotel Aero, Inc.) [Navion; North American; Ryan Aeronautical; Base Ind; Kotowicz; Thompson; Klinger; Diamond Aero]	Navion (L-17A), Navion A (L-17B; L-17C), Navion B, Navion D, Navion E, Navion F, Navion G, Navion H	A-782	CAR 3		Original 5/1/2013	
PACIFIC AEROSPACE LIMITED (Pacific Aerospace Limited) [Pacific Aerospace Corporation, Ltd.]	750XL	A50CE	FAR 21 FAR 23	-	Original 5/1/2013	3
PIAGGIO (Industrie Aeronautiche e Meccaniche Rinaldo Piaggio S.p.A.) [Piaggio & Co.; Industrie Aeronautiche E Meccaniche]	P.166, P.166B, P.166C, P.166 DL3	7A4	CAR 3 FAR 21 FAR 23	-	Original 5/1/2013	
PIAGGIO (Piaggio & C.)	P.136-L, P.136-L1, P.136-L2	A-813	CAR 3	1	Original 5/1/2013	
PIAGGIO (Piaggio Aero Industries S.p.A)	PIAGGIO P-180	A59EU	FAR 21 FAR 23	-	Original 5/1/2013	_

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Transportation Federal Aviation Administration

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

Form Approved OMB No. 2120-0020

For FAA Use Only

Office Identification

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

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NOTICE

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.)

Validated that the previous installation of the number one GNS 530 in this aircraft and all interfaced equipment are covered under the STC AML. Removed the GNS 530 and upgraded to GNS 530W unit.

A summary of the modification done to the aircraft is as follows:

- Removed the number one (1) Garmin GA 56 Antenna, P/N 011-00134-00 and installed one (1) new GA 35 GPS/WAAS
 Antenna P/N 013-00235-00, S/N 17538 using the provisions left behind from the standard antenna IAW Garmin upgrade
 manual P/N 190-00357-06 Rev B and STC no. SA01933LA.
- Removed Garmin GNS 530 P/N 011-00550-10 unit and installed Garmin GNS 530W, P/N 011-01064-40, S/N 78416170, using the provisions left behind from the standard 530 unit. Installation done IAW Garmin upgrade manual P/N 190-00357-06 Rev Band STC no. SA01933LA.
- The GNS 530W was configured identical to the original 530 unit. Each interface was checked out IAW the 530W Installation Manual P/N 190-00357-02 Section 5. A copy of the checkout log was completed and included with the aircraft maintenance records.
- 4. Installed GNS 530W AFMS P/N 190-00357-63, FAA Approved date 12/21/2006 into the Aircraft Flight manual.
- 5. Updated the aircraft Equipment List and Weight and Balance to reflect the new WAAS units. The current electrical load Analysis remains valid since the new unit draws the same or less current than the original unit.

Included Garmin document P/N 190-00357-65, GNS 530W Instructions for Continued Airworthiness in the aircraft maintenance records.

Note: This ICA supersedes data for the previously installed GNS 530.

The End

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U.S Department of
Transportation
Federal Aviation
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MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form A	۱ppr	oved	
OMB	No.	2120	0-002

For FAA Use Only

Office Identification GL09

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 report 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 1958)

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NOTICE

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

(II	more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)
	mission of flight test data and Flight Manual Supplement, Garmin GNS 530, S/N 78416170 for VFR/IFR Enroute, minal, and Non-Precision Approaches.
Pro Gar the	factory installed "Non-Advisory Terrain" was functional checked in accordance with the Post Installation Check Out cedure as described within 500 Series Installation Manual P/N 190-00181-02, Rev Q, with FAA Approved Addendum, min P/N 190-00181-16, dated April 10, 2006 inserted into the FAA approved Supplement to the Airplane Flight Manual, pilot or flight crew must refer to Garmin Optional Displays Pilot's Guide Addendum, Garmin International P/N 190-40-13, Rev. G (or later FAA approved revision), for operational procedures for use of the Terrain functionality.
	a company of the second
	Garmin GNS 530 VHF Communications / VOR/ILS Receiver / GPS Receiver was previously installed on FAA Form dated June 28, 2006, with component locations indicated and with aircraft interface as follows:
	GNS 530 was coupled to the Pilot's Bendix/King KI525A HSI, GTX 330 Mode S Transponder/TIS, altitude encoder, A347 audio panel, Bendix/King KFC200 AP/FD.
	GNS530 was initially certified for VFR/IFR Enroute, Terminal, and Non-Precision Approaches under C#SA00864WI.
The	system has been installed and functionally checked in accordance with the following:
1.	The installation complies with provisions of AC20-138 and found to function properly and safely.
2.	The aircraft was flown and found to meet the accuracy requirements set forth in AC20-138 for VFR/IFR Enroute, Terminal, and Non-Precision Approaches.
3.	FAA approved Supplement to the Airplane Flight Manual dated AUG 1 7 2006 and GARMIN Pilot's Guide, P/N 190-00181-00, Rev A, dated April 2000 (or later appropriate revision), must be immediately available to the Flight Crew whenever navigation is predicated upon the use of the GPS system.
	Note: Upon completion of the FAA Form 337, this GNS 530 is approved for IFR Enroute, Terminal, and Non-Precision Approach operations and the placard "GNS 530 GPS Not Approved For IFR" may be removed.
	The End
	Additional Sheets Are Attached

Installation Center

Garmin GNS 530 VHF Communications Transceiver / VOR/ILS Receiver / GPS Receiver

Repair Station #

EATR437D

Name:

Superior Aviation, Inc.

Address:

250 Riverhills Road

Kingsford, MI

FAA APPROVED FLIGHT MANUAL SUPPLEMENT GARMIN GNS 530 VHF COMMUNICATIONS TRANSCEIVER / VOR/ILS RECEIVER / GPS RECEIVER

AIRCRAFT MAKE: MOONEY

AIRCRAFT MODEL: M20J

AIRCRAFT SERIAL NO.: 24-1563

This document must be carried in the aircraft at all times. It describes the operating procedures for the Garmin GNS 530 navigation system when it has been installed in accordance with Garmin Installation Manual 190-00181-02 Rev. L (Rev. A or later) and FAA Form 337 dated AUG 1 7 2005.

For aircraft with an FAA Approved Airplane Flight Manual, this document serves as the FAA Approved Flight Manual Supplement for the Garmin GNS 530. For aircraft that do not have an approved flight manual, this document serves as the FAA Approved Supplemental Flight Manual for the Garmin GNS 530.

The Information contained herein supplements or supersedes the basic Airplane Flight Manual only in those areas listed herein. For limitations, procedures, and performance information not contained in this document, consult the basic Airplane Flight Manual.

Date:

FAA APPROVED

Principal Inspector GRR FSDO

Grand Rapids, MI

AUG 1 7 2006

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LOG OF REVISIONS							
Revision Number	Page Number	Description	Date of Approval				
•	ALL	Initial Release					
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12-12-12-12							

Aircraft Make: Mooney Aircraft Model: M20J Aircraft Serial Number: 24-1563

Garmin GNS 530 VHF Communications Transceiver / VOR/ILS Receiver / GPS Receiver

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EMERGENCY PROCEDURES	6
NORMAL PROCEDURES	7
PERFORMANCE	
WEIGHT AND BALANCE	9
AIRPLANE & SYSTEM DESCRIPTIONS	9

AA APPROVED	DATE: A	ug 1	7	2006	PAGE 2 OF 9
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Aircraft Make: Mooney Aircraft Model: M20J

Aircraft Serial Number: 24-1563

Garmin GNS 530 VHF Communications
Transceiver / VOR/ILS Receiver / GPS Receiver

SECTION I GENERAL

- 1. The GNS 530 System is a fully integrated, panel mounted instrument, which contains a VHF Communications Transceiver, a VOR/ILS receiver, and a Global Positioning System (GPS) Navigation computer. The system consists of a GPS antenna, GPS Receiver, VHF VOR/LOC/GS antenna, VOR/ILS receiver, VHF COMM antenna and a VHF Communications Transceiver. The primary function of the VHF Communication portion of the equipment is to facilitate communication with Air Traffic Control. The primary function of the VOR/ILS Receiver portion of the equipment is to receive and demodulate VOR, Localizer, and Glide Slope signals. The primary function of the GPS portion of the system is to acquire signals from the GPS system satellites, recover orbital data, make range and Doppler measurements, and process this information in real-time to obtain the user's position, velocity, and time.
- 2. Provided the Garmin GNS 530's GPS receiver is receiving adequate usable signals, it has been demonstrated capable of and has been shown to meet the accuracy specifications for:
 - VFR/IFR enroute, terminal, and non-precision instrument approach (GPS, Loran-C, VOR, VOR-DME, TACAN, NDB, NDB-DME, RNAV) operation within the U.S. National Airspace System in accordance with AC 20-138.
 - One of the approved sensors, for a single or dual GNS 530 installation, for North Atlantic Minimum Navigation Performance Specification (MNPS) Airspace in accordance with AC 91-49 and AC 120-33.
 - The system meets RNP5 airspace (BRNAV) requirements of AC 90-96 and in accordance with AC 20-138, and JAA GAI-20 ACJ 20X4, provided it is receiving usable navigation information from the GPS receiver.

