



# DUNCAN AVIATION

## N414MP TECHNICAL HISTORY

**CESSNA 414A SN 414A0317**

**Technical history and data is subject to verification by purchaser's inspection. Data provided does not represent the complete technical history. Aircraft Records are available for inspection.**



# ▶ AIRCRAFT SALES & ACQUISITIONS



Donald Duncan

Established in 1956 as a Beechcraft distributor, Duncan Aviation has grown into North America's largest family owned aircraft service facility with more than 2,900 team members working at three full-service locations (Battle Creek, Michigan, Lincoln, Nebraska, and Provo, Utah) and more than 25 avionics satellite and engine Rapid Response teams located throughout North America.

Duncan Aviation is a leader and innovator in the field of aircraft sales. With more than 3900 brokerage and acquisition transactions since 1956, our global brand has tangible benefits for our clients. Our industry network gives us a significant "ear to the ground" advantage when it comes to finding the right buyer for your aircraft, or finding the right aircraft for you to buy.

Duncan Aviation's Acquisitions team has been assisting operators with aircraft acquisitions since 1991. The service was developed after Robert Duncan assisted a friend with an aircraft purchase and realized there was a market for this assistance. Since then, potential aircraft owners have benefited from the knowledge of aircraft transaction experts who know the market, can leverage technical resources, and work for a predetermined flat-fee not tied to the purchase price of an aircraft.

We understand the importance and risk of an aircraft purchase or sale. A small oversight can cost hundreds of thousands of dollars and a small insight can result in an equally large advantage. By hiring Duncan Aviation to assist you with your transaction, you are giving yourself the advantage of all that Duncan Aviation has to offer.

The Duncan family includes several generations of passionate aviators. We own and operate aircraft ranging from J-3 Cubs to mid-size jets. We understand the ins and outs of the entire aircraft ownership experience because we've owned and operated our own aircraft since 1956.



Robert Duncan



Todd Duncan

## Shoreline Aviation Maintenance Scheduling Report

N# **N414MP**  
 Owner: **Dan Bawabe**

Manufacturer: **Cessna**  
 Model: **414A**

Ser. # **414A-0317**  
 ACTT: **5673.0**

100 Hour Inspection Due		
5700.9		Aug-25

Updated Hobbs Data		
Hobbs	Htr. Hobbs	Date
<b>1850.8</b>	<b>632.7</b>	<b>9/18/24</b>

Item #	Part Description	DUE			Service Life			Installed		
		Hours	Months	Date	Hours	Cycle	Years	ACTT	Cycle	Date
1	Operation #1	27.9			153.7			5547.2		10/25/2023
2	Operation #2	69.5			144.7			5597.8		3/1/2024
3	Operation #3	144.9			167.0			5650.9		8/1/2024
4	Operation #4	169.3	10	Aug-25	191.4		1	5650.9		8/1/2024
5	50 hr. Cessna Special Insp.	27.9			50.0			5650.9		8/1/2024
6	400 hr. Cessna Special Insp.	324.8			400.0			5597.8		3/1/2024
7	500 hr. Cessna Special Insp.	336.5			500.0			5509.5		6/29/2023
8	600 hr. Cessna Special Insp.	160.6			600.0			5233.6		9/13/2021
9	800 hr. Cessna Special Insp.	724.8			800.0			5597.8		3/1/2024
10	1000 hr. Cessna Special Insp.	330.1			1000.0			5003.1		6/17/2020
11	Type A Cabin & Type B Wing Insp.	760.6			1200.0			5233.6		9/13/2021
12	Type B Cabin Insp.	327.0			6000.0			0.0		7/31/1979
13	Type C Cabin Insp.	7527.0			13200.0			0.0		7/31/1979
14	Engine Beam Radiographic Insp.	4780.2			9600.0			853.2		9/11/1985
15	One Year Cessna Special Insp.		10	Aug-25			1			8/1/2024
16	O2 Bottle Hydrostatic Test		45	Jun-28			5			6/29/2023
17	N2 Bottle Hydrostatic Test		5	Feb-25			5			2/22/2020
18	600 hr. or 1 Year Cessna Special Insp.	436.5	10	Aug-25	600.0		1	5509.5		8/1/2024
19	1000 hr. or 3 Year Cessna Special Insp.	737.1	12	Sep-25	1000.0		3	5410.1		9/13/2022
20	6000 hr. Cessna Special Insp.	327.0			6000.0			0.0		7/31/1979
21	13200 hr. Cessna Special Insp.	7527.0			13200.0			0.0		7/31/1979
22	500 Hr Hyd. Lines Pressure Test	374.2			500.0			5547.2		10/25/2023
23	Main Battery Replacement	4285.3		Feb-25	5000.0		5	4958.3		2/26/2020
24	Main Battery Capacity Check	577.9	8	Jun-25	600.0		1	5650.9		6/1/2024
25	600 hr. Float Valves Check (AD95-09-13)	160.6			600.0			5233.6		9/13/2021
26	AD 2000-01-16, para. B - Exhaust Insp	27.9			50.0			5650.9		8/1/2024
27	AD 2000-01-16, para. C - Exhaust Insp		5	Mar-25			1			3/1/2024
28	AD 2000-01-16, para. D - Exhaust Insp	279.5			500.0			5452.5		3/14/2023
29	AD 2000-01-16, para. E - Exhaust Insp	424.8	17	Mar-26	500.0		1	5597.8		3/1/2025
30	AD 2000-01-16, para. G - Exhaust Insp	2279.5	126	Mar-35	2500.0		12	5452.5		3/14/2023
31	500 hr. Magneto Insp. R Eng.	279.5			500.0			5452.5		3/14/2023
32	500 hr. Magneto Insp. L Eng.	279.5			500.0			5452.5		3/14/2023
33	500 hr. Eng Air Filter R+R (AD 84-26-02)	279.5	66	Mar-30	500.0		7	5452.5		3/14/2023
34	Heater P.D.T. (AD 2004-21-05)	224.8	17	Mar-26	300.0		2	5597.8		3/1/2024
35	Heater Fuel Valve (AD 2004-25-16R1)	77.9	10	Aug-25	100.0		1	5650.9		8/1/2024
36	Aircraft Reweigh		8	Jun-25			3			6/3/2022
37	FAR 91.207(d) ELT Check		7	May-25			1			5/1/2024
38	ELT Battery		14	Nov-25			6			11/27/2019
39	Life Jackets Recert.		95	Aug-32			10			8/18/2022
40	6 Month Cabin Fire Ext. Check		1	Oct-24			0.5			5/1/2024
41	FAR 91.411 (#1 Pitot/Static/Altimeter Chk.)		0	Oct-24			2			10/11/2022
42	FAR 91.411 (#2 Pitot/Static/Altimeter Chk.)		0	Oct-24			2			10/11/2022
43	Compass Accuracy Check		19	May-26			2			5/1/2024
44	FAR 91.411 (#1 Encoder Check)		0	Oct-24			2			10/11/2022
45	FAR 91.411 (#2 Encoder Check)		0	Oct-24			2			10/11/2022
46	FAR 91.413 (#1 Txpr. Chk.)		0	Oct-24			2			10/11/2022
47	FAR 91.413 (#2 Txpr. Chk.)		0	Oct-24			2			10/11/2022
48	AD 2016-17-08 (Trim tab Hdwr)	87.9	10	Aug-25	110.0		1	5650.9		8/1/2024

# N414MP COMPONENT TIMES

**Date:** 9/18/2024      **Hourmeter:** 1850.8      **N#:** N414MP  
**Manufacturer:** Cessna      **Total Time** 5673.4      **Prepared by:** Shoreline Aviation, Inc., Marshfield, MA  
**Model:** 414A  
**Ser. #** 414A-0317

Item #	Part No.	PART Description	Part Serial Number	D Hours	U Cycle	E Date	Service Life			Installed		
							Hours	yc	Date	Hours	Cycle	Date
1	TSIO 520-NB	Engine, Left	514067	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
2	TSIO-520-NB	Engine, Right	519264	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
3	PHC-C3YF-2U	Propeller, Left	EB7625B	7226.9		5/31/2025	2400.0	72 months	4826.9		5/23/2019	
4	PHC-C3YF-2U	Propeller, Right	EB7629B	7226.9		5/21/2025	2400.0	72 months	4826.9		5/23/2019	
5	DCFS290D9/T	Prop. Gov., Left	950126	7452.5		3/31/2028	2000.0	60 months	5452.5		3/14/2023	
6	DCFS290D9/T	Prop Gov., Right	990118	7452.5		3/31/2028	2000.0	60 months	5452.5		3/14/2023	
7	ES6320	L eng, L magneto	K-K07006	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
8	ES6320	L eng, R magneto	K-K07007	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
9	ES6320	R eng, L magneto	K-K07008	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
10	ES6320	R eng, R magneto	K-K07009	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
11	RAP442CW	Vac. Pump, Left	D10833	6052.5			600.0		5452.5		3/14/2023	
12	AA442CW	Vac. Pump, Right	D10647	6052.5			600.0		5452.5		3/14/2023	
13	ALV-9610	Alternator, Left	H-W091335	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
14	ALV-9610	Alternator, Right	H-W091336	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
15	466412-5	Turbo, Left	H-ZIL00019	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
16	466412-5	Turbo, Right	H-ZIL00018	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
17	470836-9020	Turbo control, left	BK0199	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
18	470836-9020	Turbo control, Right	ELR0103	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
19	470908-9012	Wastegate, Left	OKR0112	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
20	470908-9012	Wastegate, Right	EK016184	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
21	1020-1	MAP popoff, Left	CG0156	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
22	1020-2	MAP popoff, Right	H-YIO00132	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
23	646210-11A4	Fuel pump, Left	B00EA404R	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
24	646210-11A5	Fuel pump, Right	D029922BR	7153.5		3/31/2035	1600.0	144 months	5553.5		11/14/2023	
25	1697-2	Throttle body, Left	N/A	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
26	1697-2	Throttle body, Right	N/A	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
27	640718-2A4	Fuel Spider, Right	B139506CR	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
28	640718-2A4	Fuel Spider, Left	C189513CR	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
29	642100-5/6	Fuel Press Reg.-LH	225009	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
30	642100-5/6	Fuel Press Reg.-RH	497080	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
31	8000440	Oil Cooler, Left	1672104	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
32	8000440	Oil Cooler, Right	4082828	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
33	1638-4	Intercooler, Left	1753759	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
34	1638-4	Intercooler, Right	1753758	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
35	24199LAA	Hyd. Pump, RH	338	7052.5			1600.0	144 months	5452.5		3/14/2023	
36	24199LAA	Hyd. Pump, LH	1717	7052.5			1600.0	144 months	5452.5		3/14/2023	
37	642085A4	Str. Adapter, LH	227090	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
38	642085A4	Str. Adapter, RH	228090	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
39	646275-1	Starter, Left	T-149957	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	
40	646275-1	Starter, Right	H050037	7052.5		3/31/2035	1600.0	144 months	5452.5		3/14/2023	

<b>AD NOTES COMPLIANCE RECORD</b>
-----------------------------------

Airframe - Cessna - 414A

s/n: 414A-0317

Appliance - Air Filter - Paper Induction

Appliance - Heaters - Kelly Aerospace Power Systems

Appliance - Safety Belts - AM Safe

Appliance - Transponder - GARMIN GTX 330

s/n: 84108536

AD#	Applicable S.B. # & Subject	Date & Hours @ Comp.	Method of Compliance	One Time	Recurring	Next Comp. @ Hrs/Date	Authorized Signature & Number
72-03-07	Landing gear failure		DNA per serial #.	X			Ed Novak A+P 2832024 IA
76-13-07	Fork bolts		DNA per serial #.		X		Ed Novak A+P 2832024 IA
76-16-07	Engine attachment tangs		DNA per serial #.		X		Ed Novak A+P 2832024 IA
78-11-05	Autopilot actuator		DNA per serial #.	X			Ed Novak A+P 2832024 IA
78-13-05	Improperly installed seats		DNA per serial #.	X			Ed Novak A+P 2832024 IA
80-13-14	Fuel flow transducer		DNA per serial #.	X			Ed Novak A+P 2832024 IA
84-03-04	Windshield instln. insp.		DNA - windshields are not original factory installation.	X			Ed Novak A+P 2832024 IA
84-20-02	Nose landing gear	11/1/84 - 760.0	Installed SK421-121 per MEB84-10.	X			Ed Novak See log entry
85-13-03 R2	Engine mount beams		Superseded by 97-26-16.		X		Ed Novak A+P 2832024 IA
87-21-02 R1	Fuel filler openings	6/16/89 - 1271.0	Installed SAD531-037 fuel filler restrictors.	X			Ed Novak See log entry
90-02-13	Main landing gear	5/13/98 - 3902.1	Both MLG strut bearings replaced with new 5141109-1 units.		X		Ed Novak See log entry.
93-05-03	Fuel float valve		Superseded by 95-09-13.		X		Ed Novak A+P 2832024 IA
95-09-13	Fuel float valve	9/13/21 - 5233.6	Performed fuel inlet float valve test per MEB93-10R1.		X	5833.6	Ed Novak See log entry
97-01-13	Fuel, oil, or hydraulic hose		DNA - affected component not installed.	X			Ed Novak A+P 2832024 IA
97-26-16	Engine mount beams	9/9/85 - 853.0	Installed kit # SK414-19B.		X		Ed Novak See log entry
98-04-28	Severe Icing Conditions	7/22/13 - 208.6	Inserted copy of AD into AFM.	X			Ed Novak See Log Entry
98-24-14	Exhaust leaks caused by nonwelded exhaust system components		DNA per date of mfg.	X			Ed Novak A+P 2832024 IA

AD#	Applicable S.B. # & Subject	Date & Hours @ Comp.	Method of Compliance	One Time	Recurring	Next Comp. @ Hrs/Date	Authorized Signature & Number
2000-01-16	Detect and correct cracks and corrosion in the exhaust system	8/1/24 - 5650.9	Para. B next due 5700.9 Para. C due 03/25 Para. D due 5952.5 Para. E due 03/25 or 6097.8 Para. F - DNA all clamps are one piece design. Para. G due 03/35 or 7972.5		X	5700.9 (para B)	Ed Novak A+P 2832024 IA
PL2005-05-51	Detect and correct cracking in the wing spars before the cracks grow to failure		Superseded by PL2005-05-52.		X		Ed Novak A+P 2832024 IA
PL2005-05-52	Detect and correct cracking in the wing spars before the cracks grow to failure		Superseded by 2005-12-13.		X		Ed Novak A+P 2832024 IA
2005-12-13	Prevent wing spar cap failure caused by undetected fatigue cracks		Due at 15,000 hrs. ACTT.		X		Ed Novak A+P 2832024 IA
2005-20-25	Prevent failure of the avionics bus circuit breaker switch		Switch p/n 110-240 installed.	X			Ed Novak See log entry
2012-23-01	To prevent failure of the flap system		DNA - affected STC is not installed.	X			Ed Novak A+P 2832024 IA
2015-07-03	Engine Mount Beams		Due at 15,000 hrs.		X		Ed Novak A+P 2832024 IA
2016-07-24	Elevator Trim Tab Assembly Parts Attachment Hardware Security		Superseded by 2016-17-08.		X		Ed Novak A+P 2832024 IA
2016-17-08	Elevator Trim Tab Assembly Parts Attachment Hardware Security	8/1/24 - 5650.9 (ACTT)	Inspected hardware repetitively per AD instructions and noted no defects.		X	8/25 or 5760.9 (ACTT)	Ed Novak A+P 2832024 IA
2017-10-09	Engine Nacelle Fittings Integrity		DNA until SK402-47 is installed.		X		Ed Novak A+P 2832024 IA
2018-03-03	Lower Forward Carry Through Spar Cap Integrity		Superseded by revision R1		X		Ed Novak A+P 2832024 IA
2018-03-03 R1	Lower Forward Carry Through Spar Cap Integrity		Due at 15000 ACTT.		X	15000	Ed Novak A+P 2832024 IA
2023-09-09	Failures of Spot-Welded, Multi-Segment V-Band Couplings		DNA - the installed turbo tailpipe clamps are not segmented vee/spot welded type.		X		Ed Novak A+P 2832024 IA
84-26-02	Paper induction air filters	12/2/22 - 5452.5	New paper induction air filters installed.		X	5952.5	Ed Novak See log entry
82-07-03	Janitrol combustion heaters		Superseded by 96-20-07.		X		Ed Novak A+P 2832024 IA
96-20-07	Janitrol combustion heaters		Superseded by 2004-21-05.		X		Ed Novak A+P 2832024 IA
2001-08-01	Prevent fuel leakage in airplanes		Superseded by 2001-17-13.	X			Ed Novak A+P 2832024 IA
2001-17-13	Potential for fuel leakage in aircraft		Superseded by 2004-25-16.		X		Ed Novak A+P 2832024 IA
2004-21-05	Prevent combustion by-products (carbon-monoxide exhaust) and fuel leakage from the combustion heaters	3/1/24 - HH 630.5	Completed pressure decay test and airflow switch test to the cabin heater.		X	03/26 or HH 730.5	Ed Novak A+P 2832024 IA
2004-25-16	Prevent failure of the fuel regulator shutoff valve		Superseded by R1.		X		Ed Novak A+P 2832024 IA

AD#	Applicable S.B. # & Subject	Date & Hours @ Comp.	Method of Compliance	One Time	Recurring	Next Comp. @ Hrs/Date	Authorized Signature & Number
2004-25-16 R1	Prevent failure of the fuel regulator shutoff valve		Duplicate.		X		Ed Novak A+P 2832024 IA
2004-25-16R1	Prevent failure of the fuel regulator shutoff valve	08/01/24 - 5650.9	Check heater fuel regulator/shutoff valve for proper operation.		X	08/25 or 5750.9	Ed Novak See log entry
87-17-06	AM Safe restraint system		DNA per part #.	X			Ed Novak A+P 2832024 IA
2004-10-15	Prevent interrogating aircraft from possibly receiving inaccurate replies		Superseded by 2005-01-19.	X			Ed Novak A+P 2832024 IA
2005-01-19	Prevent interrogating aircraft from possibly receiving inaccurate replies		DNA per software version installed.	X			Ed Novak A+P 2832024 IA

**N414MP**

**PERFORMANCE CHARTS**

**WEIGHT & BALANCE**





## TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Log of Revisions	i
1. General	1
2. Limitations	2
3. Emergency Procedures	7
4. Normal Procedures	9
5. Performance	11
6. Weight & Balance	20

**NOTE:** For information not contained in this supplement, see the Airplane Flight Manual or the Information Manual for the Cessna Model 414A.

## SECTION 1

### ENGINES

Teledyne Continental Motors TSIO-520-NB modified by RAM Aircraft Corporation to increase takeoff power to 335 hp and maximum continuous power to 325 hp.

### PROPELLERS

The following propeller models are approved for installation in addition to the propeller models originally approved for the Cessna Model 414A:

- ♦ McCauley Model 3AF32C515/82NLA -4.0 to -5.5
- ♦ Hartzell PHC-C3YF-2UF/FC7663D-2Q
- ♦ Hartzell PHC-C3YF-2UF/FC7663DB-2Q

### MAXIMUM CERTIFICATED WEIGHTS

Maximum Takeoff Weight..... 7105 lbs

### SPECIFIC LOADINGS

Wing Loading..... 31.47 lbs/ft<sup>2</sup>  
Power Loading..... 10.6 lbs/hp

SECTION 2

AIRSPEED LIMITATIONS TABLE

SPEED	KIAS	KCAS	REMARKS
Maneuvering Speed V <sub>A</sub> (knots)	146	145	Do not make abrupt control movements above this speed.
Max. Flap Extended Speed V <sub>FE</sub> (knots) 15° 45°	177 146	175 145	Do not exceed this speed with the given flap setting.
Max. Gear Operating Speed V <sub>LO</sub> (knots)	177	175	Do not extend or retract landing gear above this speed.
Max. Gear Extended Speed V <sub>LE</sub> (knots)	177	175	Do not exceed this speed with landing gear extended.
Air Minimum Control Speed V <sub>MCA</sub> (knots)	74	74	This is the minimum flight speed at which the airplane is directionally controllable with one engine inoperative and with a 5° bank towards the operative engine.
One Engine Inoperative Best Rate of Climb Speed V <sub>YSE</sub> (knots)	110	110	This speed delivers the greatest gain in altitude in the shortest possible time with one engine inoperative at sea level, standard day conditions, and 7105 lbs weight.
Never Exceed Speed V <sub>NE</sub> (knots)	237	232	Do not exceed this speed in any operation.
Max. Structural Cruising Speed V <sub>NO</sub> (knots)	203	200	Do not exceed this speed except in smooth air and then only with caution.

AIRSPEED INDICATOR TABLE

MARKING	KIAS VALUE OR RANGE	SIGNIFICANCE
Red Radial	74	Air minimum control speed.
White Arc	69 to 146	Operating speed range with 45° wing flaps. Lower limit is maximum weight stalling speed in landing configuration. Upper limit is maximum speed permissible with wing flaps extended 45°.
Green Arc	79 to 203	Normal operating range. Lower limit is maximum weight stalling speed with flaps and landing gear retracted. Upper limit is maximum structural cruising speed.
Blue Radial	110	One engine inoperative best rate-of-climb speed at sea level standard day conditions and 7105 lbs weight.
Yellow Arc	203 to 237	Caution range. Operations must be conducted with caution and only in smooth air.
Red Radial	237	Maximum speed for all operations.

ENGINE LIMITATIONS

Take-Off Power:

- ♦Manifold Pressure..... 38.0 in.Hg.
- ♦Engine Speed..... 2700 rpm
- ♦Fuel Flow..... 210 pph
- ♦Power Output..... 335 hp

Maximum Continuous Power:

- ♦Manifold Pressure..... 38.0 in.Hg.
- ♦Engine Speed..... 2650 rpm
- ♦Fuel Flow..... 205 pph
- ♦Power Output..... 325 hp

Altitude Limit

Do not operate engine(s) at Takeoff Power or Maximum Continuous Power at altitudes above 25,000 feet. Maximum allowable manifold pressure above 25,000 feet is 33.0 inches Hg. Operating the engine(s) at a manifold pressure greater than 33.0 inches Hg when above 25,000 feet can result in a turbocharger overspeed condition.

Exhaust Gas Temperature Limits

- ♦1650°F - engines equipped with stainless steel or uncoated inconel exhaust systems.
- ♦1750°F - engines equipped with coated inconel exhaust systems. STC SA09216SC

ENGINE INSTRUMENT MARKINGS

Definition of Limit	Minimum Operating	Normal Operating Range	Preferred Operating Range	Maximum Operating
Marking Description	Red Radial	Green Arc	Wide Green Arc	Red Radial
Tachometer	---	2100 -2650 rpm	---	2700 rpm
Manifold Pressure Gage	---	15.0 -33.0 in.Hg	---	38.0 in.Hg
Cylinder Head Temp Gage	200°F	200°F -320°F 400°F -460°F	320°F -400°F	460°F
Oil Temp Gage	75°F	75°F -140°F 190°F -240°F	140°F -190°F	240°F
Exhaust Gas Temp Gage (stainless steel and inconel) (coated inconel per STC SA09216SC )	---	1350°F -1650°F 1350°F -1750°F	---	1650°F 1750°F

**PROPELLER LIMITATIONS**

McCauley Model No. 3AF32C515/82NLA -4.0 to -5.5

- ♦Diameter ..... 78.0 to 76.5 inches
  - ♦Operating Limits ..... 2700 rpm maximum speed
  - ♦Propeller Stop Limits ..... Low pitch 14.0° ± 0.2° Feather 82.2° ± 0.3°
- Measured at propeller station 30.0 inches

Hartzell Model No. PHC-C3YF-2UF/FC7663D-2Q and PHC-C3YF-2UF/FC7663DB-2Q

- ♦Diameter ..... 76.0 inches
  - ♦Operating Limits ..... 2700 rpm maximum speed
  - ♦Propeller Stop Limits ..... Low pitch 14.0° ± 0.5° Feather 84°
- Measured at propeller station 30.0 inches

**WEIGHT LIMITS**

- Maximum Ramp Weight ..... 7140 lbs
- Maximum Takeoff Weight ..... 7105 lbs
- Maximum Landing Weight ..... 6750 lbs\*
- Maximum Zero Fuel Weight ..... 6515 lbs

\*NOTE: If an overweight landing occurs, an inspection of the aircraft as detailed in the Cessna 414A Maintenance Manual- Chapter 2, page 55, Hard or Overweight Landing Check- is required prior to flight.

**CENTER OF GRAVITY LIMITS (Gear Extended)**

- Aft Limit ..... 159.90 inches aft of reference datum at 7105 lbs and 160.04 inches aft of reference datum at 6750 lbs, or less, with straight line variation between these points.
- Forward Limit ..... 152.56 inches aft of reference datum at 7105 lbs and 147.82 inches aft of reference datum at 5800 lbs, or less, with straight line variation between these points.

(see Section 6 for Weight & Center of Gravity Envelope)

**FLIGHT LOAD FACTOR LIMITS**

- At design Takeoff Weight of 7105 lbs:
  - ♦Landing gear up, wing flaps 0° .....+3.5g to -1.4g
  - ♦Landing gear down, wing flaps 45° .....+2.00g to 0.00g

**REQUIRED PLACARDS**

**A. OPERATIONAL LIMITS**

♦On the Left Forward Side Panel:

- Air Minimum Control Speed
- Maximum Gear Operating Speed
- Maximum Gear Extended Speed
- Maximum Flap Extended Speed, 15° Flaps
- Maximum Flap Extended Speed, 45° Flaps
- Maximum Maneuvering Speed

74 KIAS  
177 KIAS  
177 KIAS  
177 KIAS  
146 KIAS  
146 KIAS

**NOTE**  
THIS PLACARD IS PLACED OVER THE SPEEDS ON THE ORIGINAL PLACARD TO UPDATE AIR MINIMUM CONTROL AND MANEUVERING SPEEDS.

**B. PROPELLER LIMITATIONS**

♦On the Instrument Panel Near the Tachometer:

Airplanes equipped with McCauley Model 3AF32C515/82NLA Propellers ONLY

**AT OR BELOW 7500 FT. MSL**  
 AVOID CONTINUOUS OPERATION BETWEEN 2250 AND 2400 RPM ABOVE 32 IN. HG MANIFOLD PRESSURE  
**ABOVE 7500 FT. MSL**  
 AVOID CONTINUOUS OPERATION BETWEEN 2250 AND 2400 RPM ABOVE 34 IN. HG MANIFOLD PRESSURE;  
 AND BETWEEN 2450 AND 2650 RPM ABOVE 36 IN. HG.

Airplanes equipped with McCauley Model 3AF32C93/82NC Propellers ONLY

AVOID CONTINUOUS OPERATION AT OR ABOVE 36.0 IN. HG MANIFOLD PRESSURE BETWEEN 2300 AND 2600 RPM

**C. ENGINE FUEL FLOW LIMITS**

♦On the Instrument Panel just Below or Near the Electronic Digital Fuel Flowmeter:

**T.O. POWER FUEL FLOW 35.9- 34.2 gph/ 210- 200 pph**  
**M.C. POWER FUEL FLOW 35.0- 34.2 gph/ 205- 200 pph**  
 FOR ADDITIONAL INFORMATION SEE RAM ENGINE OP LIMIT TABLE T810-620-NB, SERIES VII

**REQUIRED PLACARDS**

**D. ELEVATOR TRIM LIMITS**

♦On the Trim Wheel Console in Plain View:



**SECTION 3  
EMERGENCY PROCEDURES**

**SINGLE-ENGINE AIRSPEEDS FOR SAFE OPERATION**

CONDITIONS: - TAKEOFF WEIGHT 7105 lbs - STANDARD DAY, SEA LEVEL - LANDING WEIGHT 6750 lbs	
AIR MINIMUM CONTROL SPEED.....	74 KIAS
INTENTIONAL ONE ENGINE INOPERATIVE SPEED.....	92 KIAS
ONE ENGINE INOPERATIVE BEST ANGLE-OF-CLIMB SPEED.....	100 KIAS
ONE ENGINE INOPERATIVE BEST RATE-OF-CLIMB SPEED .....	110 KIAS

**ENGINE FAILURE DURING TAKEOFF**

(Speed Below 92 KIAS Or Gear Down)

1. Throttles.....CLOSE IMMEDIATELY
2. Brake or Land-and-Brake .....AS REQUIRED

NOTE: The distance required for the airplane to be accelerated from a standing start to 92 KIAS on the ground, and to decelerate to a stop with heavy braking, is presented in the Accelerate Stop Distance chart in Section 5 for various combinations of conditions.

**ENGINE FAILURE AFTER TAKEOFF**

(Speed At Or Above 92 KIAS With Gear Up Or In Transit)

1. Mixtures ..... FULL RICH
2. Propellers..... FULL FORWARD
3. Throttles..... FULL FORWARD
4. Landing Gear..... CHECK UP
5. Inoperative Engine:
  - a. Throttle ..... CLOSE
  - b. Mixture..... IDLE CUT-OFF
  - c. Propeller..... FEATHER
6. Establish Best Performance Bank and Yaw ..... Bank wings 3° toward operative engine and apply rudder for a slip indication of 1/2-ball out-of-center toward operative engine.
7. Climb To Clear 50-ft Obstacle ..... 92 KIAS
8. Single Engine Best Rate-of-Climb Speed ..... 110 KIAS
9. Trim Tabs..... ADJUST
10. Cowl Flap..... CLOSED on inoperative engine.
11. Inoperative Engine..... SECURE
12. As Soon As Practical ..... LAND

**ENGINE INOPERATIVE PROCEDURES**

**ENGINE INLET AIR SYSTEM ICING EMERGENCY PROCEDURES  
(AIR INLET OR FILTER ICING)**

NOTE: See Cessna Model 414A Airplane Flight Manual for amplified procedure.

- |                                   |                                       |
|-----------------------------------|---------------------------------------|
| 1. Alternate Air Control(s) ..... | PULL OUT                              |
| 2. Propeller(s) .....             | INCREASE (2650 rpm for normal cruise) |
| 3. Mixtures(s) .....              | LEAN as required                      |
4. Pressurization Air Control(s) ..... PULL LH and/or RH as necessary
    - a. With Both Pressurization Air Sources Dumped:
      - (1) Cabin Vent Control ..... PULL
      - (2) Cabin Pressurization Switch... DEPRESSURIZE
    - b. Above 10,000 ft with Both Pressurization Air Sources Dumped:
      - (1) If Supplementary Oxygen is Not Available .. EMERGENCY DESCENT to 10,000 ft
      - (2) If Supplementary Oxygen is Available:
        - (a) Oxygen Knob..... PULL ON
        - (b) Assure each occupant is using oxygen.
        - (c) Descend as soon as practical to 10,000 ft.

**SECTION 4  
NORMAL PROCEDURES****AIRSPEEDS FOR SAFE OPERATION**

CONDITIONS:	
- TAKEOFF WEIGHT 7105 lbs	- STANDARD DAY, SEA LEVEL
- LANDING WEIGHT 6750 lbs	
AIR MINIMUM CONTROL SPEED .....	74 KIAS
TAKEOFF and CLIMB to 50 feet AGL ( 0° Wing Flaps).....	92 KIAS
ALL ENGINES BEST ANGLE-of-CLIMB SPEED ( 0° Wing Flaps) .....	88 KIAS
ALL ENGINES BEST RATE-of-CLIMB SPEED ( 0° Wing Flaps) .....	110 KIAS
ALL ENGINES LANDING APPROACH SPEED ( 45° Wing Flaps) .....	94 KIAS
MANEUVERING SPEED .....	146 KIAS
STRUCTURAL CRUISING SPEED .....	203 KIAS
NEVER EXCEED SPEED .....	237 KIAS
TRANSITION SPEED TO BALKED LANDING CONDITIONS .....	82 KIAS

**STARTING HOT ENGINES**

1. Propellers..... CLEAR
2. Throttles..... FULL OPEN
3. Mixtures .....
4. Auxiliary Fuel Pumps ..... HIGH 30-90 seconds then - OFF
5. Throttles..... SET
6. Mixtures .....
7. Prime .....
8. Magneto Switches ..... ON
9. Engines..... START
10. Auxiliary Fuel Pumps ..... LOW

**TAKEOFF**

1. Mixtures..... FULL RICH
2. Power .....
3. Fuel Flow..... CHECK within range for takeoff power
4. Engine Instruments .....
5. Air Minimum Control Speed..... 74 KIAS
6. Elevator Control..... Raise nosewheel at 87 KIAS
7. Lift-Off..... 92 KIAS

**AFTER TAKEOFF**

1. Landing Gear.....RETRACT
2. Best Angle-of-Climb Speed .....88 KIAS at sea level to 94 KIAS at 20,000 feet
3. Best Rate-of-Climb Speed.....110 KIAS at sea level and 7105 pounds  
Refer to Section 5 for speed at reduced weight.

**NORMAL CLIMB**

**NOTE**  
REFER TO RAM ENGINE OP LIMITS TABLE: TSIO-520-NB, SERIES VII FOR RECOMMENDED POWER SETTINGS INCLUDING FUEL

1. Power.....SET
2. Fuel Flow.....CHECK & SET
3. Airspeed .....130 KIAS
4. Cowl Flaps.....OPEN
5. Pressurization.....SET

**MAXIMUM CLIMB**

**CAUTION**  
ABOVE 25,000 FEET MAX ALLOWABLE

1. Power.....SET M C P
2. Fuel Flow.....CHECK
3. Airspeed .....110 KIAS
4. Cowl Flaps.....OPEN
5. Pressurization.....SET

**CRUISE**

**NOTE**  
REFER TO RAM ENGINE OP LIMITS TABLE: TSIO-520-NB, SERIES VII FOR RECOMMENDED POWER SETTINGS INCLUDING FUEL

1. Power.....SET
2. Fuel Flow.....SET
3. Cowl Flaps.....CLOSE
4. Propellers.....SYNC
5. Synchrophaser.....ON & SET
6. Aux Fuel Pumps.....AS REQ'D
7. Pressurization.....CHECK

**EXHAUST GAS TEMPERATURE GAGE OPERATION**

Refer to system manufacturer's instructions for proper operation.

**DIGITAL FUEL FLOW METER OPERATION**

Refer to system manufacturer's instructions for proper operation.

**NOISE ABATEMENT**

The flyover noise level, established in compliance with FAR 36 Appendix G at maximum continuous power is 84.5 dB(A).  
No determination has been made by the Federal Aviation Administration that the noise level of this airplane is, or should be acceptable or unacceptable, for operation at, into, or out of any airport.

**SECTION 5  
PERFORMANCE**

**STALL SPEEDS**

**CONDITIONS:**

Throttles - ZERO THRUST at 1.1V<sub>S1</sub>

**NOTE:**

1. Maximum altitude loss during a conventional stall is approximately 450 feet.
2. Maximum nose down pitch attitude and altitude loss during recovery from an engine inoperative stall is approximately 15° below the horizon and 300 feet, respectively.

WEIGHT lbs	CONFIGURATION		ANGLE OF BANK							
			0°		20°		40°		60°	
			FLAPS	GEAR	KIAS	KCAS	KIAS	KCAS	KIAS	KCAS
7105	0°	Up	79	80	82	83	91	91	113	113
	15°	Down	74	75	76	77	85	86	107	106
	45°	Down	69	70	71	72	80	80	100	99
6750	0°	Up	77	78	79	80	89	89	110	110
	15°	Down	72	73	74	75	83	84	103	103
	45°	Down	67	68	69	70	78	78	97	96
6200	0°	Up	75	75	76	77	85	85	106	106
	15°	Down	69	70	71	72	79	80	99	99
	45°	Down	64	65	66	67	75	75	93	92
5700	0°	Up	72	72	74	74	81	82	101	101
	15°	Down	66	67	68	69	76	77	94	95
	45°	Down	62	63	64	65	71	72	89	89
5200	0°	Up	68	68	71	71	77	78	97	97
	15°	Down	63	64	65	66	72	73	90	91
	45°	Down	59	60	61	62	67	68	85	85

**NORMAL TAKEOFF DISTANCE**

CONDITIONS:  
1. MANIFOLD PRESSURE and ENGINE SPEED - SET MAX TAKEOFF POWER  
2. FUEL FLOWS - WITHIN RANGE FOR TAKEOFF POWER  
3. WING FLAP POSITION - UP  
4. COWL FLAP POSITION - OPEN  
5. LEVEL- DRY- HARD SURFACED RUNWAY

NOTES:  
1. TOTAL DISTANCE IS DISTANCE TO 50 ft ABOVE GROUND LEVEL  
2. DISTANCES APPLY FROM POINT WHERE TAKEOFF POWER IS SET  
3. DECREASE DISTANCE 7% FOR EACH 10 KNOTS OF HEADWIND.  
4. INCREASE DISTANCE 5% FOR EACH 2 KNOTS OF TAILWIND.

WEIGHT	SPEED AT 50 ft AGL	TEMPERATURE	-20°C (-4°F)		-10°C (14°F)		0°C (32°F)		10°C (50°F)		20°C (68°F)		30°C (86°F)		40°C (104°F)		50°C (122°F)	
			PRESSURE ALTITUDE feet	GRND DIST. feet	TOTAL DIST. feet	GRND DIST. feet	TOTAL DIST. feet	GRND DIST. feet	TOTAL DIST. feet	GRND DIST. feet	TOTAL DIST. feet	GRND DIST. feet	TOTAL DIST. feet	GRND DIST. feet	TOTAL DIST. feet	GRND DIST. feet	TOTAL DIST. feet	GRND DIST. feet
7105 pounds	92 KIAS	sea-level	1297	1707	1422	1862	1555	2035	1696	2218	1904	2482	2087	2720	2286	2984	2526	3302
		1000	1380	1798	1505	1962	1646	2145	1846	2391	2020	2619	2212	2875	2428	3158	2687	3497
		2000	1463	1898	1596	2072	1788	2309	1954	2528	2137	2765	2345	3039	2577	3340	2857	3702
		3000	1546	2008	1738	2236	1896	2446	2079	2674	2270	2930	2494	3212	2735	3541	3025	3935
		4000	1679	2163	1837	2364	2012	2583	2203	2829	2411	3103	2652	3404	2910	3760	3219	4167
		5000	1788	2282	1954	2501	2137	2729	2345	2993	2569	3285	2818	3614	3101	3988	3440	4437
		6000	1896	2418	2079	2647	2270	2893	2494	3176	2735	3486	3001	3842	3309	4244	3678	4726
		7000	2012	2555	2203	2802	2419	3066	2652	3368	2910	3705	3201	4079	3533	4517	3933	5043
		8000	2145	2710	2353	2966	2577	3258	2827	3577	3109	3933	3417	4344	3775	4810	4204	5368
		9000	2278	2875	2503	3149	2752	3459	3018	3806	3317	4189	3658	4627	4032	5138	4481	5751
		10000	2436	3057	2689	3349	2935	3678	3228	4052	3550	4463	3908	4937	4323	5485	4822	6142
6750 pounds	92 KIAS	sea-level	1225	1587	1343	1731	1465	1892	1602	2062	1798	2308	1971	2529	2159	2775	2385	3070
		1000	1303	1672	1421	1824	1555	1994	1743	2223	1908	2435	2089	2673	2293	2936	2538	3252
		2000	1382	1765	1508	1928	1688	2147	1845	2350	2018	2571	2214	2826	2434	3106	2698	3442
		3000	1461	1867	1641	2079	1790	2274	1963	2486	2144	2724	2356	2987	2583	3292	2857	3659
		4000	1586	2011	1735	2198	1900	2401	2081	2630	2277	2885	2505	3165	2746	3498	3040	3893
		5000	1688	2121	1845	2325	2018	2537	2214	2783	2428	3055	2662	3360	2929	3708	3249	4126
		6000	1790	2249	1983	2461	2144	2690	2356	2953	2583	3241	2835	3572	3125	3946	3474	4394
		7000	1900	2376	2081	2605	2285	2851	2505	3131	2748	3445	3023	3793	3337	4200	3714	4689
		8000	2026	2520	2222	2758	2434	3029	2870	3326	2937	3657	3227	4039	3565	4472	3970	4991
		9000	2152	2673	2364	2927	2599	3216	2850	3538	3133	3895	3455	4302	3808	4777	4232	5348
		10000	2301	2843	2521	3114	2772	3420	3047	3768	3353	4149	3691	4591	4083	5100	4554	5711
6200 pounds	92 KIAS	sea-level	1139	1433	1246	1563	1382	1702	1486	1851	1620	2019	1771	2205	1885	2475	2241	2798
		1000	1210	1516	1317	1647	1442	1795	1575	1954	1718	2140	1922	2382	2109	2614	2334	2893
		2000	1282	1600	1397	1740	1531	1898	1673	2065	1889	2307	2038	2521	2234	2763	2469	3053
		3000	1362	1684	1486	1842	1620	2000	1816	2233	1985	2437	2172	2661	2378	2921	2622	3234
		4000	1442	1777	1575	1944	1762	2158	1922	2354	2100	2577	2305	2819	2528	3098	2795	3433
		5000	1531	1888	1709	2093	1889	2279	2047	2493	2234	2726	2447	2986	2688	3284	2976	3641
		6000	1664	2028	1816	2214	1985	2409	2172	2642	2378	2893	2608	3172	2868	3489	3175	3868
		7000	1762	2140	1931	2344	2109	2558	2314	2800	2536	3070	2777	3368	3053	3712	3384	4125
		8000	1878	2270	2056	2484	2252	2716	2465	2968	2706	3256	2964	3582	3257	3944	3610	4380
		9000	2002	2409	2189	2633	2394	2884	2625	3154	2884	3461	3168	3805	3489	4205	3873	4665
		10000	2127	2549	2332	2791	2554	3061	2803	3358	3079	3684	3382	4056	3729	4484	4145	4998

**ACCELERATE STOP DISTANCE**

CONDITIONS:  
1. MANIFOLD PRESSURE and ENGINE SPEED - MAX TAKEOFF POWER  
2. FUEL FLOWS - WITHIN RANGE FOR TAKEOFF POWER  
3. WING FLAP POSITION - UP  
4. COWL FLAP POSITION - OPEN  
5. LEVEL- DRY- HARD SURFACED RUNWAY  
6. ENGINE FAILURE AT ENGINE FAILURE SPEED  
7. IDLE POWER AND MAXIMUM EFFECTIVE BRAKING AFTER ENGINE FAILURE

NOTE:  
1. DISTANCES APPLY FROM POINT WHERE TAKEOFF POWER IS SET  
2. DECREASE DISTANCE 3% FOR EACH 4 KNOTS HEADWIND  
3. INCREASE DISTANCE 5% FOR EACH 2 KNOTS TAILWIND

WEIGHT	ENGINE FAILURE SPEED	TEMPERATURE	TOTAL DISTANCE TO STOP - FEET											
			-20°C (-4°F)	-10°C (14°F)	0°C (32°F)	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)	50°C (122°F)				
7105 pounds	92 KIAS	sea-level	3132	3338	3552	3873	4127	4395	4643	4890				
		1000	3283	3498	3811	4056	4324	4584	4895	5226				
		2000	3441	3740	3985	4253	4500	4801	5133	5464				
		3000	3607	3914	4182	4421	4722	5046	5409	5772				
		4000	3859	4112	4358	4643	4967	5307	5686	6065				
		5000	4041	4287	4580	4898	5235	5591	6002	6413				
		6000	4224	4501	4817	5141	5504	5907	6334	6760				
		7000	4437	4738	5070	5418	5805	6223	6674	7125				
		8000	4659	4991	5339	5718	6129	6571	7069	7566				
		9000	4912	5252	5631	6026	6461	6935	7472	8009				
		10000	5173	5544	5940	6396	6825	7346	7922	8499				
6750 pounds	92 KIAS	sea-level	2950	3143	3344	3607	3843	4088	4360	4631				
		1000	3090	3292	3554	3782	4027	4290	4587	4885				
		2000	3239	3493	3721	3966	4228	4509	4815	5121				
		3000	3397	3659	3904	4158	4438	4736	5069	5401				
		4000	3607	3843	4097	4368	4666	4981	5331	5682				
		5000	3782	4038	4307	4596	4911	5244	5620	5997				
		6000	3975	4237	4526	4832	5165	5533	5927	6321				
		7000	4178	4458	4762	5086	5445	5830	6251	6671				
		8000	4388	4692	5018	5366	5743	6154	6610	7065				
		9000	4622	4937	5288	5655	6058	6496	6987	7476				
		10000	4887	5209	5577	5971	6399	6872	7397	7923				
6200 pounds	92 KIAS	sea-level	2666	2838	3020	3203	3413	3624	3922	4219				
		1000	2790	2972	3164	3366	3576	3884	4113	4363				
		2000	2924	3116	3318	3529	3807	4056	4324	4593				
		3000	3068	3270	3481	3749	3998	4267	4545	4833				
		4000	3222	3433	3662	3941	4200	4478	4785	5091				
		5000	3385	3644	3883	4133	4411	4708	5034	5360				
		6000	3566	3826	4075	4353	4641	4957	5302	5648				
		7000	3768	4018	4286	4574	4890	5228	5600	5974				
		8000	3990	4228	4516	4823	5149	5513	5906	6300				
		9000	4171	4449	4756	5082	5437	5820	6242	6664				
		10000	4391	4689	5015	5360	5743	6146	6597	7047				



**ACCELERATE GO DISTANCE**

**CONDITIONS:**  
1. MANIFOLD PRESSURE AND ENGINE SPEED - SET MAX TAKEOFF POWER  
2. FUEL FLOWS - WITHIN RANGE FOR TAKEOFF POWER  
3. WING FLAP POSITION - UP  
4. COWL FLAP POSITION - OPEN  
5. LEVEL- DRY- HARD SURFACED RUNWAY  
6. ENGINE FAILURE AT ENGINE FAILURE SPEED  
7. PROCEDURE:  
- LANDING GEAR IN TRANSIT OR UP  
- PROPELLER FEATHERED DURING CLIMB  
- MAINTAIN ENGINE FAILURE SPEED

**NOTES:**  
1. DISTANCES APPLY FROM POINT WHERE TAKEOFF POWER IS SET  
2. DECREASE DISTANCE 8% FOR EACH 10 KNOTS OF HEADWIND.  
3. INCREASE DISTANCE 2% FOR EACH KNOT OF TAILWIND.  
4. DISTANCES SHOWN IN ITALICS PRINT REPRESENT CLIMB RATES LESS THAN 50 FT/MIN  
5. EMPTY CELLS IN TABLE INDICATE SUSTAINED FLIGHT IS NOT POSSIBLE.

WEIGHT	ENGINE FAILURE SPEED	TEMPERATURE PRESSURE ALTITUDE feet	TOTAL DISTANCE TO CLEAR 50-FOOT OBSTACLE - FEET																			
			-20° C (-4° F)	-10° C (14° F)	0° C (32° F)	10° C (50° F)	20° C (68° F)	30° C (86° F)	40° C (104° F)	50° C (122° F)												
7105 pounds	92 KIAS	sea-level	2212	2463	2761	3127	3673	4316	5259	6823												
		1000	2333	2604	2929	3398	3916	4532	5787	7636												
		2000	2466	2764	3167	3618	4185	5042	6442													
		3000	2614	2982	3368	3842	4513	5508	7271													
		4000	2824	3170	3571	4117	4886	6080	8342													
		5000	2992	3346	3820	4433	5319	6765														
		6000	3148	3557	4083	4794	5824	7647														
		7000	3356	3805	4386	5202	6439															
		8000	3580	4076	4742	5670	7202															
		9000	3818	4374	5132	6235																
10000	4089	4712	5588	6918																		
6750 pounds	92 KIAS	sea-level	1958	2170	2420	2722	3146	3652	4386	5631												
		1000	2064	2291	2563	2934	3350	3924	4786	6213												
		2000	2178	2427	2752	3115	3584	4242	5270	6929												
		3000	2306	2601	2919	3320	3849	4605	5875	7860												
		4000	2473	2780	3108	3546	4144	5036	6639	9066												
		5000	2616	2926	3312	3803	4484	5550	7083													
		6000	2768	3108	3531	4091	4877	6193	8202													
		7000	2941	3312	3781	4416	5346	7017														
		8000	3130	3539	4068	4786	5913	8144														
		9000	3335	3788	4386	5225	6616	9823														
10000	3562	4068	4749	5747	7539																	
6200 pounds	92 KIAS	sea-level	1565	1716	1890	2095	2329	2624	3032	3785												
		1000	1648	1807	1996	2216	2473	2828	3236	4009												
		2000	1732	1906	2110	2337	2654	3002	3456	4300												
		3000	1830	2011	2223	2510	2820	3206	3713	4641												
		4000	1928	2125	2389	2662	2994	3418	4000	5041												
		5000	2034	2276	2526	2828	3191	3667	4325	5481												
		6000	2178	2412	2677	3002	3410	3940	4703	6014												
		7000	2299	2548	2843	3199	3652	3977	5149	6954												
		8000	2435	2707	3025	3418	3917	4513	5686	7436												
		9000	2586	2881	3229	3660	4227	5028	6359	8459												
10000	2745	3070	3448	3932	4575	5520	7229															

**RATE-OF-CLIMB - MAXIMUM CLIMB**

**CONDITIONS:**  
1. MANIFOLD PRESSURE AND ENGINE SPEED - SET MAX CONTINUOUS POWER  
2. FUEL FLOWS - WITHIN RANGE FOR MAX CONTINUOUS POWER  
3. LANDING GEAR - UP  
4. WING FLAPS - UP  
5. COWL FLAPS - OPEN

Altitude ft	Climb Speed KIAS
sea-level	110
20,000	109
30,000	106

**NOTE:**  
- ABOVE 25,000 FEET, SET NORMAL CLIMB POWER.  
- EMPTY CELLS IN TABLE INDICATE RATE-OF-CLIMB IS LESS THAN 100 FEET / MINUTE.

Weight	Temperature Pressure Altitude feet	RATE-OF-CLIMB feet/minute																			
		-30° C (-22° F)	-20° C (-4° F)	-10° C (14° F)	0° C (32° F)	10° C (50° F)	20° C (68° F)	30° C (86° F)	40° C (104° F)	50° C (122° F)	60° C (140° F)										
7105 pounds	sea-level	2198	2045	1906	1763	1624	1486	1347	1229	1090	971										
	4000	1990	1857	1709	1575	1438	1308	1179	1041	922	793										
	8000	1793	1659	1525	1387	1248	1120	991	868	744	635										
	12000	1610	1466	1337	1199	1065	937	808	684	568	452										
	16000	1392	1263	1135	1006	882	764	645	538	412	299										
	20000	1159	1036	907	788	670	556	447	338	239	125										
	24000	719	610	508	412	318	224	130	--	--	--										
	28000	289	200	111	--	--	--	--	--	--	--										
6500 pounds	sea-level	2371	2211	2071	1926	1786	1646	1506	1386	1246	1121										
	4000	2161	2021	1871	1736	1596	1466	1336	1196	1076	946										
	8000	1961	1821	1686	1548	1406	1278	1146	1021	896	786										
	12000	1776	1626	1496	1356	1221	1091	961	836	691	576										
	16000	1561	1421	1291	1161	1036	916	771	661	536	421										
	20000	1326	1191	1061	941	796	681	571	461	361	246										
	24000	856	746	641	546	451	356	261	171	--	--										
	28000	431	341	251	161	--	--	--	--	--	--										
6000 pounds	sea-level	2577	2427	2287	2137	1992	1852	1712	1577	1432	1292										
	4000	2397	2242	2092	1942	1812	1647	1522	1377	1257	1102										
	8000	2177	2017	1892	1762	1617	1482	1327	1182	1047	927										
	12000	1987	1827	1702	1567	1407	1267	1122	982	842	717										
	16000	1772	1627	1497	1332	1212	1072	897	807	687	557										
	20000	1502	1387	1232	1092	962	832	722	617	467	377										
	24000	1022	902	797	692	582	482	385	287	197	--										
	28000	567	492	407	337	252	177	--	--	--	--										
5500 pounds	sea-level	2834	2684	2534	2384	2229	2084	1944	1789	1644	1484										
	4000	2674	2499	2334	2184	2034	1879	1754	1594	1474	1284										
	8000	2409	2259	2134	1984	1849	1704	1539	1399	1239	1119										
	12000	2234	2064	1939	1784	1634	1484	1329	1179	1029	884										
	16000	1999	1879	1729	1559	1424	1264	1124	984	849	734										
	20000	1734	1614	1444	1274	1159	1029	899	784	669	544										
	24000	1219	1094	974	859	744	634	529	429	334	239										
	28000	754	674	594	514	434	354	274	194	114	--										

## SECTION 6 WEIGHT AND BALANCE

### RATE-OF-CLIMB - ONE ENGINE INOPERATIVE

- CONDITIONS:**  
 1. MAN. PRES. AND ENG. SPEED - SET MAX CONT POWER  
 2. MIXTURE-WITHIN RANGE FOR MAX CONT POWER  
 3. LANDING GEAR-UP  
 4. WING FLAPS-UP  
 5. INOPERATIVE PROPELLER-FEATHERED  
 6. WINGS BANKED 3° TOWARD OPERATIVE ENGINE  
 WITH APPROXIMATELY 1/2 BALL SLIP INDICATED ON THE TURN AND BANK INDICATOR.  
 7. COWL FLAP-OPEN ON OPERATIVE ENGINE; CLOSED ON INOPERATIVE ENGINE.

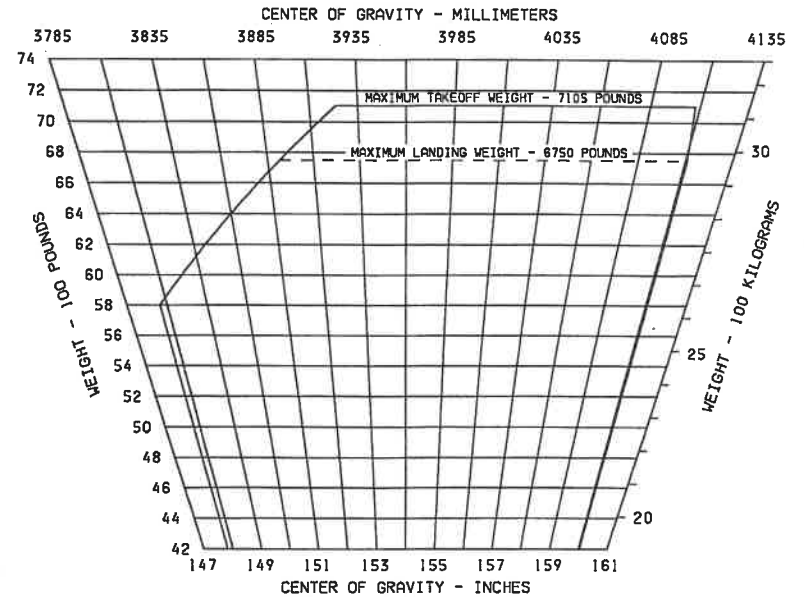
**NOTE:**  
 APPROXIMATE EFFECT OF CONFIGURATION ON SINGLE-ENGINE RATE-OF-CLIMB  
 SUBTRACT VALUES LISTED BELOW FROM THE VALUE OBTAINED IN THE TABLE.  
 EFFECTS FOR A COMBINATION OF GEAR, FLAP, OR WINDMILLING PROPELLER  
 MAY BE OBTAINED BY ADDING THE EFFECTS OF EACH.

