

I certify that the aircraft M/N KEYSON S/N 3229 was tested to  
39,000 feet on 10-7-04 and the static system tests required by FAR  
91.411 have been satisfactorily performed.

Date: 10-7-04  
Tach. or Hobbs. Tim.: 948.5

Work Order # 04-9356

Signature: [Signature]

Keyson Airways Corporation  
FAA Certified Repair Station KNMR8648



www.avery.com  
1-800-GO-AVERY



Leak

Date: 11/2/2004 Aircraft: N504MB S/N: 27-0127 Hobbs: 948.5 Tach: 0.0 Total Time: 948.5 Shop Order 04-9305

- \*Performed an Annual Inspection of the aircraft in accordance with the Inspection checklist contained in M20M Maintenance Manual
- \*Accessed and recorded all model numbers, part numbers and serial numbers of the aircraft, engine, propeller and accessories.
- \*Performed a computerized research of all potential Airworthiness Directives (AD's) against these items through bi-weekly issue # 2004/18.
- \*Complied with FAR 91.207 (c) by removing ELT unit from aircraft and disassembled. Inspected for corrosion and other defects and none were noted. Replaced the ELT battery, p/n 452-0130, with a new expiration date of Nov. 2006. Tested "G" switch and noted proper operation. Reinstalled ELT unit and performed an operational test which was satisfactory.
- \*Placed the aircraft on jacks. Removed all three wheels. Removed, cleaned and inspected wheel bearings for defects wear, etc none noted. Repacked wheel bearings with Aeroshell #5 grease. Disassembled each wheel assembly. Cleaned each wheel assembly and checked for wear, cracks and general condition, no discrepancies were noted. Reassembled each wheel assembly replacing any unserviceable hardware as required. Reinstalled each wheel to the respective axle and set wheel bearing drag. Saftied castellated nut with a new cotter pin. Reinstalled gear doors.
- \*Thoroughly cleaned landing gear using a grease soluble solvent under pressure. Used a bristle brush where necessary to remove stubborn deposits. Dried landing gear using compressed air and shop wipes as required. Lubricated landing gear in accordance with manufacturer's lubrication guide. Cleaned each Zerk fitting of residual grease. Removed aircraft from the jacks
- \*Lubricated the aircraft in accordance with the Mooney M20M lubrication guide.
- \*Placed fuel selector valve in the 'off' position. Removed fuel filter bowl, removed fuel filter and inspected for contaminants, none were noted. Cleaned filter and reinstalled. Installed fuel filter bowl using new o-rings p/n MS29512-05 & MS126277. Pressurized fuel system to check for leaks and none were noted

vent aircraft batteries. Remove cell vent caps, serviced with distilled water. Placed batteries on charger for the  
 id to obtain acceptable specific gravity readings. Reinstalled cell vent caps and flushed batteries' exterior with  
 battery box and surrounding area with acid neutralizer. Cleaned battery cable terminal ends as required,  
 and secured the battery cable terminal ends. Secured battery installation as required.  
 and vacuum regulator filter p/n B3-5-1 and gyro central air filter p/n D9-18-1. Also replaced vacuum pump inlet  
 primary & standby vacuum systems. Performed an operational check of the primary vacuum system & noted  
 cap. Disassembled and inspected. Carefully cleaned shaft of the locking tab. Removed and replaced both  
 010 & MS29513-338. Reassembled using a new cotter pin to safety. Installed fuel caps and set the fuel cap.  
 ontal and vertical surfaces for an operational test of the TKS system. Operated TKS system per Chapter 30 of  
 Manual and examined each panel to determine presence of deicing fluid and its flow rate. Checked operation in  
 rate modes. Checked operation of the windshield and propeller deicing portions as applicable. Verified proper  
 of panel and related annunciator lights. Upon completion of the operational test all fluid was washed off.  
 d removed the electric flap actuator gear box. Partially disassembled, cleaned, and inspected visually for  
 d shaft and ball screw with MIL-G-81322 grease in accordance with Chapter 5 of the service manual.  
 tallied actuator in accordance with Chapter 27-50-00. Verified proper flap rigging and operation. Next  
 hours.  
 Signal Inspection Bulletin 343 in accordance with the associated instructions. Removed the Trim Carrier  
 l inspected, no defects were noted. Re-greased using MIL-G-23827 grease and reassembled the Trim Carrier  
 n operational check of the manual and electric trim system and noted smooth and satisfactory operation.  
 ration FAA CRS KNMR864S PAGE 2 OF 3