Navigation is accomplished using the WGS-84 (NAD-83) coordinate reference datum. Navigation data is based upon use of only the Global Positioning System (GPS) operated by the United States of America.

FAA APPROVED	DATE:	AUG	1	7	2006	PAGE 3 OF 9

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Aircraft Make: Mooney
Aircraft Model: M20J

Aircraft Serial Number: 24-1563

Garmin GNS 530 VHF Communications
Transceiver / VOR/ILS Receiver / GPS Receiver

SECTION II LIMITATIONS

- 1. The Garmin GNS 530 Pilot's Guide, P/N 190-00181-00, Rev. A, dated April, 2000, or later appropriate revision, must be immediately available to the flight crew whenever navigation is predicated on the use of the system. In addition to the Pilot's Guide, the appropriate Pilot's Guide Addendum also must be immediately available to the flight crew if lightning detection or traffic advisory equipment is interfaced to the system.
- 2. The GNS 530 must utilize the following or later FAA approved software versions:

Function	Sub-System Version						
	Main	GPS	COM	VOR/LOC	G/S		
Initial Approval	2.00	2.00	1.22	1.25	2.00		
Traffic / Weather Interface	2.08	2.00	1.22	1.25	2.00		
TIS Interface	4.00	2.00	1.22	1.25	2.00		

The Main software version is displayed on the GNS 530 self test page immediately after turnon for 5 seconds. The remaining system software versions can be verified on the AUX group sub-page 2, "SOFTWARE/DATABASE VER".

- 3. IFR enroute and terminal navigation predicated upon the GNS 530's GPS Receiver is prohibited unless the pilot verifies the currency of the data base or verifies each selected waypoint for accuracy by reference to current approved data.
- 4. Instrument approach navigation predicated upon the GNS 530's GPS Receiver must be accomplished in accordance with approved instrument approach procedures that are retrieved from the GPS equipment data base. The GPS equipment database must incorporate the current update cycle.
 - (a) Instrument approaches utilizing the GPS receiver must be conducted in the approach mode and Receiver Autonomous Integrity Monitoring (RAIM) must be available at the Final Approach Fix.
 - (b) Accomplishment of ILS, LOC, LOC-BC, LDA, SDF, MLS or any other type of approach not approved for GPS overlay with the GNS 530's GPS receiver is not authorized.

FAA APPROVED	DATE: AUG 1 7 2006	PAGE 4 OF 9

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Aircraft Make: Mooney
Aircraft Model: M20J

Aircraft Serial Number: 24-1563

Garmin GNS 530 VHF Communications
Transceiver / VOR/ILS Receiver / GPS Receiver

- (c) Use of the GNS 530 VOR/ILS receiver to fly approaches not approved for GPS require VOR/ILS navigation data to be present on the external indicator.
- (d) When an alternate airport is required by the applicable operating rules, it must be served by an approach based on other than GPS or Loran-C navigation, the aircraft must have the operational equipment capable of using that navigation aid, and the required navigation aid must be operational.
- (e) VNAV information may be utilized for advisory information only. Use of VNAV information for Instrument Approach Procedures does not guarantee Step-Down Fix altitude protection, or arrival at approach minimums in normal position to land.
- 5. If not previously defined, the following default settings must be made in the "SETUP 1" menu of the GNS 530 prior to operation (refer to Pilot's Guide for procedure if necessary):
 - (a) dis, spd $m k_t$ (sets navigation units to "nautical miles" and "knots")
 - (b) alt, vs ft fpm (sets altitude units to "feet" and "feet per minute")
 - (c) map datum .. WGS 84 (sets map datum to WGS-84, see note below)
 - (d) posndeg-min (sets navigation grid units to decimal minutes)

NOTE: In some areas outside the United States, datums other than WGS-84 or NAD-83 may be used. If the GNS 530 is authorized for use by the appropriate Airworthiness authority, the required geodetic datum must be set in the GNS 530 prior to its use for navigation.

Aircraft Make: Mooney Aircraft Model: M20J

Aircraft Serial Number: 24-1563

Garmin GNS 530 VHF Communications
Transceiver / VOR/ILS Receiver / GPS Receiver

SECTION III EMERGENCY PROCEDURES

ABNORMAL PROCEDURES

- 1. If Garmin GNS 530 navigation information is not available or invalid, utilize remaining operational navigation equipment as required.
- If "RAIM POSITION WARNING" message is displayed the system will flag and no longer provide GPS based navigational guidance. The crew should revert to the GNS 530 VOR/ILS receiver or an alternate means of navigation other than the GNS 530's GPS Receiver.
- 3. If "RAIM IS NOT AVAILABLE" message is displayed in the enroute, terminal, or initial approach phase of flight, continue to navigate using the GPS equipment or revert to an alternate means of navigation other than the GNS 530's GPS receiver appropriate to the route and phase of flight. When continuing to use GPS navigation, position must be verified every 15 minutes using the GNS 530's VOR/ILS receiver or another IFR-approved navigation system.
- 4. If "RAIM IS NOT AVAILABLE" message is displayed while on the final approach segment, GPS based navigation will continue for up to 5 minutes with approach CDI sensitivity (0.3 nautical mile). After 5 minutes the system will flag and no longer provide course guidance with approach sensitivity. Missed approach course guidance may still be available with 1 nautical mile CDI sensitivity by executing the missed approach.
- 5. In an in-flight emergency, depressing and holding the Comm transfer button for 2 seconds will select the emergency frequency of 121.500 MHz into the "Active" frequency window.

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Aircraft Make: Mooney Aircraft Model: M20J

Aircraft Serial Number: 24-1563

Garmin GNS 530 VHF Communications
Transceiver / VOR/ILS Receiver / GPS Receiver

SECTION IV NORMAL PROCEDURES

1. DETAILED OPERATING PROCEDURES

Normal operating procedures are described in the Garmin GNS 530 Pilot's Guide, P/N 190-00181-00, Rev.A, dated April 2000, or later appropriate revision. Normal operating procedures for the Traffic Information Service (TIS) interface and the Weather Data Link interface are described in the 400/500 Series Garmin Display Interfaces Pilot's Guide Addendum, P/N 190-00140-13, Rev B, dated September 2004 or later appropriate revision.

2. PILOT'S DISPLAY

The GNS 530 System data will appear on the Pilot's Bendix/King KI 525A HSI. The source of data is either GPS or VLOC as annunciated on the display above the CDI key of the GNS 530.

NOTE: It is the pilot's responsibility to assure that published or assigned procedures are correctly complied with. Course guidance is not provided for all possible ARINC 424 leg types. See the GNS 530 Pilot's Guide for detailed operating procedures regarding navigation capabilities for specific ARINC 424 leg types.

3. AUTOPILOT / FLIGHT DIRECTOR OPERATION

Coupling of the GNS 530 System steering information to the Bendix/King KFC 200 autopilot/FD can be accomplished by engaging the autopilot in the NAV/GPSS or APR mode.

When the autopilot/flight director system is using course information supplied by the GNS 530 System and the course pointer is not automatically driven to the desired track, the course pointer on the HSI must be manually set to the desired track (DTK) indicated by the GNS 530. For detailed autopilot/flight director operational instructions, refer to the FAA Approved Flight Manual Supplement for the Bendix/King KFC 200 autopilot.

4. CROSSFILL OPERATIONS

Crossfill capabilities exist between the GNS 530 and GNS 430 Systems. Refer to the Garmin GNS 530 Pilot's Guide for detailed crossfill operating instructions.

EAA ADDDOVED	DATE: AUG 1 7 2005	PAGE 7 OF 9
	110114	PAUL / UF 9

Aircraft Make: Mooney Aircraft Model: M20J

Aircraft Serial Number: 24-1563

Garmin GNS 530 VHF Communications
Transceiver / VOR/ILS Receiver / GPS Receiver

5. AUTOMATIC LOCALIZER COURSE CAPTURE

By default, the GNS 530 automatic localizer course capture feature is enabled. This feature provides a method for system navigation data present on the external indicators to be switched automatically from GPS guidance to localizer / glide slope guidance as the aircraft approaches the localizer course inbound to the final approach fix. If an offset from the final approach course is being flown, it is possible that the automatic switch from GPS course guidance to localizer / glide slope course guidance will not occur. It is the pilot's responsibility to ensure correct system navigation data is present on the external indicator before continuing a localizer based approach beyond the final approach fix. Refer to the GNS 530 Pilot's Guide for detailed operating instructions.