INOPERATIVE ENGINE WINDMILLING  
 GEAR DOWN 400 FT/MIN  
 FLAPS DOWN 18° 350 FT/MIN  
 200 FT/MIN  
 FLAPS DOWN 45° 900 FT/MIN

Weight lbs	Climb Speed - KIAS		
	Sea-level	10,000	20,000
7087	110	110	105
6750	108	105	103
6250	105	103	101
5750	102	101	100

WEIGHT	TEMPERATURE PRESSURE ALTITUDE feet	RATE-OF-CLIMB feet/minute										
		-40°C (-40°F)	-30°C (-22°F)	-20°C (-4°F)	-10°C (14°F)	0°C (32°F)	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)	50°C (122°F)	
7105 pounds	sea-level	558	498	434	405	355	312	257	207	152	131	
	4000	460	415	358	310	272	225	179	129	86	51	
	8000	370	332	282	225	189	139	109	54	16	-34	
	12000	292	249	192	161	126	74	31	-15	-64	-102	
	16000	204	159	134	71	53	0	-44	-99	-139	-170	
	20000	143	89	51	0	-29	-67	-112	-147	-185	-225	
24000	-22	-74	-107	-142	-175	-224	-283	-318				
6750 pounds	sea-level	631	571	521	471	421	371	316	266	211	161	
	4000	531	481	431	378	331	281	231	181	131	81	
	8000	436	391	341	291	241	191	148	91	46	-4	
	12000	351	301	251	206	156	111	61	11	-34	-79	
	16000	258	211	171	116	76	31	-14	-69	-109	-154	
	20000	166	126	81	41	0	-44	-89	-124	-169	-209	
24000	0	-44	-84	-119	-159	-204	-231	-274	-309	-349		
6500 pounds	sea-level	683	623	583	518	468	413	358	308	253	183	
	4000	593	528	483	423	373	313	268	218	163	103	
	8000	483	433	383	338	278	228	173	118	75	18	
	12000	393	338	293	238	178	138	83	38	-12	-62	
	16000	293	248	198	148	93	58	0	-47	-90	-142	
	20000	183	153	103	68	23	-27	-72	-107	-157	-197	
24000	18	-22	-67	-102	-147	-189	-222	-267	-302	-342		
6000 pounds	sea-level	818	748	718	658	598	538	473	408	338	263	
	4000	723	658	608	548	498	418	363	298	243	168	
	8000	608	558	508	448	378	308	248	183	138	78	
	12000	518	448	398	338	253	198	148	98	38	-17	
	16000	388	348	278	238	163	118	58	0	-47	-102	
	20000	258	218	163	133	63	28	-32	-67	-122	-162	
24000	68	28	-17	-57	-117	-152	-197	-242	-272	-312		
5500 pounds	sea-level	983	938	883	823	753	683	608	513	433	343	
	4000	883	833	758	693	643	533	483	403	323	248	
	8000	758	713	653	583	493	403	333	263	203	158	
	12000	663	583	513	458	343	278	213	163	103	58	
	16000	503	463	373	343	233	193	113	73	0	-57	
	20000	358	323	243	203	133	93	23	-17	-77	-117	
24000	148	98	43	0	-67	-107	-167	-207	-237			

### WEIGHT & CENTER-OF-GRAVITY ENVELOPE



## Weight and Balance Report

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

<b>Make</b>	Cessna	<b>Model</b>	414A
<b>Serial#</b>	414A-0317	<b>Reg.#</b>	N414MP
<b>Date of scale calibration:</b>	8/21/21		
<b>Aircraft gross weight:</b>	7140.00		

Aircraft as Weighed					
Weight Point	Scale Reading	Tare	Net Weight	Arm	Moment
Left	2,251.00	0.00	2,251.00	171.77	386,654.27
Right	2,278.00	0.00	2,278.00	171.77	391,292.06
Nose	643.00	0.00	643.00	46.66	30,002.38
<b>Total As Weighed</b>			<b>5,172.00</b>	<b>156.22</b>	<b>807,948.71</b>

Weight Adjustments			
Description	Weight	Arm	Moment
Drainable Unuseable Fuel	52.00	165.20	8,590.40
<b>Total Corrected Empty Weight</b>	<b>5,224.00</b>	<b>156.31</b>	<b>816,539.05</b>

Maximum Ramp Weight 7140.00 lbs. Maximum T/O weight 7105.00

<b>Corrected Empty Weight:</b>	5,224.00
<b>Center of Gravity:</b>	156.31
<b>Useful Load:</b>	1,916



Edward J. Novak Jr.  
Authorized Signature

D.O.M.  
Title

A+P 2832024 IA  
Cert. Number

6/2/22  
Date





N308CE

Chancellor

N4147P

RAM AIRCRAFT  
**The Engine Specialist**  
FOR CESSNA, BEECHCRAFT, & CIRRUS AIRCRAFT



## ENGINE MAINTENANCE RECORDS

Aircraft Registration \_\_\_\_\_

Engine Position Left

Engine Serial No. 514067



## ENGINE MAINTENANCE RECORDS

Log No. \_\_\_\_\_

Aircraft Registration No. \_\_\_\_\_

Engine Manufacturer Continental

Model TS10-520-ND

Serial No. 514067

Date installed on aircraft \_\_\_\_\_

Time Between Overhauls (TBO) \_\_\_\_\_ Hours

If used on multi-engine aircraft:

Right

Left

Waco Regional Airport  
7505 Karl May Drive • P.O. Box 5219 • Waco, Texas 76708  
Phone: (254) 752-8381 Fax: 254-752-3307  
[www.ramaircraft.com](http://www.ramaircraft.com)

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATION NO. OF PERSON PERFORMING WORK
				<b>TOTALS</b> brought forward from previous page



Date	Total Time In Service	Total Time Since Overhaul	Recording Meter Time
09/28/2022	5832.6	0.0	

CONTINENTAL TSIO-520-NB Series VII 414A Left Engine S/N 514067

Above referenced engine overhauled to new parts limits per FAR 43.2(a)(1)(2) to conform w/CMI SM X-30574 and Continental M-0, Standard Practice Maintenance Manual. Applicable AD's and Service Bulletins C/W at this time. All gears cleaned, polished when required, inspected, magnetic particle inspected, and no cracks found. Finish and dimensional limits within RAM Gear Inspection Specification No. 1818, Rev. P dated 07/19/2017. Above referenced engine modified to TSIO-520-NB 335 HP per STC SE09104SC-D (includes STC SE4327SW-D). Installed new RAM camshaft p/n 1058-20, s/n XI 21078 per STC SE09104SC-D. Installed new lifters p/n SA628488 (int), p/n SA646277 (exh). AD 10-11-04 n/a to lifter p/n installed. AD 97-26-17 c/w per installation of overhauled VAR crankshaft p/n 642396, s/n F462 per TCM CSB96-8. C/W ultrasonic inspection per MSB96-10B, due at next overhaul or when crankshaft removed. AD 99-19-01 n/a per crankshaft date of manufacture I/A/W TCM MSB99-3C. AD 2000-23-21 N/A to crankshaft serial number/date of manufacture I/A/W TCM Mandatory Service Bulletin MSB00-5D. Engine assembled with new RAM crankcase p/n 2922-1, s/n 21K0397. Installed new Superior steel cylinders. Installed overhauled oil cooler p/n 654580, s/n 1672104. C/W AD 89-24-01 R1 per installation of starter adapter p/n 642085A4 with current scavenge pump gears. AD 2012-10-13 AND MSB11-4B Starter Adapter inspection N/A per p/n installed or manufacture date. Installed new RAM/FAA/PMA fuel nozzles p/n 2562-14D. TCM Service Bulletin SB06-1A N/A per installation of RAM fuel nozzles. Installed modified connecting rods p/n 1162 per STC SE4327SW-D as FAA/PMA approved replacement. Engine accessories exchanged for overhauled or new units with exception of prop governor, alternator, vacuum pump, hydraulic pump and tach generator which were not installed per this work order. New Kelly pressurized magnetos p/n ES6320 installed per STC SE4651SW-D and pressurized. MSB94-8D on magneto timing procedure c/w per timing to STC degree requirements with TDC locator and protractor with pointer. Engine modified to TSIO-520- NB per Continental Service Bulletin M75-6 Rev 1. P/N 652130 & 652131 rocker arms installed. Installed RAM/FAA/PMA oil cooler baffle p/n 1253-1, rocker arm cover gaskets p/n 1387-1, spring loaded induction clamps p/n 1170-2 and double clamp p/n 1170-5. Category 1 thru 3 CMI Service Bulletin Compliance Listing in RAM Manual. Engine ground run on test stand per RAM specifications for 120 minutes. Engine run-in with Aeroshell 100 Mineral oil. See RAM Recommended Oil Grade Maintenance Tip MT-1 for recommended oils. Engine approved for return to service for the work performed. Engine preserved per Continental M-0, Standard Practice Maintenance Manual temp. storage up to 90 days. Pertinent details on file under Project No 10271.

*Lawrence P. Garcia*

RAM Aircraft, Limited Partnership, P.O. Box 5219, Waco Texas 76708 CRS VA1R551K

				<b>SUB-TOTALS</b> this page
				<b>TOTALS</b> —Carry forward to next page





Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

3/14/2023 N414MP

Cessna 414A, serial # 414A-0317

Engine 1 Logbook

Hobbs Hours: 1629.9 :: Aircraft TT: 5452.5 :: #1 Engine TT: 4692.5 :: #1 Engine TSMOH: 0.0

- 1) This engine installed onto the right side of Cessna 414A, N414MP, serial # 414A-0317 using all new engine mounts per Ram and Cessna 414A maintenance manual instructions.
- 2) All accessories and oil and fuel hoses were provided by RAM and installed except for vac. pump, tach gen, hydraulic pumps, prop, prop gov and alternator. Prop gov was O/H and reinstalled from the previous engine. A new vacuum pump was installed. A new alternator was installed reusing the existing alternator drive coupling from the previous engine. Tach gen was reinstalled from the previous engine in "as removed" condition. Landing gear hydraulic pump was replaced with an O/H unit. Propeller was reinstalled from the previous engine in "as removed" condition after flushing the oil cylinder.
- 3) Engine was serviced with 12 qts. of Phillips Type M 20w-50 mineral oil and pre-oiled per RAM instructions. Engine was also turned by hand until oil pressure was read on the cockpit gage.
- 4) Set idle speed, idle mixture, low unmetered fuel pump pressure, high unmetered fuel pump pressure & maximum MAP at full power.
- 5) Ground runup and systems functional checks completed with satisfactory results and no fuel or oil leaks noted.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed Edward J. Novak Jr.  
Edward J. Novak Jr. A+P 2832024 IA



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

5/10/2023 N414MP

Cessna 414A, serial # 414A-0317

Engine 1 Logbook

Hobbs Hours: 1658.2 :: Aircraft TT: 5480.8 :: #1 Engine TSMOH: 28.3 :: #1 Propeller SMOH: 653.9 :: #2 Propeller SMOH: 653.9 :: #2 Engine TSMOH: 28.3 :: Heater Hobbs: 612.5

Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) Cyl. Comp. Checked per TCM SB 03-03 - all cyls. checked above minimum (42): 1) 70/80 2) 72/80 3) 72/80 4) 68/80 5) 72/80 6) 74/80.
- 2) C/W the following TCM repetitive SB's: M90-17 (C/C Insp), SB95-2 (Control Linkage Insp), SB95-7 (Fuel Manifold valve cover insp), SB96-12 (cyl Insp.), SB96-7C (Torque Values), MSB94-8D (Mag Timing), SID97-3G (Fuel System), SB09-14 (C/S Rust) and SB17-01A (flanged nut insp.), SB20-01 (fuel screen) and noted no defects.
- 3) #1 lower spark plug replaced with a new unit (part # URHB32E).
- 4) Drained oil, added 11 qts. of Phillips Victory 100W (SAE-50) oil. Installed and saftied a new AA48108-2 oil filter. Cut open filter and found no abnormal contaminants.
- 5) Ground runup and systems functional checks completed with satisfactory results and no fuel or oil leaks noted.

I certify that this Engine has been inspected in accordance with an Operation #3 inspection and was determined to be in an airworthy condition.

Signed John E. Sheehan  
John E. Sheehan A+P 3439269 IA



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

6/29/2023 N414MP

Cessna 414A, serial # 414A-0317

Engine 1 Logbook

Hobbs Hours: 1686.9 :: Aircraft TT: 5509.5 :: #1 Engine TSMOH: 57.0 :: #1 Propeller SMOH: 682.6 :: #2 Propeller SMOH: 682.6 :: #2 Engine TSMOH: 57.0 :: Heater Hobbs: 613.8

Completed 50 hr. Special inspection items as follows: Drained oil, added 11 qts. of Phillips Victory SAE50 oil. Installed and saftied a new AA48108-2 oil filter. Cut open filter and found no abnormal contaminants. Runup and leak check OK.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Signed Edward J. Novak Jr.  
Edward J. Novak Jr. A+P 2832024 IA

--	--	--

TOTALS—Carry forward to next page



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

10/25/2023 N414MP

Cessna 414A, serial # 414A-0317

Engine 1 Logbook

Hobbs Hours: 1724.6 :: Aircraft TT: 5547.2 :: #1 Engine TSMOH: 94.7 :: #1 Propeller SMOH: 720.3 :: #2 Propeller SMOH: 720.3 :: #2 Engine TSMOH: 94.7 :: Heater Hobbs: 613.8

Completed Operation #1 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) Cyl. Comp. Checked per TCM SB 03-03 1) 72/80 2) 72/80 3) 62/80 4) 72/80 5) 68/80 6) 70/80.
- 2) C/W the following TCM repetitive SB's: M90-17 (C/C Insp), SB95-2 (Control Linkage Insp), SB95-7 (Fuel Manifold valve cover insp), SB96-12 (cyl Insp.), SB96-7C (Torque Values), MSB94-8D (Mag Timing), SID97-3G (Fuel System), SB09-14 (C/S Rust) and SB17-01A (flanged nut insp.), SB20-01 (fuel screen) and noted no defects.
- 3) Completed 50 hr. special inspection as follows: Drained oil, added 11 qts. of Phillips X/C 20w-50 oil. Installed and saftied a new AA48108-2 oil filter. Cut open filter and found no abnormal contaminants.
- 4) Installed one new URHB32E for the RH magneto, #3 cylinder (lower spark plug).
- 5) Ground runup and systems functional checks completed with satisfactory results and no fuel or oil leaks noted.

I certify that this Engine has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.

Signed Edward J. Novak Jr.

Edward J. Novak Jr. A+P 2832024 IA



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

3/1/2024 N414MP

Cessna 414A, serial # 414A-0317

Engine 1 Logbook

Hobbs Hours: 1775.2 :: Aircraft TT: 5597.8 :: #1 Engine TSMOH: 145.3 :: #1 Propeller SMOH: 770.9 :: #2 Propeller SMOH: 770.9 :: #2 Engine TSMOH: 145.3 :: Heater Hobbs: 630.5

Completed Operation #2 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) Drained oil, added 11 qts. of Phillips X/C 20w-50 oil. Installed and saftied a new AA48108-2 oil filter. Cut open filter and found no abnormal contaminants.
- 2) Adjusted the idle mixture setting 1/2 turn towards rich.
- 3) Ground runup and systems functional checks completed with satisfactory results and no fuel or oil leaks noted.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Signed Edward J. Novak Jr.

Edward J. Novak Jr. A+P 2832024 IA



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

8/1/2024 N414MP

Cessna 414A, serial # 414A-0317

Engine 1 Logbook

Hobbs Hours: 1828.3 :: Aircraft TT: 5650.9 :: #1 Engine TSMOH: 198.4 :: #1 Propeller SMOH: 824.0 :: #2 Propeller SMOH: 824.0 :: #2 Engine TSMOH: 198.4 :: Heater Hobbs: 632.7

Completed Operation #3 & #4 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) Cyl. Comp. Checked per TCM SB 03-03 1) 70/80 2) 72/80 3) 70/80 4) 65/80 5) 70/80 6) 68/80.
- 2) C/W the following TCM repetitive SB's: SB95-2 (Control Linkage Insp), SB95-7 (Fuel Manifold valve cover insp), SB96-12 (cyl Insp.), SB96-7C (Torque Values), MSB94-8D (Mag Timing), SID97-3G (Fuel System), SB09-14 (C/S Rust) and SB17-01A (flanged nut insp.), SB20-01 (fuel screen) and noted no defects.
- 3) Completed 50 hr. special inspection as follows: Drained oil, added 11 qts. of Phillips X/C 20w-50 oil. Installed and saftied a new AA48108-2 oil filter. Cut open filter and found no abnormal contaminants.
- 4) Installed 10 new URHB32E spark plugs (all but #6 upper & #3 lower).
- 5) Adjusted the idle mixture 1/2 turn CW to richen the idle mixture.
- 6) Ground runup and systems functional checks completed with satisfactory results and no fuel or oil leaks noted.

I certify that this Engine has been inspected in accordance with an Operation #3 & #4 inspection and was determined to be in an airworthy condition.

Signed Edward J. Novak Jr.

Edward J. Novak Jr. A+P 2832024 IA

<b>AD NOTES COMPLIANCE RECORD</b>
-----------------------------------

Engine - Continental Motors - TSIO-520-NB

s/n: 514067

Propeller - Hartzell - ( )HC-( )Y( )

m/n:  
PHC-C3YF-2UF

s/n: EB7625B

Appliance - Connecting Rods - Engine Components  
Incorporated (ECi)

Appliance - Governors - McCauley

Appliance - Magnetos - Slick

Appliance - Cylinder assembly - Superior Air Parts

AD#	Applicable S.B. # & Subject	Date & Hours @ Comp.	Method of Compliance	One Time	Recurring	Next Comp. @ Hrs/Date	Authorized Signature & Number
2006-10-21	CORRECTION - To prevent fatigue failure of the connecting rod and a possible uncommanded shutdown of the engine.		DNA - affected component not installed.	X			Ed Novak A+P 2832024 IA
75-12-07	McCauley governors		DNA per part #.	X			Ed Novak A+P 2832024 IA
2020-19-06	Idler Gear Bearing Unapproved Variant		DNA to LH gov. per Bruce at New England Prop. because they don't use these McCauley bearings.	X			Ed Novak A+P 2832024 IA
74-18-05	Slick magnetos		DNA per part serial #.		X		Ed Novak A+P 2832024 IA
80-06-05	Slick magnetos		DNA per part serial #.	X			Ed Novak A+P 2832024 IA
81-16-05	Slick magnetos		DNA per part serial #.	X			Ed Novak A+P 2832024 IA
99-04-04	Magneto impulse coupling		DNA per engine model #.		X		Ed Novak A+P 2832024 IA
2011-26-07	To prevent engine failure due to migration of the magneto impulse coupling stop pin		DNA per engine model #.		X		Ed Novak A+P 2832024 IA
97-01-04	Cylinder assemblies		DNA per engine model #.		X		Ed Novak A+P 2832024 IA
2007-04-19	To prevent cylinder separation that can lead to engine failure		Superseded by R1		X		Ed Novak A+P 2832024 IA
2007-04-19R1	To prevent cylinder separation that can lead to engine failure		DNA per cylinder part #'s.		X		Ed Novak A+P 2832024 IA
78-06-01 R2	Flexible intake elbow		DNA per engine model #.		X		Ed Novak A+P 2832024 IA
79-05-09	Oil pressure relief valve	3/14/23 - 0 SMOH	C/W by RAM during engine O/H.	X			Ed Novak A+P 2832024 IA
80-01-04	Cylinder holddown flanges		DNA - affected component not installed.	X			Ed Novak A+P 2832024 IA
81-24-06	Fuel pump		DNA per date of installation.		X		Ed Novak A+P 2832024 IA

AD#	Applicable S.B. # & Subject	Date & Hours @ Comp.	Method of Compliance	One Time	Recurring	Next Comp. @ Hrs/Date	Authorized Signature & Number
82-09-01	Fuel pressure regulator leaks		DNA per engine S/N.	X			Ed Novak A+P 2832024 IA
86-13-04 R3	Cylinder assemblies		DNA - affected component not installed.		X		Ed Novak A+P 2832024 IA
87-23-08	Crankshaft fatigue cracks		Superseded by 97-26-17.		X		Ed Novak A+P 2832024 IA
88-03-06	Oil filter		DNA - affected component not installed.	X			Ed Novak A+P 2832024 IA
89-24-01 R1	Scavenge oil pump gears	3/14/23 - 0 TSMOH	C/W by RAM during engine O/H.	X			Ed Novak A+P 2832024 IA
91-19-03	Champion oil filter		DNA - affected component not installed.	X			Ed Novak A+P 2832024 IA
93-08-17	Incorrect oil pick-up tube		DNA per engine model #.	X			Ed Novak A+P 2832024 IA
93-10-02	Cylinder valve retainer		DNA - affected component not installed.	X			Ed Novak A+P 2832024 IA
93-16-15	Fuel pumps	3/14/23 - 0 TSMOH	C/W by RAM during engine O/H.	X			Ed Novak A+P 2832024 IA
94-14-12	Low octane detonation		Superseded by 95-21-15.	X			Ed Novak A+P 2832024 IA
95-21-15	Engine teardown and analytical inspect.		DNA per date of installation.	X			Ed Novak A+P 2832024 IA
97-26-17	CORRECTION - Crankshaft fatigue cracks	3/14/23 - 0 TSMOH	C/W by RAM during engine O/H.		X	Next O/H or crankshaft removal	Ed Novak A+P 2832024 IA
PL98-01-08	Exhaust roller rocker arms		DNA - affected component not installed.	X			Ed Novak A+P 2832024 IA
PL99-09-17	Crankshaft failure		Superseded by 99-19-01.	X			Ed Novak A+P 2832024 IA
99-19-01	Crankshaft failure		DNA per date of installation.	X			Ed Novak A+P 2832024 IA
PL2000-08-51	Crankshaft connecting rod journal fracture		Superseded by 2000-23-21.		X		Ed Novak A+P 2832024 IA
2000-23-21	Fracture of the crankshaft connecting rod journal		DNA per date of mfg.	X			Ed Novak A+P 2832024 IA
2004-08-10	Prevent loss of engine power		DNA per date of mfg.	X			Ed Novak A+P 2832024 IA
2009-16-03	To prevent the separation of the cylinder head		Superseded by 2014-05-29.		X		Ed Novak A+P 2832024 IA
2009-19-07	Correction - To prevent loss of engine power due to cracks in the cylinder head, possible engine failure, and fire in the engine compartment		DNA - affected component not installed.		X		Ed Novak A+P 2832024 IA
2009-24-51	To address rapid wear on the face of hydraulic lifters		Superseded by 2009-24-52.		X		Ed Novak A+P 2832024 IA

AD#	Applicable S.B. # & Subject	Date & Hours @ Comp.	Method of Compliance	One Time	Recurring	Next Comp. @ Hrs/Date	Authorized Signature & Number
2009-24-52	To address rapid wear on the face of hydraulic lifters		Superseded by 2010-11-04.		X		Ed Novak A+P 2832024 IA
2010-11-04	To prevent excessive hydraulic lifter wear		DNA - affected component not installed.		X		Ed Novak A+P 2832024 IA
2011-25-51	To address fractures in starter adapter shaft gears		Superseded by 2012-10-13.	X			Ed Novak A+P 2832024 IA
2012-03-06	To prevent an in-flight shutdown due to a failed fuel servo diaphragm		DNA - affected component not installed.		X		Ed Novak A+P 2832024 IA
2012-10-13	To prevent starter adapter gear shaft failure		DNA per part #.		X		Ed Novak A+P 2832024 IA
2014-05-29	Superior Air Parts Investment Cast Cylinder Assemblies		DNA - affected component not installed.		X		Ed Novak A+P 2832024 IA
2016-16-12	ECl Class 71 or Class 76 Cylinder Assembly Failures		DNA - all cyls are above serial # 61176	X			Ed Novak A+P 2832024 IA
2022-04-04	STC Stratus Oil Filter Adapter Fiber Gasket Oil Loss		Superseded by 2023-17-04.	X			Ed Novak A+P 2832024 IA
2022-16-03	S-1200 Series Magnetos Roller Bearings Improper Lubricatio		N/A - affected item not installed.	X			Ed Novak A+P 2832024 IA
2023-02-12	Intake Valve Failures		DNA per cylinder serial #'s.	X			Ed Novak A+P 2832024 IA
2023-04-08	Crankshaft Assembly Counterweight Retaining Rings in the Counterweight Groove		Superseded by 2023-05-16.	X			Ed Novak A+P 2832024 IA
2023-05-16	Improper Installation of Counterweight Retaining Rings		DNA - engine serial number. DNA - engine not assembled at TCM factory.	X			Ed Novak A+P 2832024 IA
2023-17-04	STC F&M or Stratus Oil Filter Adapter Fiber Gasket Oil Loss		N/A - affected STC not installed.	X			Ed Novak A+P 2832024 IA
77-12-06 R2	Prop blade		Superseded by 2002-09-08.		X		Ed Novak A+P 2832024 IA
2001-07-03	CORRECTION - Prevent propeller failure of the propellers returned to service by BASCO		DNA - propeller not returned to service by BASCO.	X			Ed Novak A+P 2832024 IA
2001-23-08	Prevent failure of the propeller hub resulting from cracks		DNA per date of mfg.		X		Ed Novak A+P 2832024 IA
2002-09-08	Prevent failure of the propeller blade from fatigue cracks		Superseded by 2007-26-09.	X			Ed Novak A+P 2832024 IA
2003-01-03	Prevent in-flight propeller blade separation		DNA per date of mfg.	X			Ed Novak A+P 2832024 IA
2003-03-20	Prevent fatigue failure of the original propeller hub and blades		DNA per model #.	X			Ed Novak A+P 2832024 IA
2003-13-17	Maintenance by T&W Propellers Inc.		DNA - propeller is O.E.M.	X			Ed Novak A+P 2832024 IA
2005-14-11	Maintenance by Southern California Propeller Service		DNA - propeller is O.E.M.	X			Ed Novak A+P 2832024 IA
2006-18-15	To prevent failure of the propeller hub causing blade separation and subsequent loss of airplane control		Superseded by 2009-22-03.		X		Ed Novak A+P 2832024 IA

AD#	Applicable S.B. # & Subject	Date & Hours @ Comp.	Method of Compliance	One Time	Recurring	Next Comp. @ Hrs/Date	Authorized Signature & Number
2006-24-07	To detect unsafe conditions that could result in a propeller blade separating from the hub and loss of control of the airplane		DNA - propeller is O.E.M.	X			Ed Novak A+P 2832024 IA
2007-26-09	To prevent failure of the propeller blade from fatigue cracks in the blade shank radius		DNA per date of mfg.	X			Ed Novak A+P 2832024 IA
2008-13-28	To prevent failure of the propeller hub		DNA - propeller is NOT LH rotating.		X		Ed Novak A+P 2832024 IA
2009-22-03	To prevent failure of the propeller hub causing blade separation and subsequent loss of airplane control		DNA per part serial #.		X		Ed Novak A+P 2832024 IA

**N414MP LH Eng. SB's Date: 8/1/24**  
**Hobbs: 1828.3 ACTT: 5650.9 TSMOH: 198.4**  
**Eng. M/N: TSIO-520-NB Serial #: 514067**

<u>Item #</u>	<u>Bulletin No.</u>	<u>Bulletin Description</u>	<u>Bulletin Date</u>	<u>Date Completed</u>	<u>Remarks</u>
1	M67-12	Overboost - Engine	5/31/1967		Due if MAP goes 6" over redline
2	M70-11	Slick SB # 1-70	6/22/1970		DNA - Magneto M/N
3	M71-14	Slick SB # 1-71	6/21/1971		DNA - Magneto M/N
4	M71-21	Turbo Shaft Insp.	11/22/1971		Information Only
5	M72-17R1	Max Allowable Piston/Rod Weight Difference	10/5/1973		Information Only
6	M74-18	Slick S.B. 1-74	9/16/1974		DNA - Magneto M/N
7	M75-6R1	Model Conversion	6/4/1975		Information Only
8	M75-30	Prestolite Alternators	12/19/1975		DNA - not installed
9	M76-4	Crankcase Oil Seal Installation	3/12/1976	3/14/23 - 5425.5	Due at C/S oil seal change
10	M76-5R1	Remote Mounted Oil Coolers	5/25/1976		DNA - No Remote Oil Cooler
11	M77-3	Fuel Alternate Grades	1/11/1977		Information Only
12	M77-9	Thru Bolt Change	3/16/1977		DNA - already incorporated
13	M78-6	R+R of Rosan Exh. Studs	3/3/1978		Due during Exh. Stud R+R
14	M78-5R3	Flexible Elbow p/n 635930	10/23/1978		DNA - Engine M/N
15	M78-16	#2 Cyl. Intake Elbow p/n 629138	11/29/1978		DNA - Engine M/N
16	M80-10	R+R of Some 642232 Elbows	3/28/1980		C/W by RAM during O/H
17	M81-16	AiResearch S.L. TP61-0043-2	7/27/1981		DNA - RAM O/H Turbo
18	M81-19	Availability of New Flex Elbows	8/5/1981		DNA - RAM Elbows Installed
19	M81-25	Exhaust Flange to Cyl. Installation	11/30/1981		Superseded by SB14-8
20	M83-5	Slick S.B. 3-82	3/7/1983		DNA - Magneto M/N
21	M83-6	Slick S.B. 2-82	3/7/1983		DNA - Magneto M/N
22	M81-4R1	Airesearch S.L. TP61-0046	4/29/1983	3/14/23 - 5425.5	DNA per Date of O/H
23	M81-15R1	Prestolite Alternators	6/16/1983		DNA - not installed
24	M84-5	Gear Driven Alter. Insp.	2/13/1984		Due @ any alternator malfunction
25	M84-8	Mag Timing Indicator Plate	6/19/1984		DNA - No Timing Plate Installed
26	M84-13	Slick S.B. 1-84	10/27/1984		DNA - Magneto M/N
27	M85-9R1	Piston to Cyl. Dome Clearance	8/6/1985		DNA - ECI Cyls. Installed
28	M85-10	Cyl. Hold Down Nuts	7/18/1985	3/14/23 - 5425.5	C/W by RAM During O/H
29	M86-4	Fuel Pumps	1/9/1986		Due if fuel pump press. Wanders
30	M86-13R1	Cam Plug Insp.	10/17/1986		DNA per Date of O/H
31	M86-14	Camshaft 629726 Rework	10/1/1986		DNA - RAM Cam Installed
32	M87-15	Alternator Ground Strap	7/13/1987	3/14/23 - 5425.5	Due at eng. or alter. Replacement
33	M87-16	Slick S.B. SB1-86A	8/14/1987		DNA - Magneto M/N
3	M87-23	C/S Counterweights ID @ O/H	11/24/1987	3/14/23 - 5425.5	C/W by RAM During O/H
4	M88-4	TCM Oil Filters AD 88-03-06	1/15/1988		DNA - Not Installed
35	M88-9	Lightning Strikes	8/24/1988		Due at any lightning strike
36	M88-10	Contaminated Fuels	8/24/1988		Due when wrong fuel is used
37	M89-7 R1	Eng. Ops. After O/H or Cyl. R+R	8/4/1989	3/14/23 - 5425.5	C/W by RAM During O/H
38	M89-9	Excessive Crankcase Pressures	4/21/1989		Information Only
39	M89-18	EGT Recommendations	8/10/1989		EGT Information
40	M90-6	Scavenge Pump Gears	2/26/1990	3/14/23 - 5425.5	C/W by RAM during O/H
41	M90-13	Exh. Valve Stem Corr./Erosion	7/16/1990		Due at any access to exh. Valves
42	M90-16	7th Stud Improvement	8/22/1990	3/14/23 - 5425.5	C/W by RAM during O/H
43	M90-17	C/C Insp. Criteria	8/23/1990	DNA - RAM C/C	Due at each 100 hr. Insp.
44	M91-4	Piston to Ring Application	2/11/1991	3/14/23 - 5425.5	Due at any piston ring change
45	M91-7	Cyl. Barrel Ultrasonic Insp.	3/20/1991		DNA - affected Cyls. NOT Installed
46	M91-6	Cyl. Barrel Insp.	3/20/1991		DNA - affected Cyls. NOT Installed
47	M91-9	Cam & Lifter Lube During Build	8/9/1991	3/14/23 - 5425.5	C/W by RAM during O/H
48	M92-6	Rockershaft Retention Improvement	2/28/1992	3/14/23 - 5425.5	C/W by RAM during O/H
49	M92-7	Deck Studs	5/26/1992	3/14/23 - 5425.5	C/W by RAM during O/H
50	M92-9	Flanged Thru-Bolt p/n 652541	5/29/1992	3/14/23 - 5425.5	C/W by RAM during O/H
51	M92-12	Alternator Thru-Bolt Insp.	8/27/1992		DNA per Alter. S/N
52	M92-14	Modine Oil Coolers	9/9/1992		DNA per Oil Cooler P/N
53	M93-4	C/S Counterweights	2/12/1993	3/14/23 - 5425.5	C/W by RAM during O/H
54	M93-8	Rocker Arm to Rotocoil Clearance	2/19/1993	3/14/23 - 5425.5	C/W by RAM during O/H
55	M93-5	Chamfer of Oil Feed Holes	2/19/1993	3/14/23 - 5425.5	C/W by RAM during O/H
56	M93-10	TCM Ign. SB No. 639	3/1/1993		DNA - No Impulse Couplings
57	MSB93-12	Valve Retainer Key Insp. AD 93-10-02	5/12/1993		DNA - Eng. S/N
58	CSB94-1	TCM Ign. SB No. 641 AD94-06-09	2/1/1994		DNA - Slick Mags Installed
59	SB94-2	Oil Filter adapter Mounting Stud	2/10/1994	3/14/23 - 5425.5	C/W by RAM during O/H
60	SB94-11	Oil Pump Gasket	11/14/1994	3/14/23 - 5425.5	C/W by RAM during O/H
61	CSB94-15	C/C Stud Insp.	12/2/1994		DNA - Eng. S/N
62	SB95-2	Insp.& Maint. Of Eng. Con. & Linkage	4/21/1995	8/1/24 - 5650.9	Due at ea. 100 hr. Or linkage work
63	MSB95-6	Fuel Pump Drive Coupling	10/19/1995	3/14/23 - 5425.5	C/W by RAM during O/H
64	SB95-7	Manifold valve Cover Insp.	12/8/1995	8/1/24 - 5650.9	Due ea. 100 hr. Or FF fluctuation
65	SB96-3B	C/S Gear Bolt Insp.		3/14/23 - 5425.5	C/W by RAM during O/H
66	MSB96-10A	C/S Ultrasonic Insp. AD 97-26-17	10/14/2008	3/14/23 - 5425.5	C/W by RAM during O/H

**N414MP LH Eng. SB's Date: 8/1/24**  
**Hobbs: 1828.3 ACTT: 5650.9 TSMOH: 198.4**  
**Eng. M/N: TSIO-520-NB Serial #: 514067**

67	M90-14	Champion Action Alert 90-1	8/7/1990		DNA - effected part not installed
68	SB96-12	Continued A.W. Instr. For TCM Cyls.	9/10/1996		DNA - ECI Cyls. Installed
69	SB96-3B	C/S Gear Bolt Insp.	10/14/1996		DNA per Date of Mfg.
70	CSB97-10A	Piston Pin Plug Wear <b>AD 97-21-02</b>	7/15/1997		DNA - Eng. S/N
71	SB97-11	Single Piece Rocker Bushing	8/10/1997		DNA - RAM Engines
72	SB97-15	TCM Ign. SB 660	12/5/1997		DNA - No Affected switch installed
73	CSB98-1B	Intake & Exh. Valve insp.	6/1/1998		DNA per Date of Mfg.
74	MSB99-3C	C/S Inspection <b>AD 99-09-17</b>	7/27/1999		DNA per Date of Mfg. & C/S S/N
75	SB99-8	Fuel Injection System Preservation	11/18/1999		DNA - RAM O/H
76	SB00-4A	Australian Avgas Contamination	3/7/2000		DNA - Eng. Not operated in Australia
77	SB00-10	Fuel Pump Seal 649198	12/19/2000	3/14/23 - 5425.5	C/W by RAM During O/H
78	CSB01-01	Fuel Pump Insp. And Seal Leak Test	4/25/2001		DNA per Date of Mfg.
78a	SIL00-7B	Oil Gage Rod Application	6/19/2017		<b>Due when oil gage rod (dipstick) is replaced</b>
79	MSB00-5D	Crankshaft Inspection <b>AD 00-23-21</b>	10/17/2001		DNA - Eng. S/N
80	CSB02-8	Ignition CSB 664	9/6/2002		DNA per Magnetos S/N's
81	SB01-3A	TCM Gear Driven Alternators	12/10/2002	3/14/23 - 5425.5	<b>Due @ next Alter. O/H or R+R</b>
82	CSB02-2C	Str. Adapter Shaft Seal Insp.	12/11/2002	3/14/23 - 5425.5	C/W by RAM During O/H
83	SB03-3	Cyl. Comp. Check procedures	3/28/2003	<b>8/1/24 - 5650.9</b>	<b>Due at each 100 hr. or annual insp.</b>
84	CSB04-5A	Ign. S.B. 665A	8/30/2004		DNA - Slick Mags Installed
85	SB04-11	Valve Guide Install & Reaming Procedures	11/2/2004		DNA - ECI Cyls. Installed
86	SB04-10	Piston Position Marking	10/26/2004	<b>3/14/23 - 5425.5</b>	<b>Due @ ea. Piston R+R</b>
87	SB00-3A	C/S, Rod & Counterweight Repair Info.	10/29/2004	3/14/23 - 5425.5	C/W by RAM During O/H
88	SB05-2	Overspeed Limitations	1/31/2005		<b>Due @ any C/S Overspeed</b>
89	SB96-7D	Torque Limits	8/11/2015	<b>8/1/24 - 5650.9</b>	<b>Due during all Maintenance</b>
90	CSB05-8D	Improved Cam Gear p/n 656818	8/22/2018	3/14/23 - 5425.5	C/W by RAM During O/H
91	SB05-9	Slick S.B. SB1-88B	10/20/2005		DNA to this A/C Model
92	SB06-1A	TCM Fuel Nozzle Insp. & R+R	4/28/2006		DNA - RAM Nozzles are Installed
93	CSB07-01A	Piston Pin Bushing Insp.	9/2/2020	<b>3/14/23 - 5425.5</b>	<b>Due @ any Cyl. R+R</b>
94	MSB94-8D	Mag to Eng. Timing	2/17/2010	<b>8/1/24 - 5650.9</b>	<b>Due at each 100 hr. or mag work</b>
95	SB07-8	Recommended RPM & MAP Settings	11/2/2007	3/14/23 - 5425.5	Information & Recommendations
96	SB08-3A	Thr. & Mix. Control Arms	7/30/2010	3/14/23 - 5425.5	<b>Due whenever bronze arm is R+R</b>
97	SB08-4	Fuel Injection System Contamination	3/25/2008	3/14/23 - 5425.5	<b>Due @ any Fuel System Component R+R</b>
98	SID97-3G	Fuel System Adjustment Procedures	10/21/2015	<b>8/1/24 - 5650.9</b>	<b>Due @ O/H, ea. 100 hrs., etc.</b>
99	SB08-8B	Slick S.B. SB2-08	4/10/2009		DNA - Magneto S/N's
100	SB96-11B	Prop. Strikes & Hyd. Locks	7/10/2008		<b>Due at any prop. Strike or hyd. Lock</b>
101	SB97-6B	Mandatory Repl. Parts	11/18/2009	<b>3/14/23 - 5425.5</b>	<b>Due at O/H &amp; all eng. maintenance</b>
102	MSB96-10B	C/S Ultrasonic Insp. <b>AD 97-26-1:</b>	8/10/2015	<b>3/14/23 - 5425.5</b>	C/W by RAM During O/H
103	CSB08-9A	Slick S.B. SB03-8A	10/14/2008		DNA - Magneto S/N's
104	SB08-13	Induction Hose Clamp Installation	10/14/2008	<b>3/14/23 - 5425.5</b>	<b>Due @ ea. Induction Hose Clamp R+R</b>
105	SIL98-9E	Recommended TBO	8/21/2015	<b>3/14/23 - 5425.5</b>	<b>Due at 7025.2 hrs or 03/31/2035</b>
106	SIL 99-1	Eng. preservation for active/stored aircraft	3/25/1999		<b>Due if A/C is inactive for &gt; 30 days</b>
107	MSB09-1B	Cylinder Replacement	8/18/2009		DNA - no affected cyls. Installed
108	SB08-12	Crankshaft Gear Supersedure	9/9/2008		<b>Due @ next access or TBO</b>
109	CSB10-2	Kelly T-Wheel Replacement	1/22/2010		DNA per Turbo Serial #'s
110	MSB09-8A	TCM Hydraulic Lifters	12/14/2009		DNA per date of O/H
111	SB09-14	C/S Corrosion Treatment	10/16/2009		<b>Due if rust is noted on C/S</b>
112	CSB09-11A	Minimum Cruise RPM Limits	11/12/2014	<b>12/1/13 - 4054.7</b>	Owner Advised
113	SB09-7	Push Rod Seal Leakage	7/16/2009		DNA per date of O/H
114	SB09-14	C/S Rust Treatment	10/16/2009	<b>8/1/24 - 5650.9</b>	<b>Due ea. 100 hr.</b>
115	CSB 668	Ign. Harness Attach Plate	5/18/2010		One time insp. completed OK
116	SIL04-12A	TCM Authorized Adjustments	5/18/2010		Due as needed - see bulletin
117	MSB10-3	Kelly SB 039A <b>AD 2010-07-4</b>	5/18/2010		DNA per Turbo s/n
118	SID10-4	Volcanic Ash Contamination	7/21/2010		DNA-no ash contamination occurred
119	SB11-3	Alter. Drive Coupling Installation	3/18/2011	<b>3/14/23 - 5425.5</b>	<b>Due @ ea. Access to coupling</b>
120	CSB08-3C	Remove Bronze Levers from Service	7/7/2013		Found PCW
121	SID97-4F	Cyl. Bore & Piston Fit Specs.	8/13/2014		DNA - ECI Cyls. Installed
122	SB13-4C	Aneroid Equipped Fuel Pumps	11/7/2016		DNA per pump s/n's installed
123	MSB13-7	H.E.T. Bulletin 048, rev. 1	1/15/2014		DNA per eng. m/n
124	SIL 13-2A	Alternator ICA's	1/15/2014	<b>3/14/23 - 5425.5</b>	Due during Alternator Maintenance
125	SID 05-1A	Insp. Guidelines for Cams & Lifters	5/2/2014	<b>3/14/23 - 5425.5</b>	Due & access to Cam and/or Lifters
126	MSB14-3	H.E.T. Bulletin # 057	5/5/2014		DNA per Turbo s/n's
127	SB14-5	H.E.T. Bulletin # 059	6/19/2014		DNA per Alter. s/n
128	SIL99-2C	Authorized Sealants, Lubes & Adjesives	9/16/2014	<b>8/1/24 - 5650.9</b>	Due during all Maintenance
129	SB14-8	Exh. Flange Installation	2/3/2015	<b>3/14/23 - 5425.5</b>	Due during any exhaust installation
130	SB15-4	Slick SB1-15	8/19/2015		DNA per both magneto s/n's
131	SB15-5	Slick SL 74-20-001 (RPM drops)	10/6/2015		Due if timing drifts more the 4 degrees
132	SB15-6C	NiC3 Cylinders	9/27/2019		Applies if these cylinders are installed-none are
133	SIL16-2	Standard Practices Manual	4/15/2016	<b>8/1/24 - 5650.9</b>	Due during all Maintenance
134	SB16-6	Engine Kickback Damage	10/19/2016		Due when kickback occurs
135	SB16-7	H.E.T. Bulletin # 067	2/3/2017		DNA per eng. m/n



**N414MP LH Eng. SB's Date: 8/1/24**  
**Hobbs: 1828.3 ACTT: 5650.9 TSMOH: 198.4**  
**Eng. M/N: TSIO-520-NB Serial #: 514067**

136	SB16-8	Turbo Exh. Transition	2/3/2017		DNA per Eng. m/n
137	SB16-9	H.E.T. Bulletin # 066	2/3/2017		DNA per Alter. p/n
138	SB17-01A	Flanged Nut (652541) Insp & Corr. Prev.	10/20/2017		DNA - affected part # not installed
139	SB 670	TCM Magnetos Maint.	7/14/2017		DNA - Slick Mags Installed
140	SIL17-02	Turbo Check Valve Filter Insp. & Cleaning	7/12/2017		DNA per Eng. M/N
141	SIL17-03	Oil Filter Anti-stick Gasket	7/27/2017		Info. Only
142	SB17-04	TCM SB 670 - R+R of Dist. Block	7/17/2017		DNA - Slick Mags Installed
143	SB17-05	TCM SB 643C - Insp. Intervals	9/29/2017		DNA - Slick Mags Installed
144	SB17-06	Conn. Rod Bolt Insp.	10/20/2017	3/14/23 - 5425.5	Due at Connecting Rod Bolt Install
145	SIL 17-07	Discontinued Alternator	11/14/2017		Info. Only
146	SB18-04A	R+R of Flanged Nut	12/18/2018		DNA per Date
147	SIL 18-02	Service Documents	2/15/2018		Info. Only
148	SIL19-04	Oil Brand Selection	10/11/2019		Info. Only
149	SB19-05	Valve Guide Application	10/24/2019	3/14/23 - 5425.5	Due @ O/H or Cyl. Repair
150	CSB19-06	Hartzell Alert SB 081A (Alter. Hub Nut) <b>COMPLE</b>	11/19/2019	9/13/21 - 5233.6	See SB for affected Units
151	SB19-07	C/S End Play	12/10/2019		DNA per Eng. S/N
152	SIL19-10	Oil Filter Removal	12/16/2019		Info. Only
153	SB20-01	Fuel Screen Maint.	2/20/2020	8/1/24 - 5650.9	Due ea. 100 hr./Annual
154	SB20-03	Eng. Pres. During COVID	4/13/2020		Info. Only
155	SIL20-05	Energizer Starter ICA's	9/28/2020		Info. Only
156	SB673C	1200 series Mag Bearings	5/24/2022		DNA - slick Mags are installed
157	MSB23-01A	C/S Counterweights	2/16/2023		DNA per Eng. S/N
158	SB23-03	Hartzell SB 096 (Alternator)	5/24/2023		DNA per Alter. S/N

RAM AIRCRAFT  
**The Engine Specialist**  
FOR CESSNA, BEECHCRAFT, & CIRRUS AIRCRAFT



# ENGINE MAINTENANCE RECORDS

**Aircraft Registration** \_\_\_\_\_  
**Engine Position** Right  
**Engine Serial No.** 519264



## ENGINE MAINTENANCE RECORDS

Log No. \_\_\_\_\_

Aircraft Registration No. \_\_\_\_\_

Engine Manufacturer Continental \_\_\_\_\_

Model TS10-520-NB \_\_\_\_\_

Serial No. 519264 \_\_\_\_\_

Date installed on aircraft \_\_\_\_\_

Time Between Overhauls (TBO) 1600 Hours

If used on multi-engine aircraft:

Right

Left

Waco Regional Airport  
7505 Karl May Drive • P.O. Box 5219 • Waco, Texas 76708  
Phone: (254) 752-8381 Fax: 254-752-3307  
[www.ramaircraft.com](http://www.ramaircraft.com)

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATION NO. OF PERSON PERFORMING WORK
				<b>TOTALS</b> brought forward from previous page



Date	Total Time In Service	Total Time Since Overhaul	Tach or Recording Meter Time
10/05/2022	4692.5	0.0	

**TCM TSIO-520-NB Series VII Right Engine S/N 519264**

Above referenced engine overhauled to new parts limits per FAR 43.2(a)(1)(2) to conform w/CM SM X-30574A and Continental M-0, Standard Practice Maintenance Manual. Applicable AD's and Service Bulletins C/W at this time. All gears cleaned, polished when required, inspected, magnafluxed, and no cracks found. Finish and dimensional limits within RAM Gear Inspection Specification No. 1818, Rev. P dated 07/19/2017. Above referenced engine modified to TSIO-520-NB 335 HP per STC SE09104SC-D (includes STC SE4327SW-D). Installed new RAM camshaft p/n 1058-20, s/n XI21076 per STC SE09104SC-D. Installed new lifters p/n SA628488 (int), p/n SA646277 (exh). AD 10-11-04 n/a to lifter p/n installed. AD 97-26-17 c/w per installation of overhauled VAR crankshaft p/n 649898, s/n N05KA278 per CAT CSB96-8. C/W ultrasonic inspection per MSB96-10B, due at next overhaul or when crankshaft removed. AD 99-19-01 n/a per crankshaft date of manufacture I/A/W TCM MSB99-3C. AD 2000-23-21 N/A to crankshaft serial number/date of manufacture I/A/W TCM Mandatory Service Bulletin MSB00-5D. Engine assembled with new RAM crankcase p/n 2922-1, s/n 21J0361. Installed new Superior steel cylinders. Installed overhauled oil cooler p/n 8000440, s/n 4082828. C/W AD 89-24-01 R1 per installation of starter adapter p/n 642085A4 with current scavenge pump gears. AD 2012-10-13 and MSB11-4B starter adapter inspection n/a per p/n installed or manufacture date. Installed new RAM/FAA/PMA fuel nozzles p/n 2562-14D. TCM Service Bulletin SB06-1A N/A per installation of RAM fuel nozzles. Installed modified connecting rods p/n 1162 per STC SE4327SW-D as FAA/PMA approved replacement. Engine accessories exchanged for overhauled or new units with exception of the prop governor, alternator, vacuum pump, hydraulic pump and tach generator which were not installed per this work order. New Kelly pressurized magnetos p/n ES6320 installed per STC SE4651SW-D and pressurized. MSB94-8D on magneto timing procedure c/w per timing to STC degree requirements with TDC locator and protractor with pointer. P/N 652130 & 652131 rocker arms installed. Installed RAM/FAA/PMA oil cooler baffle p/n 1253-1, rocker box cover gaskets p/n 1387-1, spring loaded induction clamps p/n 1170-2 and double clamps p/n 1170-5. Category 1 thru 3 CMI Service Bulletin Compliance Listing in RAM Manual. Engine ground run on test stand per RAM specifications for 120 minutes. Engine run-in with Aeroshell 100 mineral oil. See RAM Recommended Oil Grade Maintenance Tip MT-1 for recommended oils. Engine approved for return to service for the work performed. Engine preserved per Continental M-0, Standard Practice Maintenance Manual temp. storage up to 90 days. Pertinent details on file under Project No 10271.

*Lawrence P. Garcia*

RAM Aircraft, Limited Partnership, P.O. Box 5219, Waco, Texas 76708 CRS VA1R551K

				<b>SUB-TOTALS</b> this page
				<b>TOTALS</b> —Carry forward to next page

12/14/2022 N414MP

Cessna 414A, serial # 414A-0317

Engine 2 Logbook

Hobbs Hours: 1629.9 :: Aircraft TT: 5452.5 :: #2 Engine TT: 4692.5 :: #2 Engine TSMOH: 0.0

- 1) This engine installed onto the right side of Cessna 414A, N414P, serial # 414A-0317 using all new engine mounts per Ram and Cessna 414A maintenance manual instructions.
- 2) All accessories and oil and fuel hoses were provided by RAM and installed except for vac. pump, tach gen, hydraulic pumps, prop, prop gov and alternator. Prop gov was O/H and reinstalled from the previous engine. A new vacuum pump was installed. A new alternator was installed reusing the existing alternator drive coupling from the previous engine. Tach gen was reinstalled from the previous engine in "as removed" condition. Air conditioning hydraulic pump was reinstalled in "as removed" condition from the previous engine. Landing gear hydraulic pump was replaced with an O/H unit. Propeller was reinstalled from the previous engine in "as removed" condition after flushing the oil cylinder.
- 3) Engine was serviced with 12 qts. of Phillips Type M 20w-50 mineral oil and pre-oiled per RAM instructions. Engine was also turned by hand until oil pressure was read on the cockpit gage.
- 4) Ground runup revealed that the propeller blades would NOT go back to low pitch after the blades were moved toward the feather position. Prop. blades would go to feather on engine shutdown.
- 5) Installed a known good prop governor from the other engine on this aircraft for troubleshooting purposes and the same problem occurred.
- 6) Completed leak down test of the oil transfer collar per Continental/RAM instructions and found the gage reading to be 0/80.
- 7) Removed the alternator and removed the RH side of the prop governor oil transfer collar. Found the transfer collar inner surfaces that ride on the crankshaft to be scored and grooved.
- 8) Removed engine and returned to RAM for repair.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is NOT approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed Edward J. Novak Jr.  
Edward J. Novak Jr. A+P 2832024 IA



Date	Total Time In Service	Total Time Since Overhaul	Recording Meter Time
02-20-23	4692.5	0.0	1629.9

**CONTINENTAL TS10-520-NB RIGHT ENGINE S/N 519264**

The above referenced engine was disassembled for maintenance. The engine was cleaned, inspected and reassembled to service limits per CMI Standard Practice Maintenance Manual M-0 and CMI Overhaul Manual X-30574. Reused crankcase, camshaft and lifters. Installed overhauled crankshaft S/N C249711N, and new main and rod bearings. C/W MSB96-10B ultrasonic inspection. Disassembled and cleaned cylinders. Reinstalled cylinder assemblies. MSB22-01 N/A per S/N's. Installed overhauled oil cooler S/N E98-3059-912. Installed accessories in their respective positions with existing time in service with the exception of the vacuum pump, prop governor, tach generator, alternator, and hydraulic pump which were not installed per this work order. Cleaned and flushed lifters, starter adapter and oil pump. Serviced engine with Aeroshell 100 oil. Run in test cell for 1 hour. Engine is approved for return to service for work performed. Engine preserved per CMI M-0 Standard Practice Maintenance Manual temp. storage up to 90 days. Pertinent details on file under Project No. 10536.

Stephen Wade  
RAM Aircraft, Limited Partnership, P.O. Box 5219, Waco Texas 76708 CRS VA1R551K


SUB-TOTALS this page  
TOTALS—Carry forward to next page

Page No.

3/14/2023

N414MP

Cessna 414A, serial # 414A-0317

Engine 2 Logbook

Hobbs Hours: 1629.9 :: Aircraft TT: 5452.5 :: #2 Engine TT: 4692.5 :: #2 Engine TSMOH: 0.0

- 1) This engine reinstalled onto the right side of Cessna 414A, N414P, serial # 414A-0317 after repairs by RAM as shown on the previous page.
- 2) Engine was serviced with 12 qts. of Phillips Type M 20w-50 mineral oil and pre-oiled per RAM instructions. Engine was also turned by hand until oil pressure was read on the cockpit gage.
- 3) Set idle speed, idle mixture, low unmetereed fuel pump pressure, high unmetereed fuel pump pressure & maximum MAP at full power.
- 4) Ground runup end systems functional checks completed with satisfactory results and no fuel or oil leaks noted.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

Edward J. Novak Jr. A+P 2832024 IA

5/10/2023

N414MP

Cessna 414A, serial # 414A-0317

Engine 2 Logbook

Hobbs Hours: 1658.2 :: Aircraft TT: 5480.8 :: #1 Engine TSMOH: 28.3 :: #1 Propeller SMOH: 653.9 :: #2 Propeller SMOH: 653.9 :: #2 Engine TSMOH: 28.3 :: Heater Hobbs: 612.5

Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) Cyl. Comp. Checked per TCM SB 03-03 - all cyls. checked above minimum (42). 1) 64/80 2) 72/80 3) 70/80 4) 66/80 5) 66/80 6) 68/80
- 2) C/W the folwing TCM repetitive SB's: M90-17 (C/C Insp), SB95-2 (Control Linkage Insp), SB95-7 (Fuel Manifold valve cover insp), SB96-12 (cyl Insp.), SB96-7C (Torque Values), MSB94-8D (Mag Timing), SID97-3G (Fuel System), SB09-14 (C/S Rust) and SB17-01A (flanged nut insp.), SB20-01 (fuel screen) and noted no defects.
- 3) Drained oil, added 10 qts. of Phillips Victory 100W (SAE-50) oil. Installed and saftied a new AA48108-2 oil filter. Cut open filter and found no abnormal contaminants.
- 4) Ground runup and systems functional checks completed with satisfactory results and no fuel or oil leaks noted.

I certify that this Engine has been inspected in accordance with an Operation #3 inspection and was determined to be in an airworthy condition.

Signed

John E. Sheehan A+P 3439269 IA

6/29/2023

N414MP

Cessna 414A, serial # 414A-0317

Engine 2 Logbook

Hobbs Hours: 1686.9 :: Aircraft TT: 5509.5 :: #1 Engine TSMOH: 57.0 :: #1 Propeller SMOH: 682.6 :: #2 Propeller SMOH: 682.6 :: #2 Engine TSMOH: 57.0 :: Heater Hobbs: 613.8

- 1) Completed 50 hr. Special inspection items as follows: Drained oil, added 11 qts. of Phillips Victory SAE50 oil. Installed and saftied a new AA48108-2 oil filter. Cut open filter and found no abnormal contaminants. Runup and leak check OK.
- 2) Installed new RHB32E spark plug at the upper #6 cylinder location.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Signed

Edward J. Novak Jr. A+P 2832024 IA

--	--	--	--

TOTALS—Carry forward to next page

10/25/2023 N414MP

Cessna 414A, serial # 414A-0317

Engine 2 Logbook

Hobbs Hours: 1724.6 :: Aircraft TT: 5547.2 :: #1 Engine TSMOH: 94.7 :: #1 Propeller SMOH: 720.3 :: #2 Propeller SMOH: 720.3 :: #2 Engine TSMOH: 94.7 :: Heater Hobbs: 613.8

Completed Operation #1 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) Cyl. Comp. Checked per TCM SB 03-03 1) 70/80 2) 70/80 3) 70/80 4) 66/80 5) 68/80 6) 68/80.
- 2) C/W the following TCM repetitive SB's: M90-17 (C/C Insp), SB95-2 (Control Linkage Insp), SB95-7 (Fuel Manifold valve cover insp), SB96-12 (cyl insp.), SB96-7C (Torque Values), MSB94-8D (Mag Timing), SID97-3G (Fuel System), SB09-14 (C/S Rust) and SB17-01A (flanged nut insp.), SB20-01 (fuel screen) and noted no defects.
- 3) Completed 50 hr. special inspection as follows: Drained oil, added 11 qts. of Phillips X/C 20w-50 oil. Installed and saftied a new AA48108-2 oil filter. Cut open filter and found no abnormal contaminants.
- 4) Installed one new URHB32E for the LH magneto, #4 cylinder (upper spark plug).
- 5) Ground runup and systems functional checks completed with satisfactory results and no fuel or oil leaks noted.

I certify that this Engine has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.

Signed *Edward J. Novak Jr.*

Edward J. Novak Jr. A+P 2832024 IA

11/14/2023 N414MP

Cessna 414A, serial # 414A-0317

Engine 2 Logbook

Hobbs Hours: 1730.9 :: Aircraft TT: 5553.5 :: #1 Engine TSMOH: 101.0 :: #2 Engine TSMOH: 101.0

Installed an overhauled fuel pump (part # 646210-11A5, serial # D029922BR) from Ram Aircraft as shown on the attached 8130-3 form. Adjusted this pump as needed per TCM SID 97-3G and RAM ICA instructions. Functional and leak checks were normal.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Signed *Donald Harrington* 1939767

Donald Harrington A+P 1939767

3/1/2024 N414MP

Cessna 414A, serial # 414A-0317

Engine 2 Logbook

Hobbs Hours: 1775.2 :: Aircraft TT: 5597.8 :: #1 Engine TSMOH: 145.3 :: #1 Propeller SMOH: 770.9 :: #2 Propeller SMOH: 770.9 :: #2 Engine TSMOH: 145.3 :: Heater Hobbs: 630.5

Completed Operation #2 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) Drained oil, added 11 qts. of Phillips X/C 20w-50 oil. Installed and saftied a new AA48108-2 oil filter. Cut open filter and found no abnormal contaminants.
- 2) Repaired one broken terminal end for an outboard prop. Deicer boot heating element. Function check prop heat OK.
- 3) Ground runup and systems functional checks completed with satisfactory results and no fuel or oil leaks noted.