YEAR:	RECORDING	TODAY'S	TOTAL	Description of Inspections, Tests, Repairs and Alterations
				*Inspected stall warning switch arm exterior and operationally tested with no discrepancies noted. Removed inspection panel rivets aft of stall warning vane assembly, removed panel and inspected switch and movement. Lubricated stall vane shaft. Re-riveted panel and primed rivets. *Removed & replaced vacuum high/low warning switch, p/n 800383-681. *Removed & replaced brake line flex hoses p/n 111417-350380. Removed & replaced brake piston o-ring p/n MS28775-222 Topped off reservoir and bled brakes. Operationally tested with satisfactory results. *Removed battery cable on the #1 battery negative lead. Re-crimped cable and reinstalled. *Drilled out broken static wick holder on right inboard elevator and installed a new static wick holder p/n 232646. Also replaced broken static wick at the outboard end of right elevator, p/n 232641. *Installed two new brass screws at pilots side lower instrument panel for the shock mounts *Removed & replaced nose steering yoke rod end p/n REM3-4-2. *Reshimmed landing gear steering horn, p/n 720013-009 *Removed 2 bolts securing dog leg link to the nose landing gear trusses. Cleaned old grease and installed new grease fittings p/n MS15001-1 in new dog link, p/n 530068-001. Installed new bushings, p/n 914020-017 & 914-020-021 and spacer washers. Reinstalled new nose gear dog link with new nuts and bolts and torqued to specs. Performed a gear swing with good results Greased nose gear torque link with aeroshell and put grease fitting caps on. *Installed solid rivets in place of working rivets on left wing access panel just ahead of speed brake panel *Removed & replaced TKS filter p/n 19295 with new o-rings and seals P/N AGS/1186/4, X0117/004, X0117/002 & X0162/001.  Keyson Airways Corporation FAA CRS KNMR864S PAGE 3 OF 3

Working Number

Contract or Invoice:

12. Status	
13. Number	
14-A	NEW
15-B	NEW

Relation specified in Block

If the work identified in accordance with this report is to that work, the

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81-295-0  
Part No  
15-08016  
175  
0-20

\*Accessed and removed aircraft batteries. Remove cell vent caps, serviced with distilled water. Placed batteries on charger for the period of time required to obtain acceptable specific gravity readings. Reinstalled cell vent caps and flushed batteries' exterior with fresh water. Cleaned battery box and surrounding area with acid neutralizer. Cleaned battery cable terminal ends as required. Reinstalled batteries and secured the battery cable terminal ends. Secured battery installation as required.

\*Removed and replaced vacuum regulator filter p/n B3-5-1 and gyro central air filter p/n D9-18-1. Also replaced vacuum pump inlet filters p/n 234-6 for primary & standby vacuum systems. Performed an operational check of the primary vacuum system & noted proper operation.

\*Removed each fuel cap. Disassembled and inspected. Carefully cleaned shaft of the locking tab. Removed and replaced both o-rings p/n MS23513-010 & MS29513-338. Reassembled using a new cotter pin to safety. Installed fuel caps and set the fuel cap lever tension.

\*Prepared wing, horizontal and vertical surfaces for an operational test of the TKS system. Operated TKS system per Chapter 30 of the Mooney Service Manual and examined each panel to determine presence of deicing fluid and its flow rate. Checked operation in the low and high flow rate modes. Checked operation of the windshield and propeller deicing portions as applicable. Verified proper operation of the control panel and related annunciator lights. Upon completion of the operational test all fluid was washed off surfaces.

\*Gained access to and removed the electric flap actuator gear box. Partially disassembled, cleaned, and inspected visually for defects. Re-lubricated shaft and ball screw with MIL-G-81322 grease in accordance with Chapter 5 of the service manual.

Reassembled and installed actuator in accordance with Chapter 27-50-00. Verified proper flap rigging and operation. Next inspection due in 500 hours.

\*Complied with Allied Signal Inspection Bulletin 343 in accordance with the associated instructions. Removed the Trim Carrier bearings, cleaned and inspected, no defects were noted. Re-greased using MIL-G-23827 grease and reassembled the Trim Carrier bearing. Performed an operational check of the manual and electric trim system and noted smooth and satisfactory operation.