6. DISPLAY OF LIGHTNING STRIKE DATA

N/A

7. DISPLAY OF TRAFFIC ADVISORY DATA

N/A

8. DISPLAY OF TRAFFIC INFORMATION SERVICE DATA

TIS surveillance data uplinked by Air Traffic Control (ATC) radar through the GTX 330 Mode S Transponder will appear on the moving map and traffic display pages of the GNS 530. For detailed operating instructions regarding the interface of the GNS 530 with the GTX 330, refer to the 400/500 Series Garmin Display Interfaces Pilot's Guide Addendum, P/N 190-00140-13, Rev B, dated September 2004, or later appropriate revision, for the TIS System interface.

FAA APPROVED	DATE: A	NG 1	7	2006	PAGE 8 OF 9
CAA APPRUVEIJ	DATE.				INULUUL

		•

Aircraft Make: Mooney Aircraft Model: M20J

Aircraft Serial Number: 24-1563

Garmin GNS 530 VHF Communications Transceiver / VOR/ILS Receiver / GPS Receiver

SECTION V PERFORMANCE

No change.

SECTION VI WEIGHT AND BALANCE

See current weight and balance data.

SECTION VII AIRPLANE & SYSTEM DESCRIPTIONS

See GNS 530 Pilot's Guide for a complete description of the GNS 530 system.

FAA APPROVED_______ DATE: AUG 1 7 2006 PAGE 9 OF 9

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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

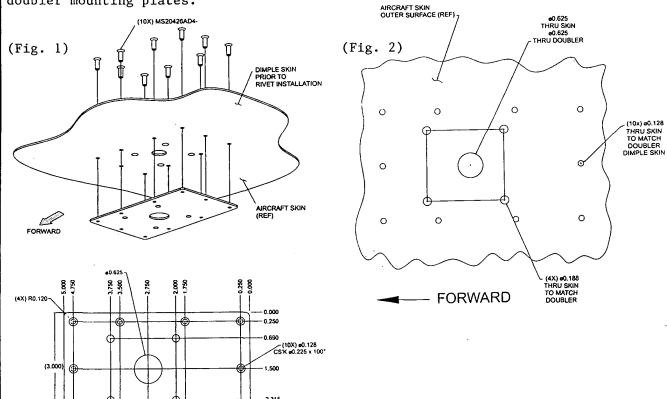
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Adminis	tration	GL09 TIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for in										uctions	Dip	_
and	disposi	tion of this form. This ch violation (Section 9	з геро	rt is required b	y law (49 l	U.S.C	ppendix B, and 1421). Failure	to report ca	in result in a civil po	enaity n	ot to exceed	\$1,000		
	- 6	Make Mooney				Model M20J								
1. Aircr	ап	Serial No. 24-1563						Nationali N5813	ity and Registration	Mark				
2. Own	er		Name (As shown on registration certificate) Koenigsknecht Steven J Address (As shown on registration certificate) 935 Robinson Lake Rd. Trout Creek, MI 49967-9516											
						3	. For FAA Use	Only						
					· · · · · · · · · · · · · · · · · · ·		. Unit Identific	ation	I			5. Type		
U	nit	Ma	ke			·	Model		Seri	al No.		Repair	Alterat	ion
AIRFRA	ME	(As desc					bed in Item 1 above)						X	
POWER	PLANT													
PROPE	LLER										KE(
APPLIA	NCE	Type Manufacturer							·		JUL By:	2 1 200	ĵ	
<u> </u>		<u> </u>					· · · · · · · · · · · · · · · · · · ·							
							Conformity S	tatement		T				
		ame and Address iation. Inc.					ind of Agency U.S. Certified	Machanic		1	ertificate No.	<u></u>		
		is Road				_	Foreign Certifi	_	ic		R437D	. 2		
Kinasi	ford. N	AI 49802						ied Repair Station Radio Class 1 & 2						
h	ave bed	nat the repair and/or a en made in accordance true and correct to the	ttiw sc	n the requirem	ents of Pa	lentific								
Date							Signature of A	uthorized in	dividual					
JUNI	₹ 28	, 2006					JOHN M	. SERS	INH	\leq			١	
						<u>.</u>	proval for Reta		1 				, 	
		he authority given per of the Federal Aviati		•			fied in item 4 w	as inspected REJECTED						
BY		AA Fit Standards ispector		Manufacture			Inspection Aut	horization		Other (S	Specify)			
J.	F	AA Designee	х	Repair Statio	n		Person Approv Canada Airwo							
Date of	Approv	al or Rejection		ificate or			Signature of A	uthorized In	dividual					
JUNE 28, 2006 CATR437D						JOHN M	. SEKS	ICH \				\		

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.)

Installation of dual Garmin GA56, P/N 010-10040-01, GPS antennas and antenna doubler mounting plates.



Aircraft skin thickness 0.025 with antennas being mounted topside on opposing sides at fuselage station 118.

(Fig. 3)

Materials:

- 1. 10 ea MS20426AD4-3.0 countersunk rivets
- 2. Doublers 0.025 in thickness, holes & edges deburred meets 2024-T3.

- 2.750 - 3.000

3. RTV162 was applied to the outer edge of the GA56 antennas following installation to prevent moisture contamination.

The GA56 antennas and doublers were installed in accordance with AC43.13-1B and AC43.13-2A. Refer to instructions for continued airworthiness for the above aircraft on FAA Form 337 - GNS 530/430 dated JUNE 28, 2006.

The End

Additional Sheets Are Attached

U.S Department of
Transportation
Federal Aviation
Administration

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

Form App OMB No	proved b. 2120-0020	
	For FAA Use On	ly

Office Identification

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 report 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 1958)

for	each su	ch violation (Section	901 F	ederal Aviation	Act 1958	B)		•			•		
4 Aim		Make Mooney			, ,			Model M20J					
1. Aircı	rait	Serial No. 24-1563						Nationality and Registration Mark N5813F					
2. Own	ner	Name (As show Koenigskned			ificate)			Address (As shown on registration certificate) 935 Robinson Lake Rd. Trout Creek, MI 49967-9516					
						;	3. For FAA Use (Only					
		1				•	4. Unit Identifica	tion			5. Type		
U	nit	Ma	ake				Model		Se	rial No.	Repair	Alteration	
AIRFRA	AME	(As descri					bed in item 1 a	bove)~~				Х	
POWER	RPLANT												
PROPE	LLER										EIVE	D	
APPLIA	NCE	Type Manufacturer								BX:	2 2006		
		L				6	. Conformity Sta	tement					
A. Ager	ncy's Na	me and Address				T	and of Agency			C. Certificate No.			
Super	ior Avi	ation, Inc.					U.S. Certified Mechanic EATR437D						
		s Road				$\overline{}$		n Certified Mechanic Airframe Class 3					
Kingsi	ford, N	1 49802		•		H	Certified Repair Station Radio Class 1 & 2						
h	ave bee	at the repair and/or a n made in accordand true and correct to the	ce with	h the requirem	ents of Pa	dentifie	ed in item 4 above	and desc	cribed on the rever Regulations and t	rse or attachments he that the information fu	reto mished		
Date June 2							Signature of Avi John M Sers	norized Inc	Nividual		<u> </u>		
	7. Anno							n to Service	ce)		/		
		e authority given per of the Federal Aviati			_	_		inspected	in the manner pr	escribed by the			
BY		A Fit Standards spector		Manufacturer			Inspection Authorization Other (Specify)			Other (Specify)			
D1	F/	VA Designee	х	Repair Statio	n		Person Approved by Transport Canada Airworthiness Group						
Date of Approval or Rejection June 28, 2006 Certificate or Designation No. EATR437D							Signature of Authorized Individual John M Sersich						