I certify that this Engine has been inspected in accordance with an Operation #2 inspection and was determined to be in an airworthy condition.

Signed *Edward J. Novak Jr.*

Edward J. Novak Jr. A+P 2832024 IA

SUB-TOTALS this page

TOTALS—Carry forward to next page





<b>AD NOTES COMPLIANCE RECORD</b>
-----------------------------------

Engine - Continental Motors - TSIO-520-NB

s/n: 519264

Propeller - Hartzell - ( )HC-( )Y( )

m/n:  
PHC-C3YF-2UF

s/n: EB7629B

Appliance - Connecting Rods - Engine Components  
Incorporated (ECi)

Appliance - Governors - McCauley

Appliance - Magnetos - Slick

Appliance - Cylinder assembly - Superior Air Parts

AD#	Applicable S.B. # & Subject	Date & Hours @ Comp.	Method of Compliance	One Time	Recurring	Next Comp. @ Hrs/Date	Authorized Signature & Number
2006-10-21	CORRECTION - To prevent fatigue failure of the connecting rod and a possible uncommanded shutdown of the engine.		DNA - affected component not installed.	X			Ed Novak A+P 2832024 IA
75-12-07	McCauley governors		DNA per part #.	X			Ed Novak A+P 2832024 IA
2020-19-06	Idle Gear Bearing Unapproved Variant		DNA per date of governor O/H.	X			Ed Novak A+P 2832024 IA
74-18-05	Slick magnetos		DNA per part serial #.		X		Ed Novak A+P 2832024 IA
80-06-05	Slick magnetos		DNA per part serial #.	X			Ed Novak A+P 2832024 IA
81-16-05	Slick magnetos		DNA per part serial #.	X			Ed Novak A+P 2832024 IA
99-04-04	Magneto impulse coupling		DNA per engine model #.		X		Ed Novak A+P 2832024 IA
2011-26-07	To prevent engine failure due to migration of the magneto impulse coupling stop pin		DNA per engine model #.		X		Ed Novak A+P 2832024 IA
97-01-04	Cylinder assemblies		DNA per eng. Model #.		X		Ed Novak A+P 2832024 IA
2007-04-19	To prevent cylinder separation that can lead to engine failure		Superseded by R1.		X		Ed Novak A+P 2832024 IA
2007-04-19R1	To prevent cylinder separation that can lead to engine failure		DNA per cylinder part #'s & s/n's.		X		Ed Novak A+P 2832024 IA
78-06-01 R2	Flexible intake elbow		DNA per engine model #.		X		Ed Novak A+P 2832024 IA
79-05-09	Oil pressure relief valve	3/14/23 - 0 SMOH	C/W by RAM during engine O/H.	X			Ed Novak A+P 2832024 IA
80-01-04	Cylinder holddown flanges		DNA - affected component not installed.	X			Ed Novak A+P 2832024 IA
81-24-06	Fuel pump		DNA per date of installation.		X		Ed Novak A+P 2832024 IA

AD#	Applicable S.B. # & Subject	Date & Hours @ Comp.	Method of Compliance	One Time	Recurring	Next Comp. @ Hrs/Date	Authorized Signature & Number
82-09-01	Fuel pressure regulator leaks		DNA per engine S/N.	X			Ed Novak A+P 2832024 IA
86-13-04 R3	Cylinder assemblies		DNA - affected component not installed.		X		Ed Novak A+P 2832024 IA
87-23-08	Crankshaft fatigue cracks		Superseded by 97-26-17.		X		Ed Novak A+P 2832024 IA
88-03-06	Oil filter		DNA - affected component not installed.	X			Ed Novak A+P 2832024 IA
89-24-01 R1	Scavenge oil pump gears	3/14/23 - 0 TSMOH	C/W by RAM during engine O/H.	X			Ed Novak A+P 2832024 IA
91-19-03	Champion oil filter		DNA - affected component not installed.	X			Ed Novak A+P 2832024 IA
93-08-17	Incorrect oil pick-up tube		DNA per engine model #.	X			Ed Novak A+P 2832024 IA
93-10-02	Cylinder valve retainer		DNA - affected component not installed.	X			Ed Novak A+P 2832024 IA
93-16-15	Fuel pumps	3/14/23 - 0 TSMOH	C/W by RAM during engine O/H.	X			Ed Novak A+P 2832024 IA
94-14-12	Low octane detonation		Superseded by 95-21-15.	X			Ed Novak A+P 2832024 IA
95-21-15	Engine teardown and analytical inspect.		DNA per date of installation.	X			Ed Novak A+P 2832024 IA
97-26-17	CORRECTION - Crankshaft fatigue cracks	3/14/23 - 0 TSMOH	C/W by RAM during engine O/H.		X	Next O/H or crankshaft removal	Ed Novak A+P 2832024 IA
PL98-01-08	Exhaust roller rocker arms		DNA - affected component not installed.	X			Ed Novak A+P 2832024 IA
PL99-09-17	Crankshaft failure		Superseded by 99-19-01.	X			Ed Novak A+P 2832024 IA
99-19-01	Crankshaft failure		DNA per date of installation.	X			Ed Novak A+P 2832024 IA
PL2000-08-51	Crankshaft connecting rod journal fracture		Superseded by 2000-23-21.		X		Ed Novak A+P 2832024 IA
2000-23-21	Fracture of the crankshaft connecting rod journal		DNA per date of mfg.	X			Ed Novak A+P 2832024 IA
2004-08-10	Prevent loss of engine power		DNA per date of mfg.	X			Ed Novak A+P 2832024 IA
2009-16-03	To prevent the separation of the cylinder head		Superseded by 2014-05-29.		X		Ed Novak A+P 2832024 IA
2009-19-07	Correction - To prevent loss of engine power due to cracks in the cylinder head, possible engine failure, and fire in the engine compartment		DNA - affected component not installed.		X		Ed Novak A+P 2832024 IA
2009-24-51	To address rapid wear on the face of hydraulic lifters		Superseded by 2009-24-52.		X		Ed Novak A+P 2832024 IA

AD#	Applicable S.B. # & Subject	Date & Hours @ Comp.	Method of Compliance	One Time	Recurring	Next Comp. @ Hrs/Date	Authorized Signature & Number
2009-24-52	To address rapid wear on the face of hydraulic lifters		Superseded by 2010-11-04.		X		Ed Novak A+P 2832024 IA
2010-11-04	To prevent excessive hydraulic lifter wear		DNA - affected component not installed.		X		Ed Novak A+P 2832024 IA
2011-25-51	To address fractures in starter adapter shaft gears		Superseded by 2012-10-13.	X			Ed Novak A+P 2832024 IA
2012-03-06	To prevent an in-flight shutdown due to a failed fuel servo diaphragm		DNA - affected component not installed.		X		Ed Novak A+P 2832024 IA
2012-10-13	To prevent starter adapter gear shaft failure		DNA per part #.		X		Ed Novak A+P 2832024 IA
2014-05-29	Superior Air Parts Investment Cast Cylinder Assemblies		DNA - affected component not installed.		X		Ed Novak A+P 2832024 IA
2022-04-04	STC Stratus Oil Filter Adapter Fiber Gasket Oil Loss		Superseded by 2023-17-04.	X			Ed Novak A+P 2832024 IA
2022-16-03	S-1200 Series Magnetos Roller Bearings Improper Lubricatio		N/A - affected item not installed.	X			Ed Novak A+P 2832024 IA
2023-02-12	Intake Valve Failures		DNA per cylinder s/n's.	X			Ed Novak A+P 2832024 IA
2023-04-08	Crankshaft Assembly Counterweight Retaining Rings in the Counterweight Groove		Superseded by 2023-05-16.	X			Ed Novak A+P 2832024 IA
2023-05-16	Improper Installation of Counterweight Retaining Rings		DNA - engine serial number. DNA - engine not assembled at TCM factory.	X			Ed Novak A+P 2832024 IA
2023-17-04	STC F&M or Stratus Oil Filter Adapter Fiber Gasket Oil Loss		N/A - affected STC not installed.	X			Ed Novak A+P 2832024 IA
77-12-06 R2	Prop blade		Superseded by 2002-09-08.		X		Ed Novak A+P 2832024 IA
2001-07-03	CORRECTION - Prevent propeller failure of the propellers returned to service by BASCO		DNA - propeller not returned to service by BASCO.	X			Ed Novak A+P 2832024 IA
2001-23-08	Prevent failure of the propeller hub resulting from cracks		DNA per date of mfg.		X		Ed Novak A+P 2832024 IA
2002-09-08	Prevent failure of the propeller blade from fatigue cracks		Superseded by 2007-26-09.	X			Ed Novak A+P 2832024 IA
2003-01-03	Prevent in-flight propeller blade separation		DNA per date of mfg.	X			Ed Novak A+P 2832024 IA
2003-03-20	Prevent fatigue failure of the original propeller hub and blades		DNA per model #.	X			Ed Novak A+P 2832024 IA
2003-13-17	Maintenance by T&W Propellers Inc.		DNA - propeller is O.E.M.	X			Ed Novak A+P 2832024 IA
2005-14-11	Maintenance by Southern California Propeller Service		DNA - propeller is O.E.M.	X			Ed Novak A+P 2832024 IA
2006-18-15	To prevent failure of the propeller hub causing blade separation and subsequent loss of airplane control		Superseded by 2009-22-03.		X		Ed Novak A+P 2832024 IA

AD#	Applicable S.B. # & Subject	Date & Hours @ Comp.	Method of Compliance	One Time	Recurring	Next Comp. @ Hrs/Date	Authorized Signature & Number
2006-24-07	To detect unsafe conditions that could result in a propeller blade separating from the hub and loss of control of the airplane		DNA - propeller is O.E.M.	X			Ed Novak A+P 2832024 IA
2007-26-09	To prevent failure of the propeller blade from fatigue cracks in the blade shank radius		DNA per date of mfg.	X			Ed Novak A+P 2832024 IA
2008-13-28	To prevent failure of the propeller hub		DNA - propeller is NOT LH rotating.		X		Ed Novak A+P 2832024 IA
2009-22-03	To prevent failure of the propeller hub causing blade separation and subsequent loss of airplane control		DNA per part serial #.		X		Ed Novak A+P 2832024 IA

**N414MP RH Eng. SB's Date: 8/1/24**  
**Hobbs: 1828.3 ACTT: 5650.9 TSMOH: 198.4**  
**Eng. M/N: TSIO-520-NB Serial #: 519264**

<u>Item #</u>	<u>Bulletin No.</u>	<u>Bulletin Description</u>	<u>Bulletin Date</u>	<u>Date Completed</u>	<u>Remarks</u>
1	M67-12	Overboost - Engine	5/31/1967		Due if MAP goes 6" over redline
2	M70-11	Slick SB # 1-70	6/22/1970		DNA - Magneto M/N
3	M71-14	Slick SB # 1-71	6/21/1971		DNA - Magneto M/N
4	M71-21	Turbo Shaft Insp.	11/22/1971		Information Only
5	M72-17R1	Max Allowable Piston/Rod Weight Difference	10/5/1973		Information Only
6	M74-18	Slick S.B. 1-74	9/16/1974		DNA - Magneto M/N
7	M75-6R1	Model Conversion	6/4/1975		Information Only
8	M75-30	Prestolite Alternators	12/19/1975		DNA - not installed
9	M76-4	Crankcase Oil Seal Installation	3/12/1976	3/14/23 - 5425.5	Due at C/S oil seal change
10	M76-5R1	Remote Mounted Oil Coolers	5/25/1976		DNA - No Remote Oil Cooler
11	M77-3	Fuel Alternate Grades	1/11/1977		Information Only
12	M77-9	Thru Bolt Change	3/16/1977		DNA - already incorporated
13	M78-6	R+R of Rosan Exh. Studs	3/3/1978		Due during Exh. Stud R+R
14	M78-5R3	Flexible Elbow p/n 635930	10/23/1978		DNA - Engine M/N
15	M78-16	#2 Cyl. Intake Elbow p/n 629138	11/29/1978		DNA - Engine M/N
16	M80-10	R+R of Some 642232 Elbows	3/28/1980		C/W by RAM during O/H
17	M81-16	AiResearch S.L. TP61-0043-2	7/27/1981		DNA - RAM O/H Turbo
18	M81-19	Availability of New Flex Elbows	8/5/1981		DNA - RAM Elbows Installed
19	M81-25	Exhaust Flange to Cyl. Installation	11/30/1981	3/14/23 - 5425.5	Superseded by SB14-8
20	M83-5	Slick S.B. 3-82	3/7/1983		DNA - Magneto M/N
21	M83-6	Slick S.B. 2-82	3/7/1983		DNA - Magneto M/N
22	M81-4R1	Airesearch S.L. TP61-0046	4/29/1983		DNA per Date of O/H
23	M81-15R1	Prestolite Alternators	6/16/1983		DNA - not installed
24	M84-5	Gear Driven Alter. Insp.	2/13/1984		Due @ any alternator malfunction
25	M84-8	Mag Timing Indicator Plate	6/19/1984		DNA - No Timing Plate Installed
26	M84-13	Slick S.B. 1-84	10/27/1984		DNA - Magneto M/N
27	M85-9R1	Piston to Cyl. Dome Clearance	8/6/1985		DNA - ECI Cyls. Installed
28	M85-10	Cyl. Hold Down Nuts	7/18/1985	3/14/23 - 5425.5	C/W by RAM During O/H
29	M86-4	Fuel Pumps	1/9/1986		Due if fuel pump press. Wanders
30	M86-13R1	Cam Plug Insp.	10/17/1986		DNA per Date of O/H
31	M86-14	Camshaft 629726 Rework	10/1/1986		DNA - RAM Cam Installed
32	M87-15	Alternator Ground Strap	7/13/1987	3/14/23 - 5425.5	Due at eng. or alter. Replacement
33	M87-16	Slick S.B. SB1-86A	8/14/1987		DNA - Magneto M/N
3	M87-23	C/S Counterweights ID @ O/H	11/24/1987	3/14/23 - 5425.5	C/W by RAM During O/H
4	M88-4	TCM Oil Filters AD 88-03-06	1/15/1988		DNA - Not Installed
35	M88-9	Lightning Strikes	8/24/1988		Due at any lightning strike
36	M88-10	Contaminated Fuels	8/24/1988		Due when wrong fuel is used
37	M89-7 R1	Eng. Ops. After O/H or Cyl. R+R	8/4/1989	3/14/23 - 5425.5	C/W by RAM During O/H
38	M89-9	Excessive Crankcase Pressures	4/21/1989		Information Only
39	M89-18	EGT Recommendations	8/10/1989		EGT Information
40	M90-6	Scavenge Pump Gears	2/26/1990	3/14/23 - 5425.5	C/W by RAM during O/H
41	M90-13	Exh. Valve Stem Corr./Erosion	7/16/1990		Due at any access to exh. Valves
42	M90-16	7th Stud Improvement	8/22/1990	3/14/23 - 5425.5	C/W by RAM during O/H
43	M90-17	C/C Insp. Criteria	8/23/1990	N/A RAM C/C	Due at each 100 hr. Insp.
44	M91-4	Piston to Ring Application	2/11/1991	3/14/23 - 5425.5	Due at any piston ring change
45	M91-7	Cyl. Barrel Ultrasonic Insp.	3/20/1991		DNA - affected Cyls. NOT Installed
46	M91-6	Cyl. Barrel Insp.	3/20/1991		DNA - affected Cyls. NOT Installed
47	M91-9	Cam & Lifter Lube During Build	8/9/1991	3/14/23 - 5425.5	C/W by RAM during O/H
48	M92-6	Rockershaft Retention Improvement	2/28/1992	3/14/23 - 5425.5	C/W by RAM during O/H
49	M92-7	Deck Studs	5/26/1992	3/14/23 - 5425.5	C/W by RAM during O/H
50	M92-9	Flanged Thru-Bolt p/n 652541	5/29/1992	3/14/23 - 5425.5	C/W by RAM during O/H
51	M92-12	Alternator Thru-Bolt Insp.	8/27/1992		DNA per Alter. S/N
52	M92-14	Modine Oil Coolers	9/9/1992		DNA per Oil Cooler P/N
53	M93-4	C/S Counterweights	2/12/1993	3/14/23 - 5425.5	7/22/13 - 4054.7
54	M93-8	Rocker Arm to Rotocoil Clearance	2/19/1993	3/14/23 - 5425.5	C/W by RAM during O/H
55	M93-5	Chamfer of Oil Feed Holes	2/19/1993	12/2/22 - 5452.5	C/W by RAM during O/H
56	M93-10	TCM Ign. SB No. 639	3/1/1993		DNA - No Impulse Couplings
57	MSB93-12	Valve Retainer Key Insp. AD 93-10-02	5/12/1993		DNA - Eng. S/N
58	CSB94-1	TCM Ign. SB No. 641 AD94-06-09	2/1/1994		DNA - Slick Mags Installed
59	SB94-2	Oil Filter adapter Mounting Stud	2/10/1994	3/14/23 - 5425.5	C/W by RAM during O/H
60	SB94-11	Oil Pump Gasket	11/14/1994	3/14/23 - 5425.5	C/W by RAM during O/H
61	CSB94-15	C/C Stud Insp.	12/2/1994		DNA - Eng. S/N
62	SB95-2	Insp.& Maint. Of Eng. Con. & Linkage	4/21/1995	8/1/24 - 5650.9	Due at ea. 100 hr. Or linkage work
63	MSB95-6	Fuel Pump Drive Coupling	10/19/1995	3/14/23 - 5425.5	C/W by RAM during O/H
64	SB95-7	Manifold valve Cover Insp.	12/8/1995	8/1/24 - 5650.9	Due ea. 100 hr. Or FF fluctuation

**N414MP RH Eng. SB's Date: 8/1/24**  
**Hobbs: 1828.3 ACTT: 5650.9 TSMOH: 198.4**  
**Eng. M/N: TSIO-520-NB Serial #: 519264**

65	SB96-3B	C/S Gear Bolt Insp.		3/14/23 - 5425.5	C/W by RAM during O/H
66	MSB96-10A	C/S Ultrasonic Insp. AD 97-26-17	10/14/2008	3/14/23 - 5425.5	C/W by RAM during O/H
67	M90-14	Champion Action Alert 90-1	8/7/1990		DNA - effected part not installed
68	SB96-12	Continued A.W. Instr. For TCM Cyls.	9/10/1996		DNA - ECI Cyls. Installed
69	SB96-3B	C/S Gear Bolt Insp.	10/14/1996		DNA per Date of Mfg.
70	CSB97-10A	Piston Pin Plug Wear AD 97-21-02	7/15/1997		DNA - Eng. S/N
71	SB97-11	Single Piece Rocker Bushing	8/10/1997		DNA - RAM Engines
72	SB97-15	TCM Ign. SB 660	12/5/1997		DNA - No Affected switch installed
73	CSB98-1B	Intake & Exh. Valve insp.	6/1/1998		DNA per Date of Mfg.
74	MSB99-3C	C/S Inspection AD 99-09-17	7/27/1999		DNA per Date of Mfg. & C/S S/N
75	SB99-8	Fuel Injection System Preservation	11/18/1999		DNA - RAM O/H
76	SB00-4A	Australian Avgas Contamination	3/7/2000		DNA - Eng. Not operated in Australia
77	SB00-10	Fuel Pump Seal 649198	12/19/2000	3/14/23 - 5425.5	C/W by RAM During O/H
78	CSB01-01	Fuel Pump Insp. And Seal Leak Test	4/25/2001		DNA per Date of Mfg.
78a	SIL00-7B	Oil Gage Rod Application	6/19/2017		Due when oil gage rod (dipstick) is replaced
79	MSB00-5D	Crankshaft Inspection AD 00-23-21	10/17/2001		DNA - Eng. S/N
80	CSB02-8	Ignition CSB 664	9/6/2002		DNA per Magneto S/N's
81	SB01-3A	TCM Gear Driven Alternators	12/10/2002	3/14/23 - 5425.5	Due @ next Alter. O/H or R+R
82	CSB02-2C	Str. Adapter Shaft Seal Insp.	12/11/2002	3/14/23 - 5425.5	C/W by RAM During O/H
83	SB03-3	Cyl. Comp. Check procedures	3/28/2003	8/1/24 - 5650.9	Due at each 100 hr. or annual insp.
84	CSB04-5A	Ign. S.B. 665A	8/30/2004		DNA - Slick Mags Installed
85	SB04-11	Valve Guide Install & Reaming Procedures	11/2/2004		DNA - ECI Cyls. Installed
86	SB04-10	Piston Position Marking	10/26/2004	3/14/23 - 5425.5	Due @ ea. Piston R+R
87	SB00-3A	C/S, Rod & Counterweight Repair Info.	10/29/2004	3/14/23 - 5425.5	C/W by RAM During O/H
88	SB05-2	Overspeed Limitations	1/31/2005		Due @ any C/S Overspeed
89	SB96-7D	Torque Limits	8/11/2015	8/1/24 - 5650.9	Due during all Maintenance
90	CSB05-8D	Improved Cam Gear p/n 656818	8/22/2018	3/14/23 - 5425.5	C/W by RAM During O/H
91	SB05-9	Slick S.B. SB1-88B	10/20/2005		DNA to this A/C Model
92	SB06-1A	TCM Fuel Nozzle Insp. & R+R	4/28/2006		DNA - RAM Nozzles are Installed
93	CSB07-01A	Piston Pin Bushing Insp.	9/2/2020	3/14/23 - 5425.5	Due @ any Cyl. R+R
94	MSB94-8D	Mag to Eng. Timing	2/17/2010	8/1/24 - 5650.9	Due at each 100 hr. or mag work
95	SB07-8	Recommended RPM & MAP Settings	11/2/2007	2/20/09 - 4176.0	Information & Recommendations
96	SB08-3A	Thr. & Mix. Control Arms	7/30/2010		Due whenever bronze arm is R+R
97	SB08-4	Fuel Injection System Contamination	3/25/2008	3/14/23 - 5425.5	Due @ any Fuel System Component R+R
98	SID97-3G	Fuel System Adjustment Procedures	10/21/2015	8/1/24 - 5650.9	Due @ O/H, ea. 100 hrs., etc.
99	SB08-8B	Slick S.B. SB2-08	4/10/2009		DNA - Magneto S/N's
100	SB96-11B	Prop. Strikes & Hyd. Locks	7/10/2008		Due at any prop. Strike or hyd. Lock
101	SB97-6B	Mandatory Repl. Parts	11/18/2009	3/14/23 - 5425.5	Due at O/H & all eng. maintenance
102	MSB96-10B	C/S Ultrasonic Insp. AD 97-26-17	8/10/2015	3/14/23 - 5425.5	C/W by RAM During Metal Contam. Repair
103	CSB08-9A	Slick S.B. SB03-8A	10/14/2008		DNA - Magneto S/N's
104	SB08-13	Induction Hose Clamp Installation	10/14/2008	3/14/23 - 5425.5	Due @ ea. Induction Hose Clamp R+R
105	SIL98-9E	Recommended TBO	8/21/2015	3/14/23 - 5425.5	Due at 7025.2 hrs or 03/31/35
106	SIL 99-1	Eng. preservation for active/stored aircraft	3/25/1999		Due if A/C is inactive for > 30 days
107	MSB09-1B	Cylinder Replacement	8/18/2009		DNA - no affected cyls. Installed
108	SB08-12	Crankshaft Gear Supersedure	9/9/2008		Due @ next access or TBO
109	CSB10-2	Kelly T-Wheel Replacement	1/22/2010		DNA per Turbo Serial #s
110	MSB09-8A	TCM Hydraulic Lifters	12/14/2009		DNA per date of O/H
111	SB09-14	C/S Corrosion Treatment	10/16/2009	8/1/24 - 5650.9	Due if rust is noted on C/S
112	CSB09-11A	Minimum Cruise RPM Limits	11/12/2014	12/1/13 - 4054.7	Owner Advised
113	SB09-7	Push Rod Seal Leakage	7/16/2009		DNA per date of O/H
114	SB09-14	C/S Rust Treatment	10/16/2009	8/1/24 - 5650.9	Due ea. 100 hr.
115	CSB 668	Ign. Harness Attach Plate	5/18/2010		One time insp. completed OK
116	SIL04-12A	TCM Authorized Adjustments	5/18/2010		Due as needed - see bulletin
117	MSB10-3	Kelly SB 039A AD 2010-07-08	5/18/2010		3/14/23 - 5425.5
118	SID10-4	Volcanic Ash Contamination	7/21/2010		DNA-no ash contamination occurred
119	SB11-3	Alter. Drive Coupling Installation	3/18/2011	3/14/23 - 5425.5	Due @ ea. Access to coupling
120	CSB08-3C	Remove Bronze Levers from Service	7/7/2013		Found PCW
121	SID97-4F	Cyl. Bore & Piston Fit Specs.	8/13/2014		DNA - ECI Cyls. Installed
122	SB13-4C	Aneroid Equipped Fuel Pumps	11/7/2016		DNA per pump s/n's installed
123	MSB13-7	H.E.T. Bulletin 048, rev. 1	1/15/2014		DNA per eng. m/n
124	SIL 13-2A	Alternator ICA's	1/15/2014	3/14/23 - 5425.5	Due during Alternator Maintenance
125	SID 05-1A	Insp. Guidelines for Cams & Lifters	5/2/2014		Due & access to Cam and/or Lifters
126	MSB14-3	H.E.T. Bulletin # 057	5/5/2014		DNA per Turbo s/n's
127	SB14-5	H.E.T. Bulletin # 059	6/19/2014		DNE per Alter. s/n
128	SIL99-2C	Authorized Sealants, Lubes & Adhesives	9/16/2014	8/1/24 - 5650.9	Due during all Maintenance
129	SB14-8	Exhaust Flange to Cyl. Installation	2/6/2015	3/14/23 - 5425.5	Due at any Exhaust Installation
130	SB15-4	Slick SB1-15	8/19/2015		DNA per both magneto s/n's
131	SB15-5	Slick SL 74-20-001 (RPM drops)	10/6/2015		Due if timing drifts more the 4 degrees

**N414MP RH Eng. SB's Date: 8/1/24**  
**Hobbs: 1828.3 ACTT: 5650.9 TSMOH: 198.4**  
**Eng. M/N: TSIO-520-NB Serial #: 519264**

132	SB15-6B	NiC3 Cylinders	8/9/2018		Applies if these cylinders are installed - none are
133	SIL16-2	Standard Practices Manual	4/15/2016	8/1/24 - 5650.9	Due during all Maintenance
134	SB16-7	H.E.T. Bulletin \$ 067	2/3/2017		DNA per eng. m/n
135	SB16-6	Engine Kickback Damage	10/19/2016		Due when kickback occurs
136	SB16-8	Turbo Exh. Transition	2/3/2017		DNA per Eng. m/n
137	SB16-9	H.E.T. Bulletin # 066	2/3/2017		DNA per Alter. p/n
138	SB17-01A	Flanged Nut (652541) Insp & Corr. Prev.	10/20/2017		DNA Due to nut installed at O/H
139	SB 670	TCM Magnetos Maint.	7/14/2017		DNA - Slick Mags Installed
140	SIL17-02	Turbo Check Valve Filter Insp. & Cleaning	7/12/2017		DNA per Eng. M/N
141	SIL17-03	Oil Filter Anti-stick Gasket	7/27/2017		Info. Only
142	SB17-04	TCM SB 670 - R+R of Dist. Block	7/17/2017		DNA - Slick Mags Installed
143	SB17-05	TCM SB 643C - Insp. Intervals	9/29/2017		DNA - Slick Mags Installed
144	SB17-06	Conn. Rod Bolt Insp.	10/20/2017	3/14/23 - 5425.5	Due at Connecting Rod Bolt Install
145	SIL 17-07	Discontinued Alternator	11/14/2017		Info. Only
146	SB18-04A	R+R of Flanged Nut	12/18/2018		DNA per Date
147	SIL 18-02	Service Documents Applicability	2/15/2018		Info. Only
148	SIL19-04	Oil Brand Selection	10/11/2019		Info. Only
149	SB19-05	Valve Guide Application	10/24/2019	3/14/23 - 5425.5	Due @ O/H or Cyl. Repair
150	CSB19-06	Hartzell Alert SB 081A (Alter. Hub Nut) <b>COMPLE</b>	11/19/2019	9/13/21 - 5233.6	See SB for affected Units
151	SB19-07	C/S End Play	12/10/2019		DNA per Eng. S/N
152	SIL19-10	Oil Filter Removal	12/16/2019		Info. Only
153	SB20-01	Fuel Screen Maint.	2/20/2020	8/1/24 - 5650.9	Due ea. 100 hr./Annual
154	SB20-03	Eng. Pres. During COVID	4/13/2020		Info. Only
155	SIL20-05	Energizer Starter ICA's	9/28/2020		Info. Only
156	SB673C	1200 series Mag Bearings	5/24/2022		DNA - slick Mags are installed
157	MSB23-01A	C/S Counterweights	2/16/2023		DNA per Eng. S/N
158	SB23-03	Hartzell SB 096 (Alternator)	5/24/2023		DNA per Alter. S/N



## PROPELLER MAINTENANCE RECORDS

**Aircraft Registration** N414MP

**Propeller Position** Left

**Propeller Serial No.** EB7625B



# HARTZELL PROPELLER INC

INSPECTION

Item Number: C3F00270

Date: 8/21/2012

Work Order #: M605350

Model Number PHC-C3YF-2UF/FC7693DFB											
Ass'y Ser No. EB7625B		Hydr Unit No. NA		Bulkhead No. NA		Valve No. NA					
Blade 1:L26571		Blade 2:L26572		Blade 3:L26573		Blade 4:		Blade 5:		Blade 6:	
Clamp 1:		Clamp 2:		Clamp 3:		Clamp 4:		Clamp 5:			
Reverse	Start Lock	Low Pitch	High Pitch	Feather	Position	Orient.	Qty:Al	St	Scrw	A-2424-1	Washer
NA	NA	13.0	18.0	81.1	1	L	1	0	0	0	1
Ref Radius (inches) for angles: 30											
Comments: Deice Kit: 5E2748-1      Included but not inst.											
Packing Certified By: <i>BLM</i>				Date: 8-21-12							
Inspected By: John Martin											

The approved design data for this propeller incorporates all changes required by applicable Airworthiness Directives.



## PROPELLER MAINTENANCE RECORDS

Log No. \_\_\_\_\_

Aircraft Registration No. N414MP

Propeller Manufacturer Hartzell

Hub Model PHC-C3YF-2UF/FC7693DFB

Blade Design No. \_\_\_\_\_

Hub Serial No. E37625B

Blade Serial No's.

1. L26571

2. L26572

3. L26573

4. \_\_\_\_\_

Pitch Range:

High 18.0 Low 13.0

Feather 81.1 Reverse N/A

Governor Manufacturer \_\_\_\_\_

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

Date installed on aircraft \_\_\_\_\_

Time Between Overhauls (TBO) \_\_\_\_\_ Hours

If used on multi-engine aircraft:

Left  Right

Front  Rear

(All applicable information must be filled in)

254/752-8381

Waco Regional Airport • P.O. Box 5219 • Waco, Texas 76708  
FAX 254-752-3307

1-800-445-9713





Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

7/2/2015 N414MP

Cessna 414A, serial # 414A-0317

Propeller 1 Logbook

Hobbs Hours: 422.1 :: Aircraft TT: 4244.7 :: #1 Engine TT: 3377.3 :: #1 Engine SMOH: 216.3 :: #1 Propeller TT: 216.3 :: #2 Propeller TT: 216.3 :: #2 Engine TT: 2673.8 :: #2 Engine SMOH: 216.3

Completed Inspection Operation 1 in accordance with Cessna Model 414A Maintenance Manual (50 hour inspection items)

I certify that this Propeller has been inspected in accordance with a operation #1 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

John E. Sheehan A+P 3439269 IA



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

8/27/2015 N414MP

Cessna 414A, serial # 414A-0317

Propeller 1 Logbook

Hobbs Hours: 472.6 :: Aircraft TT: 4295.2 :: #1 Engine TT: 3427.8 :: #1 Engine SMOH: 266.8 :: #1 Propeller TT: 266.8 :: #2 Propeller TT: 266.8 :: #2 Engine SMOH: 266.8 :: Heater Hobbs: 419.0

Completed Operation #2 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

Matthew D. Murphy A+P 2662824



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

2/11/2016 N414MP

Cessna 414A, serial # 414A-0317

Engine 1 Logbook

Hobbs Hours: 504.5 :: Aircraft TT: 4327.1 :: #1 Engine TT: 3459.7 :: #1 Engine SMOH: 298.7 :: #1 Propeller TT: 298.7 :: #2 Propeller TT: 298.7 :: #2 Engine TT: 2756.2 :: #2 Engine SMOH: 298.7

Completed Operation #'s 3 & 4 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

1) Drained oil, added 11 qts. ff Phillips X/C 20w-50 oil. Installed and saftied a new AA48108-2 oil filter. Inspected drained oil and oil filter element and noted no abnormal contaminants.

2) Cyl. Comp. Checked per TCM SB 03-03 as follows: 1) 70/80 2) 66/80 3) 64/80 4) 68/80 5) 65/80 6) 72/80.

3) C/W the follwing TCM repetitive SB's: M90-17 (C/C Insp), SB95-2 (Control Linkage Insp), SB95-7 (Fuel Manifold valve cover insp), SB96-12 (cyl Insp.), SB96-7C (Torque Values), MSB94-8D (Mag Timing), SID97-3F (Fuel System) & SB09-7 (C/S Rust) and noted no defects.

4) Ground runup and functional checks satisfactory with no fuel or oil leaks noted.

I certify that this Engine has been inspected in accordance with Operation 3 & 4 of the Cessna Progressive Care inspection program and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

John E. Sheehan A+P 3439269 IA

--	--	--	--

TOTALS—Carry forward to next page





Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

DATE				WORK
2/8/2017	N414MP	Cessna 414A, serial # 414A-0317	Propeller 1 Logbook	
Hobbs Hours: 675.6 :: Aircraft TT: 4498.2 :: #1 Engine TT: 3630.8 :: #1 Engine TSMOH: 469.8 :: #1 Propeller TT: 469.8 :: #2 Propeller TT: 469.8 :: #2 Engine TT: 2927.3 :: #2 Engine TSMOH: 469.8 :: Heater Hobbs: 442.7 Reset propeller accumulator pressure to 41psi from 30 psi with nitrogen. The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.  Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521  Signed <u>James Asadoorian Jr.</u> James Asadoorian Jr. A+P 31308880				



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

5/25/2017	N414MP	Cessna 414A, serial # 414A-0317	Propeller 1 Logbook	
Hobbs Hours: 725.7 :: Aircraft TT: 4548.3 :: #1 Engine TT: 3683.2 :: #1 Engine TSMOH: 522.2 :: #1 Propeller TT: 522.2 :: #2 Propeller TT: 522.2 :: #2 Engine TT: 2979.7 :: #2 Engine TSMOH: 522.2 Completed Operation #1 inspection items per the Cessna 414A Maintenance manual progressive care inspection form. I certify that this Propeller has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition. Signed <u>Laurence F. Mulloy</u> Laurence F. Mulloy A+P 23507120				



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

9/1/2017	N414MP	Cessna 414A, serial # 414A-0317	Propeller 1 Logbook	
Hobbs Hours: 818.0 :: Aircraft TT: 4640.6 :: #1 Engine TT: 3775.8 :: #1 Engine TSMOH: 614.8 :: #1 Propeller TT: 614.8 :: #2 Propeller TT: 614.8 :: #2 Engine TT: 3072.3 :: #2 Engine TSMOH: 614.8 :: Heater Hobbs: 454.1 Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form. I certify that this Propeller has been inspected in accordance with an Operation #3 inspection and was determined to be in an airworthy condition. Signed <u>Edward J. Novak Jr.</u> Edward J. Novak Jr. A+P 2832024 IA				

SUB-TOTALS this page

TOTALS—Carry forward to next page

7/6/2018

N414MP

Cessna 414A, serial # 414A-0317

Propeller 1 Logbook

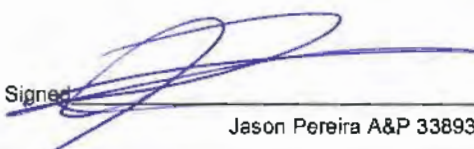
Hobbs Hours: 908.2 :: Aircraft TT: 4730.8 :: #1 Engine TT: 3866.0 :: #1 Engine TSMOH: 705.0 :: #1 Propeller TT: 705.0 :: #2 Propeller TT: 705.0 :: #2 Engine TT: 3162.5 :: #2 Engine TSMOH: 705.0 :: Heater Hobbs: 475.9

Completed Operation #1 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed



Jason Pereira A&P 3389376

9/20/2018

N414MP

Cessna 414A, serial # 414A-0317

Propeller 1 Logbook

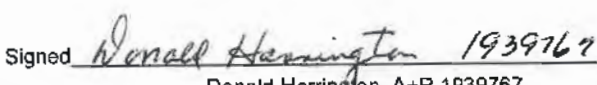
Hobbs Hours: 958.3 :: Aircraft TT: 4780.9 :: #1 Engine TT: 3922.2 :: #1 Engine TSMOH: 761.2 :: #1 Propeller TT: 761.2 :: #2 Propeller TT: 761.2 :: #2 Engine TT: 3218.7 :: #2 Engine TSMOH: 761.2 :: Heater Hobbs: 476.0

Completed Operation #2 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #2 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed



Donald Harrington A+P 1939767

4/19/2019

N414MP

Cessna 414A, serial # 414A-0317

Propeller 1 Logbook

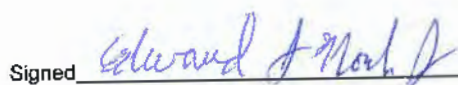
Hobbs Hours: 994.1 :: Aircraft TT: 4816.7 :: #1 Engine TT: 3958.6 :: #1 Engine TSMOH: 797.6 :: #1 Propeller TT: 797.6 :: #2 Propeller TT: 797.6 :: #2 Engine TT: 3255.1 :: #2 Engine TSMOH: 797.6 :: Heater Hobbs: 491.6

Completed Operation #3 & #4 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #3 & #4 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed



Edward J. Novak Jr. A+P 2832024 IA

5/13/19	Hobbs: 1005.0	TSN: 808.5	Propeller removed for O/H due to 6 year life limit. Edward J. Novak Jr. A+P 2832024 IA
			SUB-TOTALS this page
			TOTALS—Carry forward to next page

HARTZELL PHC-C3YF-2UF  
 PROPELLER FC7693DFB  
 S/N EB7625B

DATE: P.T.T.S.N.: 808.50 MAJOR OVERHAUL. BLADES REFINISHED. PARTS WORK  
 P.T.T.S.O.: 00.00 FLORESCENT PENETRANT INSPECTED

1. Approving Civil Aviation Authority/Country: FAA/United States		2. <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number: 45239	
4. Organization Name and Address: <b>New England Propeller Service, Inc</b> FAA RSN RC2R130L EASA 145.5972				5. Work Order/Contract/Invoice Number: CR-45239		
6. Item:		7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:
1	Hartzell-Propeller	PHC-C3YF-2UF FC7693DFB	1	1	EB7625B	Overhauled

12. Remarks  
 THIS PROPELLER WAS REPAIRED IN ACCORDANCE WITH MANUFACTURER'S MANUALS:  
 117DR18 133CR38 202A V1R57 202A V2R30  
 202A V3R38 202A V8R35 202A V7R48 202A V8R33  
 202A V9R31 202A V10R35 202A V11R38

Total Time: 808.50 hrs Time Since Overhaul: 00.00 hrs

Details of work performed are on file at New England Propeller Service, Inc. under Repair Station Work Order Number: CR-45239

The following work was performed:

MAJOR OVERHAUL. BLADES REFINISHED. PARTS FLORESCENT PENETRANT INSPECTED, MAGNAFLUXED & REPLACED WHERE REQUIRED. DEICER BOOTS INSTALLED. PROPELLER TRACKED, BALANCED, GREASED, SET ANGLES AND PAINTED.

Blade Serial #'s:	1.) L28671	2.) L28672	3.) L28673	4.) N/A	5.) N/A	6.) N/A
-------------------	------------	------------	------------	---------	---------	---------

**MAJOR PARTS REPLACED**

The following Service Bulletins have been complied with:

HC-SB-61-118FR1

Nomenclature	Part #	Qty.	Reason



Shoreline Aviation, Inc.  
 Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

5/23/2019 N414MP

Cessna 414A, serial # 414A-0317

Propeller 1 Logbook

Hobbs Hours: 1005.0 :: Aircraft TT: 4827.6 :: #1 Propeller TT: 808.5 :: #1 Propeller SMOH: 0.0 :: #2 Propeller TT: 808.5 :: #2 Propeller SMOH: 0.0

This propeller reinstalled onto the LH side of this aircraft after overhaul as shown on the previous page. Ground runup and functional checks completed with no oil or grease leakage noted. Functional check of propeller heat system was normal.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
 93 Old Colony Lane  
 Marshfield, MA 02050  
 781-837-8521

Signed

*[Signature]*  
 John E. Sheehan A+P 3439269 IA

SUB-TOTALS this page

TOTALS—Carry forward to next page





Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

2/22/2020 N414MP

Cessna 414A, serial # 414A-0317

Propeller 1 Logbook

Hobbs Hours: 1135.7 :: Aircraft TT: 4958.3 :: #1 Propeller TT: 933.5 :: #1 Propeller SMOH: 131.4 :: #2 Propeller TT: 933.5 :: #2 Propeller SMOH: 131.4

Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #3 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

Edward J. Novak Jr. A+P 2832024 IA



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

10/16/2020 N414MP

Cessna 414A, serial # 414A-0317

Propeller 1 Logbook

Hobbs Hours: 1238.2 :: Aircraft TT: 5060.8 :: #1 Engine TT: 4197.0 :: #1 Engine TSMOH: 1036.0 :: #1 Propeller TT: 1036.0 :: #1 Propeller SMOH: 233.9 :: #2 Propeller TT: 1036.0 :: #2 Propeller SMOH: 233.9 :: #2 Engine TT: 3493.5 :: #2 Engine TSMOH 1036.0 H/H 5110

Completed Operation #1 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

Edward J. Novak Jr. A+P 2832024 IA



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

3/24/2021

N414MP

Cessna 414A, serial # 414A-0317

Propeller 1 Logbook

Hobbs Hours: 1314.1 :: Aircraft TT: 5136.7 :: #1 Propeller TT: 1111.9 :: #1 Propeller SMOH: 309.8 :: #2 Propeller TT: 1111.9 :: #2 Propeller SMOH: 309.8

Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #3 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

John E. Sheehan A+P 3439269 IA


SUB-TOTALS this page

TOTALS—Carry forward to next page

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
<b>TOTALS</b> brought forward from previous page				



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

6/24/2021 N414MP

Cessna 414A, serial # 414A-0317

Propeller 1 Logbook

Hobbs Hours: 1377.1 :: Aircraft TT: 5199.7 :: #1 Engine TSMOH: 1174.9 :: #1 Propeller SMOH: 372.8 :: #2 Propeller SMOH: 372.8 :: #2 Engine TSMOH: 1174.9

Completed Operation #4 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #4 inspection and was determined to be in an airworthy condition.

Signed

*[Signature]*  
John E. Sheehan A+P 3439269 IA



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

9/13/2021

N414MP

Cessna 414A, serial # 414A-0317

Propeller 1 Logbook

Hobbs Hours: 1411.0 :: Aircraft TT: 5233.6 :: #1 Engine TSMOH: 1208.8 :: #1 Propeller SMOH: 406.7 :: #2 Propeller SMOH: 406.7 :: #2 Engine TSMOH: 1208.8 :: Heater Hobbs: 570.7

Cessna 414A Inspection Operation 1 items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.

Signed

*[Signature]*  
Jason Greene A+P 4511427



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

3/7/2022

N414MP

Cessna 414A, serial # 414A-0317

Propeller 1 Logbook

Hobbs Hours: 1501.6 :: Aircraft TT: 5324.2 :: #1 Engine TSMOH: 1299.4 :: #1 Propeller SMOH: 497.3 :: #2 Propeller SMOH: 497.3 :: #2 Engine TSMOH: 1299.4 :: Heater Hobbs: 601.9

Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #3 inspection and was determined to be in an airworthy condition.

Signed

*[Signature]*  
Jason Greene A+P 4511427



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

9/13/2022

N414MP

Cessna 414A, serial # 414A-0317

Propeller 1 Logbook

Hobbs Hours: 1587.5 :: Aircraft TT: 5410.1 :: #1 Engine TSMOH: 1385.3 :: #1 Propeller SMOH: 583.2 :: #2 Propeller SMOH: 583.2 :: #2 Engine TSMOH: 1385.3 :: Heater Hobbs: 606.1

Completed Operation #1 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.

Signed

*[Signature]*  
Raphael Palmeira A+P 4015987

DATE
7/19/2019



Shoreline Aviation, Inc.  
 Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

ORK

**7/19/2019 N414MP Cessna 414A, serial # 414A-0317 Propeller 1 Logbook**

Hobbs Hours: 1046.9 :: Aircraft TT: 4869.5 :: #1 Prop TT: 844.0 :: #1 Prop TSMOH: 51.3 :: #2 Prop TT: 844.0 :: #2 Prop SMOH: 51.3

Cessna 414A Inspection Operation 1

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
 93 Old Colony Lane  
 Marshfield, MA 02050  
 781-837-8521

Signed

Jason Pereira A&P 3389376



Shoreline Aviation, Inc.  
 Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

**5/10/2023 N414MP Cessna 414A, serial # 414A-0317 Propeller 1 Logbook**

Hobbs Hours: 1658.2 :: Aircraft TT: 5480.8 :: #1 Engine TSMOH: 28.3 :: #1 Propeller SMOH: 653.9 :: #2 Propeller SMOH: 653.9 :: #2 Engine TSMOH: 28.3 :: Heater Hobbs: 612.5

Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #3 inspection and was determined to be in an airworthy condition.

Signed

John E. Sheehan A+P 3439269 IA



Shoreline Aviation, Inc.  
 Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

**10/25/2023 N414MP Cessna 414A, serial # 414A-0317 Propeller 1 Logbook**

Hobbs Hours: 1724.6 :: Aircraft TT: 5547.2 :: #1 Engine TSMOH: 94.7 :: #1 Propeller SMOH: 720.3 :: #2 Propeller SMOH: 720.3 :: #2 Engine TSMOH: 94.7 :: Heater Hobbs: 613.8

Completed Operation #1 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.

Signed

Edward J. Novak Jr. A+P 2832024 IA



Shoreline Aviation, Inc.  
 Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

**8/1/2024 N414MP Cessna 414A, serial # 414A-0317 Propeller 1 Logbook**

Hobbs Hours: 1828.3 :: Aircraft TT: 5650.9 :: #1 Engine TSMOH: 198.4 :: #1 Propeller SMOH: 824.0 :: #2 Propeller SMOH: 824.0 :: #2 Engine TSMOH: 198.4 :: Heater Hobbs: 632.7

Completed Operation #3 & #4 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.

Signed

Edward J. Novak Jr. A+P 2832024 IA



## PROPELLER MAINTENANCE RECORDS

**Aircraft Registration** N414MP

**Propeller Position** Right

**Propeller Serial No.** EB7629B

# HARTZELL PROPELLER INC

INSPECTION

Item Number: C3F00270

Date: 9/4/2012

Work Order #: M614560

Model Number PHC-C3YF-2UF/FC7693DFB											
Ass'y Ser No. EB7629B		Hydr Unit No. NA		Bulkhead No. NA		Valve No. NA					
Blade 1:L27734		Blade 2:L27735		Blade 3:L27741		Blade 4:		Blade 5:		Blade 6:	
Clamp 1:		Clamp 2:		Clamp 3:		Clamp 4:		Clamp 5:			
Reverse	Start Lock	Low Pitch	High Pitch	Feather	Position	Orient.	Qty:Al	St	Scrw	A-2424-1	Washer
NA	NA	13.0	18.0	81.1	2	L	0	0	2	0	0
Ref Radius (inches) for angles: 30					3	L	2	0	0	0	2
Comments: Deice Kit: 5E2748-1      Included but not inst.											
Packing Certified By: <i>BLM/JS</i>					Date: 9-5-12						
Inspected By: Tim Jess											

The approved design data for this propeller incorporates all changes required by applicable Airworthiness Directives.



## PROPELLER MAINTENANCE RECORDS

Log No. \_\_\_\_\_

Aircraft Registration No. N414MP

Propeller Manufacturer Hartzell

Hub Model PHC-C3YF-2UF/FC7693DFB

Blade Design No. \_\_\_\_\_

Hub Serial No. E376298

Blade Serial No's.

1. L27734

2. L27735

3. L27741

4. \_\_\_\_\_

Pitch Range:

High 12.0 Low 13.0

Feather 31.1 Reverse N/A

Governor Manufacturer \_\_\_\_\_

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

Date installed on aircraft \_\_\_\_\_

Time Between Overhauls (TBO) \_\_\_\_\_ Hours

If used on multi-engine aircraft:

Left  Right

Front  Rear

(All applicable information must be filled in)

Waco Regional Airport • P.O. Box 5219 • Waco, Texas 76708

254/752-8381

FAX 254-752-3307

1-800-445-9713





Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

7/2/2015

N414MP

Cessna 414A, serial # 414A-0317

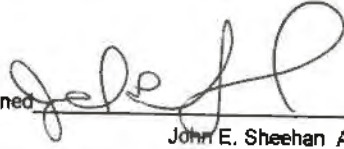
Propeller 2 Logbook

Hobbs Hours: 422.1 :: Aircraft TT: 4244.7 :: #1 Engine TT: 3377.3 :: #1 Engine SMOH: 216.3 :: #1 Propeller TT: 216.3 :: #2 Propeller TT: 216.3 :: #2 Engine TT: 2673.8 :: #2 Engine SMOH: 216.3

Completed Inspection Operation 1 in accordance with Cessna Model 414A Maintenance Manual (50 hour inspection items)

I certify that this Propeller has been inspected in accordance with a operation #1 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed   
John E. Sheehan A+P 3439269 IA



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

8/27/2015

N414MP

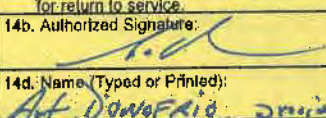
Cessna 414A, serial # 414A-0317

Propeller 2 Logbook

Hobbs Hours: 472.6 :: Aircraft TT: 4295.2 :: #1 Engine TT: 3427.8 :: #1 Engine SMOH: 268.8 :: #1 Propeller TT: 268.8 :: #2 Propeller TT: 268.8 :: #2 Engine SMOH: 268.8 :: Heater Hobbs: 419.0

Completed Operation #2 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.


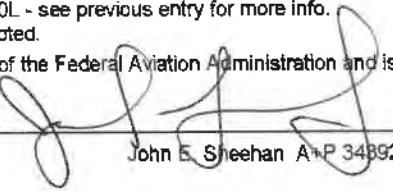
The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work performed.

1. Approving Civil Aviation Authority/ Country: FAA/ United States		<b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number:  42149	
4. Organization Name and Address: <b>New England Propeller Service, Inc</b> FAA RSN RC2R130L EASA 145.5972				6 Matthews Drive (P.O. Box 244) East Haddam, CT 06423-2388 (860) 873-1494 · Fax: (860) 873-2388		5. Work Order/Contract/Invoice Number:  CR- 42149
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:	
1	HARTZELL PROPELLER	PHCC3YF-2UF FC7693DFB	1	EB 7629B	REPAIRED	
12. Remarks: THIS COMPONENT WAS INSPECTED AND REPAIRED IN ACCORDANCE WITH MANUFACTURER'S MANUAL(S): 117DR16, 202A, V6R33, V7A38, V8R31, V11R35 THE FOLLOWING WORK WAS PERFORMED:  <b>PROPELLER CYLINDER REMOVED. PISTON AND ROD FLUSHED FOR POSSIBLE OIL CONTAMINATION. NEW SEALS INSTALLED, CYLINDER REINSTALLED. ANGLES CHECKED. THIS WAS THE ONLY WORK PERFORMED.</b>						
13a. Certifies the items identified above were manufactured in conformity to: <input type="checkbox"/> Approved design data and are in a condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 12.			14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation specified in Block 12. Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.			
13b. Authorized Signature:		13c. Approval/Authorization No.:		14b. Authorized Signature:		14c. Approval/Certificate No.:
						RC2R130L
13d. Name (Typed or Printed):		13e. Date (dd/mmm/yyyy):		14d. Name (Typed or Printed):		14e. Date (dd/mmm/yyyy):
				Art. DeWafria, print		09-NOV-2015

**User/Installer Responsibilities**

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1. Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.



DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
				Shoreline Aviation, Inc. Marshfield Municipal Airport George Harlow Field (GHG) 93 Old Colony Lane Marshfield, MA 02050
11/19/2015	N414MP			<b>Cessna 414A, Serial Number 414A0317</b> <span style="float: right;"><b>Propeller 2 Logbook</b></span> Hobbs Hours: 487.3 :: Aircraft TT: 4309.9 :: #2 Propeller TT: 281.5 1) Reinstalled propeller on Right engine after flush by CRS RC2R130L - see previous entry for more info. 2) Engine ground run up and functional check OK with no oil leaks noted. The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished. Signed  John E. Sheehan A+P 3489269 IA


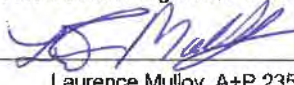


Shoreline Aviation, Inc.  
 Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

2/11/2016	N414MP			<b>Cessna 414A, serial # 414A-0317</b> <span style="float: right;"><b>Propeller 2 Logbook</b></span> Hobbs Hours: 504.5 :: Aircraft TT: 4327.1 :: #1 Engine TT: 3459.7 :: #1 Engine SMOH: 298.7 :: #1 Propeller TT: 298.7 :: #2 Propeller TT: 298.7 :: #2 Engine TT: 2756.2 :: #2 Engine SMOH: 298.7 Completed Operation #'s 3 & 4 inspection items per the Cessna 414A Maintenance manual progressive care inspection form. I certify that this Airframe has been inspected in accordance with Operation 3 & 4 of the Cessna Progressive Care inspection program and was determined to be in an airworthy condition.
-----------	--------	--	--	--

Shoreline Aviation, Inc.  
 93 Old Colony Lane  
 Marshfield, MA 02050  
 781-837-8521

Signed   
 Laurence F. Mulloy A+P 23507120

				Shoreline Aviation, Inc. Marshfield Municipal Airport George Harlow Field (GHG) 93 Old Colony Lane Marshfield, MA 02050
6/17/2016	N414MP			<b>Cessna 414A, Serial Number 414A0317</b> <span style="float: right;"><b>Propeller 2 Logbook</b></span> Hobbs Hours: 554.1 :: Aircraft TT: 4376.7 :: #1 Engine TT: 3509.3 :: #1 Engine SMOH: 348.3 :: #1 Propeller TT: 348.3 :: #2 Engine TT: 2805.8 :: #2 Engine SMOH: 348.3 :: #2 Propeller TT: 348.3 Completed Operation 1 inspection items per the Cessna 414A Maintenance manual progressive care inspection form. I certify that this Propeller has been inspected in accordance with Operation 1 of the Cessna Progressive Care inspection program and was determined to be in airworthy condition. Signed  Laurence Mulloy A+P 23507120
<b>SUB-TOTALS</b> this page				
<b>TOTALS</b> —Carry forward to next page				



Shoreline Aviation, Inc.  
 Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

9/23/2016 N414MP

Cessna 414A, serial # 414A-0317

Propeller 2 Logbook

Hobbs Hours: 645.3 :: Aircraft TT: 4467.9 :: #1 Engine TT: 3600.5 :: #1 Engine TSMOH: 439.5 :: #1 Propeller TT: 439.5 :: #2 Propeller TT: 439.5  
 :: #2 Engine TT: 2897.0 :: #2 Engine TSMOH: 439.5 :: Heater Hobbs: 436.3

Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

Ground runup and functional checks were satisfactory with no grease or oil leaks noted.

I certify that this Propeller has been inspected in accordance with an Operation #3 inspection and was determined to be in an airworthy condition.

Signed *Edward J. Novak Jr.*

Edward J. Novak Jr. A+P 2832024 IA



Shoreline Aviation, Inc.  
 Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

5/25/2017 N414MP

Cessna 414A, serial # 414A-0317

Propeller 2 Logbook

Hobbs Hours: 725.7 :: Aircraft TT: 4548.3 :: #1 Engine TT: 3683.2 :: #1 Engine TSMOH: 522.2 :: #1 Propeller TT: 522.2 :: #2 Propeller TT: 522.2  
 :: #2 Engine TT: 2979.7 :: #2 Engine TSMOH: 522.2

Completed Operation #1 inspection items per the Cessna 414A Maintenance manual progressive care inspection form

I certify that this Propeller has been inspected in accordance with an annual inspection and was determined to be in an airworthy condition.

Signed *John E. Sheehan*

John E. Sheehan A+P 3439269 IA



Shoreline Aviation, Inc.  
 Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

7/19/2017 N414MP

Cessna 414A, serial # 414A-0317

Engine 2 Logbook

Hobbs Hours: 773.0 :: Aircraft TT: 4595.6 :: #2 Engine TT: 3731.6 :: #2 Engine SMOH: 570.6  
 AD2000-01-16

Complied with AD2000-01-16 paragraph b no defects noted at this time. Next due HOBBS: 823.0

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
 93 Old Colony Lane  
 Marshfield, MA 02050  
 781-837-8521

Signed *Donald L. Harrington*

Donald L. Harrington A&P 1999767



Shoreline Aviation, Inc.  
 Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

9/1/2017 N414MP

Cessna 414A, serial # 414A-0317

Propeller 2 Logbook

Hobbs Hours: 818.0 :: Aircraft TT: 4640.6 :: #1 Engine TT: 3775.8 :: #1 Engine TSMOH: 614.8 :: #1 Propeller TT: 614.8 :: #2 Propeller TT: 614.8  
 :: #2 Engine TT: 3072.3 :: #2 Engine TSMOH: 614.8 :: Heater Hobbs: 454.1

Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Engine has been inspected in accordance with an Operation #3 inspection and was determined to be in an airworthy condition.