\*Inspected stall warning switch arm exterior and operationally tested with no discrepancies noted. Removed inspection panel rivets aft of stall warning vane assembly, removed panel and inspected switch and movement. Lubricated stall vane shaft. Re-riveted panel and primed rivets.

\*Removed & replaced vacuum high/low warning switch, p/n 800383-681.

\*Removed & replaced brake line flex hoses p/n 111417-350380. Removed & replaced brake piston o-ring p/n MS28775-222. Topped off reservoir and bled brakes. Operationally tested with satisfactory results.

\*Removed battery cable on the #1 battery negative lead. Re-crimped cable and reinstalled.

\*Drilled out broken static wick holder on right inboard elevator and installed a new static wick holder p/n 232646. Also replaced broken static wick at the outboard end of right elevator, p/n 232641.

\*Installed two new brass screws at pilots side lower instrument panel for the shock mounts

\*Removed & replaced nose steering yoke rod end p/n REM3-4-2.

\*Reshimmed landing gear steering horn, p/n 720013-009

\*Removed 2 bolts securing dog leg link to the nose landing gear trusses. Cleaned old grease and installed new grease fittings, p/n MS15001-1 in new dog link, p/n 530068-001. Installed new bushings, p/n 914020-017 & 914-020-021 and spacer washers

Reinstalled new nose gear dog link with new nuts and bolts and torqued to specs. Performed a gear swing with good results. Greased nose gear torque link with aeroshell and put grease fitting caps on.

\*Installed solid rivets in place of working rivets on left wing access panel just ahead of speed brake panel.

\*Removed & replaced TKS filter p/n 19295 with new o-rings and seals F/N AGS/1186/4, X0117/004, X0117/002 & X0162/001

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61-295  
Part N  
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1001



YEAR:	RECORDING TACH TIME	TODAY'S 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.)
7/4/05			96.3	<p>Complied with AD 2004-23-17 to prevent cockpit in flight fire per parts E(1)(2) and parts G by complying with service bulletin M20-283A, by installing kit p/n M20-283-001 per the Installation Instructions, Part I, steps 1-15 and Part II, steps 16-36.</p> <p>Work Order # <u>10198</u> Date <u>7/14/05</u></p> <p>Keyson Airways Corporation FAA Certified Repair Station KNMR864S E: #8</p>

YEAR:	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL	Description of Inspections, Tests, Repairs and Alterations																								
				<p>TESTED BY: <u>Gur</u> INSPECTOR</p> <p>MID-CONTINENT INSTRUMENTS CO., INC. 8400 E. 34th ST. ANDERTH WICHITA, KS 67226 800-923-1212 • 316-620-0101 FAA REPAIR STATION #01270671</p> <p>Reference Altitude in Ft.   Altimeter Reads</p> <table border="1"> <tr><td>-1000</td><td>-1010</td></tr> <tr><td>0</td><td>0</td></tr> <tr><td>500</td><td>505</td></tr> <tr><td>1000</td><td>1010</td></tr> <tr><td>1500</td><td>1520</td></tr> <tr><td>2000</td><td>2010</td></tr> <tr><td>3000</td><td>3010</td></tr> <tr><td>4000</td><td>4015</td></tr> <tr><td>6000</td><td>6015</td></tr> <tr><td>8000</td><td>8000</td></tr> <tr><td>10000</td><td>9960</td></tr> <tr><td>12000</td><td>11980</td></tr> </table> <p>Model # <u>KT-79</u> Serial # <u>6028</u></p> <p>Tact. # Hobbs. Int. # <u>965.1</u></p> <p>Signature <u>[Signature]</u> Keyson Airways Corporation FAA Certified Repair Station KNMR864S</p>	-1000	-1010	0	0	500	505	1000	1010	1500	1520	2000	2010	3000	3010	4000	4015	6000	6015	8000	8000	10000	9960	12000	11980
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- \* Performed an Annual Inspection of the aircraft in accordance with the inspection checklist contained in M20M Maintenance Manual.
- \* Performed a computerized research of all potential Airworthiness Directives (AD's) through bi-weekly issue #2005-21
- \* Complied with FAR 91.207 (d) by removing the ELT unit from the aircraft and disassembled. Inspected for corrosion and other defects and none were noted. The ELT batteries are dated to expire 11/2006. Tested the "G" switch and noted proper operation. Reinstalled the ELT unit and performed an operational test which was satisfactory.
- \* Placed the aircraft on jacks. Removed all three wheels. Removed, cleaned and inspected the wheel bearings for defects, wear, etc., none noted. Repacked the wheel bearings with Aeroshell #5 grease. Disassembled each wheel assembly. Cleaned each wheel assembly and checked for wear, cracks and general condition, no discrepancies were noted. Reassembled each wheel and set the wheel bearing drag. Saffied the castellated nut with a new cotter pin.
- \* Thoroughly cleaned the landing gear using a grease soluble solvent under pressure. Used a bristle brush where necessary to remove stubborn deposits. Dried the landing gear using compressed air and shop wipes as required. Lubricated the landing gear in accordance with the manufacturer's lubrication guide. Cleaned each Zerkl fitting of residual grease. Removed the aircraft from the jacks.
- \* Lubricated the aircraft in accordance with the Mooney M20M lubrication guide.
- \* Placed the fuel selector valve in the "off" position. Removed the fuel filter bowl, removed the fuel filter and inspected for contaminants, none were noted. Cleaned the filter and reinstalled. Installed the fuel filter bowl using new o-rings. Pressurized the fuel system to check for leaks and none were noted.
- \* Accessed and removed the aircraft batteries. Removed the cell vent caps, serviced with distilled water. Placed the batteries on charger for the period of time required to obtain acceptable specific gravity readings. Reinstalled the cell vent caps and flushed the batteries exterior with fresh water. Cleaned the battery box and surrounding area with acid neutralizer. Cleaned the battery cable terminal ends as required. Reinstalled the batteries and secured the battery cable terminal ends.