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.)
	talled in accordance with STC#SA01487SE and Garmin Supplemental Type Certificate Master Data List, P/N 005-C0217- Revision A, Garmin GDL 69 XM Satellite Receiver.
Sat	e GDL 69 XM Satellite Receiver was installed on the rear avionics shelf at fuselage station 122.00 with the GX 55 XM telitte Antenna installed at fuselage station 92.00 with interface to the number one GNS530and number two Garmin GNS 0. The aircraft owner was supplied with Garmin 400/500 Series Display Interface Pilot's Guide Addendum, P/N 190-00140-
W	luded are Instructions for Continued Airworthiness (ICA), to comply with FAA Handbook Bulletin for Airworthiness (HBA 98-18 dated Oct 7, 1998) and is applicable to the Mooney Model: M20J, S/N: 24-1563, Reg. No.: N5813F for the installation he Garmin GDL 69 XM Satellite system.
effe	e equipment as installed above, AC43.13-1B and AC43.13-2A ground and flight checked satisfactorily with no adverse ects noted upon existing aircraft equipment. Recomputed the acft weight & balance and revised the equipment list – made appropriate log book entry.
Ins	tructions for Continued Airworthiness: GDL 69
1.	Refer to Block 8.
2 .	Refer to Block 8.
3.	Refer to Garmin 400/500 Series Display Interface Pilot's Guide Addendum, P/N 190-00140-13.
4.	N /A
5.	Maintenance of the GDL 69 is "on condition only". Periodic Maintenance is not required. Adhere to the provisions of Appendix D to Part
	43, paragraph i in the performance of an Annual or 100 Hr Inspection and in accordance with Periodic Inspections as specified in the
	Mooney M20J Service and Maintenance Manual.
6.	N/A
7.	Refer to Section 2 of the GDL 69 Installation Manual, P/N 190-00355-02, Rev. B. If the unit is removed and reinstalled a functional check of
1	the GDL 69 should be conducted in accordance with Section 4.4 of the GDL 69 Installation Manual, P/N 190-00355-02, Rev. B.
8.	Refer to Block 8.
9.	N/A
10.	N/A
11.	Antenna installation, removal and replacement should be in accordance with applicable provisions of AC43.13-1B and AC43.13-2A.
	NONE
13.	N/A
14.	NONE
15.	N/A
16.	To revise this ICA a letter must be submitted to the local FSDO with a copy of the revised Form 337, and revised ICA. The FAA Inspector
	accepts the changes by signing Block 3 and including the following Statement:
	"The attached revised/new Instructions for Continued Airworthiness dated for the above aircraft or component major
	alteration have been accepted by the FAA, superceding the Instructions for Continued Airworthiness dated
	THE END
	Additional Sheets Are Attached

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 IGLIGITION

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 report 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 1958)

						•						
Make Mooney								Model M20J				
Serial No. 24-1563						Nationality and Registration Mark N5813F						
2. Own	ier	Name (As shown on registration certificate) Koenigsknecht Steven J						935 F	(As shown on reg Robinson Lake Creek, MI 4			
			_			3	. For FAA Use C	nly				
				and is approve	d for the al thorized in	bove d	escribed aircraft, s Part 43, Section 43 28-06	ubject to d	orthiness requirems conformity inspection of FAA Inspector	nts on		
		<u> </u>							YI FAA HISPECIOL			
						4	. Unit Identificat	ion	I		5. Type	I
U	nit	Ма	ake				Model		Se	rial No.	Repair ·	Alteration
AIRFRA	AME	. ~~~~	~~~	~~~~~	~~(As d	escril	oed in item 1 a	bove)~~	.~~~~~~			х
POWER	RPLANT											
PROPE	LLER									KECE	IVE	
APPLIA	NCE	Type E Manufacturer						By:	2 2006			
					L	6	. Conformity Sta	tement				F1
A. Agei	ncv's N	ame and Address					Kind of Agency C. Certificate I					
		riation, Inc.		_			THIS Cortified Machania			EATR437D		
		lls Road					Foreign Certified Mechanic			Airframe Clas	s 3	
Kings	ford, I	VI 49802				X	Certified Repair Station			Radio Class 1		
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h	ave be		ce with	n the requirem	ents of Pa					se or attachments he hat the information fu		
Date							Signature of Aut	porized J	dividual			
JUN	JUNE 28, 2006					JOHN M. SEKSICH						
							proval for Return					
ľ		the authority given pe r of the Federal Aviat						inspected EJECTED		escribed by the	_	
		FAA Fit Standards		Manufacture	r		Inspection Author	rization		Other (Specify)		
BY		FAA Designee	X Repair Station		on		Person Approved by Transport Canada Airworthiness Group					
	••	al or Rejection		ificate or ignation No.			Signature of Aut		<u> </u>			
JUN	E 28	3, 2006	EA	TR437D			JOHN M.	SERSI	CH Y			
FAA	Form 3	37 (12-88)	-						7			

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.)
٥ د	ge - 1 of 6
	moved: Bendix/King KMA 24 Audio Panel, number one KY 197 Com, KNS 80 RNAV, number two KX 165 Nav/Com, 76A Transponder, and Il Morrow GX 50 GPS System.
	stalled the following: Garmin GMA 347 Audio Panel – Installed at fuselage station 19.00 (in the area vacated by the KMA 24 Audio Panel), with interface to the existing marker beacon antenna system, in accordance with Garmin GMA 347 Installation Manual, P/N 190-00325-01, Rev. A.
	The GMA 347 Audio Panel is FAA approved under TSO C50c (Audio Amplifiers) and TSO C35d (Marker Beacon Receivers). The aircraft owner was supplied with Garmin GMA 347 Pilot's Guide, P/N 190-00325-00,Rev. A.
2.	Garmin GNS 530 – Installed at fuselage station 15.00 (in the area vacated by the number one KY 197 and KNS 80), with interface to the existing number one navigation & communication antenna systems, Bendix/King KI 525A HSI, altitude encoder, KFC 200 AP/FD and number one position of the GMA 347 Audio Panel in accordance with Garmin 500 Series Installation Manual, P/N 190-00181-02, Rev. Q.
	The GA 56 GPS antenna was mounted topside at fuselage station 118.00 (refer to FAA Form 337 – GA 56 antenna and doubler installation dated 6 - 29 - 06).
	STC#SA00864WI was used as the basis of approval for the installation of the GNS 530. The aircraft owner was supplied with Garmin GNS 530 Pilot's Guide, P/N 190-00181-00, Rev. G, Garmin Optional Display's Pilot's Guide Addendum, P/N 190-00140-13, Rev. G and FAA Approved GNS 530 Terrain Addendum, P/N 190-00181-16, Rev. B.
	Note: GPS portion of the GNS 530 not approved for IFR at this time and VNAV portion is not approved for IFR with placard installed stating: "GNS 530 GPS NOT APPROVED FOR IFR" "GNS 530 VNAV NOT APPROVED FOR IFR"
3.	Garmin GNS 430 – The GNS 430 was installed at fuselage station 15.00 (in the area vacated by the number two KX 165) with the GNS 430 interfaced to the existing KI 206 CDI, number two navigation & communication antenna systems, altitude encoder, and number two position of the GMA 347 Audio Panel in accordance with Garmin 400 Series Installation Manual, P/N 190-00140-00, Rev. Q.
Τŀ	e GA 56 GPS antenna was mounted topside at fuselage station 118.00 (refer to FAA Form 337 – GA 56 antenna and doubler installation dated 6-28-06).
	X 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.)

Page - 2 of 6

Aircraft Make: Mooney Aircraft Model: M20J Aircraft S/N: 24-1563 Aircraft Reg. No.: N5813F

STC#SA00705WI was used as the basis of approval for the follow on installation of the GNS 430. The aircraft owner was supplied with Garmin GNS 430 Pilot's Guide, P/N 190-00140-00, Rev. G, Garmin Optional Display's Pilot's Guide Addendum, P/N 190-00140-13, Rev. G and FAA Approved GNS 430 Terrain Addendum, P/N 190-00140-14, Rev. B.

Note: GPS portion of the GNS 430 not approved for IFR at this time with placard installed stating: "GNS 430 GPS NOT APPROVED FOR IFR"

4. Garmin GTX 330 Mode S Transponder/TIS – Installed at fuselage station 19.25 (in the area vacated by the KT 76A Transponder) with interface to the GNS 530 (main software version 6.01), GNS 430 (main software version 5.01), unmuted input to the GMA 347 Audio Panel, existing altitude encoder, and transponder antenna system in accordance with Garmin GTX 330 Installation Manual, P/N 190-00207-02, Rev. K.

The GTX 330 Mode S Transponder/TIS was tested as required by 14 CFR 91.413 (b) and found to comply with Appendix E of 14 CFR Part 43.

STC#ST01125WI was used as the basis of approval for the follow on installation of the GTX 330. The aircraft owner was supplied with Garmin GTX 330 Pilot's Guide, P/N 190-00207-00, Rev. A and Garmin 400/500 Series Display Interface Pilot's Guide Addendum, P/N 190-00140-13, Rev. G.