Signed *Edward J. Novak Jr.*

Edward J. Novak Jr. A+P 2832024 IA



Shoreline Aviation, Inc.  
 Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

7/6/2018

N414MP

Cessna 414A, serial # 414A-0317

Propeller 2 Logbook

Hobbs Hours: 908.2 :: Aircraft TT: 4730.8 :: #1 Engine TT: 3866.0 :: #1 Engine TSMOH: 705.0 :: #1 Propeller TT: 705.0 :: #2 Engine TT: 3162.5 :: #2 Engine TSMOH: 705.0 :: Heater Hobbs: 475.9

Completed Operation #1 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
 93 Old Colony Lane  
 Marshfield, MA 02050  
 781-837-8521

Signed

John E. Sheehan A+P 3439269 IA



Shoreline Aviation, Inc.  
 Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

9/20/2018

N414MP

Cessna 414A, serial # 414A-0317

Propeller 2 Logbook

Hobbs Hours: 958.3 :: Aircraft TT: 4760.9 :: #1 Engine TT: 3922.2 :: #1 Engine TSMOH: 761.2 :: #1 Propeller TT: 761.2 :: #2 Engine TT: 3218.7 :: #2 Engine TSMOH: 761.2 :: Heater Hobbs: 476.0

Completed Operation #2 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #2 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
 93 Old Colony Lane  
 Marshfield, MA 02050  
 781-837-8521

Signed

Donald Harrington A+P 1939767



Shoreline Aviation, Inc.  
 Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

4/19/2019

N414MP

Cessna 414A, serial # 414A-0317

Propeller 2 Logbook

Hobbs Hours: 994.1 :: Aircraft TT: 4816.7 :: #1 Engine TT: 3958.6 :: #1 Engine TSMOH: 797.6 :: #1 Propeller TT: 797.6 :: #2 Propeller TT: 797.6 :: #2 Engine TT: 3255.1 :: #2 Engine TSMOH: 797.6 :: Heater Hobbs: 491.6

Completed Operation #3 & #4 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Engine has been inspected in accordance with an Operation #3 & #4 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
 93 Old Colony Lane  
 Marshfield, MA 02050  
 781-837-8521

Signed

Edward J. Novak Jr. A+P 2832024 IA

5/13/19	Hobbs 1005.0	TSMOH: 808.5	Prop. removed for O/H due to 6 year life limit
			Edward J. Novak Jr.
			A+P 2832024 IA
			SUB-TOTALS this page
			TOTALS—Carry forward to next page

DAT P.T.T.S.N.: 808.50  
P.T.T.S.O.: 00.00

MAJOR OVERHAUL, BLADES REFINISHED. PARTS  
FLORESCENT PENETRANT

1. Approving Civil Aviation Authority/Country: <b>FAA/United States</b>		2. <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG				3. Form Tracking Number: <b>45238</b>					
4. Organization Name and Address: <b>New England Propeller Service, Inc</b> <b>FAA RSN RC2R130L</b> <b>EASA 145.5972</b>						5. Work Order/Contract/Invoice Number: <b>CR-45238</b>					
6. Item:		7. Description:		8. Part Number:		9. Quantity:		10. Serial Number:		11. Status/Work:	
1		Hartzell-Propeller		PHC-C3YF-2UF FC7693DFB		1		EB7629B		Overhauled 1	
12. Remarks THIS PROPELLER WAS REPAIRED IN ACCORDANCE WITH MANUFACTURER'S MANUALS:											
						117DR18		133CR38		202A V1R57	
						202A V3R38		202A V8R35		202A V7R48	
						202A V9R31		202A V10R35		202A V11R36	
Total Time: <u>808.50</u> hrs						Time Since Overhaul: <u>00.00</u> hrs					
Details of work performed are on file at New England Propeller Service, Inc. under Repair Station Work Order Number: <u>CR-45238</u> .											
The following work was performed:											
MAJOR OVERHAUL. BLADES REFINISHED. PARTS FLORESCENT PENETRANT INSPECTED, MAGNAFLUXED & REPLACED WHERE REQUIRED. DEICER BOOTS INSTALLED. PROPELLER TRACKED, BALANCED, GREASED, SET ANGLES AND PAINTED.											
Blade Serial #'s:		1.) L27734		2.) L27735		3.) L27741		4.) N/A		5.) N/A	
										6.) N/A	
						<b>MAJOR PARTS REPLACED</b>					
The following Service Bulletins have been complied with:						Nomenclature		Part #		Qty.	
HC-SB-61-118FR1						LOW PITCH STOP		A2404-1		1	
										Reason	
										STRIPPED	



Shoreline Aviation, Inc.  
Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

5/23/2019

N414MP

Cessna 414A, serial # 414A-0317

Propeller 2 Logbook

Hubbs Hours: 1005.0 :: Aircraft TT: 4827.6 :: #1 Propeller TT: 808.5 :: #1 Propeller SMOH: 0.0 :: #2 Propeller TT: 808.5 :: #2 Propeller SMOH: 0.0

This propeller reinstalled onto the RH side of this aircraft after overhaul as shown on the previous page. Ground runup and functional checks completed with no oil or grease leakage noted. Functional check of propeller heat system was normal.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

John E. Sheehan A+P 3439269 IA

SUB-TOTALS this page

TOTALS—Carry forward to next page



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

DATE

7/19/2019 N414MP Cessna 414A, serial # 414A-0317 Propeller 2 Logbook

Hobbs Hours: 1046.9 :: Aircraft TT: 4869.5 :: #1 Prop TT: 844.0 :: #1 Prop TSMOH: 51.3 :: #2 Prop TT: 844.0 :: #2 Prop SMOH: 51.3

Cessna 414A Inspection Operation 1

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed \_\_\_\_\_

Jason Pereira A&P 3389376

K



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

2/22/2020 N414MP Cessna 414A, serial # 414A-0317 Propeller 2 Logbook

Hobbs Hours: 1135.7 :: Aircraft TT: 4958.3 :: #1 Propeller TT: 933.5 :: #1 Propeller SMOH: 131.4 :: #2 Propeller TT: 933.5 :: #2 Propeller SMOH: 131.4

Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #3 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed \_\_\_\_\_

Edward J. Novak Jr. A+P 2832024 IA



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

10/16/2020 N414MP Cessna 414A, serial # 414A-0317 Propeller 2 Logbook

Hobbs Hours: 1238.2 :: Aircraft TT: 5060.8 :: #1 Engine TT: 4197.0 :: #1 Engine TSMOH: 1036.0 :: #1 Propeller TT: 1036.0 :: #1 Propeller SMOH: 233.9 :: #2 Propeller TT: 1036.0 :: #2 Propeller SMOH: 233.9 :: #2 Engine TT: 3493.5 :: #2 Engine TSMOH 1036 HH 511.0

Completed Operation #1 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed \_\_\_\_\_

Edward J. Novak Jr. A+P 2832024 IA


SUB-TOTALS this page

TOTALS—Carry forward to next page

# Shoreline AVIATION

Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

3/24/2021 N414MP

Cessna 414A, serial # 414A-0317

Propeller 2 Logbook

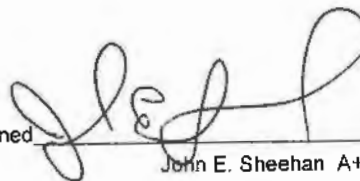
Hobbs Hours: 1314.1 :: Aircraft TT: 5136.7 :: #1 Propeller TT: 1111.9 :: #1 Propeller SMOH: 309.8 :: #2 Propeller TT: 1111.9 :: #2 Propeller SMOH: 309.8

Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #3 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed



John E. Sheehan A+P 3439269 IA

# Shoreline AVIATION

Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

6/24/2021 N414MP

Cessna 414A, serial # 414A-0317

Propeller 2 Logbook

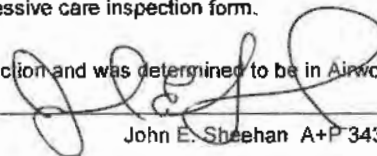
Hobbs Hours: 1377.1 :: Aircraft TT: 5199.7 :: #1 Engine TSMOH: 1174.9 :: #1 Propeller SMOH: 372.8 :: #2 Propeller SMOH: 372.8 :: #2 Engine TSMOH: 1174.9

Completed Operation #4 inspection items per Cessna 414A Maintenance manual progressive care inspection form.

Installed new Propeller deice boot p/n SMR1601-14 and operation check OK.

I certify that this Propeller has been inspected in accordance with an Operation #4 inspection and was determined to be in Airworthy condition.

Signed



John E. Sheehan A+P 3439269 IA

# Shoreline AVIATION

Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

9/13/2021 N414MP

Cessna 414A, serial # 414A-0317

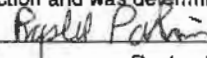
Propeller 2 Logbook

Hobbs Hours: 1411.0 :: Aircraft TT: 5233.6 :: #1 Engine TSMOH: 1208.8 :: #1 Propeller SMOH: 406.7 :: #2 Propeller SMOH: 406.7 :: #2 Engine TSMOH: 1208.8 :: Heater Hobbs: 570.7

Cessna 414A Inspection Operation 1 items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.

Signed



Raphael Palmeira A+P 4015987

# Shoreline AVIATION

Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

3/7/2022 N414MP

Cessna 414A, serial # 414A-0317

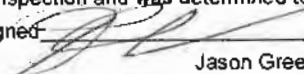
Propeller 2 Logbook

Hobbs Hours: 1501.6 :: Aircraft TT: 5324.2 :: #1 Engine TSMOH: 1299.4 :: #1 Propeller SMOH: 497.3 :: #2 Propeller SMOH: 497.3 :: #2 Engine TSMOH: 1299.4 :: Heater Hobbs: 601.9

Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

I certify that this Propeller has been inspected in accordance with an Operation #3 inspection and was determined to be in an airworthy condition.

Signed



Jason Greene A+P 4511427



**N414MP**  
**FORM 337s**



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

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 and disposition of this form.

1. AIRCRAFT	MAKE <b>Cessna</b>	MODEL <b>414A</b>
	SERIAL NO. <b>414A0317</b>	NATIONALITY AND REGISTRATION MARK <b>N2686D</b>
2. OWNER	NAME (As shown on registration certificate) <b>Standard Air Services, Inc.</b>	ADDRESS (As shown on registration certificate) <b>Buck Pond Rd. Westfield, Ma. 01085</b>

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION				5. TYPE	
UNIT	MAKE	MODEL	SERIAL NO.	REPAIR	ALTERATION
AIRFRAME	As described in item 1 above				X
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS <b>Northeastern Avionics, Inc. Barnes Municipal Airport Westfield, Ma. 01085</b>	B. KIND OF AGENCY <input type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input checked="" type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER	C. CERTIFICATE NO. <b>E1949</b>
--	--	------------------------------------

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

DATE <b>04/17/80</b>	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Thomas E. Mendrala</i>
-------------------------	---

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	INSPECTION AUTHORIZATION	OTHER (Specify)
FAA DESIGNEE <input checked="" type="checkbox"/>	REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION <b>04/17/80</b>	CERTIFICATE OR DESIGNATION NO. <b>E1949</b>	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Thomas E. Mendrala</i>	

## 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.

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

1. Installed Bendix NCP 2040 RNAV System in accordance with STC SA98650 Dated 05/10/78. System interface includes NP2041A Nav Programmer, IN881A HSI and CN2012A Nav Receiver.
2. Installation and ground checks accomplished in accordance with Northeastern Avionics Inc. procedures approved by NE GADO letter dated 08/28/79.
3. IFR Flight check accomplished on 04/17/80 in accordance with Northeastern Avionics Inc. approved procedures.
4. RNAV approved for VFR, IFR Enroute and IFR approach.

END

ADDITIONAL SHEETS ARE ATTACHED

## 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.

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

1. Bendix FCS 870 Autopilot/Flight Director w/Yaw Damper installed in accordance with STC SA 98580 Dated 05/10/78.
2. The following units were installed in accordance with manufacturers instructions and AC43.13-1A:

CN2012A	Comm/Nav	CN2012A	Comm/Nav
DF2071A	ADF	DF2071A	ADF
TR2061A	TXP	TR2061A	TXP
IN2014A	Nav Ind	IN2072B	ADF Ind
IN2032A	DME Ind	NP2041A	Nav Programmer
RT131A	Radar RT	DA144A	Radar Ant
DG882A	DG	IN881A	HSI
SC883A	Slaving Control	IU2023A	Interfane Unit
DM2031A	DME RT	3604618-0501	Memory Timer
3604618-0501	Memory Timer	AT2033A	DME Ant
AT2073A/AM2073A	Comm/ADF Ant	AT2073A/AM2073A	Comm/ADF Ant
KA133	KRA 10 Ant	KRA10	KRA 10 RT
KI250	KRA 10 Ind	AD8	Marker Ant
3604529-0503	Cooling Kit	DH841V	Horizon
8140B-35LW	Altimeter	CI102	Antenna
100T	Microphone	AS2015A	Audio Panel
IN2026A	Radar Indicator		

3. Electrical load evaluation was accomplished and found to be within prescribed tolerances.

END

ADDITIONAL SHEETS ARE ATTACHED

JUL 06 1989

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION  <b>MAJOR REPAIR AND ALTERATION</b> <b>(Airframe, Powerplant, Propeller, or Appliance)</b>	Form Approved Budget Bureau No. 04-R060.1  <b>FOR FAA USE ONLY</b> OFFICE IDENTIFICATION MEL-6AD-3
--	---

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.

1. AIRCRAFT	MAKE Cessna	MODEL 414A
	SERIAL NO. 414A0317	PROPERTY AND REGISTRATION MARK N14MP
2. OWNER	NAME (As shown on registration certificate) ART. TECHNOLOGIES, INC.	ADDRESS (As shown on registration certificate) 600 North First Bank Dr. Palatine, IL 60067

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION

UNIT	MAKE	MODEL	SERIAL NO.	REPAIR	ALTERATION
AIRFRAME	As described in item 1 above				X
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS PRIESTER AVIATION SERVICE Pal-Waukeee Municipal Airport Wheeling, Illinois 60090	B. KIND OF AGENCY <input type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input checked="" type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER	C. CERTIFICATE NO. CRS 4303 Class 1, 2 & 3
--	--	--

D: I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

DATE June 30, 1989	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Richard M. Lieb</i>
-----------------------	--

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

BY FAA FT. STANDARDS INSPECTOR	<input checked="" type="checkbox"/> MANUFACTURER	INSPECTION AUTHORIZATION	OTHER (Specify)
FAA DESIGNEE	<input checked="" type="checkbox"/> REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION 6/30/89	CERTIFICATE OR DESIGNATION NO. CRS 4303	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Richard M. Lieb</i>	

**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.)

INSTALLED A "RAM" EXHAUST SLIP JOINT "RAM" P/N 1001-3 ON RIGHT EXHAUST MANIFOLD ON RIGHT ENGINE AS PER "RAM" STC SA4331SW AND DRAWING #1153 ON N414MP, CESSNA 414A, S/N 414A0317. NO WEIGHT CHANGE. ALL WORK DONE AS PER AC43.13, 1A and AC43.13, 2A.

END

ADDITIONAL SHEETS ARE ATTACHED

JAN 29 1992

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION <b>MAJOR REPAIR AND ALTERATION</b> (Airframe, Powerplant, Propeller, or Appliance)		Form Approved Budget Bureau No. 04-R060.1 <b>FOR FAA USE ONLY</b> OFFICE IDENTIFICATION DPA-FSDO <i>JHB</i>	
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.			
1. AIRCRAFT	MAKE CESSNA	MODEL 414A	
	SERIAL NO. 414A0317	NATIONALITY AND REGISTRATION MARK N414MP	
2. OWNER	NAME (As shown on registration certificate) ART TECHNOLOGIES, INC		ADDRESS (As shown on registration certificate) 600 NORTH FIRST BANK DR. PALATINE, ILL 60067
	3. FOR FAA USE ONLY		
4. UNIT IDENTIFICATION			
UNIT	MAKE	MODEL	SERIAL NO.
AIRFRAME	***** (As described in Item 1 above) *****		
POWERPLANT			
PROPELLER			
APPLIANCE	TYPE		
	MANUFACTURER		
5. TYPE			
			REPAIR ALTERATION XX
6. CONFORMITY STATEMENT			
A. AGENCY'S NAME AND ADDRESS		B. KIND OF AGENCY	C. CERTIFICATE NO.
PRIESTER AVIATION SERVICE PAL-WAUKEE AIRPORT WHEELING, ILL 60090		<input type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input checked="" type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER	PRIR248H
D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.			
DATE JANUARY 24, 1992		SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Brook I. Smith</i>	
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 <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED			
BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	INSPECTION AUTHORIZATION
	FAA DESIGNEE <input checked="" type="checkbox"/>	REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT, INSPECTOR OF AIRCRAFT
DATE OF APPROVAL OR REJECTION JANUARY 24, 1992	CERTIFICATE OR DESIGNATION NO. PRIR248H	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Brook I. Smith</i>	

## 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.)

INSTALLED RAM EXHAUST SLIP JOINT P/N 1001-3 ON LEFT ENGINE EXHAUST MANIFOLD AS PER RAM-STC SA4331SW AND DRAWING NO. 1153. ALL WORK DONE AS PER AC 43.13-1A AND 43.13-2A. NO WEIGHT CHANGE

END

ADDITIONAL SHEETS ARE ATTACHED

AUG 1 0 1993

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

Form Approved  
Budget Bureau No. 04-R060.1

**MAJOR REPAIR AND ALTERATION**

(Airframe, Powerplant, Propeller, or Appliance)

FOR FAA USE ONLY

OFFICE IDENTIFICATION

DPA-ESDO

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.

1. AIRCRAFT	MAKE CESSNA	MODEL 414A
	SERIAL NO. 414A0317	NATIONALITY AND REGISTRATION MARK U.S. N414MP
2. OWNER	NAME (As shown on registration certificate) HARDISON, LESLIE C.	ADDRESS (As shown on registration certificate) 26803 APPLETREE LANE BARRINGTON IL 60010

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION

5. TYPE

UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
				REPAIR	ALTERATION
AIRFRAME	***** (As described in item 1 above) *****				X
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS STEVEN F. MUNZ PRIDE AIRCRAFT INC. 1651 GRUMMAN DR. ROCKFORD IL 61109	B. KIND OF AGENCY <input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER	C. CERTIFICATE NO. 394-60-3091
---	--	-----------------------------------

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

DATE AUG, 6 1993	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>[Signature]</i>
---------------------	--

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

BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	<input checked="" type="checkbox"/>	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNER	REPAIR STATION		CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION AUG, 6 1993	CERTIFICATE OR DESIGNATION NO. 393-66-5855	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>[Signature]</i>			



**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.)

Installed Vortex Generators on the wings and vertical stabilizer and Strakes on the nacelles, and added the FAA Approved Flight Manual Supplement to the AFM, in accordance with manufacturer's drawing list DL-402C and Installation Instructions II-402C (P/N C-402C), per STC #SA5131NM, OPTION #2.

Negligible weight change

END

3 LOW EYE OFF ONE	BY: [illegible]	DATE: [illegible]
WORKSHEET NO. [illegible]	BY: [illegible]	DATE: [illegible]
TYPE: [illegible]	BY: [illegible]	DATE: [illegible]
DESCRIPTION: [illegible]	BY: [illegible]	DATE: [illegible]
APPROVED: [illegible]	BY: [illegible]	DATE: [illegible]
REVISIONS: [illegible]	BY: [illegible]	DATE: [illegible]
<input type="checkbox"/> Additional Sheets Are Attached		

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

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 and disposition of this form.

1. AIRCRAFT	MAKE CESSNA	MODEL 414A
	SERIAL NO. 414A0317	NATIONALITY AND REGISTRATION MARK U.S. N414MP
2. OWNER	NAME (As shown on registration certificate) HARDISON, LESLIE C.	ADDRESS (As shown on registration certificate) 26803 W. APPLETREE LANE BARRINGTON 60010

3. FOR FAA USE ONLY

Blank space for FAA use only.

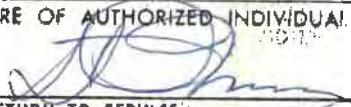
4. UNIT IDENTIFICATION

UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
				REPAIR	ALTERATION
AIRFRAME	***** (As described in item 1 above) *****				X
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS STEVEN F. MUNZ PRIDE AIRCRAFT INC. 1651 GRUMMAN DR. ROCKFORD, IL 61109	B. KIND OF AGENCY <input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER	C. CERTIFICATE NO. 394-60-3091
---	--	-----------------------------------


D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

DATE AUG, 6 1993	SIGNATURE OF AUTHORIZED INDIVIDUAL 
---------------------	--

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

BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	<input checked="" type="checkbox"/> INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	

DATE OF APPROVAL OR REJECTION AUG, 6 1993	CERTIFICATE OR DESIGNATION NO. 393-66-5855	SIGNATURE OF AUTHORIZED INDIVIDUAL 
--	---	--

**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.)

Installed Vortex Generators on the wings and vertical stabilizer and Strakes on the nacelles, and added the FAA Approved Flight Manual Supplement to the AFM, in accordance with manufacturer's drawing list DL-402C and Installation Instructions II-402C (P/N C-402C), per STC #SA5131NM, OPTION #2;

Negligible weight change

---

END

Additional Sheets Are Attached



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

**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).

<b>1. Aircraft</b>	Make	Model
	Serial No.	Nationality and Registration Mark
<b>2. Owner</b>	Name (As shown on registration certificate)	Address (As shown on registration certificate)

### 3. For FAA Use Only

### 4. Unit Identification

### 5. Type

Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~				
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

### 6. Conformity Statement

<b>A. Agency's Name and Address</b>	<b>B. Kind of Agency</b>	<b>C. Certificate No.</b>
	<input type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer	

**D.** I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date	Signature of Authorized Individual
------	------------------------------------

### 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

<b>BY</b>	FAA Fit. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection		Certificate or Designation No.	Signature of Authorized Individual	

## 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.)

Leslie C. Hardison  
Cessna 414A s/n414A0317  
N414MP

J. Conducted flight test evaluations in accordance with AC20-138 Paragraph 7c (1) (iv). Results were as follows:

1. Evaluate installed GPS navigation system to verify that it is functioning properly, safely, and operates in accordance with the manufacturer's specifications.
2. Evaluate steering response while the autopilot and/or flight director is coupled to the GPS equipment during a variety of different track and mode changes. All available display sensitivities should be evaluated.
3. Evaluate to verify the GPS installation does not adversely effect other onboard equipment.
4. Evaluate the accessibility of all controls pertaining to the GPS installation.
5. Evaluate the visibility of the controls, displays, and annunciators relating to the GPS installation during day and night lighting conditions. No distracting cockpit glare or reflections may be introduced and all controls must be illuminated for identification and ease of use. Night lighting shall be consistent with other cockpit lighting.
6. Validate GPS navigation system accuracy by checking against several points of known accuracy, visual landmarks and VOR coordinates.
7. Upon successful completion of flight test remove placard "GPS not approved for Navigation" and Install Placard "GPS not approved for IFR use."

I certify that the above recorded test flight information is correct and that the GPS equipment, as installed, meets the above listed performance requirements.

Pilot Signature



Date

7 January 97

Additional Sheets Are Attached

DEC 04 1996



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

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).

1. Aircraft	Make CESSNA	Model 414A
	Serial No. 414A0317	Nationality and Registration Mark USA N414MP
2. Owner	Name (As shown on registration certificate) LESLIE C HARDISON	Address (As shown on registration certificate) 26803 W APPLETREE LANE BARRINGTON, IL 60010

**3. For FAA Use Only**

THE DATA/ALTERATION IDENTIFIED HEREIN COMPLIES WITH APPLICABLE AIRWORTHINESS REQUIREMENTS AND IS APPROVED ONLY FOR THE ABOVE DESCRIBED AIRCRAFT SUBJECT TO CONFORMITY INSPECTION BY A PERSC AUTHORIZED IN FAR 43.7

DEC 3 1996

*Mont Cunit*

Unit	Make	Model	Serial No.	5. Type	
				Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~				XX
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

**6. Conformity Statement**

A. Agency's Name and Address Waukegan Avionics 3550 N McAree Road Waukegan, IL 60087	B. Kind of Agency	C. Certificate No. W0GR619K
	<input type="checkbox"/> U.S. Certificated Mechanic	
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input checked="" type="checkbox"/> Certificated Repair Station	
	<input type="checkbox"/> Manufacturer	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date NOV 27, 1996	Signature of Authorized Individual <i>George French</i>
----------------------	--

**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 Fit. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)
FAA Designee	<input checked="" type="checkbox"/> Repair Station	Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection Dec 5, 96	Certificate or Designation No. W0GR619K	Signature of Authorized Individual <i>George French</i>
--	--	--

## 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.

### B. Description of Work Accomplished

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

Leslie C. Hardison  
Cessna 414A s/n414A0317  
N414MP

- A. The following equipment and major components were removed:
  - 1. Miscellaneous Nav equipment as outlined on Waukegan Avionics Service Order number 7389.
- B. The following equipment and major components were installed:
  - 1. Bendix//King KLN-89B in avionics panel immediately below audio panel. KLN-89B TSO C129, Class A1.
  - 2. Bendix/King KA-92 GPS antenna on top of fuselage 37 inches behind aircraft panel. GPS antenna is TSO'd C129.
  - 3. Mid-Continent GPS Indicator model MD40-232L Indicator/annunciator installed on panel in full view of pilot. The MD40-232L in TSO'd C-60A.
- C. The installation was made with reference to:
  - 1. STC SA00244WI-D in Mooney M20 series aircraft dated 6-23-95
  - 2. Bendix/King Install Manual p/n 006-10522-0001, Rev 1, dated 6/95.
- D. All inspection records and other documents pertaining to this major alteration are on file at Waukegan Avionics under service order #7389.
- E. The alteration was performed in accordance with AC43.13-2A, chapter 1,2,3, and AC20-138.
- F. Aircraft Weight and Balance updated. The equipment list was amended in accordance with AC43.13-A1, Chapter 1,2,3, and Paragraphs 659 through 663.
- G. Electrical load does not exceed electrical generating capabilities.
- H. Conducted radio interference tests to ensure proper operation of all previously installed equipment. Found all systems to be functioning normally. Provided Manufacturers operations manual to accompany aircraft records.
- I. GPS system is intended for IFR Approach use when Flight Manual Supplement is approved. Placarded instrument panel "GPS not approved for navigation" pending VFR flight test. Upon successful completion of VFR flight test instrument panel placard will be changed to "GPS not approved for IFR". This system installed with Mid-Continent MD40-232L Indicator/Annunciator display as outlined in Manufacturers Installation Instructions. GPS is also wired into S\_NAV LU-1B annunciator/relay system which is wired to existing IN-881A HSI indicator and existing autopilot.

Additional Sheets Are Attached



U.S. 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

**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).

<b>1. Aircraft</b>	Make <b>CESSNA</b>	Model <b>414A</b>
	Serial No. <b>414A0317</b>	Nationality and Registration Mark <b>USA N414MP</b>
<b>2. Owner</b>	Name (As shown on registration certificate) <b>LESLIE C HARDISON</b>	Address (As shown on registration certificate) <b>26803 W APPLETREE LANE BARRINGTON, IL 60010</b>

### 3. For FAA Use Only

THE DATA/ALTERATION IDENTIFIED HEREIN COMPLIES WITH APPLICABLE AIRWORTHINESS REQUIREMENTS AND IS APPROVED ONLY FOR THE ABOVE DESCRIBED AIRCRAFT SUBJECT TO CONFORMITY INSPECTION BY A PERSO AUTHORIZED IN FAR 43.7

Date **APR 23 1997**

*Monte Rust*  
FAA Inspector

4. Unit Identification				5. Type	
Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	..... (As described in Item 1 above) .....				XX
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

### 6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency	C. Certificate No.
<b>Waukegan Avionics 3550 N McAree Road Waukegan, IL 60087</b>	<input type="checkbox"/> U.S. Certificated Mechanic	<b>WQGR619K</b>
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input checked="" type="checkbox"/> Certificated Repair Station	
	<input type="checkbox"/> Manufacturer	

**D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.**

Date <b>JAN 3, 1997</b>	Signature of Authorized Individual <i>George French</i>
----------------------------	--

### 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

BY	FAA Ft. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)
	FAA Designee <input checked="" type="checkbox"/>	Repair Station	Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection <b>APR 25, 1997</b>	Certificate or Designation No. <b>WQGR619K</b>	Signature of Authorized Individual <i>George French</i>
--	---	--



## 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

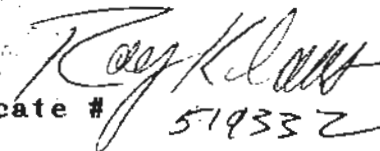
(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

Leslie C. Hardison  
Cessna 414A s/n 414A0317  
N414MP

- A. This FAA form 337 supersedes a previously approved FAA form 337 detailing a Bendix/King KLN-89B installation for VFR installation dated December 5 1996.
- B. The KLN-89B meets TSO C129, class A1. The KA-92 antenna is TSO'd C-129. and Bendix/King has obtained approval under STC number SA00244WI-D and this document is used as a reference.
- C. This KLN-89B system is not approved for precision approaches at this time.
- D. Flight Manual Supplement dated APR 23 1997 is required for this approval and following a satisfactory FAA approved flight test, the panel placard "GPS NOT APPROVED FOR IFR" will be removed.
- E. A KLN-89B Pilot's Manual P/N 006-08786-0000 dated May, 1995 or later revision must be in the aircraft and immediately available to the flight crew during flight.
- F. For IFR flight the KLN-89B database must be current. Any repairs or recalibration to the KLN-89B require that a FAA approved flight test be performed before returning to service for IFR flight.
- G. This aircraft was test flown on 4/11/97 using established flight procedures by Waukegan Avionics for IFR GPS Approach Operation and found to meet requirements of FAR 20-138.


Signed

Certificate #

  
4/11/97  
51933Z

Additional Sheets Are Attached

1057

 US Department of Transportation Federal Aviation Administration	<b>MAJOR REPAIR AND ALTERATION</b> <b>(Airframe, Powerplant, Propeller, or Appliance)</b>	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 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 violation (Section 901 of Federal Aviation Act of 1958).

<b>1. Aircraft</b>	Make CESSNA	Model 414A
	Serial No. 414A0317	Nationality and Registration Mark N414MP
<b>2. Owner</b>	Name (As shown on registration certificate) L D LEASING	Address (As shown on registration certificate) 233 APPLE TREE LANE BARRINGTON, IL. 60010

**3. For FAA Use Only**

4. Unit Identification				5. Type	
Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~				X
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement		
<b>A. Agency's Name and Address</b> TOMLINSON AVIONICS OF FLORIDA, INC.  511 DANLEY DR./ PAGE FIELD FT. MYERS, FL. 33907	<b>B. Kind of Agency</b> <input type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input checked="" type="checkbox"/> Certified Repair Station <input type="checkbox"/> Manufacturer	<b>C. Certificate No.</b> V6TR097X; RADIO I, II, III; LTD A/F LTD INST

**D.** I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date 03/21/02	Signature of Authorized Individual 
------------------	--

**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

BY	FAA Fit. Standards Inspector		Manufacturer	Inspection Authorization	Other (Specify)
	FAA Designee	X	Repair Station	Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection 03/21/02	Certificate or Designation No. V6TR097X	Signature of Authorized Individual 
---	--	--

## 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.)*

REMOVED BENDIX BX 2000 AUTOPILOT AND ASSOCIATED COMPONENTS.

INSTALLED S-TEC SYSTEM 65, MODEL ST-397 WITH ALT PRESELECT.

SYSTEM INSTALLED PER STC SA7787SW-D AND BULLETIN NO. 497 REV E, DATED 7/28/99, AND BULLETIN NO. ST 360 REV L DATED 4/27/01 FOR THE ALT PRE SELECT.

APPROPRIATE CIRCUIT PROTECTION PROVIDED FOR ALL UNITS INSTALLED.

EQUIPMENT LIST UPDATED, WEIGHT AND BALANCE COMPUTED.

COMPASS GROUND CHECKED OKAY.

ELECTRICAL LOAD DOES NOT EXCEED 80% OF ALTERNATORS CAPABILITY.

ALL SYSTEMS GROUND AND FLIGHT CHECKED OKAY.

APPROPRIATE PILOT OPERATING GUIDES AND FLIGHT MANUAL SUPPLEMENTS INSTALLED FOR THIS AIRCRAFT.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS FOLLOW.

-----  
END-----



U.S. 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

**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).

<b>1. Aircraft</b>	Make <b>Cessna</b>	Model <b>414A</b>
	Serial No. <b>414A 0307</b>	Nationality and Registration Mark <b>N414MP</b>
<b>2. Owner</b>	Name (As shown on registration certificate) <b>Hardison Leslie C.</b>	Address (As shown on registration certificate) <b>26803 W. Appletree Ln. Barrington, IL 60010</b>

### 3. For FAA Use Only

--	--	--	--	--	--	--	--	--	--

4. Unit Identification				5. Type	
Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	_____ (As described in item 1 above) _____				X
POWERPLANT	Teledyne Continental	TSIO-520-NB	521137 & 276664		X
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

### 6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency	C. Certificate No.
<b>Michael Cutro</b> <b>415 Surrey Lane</b> <b>Lindenhurst, IL 60046</b>	<input checked="" type="checkbox"/> U.S. Certificated Mechanic	<b>342503426</b>
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input type="checkbox"/> Certificated Repair Station	
	<input type="checkbox"/> Manufacturer	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date: **9/11/2002**      Signature of Authorized Individual:

### 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**

BY	FAA Fit. Standards Inspector	Manufacturer	<input checked="" type="checkbox"/>	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection <b>9/11/2002</b>	Certificate or Designation No. <b>320600103</b>	Signature of Authorized Individual 
---	--	--

## 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.)

Removed existing fuel flow indicating system

Installed Shadin Company, Inc. 910532P Fuel flow indicating system in accordance with Shadin Company Report No. 4026 dated July 18, 1981, revised June 15, 1983.

Installation consisted of Digiflo Digital Fuel Flow Meter, transducer kit and installation kit.

System installed in accordance with Shadin installation instructions # 4021 (Fuel Flow Transducers) and Shadin Installation Instructions # 4026 (Fuel Flow Indicator)

Installation performed per Supplemental Type Certificate SE444GL and SA577GL.

No change in weight or balance

\*\*\*\*\* NOTHING FOLLOWS \*\*\*\*\*

Additional Sheets Are Attached



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

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 civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make CESSNA	Model 414A
	Serial No. 414A0317	Nationality and Registration Mark N414MP
2. Owner	Name (As shown on registration certificate) L AND D LEASING	Address (As shown on registration certificate) 26803 W. APPLE TREE LN. BARRINGTON IL 60010-2437

**3. For FAA Use Only**

4. Unit Identification				5. Type	
Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	(As described in Item 1 above)			X	
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

**6. Conformity Statement**

A. Agency's Name and Address GLENN C, KUS 1365 RANDOLPH ST. PORT CHARLOTTE FL 33952	B. Kind of Agency <input checked="" type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer	C. Certificate No. 21466129
--	--	--------------------------------

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date 05/18/2004	Signature of Authorized Individual 
--------------------	--

**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

BY	FAA Fit. Standards Inspector	Manufacturer	<input checked="" type="checkbox"/>	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection 05/18/2004	Certificate or Designation No. AIP 1504340JA	Signature of Authorized Individual 
---	---	--

**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.*

**B. Description of Work Accomplished**

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

REPAIRED DAMAGED RUDDER BY REPLACING BROKEN RIBS, CHANNELS, AND SKINS AS REQUIRED. PARTS USED AS FOLLOWS RIB PN.5133020-8, RIB PN.5133020-45, CHANNEL PN. 5133020-9, CHANNEL PN. 5133020-18, SKIN PN. 5133020-5, SKIN PN.5133020-49, AND SKIN PN. 5133020-50. REPAIRS MADE IN ACCORDANCE WITH CESSNA SERVICE MANUAL. AFFECTED AREAS REPAINTED AND RUDDER CHECKED FOR BALANCE PER CESSNA AIRFRAME REPAIR MANUAL. BALANCE WITHIN PUBLISHED SPECIFICATIONS. RUDDER DETERMINED TO BE AIRWORTHY AND APPROVED FOR RETURN TO SERVICE.

-----END-----

Additional Sheets Are Attached

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION <b>STATEMENT OF COMPLIANCE WITH AIRWORTHINESS STANDARDS</b>	DATE 05/10/13
---	------------------

AIRCRAFT OR AIRCRAFT COMPONENT IDENTIFICATION			
MAKE	MODEL NO.	TYPE (Aircraft, Engine, Propeller, etc.)	NAME OF APPLICANT
CESSNA	414A	AIRPLANE	SOUTHERN AVIONICS & COMMUNICATIONS

LIST OF DATA	
IDENTIFICATION	TITLE
N414MP-051013-1 REV N/C 05/10/13	"GA 35 GPS/WAAS ANTENNA DOUBLER DESIGN & INSTALLATION"
<p><u>Notes</u></p> <p>This approval is for engineering design data only. It indicates the data listed above demonstrates compliance only with the regulations specified by paragraph and subparagraph listed below as 'APPLICABLE REQUIREMENTS'. This form does not constitute FAA approval of all the engineering data necessary for substantiation of compliance to necessary requirements for the entire alteration/repair. Structural aspects are approved, electrical aspects are not included.</p>	

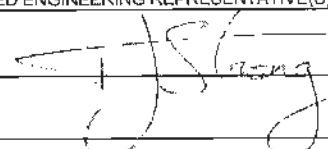
**PURPOSE OF DATA**  
 IN SUPPORT OF A MAJOR ALTERATION TO SHOW COMPLIANCE WITH THE FOLLOWING REGULATIONS FOR ONE AIRCRAFT ONLY; S/N 414A0317, T/N N414MP

**APPLICABLE REQUIREMENTS** (List specific sections)  
 14 CFR Part 23.301(a)(b), Amdt 23-48; 23.303, Amdt 23-0; 23.305(a)(b), Amdt 23-45; 23.307(a), Amdt 23-0; 23.365(a)(b)(d), Amdt 23-0; 23.601, Amdt 23-0; 23.603(a)(b), Amdt 23-23; 23.605(a), Amdt 23-23; 23.607(a)(b)(c), Amdt 23-0; 23.609(a), Amdt 23-0; 23.613(a)-(e), Amdt 23-45; 23.625(a), Amdt 23-7

**CERTIFICATION** - Under authority vested by direction of the Administrator and in accordance with conditions and limitations of appointment under 14 CFR Part 183, data listed above and on attached sheets numbered N/A have been examined in accordance with established procedures and found to comply with applicable requirements of the Airworthiness Standards listed.

Recommend approval of these data  
 Approve these data

I (We) Therefore

SIGNATURE(S) OF DESIGNATED ENGINEERING REPRESENTATIVE(S)	DESIGNATION NUMBER(S)	CLASSIFICATION(S)
TREVOR J. STRONG 	DERT-605818-NM	STRUCTURES



### GA 35 GPS/WAAS ANTENNA DOUBLER DESIGN & INSTALLATION ONE AIRCRAFT ONLY - A CESSNA 414A, S/N 4140317, T/N N414MP)

ZONE	REV	DESCRIPTION	DATE

DRAWING DOCUMENTS THE RE-ENGINEERING OF AN EXISTING GARMIN GA 35 GPS ANTENNA INSTALLATION BETWEEN FRAMES FS AT FS 162.0 ALONG THE UPPER C/LINE. THE INSTALLATION INVOLVES THE FABRICATION AND INSTALLATION OF A NEW INTERNAL DOUBLER.

MIL INTERNAL DOUBLER AND ANY BARE METAL PER MIL-C-5541 (OR EQUIVALENT)

PRIME INTERNAL DOUBLER AND ANY BARE METAL PER MIL-P-23377G (OR EQUIVALENT)

INSTALL RIVETS TO MIL-S-8802 (OR EQUIVALENT)

ALL GA 35 GPS ANTENNA AS PER MANUFACTURER INSTRUCTIONS. PROTECT RIVET HEADS USING RTV SEALANT, (DOW CORNING #732 - WHITE, OR EQUIVALENT) TO PREVENT MOISTURE INGRESS DURING OPERATION. SEAL ALL OPENINGS OF ANTENNA BASES WITH PR-1422B1/2, (OR EQUIVALENT) TO PREVENT MOISTURE INGRESS DURING OPERATION.

GPS/WAAS ANTENNA MANUFACTURERS DRAWING SHOWN ON SHEET 4, AS SHOWN ON SHEET 4.

GPS/WAAS ANTENNA MANUFACTURERS DRAWING SHOWN ON SHEET 4, AS SHOWN ON SHEET 4.

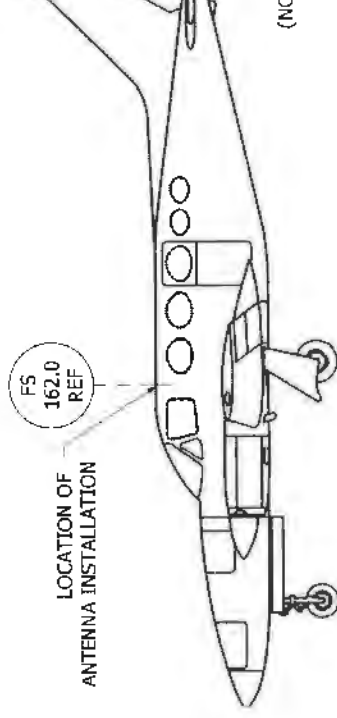


FIG 1 - LOCATION OF ANTENNA INSTALLATION

**KEY:**

**X** NOTE

**Y** ITEM

**XX.** GENERAL NOTE

THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF STRONG AERO ENGINEERING. ANY DISCLOSURE OF THE CONTENTS TO OTHERS IS GIVEN IN CONFIDENCE AND IS NOT TO BE REPRODUCED OR COPIED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE SPECIFIC APPROVAL OF STRONG AERO ENGINEERING, CA 91325. THE INFORMATION CONTAINED IN THIS DRAWING IS UNCLASSIFIED AND MAY NOT BE DISCLOSED WITHOUT THE WRITTEN APPROVAL OF STRONG AERO ENGINEERING, COPYRIGHT 2013.

(REF ONLY)	PART NUMBER	DESCRIPTION	DATE
-	FUSELAGE SKIN		
1	013-00235-00	GA 35 GPS/WAAS ANTENNA	
1	MS28775-116	O-RING	
22	NAS1097AD4-X	DIA 1/8" SOLID ALUMINUM C/S RIVET	
4	MS24694S53	# 10-32 100° C/SUNK SCREW	
8	NAS1097AD3-X	DIA 3/32" SOLID ALUMINUM C/S RIVET	
4	NAS1473A3	# 10-32 CAPPED NUTPLATE	
-	-01	INTERNAL DOUBLER, (t=.040")	
X	-101	GARMIN GA 35 GPS/WAAS ANTENNA INSTALLATION	

APPROVALS:	DATE:
DESIGNED BY: J. DAVILA	5/16/2013
CHECKED BY: T. STRONG	5/10/2013
DRAWN BY: T. STRONG	5/10/2013
APPROVED BY: T. STRONG	5/10/2013

STRONG AERO	STRONG AERO
WWW.StrongAero.com	WWW.StrongAero.com
TITLE: GA 35 GPS/WAAS DOUBLER DESIGN	TITLE: GA 35 GPS/WAAS DOUBLER DESIGN
INSTALLATION	INSTALLATION
REV. NO. N414MP-05	REV. NO. N414MP-05

**GA 35 GPS/WAAS ANTENNA DOUBLER DESIGN & INSTALLATION**  
 (FOR ONE AIRCRAFT ONLY - A CESSNA 414A, S/N 4140317, T/N N414MP)

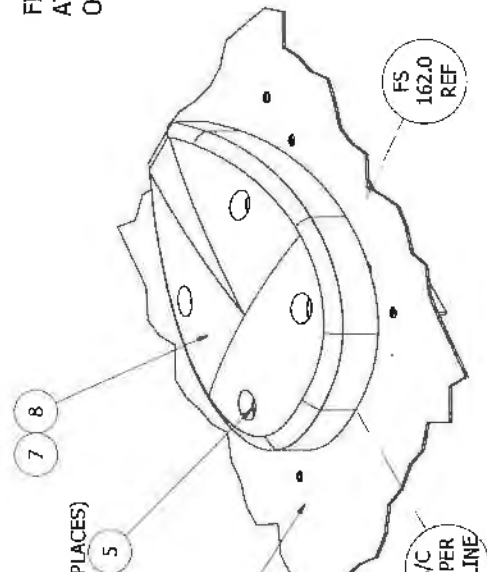


FIG 2 - VIEW LOOKING DOWN AT INSTALLATION FROM OUTSIDE AIRCRAFT

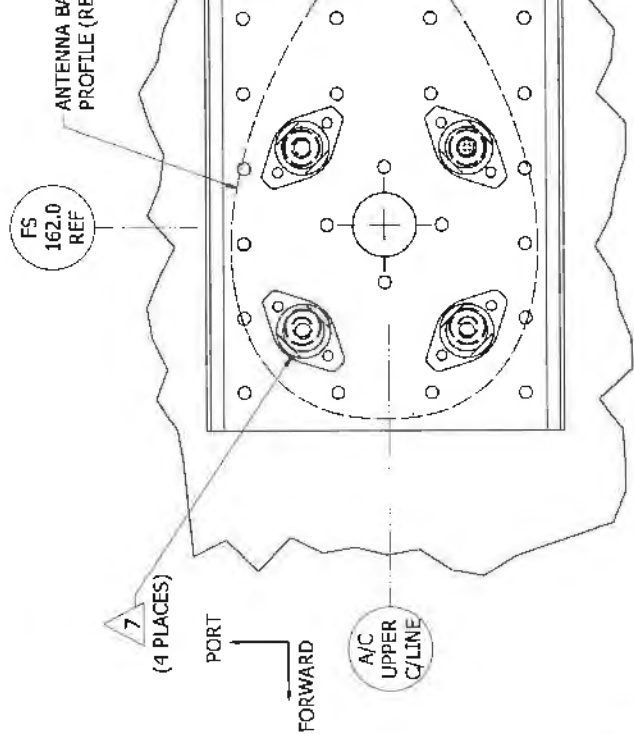


FIG 4 - VIEW LOOKING UP AT INSTALLATION

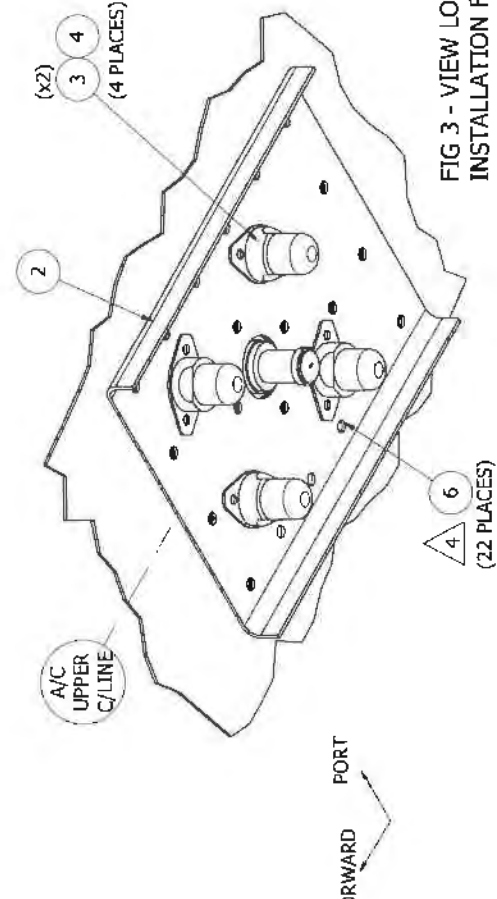
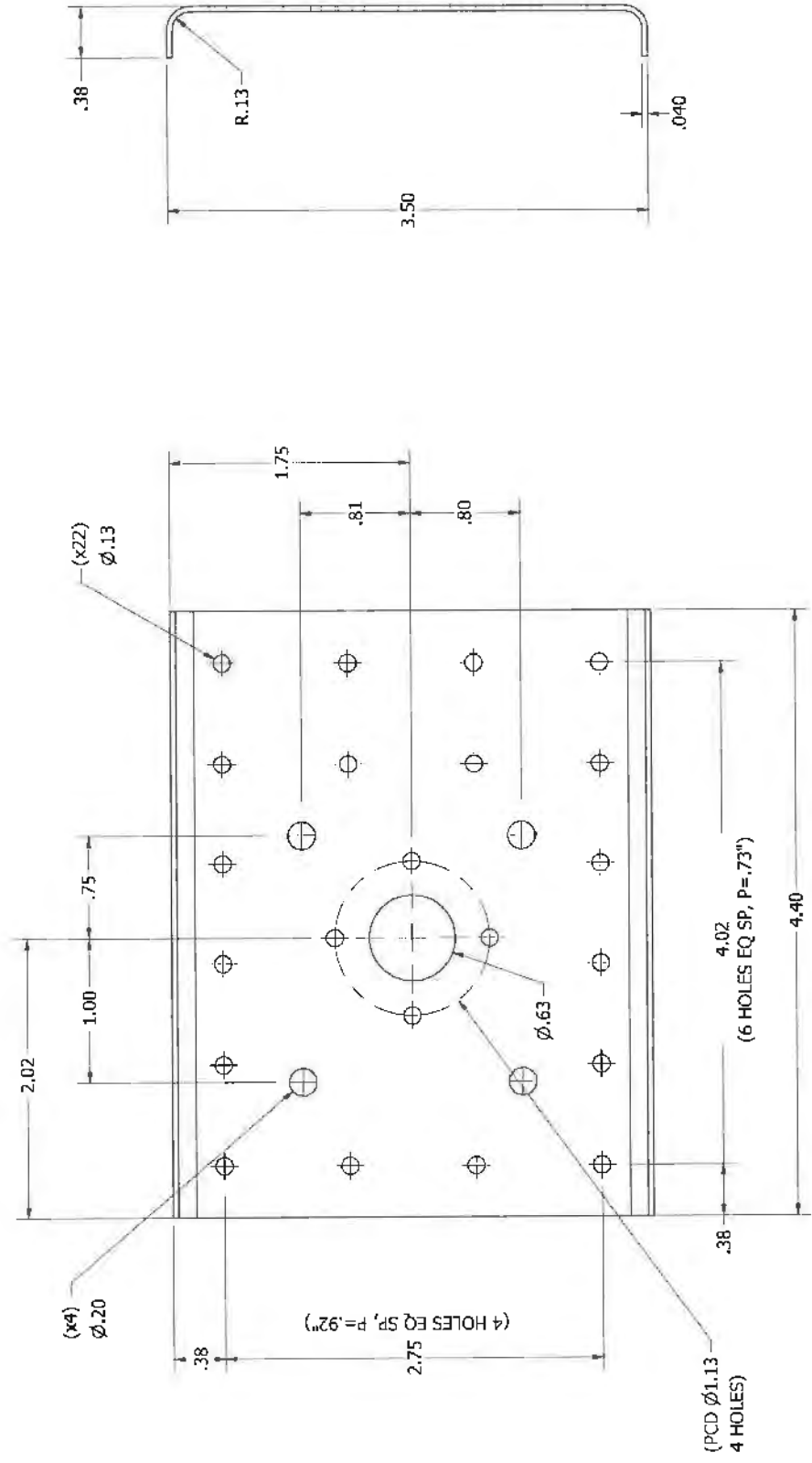


FIG 3 - VIEW LOOKING UP AT INSTALLATION FROM INSIDE AIRCRAFT

**GA 35 GPS/WAAS ANTENNA DOUBLER DESIGN & INSTALLATION**  
 (FOR ONE AIRCRAFT ONLY - A CESSNA 414A, S/N 4140317, T/N N414MP)



-01 INTERNAL DOUBLER

**GA 35 GPS/WAAS ANTENNA DOUBLER DESIGN & INSTALLATION**  
(FOR ONE AIRCRAFT ONLY - A CESSNA 414A, S/N 4140317, T/N N414MP)

**APPENDIX A - INSTALLATION DIMENSIONS**

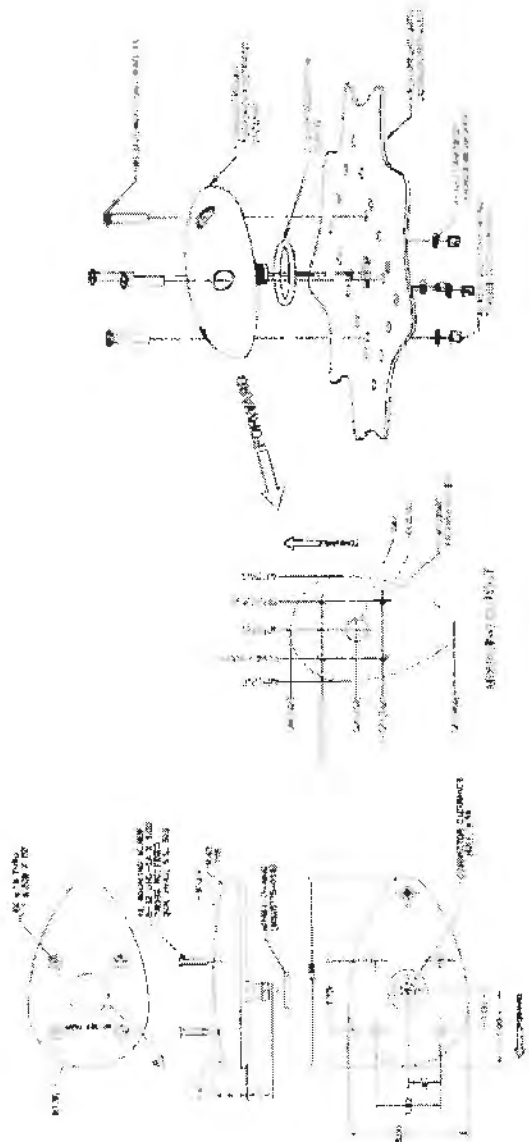


Figure A-1. GA 35 Antenna Install Dim Drawing

GA 35, GA 35A, and GA 35T Airframe Installation Instructions  
7/2018 (Rev. 1)

**FIG 5 - GA 35 GPS/WAAS ANTENNA INSTALLATION DRAWING, REFERENCE ONLY**

cost  
430



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

**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 civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make CESSNA	Model 414A
	Serial No. 414A0317	Nationality and Registration Mark N414MP
2. Owner	Name (As shown on registration certificate) L AND D LEASING	Address (As shown on registration certificate) 26803 W APPLE TREE LN BARRINGTON, IL. 60010-2437

3. For FAA Use Only

4. Unit Identification				5. Type	
Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	(As described in item 1 above)				X
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address TOMLINSON AVIONICS OF FLORIDA, INC. 521 DANLEY DR. / PAGE FIELD FT. MYERS, FL. 33907	B. Kind of Agency <input type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input checked="" type="checkbox"/> Certificated Repair Station Manufacturer	C. Certificate No. V6TR097X; RADIO I, II, III; LTD A/F LTD INST; LTD SPEC SERV.
--	---	--

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date 4/05/07	Signature of Authorized Individual 
-----------------	--

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

BY	FAA Fit. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)
	FAA Designee	X Repair Station	Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection 4/05/07	Certificate or Designation No. V6TR097X	Signature of Authorized Individual 
--	--	--

## 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.)*

REMOVED PREVIOUSLY INSTALLED GNS 430 AND GA 56 ANTENNA.

INSTALLED GARMIN GNS 430W AND GA 35 ANTENNA.

INSTALLED PER STC SA01933LA AND GARMIN FAA APPROVED INSTALLATION MANUAL P/N 190-00356-02 REV B.

APPROPRIATE CIRCUIT PROTECTION PROVIDED FOR ALL UNITS INSTALLED AND PLACARDED COM1 AND GPS.

WEIGHT AND BALANCE AND EQUIPMENT LIST UPDATED.

COMPASS GROUND CHECKED OKAY.

ELECTRICAL LOAD DOES NOT EXCEED 80% OF ALTERNATORS CAPABILITY.

ALL SYSTEMS GROUND AND FLIGHT CHECKED OKAY.

APPROPRIATE PILOT OPERATING GUIDES AND FLIGHT MANUAL SUPPLEMENT GARMIN P/N 190-00356-63 REV B DATED 12/21/2006 WAS INSTALLED FOR THIS AIRCRAFT.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS FOLLOW GARMIN P/N 190-00356-65 REV A. DATED 11-03/06.