FAA approved Supplement to the Airplane Flight Manual dated JUN 2 8 2006 and Garmin 400/500 Series Display Interface Pilot's Guide Addendum, P/N 190-00140-13, Rev. G (or later appropriate revision) must be immediately available to the flight crew whenever flight is predicated upon use of the GTX 330 Traffic Information System – with placard installed so stating.

Included are Instructions for Continued Airworthiness (ICA), to comply with FAA Handbook Bulletin for Airworthiness (HBA W98-18 dated Oct 7, 1998) and is applicable to the Mooney Model: M20J, S/N: 24-1563, Reg. No.: N5813F for the installation of the GMA 347, GNS 530, GNS 430 and GTX 330.

The equipment as installed above, AC43.13-1B, AC43.13-2A, and AC20-138A ground checked satisfactorily with no adverse effects noted upon existing aircraft equipment. Recomputed the acft weight & balance and revised the equipment list – made the appropriate log book entry.

X 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.)
Paç	ge - 3 of 6
Airo	craft Make: Mooney
Airo	craft Model: M20J
Airo	craft S/N: 24-1563
Airo	craft Reg No.: N5813F
Ins	tructions for Continued Airworthiness: GMA 347
1.	Refer to Block 8 - page 1
2.	Refer to Block 8 - page 1
3.	Refer to the GMA 347 Audio Panel Pilot's Guide, P/N 190-00325-00 Rev. A.
	N/A
5.	Maintenance of the GMA 347 is "on condition only". Periodic maintenance is not required. Refer to the GMA 347 Audio Panel Maintenance Manual, P/N 190-00325-02. Adhere to the provisions of Appendix D to Part 43, paragraph i in the performance of an Annual or 100 Hr inspection and in accordance with Periodic Inspections as specified in the Mooney M20J Service and Maintenance Manual.
6	Refer to the GMA 347 Audio Panel Maintenance Manual, P/N 190-00325-02.
	Refer to section 2.4 of the GMA 347 Audio Panel Installation Manual, P/N 190-00325-01. If the unit is removed and
	reinstalled, a functional check of the equipment should be conducted in accordance with section 3 of the GMA 347 Audio
	Panel Installation Manual, P/N 190-00325-01.
8.	Refer to Block 8 – page 1.
9.	N/A
10.	N/A
	Antenna installation, removal and replacement should be in accordance with applicable provisions of AC43.13-1B and AC43.13-2A.
12.	N/A
13.	N/A
14.	N/A
15.	N/A
16.	To revise this ICA, a letter must be submitted to the local FSDO with a copy of the revised Form 337, and revised ICA. The FAA inspector accepts the change by signing Block 3 and including the following Statement: "The attached revised/new Instructions for Continued Airworthiness dated for the above aircraft or component major alteration have been accepted by the FAA, superseding the Instructions for Continued Airworthiness dated

X 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.)

Page - 4 of 6

Aircraft Make: Mooney Aircraft Model: M20J Aircraft S/N: 24-1563 Aircraft Reg No.: N5813F

Instructions for Continued Airworthiness: GNS 530

- 1. Refer to Block 8 page 1
- 2. Refer to Block 8 page 1
- 3. Refer to the GNS 530 Pilot's Guide, P/N 190-00181-00, Rev. G.
- 4. For database replacement refer to the GNS 530 Pilot's Guide, P/N 190-00181-00, Rev. G.
- 5. Maintenance of the GNS 530 is "on condition only". Periodic maintenance is not required. Refer to the 500 Series Maintenance Manual, P/N 190-00181-05, Rev. C (or later appropriate revision). Adhere to the provisions of Appendix D to Part 43, paragraph i in the performance of an Annual or 100 Hr Inspection and in accordance with Periodic Inspections as specified in the Mooney M20J Service and Maintenance Manual.
- 6. Refer to the 500 Series Maintenance Manual, P/N 190-00181-05, Rev. C. (or later appropriate revision).
- 7. Refer to section 3.8 of the 500 Series Installation Manual, P/N 190-00181-02, Rev. Q. If the unit is removed and reinstalled a functional check of the equipment should be conducted in accordance with section 5.3 of the 500 Series Installation Manual, P/N 190-00181-02, Rev. Q. Antenna removal, replacement should be made in accordance with applicable provisions of AC43.13-2A and AC43.13-1B.
- 8. Refer to Block 8 page 1
- 9. N/A
- 10. If required, reseal the GA 56 GPS antenna with RTV 162 (or equivalent) protective sealant.
- 11. Antenna installation, removal and replacement should be in accordance with applicable provisions of AC43.13-1B and AC43.13-2A.
- 12. NONE
- 13. N/A
- 14. NONE
- 15. GPS limited to VFR only or in accordance with FAA Approved Flight Manual Supplement.
- 16. To revise this ICA, a letter must be submitted to the local FSDO with a copy of the revised Form 337, and revised ICA. The FAA Inspector accepts the change by signing Block 3 and including the following statement:

The attached revised/r	iew Instructions for Contir	nued Airworthine	ess dated	for the above	aircraπ or
component major alter	ation have been accepted	by the FAA, su	uperseding the Instruct	ions for Continue	ed Airworthiness
dated					

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.

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Ö.	Description	of work	Accomplished	1

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

Page - 5 of 6

Aircraft Make: Mooney Aircraft Model: M20J Aircraft S/N: 24-1563 Aircraft Reg No.: N5813F

Instructions for Continued Airworthiness: GNS 430

- 1. Refer to Block 8 page 1
- 2. Refer to Block 8 page 1
- 3. Refer to the GNS 430 Pilot's Guide, P/N 190-00140-00, Rev. G.
- 4. For database replacement refer to the GNS 430 Pilot's Guide, P/N 190-00140-00, Rev. G.
- 5. Maintenance of the GNS 430 is "on condition only". Periodic maintenance is not required. Refer to the 400 Series Maintenance Manual, P/N 190-00140-05, Rev C (or later appropriate revision). Adhere to the provisions of Appendix D to Part 43, paragraph i in the performance of an Annual or 100 Hr Inspection and in accordance with Periodic Inspections as specified in the Mooney M20J Service and Maintenance Manual.
- 6. Refer to the 400 Series Maintenance Manual, P/N 190-00140-05, Rev. C (or later appropriate revision).
- 7. Refer to section 3.8 of the 400 Series Installation Manual, P/N 190-00140-02, Rev. Q. If the unit is removed and reinstalled a functional check of the equipment should be conducted in accordance with section 5.3 of the 400 Series Installation Manual, P/N 190-00140-02, Rev. Q. Antenna removal, replacement should be made in accordance with applicable provisions of AC43.13-2A and AC43.13-1B.
- 8. Refer to Block 8 page 1
- 9. N/A
- 10. If required, reseal the GA 56 GPS antenna with RTV 162 (or equivalent) protective sealant.
- 11. Antenna installation, removal and replacement should be in accordance with applicable provisions of AC43.13-1B and AC43.13-2A.
- 12. NONE
- 13. N/A
- 14. NONE
- 15. GPS limited to VFR only or in accordance with FAA Approved Flight Manual Supplement.
- 16. To revise this ICA, a letter must be submitted to the local FSDO with a copy of the revised Form 337, and revised ICA. The FAA Inspector accepts the change by signing Block 3 and including the following statement:

ine attached revised/	new instructions for Continued Airworth	liness dated for t	ne above aircraft of
component major alte	ration have been accepted by the FAA,	superseding the Instructions for	Continued Airworthiness
dated			

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.)
Pa	ge - 6 of 6
Δir	craft Make: Mooney
	craft Model: M20J
	craft S/N: 24-1563
	craft Reg. No.: N5813F
lns	structions for Continued Airworthiness: GTX 330
1.	Refer to Block 8 – page 2.
2.	Refer to Block 8 – page 2.
3.	Refer to the GTX 330 Pilot's Guide, P/N 190-00207-00, Rev. A.
	N/A
5.	Maintenance of the GTX 330 is "on condition only". Periodic maintenance is not required. Refer to the GTX 330 Maintenance Manual, P/N 190-00207-05, Rev. B (or later appropriate revision). Adhere to the provisions of Appendix D to Part 43, paragraph i in the performance of an Annual or 100 Hr Inspection and in accordance with Periodic Inspections as specified in the Mooney M20J Service and Maintenance Manual.
6.	Refer to the GTX 330 Maintenance Manual, P/N 190-00207-05, Rev. B (or later appropriate revision).
7.	Refer to Section 2 of the GTX 330 Installation Manual, P/N 190-00207-02, Rev. K. If the unit is removed and reinstalled a functional check of the GTX 330 should be conducted in accordance with Section 5 of the GTX 330 Installation Manual, P/N 190-00207-02, Rev. K.
8.	Refer to Block 8 – page 2.
9.	N/A
10	. N/A
11	. Antenna installation, removal and replacement should be in accordance with applicable provisions of AC43.13-1B and AC43.13-2A.
12	. NONE
13	. N/A
14	. NONE
15	. N/A
16	. To revise this ICA a letter must be submitted to the local FSDO with a copy of the revised Form 337, and revised ICA. The
	FAA Inspector accepts the change by signing Block 3 and including the following statement:
	"The attached revised/new Instructions for Continued Airworthiness dated for the above aircraft or
	component major alteration have been accepted by the FAA, superseding the Instructions for Continued Airworthiness dated
,	The End

Additional Sheets Are Attached

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US Department of Transportation

Federal Aviation
Administration

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

Form Approved OMB No. 2120-0020

For FAA Use Only
Office Identification

6609

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 report 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).

for each suc	h violation (Se	ction	901 Federal Aviati	on Act	of 19	958).		portouring			
Make						Model VOO T					
1. Aircraft	MOO	NEY			M20J						
i. Anvian	Serial No. 24-	156	3			Nationality and Registration Mark N5813F					
	Name (As sh	own	on registration cert	ificate)		Address	(As shown on regi	stration c	ertificate)	
2. Owner	s.	KOE	NIGKNECHT LI	D			820	WATERS EDGE	RD		į
z. Owner							RACI	NE, WI 5340	12-1556)	
3. For FAA Úse Only											
		a b	he data identified herein ind is approved for the ab by a person authorized in	ove desc	t 43, S	aircrait, subject to the section 43.7. (ontormity	quirements aspection			
			GL09 District Office	Date	0-0	Signet	re of FAA I				
					4. L	Jnit Identificati	on			5. Type	
Unit		Mai	ke			Model		Serial No		Repair	Alteration
AIRFRAME	~~	••••	(A	s desc	ribed	l in Item 1 abov	e) •••••				x
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KINGSFO	RD, MI 49	802	2		X Certificated Repair Station EALC437B Manufacturer						
have bee	n made in acco	ordar		ments	of Pa	identified in iter art 43 of the U.		and described on t Aviation Regulation			
Date	·				Sig	nature of Autho	orized Inc	lividual		-	
MAY 26, 2000					:	JOHN M SER	SICH	the	\bigcirc	.	
				7. Ap	prov	al for Return To	Service			· · · · · · · · · · · · · · · · · · ·	
Pursuant to Administrate	the authority or of the Federa	giver al Avi	n persons specified iation Administration	belov	w, the	unit identifie	in item	4 was inspected in	n the mar	ner prescrib	ed by the
Insp	Fit. Standards ector		Manufacturer		Insp	ection Authoriz	ation .	Other (Specify)			
BY FAA	Designee	х	Repair Station			on Approved by ada Airworthine		rt			
Date of Appro	al or Rejection	1	Certificate or Designation No.		Sign	nature of Autho	rized Ind	Middal		$\overline{}$	
MAY 30,	2000		EATR437I)	J	OHN M SER	SICH	-onc		/	

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.)

REMOVED EXISTING II MORROW 604TCA LORAN C SYSTEM.

INSTALLED IN ACCORDANCE WITH INSTALLATION MANUAL PN 560-0959-03a, II MORROW MODEL GX50 GPS SYSTEM AND II MORROW ANNUNCIATOR CONTROL UNIT.

THE GX50 GPS RECEIVER WAS INSTALLED IN THE SECONDARY AVIONICS PANEL AT FUSELAGE STATION 15.00 IN THE AREA VACATED BY THE 604TCA LORAN C RECEIVER.

THE II MORROW ACU WAS MOUNTED IN THE PILOT'S FLIGHT PANEL AT FUSELAGE STATION 19.00.

THE II MORROW ACU SELECTS EITHER NUMBER ONE KNS80 OR GX50 STEERING INFORMATION TO THE PILOT'S BENDIX/KING KI525A HSI AND KFC150'AUTOPILOT'SYSTEM AND ALSO DISPLAYS THE REQUIRED GX50 DERIVED INFORMATION.

NOTE: THE II MORROW ACU DOES NOT HAVE THE PROVISION FOR AUTO ILS OVER-RIDE AND IT IS THE PILOT'S RESPONSIBILITY. TO MANUALLY SELECT NAV ON THE ACU FOR KNS80 ILS APPROACHES.

THE A-33 GPS ANTENNA WAS MOUNTED TOPSIDE AT FUSELAGE STATION 92.00 IN THE AREA VACATED BY THE A16 LORAN ANTENNA WITHOUT DOUBLER MODIFICATION. RTV162 WAS APPLIED TO THE OUTER EDGE TO PREVENT MOISTURE CONTAMINATION.

INSTALLED IN ACCORDANCE WITH INSTALLATION INSTRUCTION DOCUMENTATION DRAWING NUMBER 3230020, ICARUS MODEL 3000U ALTITUDE SERIALIZER WHICH PROVIDES THE REQUIRED ALTITUDE INPUT TO THE GX50 GPS SYSTEM.

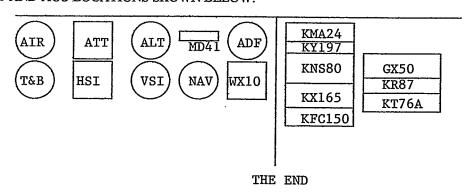
TESTED THE ALTITUDE ENCODER AS REQUIRED BY FAR 91.217 (b) IN ACCORDANCE WITH AC43-6A.

STC SA00504SE WAS USED AS THE BASIS OF APPROVAL FOR THE INSTALLATION OF THE GX50 GPS SYSTEM.

THE GX50 AS INSTALLED ABOVE AND IN ACCORDANCE WITH AC20-138 GROUND CHECKED SATISFACTORILY. RECOMPUTED THE ACFT WEIGHT & BALANCE AND REVISED THE EQUIPMENT LIST — MADE THE APPROPRIATE LOG BOOK ENTRY.

NOTE: GPS SYSTEM NOT APPROVED FOR IFR AT THIS TIME WITH PLACARD INSTALLED STATING: "GPS NOT APPROVED FOR IFR"

GX50 AND ACU LOCATIONS SHOWN BELOW:



☐ Additional Sheets Are Attached

US Department of Transportation

of Transportation Federal Aviation Administration

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

Form Approved OMB No. 2120-0020

For FAA Use Only

Office Identification ACE-FSDO-07

-Wichita, Kansas

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 report 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).

		Mako						14					
1. Aircraft		Make Mooney:						Model M20J					
		Mooney:						Nationality and Registration Mark					
		24-1563											
Name (As shown on registration certificate)							N5813F	otrotion -	4:5:4-1				
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							Signature of Author	orized Indi	ividua)				
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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.)
Installed TKS Ice Protection System per manufactures installation manual in conformance with STC SA2367CE May 26, 1988.
Installation complies with acceptable methods, techniques and practices of FAA AC43.13-1A & 2A, Mooney Maintenance manual, and TKS Procedures 30-09-46(Handling of Nylon Tubing).
Weight & Balance updated at the time of installation.
END —
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☐ Additional Sheets Are Attached

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Federal Aviation		The second				etrope Star			<u> </u>		GL13
and dispositi	ons: Print or type all on of this form. This h violation (Section	report is require	d by law (49 U.	S.C. 1421)	B, and AC . Failure to	43.9-1 report	(or subseque Loan result in	ent revision t n a civil penal	hereof) for in ty not to exc	eed \$1,000
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	Name (As shown o	on registration ce	rtificate)						egistration c	ertificate)	
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	2nd Street			х	Certificate				KABI	R076A	
Kenosha	WI 53144				Manufactu						
have bee	hat the repair and/o n made in accordar d herein is true and	ice with the requ	irements	of Pa	art 43 of th	n item 4 ab e U.S. Fed	ove and eral Av	d described viation Regu	on the revers Jations and t	e or attachm hat the infor	ents hereto mation
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Inspection Authorization

Other (Specify)

FAA Form 337 (12-88)

BY

FAA Fit. Standards Inspector

Repair Station

Certificate or

Designation No.

KABRO76A

FAA Designee

Date of Approval or Rejection
6-11-93

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 Accomplished
(If more space is required, attach additional sheets, Identify with aircraft nationality and registration mark and date work completed.)