END



Additional Sheets Are Attached



ZONE	REV	DESCRIPTION	DATE

## GPS/WAAS ANTENNA DOUBLER DESIGN & INSTALLATION

FOR AIRCRAFT ONLY - A CESSNA 414A, S/N 414A0317, T/N N414MP)

FILM DOUBLERS AND ANY BARE METAL PER MIL-C-5541 (OR EQUIVALENT)  
 PRIME DOUBLERS AND ANY BARE METAL PER MIL-P-23377G (OR EQUIVALENT)

INSTALL RIVETS TO MIL-S-8802 (OR EQUIVALENT)

DOUBLERS INSTALLED AGAINST INNER SKIN PANEL BETWEEN FRAMES AT  
 2. RIGHT OF THE A/C UPPER CENTER LINE AT RBL 4.0 (+/-1.0")

USE L. GARMIN GA 35 GPS/WAAS ANTENNA, P/N 013-00235-00, AS PER  
 MANUFACTURER'S INSTRUCTIONS, REPORT REF 190-00848-00, "GA 35, GA 36 AND GA  
 ANTENNA INSTALLATION INSTRUCTIONS", REV A, OR EQUIVALENT. PROTECT  
 ANTENNA HEADS USING RTV SEALANT, (DOW CORNING #732 - WHITE, OR  
 EQUIVALENT) TO PREVENT MOISTURE INGRESS DURING OPERATION. SEAL  
 ANTENNA BASE WITH PR-1422B1/2, (OR EQUIVALENT) TO COMPLETE  
 INSTALLATION.

USE ALL NUT PLATES TO STATIC DOUBLER ONLY, (ITEM 3), USING NAS 1097AD3  
 (OR EQUIVALENT), (ITEM 6)

FORM INTERNAL DOUBLERS TO MATCH SKIN PANEL INNER CONTOUR

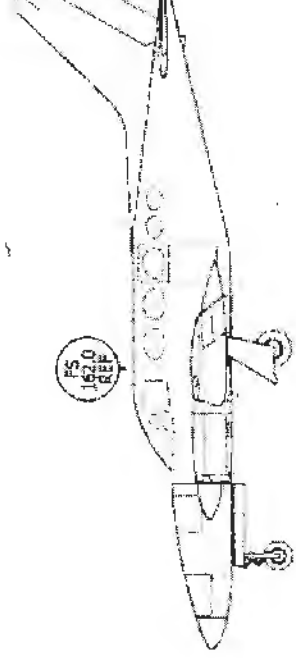




FIG 1 - LOCATION OF ANTENNA INSTALLATION  
 (NOT TO SCALE)

QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	2-121	NITRILE O-RING	(OR MS28)
1	013-00235-00	GA 35 GPS/WAAS ANTENNA	(SEE NOTE 1)
-	(REF ONLY)	SKIN PANEL	-
38	NAS1097AD4-X	Ø 1/8" C/SUNK HEAD SOLID RIVET	-
8	NAS1097AD3-X	Ø 3/32" C/SUNK HEAD SOLID RIVET	(OR EQUIV)
4	MS27039-08	#8-32 C/S HEAD SCREW	(OR EQUIV)
4	NAS1473A08	#8-32 DOME NUTPLATE	(OR EQUIV)
1	-03	STATIC DOUBLER	AL2024-T
1	-01	FATIGUE DOUBLER	AL2024-T
-000		GA 35 GPS/WAAS ANTENNA INSTL.	

**KEY:**

-  - NOTE
- X - GENERAL NOTE
-  - ITEM NO.

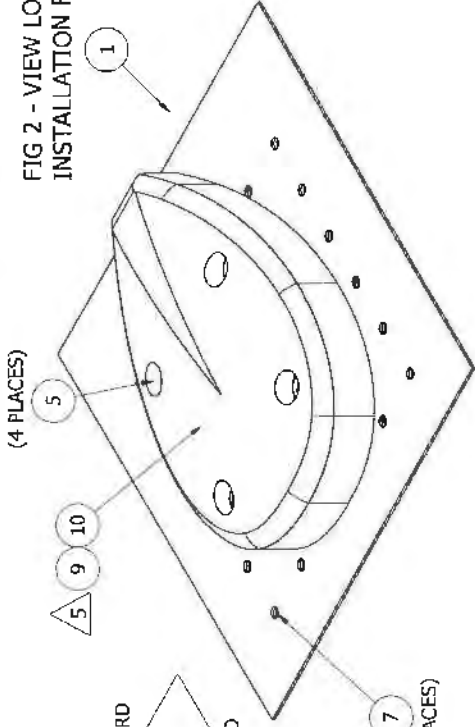
THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF STRONG AERO  
 ENGINEERING, INC. ANY DISCLOSURE OF THE CONTENTS TO OTHERS IS GIVEN IN  
 WRITING AND SHALL BE REPRODUCED OR COPIED OR  
 TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE SPECIFIC APPROVAL  
 OF STRONG AERO ENGINEERING, INC. THE INFORMATION CONTAINED IN THIS  
 DRAWING IS UNCLASSIFIED AND MAY NOT BE DISCLOSED WITHOUT THE WRITTEN  
 AUTHORIZATION OF STRONG AERO ENGINEERING, COPYRIGHT 2013

APPROVALS:	DATE:	STRONG AERO
APPROV: T.J. STRONG	05/02/13	WWW.STRONGAERO.COM
DESIGN: T. STRONG	05/02/13	TITLE: GA 35 GPS/WAAS DOUBLER DESIGN
DATE: 05/02/13		INSTALLATION
SCALE: 1:1		REV: N414MP-050213-1



**GA 35 GPS/WAAS ANTENNA DOUBLER DESIGN & INSTALLATION**  
 (FOR ONE AIRCRAFT ONLY - A CESSNA 414A, 5/N 414A0317, T/N N414MP)

FIG 2 - VIEW LOOKING DOWN AT INSTALLATION FROM OUTSIDE AIRCRAFT



FORWARD  
 STARBOARD

FS  
 162  
 REF

6  
 (x4)

ANTENNA  
 (REF O)

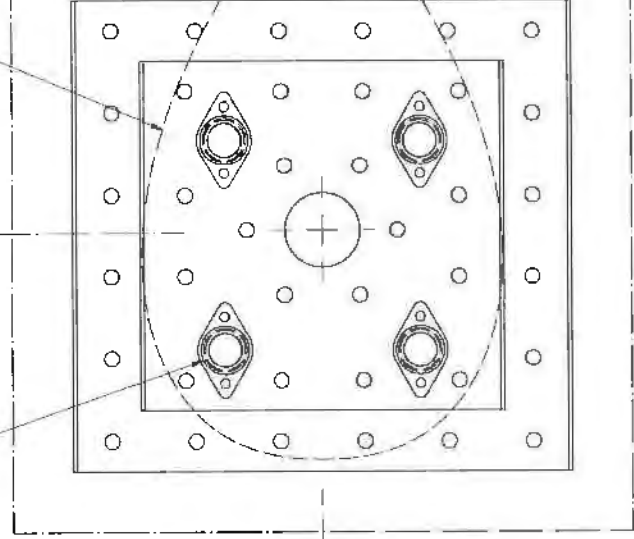


FIG 4 - VIEW LOOKING UP AT INSTALLATION

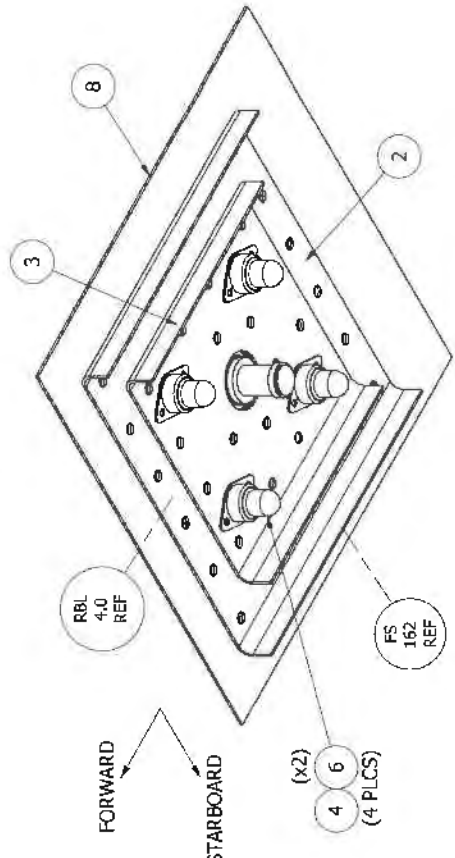


FIG 3 - VIEW LOOKING UP AT INSTALLATION FROM INSIDE AIRCRAFT

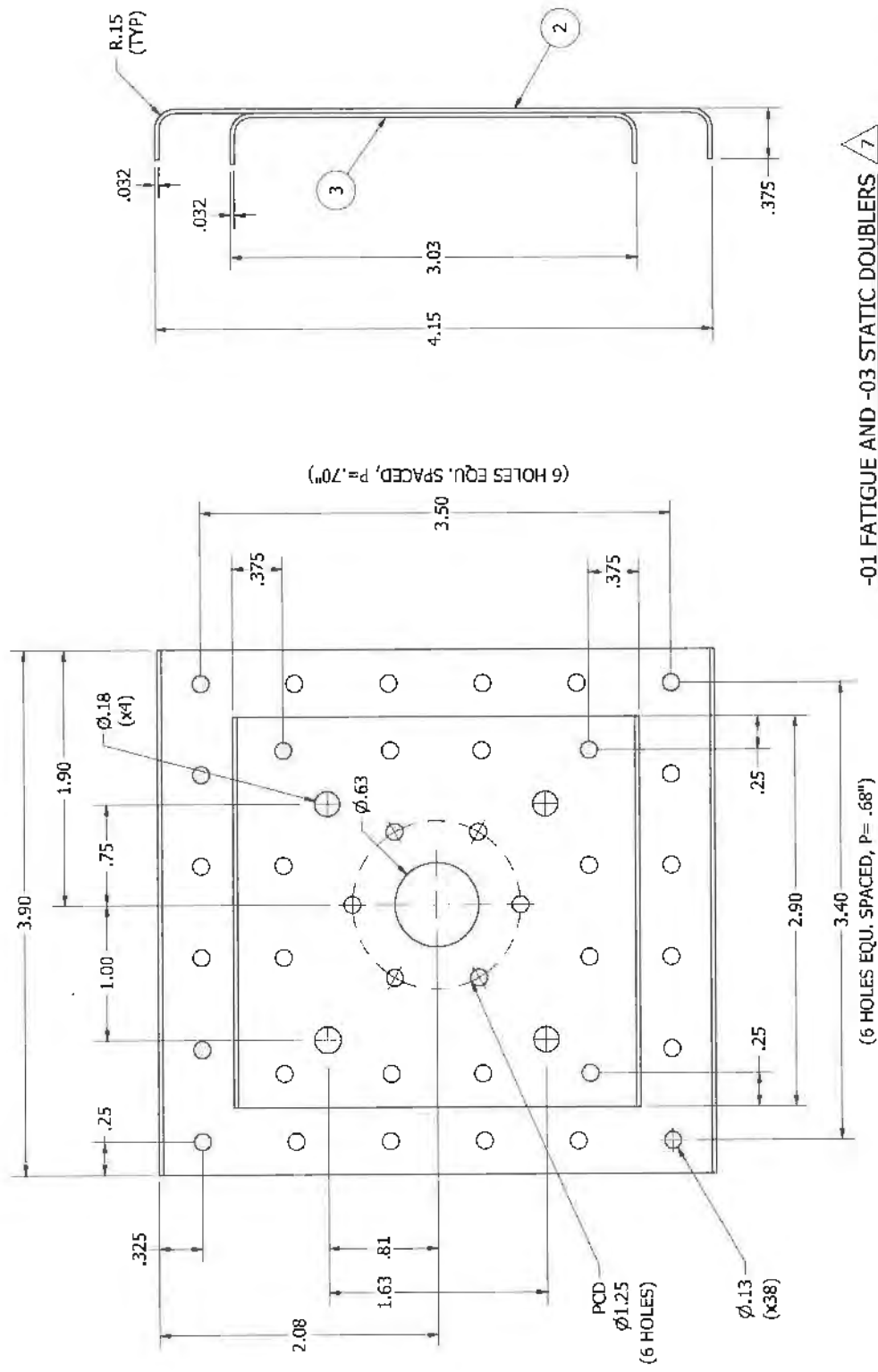
RBL  
 4.0  
 REF

(x2)  
 4 6  
 (4 PLCS)

FS  
 162  
 REF

FORWARD  
 STARBOARD

**GA 35 GPS/WAAS ANTENNA DOUBLER DESIGN & INSTALLATION**  
 (FOR ONE AIRCRAFT ONLY - A CESSNA 414A, S/N 414A0317, T/N N414MP)



-01 FATIGUE AND -03 STATIC DOUBLERS 7

Cost 530



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

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 civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make CESSNA	Model 414A
	Serial No. 414A0317	Nationality and Registration Mark N414MP
2. Owner	Name (As shown on registration certificate) L AND D LEASING	Address (As shown on registration certificate) 26803 W APPLE TREE LN BARRINGTON, IL. 60010-2437

3. For FAA Use Only

4. Unit Identification				5. Type	
Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	(As described in Item 1 above)				X
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address TOMLINSON AVIONICS OF FLORIDA, INC. 521 DANLEY DR./ PAGE FIELD FT. MYERS, FL. 33907	B. Kind of Agency <input type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input checked="" type="checkbox"/> Certificated Repair Station Manufacturer	C. Certificate No. V6TR097X; RADIO I, II, III; LTD A/F LTD INST; LTD SPEC SERV.
---	---	--

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date 4/05/07	Signature of Authorized Individual 
-----------------	--

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

BY	FAA Fit. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)
	FAA Designee	X Repair Station	Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection 4/05/07	Certificate or Designation No. V6TR097X	Signature of Authorized Individual 
--	--	--



0-258  
6-16-10



US Department of Transportation  
Federal Aviation Administration

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

Form Approved  
OMB No. 2120-0020  
11/30/2007

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark N414MP	Serial No. 414A0317	
	Make CESSNA	Model 414A	Series
2. Owner	Name (As shown on registration certificate) L AND D LEASING	Address (As shown on registration certificate) Address 26803 W APPLE TREE LN	
		City BARRINGTON	State IL
		Zip 60010-2437	Country


3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency		C. Certificate No.	
Name	TOMLINSON AVIONICS OF FLORIDA INC	<input type="checkbox"/>	U. S. Certificated Mechanic	Manufacturer	
Address	521 DANLEY DR	<input type="checkbox"/>	Foreign Certificated Mechanic	V6TR097X; radiol.II.III, ltd a/f, ltd inst	
City	FORT MYERS State FL	<input checked="" type="checkbox"/>	Certificated Repair Station		
Zip	33907 Country	<input type="checkbox"/>	Certificated Maintenance Organization		

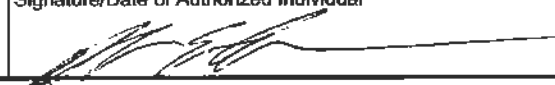
D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual  11-16-10
--	--

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  Approved  Rejected

BY	FAA Fit. Standards Inspector	<input type="checkbox"/>	Manufacturer	<input type="checkbox"/>	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	<input checked="" type="checkbox"/>	Repair Station	<input type="checkbox"/>	Inspection Authorization	

Certificate or Designation No. V6TR097X	Signature/Date of Authorized Individual  11-16-10
--	--

**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.)*

N414MP

11/16/10

Nationality and Registration Mark

Date

REMOVED KING KCS 55A HSI AND COMPONENTS.

INSTALLED GARMIN G600 PFD/MFD PER STC SA02153LA-D AND GARMIN INSTALLATION MANUAL P/N 190-00601-06 REV E DATED NOV 2009.

APPROPRIATE CIRCUIT PROTECTION PROVIDED FOR ALL UNITS INSTALLED AND PLACARDED PFD, ADC AND AHRS.

WEIGHT AND BALANCE AND EQUIPMENT LIST UPDATED.

COMPASS GROUND CHECKED OKAY.

ELECTRICAL LOAD DOES NOT EXCEED 80% OF ALTERNATORS CAPABILITY.

ALL SYSTEMS GROUND AND FLIGHT CHECKED OKAY.

APPROPRIATE PILOT OPERATING GUIDES INSTALLED IN A/C. FLIGHT MANUAL SUPPLEMENT GARMIN DOCUMENT 190-00601-01 REV D, DATED 11/17/09 WAS INSTALLED FOR THIS AIRCRAFT.

—END—

Additional Sheets Are Attached



US Department of Transportation  
Federal Aviation Administration

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

OMB No. 2120-0020  
Exp: 8/31/2014  
Electronic Tracking Number  
For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark N414MP	Serial No. 414A0317
	Make CESSNA	Model 414A

2. Owner	Name (As shown on registration certificate) ATLANTA AIRCRAFT SALES INC	Address (As shown on registration certificate) Address 600 SKYLINE DR
		City NEW SMYRNA BEACH State FLORIDA
		Zip 32168-5948 Country UNITED STATES

3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT	_____	_____	_____
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER	_____	_____	_____
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type	_____	_____
			Manufacturer	_____	_____

6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency		C. Certificate No. <b>2640972</b>
Name	CLIFFORD OHEARN	<input checked="" type="checkbox"/>	U. S. Certified Mechanic	
Address	PO BOX 100	<input type="checkbox"/>	Foreign Certified Mechanic	
City	GRIFFIN State GEORGIA	<input type="checkbox"/>	Certificated Repair Station	
Zip	30224 Country UNITED STATES	<input type="checkbox"/>	Certificated Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual <i>Clifford Ohearn</i> APP 2640972 4/4/13
--	--

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  Approved  Rejected

BY	FAA Flt. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport Other (Specify)
	FAA Designee	Repair Station	<input checked="" type="checkbox"/> Inspection Authorization	

Certificate or Designation No. 2627059	Signature/Date of Authorized Individual <i>Jeffrey S. Peterson</i> APR/4/2013
--	--

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.

**B. Description of Work Accomplished**

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

N414MP

APR14/2013

Nationality and Registration Mark

Date

1. REMOVED DAMAGED RUDDER UPPER SKIN AND REPLACED WITH NEW SKIN P/N 5133020-50.
2. REMOVED DAMAGED RUDDER CHANNEL AND REPLACED WITH NEW CHANNEL P/N 5133020-18.
3. ALL WORK PERFORMED IN ACCORDANCE WITH CESSNA 414A SERVICE MANUAL AND ADVISORY CIRCULAR 43 13-1B CH. 4-57A & 4-57F.
4. AIRCRAFT IS CURRENTLY UNDERGOING COMPLETE REPAINT BY SEPARATE AGENCY. RUDDER PAINT AND SATISFACTORY BALANCE CHECK WITH LOGBOOK ENTRY MUST BE ACCOMPLISHED AFTER DATE OF THIS REPAIR PRIOR TO NEXT FLIGHT.

-----END-----

Additional Sheets Are Attached





US Department  
of Transportation  
Federal Aviation  
Administration

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

Form Approved  
OMB No. 2120-0020  
11/30/2007

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark <b>N414MP</b>	Serial No. <b>414A0317</b>
	Make <b>Cessna</b>	Model <b>C-414A</b>
2. Owner	Name (As shown on registration certificate) <b>Atlanta Aircraft Sales Inc</b>	
	Address (As shown on registration certificate) Address <b>3287 Bay View Drive</b>	
	City <b>Jonesboro</b>	State <b>GA</b>
	Zip <b>30236</b>	Country

**3. For FAA Use Only**

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME	_____	(As described in item 1 above)	_____
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

**6. Conformity Statement**

A. Agency's Name and Address		B. Kind of Agency	
Name	<b>Southern Avionics &amp; Communications, Inc.</b>	<input type="checkbox"/> U. S. Certificated Mechanic	<input type="checkbox"/> Manufacturer
Address	<b>MOBILE DOWNTOWN AIRPORT</b>	<input type="checkbox"/> Foreign Certificated Mechanic	<input type="checkbox"/> C. Certificate No.
City	<b>MOBILE</b> State <b>AL</b>	<input checked="" type="checkbox"/> Certificated Repair Station	<b>HW4R427M LMTD INSTRUME</b>
Zip	<b>36615</b> Country	<input type="checkbox"/> Certificated Maintenance Organization	<b>RADIO I,II,III</b>

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual <b>John D. Theobald</b> <i>John D. Theobald</i> June 18, 2013
--	---

**7. Approval for Return to Service**

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  Approved  Rejected

BY	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee <input checked="" type="checkbox"/>	Repair Station	Inspection Authorization	Other (Specify)

Certificate or Designation No. <b>HW4R427M</b>	Signature/Date of Authorized Individual <b>John D. Theobald</b> <i>John D. Theobald</i> June 18, 2013
---	---

**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.)*

N414MP

06/18/2013

Nationality and Registration Mark

Date

THIS 337 IS FOR RECORDATION PURPOSES ONLY

REMOVED: GNS 430W P/N 011-01060-40

INSTALLED: GTN-750 NAV/COM/GPS/WAAS P/N 011-02282-00 @ STATION 110.5  
GA-35 ANTENNA P/N 013-00235-00 @ STATION 151.0  
SPLITTER P/N ZFSC-2-1 @ STATION 103.5

THE GARMIN GTN-750 SYSTEM IS INSTALLED IN ACCORDANCE WITH GARMIN INSTALLATION MANUAL P/N 190-01007-A3, REV 5, DATED APRIL 2013.

THE GA-35 ANTENNA WAS INSTALLED IN ACCORDANCE WITH STRONG AEROSPACE ENGINEERING DRAWING NUMBER N414MP-050213-1.

THE GTN-750 IS APPROVED FOR INSTALLATION IN THIS AIRCRAFT UNDER STC # SA02019SE-D ISSUED TO GARMIN INTERNATIONAL INC. 18 MARCH 2011 AND AMENDED 19 DECEMBER 2012.

THE GARMIN GTN-750 IS INTERFACED TO THE G600 SYSTEM, #1 GTN 750, GMA350 AUDIO PANEL, FUEL FLOW, GWX 70 RADAR AND THE #1 GTX 327 TRANSPONDER USING STANDARD INTERFACING TECHNIQUES ACCORDING TO MANUFACTURER'S INSTRUCTIONS. THE NEWLY INSTALLED EQUIPMENT IS COMPATIBLE WITH ALL OTHER EQUIPMENT, SYTEMS AND PREVIOUS ALTERATIONS.

THIS INSTALLATION DOES NOT DEVIATE SUBSTANTIALLY FROM THE INSTALLATION MANUAL AS REFERENCED IN THE ABOVE LISTED STC.

AN ELECTRICAL LOAD ANALYSIS WAS CONDUCTED AND FOUND THAT MAX LOAD OF THE AIRCRAFT ELECTRICAL SYSTEM DOES NOT EXCEED 80% OF CAPACITY.

POST INSTALLATION CHECKS HAVE BEEN CONDUCTED IN ACCORDANCE WITH THE ABOVE REFERENCED INSTALLATION MANUAL CHECKOUT PROCEDURES. PROPER OPERATION WAS CONFIRMED AND EQUIPMENT HAD NO ADVERSE EFFECT QN ANY OTHER EQUIPMENT OR SYSTEMS INSTALLED IN THE AIRCRAFT.

ALL WORK HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH THE ABOVE REFERENCED INSTALLATION MANUAL AND AC 43.13-1B CHAPTERS 11 & 12 AND AC 43.13-2B CHAPTERS 1, 2 & 3.

WEIGHT AND BALANCE/EQUIPMENT LIST HAS BEEN AMENDED. LOG BOOK ENTRIES HAVE BEEN MADE.

THE MANUFACTURER'S FAA APPROVED AIRPLANE FLIGHT MANUAL FOR THE GTN 750 P/N 190-01007-A2, REV 3, DATED 12 APRIL 2013 HAS BEEN INCLUDED IN THE FAA APPROVED AIRCRAFT FLIGHT MANUAL.

THE MANUFACTURER'S FAA APPROVED INSTRUCTIONS FOR CONTINUED AIRWORTHINESS FOR THE GTN-750 P/N 190-01007-A1, REV 5, DATED MARCH 2013 WILL BE MADE PERMANENT PART OF THE AIRCRAFT RECORDS.

\*\*\*\*\*END\*\*\*\*\*

Additional Sheets Are Attached



US Department of Transportation  
Federal Aviation Administration

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

Form Approved  
OMB No. 2120-0020  
11/30/2007

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

<b>1. Aircraft</b>	Nationality and Registration Mark <b>N414MP</b>	Serial No. <b>414A0317</b>	
	Make <b>Cessna</b>	Model <b>C-414A</b>	Series
<b>2. Owner</b>	Name (As shown on registration certificate) <b>Atlanta Aircraft Sales Inc</b>		Address (As shown on registration certificate)
			Address <b>3287 Bay View Drive</b>
			City <b>Jonesboro</b> State <b>GA</b>
			Zip <b>30236</b> Country

**3. For FAA Use Only**

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME	_____	(As described in item 1 above)	_____
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

**6. Conformity Statement**

<b>A. Agency's Name and Address</b>		<b>B. Kind of Agency</b>	
Name	<b>Southern Avionics &amp; Communications, Inc.</b>	<input type="checkbox"/> U. S. Certificated Mechanic	<input type="checkbox"/> Manufacturer
Address	<b>MOBILE DOWNTOWN AIRPORT</b>	<input type="checkbox"/> Foreign Certificated Mechanic	C. Certificate No.
City	<b>MOBILE</b> State <b>AL</b>	<input checked="" type="checkbox"/> Certificated Repair Station	<b>HW4R427M LMTD INSTRUME</b>
Zip	<b>36615</b> Country	<input type="checkbox"/> Certificated Maintenance Organization	<b>RADIO I,II,III</b>

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual June 18, 2013      John D. Theobald <i>J. Theobald</i>
--	---

**7. Approval for Return to Service**

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  Approved  Rejected

BY	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	<input checked="" type="checkbox"/> Repair Station	Inspection Authorization	Other (Specify)

Certificate or Designation No. <b>HW4R427M</b>	Signature/Date of Authorized Individual June 18, 2013      John D. Theobald <i>J. Theobald</i>
---	---

**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.)*

N414MP	06/18/2013
--------	------------

Nationality and Registration Mark

Date

THIS 337 IS FOR RECORDATION PURPOSES ONLY

REMOVED: GNS 530W P/N 011-01064-40  
GA-35 ANTENNA P/N 013-00235-00

INSTALLED: GTN-750 NAV/COM/GPS/WAAS P/N 011-02282-00 @ STATION 110.5  
GA-35 ANTENNA P/N 013-00235-00 @ STATION 151  
DIPLEXER P/N CI-507 @ STATION 103.5

THE GARMIN GTN-750 SYSTEM IS INSTALLED IN ACCORDANCE WITH GARMIN INSTALLATION MANUAL P/N 190-01007-A3, REV 5, DATED APRIL 2013.

THE GA-35 ANTENNA WAS INSTALLED IN ACCORDANCE WITH STRONG AEROSPACE ENGINEERING DRAWING NUMBER N414MP-051013-1.

THE GTN-750 IS APPROVED FOR INSTALLATION IN THIS AIRCRAFT UNDER STC # SA02019SE-D ISSUED TO GARMIN INTERNATIONAL INC. 18 MARCH 2011 AND AMENDED 19 DECEMBER 2012.

THE GARMIN GTN-750 IS INTERFACED TO THE G600 SYSTEM, #2 GTN 750, GMA350 AUDIO PANEL, FUEL FLOW AND THE #1 GTX 330ES TRANSPONDER USING STANDARD INTERFACING TECHNIQUES ACCORDING TO MANUFACTURER'S INSTRUCTIONS. THE NEWLY INSTALLED EQUIPMENT IS COMPATIBLE WITH ALL OTHER EQUIPMENT, SYTEMS AND PREVIOUS ALTERATIONS.

THIS INSTALLATION DOES NOT DEVIATE SUBSTANTIALY FROM THE INSTALLATION MANUAL AS REFERENCED IN THE ABOVE LISTED STC.

AN ELECTRICAL LOAD ANALYSIS WAS CONDUCTED AND FOUND THAT MAX LOAD OF THE AIRCRAFT ELECTRICAL SYSTEM DOES NOT EXCEED 80% OF CAPACITY.

POST INSTALLATION CHECKS HAVE BEEN CONDUCTED IN ACCORDANCE WITH THE ABOVE REFERENCED INSTALLATION MANUAL CHECKOUT PROCEDURES. PROPER OPERATION WAS CONFIRMED AND EQUIPMENT HAD NO ADVERSE EFFECT ON ANY OTHER EQUIPMENT OR SYSTEMS INSTALLED IN THE AIRCRAFT.

ALL WORK HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH THE ABOVE REFERENCED INSTALLATION MANUAL AND AC 43.13-1B CHAPTERS 11 & 12 AND AC 43.13-2B CHAPTERS 1, 2 & 3.

WEIGHT AND BALANCE/EQUIPMENT LIST HAS BEEN AMENDED. LOG BOOK ENTRIES HAVE BEEN MADE.

THE MANUFACTURER'S FAA APPROVED AIRPLANE FLIGHT MANUAL FOR THE GTN 750 P/N 190-01007-A2, REV 3, DATED 12 APRIL 2013 HAS BEEN INCLUDED IN THE FAA APPROVED AIRCRAFT FLIGHT MANUAL.

THE MANUFACTURER'S FAA APPROVED INSTRUCTIONS FOR CONTINUED AIRWORTHINESS FOR THE GTN-750 P/N 190-01007-A1, REV 5, DATED MARCH 2013 WILL BE MADE PERMANENT PART OF THE AIRCRAFT RECORDS.

\*\*\*\*\*END\*\*\*\*\*

Additional Sheets Are Attached



US Department of Transportation  
Federal Aviation Administration

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

Form Approved  
OMB No. 2120-0020  
11/30/2007

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark <b>N414MP</b>	Serial No. <b>414A0317</b>	
	Make <b>Cessna</b>	Model <b>C-414A</b>	Series
2. Owner	Name (As shown on registration certificate) <b>Atlanta Aircraft Sales Inc</b>		Address (As shown on registration certificate)
			Address <b>3287 Bay View Drive</b>
			City <b>Jonesboro</b> State <b>GA</b>
			Zip <b>30236</b> Country

**3. For FAA Use Only**

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

**6. Conformity Statement**

A. Agency's Name and Address		B. Kind of Agency	
Name	<b>Southern Avionics &amp; Communications, Inc.</b>	<input type="checkbox"/>	U. S. Certificated Mechanic
Address	<b>MOBILE DOWNTOWN AIRPORT</b>	<input type="checkbox"/>	Manufacturer
City	<b>MOBILE</b> State <b>AL</b>	<input checked="" type="checkbox"/>	Foreign Certificated Mechanic
Zip	<b>36615</b> Country	<input type="checkbox"/>	C. Certificate No.
		<input type="checkbox"/>	Certificated Repair Station
		<input type="checkbox"/>	Certificated Maintenance Organization
			<b>HW4R427M LMTD INSTRUME RADIO I,II,III</b>

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual <b>John D. Theobald</b> <i>J.D. Theobald</i> June 18, 2013
--	--

**7. Approval for Return to Service**

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  Approved  Rejected

BY	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee <input checked="" type="checkbox"/>	Repair Station	Inspection Authorization	Other (Specify)

Certificate or Designation No. <b>HW4R427M</b>	Signature/Date of Authorized Individual <b>John D. Theobald</b> <i>J.D. Theobald</i> June 18, 2013
---	--

**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.)*

N414MP

06/18/2013

Nationality and Registration Mark

Date

THIS 337 IS FOR RECORDATION PURPOSES ONLY

REMOVED: GARMIN GTX 330 TRANSPONDER P/N 011-00455-00 @ STATION 111.0

INSTALLED: GARMIN GTX 330ES TRANSPONDER P/N 011-00455-60 @ STATION 111.0

THE GARMIN GTX330ES WITH ADS-B OUT TRANSPONDER SYSTEM IS INSTALLED IN ACCORDANCE WITH GARMIN INSTALLATION MANUAL P/N 190-00734-10, REV 2, DATED APRIL 2013.

THE GTX 330ES IS APPROVED FOR INSTALLATION IN THIS AIRCRAFT UNDER STC # SA01714WI ISSUED TO GARMIN INTERNATIONAL INC. 1 MAY 2013.

THE GARMIN GTX 330ES IS INTERFACED TO THE #1 GTN 750, GMA350 AUDIO PANEL, GDC 74A ADC, AND GTX 327 TRANSPONDER FOR SUPPRESSION USING STANDARD INTERFACING TECHNIQUES ACCORDING TO MANUFACTURER'S INSTRUCTIONS. THE NEWLY INSTALLED EQUIPMENT IS COMPATIBLE WITH ALL OTHER EQUIPMENT, SYSTEMS AND PREVIOUS ALTERATIONS.

THIS INSTALLATION DOES NOT DEVIATE SUBSTANTIALLY FROM THE INSTALLATION MANUAL AS REFERENCED IN THE ABOVE LISTED STC.

AN ELECTRICAL LOAD ANALYSIS WAS CONDUCTED AND FOUND THAT MAX LOAD OF THE AIRCRAFT ELECTRICAL SYSTEM DOES NOT EXCEED 80% OF CAPACITY.

POST INSTALLATION CHECKS HAVE BEEN CONDUCTED IN ACCORDANCE WITH THE ABOVE REFERENCED INSTALLATION MANUAL CHECKOUT PROCEDURES. PROPER OPERATION WAS CONFIRMED AND EQUIPMENT HAD NO ADVERSE EFFECT ON ANY OTHER EQUIPMENT OR SYSTEMS INSTALLED IN THE AIRCRAFT.

ALL WORK HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH THE ABOVE REFERENCED INSTALLATION MANUAL AND AC 43.13-1B CHAPTERS 11 & 12 AND AC 43.13-2B CHAPTERS 1, 2 & 3.

WEIGHT AND BALANCE/EQUIPMENT LIST HAS BEEN AMENDED. LOG BOOK ENTRIES HAVE BEEN MADE.

THE MANUFACTURER'S FAA APPROVED AIRPLANE FLIGHT MANUAL FOR THE GTX 330ES WITH ADS-B OUT, P/N 190-00734-15, REV 1, DATED 1 MAY 2013 HAS BEEN INCLUDED IN THE FAA APPROVED AIRCRAFT FLIGHT MANUAL.

THE MANUFACTURER'S FAA APPROVED INSTRUCTIONS FOR CONTINUED AIRWORTHINESS FOR THE GTX 330ES WITH ADS-B OUT, P/N 190-00734-11, REV 1, DATED MAY 2013 WILL BE MADE PERMANENT PART OF THE AIRCRAFT RECORDS.

\*\*\*\*\*END\*\*\*\*\*

Additional Sheets Are Attached



US Department of Transportation  
Federal Aviation Administration

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

Form Approved  
OMB No. 2120-0020  
11/30/2007

Electronic Tracking Number

For FAA Use Only

**INSTRUCTIONS:** Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

<b>1. Aircraft</b>	Nationality and Registration Mark <p style="text-align: center; font-size: 1.2em;">N414MP</p>	Serial No. 414A0317	
	Make Cessna	Model C-414A	Series
<b>2. Owner</b>	Name (As shown on registration certificate) Atlanta Aircraft Sales Inc		Address (As shown on registration certificate) 3287 Bay View Drive
	City Jonesboro		State GA
	Zip 30236		Country

**3. For FAA Use Only**

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

**6. Conformity Statement**

<b>A. Agency's Name and Address</b>		<b>B. Kind of Agency</b>	
Name Southern Avionics & Communications, Inc.		U. S. Certificated Mechanic	Manufacturer
Address MOBILE DOWNTOWN AIRPORT		Foreign Certificated Mechanic	C. Certificate No.
City MOBILE State AL		<input checked="" type="checkbox"/> Certificated Repair Station	HW4R427M LMTD INSTRUME
Zip 36615 Country		Certificated Maintenance Organization	RADIO I, II, III

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual June 18, 2013 John D. Theobald <i>John D. Theobald</i>
--	---

**7. Approval for Return to Service**

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  Approved  Rejected

<b>BY</b>	FAA Fit. Standards Inspector		Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	<input checked="" type="checkbox"/>	Repair Station	Inspection Authorization	Other (Specify)

Certificate or Designation No. HW4R427M	Signature/Date of Authorized Individual June 18, 2013 John D. Theobald <i>John D. Theobald</i>
--	---

**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.)*

N414MP

06/18/2013

Nationality and Registration Mark

Date

THIS 337 IS FOR RECORDATION PURPOSES ONLY

REMOVED: COMPONENTS FROM S-TEC SYSTEM 60 AUTOPILOT SYSTEM CONSISTING OF:  
AUTO PILOT CONTROLLER P/N 0142-2  
AUTO PILOT ANNUNCIATOR P/N 0141  
ALTITUDE SELECTOR P/N 01279-PX  
PITCH FLIGHT GUIDANCE COMPUTER P/N 0110-11T  
ROLL FLIGHT GUIDANCE COMPUTER P/N 0109-12

INSTALLED: S-TEC SYSTEM 55X AUTOPILOT SYSTEM CONSISTING OF:  
PROG/COMPUTER P/N 01192-12-2PX @ STATION 111.5  
ST-645 REMOTE LCD ANNUNCIATOR P/N 01188-2PX @ STATION 114.0

THE S-TEC SYSTEM 55X AUTOPILOT SYSTEM INSTALL IS AN UPGRADE PATH FROM THE EXISTING S-TEC SYSTEM 60 AUTOPILOT. COMPATIBLE COMPONENTS WERE RETAINED AND REUSED FOR THIS UPGRADE.

THE S-TEC SYSTEM 55X AUTOPILOT SYSTEM, MODEL ST-578 WAS INSTALLED IN ACCORDANCE WITH S-TEC CORPORATION FAA APPROVED INSTALLATION BULLETIN NO. 678, REVISION 3, DATED 5 OCTOBER 2011 AND MASTER DRAWING LIST NUMBER 92758, REV C, DATED 5 OCTOBER 2011. THE SYSTEM 55X IS APPROVED FOR INSTALLATION IN THIS AIRCRAFT UNDER STC #SA08996AC-D-D ISSUED TO S-TEC CORPORATION 25 APRIL 1995 AND AMENDED 4 OCTOBER 1997 AND 5 OCTOBER 2001.

ALL WORK WAS ACCOMPLISHED IN ACCORDANCE WITH AC 43-13-1B, CHAPTERS 10 & 11 AND AC 43-13-2B, CHAPTERS 2 & 3.

POST INSTALLATION TESTS WERE CONDUCTED PER ABOVE REFERENCED INSTALLATION CHECK-OUT PROCEDURES AND PROPER OPERATION WAS CONFIRMED.

LOGBOOK ENTRY HAS BEEN MADE.

WEIGHT AND BALANCE/EQUIPMENT LIST HAS BEEN AMENDED.

A FAA APPROVED AIRPLANE FLIGHT MANUAL SUPPLEMENT DOCUMENT P/N 891157, DATED 25 APRIL 1995 HAS BEEN PLACED IN THE AIRCRAFT PILOT'S OPERATING HANDBOOK.

+++++ SEE ATTACHED SHEETS FOR INSTURCTIONS FOR CONTINUED AIRWORTHINESS +++++  
S-TEC DOCUMENT P/N 81362 REVISION 3  
+++++ END +++++

Additional Sheets Are Attached





U.S. Department  
of Transportation  
Federal Aviation  
Administration

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

Form Approved  
OMB No. 2120-0020  
11/30/2007

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U. S. C. §46301(a))

<b>1. Aircraft</b>	Nationality and Registration Mark <b>USA      N414MP</b>	Serial No. <b>414A0317</b>	
	Make <b>CESSNA</b>	Model <b>414A</b>	Series
<b>2. Owner</b>	Name (As shown on registration certificate) <b>ATLANTA AIRCRAFT SALES INC.</b>		Address (As shown on registration certificate) <b>600 SKYLINE DR NEW SMYRNA BEACH, FLORIDA 32158-5948 USA</b>

3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>AIRFRAME</b>	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input type="checkbox"/>	<b>POWERPLANT</b>			
<input type="checkbox"/>	<input type="checkbox"/>	<b>PROPELLER</b>			
<input type="checkbox"/>	<input type="checkbox"/>	<b>APPLIANCE</b>	Type		
			Manufacturer		

**6. Conformity Statement**

<b>A. Agency's Name and Address</b> <b>JIMMY L. GARLAND</b> <b>11247 REINHARDT COLLEGE PARKWAY</b> <b>WALESKA, GA. 30183</b> <b>30183</b>	<b>B. Kind of Agency</b> <input checked="" type="checkbox"/> U. S. Certified Mechanic <input type="checkbox"/> Foreign Certified Mechanic <input type="checkbox"/> Certified Repair Station <input type="checkbox"/> Certified Maintenance Organization	<b>C. Certificate No.</b> <b>3479116 A&amp;P</b>
---	---	---

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U. S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual 	<b>JIMMY L. GARLAND</b> <b>22-July-2013</b>
--	---	--

**7. Approval for Return to Service**

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  Approved  Rejected

	FAA Flt. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
<b>BY</b>	FAA Designee	Repair Station	<input checked="" type="checkbox"/> Inspection Authorization	Other (Specify)

Certificate or Designation No. <b>3479116 IA</b>	Signature/Date of Authorized Individual 	<b>JIMMY L. GARLAND</b> <b>22-July-2013</b>
---	---	--

## 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.)

USA N414MP

Jul-22-2013

Nationality and Registration Mark

Date

INSTALLED SCAB PATCH ON RIGHT ENGINE FIREWALL TO REPAIR A SMALL CRACK UNDER THE TAILPIPE BRACKET. FABRICATED STAINLESS STEEL PATCH AND RIVETED ON WITH MONEL RIVETS. REPAIRED HOLE WORN IN LEFT INBOARD NACELLE SKIN AFT OF COWL DOOR BY MANUFACTURING AND INSTALLING A PATCH FROM .040 2024T3 ALUMINUM WITH DRIVEN RIVETS AND HYSOL. INSTALLED SCAB PATCHES ON INSIDES OF TOP COWLINGS AT THE FRONT OF THE LOUVERS TO REPAIR CRACKS. REPLACED ONE DOUBLER ANGLE AT THE AFT TOP END OF THE TOP THE LEFT COWLING. DRILLED OFF ALCOHOL SERVICE DOOR AND FRAME. MANUFACTURED DOUBLER AND FILLER PATCH FROM 2024T3 ALUMINUM AND INSTALLED WITH DRIVEN RIVETS. FILLED SEAMS AND SANDED SMOOTH. ALL WORK ACCOMPLISHED IN ACCORDANCE WITH CESSNA 414A SERVICE MANUAL 0778-34-13, REVISION 34, SECTION 16, STRUCTURAL REPAIRS, AND AC 43.13-1B SECTION 4 CHAPTER 4.

END

ADDITIONAL SHEETS ARE ATTACHED



U.S. Department  
of Transportation  
Federal Aviation  
Administration

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

Form Approved  
OMB No. 2120-0020  
11/30/2007

Electronic Tracking Number

For FAA Use Only

**INSTRUCTIONS:** Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

<b>1. Aircraft</b>	Nationality and Registration Mark <b>USA N414MP</b>	Serial No. <b>414A0317</b>	
	Make <b>CESSNA</b>	Model <b>414A</b>	Series
<b>2. Owner</b>	Name (As shown on registration certificate) <b>ATLANTA AIRCRAFT SALES INC.</b>	Address (As shown on registration certificate) <b>600 SKYLINE DR NEW SMYRNA BEACH, FLORIDA 32168-5948 USA</b>	

**3. For FAA Use Only**

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<b>AIRFRAME</b>	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input type="checkbox"/>	<b>POWERPLANT</b>			
<input type="checkbox"/>	<input type="checkbox"/>	<b>PROPELLER</b>			
<input type="checkbox"/>	<input type="checkbox"/>	<b>APPLIANCE</b>	Type		
			Manufacturer		

**6. Conformity Statement**

<b>A. Agency's Name and Address</b> <b>JIMMY L. GARLAND</b> <b>11247 REINHARDT COLLEGE PARKWAY</b> <b>WALESKA, GA. 30183</b> <b>30183</b>	<b>B. Kind of Agency</b> <input checked="" type="checkbox"/> U. S. Certified Mechanic <input type="checkbox"/> Foreign Certified Mechanic <input type="checkbox"/> Certified Repair Station <input type="checkbox"/> Certified Maintenance Organization	<b>C. Certificate No.</b> <b>3479116 A&amp;P</b>
---	---	---

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U. S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual 	<b>JIMMY L. GARLAND</b> 22-July-2013
--	---	---

**7. Approval for Return to Service**

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  Approved  Rejected

	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
BY	FAA Designee	Repair Station	<input checked="" type="checkbox"/> Inspection Authorization	Other (Specify)

Certificate or Designation No. <b>3479116 IA</b>	Signature/Date of Authorized Individual 	<b>JIMMY L. GARLAND</b> 22-July-2013
---	---	---

## 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.)*

USA    N414MP
---------------

Jul-22-2013
-------------

Nationality and Registration Mark

Date

1. INSTALLED AIRCRAFT PERFORMANCE MODIFICATIONS EXTERNAL AFT BODY STRAKES IN ACCORDANCE WITH AIRCRAFT PERFORMANCE MODIFICATIONS STC SA01935LA PER DRAWING NO. G3-050504-001, REV J, DATED 12/31/09. INSTRUCTIONS FOR CONTINUED AIRWORTHINESS, DOCUMENT G3-050504-008, REV E, DATED 02/15/12 ATTACHED TO AIRCRAFT RECORDS. EQUIPMENT LIST UPDATED. THERE IS NO FLIGHT MANUAL SUPPLEMENT FOR THIS MODIFICATION.
  
2. INSTALLED SPOILERS INC. SPOILER SYSTEM IN ACCORDANCE WITH INSTALLATION INSTRUCTIONS SP4000 AND MASTER DRAWING LIST SP4000, BOTH DATED MARCH 29, 1990. THIS INSTALLATION WAS ACCOMPLISHED PER SPOILERS INC. STC SA4913NM. SPOILERS INC INSPECTION GUIDE AND MAINTENANCE SUPPLEMENT ATTACHED TO AIRCRAFT DOCUMENTS. FAA APPROVED FLIGHT MANUAL SUPPLEMENT ADDED TO FLIGHT MANUAL. EQUIPMENT LIST UPDATED.
  
3. INSTALLED BCN AEROSPACE, INC. AIRSTAIR DOOR SAVER ACCORDING TO DRAWING LIST 10033, REVISION H, DATED 04/29/85. THIS INSTALLATION WAS ACCOMPLISHED IN ACCORDANCE WITH BCN AEROSPACE, INC. STC SA2440SW. EQUIPMENT LIST WAS UPDATED. ICA IS NOT REQUIRED FOR THIS INSTALLATION.
  
4. REMOVED INSIGHT 1200 GEM AND ASSOCIATED WIRING. INSTALLED J. P. INSTRUMENTS EDM 760 TWIN TEMPERATURE INDICATING SYSTEM IN ACCORDANCE WITH J. P. INSTRUMENTS INSTALLATION MANUAL REPORT NO. 760, REV NC, DATED 07/20/99. THIS INSTALLATION WAS ACCOMPLISHED IN ACCORDANCE WITH J. P. INSTRUMENTS STC SA00728SE. FLIGHT MANUAL SUPPLEMENT NO. 760-1 WAS ADDED TO THE FLIGHT MANUAL. EQUIPMENT LIST UPDATED. ICA IS NOT REQUIRED FOR THIS INSTALLATION.
  
5. AIRCRAFT WEIGHED AND RECORDS UPDATED.
  
6. AIRCRAFT TEST FLOWN. ALL SYSTEMS OPERATE NORMALLY AND AIRCRAFT PERFORMS SATISFACTORY.

SIGNED: \_\_\_\_\_

JIMMY L. GARLAND 3479116CFI

END

ADDITIONAL SHEETS ARE ATTACHED



U.S. Department  
of Transportation  
Federal Aviation  
Administration

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

Form Approved OMB No. 2120-0020 11/30/2007	Electronic Tracking Number
For FAA Use Only	

**INSTRUCTIONS:** Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U. S. C. §46301(a))

<b>1. Aircraft</b>	Nationality and Registration Mark <b>USA N414MP</b>	Serial No. <b>414A0317</b>	
	Make <b>CESSNA</b>	Model <b>414A</b>	Series
<b>2. Owner</b>	Name (As shown on registration certificate) <b>ATLANTA AIRCRAFT SALES INC.</b>		Address (As shown on registration certificate) <b>600 SKYLINE DR NEW SMYRNA BEACH, FLORIDA 32168-5948 USA</b>

**3. For FAA Use Only**

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

**6. Conformity Statement**

A. Agency's Name and Address	B. Kind of Agency		
<b>JIMMY L. GARLAND</b> <b>11247 REINHARDT COLLEGE PARKWAY</b> <b>WALESKA, GA. 30183</b> <b>30183</b>	<input checked="" type="checkbox"/>	U. S. Certified Mechanic	Manufacturer
	<input type="checkbox"/>	Foreign Certified Mechanic	C. Certificate No.
	<input type="checkbox"/>	Certified Repair Station	3479116 A&P
	<input type="checkbox"/>	Certified Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U. S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual 	<b>JIMMY L. GARLAND</b> <b>22-July-2013</b>
--	---	--

**7. Approval for Return to Service**

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  Approved  Rejected

	FAA Fit Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
BY	FAA Designee	Repair Station	<input checked="" type="checkbox"/>	Inspection Authorization
		Other (Specify)		

Certificate or Designation No. <b>3479116 IA</b>	Signature/Date of Authorized Individual 	<b>JIMMY L. GARLAND</b> <b>22-July-2013</b>
---	---	--

## 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.*

### B. Description of Work Accomplished

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

USA    N414MP
---------------

Jul-22-2013
-------------

Nationality and Registration Mark

Date

AIRCRAFT MODIFIED PER INTERCOOLER SCOOP INSTALLATION, STRUCTURAL CHANGES AND ENGINES INSTALLED PER RAM DWG. 1765, REV. AC, DATED 10/11/11 PER STC SA09105SC-D (INCLUDES STC SA8728SW-D). FLIGHT MANUAL SUPPLEMENT AFMS 1083 REV. B INSTALLED IN AIRCRAFT.

ENGINES INSTALLED PER RAM DWG 1610, REV. F, DATED 03/22/07 I/AW STC SA8728SW-D.

INSTALLED HARTZELL SCIMITARPLUS PROPELLERS MODEL PHC-C3YF-2UF PER DWG. 2549, REV. D, DATED 07/21/05 I/AW STC SA09971SC-D. FLIGHT MANUAL SUPPLEMENT AFMS 1096 DATED MAY 16, 2002 INSTALLED IN AIRCRAFT. NOTE; 78 INCH DIAMETER PROPELLER APPROVED PER RAM DWG1765 REV. AC, IAW SA09105SC-D AND RAM DWG 1610, REV.F IAW SA8728SW-D.

INSTALLED RAM VORTEX GENERATORS AND STRAKES PER DWG. 1507, REV. H, DATED 4/15/04 WITH FLIGHT MANUAL SUPPLEMENT AFMS 1083 FURNISHED WITH CHANGE IN AIRSPEED MARKINGS I/AW STC SA8125SW-D.

INSTALLED SHADIN FUEL FLOW INDICATING SYSTEM PER DWG. 1078 REV. Z, DATED 08/25/06 I/AW STC SA5796SW-D.

INSTALLED FLOSCAN FUEL FLOW TRANSDUCERS PER DWG. 1083, REV. S, DATED 09/05/06 I/AW STC SE5726SW-D

INSTALLED MCCAULEY MC-1 SYNCHROPHASER SYSTEM PER DWG. 1406, REV. N, DATED 08/28/03 I/AW STC SA8728SW-D.

INSTALLED VACUUM PUMP COOLING SHROUD ON LEFT AND RIGHT ENGINE VACUUM PUMPS I/AW RAM DWG. 1221, REV. P, DATED 3/19/04 PER STC SA3721SW-D.

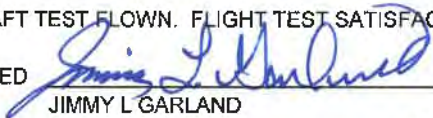
CUSTOMER FURNISHED WITH FAA APPROVED OVERHAUL AND PARTS MANUAL SUPPLEMENTS WITH INSTRUCTIONS FOR CONTINUED AIRWORTHINESS FOR ALL ALTERATIONS.

CUSTOMER FURNISHED WITH FAA APPROVED SUPPLEMENTAL FLIGHT MANUALS FOR ALL ALTERATIONS

AIRCRAFT MAXIMUM RAMP WEIGHT INCREASED TO 7140 LBS., MAXIMUM TAKEOFF WEIGHT INCREASED TO 7105 LBS. PER RAM DRAWING NO. 1610 REV.F, DATED 03/23/2007 IAW STC SA8728SW-D.

AIRCRAFT WEIGHED. AIRCRAFT EQUIPMENT LIST AND WEIGHT AND BALANCE RECORDS UPDATED.

AIRCRAFT TEST FLOWN. FLIGHT TEST SATISFACTORY.

SIGNED  3479116 A&P IA CFI  
JIMMY L GARLAND

-----END-----

ADDITIONAL SHEETS ARE ATTACHED



U.S. Department  
of Transportation  
Federal Aviation  
Administration

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

Form Approved  
OMB No. 2120-0020  
11/30/2007

Electronic Tracking Number

For FAA Use Only

**INSTRUCTIONS:** Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

<b>1. Aircraft</b>	Nationality and Registration Mark <b>USA      N414MP</b>	Serial No. <b>414A0317</b>	
	Make <b>CESSNA</b>	Model <b>414A</b>	Series
<b>2. Owner</b>	Name (As shown on registration certificate) <b>Whitcap Aviation, LLC</b>		Address (As shown on registration certificate) <b>93 Old Colony Lane Marshfield, MA 02050 USA</b>

**3. For FAA Use Only**

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

**6. Conformity Statement**

<b>A. Agency's Name and Address</b> NexAir Avionics LLC 265 FRUIT STREET MANSFIELD, MA 02048 USA	<b>B. Kind of Agency</b> <input checked="" type="checkbox"/> U. S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Certificated Maintenance Organization
	<b>C. Certificate No.</b>  

**D.** I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U. S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual 	<b>BENJAMIN SCHULTZ</b> 16-December-2015
--	---	---

**7. Approval for Return to Service**

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  Approved  Rejected

	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
BY	FAA Designee	Repair Station	<input checked="" type="checkbox"/> Inspection Authorization	Other (Specify)

Certificate or Designation No. 2752709	Signature/Date of Authorized Individual 	<b>MICHAEL REARICK</b> 16-December-2015
---	---	--

## 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.)*

USA    N414MP	Dec-16-2015
---------------	-------------

Nationality and Registration Mark

Date

#### GENERAL:

ALL WORK PERFORMED CONFORMS TO THE PARAMETERS SET FORTH IN THE FARs AND THE RECOMMENDATIONS AND GUIDELINES SET FORTH IN AC43.13-1B AND AC43.13-2B.

FAA ADVISORY CIRCULAR 43.13-1B, CHAPTER 10, WEIGHT AND BALANCE  
FAA ADVISORY CIRCULAR 43.13-1B, CHAPTER 11, AIRCRAFT ELECTRICAL SYSTEMS  
FAA ADVISORY CIRCULAR 43.13-1B, CHAPTER 12, AIRCRAFT AVIONICS SYSTEMS  
FAA ADVISORY CIRCULAR 43.13-2B, CHAPTER 1, PARA. 100 THROUGH 114, STRUCTURAL DATA  
FAA ADVISORY CIRCULAR 43.13-2B, CHAPTER 2, PARA. 200 THROUGH 210, RADIO INSTALLATIONS  
FAA ADVISORY CIRCULAR 43.13-2B, CHAPTER 3, PARA. 300 THROUGH 312, ANTENNA INSTALLATIONS

#### INSTALLED THE FOLLOWING:

1. GARMIN GDL-69 DATA LINK PER MANUFACTURER'S INSTALLATION MANUAL, 190-00355-02, REV M DATED JUNE 2015. THIS DATA LINK WILL ONLY BE USED AS SUPPLEMENTAL INFORMATION PROVIDING SITUATIONAL AWARENESS TO STANDARD NAVIGATION INSTRUMENTS. FOR REGULATORY COMPLIANCE PLEASE REFERENCE GARMIN STC # SA01487SE. FOR REGULATORY COMPLIANCE PLEASE REFERENCE THE FOLLOWING:

FAA TSO-C157 AIRCRAFT FLIGHT INFORMATION SERVICES-BROADCAST (FIS-B) DATA LINK SYSTEMS AND EQUIPMENT

THE GDL69A RECEIVER WAS MOUNTED IN THE NOSE BAGGAGE COMPARTMENT, NO STRUCTURAL MODIFICATIONS WERE NEEDED.

EXISTING GPS ANTENNA INSTALLATION WAS MODIFIED IN ACCORDANCE WITH N414MP-111115-1 REV N/C DATED 11/11/15 AND DRAWING N414MP-111115-1. GA 35 WAAS GPS ANTENNA REMOVED AND COMANT CI 428-410 XM/WAAS GPS ANTENNA WAS INSTALLED.

2. STEC CORPORATION YAW DAMPER SYSTEM PER MANUFACTURER'S INSTALLATION MANUAL, ST-401, REV 3 DATED 09-12-2008.

THE YAW DAMPER SERVO WAS MOUNTED AFT OF F.S 273.94 PER MANUFACTURER'S INSTALLATION MANUAL. THE YAW DAMPER AMPLIFIER UNIT WAS MOUNTED IN THE TAIL CONE DIRECTLY BELOW THE LEADING EDGE OF THE RUDDER TRIM TAB PER MANUFACTURER'S INSTALLATION MANUAL. ALL MODIFICATIONS ACCOMPLISHED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION MANUAL AND SUPPLIED DRAWINGS.

PERFORMED MAINTENANCE OPERATION CHECK (MOC).

PERFORMED EMI TESTING IN ACCORDANCE WITH AC 43.13-1B PARA. 11-107, INTERFERENCE TESTS

UPDATED AIRCRAFT EQUIPMENT LISTING

UPDATED AIRCRAFT WEIGHT AND BALANCE

POWER ASSESSMENT DONE IN ACCORDANCE WITH FAR REQUIREMENTS. POWER LOAD DOES NOT EXCEED 80% OF THE AIRCRAFT SYSTEM CAPACITY, DETERMINED BY CALCULATION

#### NOTES:

LOGBOOK ENTRIES MADE PER FAR REQUIREMENTS

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS, GARMIN GDL69A DATA LINK  
GARMIN GDL69/69A INSTRUCTIONS FOR CONTINUED AIRWORTHINESS MANUAL P/N: 190-00355-00 (LATEST REV).  
S-TEC YAW DAMPER SYSTEM INSTRUCTIONS FOR CONTINUED AIRWORTHINESS MANUAL P/N 81317 (LATEST REV).

ADDITIONAL SHEETS ARE ATTACHED





US Department of Transportation  
Federal Aviation Administration

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

Form Approved  
OMB No. 2120-0020  
11/30/2007

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

<b>1. Aircraft</b>	Nationality and Registration Mark <u>N414MP</u>	Serial No. <u>414A-0317</u>	
	Make <u>Cessna</u>	Model <u>414A</u>	Series
<b>2. Owner</b>	Name (As shown on registration certificate) <u>Bawate, Daniel R</u>		
	Address (As shown on registration certificate) <u>301 Mt. Blue St.</u>		
	City <u>Norwell</u>	State <u>MA</u>	
	Zip <u>02061</u>	Country <u>USA</u>	

**3. For FAA Use Only**

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input checked="" type="checkbox"/>	POWERPLANT	Continental Motors	TSIO-520-NB	519264
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

**6. Conformity Statement**

<b>A. Agency's Name and Address</b> Name <u>RAM Aircraft, Limited Partnership</u> Address <u>PO Box 5219</u> City <u>Waco</u> State <u>Texas</u> Zip <u>76705</u> Country <u>United States</u>		<b>B. Kind of Agency</b> <input type="checkbox"/> U. S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input checked="" type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Certificated Maintenance Organization	
		<b>C. Certificate No.</b> <u>Airframe Class III, Powerplant Class I</u> <u>VA1R551K</u>	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual <u>Lawrence P. Garcia 10/05/2022</u> <i>Lawrence P. Garcia</i>
--	---

**7. Approval for Return to Service**

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  Approved  Rejected

<b>BY</b>	FAA Fit. Standards Inspector		Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	<input checked="" type="checkbox"/>	Repair Station	Inspection Authorization	Other (Specify)

Certificate or Designation No. <u>VA1R551K</u>	Signature/Date of Authorized Individual <u>Lawrence P. Garcia 10/05/2022</u> <i>Lawrence P. Garcia</i>
---	---

**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.)*

Nationality and Registration Mark

Date

Engine modified to TSIO-520-NB 335 HP I/AW RAM Dwg. 1778, Rev. L, dated 05/21/09 per STC SE09104SC-D (includes STC SE4327SW-D, Rev. 4).

Engine modified for all operation power rating to 335 HP at 38" MAP and 2700 RPM per Dwg. 1186, Rev. AJ, dated 9/9/09. Modified in accordance with STC SE4327SW-D Rev. 4. Customer furnished with RAM Overhaul Manual Supplement, Operators Manual Supplement, and Parts Manual Supplement. See specific operating limitations in Aircraft Flight Manual or Supplemental Flight Manual.

Installed Kelly pressurized magnetos p/n ES6320 per Dwg. 1036, Rev. AB, dated 10/22/04 I/AW STC SE4651SW-D and SE09104SC-D.

Installation mechanic must complete Block 1 and 2 on reverse side and mail one copy to the Federal Aviation Administration, Aircraft Registration Branch AFS-750, P.O. Box 25504, Oklahoma City, Oklahoma 73125.

Negligible weight and balance change.

Customer furnished with FAA approved Instructions for Continued Airworthiness for all alterations.

Pertinent details of the above installations are on file under Project No. 10271.

---End---

Additional Sheets Are Attached



US Department  
of Transportation  
Federal Aviation  
Administration

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

Form Approved  
OMB No. 2120-0020  
11/30/2007

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark <u>N414MP</u>	Serial No. <u>414A-0317</u>	
	Make <u>Cessna</u>	Model <u>414A</u>	Series
2. Owner	Name (As shown on registration certificate) <u>Bawabe, Daniel R</u>		Address (As shown on registration certificate)
			Address <u>301 Mt. Blue St.</u>
			City <u>Norwell</u> State <u>MA</u>
			Zip <u>02050</u> Country <u>USA</u>

3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input checked="" type="checkbox"/>	POWERPLANT	Continental	TSIO-520-NB	514087
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency	
Name <u>RAM Aircraft, Limited Partnership</u>		<input type="checkbox"/> U. S. Certificated Mechanic	<input type="checkbox"/> Manufacturer
Address <u>7505 Karl May Drive</u>		<input type="checkbox"/> Foreign Certificated Mechanic	C. Certificate No.
City <u>Waco</u> State <u>Texas</u>		<input checked="" type="checkbox"/> Certificated Repair Station	Airframe Class III, Powerplant Class I VA1R551K
Zip <u>76708</u> County <u>United States</u>		<input type="checkbox"/> Certificated Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual <u>Lawrence P. Garcia</u> 9-28-2022
--	--

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  Approved  Rejected

BY	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee <input checked="" type="checkbox"/>	Repair Station	Inspection Authorization	Other (Specify)

Certificate or Designation No. <u>VA1R551K</u>	Signature/Date of Authorized Individual <u>Lawrence P. Garcia</u> 9-28-2022
---	--

**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.)*

Nationality and Registration Mark

Date

Engine modified to TSIO-520-NB 335 HP I/AW RAM Dwg. 1778, Rev. L, dated 05/21/09 per STC SE09104SC-D (includes STC SE4327SW-D, Rev. 4).

Engine modified for all operation power rating to 335 HP at 38° MAP and 2700 RPM per Dwg. 1186, Rev. AJ, dated 9/9/09. Modified in accordance with STC SE4327SW-D Rev. 4. Customer furnished with RAM Overhaul Manual Supplement, Operators Manual Supplement, and Parts Manual Supplement. See specific operating limitations in Aircraft Flight Manual or Supplemental Flight Manual.

Installed Kelly pressurized magnetos p/n ES6320 per Dwg. 036, Rev. AB, dated 10/22/04 I/AW STC SE4651SW-D and SE09104SC-D.

Installation mechanic must complete Block 1 and 2 on reverse side and mail one copy to the Federal Aviation Administration, Aircraft Registration Branch AFS-750, P.O. Box 25504, Oklahoma City, Oklahoma 73125.

Negligible weight and balance change.

Customer furnished with FAA approved Instructions for Continued Airworthiness for all alterations.

Pertinent details of the above installations are on file under Project No. 10271.

---END---

Additional Sheets Are Attached

# **N414MP**

**Selected Airframe Log History.  
Complete Logs Are Available  
For Review.**

## **Included in this file:**

- Notable entries from early history
- Copies of Airframe Logs from 2013 refurbishment to present

YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
DATE				

*Northwest Flyers Inc.*

Schaumburg Regional Airport

**N414MP**

Date-9/11/2003 Hour meter-2022.9 Total time-3709.2

Removed rudder for repair due to wind damage.

Painted rudder with Dupont Imron to match aircraft after repair by Williams Airmotive W/O# 7354.

Balanced rudder per Cessna MM and installed on aircraft.

Painted right wing tip to match aircraft.

Replaced aircraft battery with new Gill G-246.

*Steve Bilek A&P 320600103*

*[Signature]*

YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
2004	Hobbs			
DATE				
5-18-04	2046.9		3733.2	Remo Rudder and st follows channe skin pl skin pl accord Affect check repair speci: airwo return Open

See

**Inspections, Tests, Repairs and Alterations**  
 endorsed with Name, Rating and Certificate Number of  
 Repair Facility. (See back pages for other specific entries.)

Inc.  
 al Airport  
 Total time-3709.2  
 raft after repair by Williams  
 m aircraft.

\*A&P 320600103

YEAR: 2004 DATE	RECORDING TACH TIME Hobbs	TODAYS FLIGHT	TOTAL TIME IN SERVICE 3733.2	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
5-18-04	2046.9			Removed Rudder. Repaired Damaged Rudder by replacing broken ribs, channels and skins as required. Parts used as follows rib pln# 5133020-8, rib pln# 5133020-9, channel pln# 5133020-9, channel pln# 5133020-18, skin pln# 5133020-5, skin pln# 5133020-49, and skin pln# 5133020-50, Repairs made in accordance with cessna service manual. Affected areas repainted and rudder checked for balance per cessna airframe repair manual. Balance within published specifications. Rudder determined to be in airworthy condition and approved for return to service. Rudder reinstalled and trimme Operational check ok. using existing hardware Shrawns Homoly A&P 319584571

See Attached Form 337 for repairs made.

2/17/92 N414MP S/N 414A0317 HM: 446.9 WOF 27364

LOG BOOK ENTRY FOR AIRCRAFT N414MP S/N 414A0317. REMOVED RIGHT MAIN GEAR DOOR AND INSTALLED NEW DOOR P/N 5127050-20, NEW HINGE HALF P/N 5127050-15, NEW DOOR TUBE (ROD) ASSY P/N 5141145-1 AND NEW HINGE PIN P/N MS20253-2. RIGGED DOOR AND PERFORMED LANDING GEAR RETRACTION TEST I/A/W CESSNA 414A MAINT MANUAL. REPLACED TAIL NAV LIGHT LENS P/N WA4513-1. REPAIRED RIGHT INBOARD AND OUTBOARD FLAPS BY REPLACING SKINS AND 2@ RIBS ON OUTBOARD FLAP AND 1@ RIB ON INBOARD FLAP. REPLACED OUTBOARD FLAP HINGE PIN. PERFORMED OPERATIONAL CHECK OF FLAP SYSTEM AND RIGGING CHECK PER CESSNA 414A MAINT MANUAL. PAINTED FLAPS AND GEAR DOOR TO MATCH AIRCRAFT. RIB P/N'S 0825000-17, 0825000-84 AND 0825000-86.

The aircraft, engine, propeller, appliance or component identified above was repaired and inspected in accordance with current manufacturer's instructions and in accordance with Aviation Regulation Part 43, and is approved for return to service as per these requirements. With respect to work performed pertinent details of the repair are on file at this repair station under Work Order No.

DATE 2/17/92

SIGNED [Signature]

PRESTER AVIATION

PRN 248H  
Wheeling, IL





s of all maintenance work  
s of all overhauls, repairs,  
s of any defects occurring  
relevant entries in the  
s that in carrying out the

done on the aircraft.  
replacements, modifications and mandatory inspections to the aircraft or its equipment.  
in the aircraft or its equipment and of the rectification of such defects including a reference  
Technical Log.  
overhaul, repair etc., all mandatory requirements applicable thereto have been complied with.

OLD Hour meter Read 1680.5 hrs. Add  
5.8 hrs From Flight Log = 1686.3 hrs Total Time

(5)

12-15-89 Hobbs Reads 0000.0 hrs. Total Airframe Time 1686.3 hrs

Completed Annual inspection using shop insp form as a guide

Installed new Hobbs Hour meter. Installed new ELT BATTERY WITH EXP

DATE of 8-91. Replaced Central Vacuum Filter + BOTH Regulator Filters.

Replaced BOTH Hydraulic filters. Completed Pressure Delay Test on heater

PER AD 87-02-03. Cleaned and inspected BOTH engine Air filters PER AD 84-26-02

Installed new PLOP Deice Timer S/N 1744. Replaced seals in nose strut and

serviced with Nitrogen to proper height. AD's in compliance as applicable

Thru 89-24.

I CERTIFY THAT THIS AIRCRAFT/ENGINE HAS BEEN INSPECTED  
IN ACCORDANCE WITH A Annual INSPECTION  
AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION, WITH  
RESPECT TO THE WORK PERFORMED. PERTINENT DETAILS OF  
THIS INSPECTION ARE ON FILE AT THIS AGENCY, UNDER WORK  
ORDER NO. 28899 DATE 12-15-89

SIGNED: Henry B. Bush

GEORGE J. PRIESTER AVIATION SERVICE,

WHEELING, ILLINOIS

FRA APPROVED REPAIR STATION NO. 4388



YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number Technician or Repair Facility. (See back pages for other specific entries)
DATE				

*Northwest Flyers Inc.*  
Schaumburg Regional Airport

**N414MP**

**Date-9/11/2003 Hour meter-2022.9 Total time-3709.2**

Removed rudder for repair due to wind damage.  
Painted rudder with Dupont Imron to match aircraft after repair by Williams  
Airmotive W/O# 7354.  
Balanced rudder per Cessna MM and installed on aircraft.  
Painted right wing tip to match aircraft.  
Replaced aircraft battery with new Gill G-246.

Steve Bilek A&P 320600103

*Steve Bilek*

YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number Technician or Repair Facility. (See back pages for other specific entries)
2004 DATE	Hobbs			
5-18-04	2046.9		3733.2	Remove Rudder and skin follows channel skin pl skin pl accord Affect checks repair speci: airwo return Open

See

**Inspections, Tests, Repairs and Alterations**  
 endorsed with Name, Rating and Certificate Number of  
 Repair Facility. (See back pages for other specific entries.)

Inc.  
 Airport  
 Total time-3709.2  
 aft after repair by Williams  
 n aircraft.

A&P 320600103

YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
2004	Hobbs			
18-04	2046.9		3733.2	Removed Rudder. Repaired Damaged Rudder by replacing broken ribs, channels and skins as required. Parts used as follows rib P/N# 5133020-8, rib P/N# 5133020-9, channel P/N# 5133020-9, channel P/N# 5133020-18, skin P/N# 5133020-5, skin P/N# 5133020-49, and skin P/N# 5133020-50, Repairs made in accordance with Cessna service manual. Affected areas repainted and rudder checked for balance per Cessna airframe repair manual. Balance within published specifications. Rudder determined to be in airworthy condition and approved for return to service. Rudder reinstalled and trimme Operational check ok. using existing hardware

Shawn D. Homoly AEP 319584571  
 See Attached Form 337 for repairs made.

2/17/92 N414MP S/N 414A0317 HM: 446.9 WOF 27364

LOG BOOK ENTRY FOR AIRCRAFT N414MP S/N 414A0317. REMOVED RIGHT MAIN GEAR DOOR AND INSTALLED NEW DOOR P/N 5127050-20, NEW HINGE HALF P/N 5127050-15, NEW DOOR TUBE (ROD) ASSY P/N 5141145-1 AND NEW HINGE PIN P/N MS20253-2. RIGGED DOOR AND PERFORMED LANDING GEAR RETRACTION TEST I/A/W CESSNA 414A MAINT MANUAL. REPLACED TAIL NAV LIGHT LENS P/N WA4513-1. REPAIRED RIGHT INBOARD AND OUTBOARD FLAPS BY REPLACING SKINS AND 2@ RIBS ON OUTBOARD FLAP AND 1@ RIB ON INBOARD FLAP. REPLACED OUTBOARD FLAP HINGE PIN. PERFORMED OPERATIONAL CHECK OF FLAP SYSTEM AND RIGGING CHECK PER CESSNA 414A MAINT MANUAL. PAINTED FLAPS AND GEAR DOOR TO MATCH AIRCRAFT. RIB P/N'S 0825000-17, 0825000-84 AND 0825000-86.

The aircraft, engine, propeller, appliance or component identified above was repaired and inspected in accordance with current manufacturer's instructions and in accordance with Aviation Regulation Part 43, and is approved for return to service as per these requirements. With respect to work performed pertinent details of the repair are on file at this repair station under Work Order No.

DATE 2/17/92  
SIGNED *[Signature]*

PRESTER AVIATION

FAA PPR 2404  
Wheeling, IL

2/17/92 N414MP S/N 414A0317 HM: 446.9 WO# 27364

LOG BOOK ENTRY FOR AIRCRAFT N414MP S/N 414A0317. REMOVED RIGHT MAIN GEAR DOOR AND INSTALLED NEW DOOR P/N 5127050-20, NEW HINGE HALF P/N 5127050-15, NEW DOOR TUBE (ROD) ASSY P/N 5141145-1 AND NEW HINGE PIN P/N MS20253-2. RIGGED DOOR AND PERFORMED LANDING GEAR RETRACTION TEST I/A/W CESSNA 414A MAINT MANUAL. REPLACED TAIL NAV LIGHT LENS P/N WA4513-1. REPAIRED RIGHT INBOARD AND OUTBOARD FLAPS BY REPLACING SKINS AND 2@ RIBS ON OUTBOARD FLAP AND 1@ RIB ON INBOARD FLAP. REPLACED OUTBOARD FLAP HINGE PIN. PERFORMED OPERATIONAL CHECK OF FLAP SYSTEM AND RIGGING CHECK PER CESSNA 414A MAINT MANUAL. PAINTED FLAPS AND GEAR DOOR TO MATCH AIRCRAFT. RIB P/N'S 0825000-17, 0825000-84 AND 0825000-86.

The aircraft, ~~airframe~~ engine, propeller, appliance or component identified above was repaired and inspected in accordance with current manufacturer instructions and in accordance with Aviation Regulation Part 43, and is approved for return to service as per these requirements. With respect to work performed pertinent details of the repair are on file at this repair station under Work Order No.

DATE 2/17/92  
SIGNED [Signature]

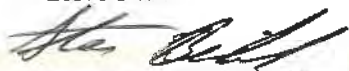
PRESTER AVIATION

PFR 248H  
Whiting, IL







YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
DATE				
				<b>Northwest Flyers Inc.</b> Schaumburg Regional Airport
				<b>N414MP</b> <b>Date-10/29/02 @ 1972.4 Hobbs</b> Removed left and right voltage regulators. Installed two new Electrosystems, Inc. Voltage Regulators P/N VR286, Ser.#s C100615 & C070542. Set up regulators IAW Electrosystems Paralleling Procedure. Charging system ops checked OK. Serviced all tires with air. Serviced all landing gear struts with nitrogen only. Removed GEM engine monitor from instrument panel for repair. Reinstalled GEM 1200 Display Unit Ser.# 1769 after repair by Insight Instrument Corp. Ops Checked OK. Secured loose cabin door step treads with adhesive. Removed inop. left wing tip strobe light assy. Installed Overhauled light assy. Ser.# APS-16368. Ops checked OK. Cleaned and "dressed" all surface de-icer boots. Relamped left wing landing light. Ops checked OK.  <i>Steve Bilek A&amp;P 320600103</i> 

YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
DATE				
				<b>Northwest Flyers Inc.</b> Schaumburg Regional Airport
				<b>N414MP</b> <b>Date-07/07/2003 Hour meter-2008.5 Total time-3694.8</b> Removed Shadin fuel flow indicator, for repair. Reinstalled fuel flow indicator (P/N 910532P, ser.# 4620) after repair by Shadin Inc. W/O# 07080307. Ops checked OK. Removed fuel sump drain from right wing. Installed new sump valve seal (P/N MS29513-008) Re-installed valve. Ops checked OK, no leaks noted. Replaced <b>ELT Battery</b> P/N 00-60-62 New battery exp. Date-Aug. 2005. Checked ELT IAW FAR 91.207d. Checked OK. Removed drain tube for right turbo waste gate drain. Re-flared tubing end and reinstalled. Replaced left and right induction filter elements P/N BA-22. Stop drilled crack in right engine baffle at #2 cyl. Replaced lower mount support clamp (P/N 2265C400SS) for right turbo overboard pipe. Replaced bolts for exhaust "ball joint" on left engine, right exhaust pipe. Replaced seal for right engine exhaust slip joint heat shield.  <i>Continued on next page&gt;</i>

YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
DATE				
				<i>&gt;Continued from previous page</i>
				Found left engine air/oil separator cover loose. Adjusted and secured cap. No leaks noted after engine run up.
				Fabricated and installed new wire harness channel on left engine, right side.
				Repositioned clamps on exhaust slip joint on right side of left engine to prevent clamps from chafing in nacelle skin.
				Removed exhaust stack riser for #3 cyl on left engine. Reinstalled overhauled stack assy. from Dawley Aviation W/O# 80268.
				Repaired hole in left engine induction air filter cover by installing a patch IAW AC43;13 1A.
				Relamped right wing nav light (P/N W692) Ops checked OK.
				Replaced left aft, nose baggage door extender assy (P/N 5311330-4)
				Vacuumed debris from nose baggage area.
				Tightened and saftied V-band clamp for heater distributor duct in nose.
				Removed light corrosion from leading edge of right horizontal stab, aft of deicer boot. Treated area and painted.
				Reinstalled pilot and copilot aft, seat trim covers.
				Replaced one rivet on right wing root lower fairing.
				Re-sealed right firewall at wire pass through area.
				<i>Continued on next page&gt;</i>

YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
DATE				
				<i>&gt;Continued from previous page</i>
				Replaced outer seal (P/N MS29513-330) on left and right wing fuel filler caps.
				Replaced placard at left and right wing fuel filler ports.
				Replaced mounting bracket for right main landing gear up-lock hook.
				Replaced bleeder P/N 081-200 and bleeder screw P/N 079-00300, on right brake caliper. Bleed brake system. Serviced left and right brake reservoir with MIL 5606.
				Stop drilled cracks in left wing tip.
				Replaced left and right vacuum regulator, garter filters.
				Removed corrosion from battery posts. Serviced battery cells with distilled water.
				Removed light corrosion from upper fuselage, fwd of windshield. Treated with Alodine and painted area.
				Replaced belly drain seal with new P/N CM3575-4, between left.. & right A.C. evaporators.
				Relamped courtesy light at bottom of pilots seat. Ops checked OK.
				Cleaned and lubed flap motor chain.
				Secured loose copilots head set jack.
				Adjusted rigging of mixture controls to match lever positions.
				Replaced left hydraulic filter (AN6235 and seals MS287750222)
				Replaced seals for left and right fuel strainer bowls (MS29513-237)
				<i>Continued on next page&gt;</i>

YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
DATE				

>Continued from previous page

Replaced fwd left hand, mid right and right aft cabin reading light switches P/N J20125-03. All Ops checked OK.  
 Secured loose trim for left C.B panel in cockpit.  
 Re-painted lower wing access panels where needed.  
 Removed corrosion from upper panel at leading edge of right stub wing. Repainted panel.  
 Replaced right fuel selector knob, shaft.  
 Adjusted VSI to zero.  
 Dressed edge of lower rudder spar to prevent rubbing on tail cone.  
 Repositioned and trimmed carpeting, installed new "Velcro" to prevent interference with left aft passenger seat movement on seat rails.  
 Complied with AD's-2000-01-16, 95-24-05R1, 76-02-07. See AD Report for compliance details.

Steve Bilek A&P 320600103



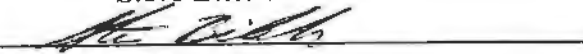
YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
DATE				

*Northwest Flyers Inc.*

*Schaumburg Regional Airport*

**N414MP**  
**Date-07/07/2003**      **Hour meter-2008.5**      **Total time-3694.8**  
 I certify that this aircraft has been inspected in accordance with an Annual Inspection and has been determined to be in airworthy condition at this time.

Steve Bilek A&P 320600103 I.A.



YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
DATE				

*Northwest Flyers Inc.*

*Schaumburg Regional Airport*

*N414MP*

**Date-9/11/2003 Hour meter-2022.9 Total time-3709.2**

Removed rudder for repair due to wind damage.

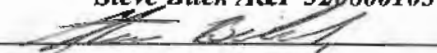
Painted rudder with Dupont Imron to match aircraft after repair by Williams Airmotive W/O# 7354.

Balanced rudder per Cessna MM and installed on aircraft.

Painted right wing tip to match aircraft.

Replaced aircraft battery with new Gill G-246.

*Steve Bilek A&P 320600103*



YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
DATE				
<i>2004</i>	<i>Hobbs</i>			
<i>5-18-04</i>	<i>2046.9</i>		<i>3733.2</i>	<p>Removed Rudder. Repaired Damaged Rudder by replacing broken ribs, channels and skins as required. Parts used as follows rib P/N# 5133020-8, rib P/N# 5133020-49, channel P/N# 5133020-9, channel P/N# 5133020-18, skin P/N# 5133020-5, skin P/N# 5133020-49, and skin P/N# 5133020-50. Repairs made in accordance with Cessna service manual. Affected areas repainted and rudder checked for balance per Cessna airframe repair manual. Balance within published specifications. Rudder determined to be in airworthy condition and approved for return to service. Rudder reinstalled and trimmed. Operational check ok. using existing hardware.</p> <p><i>Shawn D. Homoly A&amp;P 319584571</i></p>

See Attached Form 337 for repairs made.

YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
DATE				

*Northwest Flyers*  
Schaumburg Regional Airport, Schaumburg, Illinois

N414MP                      Hobbs=2052.8hrs.                      ACTT=3739.1hrs.

Date-08-11-04

- Checked ELT per FAR 91.207d.(Battery due Aug. 2005)
- Complied with AD96-20-07 by pressure decay and pessure switch checks performed by RLB Accessois WO#4448.OK at this time.
- Complied with hydrotest and overhaul of landing gear nitrogen bottle PN9910154-3 SN1890Y.(Due retest 07-2009)
- Replaced LT. and RT. engine induction air filter elements PN#BA-22.
- Retract tested landing gear and greased all wheel bearings.
- Installed new Gill#246 aircraft battery.
- Replaced certral vacuum filter and regulator filters.
- Replaced hydrolic filters and airconditioning hydrolic filter.
- Repaired windshield alohal leak at reservoir tank.
- Repaired and painted LT. wing tip and radome.
- Repaired and lubricated several cabin seats.

YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
DATE				

- Replaced defective camlock fasteners on nose access panels
- Cleaned engine fuel filters.
- Cleaned corrosion from LT. and RT. nacelles.
- Repaired RT. wing locker light.
- Replaced vertical fin flood light bulbs.
- Cleaned corrosion at aft fuselage and horizontal stabilizer.
- Lubricated aircraft.
- Complied with ADs 2001-17-13,200-01-16,96-20-07,95-24-05R1,and AD76-02-07.(See AD list for details)

I certify that this aircraft has been inspected in accordance an **Annual Inspection** and has been determined to be in airworthy condition at this time.

Gene Scheuwimer  
A&P1680919IA

*Gene Scheuwimer*  
8-11-04







YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
DATE				

Mobile Aviation  
6388 Frost Rd.  
Lake in the Hills, IL 60186  
(815) 488-8446

Date 12-5-05 LH JPH  
Work Order No. 3340

I certify that the radio system checks required by 14CFR 91.411 have been performed this date and found to comply with Part 43, Appendix B, Para 4.

M. Usher  
Signed for CRB No. N414MP

Mobile Aviation  
6388 Frost Rd.  
Lake in the Hills, IL 60186

Date 12-5-05 3340  
Work Order No. 3340

I certify that the ATO transponder test and inspections required by 14CFR 91.419 were performed this date and found to comply with 14CFR 43, Appendix F, # 2.

Transponder  
Make BENDIX  
Model BR300  
Serial No. 3318  
M. Usher

Mobile Aviation  
6388 Frost Rd.  
Lake in the Hills, IL 60186

Date 12-5-05 3340  
Work Order No. 3340

I certify that the airframe pressure attitude reporting system checks required by 14CFR 91.217 and 14CFR 91.411 have been performed this date and were found to comply with Part 43, Appendix B, Paragraph C.

Transponder Serial No. 3318  
Recorder Serial No. 1144 EM401 ARC  
M. Usher  
Signed for CRB No. N414MP

DATE March 17, 2006  
T.T.  
H.M. 2099.8  
TACH

LOG BOOK ENTRY  
AERO MOD SERVICE  
MIDLAND, TX

REG.# N414MP  
MFG Cessna  
MODEL 414A  
S/N 414A0317

Aircraft stripped, etched, alodined, primed, and painted the following colors:

570-535	Matterhorn White	Jet Glo
10629	Lt. Burgundy	Acry Glo
10492	Charcoal Gray	Acry Glo

Balance checked primary flight controls I/A/W MM. Installed exterior decals after paint. Installed sheepskin slip covers on crew seats. FAA FAR 25.853 flame proofing certificate on file at this station.

W.O.# P26008  
126015

MAINTENANCE RELEASE

AIRCRAFT APPROVED FOR RETURN TO SERVICE ONLY  
FOR THE WORK PERFORMED. DETAILS ON FILE THIS  
STATION ON W.O.# 200615 DATE 3/17/06

AERO MOD SERVICE  
MIDLAND, TEXAS 79711

SIGNATURE & A&P: Clint Johnson  
195470P



**Inspections, Tests, Repairs and Alterations**  
with Name, Rating and Certificate Number of  
(See back pages for other specific entries.)

N 414MP

MOBILE AVIONICS, INC.  
8585 Pyott Rd.  
Lake in The Hills, IL 60155

LH

Date 10-12-07

Work Order No. 3931

I certify that the altimeter checks required by  
14CFR 91.411 have been performed this date  
and were found to comply with Part 43,  
Appendix E, Paragraph B. ARC

Altimeter Serial No. ER4011144

Tested To 30K

*Michael Votter*

N 4

Mobile Avionics  
8585 Pyott Rd.  
Lake in The Hills, IL 60155  
(815) 486-0468

LH

Date 10-12-07

Work Order No. 3931

I certify that the static system checks required by 14CFR 91.4  
performed this date and found to comply with Part 43, Appen

*Michael Votter*

Signed for CRS No. H68R6821

Mobile Avionics  
8585 Pyott Rd.  
Lake in The Hills, IL 60155





YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
-------	---------------------	---------------	-----------------------	--

Page 2

Installed oxygen bottle C6600-0817 SN#812655 after hydro test.  
 Complied with AD2004-25-16R1 by inspection of shutoff valve per SB107A  
 Complied with AD2004-21-05 by pressure check of heater by RLB  
 Accessories WO#9129.(Heater hobbs=352.1hrs)  
 Complied with AD200-01-16 by inspection per par (b), (c), and (e).  
 Complied with AD76-02-07 by inspection of left alternator bearing.  
 See AD list for additional AD times and requirements.  
 I certify that this aircraft has been inspected in accordance with an **Annual Inspection** and has been determined to be in airworthy condition at this time.  
 Gene Scheuwimer *Gene Scheuwimer* A&P1680919A


YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
-------	---------------------	---------------	-----------------------	--

Page 2

Installed oxygen bottle C6600-0817 SN#812655 after hydro test.  
 Complied with AD2004-25-16R1 by inspection of shutoff valve per SB107A  
 Complied with AD2004-21-05 by pressure check of heater by RLB  
 Accessories WO#9129.(Heater hobbs=352.1hrs)  
 Complied with AD200-01-16 by inspection per par (b), (c), and (e).  
 Complied with AD76-02-07 by inspection of left alternator bearing.  
 See AD list for additional AD times and requirements.  
 I certify that this aircraft has been inspected in accordance with an **Annual Inspection** and has been determined to be in airworthy condition at this time.  
 Gene Scheuwimer *Gene Scheuwimer* A&P1680919A


Paige E. Bartz  
 FAA Certified Repairman

Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)  
 FAA Repair Station  
 G6X

N414MP  
 Mobile Avionics

\* All repaired or replaced GARMIN units have a 90-day warranty from the original purchase date, whichever is longer.

FRM-098 REV. 1

Customer C

1.500	22.000	-40	
2.000	25.000	-100	
3.000	30.000	-130	
4.000	35.000		
6.000	40.000		
8.000	45.000		
10.000	50.000		
12.000	HY 40%	20	
HY 50%	Aftax Effect	10	

I certify that this aircraft has been inspected in accordance with an Annual Inspection and has been determined to be in airworthy condition at this time.  
 by 14CFR Part 43.1  
 found to comply with the applicable airworthiness requirements.  
 Transponder Encoded  
 Signature: *Paige E. Bartz*  
 Date: \_\_\_\_\_

YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific en
DATE				

*Northwest Flyers*

Schaumburg Regional Airport Schaumburg Illinois

**N414MP** **Cessna 414A** **SN#0317**

**Date 05-27-2010** **Hobbs = 0039.6hrs** **ACTT = 3862.2hrs**

Checked ELT per FAR 91.207d. (Replaced battery due 06-2012)

Greased wheel bearings, lubricated, and serviced aircraft.

Installed landing gear nitrogen bottle PN#9910154 SN#2219 after hydrotest check by Ameron Global WO#223140 and retract tested landing gear.

Installed new nose gear steering stop and replaced 1ea. vortex generator.

Cleaned fuel screens.

Installed new aircraft battery Gill-246 SN#G02500588.

Installed new induction air filters BA-22 and vacuum regulator filters B3-5-1.

Installed new central instrument filter AM103535A.

Installed overhauled landing light assembly SN#AII-5824 in left wing.

Complied with AD2004-25-16R1 by inspection of fuel valve per SBA-107A.

Complied with AD2000-01-16 by inspection of exhaust per par (b) (c) &(e).

Page 1

I CERTIFY THAT THE ALTIMETER, ENCODING SYSTEM AND STATIC SYSTEM TEST REQUIRED BY FAR 91.411 HAVE BEEN PERFORMED; THE ALTIMETER: PILOTS S/N 11594 COPILOTS S/N 12115 ADC S/N 200430

I CERTIFY THAT THE TRANSDUCER TEST REQUIRED BY FAR 91.413 HAS BEEN PERFORMED AND FOUND TO COMPLY. XPDR # 1 MIN GTX330 S/N 2102256 XPDR # 2 MIN TR2018 S/N 218

SIGNATURE: *[Signature]* DATE: 11/6/10  
TOMLINSON AVIONICS OF FLORIDA, INC.  
521 DANLEY DR., FT. MYERS, FL. 33907  
FAA CRS # V6TR097X

YEAR: | RI

Page 2

Complied with AD76-02-07 by inspection of left alternator bearing.

See AD list for additional AD times and requirements

I certify that this aircraft has been inspected in accordance with an Annual Inspection and has been determined to be in airworthy condition at this time.

Gene Scheuwimer

A&P1680919A

*Northwest Flyers*

Schaumburg Regional Airport Schaumburg Illinois

**N414MP**

**Cessna 414A**

**Date 09-03-2010**

**Hobbs = 71.2hrs**

Flushed air conditioning system. Installed new receiver dryer PN#9910157-5.

Serviced air conditioner with Freon 12.

Rerouted avionics blower ducts.

Cleaned connections on #4 cylinder left engine CHT probe.

Gene Scheuwimer

A&P1680919





YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
-------	---------------------	---------------	-----------------------	--

Aircraft Type C414  
Reg. No. N414MP  
Ser. No. 414A03L7

Mobile Avionics, Inc.  
8585 Pyott Road  
Lake in the Hills, IL 60156  
(815) 459-0446  
CRS MSBR662J

Date 8-26-11  
W.O. No. 4929  
A/C Time  
Hobbs - 132.7

REINSTALLED & TESTED #1 TRANSPONDER (GTx-330)  
TEST IAW 91.413 ON FILE UNDER WO # 4929  
MSL Mobile Avionics  
MSBR662J

Mobile Avionics  
8585 Pyott Rd.  
Lake in the Hills, IL 60156

Date 8-26-11  
Work Order No. 4929

I certify that the ATC transponder test and inspections required by 14CFR 91.413 were performed this date and found to comply with 14CFR 43, Appendix F.

#1  
Transponder ONLY

Make Garmin  
Model GTx 330  
Serial No. 84108536

YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
-------	---------------------	---------------	-----------------------	--

N414MP  
N414MP  
N414MP

MOBILE AVIONICS, INC.  
8585 Pyott Rd.  
Lake in The Hills, IL 60156

Date 8-2-10  
Work Order No. 5203  
I certify that the altimeter checks required by 14CFR 91.411 have been performed this date and were found to comply with Part 43, Appendix E, Paragraph B, ADC 74A

Altimeter Serial No. 20609420  
Tested To 30X  
M. J. Vetter  
Signed for CRS No. #MSBR662J

Altimeter Reads	Error	Altimeter Reads	Error
-1,000	0	14,000	-10
0	0	16,000	0
500	0	18,000	0
1,000	0	20,000	-10
1,500	0	22,000	-20
2,000	0	23,000	-0
3,000	0	30,000	
4,000	0	35,000	
6,000	0	40,000	
8,000	-10	45,000	
10,000	-10	50,000	
12,000	0	HY 40%	20
HY 50%	20	After Effect	20

Date 8-2  
Work Order No. 4929  
I certify that the ATC transponder test and inspections required by 14CFR 91.413 were performed this date and found to comply with 14CFR 43, Appendix F.

Make Garmin  
Model GTx 330  
Serial No. 84108536

M. J. Vetter  
Signed for CRS No. #MSBR662J



YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
DATE				

**Southern Avionics & Communications, Inc.**  
**CRS HW4R427M**  
 Mobile Downtown Airport  
 2495-A Michigan Avenue / Mobile, AL 36615

N#            414MP            WO#            94068            Date    09.12.2012


---


Complied with GARMIN Software Service Bulletin No. 1145 Rev A

Updated G600 LRU's GDU-620 SW to 5.02, GRS-77 SW to 3.02 and GDC-74 SW to 3.08

Ramp checked and verified Garmin G600 System meets OEM operational requirements.

No change to aircraft weight and alance required.

  
 2514474  
 Technician / HW4R427M

  
 Inspector / HW4R427M

YEAR:	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
DATE				
<del> <div style="font-size: 2em; color: blue; opacity: 0.5;">This Log Closed</div> </del>				



**AIRFRAME  
MAINTENANCE  
RECORDS**

Registration No. N414MP

Serial No. 414A0317

**Advanced**  
**Aircraft**  
**Refinishers**

125 Sky Harbor Way Griffin GA 30224  
770-233-4600

Date April 5, 2013

1. Removed and replaced upper rudder skin (pn 5133020-50), and channel (pn 5133020-18). These repairs are on FAA form 337 dated 4/4/2013.

All work accomplished in accordance with Cessna 414a service manual and advisory circular 43.13-1b ch 4-57a and 4-57f.

*Clifford O'Hearn*

Clifford O'Hearn A&P 2640972

**Advanced**  
**Aircraft**  
**Refinishers**

125 Sky Harbor Way Griffin GA 30224  
770-233-4600

Date April 5, 2013

1. Removed and replaced upper rudder skin (pn 5133020-50), and channel (pn 5133020-18). These repairs are on FAA form 337 dated 4/4/2013.

All work accomplished in accordance with Cessna 414a service manual and advisory circular 43.13-1b ch 4-57a and 4-57f.

*Clifford O'Hearn*

Clifford O'Hearn A&P 2640972

**MAINTENANCE RELEASE**

AIRCRAFT Cessna 414A REGISTRATION NO. N414MP  
SERIAL NO. 414A0317 TIME 0207.1

THE REFURBISHED AIRCRAFT INTERIOR COMPONENTS IDENTIFIED HAVE BEEN REPAIRED AND INSPECTED FOR THE WORK PERFORMED, IN ACCORDANCE WITH CURRENT REGULATIONS OF THE FEDERAL AVIATION AGENCY AND IS APPROVED FOR RETURN TO SERVICE.

"Pertinent details of the repair are on file at this repair station under Work Order No. 709 dated 7-13-2013."

Signed: *Ray Woods*, authorized representative for SOUTHERN AIR CUSTOM INTERIORS, INC.  
FAA CERTIFIED REPAIR STATION NO. UUSR697L, 711 County Road 51, Haleyville, AL. 35565



**Southern Avionics & Communications**

2495-A Michigan Ave  
Mobile, AL 36615  
FAA RS# HW4R427M

DATE: \_\_\_\_\_

Date: 6/21/2013; Aircraft: N414MP; Type: CESSNA 414A; S/N: 414A0317; Total Time: 4028.30  
Shop Order #: 95195

Removed and disassembled circuit breaker panels and throttle quadrant panel. Sent throttle quadrant panel out to be refurbished by Air Capitol Dial. Refurbished pilot side circuit breaker panels. Designed and fabricated new lower panel below throttle quadrant. Fabricated new avionics circuit breaker panel. All panels were powdercoated federal gray and clear coated. All legends and labels were silkscreened onto the new panels. Reinstalled panels in the aircraft.

Technician: D. Joiner Inspector: *Jho Jones*



**Southern Avionics & Communications**

2495-A Michigan Ave  
Mobile, AL 36615  
FAA RS# HW4R427M

Date: 6/21/2013; Aircraft: N414MP; Type: CESSNA 414A; S/N: 414A0317; Total Time: 4028.30  
Shop Order #: 95194

Removed post lights for instruments in pilot, center and copilot panels. Provided and installed UMA light rings for instruments. Provided and installed 3 UMA inverters P/N 10-700-28. The UMA lights were installed using manufacturers supplied documentation.

Technician: D. Joiner Inspector: *Jho Jones*



**Southern Avionics & Communications**

2495-A Michigan Ave  
Mobile, AL 36615  
FAA RS# HW4R427M

Date: 6/21/2013; Aircraft: N414MP; Type: CESSNA 414A; S/N: 414A0317; Total Time: 4028.30  
Shop Order #: 95244

Removed existing ELT and ELT antenna. Provided and installed Kannad 406(AF) Compact ELT P/N S1840501-01, S/N LX1100054426 and ELT antenna P/N LET10-773-3, S/N 10693 in same location as removed units. Provided and installed ELT Remote Control Panel P/N S18020513-11, S/N TM0000045816 in copilot's panel. Wiring and checkout were completed using Kannad Installation Manual p/n DOC07089G, Revision 06, dated October 2011. Weight and Balance/Equipment list has been amended.

Tested and inspected ELT as listed in accordance with manufacturer's approved inspection procedures and FAR 91.207d. ELT approved for return to service. Next inspection date: June 2014. Next battery replacement date: November 2019.

Technician: D. Joiner Inspector: *Jho Jones*

--	--	--

TOTALS—Carry forward to next page



aviation@tiac.net

125 Sky Harbor Way, Griffin, Georgia  
(770) 233-4000

Date: 4/22/2013

Make: Cessna                      Model 414A  
Registration N414MP            S/N: 414-A0317

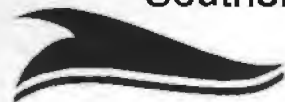
Base Color: G8003 Matterhorn White/ Alumigrip

Trim colors:  
10494 Las Vegas Gold / AcryGlo  
10701 Ruby Met / AcryGlo  
10368 Med Silver Met / AcryGlo

This aircraft was painted and all flight controls were removed  
balance checked and reinstalled. All work accomplished I/A/W  
Cessna Model 414 service manual and applicable FARs

Terry Lee Higdon A&P 2713082

### Southern Avionics & Communications



2495-A Michigan Ave  
Mobile, Al 36615  
FAA RS# HW4R427M

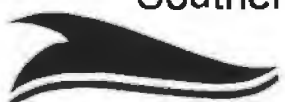
DATE

Date: 6/21/2013; Aircraft: N414MP; Type: CESSNA 414A; S/N: 414A0317; Total Time: 4028.30  
Shop Order #: 95193

Removed existing pilot, center and co-pilot panels. Designed and fabricated new panels to facilitate new avionics installation. Panels were fabricated using 2024T3 .0900 aluminum. Panels were powder coated federal gray and all legends and placards were silkscreened onto the panels. Installed new panels into aircraft. Reassembled aircraft for flight.

Technician: D. Joiner Inspector: Jh o Juel

### Southern Avionics & Communications



2495-A Michigan Ave  
Mobile, Al 36615  
FAA RS# HW4R427M

Date: 6/21/2013; Aircraft: N414MP; Type: CESSNA 414A; S/N: 414A0317; Total Time: 4028.30  
Shop Order #: 95185

Removed PMA 6000M audio panel. Provided and installed Garmin GMA 350 audio panel P/N 011-02385-00, S/N 1UF005534. The GMA 350 is interfaced to the GAD 43E, GTX 330ES transponder, #1 GTN 750, #2 GTN 750, G600 System, 55X autopilot, and 6 place intercom. Wiring and checkout were completed using Garmin Installation Manual p/n 190-01134-11, Revision E, dated January 2013. Weight & Balance/Equipment list has been amended.

Technician: D. Joiner Inspector: Jh o Juel

### Southern Avionics & Communications



2495-A Michigan Ave  
Mobile, Al 36615  
FAA RS# HW4R427M

Date: 6/21/2013; Aircraft: N414MP; Type: CESSNA 414A; S/N: 414A0317; Total Time: 4028.30  
Shop Order #: 95187

Removed #1 GNS 530W and GA35 GPS antenna. Provided and installed Garmin GTN 750 Nav/Com/GPS P/N 011-02282-00, S/N 1ZA0011788, GA-35 Antenna P/N 013-00235-00, S/N 94853 and diplexer P/N CI-507, S/N419963. The GTN 750 system is installed in accordance with Garmin Installation Manual P/N 190-01007-A3, Rev 5, Dated April 2013. The GA-35 antenna was installed in accordance with Strong Aerospace Engineering Drawing number N414MP-051013-1. The GTN 750 is interfaced to the G600 System, #2 GTN 750, GMA 350 audio panel, fuel flow and the GTX330ES Transponder. FAA Form 337 filed and Weight & Balance/Equipment list has been amended.

Technician: D. Joiner Inspector: Jh o Juel

TOTALS—Carry forward to next page

### Southern Avionics & Communications



2495-A Michigan Ave  
Mobile, Al 36615  
FAA RS# HW4R427M

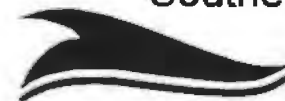
DATE

Date: 6/21/2013; Aircraft: N414MP; Type: CESSNA 414A; S/N: 414A0317; Total Time: 4028.30  
Shop Order #: 95188

Removed #2 GNS 430W. Provided and installed Garmin GTN 750 Nav/Com/GPS P/N 011-02282-00, S/N 1ZA0011798, GA-35 Antenna P/N 013-00235-00, S/N 94831 and splitter P/N FSC-2-1, S/N BN121201247. The GTN 750 system is installed in accordance with Garmin Installation Manual P/N 190-01007-A3, Rev 5, Dated April 2013. The GA-35 antenna was installed in accordance with Strong Aerospace Engineering Drawing number N414MP-050213-1. The GTN 750 is interfaced to the G600 System, #1 GTN 750, GMA 350 audio panel, fuel flow, GWX 70 Radar and the GTX330ES Transponder. FAA Form 337 filed and Weight & Balance/Equipment list has been amended.

Technician: D. Joiner Inspector: Jh o Juel

### Southern Avionics & Communications



2495-A Michigan Ave  
Mobile, Al 36615  
FAA RS# HW4R427M

Date: 6/21/2013; Aircraft: N414MP; Type: CESSNA 414A; S/N: 414A0317; Total Time: 4028.30  
Shop Order #: 95189

Removed Garmin GTX 330 transponder and sent unit to Garmin for Extended Squitter upgrade. Installed upgraded Garmin GTX 330ES transponder P/N 011-00455-60, S/N 84108536. The GTX 330ES is interfaced to the GMA 350 audio panel, #1 GTN 750, GDC 74 AHRS, GDU 620 PFD/MFD, and #2 GTX 327 transponder. Wiring and checkout were completed using Garmin Installation Manual p/n 190-00734-10, Revision 2, dated April 2013. FAA Form 337 filed and Weight & Balance/Equipment list has been amended.

Technician: D. Joiner Inspector: Jh o Juel

### Southern Avionics & Communications



2495-A Michigan Ave  
Mobile, Al 36615  
FAA RS# HW4R427M

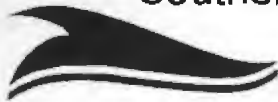
Date: 6/21/2013; Aircraft: N414MP; Type: CESSNA 414A; S/N: 414A0317; Total Time: 4028.30  
Shop Order #: 95190

Removed existing #2 transponder and SSD120 encoder. Provided and installed Garmin GTX 327 transponder P/N 011-00490-00, S/N 83747129 in the #2 position. Provided and installed transponder antenna P/N CI-105, S/N 61548. The GTX 327 is interfaced to the #2 GTN 750, GDU 620 PFD/MFD, and #1 GTX 330ES transponder. Wiring and checkout were completed using Garmin Installation Manual p/n 190-00187-02, Revision Q, dated March 2012. Weight & Balance/Equipment list has been amended.

Technician: D. Joiner Inspector: Jh o Juel

TOTALS—Carry forward to next page

### Southern Avionics & Communications



2495-A Michigan Ave  
Mobile, Al 36615  
FAA RS# HW4R427M

DATE

Date: 6/21/2013; Aircraft: N414MP; Type: CESSNA 414A; S/N: 414A0317; Total Time: 4028.30  
Shop Order #: 95216

Removed defective LC2. Provided and installed new LC2 chronometer P/N /a/t420100, S/N 66724 in same location as removed unit. This unit was functionally checked and found operational IAW MFG's Manual.

Technician: D. Joiner Inspector: J. O. J. J.

### Southern Avionics & Communications



2495-A Michigan Ave  
Mobile, Al 36615  
FAA RS# HW4R427M

Date: 6/21/2013; Aircraft: N414MP; Type: CESSNA 414A; S/N: 414A0317; Total Time: 4028.30  
Shop Order #: 95287

Provided and installed Garmin GAD 43E interface adapter P/N 011-02349-00, S/N 1U7000669. The GAD 43E is interfaced to the GRS 77 AHRS, GDU 620 PFD/MFD, GMA 350 audio panel and system 55X autopilot. Wiring and checkout were completed using Garmin Installation Manual p/n 190-00601-06, Revision K, dated October 2012. Weight and Balance/Equipment list has been amended.

Technician: D. Joiner Inspector: J. O. J. J.

### Southern Avionics & Communications



2495-A Michigan Ave  
Mobile, Al 36615  
FAA RS# HW4R427M

Date: 6/21/2013; Aircraft: N414MP; Type: CESSNA 414A; S/N: 414A0317; Total Time: 4028.30  
Shop Order #: 95200

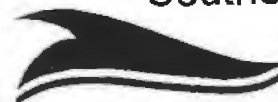
Provided and installed 28VDC to 12VDC converter P/N AD-551-9M, S/N 512559. Interface to 1 aux power port in the cockpit center console and 2 aux power ports in cabin area, one on each side. Provided and installed switch and circuit breakers in copilot's circuit breaker panel. Wiring and checkout were completed using Ameri-King Installation Manual p/n IM-551, Revision NC, dated February 1999.

Technician: D. Joiner Inspector: J. O. J. J.

SUB-TOTALS this page

TOTALS—Carry forward to next page

### Southern Avionics & Communications



2495-A Michigan Ave  
Mobile, Al 36615  
FAA RS# HW4R427M

DATE

Date: 6/21/2013; Aircraft: N414MP; Type: CESSNA 414A; S/N: 414A0317; Total Time: 4028.30  
Shop Order #: 95197

Removed Glareshield from aircraft. Removed existing Glareshield covering. Recovered glareshield and added accent trim covering to bottom side of glareshield. Reinstalled Glareshield in aircraft. All cert paperwork is at this location.

Technician: D. Joiner Inspector: J. O. J. J.

### Southern Avionics & Communications



2495-A Michigan Ave  
Mobile, Al 36615  
FAA RS# HW4R427M

Date: 7/15/2013; Aircraft: N414MP; Type: CESSNA 414A; S/N: 414A0317; Total Time: 4028.30  
Shop Order #: 95196

Removed yokes from aircraft. Sent yokes to AeroPlus Interiors to be covered in leather. Reinstalled yokes in aircraft. All switches and buttons were functionally checked and found operational IAW MFG's Maintenance Manual. Reassembled aircraft for flight.

Technician: D. Joiner Inspector: J. O. J. J.

### Southern Avionics & Communications



2495-A Michigan Ave  
Mobile, Al 36615  
FAA RS# HW4R427M

Date: 7/15/2013; Aircraft: N414MP; Type: CESSNA 414A; S/N: 414A0317; Total Time: 4028.30  
Shop Order #: 95198

Removed existing radar system. Provided and installed Garmin GWX 70 12 inch antenna array P/N 117-00254-01, S/N 223 and Radar P/N 011-01793-00, S/N 1DP005089. The GWX 70 is interfaced to the #2 GTN 750 for display and control, and the GRS 77 for heading. Wiring and checkout were completed using Garmin Installation Manual p/n 190-00829-01, Revision C, dated October 2012. Weight and Balance/Equipment list has been amended.

Technician: D. Joiner Inspector: J. O. J. J.

SUB-TOTALS this page

TOTALS—Carry forward to next page



S & S AVIATION CO  
CHEROKEE COUNTY AIRPORT  
1800 AIRPORT DRIVE  
BALL GROUND, GA.

MODEL: CESSNA 414A  
A/C REG: N414MP  
A/C S/N: 414A-0317

DATE: 07-22-2013  
TACH: 0208.6  
TOTAL: 4031.2  
HEATER HOBBS: 0363.7

OPENED ALL INSPECTION AND ACCESS PANELS. REMOVED ENGINE COWLINGS. PERFORMED ANNUAL INSPECTION. LUBRICATED ALL FLIGHT CONTROL HINGES, ROD ENDS, PULLEYS, AND BELLCRANKS. CHECKED CONTROL CABLE TENSIONS AND TRAVELS. REPLACED LANDING GEAR HYDRAULIC FILTERS P/N AN6235-2A. REPLACED B3-5-1 VACUUM RELIEF FILTERS. INSTALLED NEW CENTRAL VACUUM FILTER P/N AM1035351A. REMOVED ELEVATOR TRIM ACTUATOR. DISASSEMBLED, CLEANED, INSPECTED, LUBRICATED, REPLACED THRUST BEARINGS AND O RING, AND REASSEMBLED. TIGHTENED REAR BUSHING TO ELIMINATE INTERNAL PLAY. REINSTALLED ACTUATOR. SET CABLE TENSIONS AND TRAVELS PER SERVICE MANUAL. MADE A NEW INSPECTION PANEL FOR THE LOWER SIDE OF THE RIGHT HORIZONTAL STABILIZER TO REPLACE THE ORIGINAL ONE THAT HAD SEVERAL CRACKED HOLES. REMOVED RUDDER TRIM ACTUATOR. CLEANED AND INSPECTED. REPLACED REAR BEARING 5815023-10. MS28775-010 O RING AND LOCK PINS. REINSTALLED ACTUATOR. RIGGED RUDDER TRIM PER SERVICE MANUAL. REMOVED RUDDER AND REPLACED MS244662-4 HINGE BEARINGS. REINSTALLED RUDDER. REMOVED BOTH ELEVATORS, REPLACED ALL 4 BEARINGS MS24462-4, CLEANED AND PRIMED TORQUE TUBES AND PUSH/PULL TUBE, REPLACED RUSTED BONDING STRAP SCREWS, CLEANED CORROSION FROM HORIZONTAL STAB SPAR AND PRIMED, REMOVED, CLEANED, INSPECTED AND PRIMED TORQUE TUBE COLLARS. REINSTALLED ELEVATORS, ADJUSTED TRAVEL AND TENSIONS. TIGHTENED FLAP SCISSORS, BELLCRANKS, AND ROD ENDS IN BOTH WINGS. REPLACED CRACKED CHANNEL IN TOP OF NOSE GEAR WELL AT UPLOCK ACTUATOR WITH NEW 5713040-9 CHANNEL. INSTALLED NEW 5742005-9 NOSE GEAR DOOR STRIKER GUARD TUBE. INSTALLED NEW 5942001-1 STEERING BELLCRANK. ADJUSTED STEERING CABLE TENSIONS. REMOVED NOSE GEAR UPLOCK ACTUATOR DUE TO LEAKAGE. INSTALLED NEW O RINGS AND T SEALS. REINSTALLED ACTUATOR. MANUFACTURED AND INSTALLED NEW HOSES. OPERATIONAL AND LEAK CHECK GOOD. REMOVED SHIMMY DAMPER. DISASSEMBLED AND CLEANED. REPLACED O RINGS AND REASSEMBLED. SERVICED WITH MILH5606 FLUID. REINSTALLED DAMPER. REMOVED NOSE STRUT LOWER SECTION. CLEANED AND INSPECTED. REPLACED LOWER BEARING WITH NEW 0841211-1. INSTALLED NEW SEALS AND O RINGS. SERVICED WITH MIL5606 FLUID AND NITROGEN. REMOVED ALL (4) MAIN LANDING GEAR ACTUATOR HOSES FOR REPLACEMENT. FABRICATED 4 NEW HOSES USING NEW STRATOFLEX 111-6 HOSE AND NEW FITTINGS AT BOTH ENDS. INSTALLED NEW HOSES. REPLACED RIGHT MAIN GEAR UPLOCK HOOK BRACKETS WITH NEW 5141204-4 & 5141205-202. INSTALLED RIGHT MAIN NEW UPLOCK HOOK 5741202-9. REMOVED HYDRAULIC SHUTTLE VALVE IN NOSE BAY. REPLACED LEAKING O RINGS. RE-INSTALLED AND LEAK CHECKED. OPERATIONAL CHECKED THE LANDING GEAR SYSTEM AND ALL CHECKED WERE NORMAL. PERFORMED OPERATIONAL TEST OF THE LANDING GEAR DOWN SYSTEM. THE 1/4" LINE TO THE BOTTLE HAD A PIN HOLE IN IT. MANUFACTURED AND REPLACED THE LINE. SERVICED THE BLOWDOWN BOTTLE WITH NITROGEN. REMOVED BOTH BRAKE CALIPERS. DISASSEMBLED AND CLEANED. INSTALLED NEW MS28775-132 O RINGS. REINSTALLED CALIPERS. MANUFACTURED NEW BRAKE HOSES AT GEAR WITH NEW STRATOFLEX 111-4 HOSE AND 300-4S FITTINGS. FLUSHED BRAKE SYSTEM. SERVICED BRAKES WITH MIL5606 FLUID. BLED BRAKES. INSTALLED NEW LEFT MAIN TIRE WITH GOODYEAR FLIGHT CUSTOM III AND MICHELIN AIR STOP TUBE. REMOVED BOTH MAIN GEAR DOORS, REAMED HINGE PIN HOLES, AND REINSTALLED WITH NEW OVERSIZED HINGE PINS. DRILLED OUT LOOSE RIVETS IN WING ROOT FAIRINGS TO FUSELAGE LOWER SKIN. CLEANED BETWEEN SKINS WITH SOLVENT. PLACED SEALANT BETWEEN SKINS. DROVE ALL THE RIVETS WE COULD REACH AND INSTALLED CHERRY RIVETS IN THE REST. CLEANED EXCESSIVE SEALANT FROM SKINS. REMOVED ALL PRESSURE DRAIN SEALS AND RETAINERS IN LOWER FUSELAGE SKINS. CLEANED AND REPAINTED 3 RETAINING RINGS. INSTALLED ALL NEW CM3575-4 PRESSURE DRAIN SEALS AND 3 NEW 5111339-3 RETAINING RINGS. REMOVED FLAKING PRIMER ON LOWER FUSELAGE SKIN UNDER POTTY. CLEANED AND PRIMED AREA WITH EPOXY PRIMER. INSTALLED NEW RELIEF TUBE HOSE. CLEANED UNDER ALL FLOOR PANELS. REMOVED AND CLEANED FLUSHING POTTY. FLUSHED UNIT WITH CLEAN WATER. POWERED UNIT WITH WATER IN IT TO CONFIRM THAT IT WORKED PROPERLY AND DID NOT LEAK. REMOVED CORROSION FROM THE POTTY SEAT STRUCTURE BY DISASSEMBLY OF FRAME, REMOVING CORROSION, TREATING WITH ALODINE, AND PRIMING. REASSEMBLED STRUCTURE AND REINSTALLED. AFT CENTER FLOOR PANEL DELAMINATING. CLEANED AND PREPPED PANEL. REBONDED PANEL LAMINATES BACK TOGETHER WITH HYSOL. REMOVED AIR CONDITIONING EVAPORATORS, CLEANED EVAPORATORS, CLEANED AND PRIMED EVAPORATOR TRAYS, REINSTALLED EVAPORATORS. VACUUMED SYSTEM, NO LEAKS NOTED AFTER 4 HOUR OF VACUUM SERVICED WITH 2.5 LBS R12. REPLACED RIGHT RUDDER CABLE SEAL S11K-4R AT REAR BULKHEAD. REMOVED HEAVY AREAS OF LPS 2 FROM TAIL CONE INSIDE SKINS. REMOVED LARGE OXYGEN BOTTLE AND INSTALLED ORIGINAL SIZE 11 CUBIC FEET BOTTLE IN ORIGINAL CONFIGURATION. THE OXYGEN BOTTLE AND REGULATOR WERE OVERHAULED AND TESTED AT AEROSPACE TURBINE ROTABLES, CRS NV2R0451, UNDER WORK ORDERS W034593 & W034594. NEXT HYDROSTATIC TEST DUE 02/18. REMOVED LEFT BOOST PUMP AND REPLACED LEAKING O RING SEALING BY-PASS VALVE COVER. REPAIRED CHAFFED WIRING ON PUMP USING HEAT SHRINK TO COVER CHAFE AND INSTALLING NEW TERMINAL ENDS. REPLACED HOSE FROM PUMP TO FUEL TANK FITTING. REINSTALLED PUMP. REMOVED LEFT CROSSFEED SHUT OFF VALVE AND REPLACED O-RINGS. REINSTALLED CROSSFEED SHUT OFF VALVE AND LEAK CHECKED. PERFORMED FUEL INLET FLOAT VALVE OPERATIONAL TEST. REPLACED CORRODED INSPECTION PANELS LOWER WINGS OUTBOARD OF GEAR DOOR IN EXHAUST TRAIL WITH NEW 5122048-16. REPLACED RUSTED SCREWS IN FUEL FILLER ADAPTERS. REPAIRED RIGHT FUEL CAP VENT CAP. CLEANED MINOR AREAS OF VERY LIGHT CORROSION IN BOTH WING ROOTS AND TREATED WITH CORROSION X.