Installed J.P. Instruments temperature monitoring systems in accordance with STC SA2586NM and FAA approved J.P. Instruments Drawing List Report No. 100, Revision C, dated November 11, 1992, or later FAA approved revision. FAA Approved airplane Rotocraft flight manual supplement No. 1 for EGT-701 temperature indicator, Revision original, dated November 12, 1992, or later FAA approved revision. All work is done in accordance with Advisory Circular, AC43:13-1A.

*****END****

☐ Additional Sheets Are Attached

☆U.S.G.P.O. 1990-761-753

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This report is required by law (49) in violation (Section 901 Federal Aviation Act of 1 Make Mooney Serial No. 24–1563 Name (As shown on registration certificate) David J. Manning Steven Konengsknecht Make (As described A. I. Make (As described A. I. Mare and Address B. Manufacturer 6. Co Ime and Address B. Ma Aero Inc. 52nd St. B. WI 53144 At the repair and/or alteration made to the unit(s) made in accordance with the requirements of herein is true and correct to the best of my known herein is tr	(Airframe, Powerplant, Propeller, or Apronous Constitution of this form. This report is required by law (49 U.S.C. 1421). Find his violation (Section 901 Federal Aviation Act of 1958). Make Mooney Serial: No. 124-1563 Name (As shown on registration certificate) David J. Manning Steven Konengsknecht 3. For FAA Use O 4. Unit Identificate Make Moodel 4. Unit Identificate Make Model 4. Unit Identificate Mod	ONS Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43 ion of this form. This report is required by law (49 U.S.C. 1421). Failure to re haviolation (Section 901 Federal Aviation Act of 1958). Make	(Airframe, Powerplant, Propeller, or Appliance) ONS Print or type all entries. See FAR 43.9. FAR 43 Appendix B, and AC 43.9-1 (or subsequion of this form. This report is required by law (49 U.S. C. 1421). Failure to report can result in violation (Section 901 Federal Aviation Act of 1958). Make Mooney Serial: M94-1563 Nationality and Registra N5813F Name (As shown on registration certificate) David J. Manning Steven Konengsknecht Address (As shown on 7000 Brook R Franksville, 3. For FAA Use Only 4. Unit Identification Make Model Serial 4. Unit Identification Make Model Serial Address (As shown on 7000 Brook R Franksville, (As described in Item 1 above) 1. For FAA Use Only Type Manufacturer 6. Conformity Statement Imma and Address B. Kind of Agency In Aero Inc. Foreign Certificated Mechanic X. Certificated Repair Station Manufacturer at the repair and/or alteration made to the unit(s) identified in item 4 above and described of made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulation in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulation in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulation in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulation in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulation Federal Aviation Administration and is a MapPROVED In ELECTED Signature of Authorized In Image Control of the Federal Aviation Administration and is a MapPROVED In ELECTED Passignee X Repair Station Person Approved by Transport Canada Airworthiness Group. 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Certificated Aviation Administration and to Part 43 of the U.S. Federal Aviation Regulations and the requirements of Part 43 of the U.S. Federal Aviation Regulations and the requirements of Part 43 of the U.S. Federal Aviation Regulations and the reference in its true and correct to the best of my knowledge. Signature of Authorizery deviation T. Approvision Refurn To Service The deviation Administration and is MAPPROVED REJECTED Other (Specily) Designee X. Repair Station Person Approved by Transport Canada Airworthiness Group Lor Repection Certificate or Signature of Authorization Canada Airworthiness Group Lor Repection Certificate or Signature of Authorization Canada Airworthiness Group	(Airframe, Powerplant, Propeller, or Applia (Chica identification) ONS Print or type all entries. See FAR43.9 FAR43 Appendix B, and AC 43.9-1 (or subsequent revision the feot) for iten of this form. This report is required by law (49 U.S. C. 1421). Failure to report can result in a civil penalty not to ext involation (Section 901 Federal Aviation Act of 1958). Make MOONEY M-20J Make MOONEY M-20J Serial 1821-1563 Nationality and Registration Mark N5813.F Name (As shown on registration certificate) David J. Manning Address (As shown on registration certificate) David J. Manning TOOO Brook Rd. Franksville, WI 53126 3. For FAA Use Only Address (As shown on registration for illicate) The foreign Certificate on the foreign of the federal Aviation Act of 1958. Address (As shown on registration certificate) The foreign Certificate on the federal Aviation Act of 1958. Address (As shown on registration for illicate) The foreign Certificate Act of 1958. Address (As shown on registration for illicate) The foreign Certificate Act of 1958. Address (As shown on registration for illicate) The foreign Certificate Act of 1958. Address (As shown on registration for illicate) The foreign Certificate Act of 1958. 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WELL ALL CONTRACTOR

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.)

BRACKETT AIR FILTER INSTALLATION

Replaced existing engine induction air filter with Brackett Aircraft Company Inc. P/N BA-6210 filter assembly. Inaccordance approved model list per STC SA71GL.

Additional Sheets Are Attached

with the following agreement

er i Tierkinghear i sangak Tierkinghear i sangak

THOSE DOCUMENTS PRECEDING THIS NOTICE WHICH INDICATE A FILMING DATE OF 9-31-91 IN THE ANNOTATION WINDOW ARE SHOWING AN INCORRECT DATE. THE CORRECT FILMING DATE SHOULD BE 10-01-91.

Smaline Bennett





DEPARTMENT OF TRANSPORTATION—FEDERAL AVIATION ADMINISTRATION STANDARD AIRWORTHINESS CERTIFICATE

MANUFACTURER AND MODEL NATIONALITY AND REGISTRATION MARKS

N 5813F

MOONEY MZOJ.

3 AIRCRAFT SERIAL NUMBER

CATEGORY

24-1563

NORMAL

5 AUTHORITY AND BASIS FOR ISSUANCE
This arrivorthiness certificate is studed pursuant to the Federal Avietion Act of 1958 and Certifies that, as or the date of issuance, the autorian to which issued has Pren inspected and Junior to conform to the type certificate therefor, to be in condition for safe provided by the special provided by Annex 8 to the Convention on International Civil Aviation, except as noted herein.

Exceptions

NONE

NONE

6 TERMS AND COMDITIONS

Unless soorer surrendered, suspended, revoked, or a termination date is otherwise established by the Admiristrator, this envisorishes sentilizations effective as long as the maintenance, preventiative maintenance, and alterations are performed in accordance with Paris 21, 43 and 91 of the federal Avaiton Regulations, as appropriate, and the arcraft is registered in the United States

11-08-85

Application registered in the United States of the States of the

Réplacement

FAA Form 8100-2 (8-82)

FAA Form 337 (12-83)

(3)				FALOR REPA	IR AJ	ND ALTERATIO	ΛN		Form Appro	oved 2120-0020	<i>GI</i>
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and di	lispositio	ion of this form h violation (Se	m. Thi lection	all entries. See FAR nis report is required on 901 Federal Aviat	d by law	FAR 43 Appendix B, a w (49 U.S.C. 1421). Fa ct of 1958).	nd AC 43.9- illure to repo	-1 (or subseque ort can result in	ent revision t	thereof) for in	nstructions
		Make Moone	У				Model	M-20J			
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2. Owne	er	Name (As sh	hown	n on registration cer parterș	tificate	<i>y</i>	·	As shown on re		36	*
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						4. Unit Identification	on			5. Type	
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POWERPI	LANT	<u> </u>				•					,
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APPLIAN	ICE .	Type Manufacturer	ir				2				
	51.		_		6	6. Conformity Statem					
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D. Ice	151 Ola ertify tha	Lst & Pfluathe KS 66	12mm 60,63 and/o	s, Ste 30	o the ur	Foreign Certifica X Certificated Rep Manufacturer nit(s) identified in item	ated Mechani pair Station in 4 above an	nd described on	TF2R	orattachmer	nts hereto
furr	e been nished	herein is true	and	nce with the require correct to the best	of my				ions and un	at the inform	ation
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Admini	nistrator	r of the Federa	al Avi	riation Administratio	on and	I IS & APPROVED	D LI REJ	was inspected JECTED Other (Specify)		ner presume	ed by the
вү 📙	Inspe			Manufacturer	1	Inspection Authoriza	-	Cure top	,		
100	_!	Designee				Person Approved by Canada Airworthines	ss Group			<u> </u>	
Jate of A	4 6-	al or Rejection –90		Certificate or Designation No. TF2R185L		Signature of Author	PW	dual	234755	50	

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.)

Installed Apollo 604TCA Loran per manufacturers orints and drawings contained in manual # 560-003. dated March 1985. >

Installation meets or exceeds FAA AC-20-121A. and AC-43.13-1A. paragraphs 22. 23. 37 & 38.

Equipment List and Weight and Balance updated.

See Weight and Balance this date for leading.

Unit placarded Loran-C not approved for IFR.

DEPARTMENT OF TRANSPORTATION Form Approved Budges Bureau No. 04-R060.1 FEDERAL AVIATION ADMINISTRATION MAJOR REPAIR AND ALTERATION FOR FAA USE ONLY (Airframe, Powerplant, Propeller, or Appliance) OFFICE IDENTIFICATION EAFSDO-11 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. MOONEY MODEL 1. AIRCRAFT m-20J SERIAL NO. NATIONALITY AND REGISTRATION MARK 24-1563 N5813F NAME (As shown on registration certificate)
ALPER, ANDREW Y ADDRESS (As shown on registration certificate)
235 ADAMS ST. 2. OWNER SADOW, SHARON 11201 3. FOR FAA USE ONLY 4. UNIT IDENTIFICATION UNIT 5. TYPE MAKE SERIAL NO REPAIR ATION AIRFRAME voosoos (As described in item 1 above) **POWERPLANT** PROPELLER APPLIANCE MANUFACTURE A. AGENCY'S NAME AND ADDRESS
WILLIAM ZINK CONFORMITY STATEMENT B. KIND OF AGENCY C. CERTIFICATE NO. U.S. CERTIFICATED MECHANIC 21 BRIDGE ST. FOREIGN CERTIFICATED MECHANIC 152486076 CERTIFICATED REPAIR STATION CORNWALL N.Y. 12518 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 Aviatior. Regulations and that the information furnished herein is true and correct to the best of my knowledge. SIGNATURE OF AUTHORIZED INDIVIDUAL 2-6-89 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 APPROVED REJECTED FAA FLT. STANDARDS INSPECTOR MANUFACTURER OTHER (Specify) INSPECTION AUTHORIZATION CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR FAA DESIGNEE REPAIR STATION DATE OF APPROVAL OR REJECTION OF AIRCRAFT CERTIFICATE OR SIGNATURE OF AUTHORIZED INDIVIDUAL DESIGNATION NO.

FAA Form 337 (7-67)

2-6-89

12.0422

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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

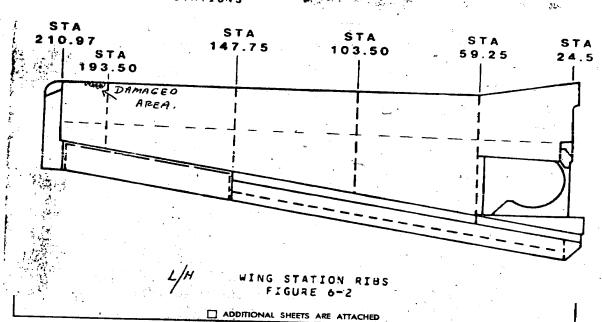
DESCRIPTION OF WORK ACCOMPLISHED (If more space is required, attach additional sheets. Identify with air-craft nationality and registration mark and date work completed.)

L/H WING TIP SKIN REPLACEMENT

REMOVED DAMAGED SKIN LIH WING TIP FROM RIB STA. 193.50 TO TRIB STA. 210.97. FITTED & INSTALLED UPPER AND LOWER SKIN P/N 220000-213, SECTION PROVIDED BY THE MANUFACTURER. AN 426 AD 4, CR-3242-4 AND CR3243-4 CHERRY MAX RIVETS WERE USED TO DUPLICATE THE INSTALLATION OF THE ORIGONAL SKN. ALL WORK WAS PERFORMED IN ACCORDANCE WITH AC 43.13-1A & 2B, SECTION 3 PAR. 96, 99, AND 100. AIRCRAFT WAS TEST ADOWN AND CHECKED OK.

_ END-

-00-03 - AIRCRAFT STATIONS



♦U.S. GOVERNMENT PRINTING OFFICE: 1977-771-021/344

Form Approved A O.M.B. No. 2120-2018

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V FAA	DATE	11-8-	led by	SW MID	E .	Thomas	5	س. د	100	IR SW-		INDER	FA	A INSPECTOR'S SIGN		

FAA Form 8130-6 (12-83) SUPERSEDES PREVIOUS EDITION

	A. MANUFACTURER		_	-		
l	NAME		TA	DDRESS		
PRODUCTION FLIGHT TESTING			~	JUNE 33	-	
5 5	B. PRODUCTION BASIS (Check applica	able item)				
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2 2	APPROVED PFODUCTION IN	NSPECTION SYSTEM		· · · · · · · · · · · · · · · · · · ·		
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	5. CERTIFICATION — I hereby certify the accordance with Section 501 of the Fed	at Lam the registered owner (or his agent) of the aircr leral Aviation Act of 1958, and applicable Federal Ai	aft de	scribed above; that the arroraft is in Begulations; and that the arrora	egistered with the Fi	ederal Aviation Administration in
	described.				20 0000	to another worth, for the high
	DATE	NAME AND TITLE (Print or Type)			SIGNATURE	
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₽ ₹	X Operating Limitations and Markin 91,31 as Applicable	gs in Comptiance with EAR-	X	G. Statement of Conformity, FA	A Form 8130-9 (Att	ach when required)
SE C	A Sign as Applicable			.H. Foreign Airworthiness Certif	ication for Import A	rcraft
1 E E E	B. Current Operating Limitations Att	ached	1	(Attach when required)	•	
5 3 3	C. Date, Drawings, Photographs, etc.	(Attach when required)		I. Previous Airworthiness Certif	icate Issued in Acco	ordance with
. AIRWORTHINESS DOCUMENTATION (FAA use only)	X. D Current Weight and Balance Infor		1	FAR	_ CAR	(Original Attached)
	E. Major Repair and Alteration, FAA			J. Current Anworthiness Certifi		The state of the s
5	Y F. This Inspection Recorded in Aircri		x	FAR21.183_(
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I. NATIONALITY AND REGISTRATION MARKS	NDARD 2 MANUFACTURES	AIR WOR	THINESS	CA VIATION ADMI CERTIFICA	NISTRATION TE
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FAA AIRCRAFT REGISTRY 11-15-89

	UNITED STATES OF ANDEPARTMENT OF TRANSF	ORIATION		<u> </u>
	FEDERAL AVIATION ADMIN	ISTRATION		
	STATEMENT OF CON	FORMITY		
	SECTION 1 - AIRCE			
		2. MODEL M20J		
MOONEY AIPCRAFT CO	ORPORATION	l	77F 01 2F	
ERIAL NO. 24-1563	\sim	4. REGISTRATION NO	N5813F	
74-1702	SECTION II - EN	2. MODEL		
AKE				
ERIAL NO.	SECTION III - PROP	ELL ER		
	SECTION III,	2. HUB MODEL	-	
IAKE				
		4 HUB SERIAL NO.		
BLADE MODEL				
BLADE SERIAL NOS.		LEICATION		
	SECTION IV - CERT	ITTENTION.		
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reby certify that	22(-)			
A. I have complied with Section 21.3 B. The sircraft described above, pro	55(-7-			·
B. The aircraft described above, pro is in a condition for safe operation.			rms to the type	e design therefor.
C. The engine or propeller describe	ed above, presented herewith f	or type certification, confo		
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FAA Form 8130-9 (9-78) USE PREVIOUS EDITION

INSTRUCTIONS

This form should be submitted to a representative of the Administrator under the following circumstances:

- By the applicant for a type certificate or a supplemental type certificate at the time he presents an aircraft or parts thereof to the FAA for tests.
- By the applicant for a type certificate or a supplemental type certificate for each engine or propeller submitted for type certification.
- By the type certificate holder or licensee manufacturing products under a type certificate only, upon the
 initial transfer by him of the ownership of each product or upon application for the original issue of an
 aircraft airworthiness certificate, or an Airworthiness Approval Tag (FAA Form 8130-3).

This form should be completed as follows:

Section I. Aircroft. Complete the pertinent part of only this section when certification covers an aircraft or part thereof.

Section II. Engine. Complete this section when certification covers an engine.

Section III. Propeller. Complete this section when certification covers a propeller.

Section IV. Certification.

Item A. Check this block when an aircraft or part thereof increased for Tight or ground tests during type certification or supplemental type certification.

Item B. Check this block when the holder or licensee of a type certificate only, initially transfers the ownership of an aircraft manufactured under that type perceticate, or applies for the original issuance of an airworthiness certificate.

Item C. Check this block when an engine or propeller is presented for type certification.

Item D. Check this block when an engine or propeller is presented for airworthiness approval and insert the date the product completed a final operational check.

The certification must be signed by an authorized person who holds a responsible position in the manufacturing organization.