CONTINUED NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

INSTALLED NEW PROPELLER CONTROL CABLES 1220-25 & -26. INSTALLED NEW LEFT THROTTLE CABLE 1220-21. INSTALLED NEW S1819-3 ROD END AT BOTH PROPELLER GOVERNORS. COMPLIED WITH MEB88-3 BY INSTALLING SK421-138 FUEL SWITCH SERVICE KIT. REMOVED FUEL PRESSURE SWITCHES, MODIFIED WIRING PER SERVICE KIT. INSTALLED NEW SWITCHES. INSTALLED FLIGHT MANUAL SUPPLEMENT AND PLACARDS. REMOVED ENGINES, PROPELLERS AND EXHAUST SYSTEM. REMOVED MICRO VORTEX GENERATORS. REPLACED STRIPPED NUTPLATE BEHIND LEFT FIREWALL FOR THE TAILPIPE SUPPORT BRACKET. INSTALLED SCAB PATCH ON RIGHT ENGINE FIREWALL TO REPAIR A SMALL CRACK UNDER THE TAILPIPE BRACKET. FABRICATED STAINLESS STEEL PATCH AND RIVETED ON WITH MONEL RIVETS. REPAIRED HOLE WORN IN LEFT INBOARD NACELLE SKIN AFT OF COWL DOOR BY MANUFACTURING AND INSTALLING A PATCH FROM .040 2024T3 ALUMINUM WITH DRIVEN RIVETS AND HYSOL. INSTALLED SCAB PATCHES ON INSIDES OF TOP COWLINGS AT THE FRONT OF THE LOUVERS. REPLACED ONE DOUBLER ANGLE AT THE AFT TOP END OF THE TOP THE LEFT COWLING. REPAIRED LOWER COWL DOORS AT CAMLOCKS AS NEEDED. REMOVED ALCOHOL TANK AND COPILOTS WINDSHIELD DEICE SYSTEM. REMOVED MINOR SURFACE CORROSION INSIDE AND OUT SIDE OF REAR NACELLE. CLEANED AND EPOXY PRIMED INSIDE OF THE RIGHT BAGGAGE COMPARTMENT. DRILLED OFF ALCOHOL SERVICE DOOR AND FRAME MANUFACTURED DOUBLER AND FILLER PATCH FROM 2024T3 ALUMINUM AND INSTALLED WITH DRIVEN RIVETS. FILLED SEAMS AND SANDED SMOOTH. REPAIRED SEVERAL SMALL CRACKS IN THE WINGTIPS. GROUND OUT CRACKS. INSTALLED FIBERGLASS REPAIR MATERIAL. FILLED AND SANDED SMOOTH. REMOVED ALL NOSE BAY FLOOR PANELS, RADIOS, NOSE CONE IN ORDER TO ACCESS INSIDE OF SKIN. CLEANED MINOR CORROSION FROM SKIN AND FORMERS WHERE THE PILOT'S HEAT DUCT CROSSES THE NOSE BAY. CLEANED UP OLD PAINT AND DIRT FROM UNDER HEATER AND PLENUM AND FROM BEHIND DUCTS IN NOSE BAY. REMOVED SHELF FOR COMBUSTION BLOWER MOTOR, DISASSEMBLED AND CLEANED CORROSION FROM IT AND REASSEMBLED. REINSTALLED COMBUSTION AIR BLOWER. REPLACED PRESSURIZATION DUCTS IN THE NOSE BAY WITH NEW 5117257-1, -2, -7, -8, CM3211-A18 AND P612433. REPLACE ALL PRESSURIZATION DUCTS IN BOTH WINGS. (CM3211-10B9.0, CM3211-10B38.0, CM3213-10.) INSTALLED NEW CLAMPS AS NECESSARY. REMOVED CABIN PRESSURE HEAT CONTROL CABLES INNER CABLES FROM BOTH CONTROLS. CLEANED CABLES AND REINSTALLED WITH LUBRICANT. ADJUSTED CABLES. REPLACED BOTH BAGGAGE DOOR SUPPORTS WITH NEW SHOCK STRUTS. REPLACED TORN BAGGAGE DOOR SEAL RIGHT WING LOCKER WITH NEW. REPLACE RUSTY SCREWS IN WINDSHIELD AS NEEDED. REPLACED PILOTS SIDE WINDOW WITH NEW PAS511605-3 AND NEW INSTALLATION HARDWARE. INSTALLED NEW PERKINS PAS511605-2 WINDOW IN EMERGENCY EXIT WITH NEW HARDWARE. INSTALLED 5311260-9 SUPPORT RINGS ON THE EMERGENCY EXIT WINDOW AND UPPER CABIN DOOR WINDOW. INSTALLED NEW EMERGENCY EXIT SEAL. INSTALLED NEW MEDCO LOCK SET. MADE NEW WATER DRAIN SCUPPER FROM FIBERGLASS AND RESIN FOR BOTH NACELLES. INSTALLED NEW SCUPPERS WITH SEALANT AND RIVETS. REMOVED LEFT PRESSURIZATION DUMP VALVE. REPLACED BROKEN O RING WITH NEW MS28775-227 O RING. REINSTALLED VALVE. REPLACED BOTH TAIL FLOOD LIGHT LENS 00003022-3 & -5 AND GASKETS 00003022-3. REPAIRED PILOTS MAP LIGHT WIRES AND INSTALLED NEW S1880-5 RHEOSTAT. REPLACED ALL 7 LIGHT DIMMER SLIDES CM3535-1. REPLACED 3 2N3055 TRANSISTORS. REPLACED 3 327 BULBS. INSTALLED NEW 302 BULB AND NEW LENS COVER ON PILOTS PEDESTAL LIGHT. INSTALLED NEW 1041-8 FIBERGLASS TAIL CONE TO REPLACE THE CRACKED PLASTIC OEM PART. REMOVED AND SHIPPED BOTH PITOT TUBES OUT FOR CHROME PLATING. REINSTALLED AFTER REPAIRS. REMOVED VOR/GS ANTENNA DUE TO DELAMINATION AND ERROSION. CLEANED MINOR CORROSION FROM SKIN UNDERNEATH ANTENNA. TREATED WITH ALODINE AND PRIMED. INSTALLED NEW MATCHED SET C1120BSC ANTENNA. SEALED AROUND THE ANTENNA WITH CS3204B1/2. REPLACED OUTER FUEL CAP O RINGS WITH NEW MS29513-338. PERFORMED CABIN TYPE A & B, WING TYPE A & B, AND SPAR WEBB SPECIAL INSPECTIONS. COMPLIED WITH AD95-09-13 BY OPERATIONAL TEST OF FUEL INLET FLOAT VALVES. AD2004-21-05 COMPLIED WITH BY HEATER PRESSURE DECAY AND SWITCH TEST. COMPLIED WITH AD2004-25-16 BY INSPECTION FOR LEAKS OF HEATER FUEL SHUTOFF. COMPLIED WITH AD84-26-02 BY REPLACEMENT OF PAPER INDUCTION AIR FILTERS. COMPLIED WITH AD2000-01-16 AS FOLLOWS: PARAGRAPH (B) BY VISUAL INSPECTION, PARAGRAPH (C) BY REPLACEMENT OF OVERBOARD TAILPIPES, PARAGRAPH (D) BY INSPECTION OF BEAMS, BULKHEADS, AND FIREWALLS, PARAGRAPH (G) BY REMOVAL AND REPLACEMENT OF EXHAUST SYSTEM SLIP JOINTS AND AFT.

AIRCRAFT MODIFIED PER INTERCOOLER SCOOP INSTALLATION, STRUCTURAL CHANGES AND ENGINES INSTALLED PER RAM DWG. 1765, REV. AC, DATED 10/11/11 PER STC SA09105SC-D (INCLUDES STC SA8728SW-D). FLIGHT MANUAL SUPPLEMENT AFMS 1083 REV. B INSTALLED IN AIRCRAFT. ENGINES INSTALLED PER RAM DWG 1610, REV. F, DATED 03/22/07 L/A/W STC SA8728SW-D WITH NEW 19613-58 ENGINE MOUNTS. INSTALLED NEW 1967-1 WYES, 1967-3 BYPASS ELBOWS AND 1967-7 WASTEGATE TAILPIPES. EXHAUST ELBOWS PART# 9910299-15 & -16 WERE INSTALLED NEW. INSTALLED NEW HWS340414-1 & -2 OVERBOARD TAILPIPES. INSTALLED NEW RAM TOP TURBO MOUNT AND PLATE 1234-1 BOTH ENGINES. INSTALLED NEW AN833 STEEL FITTINGS IN WASTEGATES. INSTALLED NEW 5600106-43 FUEL LINES FROM BAFFLE TO MANIFOLD. INSTALLED ALL NEW ENGINE FUEL AND OIL HOSES FIREWALL FORWARD WITH HOSES FROM RAM. INSTALLED NEW VACUUM AND DEICE HOSES IN ENGINE BAY. INSTALLED NEW 2416LAA AIR CONDITIONER HYDRAULIC PUMP. INSTALLED OVERHAULED 24194LAA LANDING GEAR HYDRAULIC PUMP RIGHT ENGINE. INSTALLED NEW CANNON PLUGS ON OIL TEMPERATURE SENDERS AND TACHOMETER GENERATORS. INSTALLED OVERHAULED TACHOMETER GENERATOR 22A667 RIGHT ENGINE. CLEANED ALL WIRING AND INSTALLED VARGLASS PROTECTIVE COATING TO PROTECT THE ELECTRICAL WIRES. MADE NEW LEFT AND RIGHT ENGINE WIRE BUNDLE RETAINERS FROM .035 304 STAINLESS. INSTALLED NEW FIRE SLEEVE ON ENGINE CONTROL CABLES INSIDE ENGINE BAYS. INSTALLED NEW PROPELLER DEICE BRUSHES BOTH ENGINES. REMOVED ENGINE GAUGES AND AIRSPEED INDICATORS, SHIPPED TO RAM FOR REMARK, AND REINSTALLED.

CONTINUED NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

INSTALLED RAM VORTEX GENERATORS AND STRAKES PER DWG. 1507, REV. H, DATED 4/15/04 WITH FLIGHT MANUAL SUPPLEMENT AFMS 1083 FURNISHED WITH CHANGE IN AIRSPEED MARKINGS I/A/W STC SA8125SW-D. INSTALLED SHADIN FUEL FLOW INDICATING SYSTEM PER DWG. 1078 REV. Z, DATED 08/25/06 I/A/W STC SA5796SW-D. INSTALLED FLOSCAN FUEL FLOW TRANSDUCERS PER DWG. 1083, REV. S, DATED 09/05/06 I/A/W STC SE5726SW-D. INSTALLED MCCAULEY MC-1 SYNCHROPHASER SYSTEM PER DWG. 1406, REV. N, DATED 08/28/03 I/A/W STC SA8728SW-D. INSTALLED HARTZEL SCIMITARPLUS PROPELLERS MODEL PHC-C3YF-2UF PER DWG. 2549, REV. D, DATED 07/21/05 I/A/W STC SA09971SC-D. FLIGHT MANUAL SUPPLEMENT AFMS 1096 DATED MAY 16, 2002 INSTALLED IN AIRCRAFT. NOTE; 78 INCH DIAMETER PROPELLER APPROVED PER RAM DWG1765 REV. AC, IAW SA09105SC-D AND RAM DWG 1610, REV.F IAW SA8728SW-D. INSTALLED AIRCRAFT PERFORMANCE MODIFICATIONS EXTERNAL AFT BODY STRAKES IN ACCORDANCE WITH AIRCRAFT PERFORMANCE MODIFICATIONS STC SA01935LA PER DRAWING NO. G3-050504-001, REV J, DATED 12/31/09. INSTRUCTIONS FOR CONTINUED AIRWORTHINESS, DOCUMENT G3-050504-008, REV E, DATED 02/15/12 ATTACHED TO AIRCRAFT RECORDS. EQUIPMENT LIST UPDATED. THERE IS NO FLIGHT MANUAL SUPPLEMENT FOR THIS MODIFICATION. INSTALLED SPOILERS INC. SPOILER SYSTEM IN ACCORDANCE WITH INSTALLATION INSTRUCTIONS SP4000 AND MASTER DRAWING LIST SP4000, BOTH DATED MARCH 29, 1990. THIS INSTALLATION WAS ACCOMPLISHED PER SPOILERS INC. STC SA4913NM. SPOILERS INC INSPECTION GUIDE AND MAINTENANCE SUPPLEMENT ATTACHED TO AIRCRAFT DOCUMENTS. FAA APPROVED FLIGHT MANUAL SUPPLEMENT ADDED TO FLIGHT MANUAL. EQUIPMENT LIST UPDATED. INSTALLED BCN AEROSPACE, INC. AIRSTAIR DOOR SAVER ACCORDING TO DRAWING LIST 10033, REVISION H, DATED 04/29/85. THIS INSTALLATION WAS ACCOMPLISHED IN ACCORDANCE WITH BCN AEROSPACE, INC. STC SA2440SW. EQUIPMENT LIST WAS UPDATED. ICA IS NOT REQUIRED FOR THIS INSTALLATION. REMOVED INSIGHT 1200 GEM AND ASSOCIATED WIRING. INSTALLED J. P. INSTRUMENTS EDM 760 TWIN TEMPERATURE INDICATING SYSTEM IN ACCORDANCE WITH J. P. INSTRUMENTS INSTALLATION MANUAL REPORT NO. 760, REV NC, DATED 07/20/99. THIS INSTALLATION WAS ACCOMPLISHED IN ACCORDANCE WITH J. P. INSTRUMENTS STC SA00729SE. FLIGHT MANUAL SUPPLEMENT NO. 760-1 WAS ADDED TO THE FLIGHT MANUAL. EQUIPMENT LIST UPDATED. ICA IS NOT REQUIRED FOR THIS INSTALLATION. AIRCRAFT WAS REPAINTED BY ADVANCED AIRCRAFT REFINISHERS. AIRCRAFT INTERIOR WAS REFURBISHED BY SOUTHERN AIR CUSTOM INTERIORS, INC. CRS UUSR697L. AVIONICS WERE UPGRADED BY SOUTHERN AVIONICS & COMMUNICATIONS, CRS HW4R427M.. SEE LOG ENDORSEMENTS FROM EACH SHOP FOR DETAILS. AIRCRAFT WAS WEIGHED AFTER ALL MODIFICATIONS. NEW EMPTY WEIGHT 5136.0 LBS, EMPTY CG 156.28, NEW EMPTY MOMENT 802640.76, AND NEW USEFUL LOAD 1969.0. AIRCRAFT MAXIMUM RAMP WEIGHT INCREASED TO 7140 LBS., MAXIMUM TAKEOFF WEIGHT INCREASED TO 7105 LBS. PER RAM DRAWING NO. 1610 REV.F, DATED 03/23/2007 IAW STC SA8728SW-D. EQUIPMENT LIST UPDATED. AIRCRAFT FLIGHT MANUAL UPDATED. I CERTIFY THAT THIS AIRCRAFT HAS BEEN INSPECTED IN ACCORDANCE WITH AN ANNUAL INSPECTION AND FOUND AIRWORTHY THIS DATE. AIRCRAFT TEST FLOWN AND RETURNED TO SERVICE.

SIGNED: *James L. Kaul* CERT#: 3479116 A&P IA CFI



12/1/2013 N414MP Cessna 414A, serial # 414A-0317  
 Hobbs Hours: 232.1 :: Aircraft TT: 4054.7 :: #1 Engine TT: 3184.5 :: #1 Engine SMOH: 23.5 :: #1 Propeller TT: 23.5 :: #2 Propeller TT: 23.5 :: #2 Engine TT: 2481.0 :: #2 Engine SMOH: 23.5 :: Heater Hobbs: 367.2  
 This aircraft placed on Cessna Progressive Care Inspection Program. Operation #1 is due at 282.1 (hobbs) or 4104.7 (ACTT)  
 Signed: *Edward J. Novak Jr.*  
 Edward J. Novak Jr. A&P 2832024 IA

SUB-TOTALS this page  
 TOTALS—Carry forward to next page



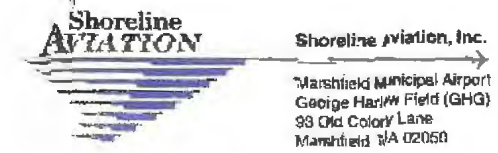
12/1/2013 N414MP Cessna 414A, serial # 414A-0317 Aircraft Logbook  
 Hobbs Hours: 232.1 :: Aircraft TT: 4054.7 :: #1 Engine TT: 3184.5 :: #1 Engine SMOH: 23.5 :: #1 Propeller TT: 23.5 :: #2 Propeller TT: 23.5 :: #2 Engine TT: 2481.0 :: #2 Engine SMOH: 23.5 :: Heater Hobbs: 367.2

- Completed annual inspection in accordance FAR 43, appendix D using the Cessna 414A Maint. Manual Insp. Form and any applicable ICA's for any STC installed equipment as guides.
- 1) Complied with FAR 91.207(d) on the ELT and noted no defects. Next due 12/14. ELT battery is due 02/19.
  - 2) Installed a new RH MLG trunnion (part # 5141103-14) and shimmed the pivot pins as needed. Reassembled strut using all new seats and a new lock ring at the bottom of the strut.
  - 3) R+R RH alternate air control control knob (part # CPN 1167).
  - 4) Reattached the LH fuel cap lanyard to the fuel cap.
  - 5) Removed W/S Alcohol system on/off switch. System was previously removed but the switch was still installed.
  - 6) Removed Seat Belt and Oxygen lights on/off switches. These lights were previously removed but the switches were still installed.
  - 7) Removed factory EGT gage since it was not connected anyway and added a blanking plate to the co-pilot's panel where this gage was installed.
  - 8) R+R co-pilot's attitude gyro with a new unit (part # 23-501-06-16 (5000B-36), serial # T102314P).
  - 9) R+R existing cabin table lighter socket 12volt power sockets with new units that work.
  - 10) R+R fuzzy seal material on the RH nose gear door with new.
  - 11) Added an external aircraft ID plate to the LH side of the fuselage just below the leading edge of the LH horiz stab, that meets the requirements of FAR 45.11(e).
  - 12) R+R surface deice pressure switch with a servicable unit (part # 3D3535-7). Function check OK.
  - 13) Added a doubler to the recently installed ELT antenna per Kannad ELT installation manual
  - 14) R+R aft bulb in the RH tail logo light - function check OK.
  - 15) Added several required placards that were found to be missing - all required placards now installed.
  - 16) R+R RH fuel selector valve after installing all new internal o-rings. Function and leak check OK. A servicable fuel line (part # 5100110-226) was installed in place of the existing one due to a cracked flare on one end
  - 17) Repaired the fuel selector off push buttons so that the fuel selector cannot be moved to off unless this button is pushed.
  - 18) Repaired cockpit divider partition attachments by adding a bracket the was missing from the LH side and by R+R of a stripped nutplate on the RH side.
  - 19) Repaired frayed wires at the LH position light bulb socket connector
  - 20) Freed up and lube a flap cable pulley in the LH wing root area that was not rotating when the flaps were moved.
  - 21) R+R both vacuum regulator genter filterw with new ARB3-5-1 filters.
  - 22) Rewired the hobbs meter to it's original configuration so that it operates when the LH gear is off of the ground using the original wiring that was found to be still in the airplane. Previously the hobbs ran whenever the battery master was on.
  - 23) R+R hydraulic reservoir servicing valve with a servicable unit (part # MS29530-8).
  - 24) Cleaned and R+R o-ring in the RH deice boots control valve - function and leak check OK.
  - 25) R+R dimming potentiometer in the pilot's control yoke for the pilot's overhead map light with a new unit (part # S1880-5).
  - 26) Repositioned shims for the LH MLG trunnion pivot pins to move the gear slightly forward so as to provide proper uplock hook engagement.
  - 27) R+R static wick on the LH aileron with a new unit (part # DG16165).

I certify that this Airframe has been inspected in accordance with an annual inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
 93 Old Colony Lane  
 Marshfield, MA 02050  
 781-837-8521

Signed: *Edward J. Novak Jr.*  
 Edward J. Novak Jr. A+P 2832024 IA



2/28/2014 N414MP Cessna 414A, serial # 414A-0317 Aircraft Logbook  
 Hobbs Hours: 244.0  
 Installed Reiff "Turbo XP" FAA-PMA Approved preheater system on each engine.  
 The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
 93 Old Colony Lane  
 Marshfield, MA 02050  
 781-837-8521

Signed: *Edward J. Novak Jr.*  
 Edward J. Novak Jr. A+P 2832024 IA

Shoreline AVIATION

Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

6/11/2014 N414MP Cessna 414A, serial # 414A-0317 Aircraft Logbook

Hobbs Hours: 284.4 :: Aircraft TT: 4107.0 :: #1 Engine TT: 3236.8 :: #1 Engine SMOH: 75.8 :: #1 Propeller TT: 75.8 :: #2 Propeller TT: 75.8 :: #2 Engine TT: 2533.3 :: #2 Engine SMOH: 75.8 :: Heater Hobbs: 386.2  
Completed Inspection Operation 1 in accordance with Cessna Model 414A Maintenance Manual (50 hour Inspection Items).

- 1) R+R Hydrolock cylinder for the seatback adjustment in the forward facing seat at the cabin door with an O/H unit (part # LL17500-08, serial # 63131). See attached 8130-3 form for details.
- 2) Completed 6 month cabin fire extinguisher check and noted no defects.
- 3) AD 2001-01-16 (para B) completed - see engine logs for details.
- 4) R+R RH wing tip white nav. Light bulb with a new one (part # W692).

I certify that this Airframe has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.

Signed

*James McGeary*  
James McGeary A+P 2694173

Shoreline AVIATION

Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

8/22/2014 N414MP Cessna 414A, serial # 414A-0317 Aircraft Logbook

Hobbs Hours: 333.2 :: Aircraft TT: 4155.8 :: #1 Engine TT: 3286.2 :: #1 Engine SMOH: 125.2 :: #2 Engine TT: 2582.7 :: #2 Engine SMOH: 125.2

Completed Operation #2 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) AD 2000-01-16 (para b) completed to both engine exhaust systems. See engine log for further details. Ne due at 383.2 (hobbs).
- 2) R+R RH wing tip white navigation light bulb with a new bulb.
- 3) R+R two stripped nutplates for the access panel on the belly just behind the nose gear wheel well.

The above work was completed in accordance with current regulations of the Federal Aviation Administration is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

*Edward J. Novak Jr.*  
Edward J. Novak Jr. A+P 2832024 IA

Reg: N414MP  
Date: 8/20/14  
Hobbs: 333.2  
Tach: \_\_\_\_\_  
WO# 2258

NEXAIR AVIONICS

The Altimeter, Pitot, Static and Altitude Reporting Systems have been tested and found to be in compliance with FAR 43, Appendix E and F, as required by FAR 91.411. Tested to 35,000 ft.

The ATC Transponder has been tested and found to be in compliance with FAR 43, Appendix F, as required by FAR 91.413.

*Christy*  
NEXAIR AVIONICS CRS:N4OR087B

SUB-TOTALS this page

TOTALS—Carry forward to next page



Airline Accessory Service Co., LLC  
455 Putnam Avenue Hamden, CT 06517  
E-mail [sales@airlineaccessory.com](mailto:sales@airlineaccessory.com)  
[www.airlineaccessory.com](http://www.airlineaccessory.com)

FAA # LOKR782Y  
EASA # 145.5503  
Ph. (203)773-1808  
Fax (203)773-1888

## Certificate of Conformance

Job #:136Q003

Shoreline Aviation, Inc.

ASSY P/N. 9910154-3

ASSY S/N. 2919

The undersigned acknowledges that the article herein mentioned has been hydrostatically tested IAW CFR49.180. Under Retester Identification Number I363.

DOT-3AA2200

S/N. 1890Y

Test Pressure: 3700 Psi.

Hydro-Test Date: January 19, 2015

Date: January 19, 2015

Inspector: \_\_\_\_\_

*Steve Talbot*  
Steve Talbot

**Airline Accessory Service Co. LLC Work Order/Teardown Report 136Q003**

455 Putnam Avenue  
Hamden, CT 06517 USA  
FAA Repair Station L0KR782Y

Ph. 203-773-1808 Fax 203-773-1888

Customer		Date	1/19/15
Shoreline Aviation, Inc. 93 Old Colony Ln. Marshfield, MA 02050		P.O. No.	07183
Qty	Part Number	Customer Phone	781-834-4928
1	9910154-3	Customer Fax	781-837-5103
Component Description		Manufacturer	Cessna
Pneumatic Cylinder		Received By	KF
Serial Number		Customer Tags Attached	
2919		Terms	Net 30

RECEIVING INSPECTION REMARKS (including preliminary findings) For HYDROTEST  
DOT-3442200 Mfr. 02/02

DATE 1/19/15 INSPECTOR [Signature]

**TEARDOWN INSPECTION REMARKS**

- The cylinder has been visually inspected. No damage was found.
- Cylinder hydrostatically tested in accordance with CFR 49.180 under RIN # 1363.
- Hydrostatic retest due Jan. 2020.

Upon completion of the testing procedure, the cylinder will be returned with a Certificate of conformance attached.

DATE 1/19/15 INSPECTOR [Signature]

LIST OF APPROVED DATA TO BE USED IN THIS REPAIR  
OHM / CMM \_\_\_\_\_ OTHER DATA CFR 49.180  
REVISION \_\_\_\_\_  
PAGES \_\_\_\_\_  
DATE \_\_\_\_\_



Shoreline Aviation, Inc.  
Marshfield Municipal Airport  
George Harlow Field (GHC)  
93 Old Colony Lane  
Marshfield, MA 02050

1/23/2015 N414MP Cessna 414A, serial # 414A-0317 Aircraft Logbook  
Hobbs Hours: 373.1 :: Aircraft TT: 4195.7 :: #1 Engine TT: 3326.1 :: #1 Engine SMOH: 165.1 :: #1 Propeller TT: 165.1 :: #2 Engine TT: 2622.6 :: #2 Engine SMOH: 165.1

- Completed Operations #3 & #4 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.
- 1) C/W FAR 91.207(d) on the ELT and noted no defects. Next due 06/16. ELT battery is due 02/19.
  - 2) C/W AD 2000-01-16 paragraphs B, C & E to both engine exhaust systems per AD instructions and noted no defects. See separate A.D. Listing for next compliance due times.
  - 3) C/W AD 2004-25-16R1 to the cabin heater fuel pressure regulating/shutoff valve per AD instructions and noted no defects. See separate A.D. Listing for next compliance due time.
  - 4) C/W 6 month cabin fire extinguisher checks and noted no defects.
  - 5) R+R cabin heater combustion air blower inlet and outlet air ducting with new ducting (part # F222036).
  - 6) Completed 600 hr/1 year Cessna Special insp. Items and noted no defects.
  - 7) R+R N2 bottle after successful hydrostatic testing was completed by Airline Accessory Service - see attached paperwork for details. Next bottle test due 01/20.
  - 8) R+R RH MLG uplock hook with a new unit (part # 5741222-17). Function check satisfactory.
  - 9) R+R RH main tire with a new Goodyear 6.50x10 8pr tire. Repacked wheel bearings.
  - 10) R+R main airplane battery with a new Concorde RG24-20 battery (serial # 40708927).

I certify that this Engine has been inspected in accordance with Operations #3 & #4 of the Cessna Progressive Care inspection program and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed [Signature]  
Edward J. Novak Jr. A+P 2832024 IA



Shoreline Aviation, Inc.  
Marshfield Municipal Airport  
George Harlow Field (GHC)  
93 Old Colony Lane  
Marshfield, MA 02050

7/2/2015 N414MP Cessna 414A, serial # 414A-0317 Aircraft Logbook  
Hobbs Hours: 422.1 :: Aircraft TT: 4244.7 :: #1 Engine TT: 3377.3 :: #1 Engine SMOH: 216.3 :: #1 Propeller TT: 216.3 :: #2 Engine TT: 2673.6 :: #2 Engine SMOH: 216.3

- Completed Inspection Operation 1 in accordance with Cessna Model 414A Maintenance Manual (50 hour inspection items)
- 1) AD 2001-01-16 (para B) completed - see engine logs for details.
  - 2) R+R RH wing tip white nav. Light bulb with a new one (part # W692).
  - 3) R+R tail mounted white nav. Light bulb (part # GE305).

I certify that this Airframe has been inspected in accordance with a operation #1 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed [Signature]  
Edward J. Novak Jr. A+P 2832024 IA



Shoreline Aviation, Inc.  
Marshfield Municipal Airport  
George Harlow Field (GHC)  
93 Old Colony Lane  
Marshfield, MA 02050

8/1/2015 N414MP Cessna 414A, Serial Number 414A0317 Aircraft Logbook  
Hobbs Hours: 455.6 :: Heater Hobbs: 418.5  
Compled with AD 2004-21-05 (Cabin heater pressure decay test) , Cabin heater passed, AD next due at Cabin heater hobbs 518.5 or 08/17

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Signed [Signature]  
Matthew Dean Murphy A&P 2662024

Acc  
narr  
n, C  
pair  
  
773-  
er  
Avia  
lon  
d, M  
  
ty  
  
INC  
  
DW  
  
T  
C  
H  
  
com  
mar  
  
AF  
MM  
ON  
  
1

Shoreline Aviation, Inc.  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

8/4/2015 N414MP Cessna 414A, Serial Number 414A0317 Aircraft Logbook

Hobbs Hours: 458.3  
Trouble shot hydraulic leak in the nose of aircraft. Removed and replaced packing on emergency extension shuttle valve, packing P/N: MS26776-6. Serviced hydraulic reservoir with 1 1/2 quarts of Phillips Hydraulic Oil MIL-PRF-5606H.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Signed Matthew D. Murphy  
Matthew Dean Murphy A&P 2862824

Shoreline AVIATION

Shoreline Aviation, Inc.  
Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

8/27/2015 N414MP Cessna 414A, serial # 414A-0317 Aircraft Logbook

Hobbs Hours: 472.6 :: Aircraft TT: 4295.2 :: #1 Engine TT: 3427.8 :: #1 Engine SMOH: 266.8 :: #1 Propeller TT: 266.8 :: #2 Propeller TT: 266.8 :: #2 Engine SMOH: 266.8 :: Heater Hobbs: 419.0

Completed Operation #2 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) C/W AD 2000-01-16 (para b) to both engine exhaust systems per AD instructions. No defects noted. Next due at 522.6 (hobbs).
- 2) C/W Cessna 50 hr. Special Inspection items/
- 3) R+R landing gear emergency extension handle cover/guard (part # 5117030-1) with a used/serviceable unit - see attached tag for details.
- 4) Removed, cleaned and reinstalled both deicer boot flow control valves. Function and leak check satisfactory.
- 5) R+R LH main gear uplock hook (part # 5141312-2) and LH uplock hook pivot bolt (part # NAS464P8-29) with new parts. Function check satisfactory.
- 6) R+R LH main tire with a new Michelin Air tire (part # 078-358-1).
- 7) R+R emergency gear extension system shuttle valve (part # AN6277-6, serial # 419-6D27) with a used/serviceable unit - see attached tag for details. Leak check and functional checks were satisfactory.
- 8) Repaired folding armrest latch mechanism for the RH forward facing cabin seat.
- 9) C/W AD 2004-25-16R1 (para (e)(1) per AD instructions and noted no fuel leakage. Next due at 572.6 (hobbs) or 01/16.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

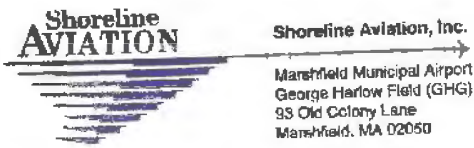
Signed Edward J. Novak Jr.  
Edward J. Novak Jr. A+P 2832024 IA

SUB-TOTALS this page

TOTALS—Carry forward to next page

Page No. \_\_\_\_\_

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
				<p style="text-align: center;"><b>Shoreline AVIATION</b></p> <p style="text-align: right;">Shoreline Aviation, Inc. Marshfield Municipal Airport George Harlow Field (GHG) 93 Old Colony Lane Marshfield, MA 02050</p>
11/19/2015	N414MP	Cessna 414A, Serial Number 414A0317	Aircraft Logbook	<p>Hobbs Hours: 487.3 :: Aircraft TT: 4309.9</p> <ol style="list-style-type: none"> <li>1) Reinstalled Right engine after repair by CRS VA1R551K. Vacuum pump, tach generator and alternator all reinstalled with existing time in service. Reinstalled existing hydraulic pump after repair by CRS RV3R829L - see FAA form 8130-3 for more info.</li> <li>2) Reinstalled exhaust p/n 9910295-13 and 9910295-14 after repair by Dawley Aviation CRS NJ5R059N - see repair paperwork for more info.</li> <li>3) C.W. AD 2000-01-16 ( para b) to Right engine exhaust - no defects noted</li> </ol> <p>The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.</p> <p>Signed <u>John E. Sheehan</u> John E. Sheehan A+P 3439269 IA</p>
				<p style="text-align: center;"><b>Shoreline AVIATION</b></p> <p style="text-align: right;">Shoreline Aviation, Inc. Marshfield Municipal Airport George Harlow Field (GHG) 93 Old Colony Lane Marshfield, MA 02050</p>
12/3/2015	N414MP	Cessna 414A, Serial Number 414A0317	Aircraft Logbook	<p>Hobbs Hours: 491.3 :: Aircraft TT: 4313.3</p> <ol style="list-style-type: none"> <li>1) Installed overhauled (CRS# HJ5R911M) LEFT deice flow valve p/n 3D2352-01 s/n R1075. See FAA form 8130-3 for more info.</li> <li>2) Left engine ground run up and functional check of deice system OK.</li> </ol> <p>The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.</p> <p>Signed <u>John E. Sheehan</u> John E. Sheehan A+P 3439269 IA</p>
				<p style="border: 1px solid black; padding: 5px;">NexAir Avionics LLC 265 FRUIT STREET MANSFIELD, MA 02048 N40R087B LOG ID# 272 16-December-2015 WO# 2965/5 AC TT 497.4 HOBBS 497.4 N414MP S/N 414A0317 CESSNA 414A</p> <p style="text-align: right;">Pg 1 / 1</p>
				<p>INSTALLED GARMIN GDL 69A P/N 010-01294-11 S/N 3N000577 WITH CI 428-410 XM/WAAS GPS ANTENNA IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION MANUAL. REMOVED EXISTING GARMIN GA 35 ANTENNA P/N 013-00235-00 S/N 94835. MODIFIED ANTENNA LOCATION AND DOUBLER IN ACCORDANCE WITH DRAWING N414MP-111115-1. SEE 8110-3 N414MP-111115-1 AND FAA FORM 337 THIS DATE. INSTALLED S-TEC YAW SERVO P/N 0106-Y12 S/N 00106-1544-30155CEFGJ AND YAW DAMPER P/N 0121-2 S/N 00121-1543-04414A IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION MANUAL.</p> <p>COMPLIED WITH GARMIN SB 1559. RADIOS NOT AFFECTED BY SB, MARKED MOD 5 IAW SB 1559.</p> <p>OPERATIONAL CHECK SATISFACTORY.</p> <p>NOTE: WORK ORDER #2965 ON FILE, EQUIPMENT LIST AND WEIGHT &amp; BALANCE UPDATED.</p> <p><u>Benjamin Schultz</u> BENJAMIN SCHULTZ Date</p>
				<p style="text-align: right;">SUB-TOTALS this page</p> <p style="text-align: right;">TOTALS—Carry forward to next page</p>



2/11/2016 N414MP Cessna 414A, serial # 414A-0317 Aircraft Logbook

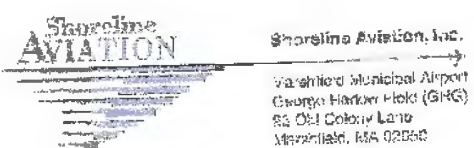
Hobbs Hours: 504.5 :: Aircraft TT: 4327.1 :: #1 Engine TT: 3459.7 :: #1 Engine SMOH: 298.7 :: #1 Propeller TT: 298.7 :: #2 Propeller TT: 298.7 :: #2 Engine TT: 2756.2 :: #2 Engine SMOH: 298.7

- Completed Operation #'s 3 & 4 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.
- 1) C/W FAR 91.207(d) on the ELT and noted no defects - next due 02/17. ELT battery is due 02/19.
- 2) C/W AD 2000-01-16, paragraphs B, C, & E to both engine exhaust systems per AD instructions and noted no defects. See separate A.D. Listing for next compliance due times.
- 3) C/W AD 2004-25-16R1 to the cabin heater fuel pressure regulating/shutoff valve per AD instructions and noted no defects. See separate A.D. listing for next compliance due time.
- 4) Completed 6 month cabin fire extinguisher check and noted no defects.
- 5) One year main battery capacity check completed - battery passed. Next due 05/16.
- 6) R+R surface deice timer with a used/serviceable unit (part # 9910285-2) - function check OK.
- 7) Repaired broken ground wire terminal end for the LH wing tip white position light.
- 8) R+R circuit breaker for the LH landing light with a new unit (part # 7277-5-10) - function check LH landing light OK.
- 9) R+R upper cabin door gas cylinder/extender with a new unit (part # 5211369-11).
- 10) R+R both vacuum regulator valve filters with new ones (part # ARB3-5-1).
- 11) R+R both fuel cap lanyards with new ones.
- 12) R+R all brake pads on both sides with new ones (part # 066-06600).
- 13) R+R LH wing outboard static wick and upper rudder static wick with new ones (part # 16165).
- 14) Completed one year special inspection items due at this time and noted no defects.

I certify that this Airframe has been inspected in accordance with Operation 3 & 4 of the Cessna Progressive Care inspection program and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
81-837-8521

Signed Edward J. Novak Jr.  
Edward J. Novak Jr. A+P 2832024 IA

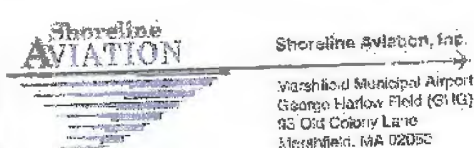


4/4/2016 N414MP Cessna 414A, Serial Number 414A0317 Aircraft Logbook

Hobbs Hours: 518.4  
Removed AFT De-Ice flow valve p/n: 3D2352-01 s/n: 18(not legable). Installed OVH De-Ice flow valve p/n: 3D2352-01 s/n: N5278.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Signed Jason Pereira  
Jason Pereira A&P 3389376



4/12/2016 N414MP Cessna 414A, Serial Number 414A0317 Aircraft Logbook

Hobbs Hours: ~~518.4~~ 518.4  
Removed, Replaced LH p/n: 5111413-3 and RH p/n: 5111414-4 foul weather seal. In reference to the Cessna 414A Service Manual.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Signed Jason Pereira  
Jason Pereira A&P 3389376

Page No. \_\_\_\_\_



DATE 5/27/2016 N414MP Cessna 414A, Serial Number 414A0317 Aircraft Logbook WORK

Hobbs Hours: 541.7

- Removed Hydraulic Pressure Switch p/n: 9910287-10 s/n: 4361 and installed New Hydraulic pressure switch p/n: 9910287 s/n: 7563. Ops check normal.
- Removed and Replaced LH and RH MLG torque link AN175-20 bolts per customer request.
- All work complied with in reference to the Cessna 414A Service Manual.

The above work was completed in reference with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Signed Jason Pereira  
Jason Pereira A&P 3389376

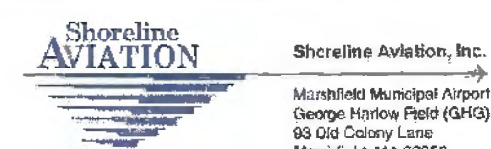


6/1/2016 N414MP Cessna 414A, Serial Number 414A0317 Aircraft Logbook

Hobbs Hours: 551.2  
Complied with Main Battery Check - Passed - Next due: 09/30/2016.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Signed Jason Pereira  
Jason Pereira A&P 3389376



6/17/2016 N414MP Cessna 414A, Serial Number 414A0317 Aircraft Logbook

Hobbs Hours: 554.1 :: Aircraft TT: 4376.7 :: #1 Engine TT: 3509.3 :: #1 Engine SMOH: 348.3 :: #1 Propeller TT: 348.3 :: #2 Engine TT: 2805.8 :: #2 Engine SMOH: 348.3 :: #2 Propeller TT: 348.3

Completed Operation #1 inspection items per the Cessna 414A Maintenance manual progressive care inspection form

- 1) C/W AD 2000-01-16, paragraph b to both engine exhaust systems per AD instructions and noted no defects.
- 2) C/W AD 2004-21-15 on aircraft heater and noted no defects.
- 3) Completed 6 month cabin fire extinguisher check and noted no defects.

I certify that this Airframe has been inspected in accordance with Operation 1 of the Cessna Progressive Care inspection program and was determined to be in an airworthy condition.

Signed John E. Sheehan  
John E. Sheehan A+P 3439269 IA



6/30/2016 N414MP Cessna 414A, Serial Number 414A0317 Aircraft Logbook

Tach Hours: 565.6  
Removed #2 engine gage p/n: C862019-0101 s/n: C784 and installed functional tested Gage (functional tested by Kelly Manufacture CRS#LL2R982K) p/n: RCA272-06 s/n: 815J054

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Signed Jason Pereira  
Jason Pereira A&P 3389376

NSN: 0052-00-012-9005

Date: 7/18/2016 N 414MP Airframe Log w/o 14-07-18

594.4 hobb/TACH TAT

Weigh A/C This date (EWB)

New EW 5001.0#  
 New EWCG 156.87  
 New EW Mom 784519.95

For CR# NCLR674G

DESCRIPTION OF WORK PERFORMED—  
 TITLE & CERTIFICATE NO. OF PERSON PERFORMING WORK

: forward from previous page

Shoreline AVIATION

Shoreline Aviation, Inc.  
 Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

8/5/2016 N414MP Cessna 414A, serial # 414A-0317 Aircraft Logbook

Hobbs Hours: 607.0 :: Aircraft TT: 4429.6

- 1) C/W AD 2000-01-16, paragraph B by completing a visual inspection of both engine exhaust systems. No defects were noted. Next check due at 657.0.
- 2) C/W AD 2004-25-16 R1 on the cabin heater fuel pressure regulator/shutoff valve per SD instructions and noted no defects or evidence of fuel leakage. Next check due at 707.0 or 08/17.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
 93 Old Colony Lane  
 Marshfield, MA 02050  
 781-837-8521

Signed

*Edward J. Novak Jr.*

Edward J. Novak Jr. A+P 2832024 IA

Reg: N414MP  
 Date: 8/9/16  
 TTSN: 612.8  
 TACH: N/A

NEXAIR AVIONICS

The Altimeter, Pitot, Static and Altitude Reporting Systems have been tested and found to be in compliance with FAR 43, Appendix E and F, as required by FAR 91.411. Tested to 35,000 ft.

TC Transponder has been tested and found to be in compliance with FAR 43, Appendix F, as required by FAR 91.413

NEXAIR AVIONICS CRS: N4OR087B WO: 3414

ALS this page

—Carry forward to next page

Shoreline AVIATION

Shoreline Aviation, Inc.

Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

Page No.

DATE	TO TIME	FROM TIME	DESCRIPTION	INSPECTOR
8/10/2016			N414MP Cessna 414A, serial # 414A-0317 Hobbs Hours: 612.9 :: Aircraft TT: 4435.5 :: #1 Engine TT: 3568.1 :: #1 Engine TSMOH: 407.1 :: #1 Propeller TT: 407.1 :: #2 Propeller TT: 407.1 :: #2 Engine TT: 2864.6 :: #2 Engine TSMOH: 407.1 Completed Operation #2 inspection items per the Cessna 414A Maintenance manual progressive care inspection form. 1) Completed repair to the LH inboard cowl door at the lower two cowl fastener holes. Reapplied anti-chafe tape as necessary. 2) R+R RH logo light aft light bulb with a new unit. 3) Reglued the cabin door step tread material where necessary. 4) R+R one rivnut used to attached the trim ring around the fuel selector knobs. I certify that this Aircraft has been inspected in accordance with Operation #2 of the Cessna Progressive Care inspection program and was determined to be in an airworthy condition.	
			Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521	
			Signed	<i>Laurence F. Mulloy</i> Laurence F. Mulloy A+P 23507120

Shoreline AVIATION

Shoreline Aviation, Inc.

Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

9/23/2016 N414MP Cessna 414A, serial # 414A-0317 Aircraft Logbook

Hobbs Hours: 645.3 :: Aircraft TT: 4467.9 :: #1 Engine TT: 3600.5 :: #1 Engine TSMOH: 439.5 :: #1 Propeller TT: 439.5 :: #2 Propeller TT: 2897.0 :: #2 Engine TSMOH: 439.5 :: Heater Hobbs: 436.3

Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) Completed 50 hr. Special inspection items.
- 2) Completed 400 hr. Special inspection items.
- 3) Completed 1000 hr/3 yr. Special inspection items.
- 4) Completed 90 day main battery capacity check - battery passed.
- 5) C/W AD 2000-01-16 (para.b) to the exhaust and noted no defects.
- 6) Repaired outboard cowl door on the LH side at the lower rear corner by adding a sheet metal patch to the chafed corner edge.
- 7) Installed a new RH main tire (Michelin Air 6.50x10 8pr - part # 076-345-0) Repacked wheel bearings.
- 8) Installed a new nose tire (Michelin Air 6.00x6 6pr - part # 070-314-0). Repacked wheel bearings.
- 9) Rotated LH main tire - repacked the wheel bearings.
- 10) C/W AD 2016-17-08, para. (f)(2) - (visual insp. of elev trim tab hardware) - no defects noted. Next due 09/17 or 755.3 (hobbs)

I certify that this Airframe has been inspected in accordance with an Operation #3 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
 93 Old Colony Lane  
 Marshfield, MA 02050  
 781-837-8521

Signed

*Edward J. Novak Jr.*

Edward J. Novak Jr. A+P 2832024 IA

SUB-TOTALS this page

TOTALS—Carry forward to next page

NEXAIR AVIONICS  
 265 Fruit St Mansfield MA 02048  
 781-837-8521

Altimeter	ALT	Error	SN	ALT	Error
	-1000	0	6500	14000	-5
	0	0		16000	-5
	500	0		18000	-10
	1000	0		20000	-10
	1500	0		22000	-10
	2000	0		25000	-10
	3000	0		30000	-20
	4000	0		35000	-20
	6000	0		40000	N/A
	8000	0		45000	
	10000	0		50000	
	12000	-5		55000	

Barometric InHg: 29.92  
 Test Date: 8/9/16  
 Tested By: DM  
 CRS N4OR087B  
 Mansfield Airport 265 Fruit St Mansfield MA 02048



Shoreline Aviation, Inc.  
Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

DATE

12/16/2016 N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

3 WORK

Hobbs Hours: 670.6  
Inspections

-Complied with main battery capacity check. No defects noted at this time.  
-Complied with fire extinguisher inspection. No defects noted at this time.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

Jason Pereira A&P 3389376



Shoreline Aviation, Inc.  
Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

2/8/2017 N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 675.6 :: Aircraft TT: 4498.2 :: #1 Engine TT: 3630.8 :: #1 Engine TSMOH: 469.8 :: #1 Propeller TT: 469.8 :: #2 Propeller TT: 469.8 :: #2 Engine TT: 2927.3 :: #2 Engine TSMOH: 469.8 :: Heater Hobbs: 442.7

Completed Operation #4 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

Completed 1 year Cessna Special Inspection items.  
Completed 600 hr./1 year Cessna Special Inspection items.

- 1) C/W AD 2000-01-16 para. b,c,d & e to the exhaust system per AD instructions - no defects noted - see A.D. Listing for recurrent items due times.
- 2) C/W AD 84-26-02 by R+R of both paper engine air filter elements with new units (part # P12-8156 - next R+R due at 4598.2 ACTT.
- 3) C/W AD 2004-25-16R1 on the cabin heater fuel pressure regulator valve and noted no leakage - next due at 4598.2 ACTT or 2/18.
- 4) C/W FAR 91.207(d) on the ELT and noted no defects - next due 02/18. ELT battery is due 11/19.
- 5) Serviced nose strut per airplane maint. Manual instructions.
- 6) R+R loose rivets with new rivets as needed along the inboard edge of the RH nacelle air conditioning cover attachment flange.
- 7) R+R RH logo light aft light bulb with a new unit (part # DA-27).

I certify that this Airframe has been inspected in accordance with an Operation #4 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

John E. Sheehan A+P 3439269 IA

SUB-TOTALS this page

TOTALS—Carry forward to next page



Shoreline Aviation, Inc.  
Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

DATE

3/27/2017 N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

3 WORK

Hobbs Hours: 690.5

C/W Main Battery Capacity check.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

5/9/17 N414MP 170335 712.8  
5615075



Removed ramp assy tab and installed new ramp assy tab p/n: 5742204-2 in reference to the Cessna 414MP Service manual.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

Jason Pereira A&P 3389376



Shoreline Aviation, Inc.  
Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

5/25/2017 N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 725.7 :: Aircraft TT: 4548.3 :: #1 Engine TT: 3683.2 :: #1 Engine TSMOH: 522.2 :: #1 Propeller TT: 522.2 :: #2 Propeller TT: 522.2 :: #2 Engine TT: 2979.7 :: #2 Engine TSMOH: 522.2

Completed Operation #1 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) C/W AD 2000-01-16, para. B on both engine exhaust systems and noted no defects - next due at 775.7 (hobbs).
- 2) Completed 50 hr. Cessna recommended special inspection items.
- 3) Completed 6 month fire extinguisher checks and noted no defects
- 4) Completed Cessna recommended 500 hr. Hydraulic lines inspections and noted no defects.
- 5) R+R both brake discs with new RA164-06504 brake discs.
- 6) R+R LH tire with a new GYFC!! 6.50x10 8pr tire (part # 650C81-5). Repacked wheel bearings.

I certify that this Airframe has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

Edward J. Novak Jr. A+P 2832024 IA

SUB-TOTALS this page

TOTALS—Carry forward to next page

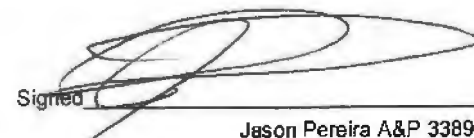
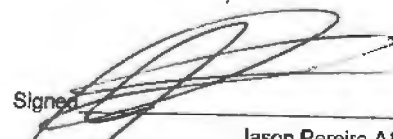
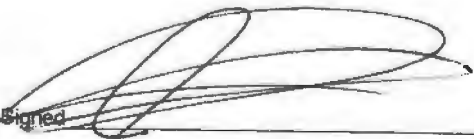
Block 1. It is essential that the user/installer ensures that the user/installer accepts aircraft engine(s)/propeller(s)/part(s) from the manufacturer's authority of the country of origin.

Block 2. It is essential that the user/installer ensures that the user/installer accepts aircraft engine(s)/propeller(s)/part(s) from the manufacturer's authority of the country of origin.





Shoreline Aviation, Inc.  
Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

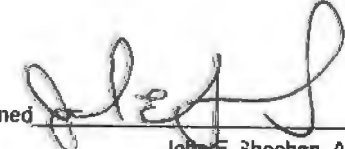
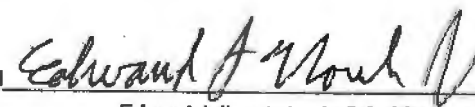
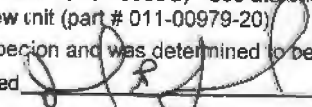
DATE	TIME	SE	REGISTRATION	AIRCRAFT	LOGBOOK	REMARKS
6/29/2017		N414MP	Cessna 414A, serial # 414A-0317	Aircraft Logbook		<p>Hobbs Hours: 751.2</p> <p>C/W AD 2016-17-08, para. (f)(2) by visual inspection of the elevator trim tab hardware per AD instructions - no defects noted - next due at 861.2 or 06/18 (whichever occurs first).</p> <p>The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.</p> <p>Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521</p> <p>Signed  Jason Pereira A&amp;P 3389376</p>
7/7/2017		N414MP	Cessna 414A, serial # 414A-0317	Aircraft Logbook		<p>Hobbs Hours: 762.1</p> <p>C/W with capacity check of the main ships battery. No defects noted at this time.</p> <p>The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.</p> <p>Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521</p> <p>Signed  Jason Pereira A&amp;P 3389376</p>
7/19/2017		N414MP	Cessna 414A, serial # 414A-0317	Aircraft Logbook		<p>Hobbs Hours: 773.0 :: Aircraft TT: 4595.6</p> <p>Complied with AD2004-25-16 R1 no defects noted at this time. Next Due July 2018 or 4695.6 which ever occurs first.</p> <p>The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.</p> <p>Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521</p> <p>Signed  Jason Pereira A&amp;P 3389376</p>

SUB-TOTALS this page


TOTALS—Carry forward to next page

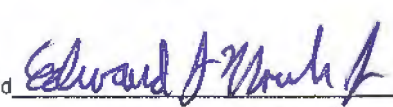


Shoreline Aviation, Inc.  
Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

DATE	TIME	SE	REGISTRATION	AIRCRAFT	LOGBOOK	REMARKS
7/24/2017		N414MP	Cessna 414A, serial # 414A-0317	Aircraft Logbook		<p>Hobbs Hours: 773.0 :: Aircraft TT: 4595.6 :: #1 Engine TT: 3730.8 :: #1 Engine TSMOH: 569.8 :: #1 Propeller TT: 569.8 :: #2 Propeller TT: 569.8 :: #2 Engine TT: 3027.3 :: #2 Engine TSMOH: 569.8 :: Heater Hobbs: 453.4</p> <p>Completed Operation #2 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.</p> <ol style="list-style-type: none"> <li>1) Repaired co-pilot's cabin partition at the attach point to the ceiling.</li> <li>2) Repaired tail nav. Light by cleaning the ground connection inside the bulb socket.</li> <li>3) R+R rivnuts on the pilot &amp; co-pilot floor area used to attach the metal kick panels.</li> </ol> <p>I certify that this Airframe has been inspected in accordance with an Operation #2 inspection and was determined to be in an airworthy condition.</p> <p>Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521</p> <p>Signed  John E. Sheehan A+P 3439269 IA</p>
8/12/2017		N414MP	Cessna 414A, serial # 414A-0317	Aircraft Logbook		<p>Hobbs Hours: 799.3 :: Aircraft TT: 4621.9</p> <ol style="list-style-type: none"> <li>1) Installed a new RH engine vacuum pump (part # AA442CW, serial #0C1309). Function and leak check OK.</li> <li>2) C/W AD 95-09-13 (functional check of fuel tank vent valves) per AD nstructions and Cessna MEB93-10, rev. 1, para C.2. Using the 74D81T test box and found no defects. Next due at 5221.9 (ACTT).</li> </ol> <p>The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.</p> <p>Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521</p> <p>Signed  Edward J. Novak Jr. A+P 2832024 IA</p>
8/1/2017		N414MP	Cessna 414A, serial # 414A-0317	Aircraft Logbook		<p>Hobbs Hours: 818.0 :: Aircraft TT: 4640.6 :: #1 Engine TT: 3775.8 :: #1 Engine TSMOH: 614.8 :: #1 Propeller TT: 614.8 :: #2 Engine TT: 3072.3 :: #2 Engine TSMOH: 614.8 :: Heater Hobbs: 454.1</p> <p>Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.</p> <ol style="list-style-type: none"> <li>1) C/W AD 2000-01-16 (para B) to both engine exhaust systems and noed no defects - next due at 4710.6 (ACTT).</li> <li>2) R+R RH #4 cylinder JPI EGT probe with a new probe - function check OK.</li> <li>3) R+R pilot's turn coordinator with a repaired unit from S-TEC (part # 6405-8-28L, serial # 0514-16688G) - see attached 8130-3 form</li> <li>4) Radar configuration module replaced with a new unit by Nexair Avionics with a new unit (part # 011-00979-20)</li> </ol> <p>I certify that this Airframe has been inspected in accordance with an Operation #3 inspection and was determined to be in an airworthy condition.</p> <p>Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521</p> <p>Signed  John E. Sheehan A+P 3439269</p>



DATE				
6/28/2018	N414MP	Cessna 414A, serial # 414A-0317	Aircraft Logbook	
Hobbs Hours: 901.8 :: Aircraft TT: 4724.4				
C/W 2004-21-05. Disabled cabin heat system per Paragraph 4				
The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.				
Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521				
Signed  Jason Pereira A&P 3389376				

7/2018	N414MP	Cessna 414A, serial # 414A-0317	Aircraft Logbook	
Hobbs Hours: 908.2 :: Aircraft TT: 4730.8 :: #1 Engine TT: 3866.0 :: #1 Engine TSMOH: 705.0 :: #1 Propeller TT: 705.0 :: #2 Propeller TT: 705.0 :: #2 Engine TT: 3162.5 :: #2 Engine TSMOH: 705.0 :: Heater Hobbs: 475.9				
Completed Operation #1 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.				
1) C/W AD 2000-01-16, para. B on both engine exhaust systems and noted no defects - next due at 958.2 (hobbs).				
2) R+R LH vacuum pump with a new unit (part # RAP442CW, serial # D9160).				
3) C/W AD 2004-21-05 (cabin heater pressure decay test) and the heater passed. - next due 07/20 or heater hobbs 575.9.				
4) Repaired bonding wire at the center rudder hinge.				
5) R+R RH landing light assembly with an overhauled unit from AVLITE (part # 45-0148-09, serial # 652) - function check OK. See attached 8130-3 form for more details.				
6) Completed 50 hr. Special Inspection items.				
I certify that this Airframe has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.				
Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521				
Signed  Edward J. Novak Jr. A+P 2832024 IA				

NexAir Avionics LLC 246 SOUTH MEADOW ROAD GATE 6, HANGAR SW-1 PLYMOUTH, MA 02360  
LOG ID# 1370 30-August-2018 WO# 5306 AC TT 944.3 HOBBS 944.3  
N414MP S/N 414A0317 CESSNA 414A Pg 1 / 1

ALTIMETER (PN: 5934PA SN: 1H229), PITOT, STATIC AND ALTITUDE REPORTING SYSTEMS HAVE BEEN TESTED AND FOUND TO BE IN COMPLIANCE WITH FAR43, APPENDIX E AND F, AS REQUIRED BY FAR 91.411. TESTED TO 30,000 FT.

ALTIMETER (PN: 5934PA SN: R2415), PITOT, STATIC AND ALTITUDE REPORTING SYSTEMS HAVE BEEN TESTED AND FOUND TO BE IN COMPLIANCE WITH FAR43, APPENDIX E AND F, AS REQUIRED BY FAR 91.411. TESTED TO 30,000 FT.

TRANSPONDER (PN: 011-00455-60 SN: 84108536) HAS BEEN TESTED AND FOUND TO BE IN COMPLIANCE WITH FAR43, APPENDIX F, AS REQUIRED BY FAR 91.413.

TRANSPONDER (PN: 011-00490-00 SN: 83747129) HAS BEEN TESTED AND FOUND TO BE IN COMPLIANCE WITH FAR43, APPENDIX F, AS REQUIRED BY FAR 91.413.


NOTE WORK ORDER #5306 ON FILE.


THE ABOVE WORK WAS COMPLETED IN ACCORDANCE WITH THE CURRENT REGULATIONS OF THE FEDERAL AVIATION ADMINISTRATION AND IS APPROVED FOR RETURN TO SERVICE FOR THE WORK ACCOMPLISHED.




N4OR087B BENJAMIN SCHULTZ

TOTALS—Carry forward to next page

DATE				
7/27/2018	N414MP	Cessna 414A, serial # 414A-0317	Aircraft Logbook	
Hobbs Hours: 921.2 :: Aircraft TT: 4743.8				
1.) Removed LH Tire p/n: 650C81-5 s/n: 61732345 and installed new tire same p/n, s/n: 60462043				
2.) C/W AD 2004-25-16R1 next due: July 2019 / ACTT: 4843.8				
The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.				
Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521				
Signed  Jason Pereira A&P 3389376				

8/16/2018	N414MP	Cessna 414A, serial # 414A-0317	Aircraft Logbook	
Hobbs Hours: <del>995.5</del> <sup>944.3</sup> Aircraft TT: 4765.10				
Removed RH Tire s/n: 4084S00112 tire and installed new tire s/n: 81912351. In reference to the Cessna 414A M.M. Ch. Landing Gear.				
The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.				
Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521				
Signed  Jason Pereira A&P 3389376				

9/20/2018	N414MP	Cessna 414A, serial # 414A-0317	Aircraft Logbook	
Hobbs Hours: 958.3 :: Aircraft TT: 4780.9 :: #1 Engine TT: 3922.2 :: #1 Engine TSMOH: 761.2 :: #1 Propeller TT: 761.2 :: #2 Propeller TT: 761.2 :: #2 Engine TT: 3218.7 :: #2 Engine TSMOH: 761.2 :: Heater Hobbs: 476.0				
Completed Operation #2 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.				
1) C/W AD 2000-01-16, para b on the exhaust system per AD instructions. Repaired slight leakage at the first ball joint on RH engine inboard exhaust pipes by cleaning the sealing surfaces of this connection and retorquing the hardware. No other defects noted - next due at 1058.3 (hobbs).				
2) C/W AD 2016-17-08 on the elevator trim hardware and noted no defects - next due at 1058.3 (hobbs).				
3) Completed main battery capacity check and the battery passed the 51 minute capacity test at 54 minutes.				
4) R+R all cabin life jackets with new units with date of manufacture 05/18.				
5) R+R one broken roll pin on the pilot's seat with a new unit				
6) Completed the 6 month check to the cabin hand held fire extinguisher and noted no defects.				
7) Reattached the RH rear cabin side wall armrest by adding a rivnut and screw in place of the serrated pin and receptacle.				
8) Repaired malfunctioning annunciator lights by replacing the diode on the annunciator light logic board for the RH alternator out annunciator light. Annunciator panel now functioning normally.				
I certify that this Airframe has been inspected in accordance with an Operation #2 inspection and was determined to be in an airworthy condition.				
Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521				
Signed  John E. Sheehan A+P 3439269 IA				

TOTALS—Carry forward to next page



Shoreline Aviation, Inc.  
Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

DATE	TO TH SER	WORK
9/28/2018	N414MP	Cessna 414A, serial # 414A-0317 Aircraft Logbook Hobbs Hours: 967.4 :: Aircraft TT: 4790.0 C/W with MEB89-3 Rev 2 Seat Back Reinforcement Installation. The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.  Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521  Signed: Jason Pereira A&P 3389376



Shoreline Aviation, Inc.  
Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

10/9/2018	N414MP	Cessna 414A, serial # 414A-0317 Aircraft Logbook Hobbs Hours: 967.4 :: Aircraft TT: 4790.0 :: Engine TT: 3932.0 Removed LH engine fuel pump s/n: 7918 and installed OVH hydraulic pump (OVH by Quality Aircraft Accessories, Inc CRS# 8YIR334Y) in reference to the Cessna 414 M.M. Section 9. The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.  Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521  Signed: Jason Pereira A&P 3389376
-----------	--------	--



Shoreline Aviation, Inc.  
Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

12/4/2018	N414MP	Cessna 414A, serial # 414A-0317 Aircraft Logbook Hobbs Hours: 983.4 :: Aircraft TT: 4806.00 1.) Annunciator Diode found to be damaged. Removed and Replaced DIODE. Ops check normal. The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.  Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521  Signed: Jason Pereira A&P 3389376
-----------	--------	--

SUB-TOTALS this page

TOTALS—Carry forward to next page



Shoreline Aviation, Inc.  
Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

DATE	TO TH SER	WORK
1/9/2019	N414MP	Cessna 414A, serial # 414A-0317 Aircraft Logbook Hobbs Hours: 4808.70 Removed and Replaced LH Electric Fuel Pump. Removed p/n: 2B7-29s/n: 11E 2332 and installed OVH Fuel Pump p/n: SB7-29 s/n: 1AN 1. Ops checked normal. The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.  Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521  Signed: Jason Pereira A&P 3389376

NexAir Avionics LLC 246 SOUTH MEADOW ROAD GATE 6, HANGAR SW-1 PLYMOUTH, MA 02380  
LOG ID# 1583 01-February-2019 WO# 5553 AC TT 989.2 HOBBS 989.2  
N414MP S/N 414A0317 CESSNA 414A

Pg 1 / 1

UPDATED GTN 750 #1 SN:1ZA011788 MAIN SOFTWARE FROM VERSION 5.13 TO VERSION 6.51 AND COM SOFTWARE FROM VERSION 2.13 TO VERSION 2.30 AND NAV SOFTWARE FROM VERSION 6.02 TO VERSION 6.03 AND GPS SOFTWARE FROM VERSION 5.0 TO VERSION 5.2 IN ACCORDANCE WITH GARMIN SERVICE BULLETIN 1879 REV B DATED JANUARY 2, 2019.

UPDATED GTN 750 #2 SN: 1ZA011798 MAIN SOFTWARE FROM VERSION 5.41 TO VERSION 6.51 IN ACCORDANCE WITH GARMIN SERVICE BULLETIN 1879 REV B DATED JANUARY 2, 2019.

NOTE: WORK ORDER 5553 ON FILE.

THE ABOVE WORK WAS COMPLETED IN ACCORDANCE WITH THE CURRENT REGULATIONS OF THE FEDERAL AVIATION ADMINISTRATION AND IS APPROVED FOR RETURN TO SERVICE FOR THE WORK ACCOMPLISHED.

N40R0870 BENJAMIN SCHULTE



Shoreline Aviation, Inc.  
Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

2/1/2019	N414MP	Cessna 414A, serial # 414A-0317 Aircraft Logbook Hobbs Hours: 989.2 :: Aircraft TT: 4811.8 1.) Removed #2 GTN750 s/n:1ZA011798 from aircraft and sent to Garmin for repair. 2.) Received repaired with updated software GTN750 (Repaired and updated by Garmin CRS# G6XR582Y WO# RMA 108248091) 3.) Installed in aircraft and installed new POH supplement p/n: 190-01007-A2_08 4.) #1(S/N: 1ZA011798) & #2 GTN750 (S/N: 1ZA011798) software updated by NexAir see Log Book entry dated : 02/01/2019 Log ID# 1583. The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.  Shoreline Aviation, Inc. 93 Old Colony Lane Marshfield, MA 02050 781-837-8521  Signed: Jason Pereira A&P 3389376
----------	--------	---

SUB-TOTALS this page

TOTALS—Carry forward to next page





2/22/2020

N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 1135.7 :: Aircraft TT: 4958.3 :: Heater Hobbs: 498.3

Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) C/W AD 2000-01-16, para. b & d - no defects noted. Para b next due at 1185.7 (hobbs). Para d next due at 1635.7 (hobbs).
- 2) C/W AD 2016-17-08 on the elevator trim tab hardware and found no defects - next due at 1245.7 (hobbs).
- 3) R+R Emergency gear extension blowdown bottle after hydrostatic testing as shown on the attached paperwork. Filled bottle to 1800 psi with nitrogen.
- 4) R+R both brake discs with new units (part # RA164-06406), all brake pads (part # 066-06600), both heat shims (part # RA068-03100) and the LH tire (GYFSII 6.50x10 8pr).
- 5) R+R tail nav light assembly with a new LED unit (part # 01-0771554-03). R+R white position light bulb on the LH wing tip with a new bulb (part # W692). R+R ice light bulb with a new bulb (part # GE1385).
- 6) R+R GPU door assembly with a new unit (part # 0851878-1).

I certify that this Airframe has been inspected in accordance with an Operation #3 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed Edward J. Novak Jr.  
Edward J. Novak Jr. A+P 2832024 IA

2/26/2020

N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 1135.7 :: Aircraft TT: 4958.3

Installed a new Concorde main airplane battery (part # RG24-20, serial # 41050681).

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed Edward J. Novak Jr.  
Edward J. Novak Jr. A+P 2832024 IA

NexAir Avionics LLC 246 SOUTH MEADOW ROAD GATE 6, HANGAR SW-1 PLYMOUTH, MA 02360  
LOG ID# 2322 25-August-2020 WO# 6373  
N414MP S/N 414A0317 CESSNA 414A

Pg 1 / 1

THE ADC # 1 (PN:011-00882-10 SN:20609420) PITOT, STATIC AND ALTITUDE REPORTING SYSTEMS HAVE BEEN TESTED AND FOUND TO BE IN COMPLIANCE WITH FAR43, APPENDIX E AND F, AS REQUIRED BY FAR 91.411. TESTED TO 30,000FT.

THE CO-PILOT'S SIDE ALTIMETER (PN:5934PA-1 SN:R2415) PITOT, STATIC AND ALTITUDE REPORTING SYSTEMS HAVE BEEN TESTED AND FOUND TO BE IN COMPLIANCE WITH FAR43, APPENDIX E AND F, AS REQUIRED BY FAR 91.411. TESTED TO 30,000FT.

STANDBY ALTIMETER(PN:5934PA-1 SN:1H229), PITOT, STATIC AND ALTITUDE REPORTING SYSTEMS HAVE BEEN TESTED AND FOUND TO BE IN COMPLIANCE WITH FAR43, APPENDIX E AND F, AS REQUIRED BY FAR 91.411. TESTED TO 30,000 FT.

THE #1 ATC TRANSPONDER (PN:011-00455-60 SN:84108536) AND #2 ATC TRANSPONDER (PN:011-00490-00 SN:83747129) HAS BEEN TESTED AND FOUND TO BE IN COMPLIANCE WITH FAR43, APPENDIX F, AS REQUIRED BY FAR 91.413.

NOTE: WORK ORDER 6373 ON FILE.

THE ABOVE WORK WAS COMPLETED IN ACCORDANCE WITH THE CURRENT REGULATIONS OF THE FEDERAL AVIATION ADMINISTRATION AND IS APPROVED FOR RETURN TO SERVICE FOR THE WORK ACCOMPLISHED.

Collin Morlarty  
N4CR087B COLLIN MORLARTY



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (CHC)  
93 Old Colony Lane  
Marshfield, MA 02050

6/17/2020 N414MP

Cessna 414A, serial # 414A-0317

*Airframe*  
Engine 1 Logbook

Hobbs Hours: 1180.5 :: Aircraft TT: 5003.1 :: #1 Engine TSMOH: 978.3 :: #1 Propeller TT: 978.3 :: #1 Propeller SMOH: 176.2 :: #2 Propeller TT: 978.3 :: #2 Propeller SMOH: 176.2 :: #2 Engine TSMOH: 978.3 :: Heater Hobbs: 503.4

Completed Operation #4 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.  
Completed the following Special Inspections too: 50 hr., 500 hr., 600 hr/1 year, 1 year & 1000 hr.

- 1) C/W FAR 91.207(d) on the ELT and noted no defects - next due 06/21. ELT batt is due 11/25.
- 2) C/W AD 2000-01-16 (paragraphs b, c & e) and noted no defects. See updated A.D list for next compliance times.
- 3) C/W AD 84-26-02 by installing two new paper engine air filter elements (part # P12-8156) - next due at 1680.5 (hobbs) or 5503.1 (ACTT).
- 4) C/W AD 2004-21-05 on the cabin heater (pressure decay test) and the heater passed - next due 06/22 or heater hobbs 503.4.
- 5) C/W AD 2004-25-16R1 on the heater fuel valve and noted no evidence of fuel leakage - next due 06/21 or 1280.5 (hobbs) or 5103.1 (ACTT).
- 6) Installed a Stratus USB power outlet (part # 153010-000029) in the upper LH instrument panel that is powered through a 2 amp circuit breaker added to an existing unused circuit breaker hole on the main airplane bus.
- 7) Completed 6 month check of the cabin fire extinguisher.
- 8) Replaced two failed static discharge wicks with new ones on the RH aileron and the rudder.
- 9) Repaired broken terminal end for the LH wing tip white position light.
- 10) R+R the LH fuel cap o-ring iwht a new MS29513-338 o-ring.
- 11) Replaced the polyurethane anti-chafe tape (part # 867 i-2) on all cowi flanges where needed to prevent black streaks from forming.

I certify that this Aircraft has been inspected in accordance with an Operation #4 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed Edward J. Novak Jr.  
Edward J. Novak Jr. A+P 2832024 IA



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

10/16/2020 N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 1238.2 :: Aircraft TT: 5060.8 :: #1 Engine TT: 4197.0 :: #1 Engine TSMOH: 1036.0 :: #1 Propeller TT: 1036.0 :: #1 Propeller SMOH: 233.9 :: #2 Propeller TT: 1036.0 :: #2 Propeller SMOH: 233.9 :: #2 Engine TT: 3493.5 :: #2 Engi *TSMOH-1036.0 HH 511.0*

Completed Operation #1 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) C/W AD 2000-01-16, para b to both engine exhaust systems. No defects noted on RH engine. LH engine tailpipe support bracket rivets were replaced with new rivets (old ones were loose). No other defects were noted. Para b of this AD is next due at hobbs 1288.2.
- 2) C/W AD 2016-17-08 on the elevator trim tab hardware and noted no defects - next due at hobbs 1348.2 (ACTT 5170.8).
- 3) C/W 500 hr. Cessna Special Insp items and noted no defects.
- 4) Removed existing wing tip mounted Grimes nav/strobe light units and the associated strobe light power supplies. Installed new Whelen OR600 nav/strobe light assemblies (p/n 01-0771733-11 s/n 03533 and p/n 01-0771733-12 s/n 03600) in the same locations as the removed units and connected to the existing airplane wiring. Updated weight and balance to reflect these changes.
- 5) Installed 3 new cabin fan motor support mounts (part # 95D07-1) at the inlet to the cabin heater.
- 6) R+R UMA light ring on the standby attitude gyro on the pilot's panel with a new light ring (part # 2-31-W). Function check OK.
- 7) Repaired the rudder bonding wire at the center rudder hinge.

I certify that this Airframe has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed Edward J. Novak Jr.  
Edward J. Novak Jr. A+P 2832024 IA

SUB-TOTALS this page

TOTALS—Carry forward to next page



Page No. \_\_\_\_\_



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

WORK

DATE

11/17/2020 N414MP Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 1256.7 :: Aircraft TT: 5079.3

Installed a new RH main tire (GYFSII 6.50x10 8pr) and repacked the wheel bearings.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed *Edward J. Novak Jr.*

Edward J. Novak Jr. A+P 2832024 IA

NexAir Avionics LLC 246 SOUTH MEADOW ROAD GATE 6, HANGAR SW-1 PLYMOUTH, MA 02360  
LOG ID# 2323 25-August-2020 WO# 6373 HOBBS 1221.7  
N414MP S/N 414A0317 CESSNA 414A

Pg 1 / 1

UPDATED GARMIN G600 PFD/MFD FROM SOFTWARE VERSION 6.11 TO LATEST VERSION LEVEL 7.37. ALL WORK PERFORMED IAW GARMIN SERVICE BULLETIN 1937 REV A. OPS CHECK GOOD.

NOTE: WORK ORDER 6373 ON FILE.

THE ABOVE WORK WAS COMPLETED IN ACCORDANCE WITH THE CURRENT REGULATIONS OF THE FEDERAL AVIATION ADMINISTRATION AND IS APPROVED FOR RETURN TO SERVICE FOR THE WORK ACCOMPLISHED.

*Collin Moriarty*  
N40R087B COLLIN MORIARTY



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

12/28/2020 N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 1273.2 :: Aircraft TT: 5095.8 :: #1 Engine TSMOH: 1071.0 :: #1 Propeller SMOH: 268.9 :: #2 Propeller SMOH: 268.9 :: #2 Engine TSMOH: 1071.0 :: Heater Hobbs: 527.8

Completed Operation #2 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) Completed 50 hr. Special Inspection items.
- 2) C/W AD 2000-01-16 (para b) on the exhaust and found no defects. Next due at 1323.2.
- 3) C/W AD 2004-25-16R1 on the cabin heater fuel valve and found no defects. - Next due at 1373.2 of 12/21.
- 4) Completed 6 month fire extinguisher check and found no defects. Next due 06/21.
- 5) Completed 2 year compass accuracy check and found no defects. Next due 12/22.
- 6) R+R tachometer (part # 511-O-RAM, serial # 1570) with and O/H unit from Consolidated Instrument - see attached 8130-3 form for more details.
- 7) Swapped LH & RH JPI TIT probes for troubleshooting purposes.
- 8) Installed a new FEN118 gas cylinder for the LH aft nose baggage door.
- 9) Repaired small crack in the LH outer aft edge of the fiberglass wing tip about 8" from the trailing edge.
- 10) Serviced nose strut to 65 psi per maintenance manual instructions.

I certify that this Aircraft has been inspected in accordance with an Operation #2 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed *Edward J. Novak Jr.*

Edward J. Novak Jr. A+P 2832024 IA

SUB-TOTALS this page

TOTALS—Carry forward to next page



# FLIGHTLEVEL AVIATION

## LOGBOOK ENTRY AIRFRAME

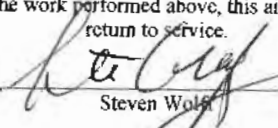
DESCRIPTION OF WORK PERFORMED—  
SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK

brought forward from previous page

Name: Dan Bawabe	A/C: N414MP
W.O: 11178	Hobbs Time: 1277.6
Date: 1/4/2021	AC S/N: 414A0317

Removed LH wing landing light assy., turned power on and reset C/B. C/B did not trip. Inspected light assy. and partially disassembled. Cleaned corrosion from light terminals, found 2 terminals on wire harness burnt and loose. Installed 2 new terminals, reassembled light assy. and reinstalled light assy. Performed ops check, ops check good. Cycled light on and off several times. No defects noted.

With respect to the work performed above, this aircraft is approved for return to service.

Signature:  A&P 16629146  
Steven Wolf

FlightLevel Norwood LLC - Maintenance  
209 Access Rd., Norwood, MA 02062



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

3/24/2021 N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 1314.1 :: Aircraft TT: 5136.7 :: #1 Engine TSMOH: 1111.9 :: #1 Propeller SMOH: 309.8 :: #2 Propeller SMOH: 309.8 :: #2 Engine TSMOH: 1111.9 :: Heater Hobbs: 559.9

Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) Installed new Whelen LED landing and taxi light bulbs (part #'s 01-0771833-25 (taxi light) and 01-0790750-20 (landing lights).
- 2) Installed all new propeller heat slip ring brushes on both engines (RAB40012 (2 ea.) on RH side & RAB40189 (2 ea.) on the LH side.
- 3) Installed the following new o-rings in the RH main gear actuating cylinder: MS28775-130, 141 & 120 (one of each) and one new S30681-220 seal. Function check and leak check landing gear system OK.
- 4) C/W AD 2000-01-16, para. B on the exhaust system. Installed a new pipe support clamp (part # 2266C062-262M) on the outboard LH collector elbow. No other defects noted. Para B is next due at 1364.1 (hobbs).
- 5) Rewired the cabin lights so that the cabin reading lights now will only work when the battery master switch is on by adding a new 7277-2-5 circuit breaker labeled "Reading Lights" and relocating the power wire from the still existing "Cabin Lights" circuit breaker to this new one.
- 6) Applied Agemaster and Icox to all of the deicer boots.
- 7) C/W AD 2016-17-08 on the elevator trim tab hardware and found no defects. Next due at 1424.1 (hobbs).
- 8) Installed a new NAS1474A08 sealed nutplate for the access panel on the belly below the rudder pedals.

I certify that this Airframe has been inspected in accordance with an Operation #3 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed 

John E. Sheehan A+P 3439269 IA

SUB-TOTALS this page

TOTALS—Carry forward to next page

# Section 1: Airframe Log

DATE / /	AIR TIME				LANDINGS / CYCLES		DETAILS OF TASK (INSPECTION, REPAIRS & REPLACEMENT)
	DAILY TOTAL		TOTAL		DAILY TOTAL	TOTAL	
	HRS	MIN	HOURS	MIN			
CARRIED FORWARD							



Shoreline Aviation, Inc.  
 Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

**6/24/2021 N414MP Cessna 414A, serial # 414A-0317 Aircraft Logbook**  
 Hobbs Hours: 1377.1 :: Aircraft TT: 5199.7 :: #1Engine TSMOH: 1174.9 :: #1Propeller SMOH: 372.8 :: #2 Propeller SMOH: 372.8 :: #2 Engine TSMOH: 1174.9

Completed Operation #4 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.  
 Completed the following Special inspection items: 1 year and 600hr/1 year.

- 1) C/W FAR 91.207(d) on the ELT and noted no defects - next due 06/22. ELT batt is due 11/25.
- 2) C/W AD 2000-01-16 (paragraphs B,C and E) and noted no defects.
- 3) C/W AD2004-25-16R1 on the heater fuel valve and noted no evidence of fuel leakage - next due 06/22 or 1477.1(hobbs) or ACTT 5299.7.

I certify that this Aircraft has been inspected in accordance with an Operation #4 inspection and was determined to be in an Airworthy condition.

Signed *[Signature]*  
 John E. Sheehan A+P 3439269 IA



Shoreline Aviation, Inc.  
 Marshfield Municipal Airport  
 George Harlow Field (GHG)  
 93 Old Colony Lane  
 Marshfield, MA 02050

**9/13/2021 N414MP Cessna 414A, serial # 414A-0317 Aircraft Logbook**  
 Hobbs Hours: 1411.0 :: Aircraft TT: 5233.6 :: #1 Engine TSMOH: 1208.8 :: #1Propeller SMOH: 406.7 :: #2 Propeller SMOH: 406.7 :: #2 Engine TSMOH: 1208.8 :: Heater Hobbs: 570.7

Cessna 414A inspection Operation 1 items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) C/W AD 2000-01-16n (para b) to both engine exhaust systems and found no defects.
- 2) R+R LH cockpit sidewall armrest plastic piece with a ne unit (part # P5119057-13-LB).
- 3) C/W AD 95-09-13 on the fuel tank vent valves per AD instructions and found no defects - next due at hobbs 2011.0 or ACTT 5833.6.
- 4) C/W Type A Cabin Inspections and Type B Wing inspections per airplane maintenance manual and noted no defects next due at hobbs 2611.0 or ACTT 6433.6.
- 5) Completed 400 hr special inspection items per airplane maintenance manual.
- 6) Completed 600 hr special inspection items per airplane maintenance manual.
- 7) C/W AD 2016-17-08 on the elevator trim tab hardware and found no defects - next due at 1521.0 (hobbs).
- 8) Installed a new LH main tire (GYFS part # 650C81-5 - repacked the wheel bearings).

I certify that this Airframe has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.

Signed *[Signature]*  
 Edward J. Novak Jr. A+P 2832024 IA



**FLIGHTLEVEL AVIATION**

## LOGBOOK ENTRY AIRFRAME

Name: Dan Bawabe	A/C: N414MP
W.O: 11446	
Date: 8/2/2021	AC S/N: 414A0317

Jacked aircraft, removed nose wheel assembly, and removed tire and tube. Installed new tire, P/N 301-002-006, and tube, P/N 302-246-401. Installed nose wheel onto aircraft, took aircraft off jacks.

With respect to the work performed above, this aircraft is approved for return to service.

Signature: *[Signature]* A&P 4222858  
 Alexander Pruitt

FlightLevel Norwood LLC - Maintenance  
 209 Access Rd., Norwood, MA 02062

CARRY FORWARD to Top of Next Page



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

12/7/2021 N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

ICENCE:  
AME or  
MO/ACA

Hobbs Hours: 1456.7 :: Aircraft TT: 5279.3 :: #1 Engine TSMOH: 1223.6 :: #1 Propeller SMOH: 421.5 :: #2 Propeller SMOH: 421.5 :: #2 Engine TSMOH: 1223.6 :: Heater Hobbs: 577.0

Completed Operation #2 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) Completed 50 hr. Special Inspection items.
- 2) C/W AD 2000-16-01, para. B to both engine exhaust systems and found no defects. Next due at 1506.7 (hobbs)
- 3) C/W AD 2004-25-06R1 on the cabin heater fuel valve and found no defects. Next due at 1556.7 or 12/22.
- 4) Repaired clamp connection for the ducting at the inlet of the cabin heater.
- 5) Installed two new voltage regulators (part # 9910126-3). Completed paralleling adjustment per maintenance manual with satisfactory results.
- 6) Installed a new flap hinge half (part # 0825000-57) on the LH inboard flap.
- 7) Installed 4 new NAS1474A08 sealed nutplates at the fuselage belly panel just behind the nose wheel well.

I certify that this Aircraft has been inspected in accordance with an Operation #2 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

Edward J. Novak Jr. A+P 2832024 IA



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

3/7/2022 N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 1501.6 :: Aircraft TT: 5324.2 :: #1 Engine TSMOH: 1299.4 :: #1 Propeller SMOH: 497.3 :: #2 Propeller SMOH: 497.3 :: #2 Engine TSMOH: 1299.4 :: Heater Hobbs: 601.9

Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) C/W AD 2000-01-06, para b to both engine exhaust systems and found no defects.
- 2) Completed 100 hr. Vacuum pump wear check to both vacuum pumps and found both pumps to be above the minimum wear limits.
- 3) Installed a repaired RH elevator (part # 5033400-6) from Airframe Components due to skin cracks on the old one. See attached paperwork for more details. C/W AD 2016-17-08 by installing new trim tab rod end attachment hardware (bolt, nut, washers & cotter pin). Next check due at 5334.2 (ACTT) or 03/23.
- 4) Completed main battery capacity check and the battery passed.
- 5) Completed 6 month cabin fire extinguisher check and the unit passed.
- 6) Installed a serviceable interior window surround plastic trim piece (part # 5119103-4) around the emergency exit window. Transferred the existing leather trim covering from the old part to the replacement one.
- 7) Repaired the RH aft facing seat armrest latching mechanism by installing a new 5119219-10 armrest lock and a new armrest support (part # 5119233-4).
- 8) C/W AD 2004-21-05 on the cabin heater pressure decay test and the combustion air pressure switch and found no defects. Next due at heater hobbs 701.9 or 03/24.
- 9) Replaced the existing Ameri-King 28v to 14v power converter located beneath the floor near the emergency exit with a new Mid-Continent Instruments TC120 Power converter (part # 6430120-2, serial # A22-11583). Function check OK.

I certify that this Airframe has been inspected in accordance with an Operation #3 inspection and was determined to be in an airworthy condition.

Signed

Edward J. Novak Jr. A+P 2832024 IA



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

4/1/2022 N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 1508.8

Installed a new LH elevator torque tube end fitting (part # 5035005-3) per maintenance manual instructions. Existing taper pin was reused. Elevator up/down travel checked good. Elevator trim tab up/down travel checked OK.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Signed

Se Se



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

6/3/2022

N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 1543.7 :: Aircraft TT: 5366.3 :: #1 Engine TSMOH: 1341.5 :: #1 Propeller SMOH: 539.4 :: #2 Propeller SMOH: 539.4 :: #2 Engine TSMOH: 1341.5 :: Heater Hobbs: 606.5

Completed Operation #4 inspection items per the Cessna 414A Maintenance manual progressive care inspection form. Completed the following Special Inspections too: 50 hr. , 600 hr/1 year & 1 year.

- 1) C/W FAR 91.207(d) on the ELT and noted no defects - next due 06/23. ELT batt is due 11/25.
- 2) C/W AD 2000-01-16 (paragraphs b, c & e) and noted no defects. See updated A.D list for next compliance times.
- 3) Completed 3 year airplane reweighing - new weight and balance placed in section 6 of the Pilot's Handbook.
- 4) C/W AD 2004-25-16R1 on the heater fuel valve and noted no evidence of fuel leakage - next due 06/23 or 1643.7 (hobbs) or 5466.3 (ACTT).

I certify that this Airframe has been inspected in accordance with an Operation #4 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

Edward J. Novak Jr. A+P 2832024 IA

6/24/

Hobb

TSM:

Cor:

1) C

2) C

3) C

I cert

<b>LOGBOOK ENTRY</b>	
<u>AIRFRAME</u>	
Name: Dan Bawabe	A/C: N414MP
W.O.: 11897	Hobbs Time: 1553.5
Date: 6/22/22	AC S/N: 414A0317
Checked tension of nose wheel nut. Installed cotter pin MS24665-134.	
With respect to the work performed above, this aircraft is approved for return to service.	
Signature:	A&P 38401436
Lance Drew FlightLevel Norwood LLC - Maintenance 209 Access Rd., Norwood, MA 02062	

9/13/2

Hobbs

Engine

Cessn:

1) C/W

2) R+I

3) C/W

4) C/W

or ACT

5) Cor

6) Cor

7) C/W

8) inst

I certify



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

9/13/2022

N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 1587.5 :: Aircraft TT: 5410.1 :: #1 Engine TSMOH: 1385.3 :: #1 Propeller SMOH: 583.2 :: #2 Propeller SMOH: 583.2 :: #2 Engine TSMOH: 1385.3 :: Heater Hobbs: 606.1

Completed Operation #1 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) C/W AD 2000-01-06, para b to both engine exhaust systems and found no defects.
- 2) Completed 100 hr. Vacuum pump wear check to both vacuum pumps and found both pumps to be above the minimum wear limits.
- 3) C/W AD 2016-17-08 by inspecting the trim tab rod end attachment hardware (bolt, nut, washers & cotter pin). Next check due at 5520.1 (ACTT) or 09/23.
- 4) Completed 6 month cabin fire extinguisher check and the unit passed.
- 5) Completed 1000 hr/3 year inspection and service of all 6 landing gear trunnion bearings.
- 6) Replaced RAM airspeed limitations placard and prop synch limitation placard with new units.
- 7) Completed magnetic compass swing and installed a new error correction card.
- 8) Repaired cracks in the LH wing tip plastic cap by bonding fiberglass to the inside surfaces of the cracks. A 4" access hole was added to the lower rear trailing edge of this wing tip.

I certify that this Airframe has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.

Signed

Edward J. Novak Jr. A+P 2832024 IA

PAGE TOTALS

CARRY FORWARD to Top of Next Page

NexAir Avionics LLC 246 SOUTH MEADOW ROAD GATE 6, HANGAR SW-1 PLYMOUTH, MA 02360  
LOG ID# 3166 11-October-2022 WO# 7357 HOBBS 1601.7  
N414MP S/N 414A0317 CESSNA 414A Pg 1 / 1

THE ADC # 1 (PN:011-00882-10 SN:20609420) PITOT, STATIC AND ALTITUDE REPORTING SYSTEMS HAVE BEEN TESTED AND FOUND TO BE IN COMPLIANCE WITH FAR43, APPENDIX E AND F, AS REQUIRED BY FAR 91.411. TESTED TO 30,000FT.

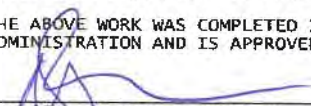
THE CO-PILOT'S SIDE ALTIMETER (PN:5934PA-1 SN:R2415) PITOT, STATIC AND ALTITUDE REPORTING SYSTEMS HAVE BEEN TESTED AND FOUND TO BE IN COMPLIANCE WITH FAR43, APPENDIX E AND F, AS REQUIRED BY FAR 91.411. TESTED TO 30,000FT.

STANDBY ALTIMETER (PN:5934PA-1 SN:1H229), PITOT, STATIC AND ALTITUDE REPORTING SYSTEMS HAVE BEEN TESTED AND FOUND TO BE IN COMPLIANCE WITH FAR43, APPENDIX E AND F, AS REQUIRED BY FAR 91.411. TESTED TO 30,000 FT.

THE #1 ATC TRANSPONDER (PN:011-00455-60 SN:84108536) AND #2 ATC TRANSPONDER (PN:011-00490-00 SN:83747129) HAS BEEN TESTED AND FOUND TO BE IN COMPLIANCE WITH FAR43, APPENDIX F, AS REQUIRED BY FAR 91.413.

NOTE: WORK ORDER 7357 ON FILE.

THE ABOVE WORK WAS COMPLETED IN ACCORDANCE WITH THE CURRENT REGULATIONS OF THE FEDERAL AVIATION ADMINISTRATION AND IS APPROVED FOR RETURN TO SERVICE FOR THE WORK ACCOMPLISHED.

  
N40R087B NICHOLAS PETERSEN

SOUTH COAST PROPELLER SERVICE, INC.  
5750 DUROSE DRIVE, BESSEMER, AL 35022  
205-426-7022  
REPAIR STATION #S6PR302X

GOVERNOR DISASSEMBLED, CLEANED AND INSPECTED. MAJOR OVERHAULED. MAGNAFLUXED PARTS AS REQUIRED, REASSEMBLED AND TESTED TO MANUFACTURER'S SPECIFICATIONS. NOTE: AD 2020-19-06 AND MC-ASB-273C IS NOT APPLICABLE TO THIS GOVERNOR.

WORK ORDER #SR-15235  
MODEL #DCFS290D9/T3  
SERIAL #990118  
DATE: 22 NOVEMBER 2022

  
STEPHEN ROSE  
CHIEF INSPECTOR

SOUTH COAST PROPELLER SERVICE, INC.  
5750 DUROSE DRIVE, BESSEMER, AL 35022  
205-426-7022  
REPAIR STATION #S6PR302X

GOVERNOR DISASSEMBLED, CLEANED AND INSPECTED. MAJOR OVERHAULED. MAGNAFLUXED PARTS AS REQUIRED, REASSEMBLED AND TESTED TO MANUFACTURER'S SPECIFICATIONS. NOTE: AD 2020-19-06 AND MC-ASB-273C IS NOT APPLICABLE TO THIS GOVERNOR.

WORK ORDER #SR-15234  
MODEL #DCFS290D9/T3  
SERIAL #950126  
DATE: 22 NOVEMBER 2022

  
STEPHEN ROSE  
CHIEF INSPECTOR

# Section 1: Airframe Log

DATE	AIR TIME	LANDINGS / CYCLES
------	----------	-------------------



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

**3/14/2023**      **N414MP**      **Cessna 414A, serial # 414A-0317**      **Aircraft Logbook**

Hobbs Hours: 1629.9 :: Aircraft TT: 5452.5 :: #1 Engine TT: 5832.6 :: #1 Engine TSMOH: 0.0 :: #1 Propeller SMOH: 625.6 :: #2 Propeller SMOH: 625.6 :: #2 Engine TT: 4692.5 :: #2 Engine TSMOH: 0.0 :: Heater Hobbs: 601.9

Completed Operation #2 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) C/W AD 2004-25-16R1 on the heater fuel valve and found no evidence of leakage.
- 2) C/W AD 2016-17-08 on the elevator trim tab hardware and found no defects.
- 3) C/W 12 month main battery capacity check and the battery passed.
- 4) C/W 6 month hand held fire extinguisher checks and found no defects.
- 5) R+R LH turbo tailpipe support bracket with a new unit (part # 5650118-1).
- 6) Removed the existing EDM760 display and replaced it with a new EDM790 display (part # 760000-6C-L, serial # 08345). Unit was relocated to the lower side of the RH radio stack. All existing wiring and temperature probes were reused.
- 7) R+R both engines with O/H units from RAM Aircraft (LH s/n - 514067 - RH s/n - 519264 using all new engine mounts per RAM and Cessna 414A maintenance manual instructions. All accessories and oil and fuel hoses were provided by RAM and installed except for the following:
  - 7a) 2 new vacuum pumps installed (part # RAP442CW - LH s/n - D10833, RH s/n - D10647).
  - 7b) 2 new alternators installed (part # ALV-9610 - LH s/n - H-W091335 - RH s/n - H-W091336). Both drive coupling slip torques were checked and both passed and were installed onto the new alternators.
  - 7c) 2 O/H prop gobs (p/n DCFS290D9/T3, LH s/n 950126 - RH s/n 990118).
  - 7d) 2 O/H hydraulic pumps (p/n 24194LAA, LH s/n - 1717 - RH s/n 338)
  - 7e) Both tach gens was reinstalled from the previous engine in "as removed" condition. Air conditioning hydraulic pump was reinstalled in "as removed" condition from the previous RH engine. Both propellers were reinstalled from the previous engine in "as removed" condition from the previous engines.
- 8) 4 new RAM FAA-PMA flex elbows were installed (part # 1111-1) (two on each engine).
- 9) C/W AD 2000-01-06, paragraphs B, C, D, E & G by sending the entire exhaust system aft of the slip joints to Aerospace Welding for overhaul. See all of the 8130-3 forms for all of these components in with the aircraft maintenance records for more details. 4 new header pipe slip joints were provided by RAM and installed with the engines. Each individual cylinder header pipe exhaust stack was inspected and reinstalled from the previous engines.

I certify that this Aircraft has been inspected in accordance with an Operation #2 inspection and was determined to be in an airworthy condition.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

Edward J. Novak Jr. A+P 2832024 IA



Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

**5/10/2023**      **N414MP**      **Cessna 414A, serial # 414A-0317**      **Aircraft Logbook**

Hobbs Hours: 1658.2 :: Aircraft TT: 5480.8 :: #1 Engine TSMOH: 28.3 :: #1 Propeller SMOH: 653.9 :: #2 Propeller SMOH: 653.9 :: #2 Engine TSMOH: 28.3 :: Heater Hobbs: 612.5

Completed Operation #3 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) C/W AD 2000-01-16 (para. B) on the exhaust per AD instructions and found no defects.
- 2) R+R Prop. Synch "on" light bulb with a new unit (part # 7049).
- 3) R+R RH main tire with a new GYFSII 6.50x10 8pr unit (part # 650C81-5).
- 4) Resealed the RH brake with 4 new MS28775-132 o-rings. Bled brakes and leak check OK.
- 5) Replaced the LH fuel boost pump circuit breaker with a serviceable unit (part # 7277-2-7.5)

I certify that this Airframe has been inspected in accordance with an annual inspection and was determined to be in an airworthy condition.

Signed

John E. Sheehan A+P 3439269 IA

PAGE TOTALS

CARRY FORWARD to Top of Next Page

6/29/2023 N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 1686.9 :: Aircraft TT: 5509.5 :: #1 Engine TSMOH: 57.0 :: #1 Propeller SMOH: 682.6 :: #2 Propeller SMOH: 682.6 :: #2 Engine TSMOH: 57.0 :: Heater Hobbs: 613.8

Completed Operation #4 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) Completed the 50 hr. Special inspection items of the Cessna Progressive Care inspection program.
- 2) Completed the 1 year Special inspection items of the Cessna Progressive Care inspection program.
- 3) Completed the 600 hr./1 year Special inspection items of the Cessna Progressive Care inspection program.
- 4) Completed the 500 hr. Special inspection items of the Cessna Progressive Care inspection program.
- 5) C/W AD 2000-01-16, para. (b) to the exhaust systems per AD instructions and found no defects.
- 6) R+R the O2 bottle part # C166001-0813, serial # 3115X) after hydrostatic testing was completed by Airline Accessory Service as shown on the attached paperwork. Filled bottle to 1800 psi.
- 7) R+R the RH engine tachometer generator with an O/H unit (part # 22A667, serial # 30116). See attached 8130-3 form for more details. Function check OK.
- 8) C/W FAR 91.207(d) on the ELT and noted no defects - next due 06/24. ELT batt is due 11/25.
- 9) Completed the main battery capacity check and the battery passed.

I certify that this Airframe has been inspected in accordance with an Operation #4 inspection and was determined to be in an airworthy condition.

Signed

*John E. Sheehan*  
John E. Sheehan A+P 3439289 IA

9/14/2023 N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 1708.7

Completed the alternator voltage regulators adjustment procedure per maint. Manual page 14-8D with satisfactory results.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Shoreline Aviation, Inc.  
93 Old Colony Lane  
Marshfield, MA 02050  
781-837-8521

Signed

*Edward J. Novak Jr.*  
Edward J. Novak Jr. A+P 2832024 IA

10/25/2023 N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 1724.6 :: Aircraft TT: 5547.2 :: #1 Engine TSMOH: 94.7 :: #1 Propeller SMOH: 720.3 :: #2 Propeller SMOH: 720.3 :: #2 Engine TSMOH: 94.7 :: Heater Hobbs: 613.8

Completed Operation #1 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

- 1) C/W AD 2004-25-16R1 on the cabin heater fuel valve and found no evidence of fuel leakage.
- 2) C/W 500 hr. Cessna special inspection item on the hydraulic lines pressure test and noted no leakage.
- 3) C/W the 6 months handheld fire extinguisher checks and found no defects.
- 4) C/W AD 2016-17-08 on the elevator trim tab hardware and found no defects.
- 5) C/W AD 2000-01-16 (para. B) to both engine exhaust systems and found no defects.
- 6) Installed a new LH tire (GYFCII 6.50x10 8pr) and all new 066-06600 brake pads on both sides.
- 7) Serviced the O2 bottle to 1800 psi.
- 8) R+R the A/C hydraulic pump on the RH engine after function test was completed by Aircraft Accessories of Oklahoma as shown on the attached 8130-3 form. The air conditioning condenser blower motor has been removed and sent out for repair. The air conditioning system is inoperative until this motor is reinstalled. The instrument panel is placarded "A?C Inop.". Evacuated and recharged the air conditioning system with R417A refrigerant (2 lbs. 6 oz.).
- 9) Replaced the clear anti-chafe tape around the both cowls where needed.

I certify that this Airframe has been inspected in accordance with an Operation #1 inspection and was determined to be in an airworthy condition.

Signed

*Edward J. Novak Jr.*  
Edward J. Novak Jr. A+P 2832024 IA



Sec

# Shoreline AVIATION

Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

11/14/2023 N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 1730.9 :: Aircraft TT: 5553.5 :: #1 Engine TSMOH: 101.0 :: #2 Engine TSMOH: 101.0

Reinstalled the air conditioning condenser blower motor (part # 9910155-1, s/n 709) after O/H by The Aviation Group as shown on the attached 8130-3 form. Function check OK.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Signed Donald Harrington 1939767  
Donald Harrington A+P 1939767

wo: WO\_8267

Airframe - page 1 of 1



NexAir Avionics LLC 246 S. Meadow Road Gate 6, Hangar SW-1 - Plymouth, MA 02360 - 508-339-7077 - CRS#: N4OR087B

N414MP  
HOBS: 1750.1

CESSNA, 414A, S/N: 414A0317

December 22, 2023

REMOVED GARMIN GDU 620 PFD/MFD, REMOVED INTERNAL COOLING FAN AND REPLACED WITH NEW (PN:K10-00683-10). REINSTALLED GARMIN GDU 620 PFD/MFD. OPS CHECK GOOD.

NOTE: WORK ORDER # 8267 ON FILE

THE ABOVE WORK WAS COMPLETED IN ACCORDANCE WITH THE CURRENT REGULATIONS OF THE FEDERAL AVIATION ADMINISTRATION AND IS APPROVED FOR RETURN TO SERVICE FOR THE WORK ACCOMPLISHED.

Andrew O'Shea Repair Station N4OR087B

6/24/2

Hobbs

TSMC

Comp

Com'

1) C/

2) C/M

3) C/V

I certify

9/13/20

Hobbs

Engine

Cessna

1) C/W

2) R+F

3) C/W

4) C/W

or ACT

5) Cor

6) Cor

7) C/W

8) Inst

I certify

# Shoreline AVIATION

Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

3/1/2024

N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 1775.2 :: Aircraft TT: 5597.8 :: #1 Engine TSMOH: 145.3 :: #1 Propeller SMOH: 770.9 :: #2 Propeller SMOH: 770.9 :: #2 Engine TSMOH: 145.3 :: Heater Hobbs: 630.5

Completed Operation #2 inspection items per the Cessna 414A Maintenance manual progressive care inspection form.

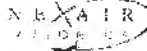
- 1) Completed the 400 hr. And 800 hr. Special inspection items. Installed new AN6235-2A main hydraulic filters and a new AN6235-3A air conditioning system hydraulic filter. Lubricated the landing light gears and checked propeller blade tracks OK.
- 2) C/W AD 2000-06-16, para. B,C & E and noted no defects. Retorqued the hardware at the left engine exhaust ball joints and resafted the hardware with new cotter pins.
- 3) C/W AD 2004-21-05 on the cabin heater (pressure decay test & pressure switch functionl check) and found no defects.
- 4) Installed a used/serviceable LH wing tip (part # 5623000-57) per Cessna Bulletin ME80-28.
- 5) Completed the 6 month fire extinguisher checks and found no defects.
- 6) Filled the O2 bottle to 1800 psi and retorqued all of the fittings at the bottle connections.
- 7) Replaced two bent clevis pins for the pilot's seat back adjustment with new clevis pins (part # AN392-25).
- 8) Installed a new Cool/Circulate switch (part # MS35059-21) in the pilot's instrument panel. Function check OK.

I certify that this Airframe has been inspected in accordance with an Operation #2 inspection and was determined to be in an airworthy condition.

Signed Edward J. Novak Jr  
Edward J. Novak Jr. A+P 2832024 IA

PAGE TOTALS

CARRY FORWARD to Top of Next Page



NexAir Avionics LLC - 246 S. Meadow Road Gate 6, Hangar SW-1 - Plymouth, MA 02360 - 508-339-7077 - CRS#: N4OR087B

N414MP  
HOBBS: 1791.0

CESSNA, 414A, S/N: 414A0317

April 24, 2024

ENCE:  
ME or  
IO/ACA

REMOVED FAULTY GARMIN GDU 620 (PN:011-01264-00 SN:165001615). INSTALLED GARMIN OVERHAULED EXCHANGE GDU 620 (PN:011-01264-00 SN:165000477). SEE 8130 DATED FEBRUARY 21, 2024. OPS CHECK GOOD.

NOTE: WORK ORDER # 8369 ON FILE

THE ABOVE WORK WAS COMPLETED IN ACCORDANCE WITH THE CURRENT REGULATIONS OF THE FEDERAL AVIATION ADMINISTRATION AND IS APPROVED FOR RETURN TO SERVICE FOR THE WORK ACCOMPLISHED.

Benjamin Schultz Repair Station N4OR087B

Shoreline AVIATION



Shoreline Aviation, inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

8/1/2024

N414MP

Cessna 414A, serial # 414A-0317

Aircraft Logbook

Hobbs Hours: 1828.3 :: Aircraft TT: 5650.9 :: #1 Engine TSMOH: 198.4 :: #1 Propeller SMOH: 824.0 :: #2 Propeller SMOH: 824.0 :: #2 Engine TSMOH: 198.4 :: Heater Hobbs: 632.7

Completed Operation #3 & #4 inspection items per the Cessna 414A Maintenance manual progressive care inspection form. Completed the 600 hr./1 year Special inspections items and the 1 year Special inspection items. Completed the 6 month cabin fire extinguisher checks.

- 1) C/W FAR 91.207(d) on the ELT and found no defects. Next due 08/25.
- 2) Completed the 1 year main battery capacity check and the battery passed.
- 3) C/W AD 2004-25-16 R1 on the cabin heater fuel valve and found no defects.
- 4) C/W AD 2000-01-16, para. B to both engine exhaust systems. Installed a new header pipe assembly from Aerospace Welding (part # A9910295-13) on the inboard side of the right engine. No other defects noted.
- 5) C/W AD 2016-17-08 on the elevator trim tab hardware and found no defects.
- 6) Completed a sheet metal hole repair to the outboard side of the LH upper cowl just aft of the outboard cowl door.
- 7) Cleaned and treated a 2"x2" square of skin corrosion on the upper surface of the RH horz. Stab. Touched up the paint.
- 8) Filled the O2 bottle to 1800 psi.
- 9) Installed a new rudder bonding strap at the center rudder hinge.

I certify that this Airframe has been inspected in accordance with an Operation #3 & #4 inspection and was determined to be in an airworthy condition.

Signed

Edward J. Novak Jr. A+P 2832024 IA



NexAir Avionics LLC - 246 S. Meadow Road Gate 6, Hangar SW-1 - Plymouth, MA 02360 - 508-339-7077 - CRS#: N4OR087B

N414MP  
HOBBS: 1821.5

CESSNA, 414A, S/N: 414A0317

July 09, 2024

REMOVED FAULTY GARMIN GDU 620 PFD/MFD (PN:011-01264-00 SN:165000477). INSTALLED OVERHAULED GARMIN GDU 620 PFD/MFD (PN:011-01264-00 SN:165001255). OPS CHECK GOOD.

NOTE WORK ORDER 8528 ON FILE.

THE ABOVE WORK WAS COMPLETED IN ACCORDANCE WITH THE CURRENT REGULATIONS OF THE FEDERAL AVIATION ADMINISTRATION AND IS APPROVED FOR RETURN TO SERVICE FOR THE WORK ACCOMPLISHED.

Andrew O'Shea Repair Station N4OR087B

# Shoreline AVIATION

Shoreline Aviation, Inc.

Marshfield Municipal Airport  
George Harlow Field (GHG)  
93 Old Colony Lane  
Marshfield, MA 02050

8/12/2024

N414MP

Cessna 414A, serial # 414A-0317

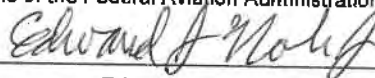
Aircraft Logbook (NT)

Hobbs Hours: 1831.6 :: Aircraft TT: 5654.2

1) installed a new air conditioning compressor drive coupling (part # 5154005-1). Serviced the A/C hydraulic reservoir. Evacuated and serviced the air conditioning refrigerant. Function check of the A/C system was normal.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Signed



Edward J. Novak Jr. A+P 2832024 IA

6/24/2

Hobbs

TSMC

Comp'

Com'

1) C/

2) C/W

3) C/W

I certif

9/13/20

Hobbs I

Engine

Cessna

1) C/W

2) R+R

3) C/W

4) C/W

or ACT

5) Cor

6) Cor

7) C/W

8) insta

I certify

PAGE TOTALS

CARRY FORWARD to Top of Next Page

# ▶ IADA CODE OF ETHICS



- **INTERNATIONAL AIRCRAFT DEALER'S ASSOCIATION MEMBERS**
- Shall create and maintain a reputation for honesty, integrity and transparency and shall adhere to the highest ethical standards in their dealings with other members, their respective clients and all other parties.
- Shall be committed to constantly improving the quality of their services, products, and operations in order to provide a superior level of service, knowledge and value to their respective customers.
- Shall accurately represent their authority to show, demonstrate or sell an aircraft.
- Shall, as expeditiously as possible, submit to the seller all offers received. Once an offer has been accepted, all prospective purchasers, if any, will be informed of the accepted offer.
- In attempting to secure an exclusive listing, shall not deliberately mislead the owner as to the market value of the aircraft.
- When specifically acting as exclusive agent for an exclusive buyer or seller, shall not accept commission from more than one party to a transaction without the full knowledge of the principal(s) of the transaction.
- Shall compensate, directly or indirectly, employees of the parties to a transaction only with the written knowledge of the subject party.
- Shall present to the best of their knowledge accurate specifications of an aircraft for sale, and shall make truthful representations to the public.
- Shall avoid exaggeration, misrepresentation, or concealment of all known pertinent facts relating to a transaction.
- Shall provide a level of competent service in keeping with the highest standards of business and professionalism in the field of aircraft resale.
- Shall reveal their true ownership or interest in any aircraft they represent to the purchaser or his/her representative.
- Shall disclose any interest in other entities whose services they suggest or recommend that a client or owner use, and shall disclose any financial benefit they may receive as a result of the use of those services.
- Shall make full disclosure of charges and costs associated with any agreement.
- Shall use reasonable care to ensure that documents pertaining to the purchase and sale of aircraft are kept current through the use of written extensions and amendments.