- \* Removed and replaced the vacuum regulator filter and the gyro central air filter. Performed an operational check of the primary vacuum system noted proper operation.
- \* Removed each fuel cap. Disassembled and inspected. Carefully cleaned the shaft of the locking tab. Removed and replaced both o-rings part number listed below. Reassembled using a new cotter pin to safety. Installed the fuel caps and set the fuel cap lever tension.
- \* Gained access to and removed each speed brake. Performed a 200 hour inspection and lubricated in accordance with Precise Flight inspection checklist revision No.6. Found two pins partially backed out on the speed brake amp plug. Reset the amp plug pins and secured. Each speed brake was reinstalled and an operational test accomplished with satisfactory results.
- \* Prepared the wing, horizontal and vertical surfaces for an operational test of the TKS system. Operated the TKS system per Chapter 30 of the Mooney Service Manual and examined each panel to determine the presence of deicing fluid and its flow rate. Checked the operation in the low and high flow rate modes. Checked the operation of the windshield and propeller deicing portions as applicable. Verified the proper operation of the control panel and related annunciator lights. Upon completion of the operational test all fluid was washed off surfaces and the fluid reservoir replenished.
- \* Complied with Allied Signal Inspection Bulletin 343 in accordance with the associated instructions. Removed the Trim Carrier bearings, cleaned and inspected, no defects were noted. Re-greased using MIL-G-23827 grease and reassembled the Trim Carrier bearing. Performed an operational check of the manual and electric trim system and noted smooth and satisfactory operation.
- \* Removed the paint and cleaned the nose landing gear upper truss. Performed a dye penetrant crack inspection and noted one small crack. Removed the nose wheel and the lower gear leg. Removed the grease fitting from the lower shock disc pivot. Compressed the shock disc stack and removed the stack from the upper gear leg. Disconnected the gear extension over-center link. Removed the nose gear trunion and disconnected the center steering link bolt. Removed the right stop bolt and bushings. Removed and replaced the upper nose gear leg p/n5040004-509 on the trunion and torqued per the Service Instruction 03-59. Reinstalled the grease fittings on the upper leg. Installed a serviceable right stop bolt and new left stop bolt on the upper leg. Reinstalled the trunion, the steering center pivot hardware and the extension link pivot hardware. Reinstalled the shock discs, collar and the lower gear leg.



Checked the nose landing gear trail with satisfactory results. Frepped, primed and painted the area with a matching color. Applied lubricate to the nose gear as required. Adjusted the nose gear steering stop screw per the Maintenance Manual, Chapter 27. Installed two new tow limit placards and painted new tow limit pointers. Reinstalled the nose landing gear wheel

- \* Removed and replaced the rivets from the left and right main landing gear attach points using hysol.
- \* Received a new Pilots Operating Handbook, revision, 3502, F, p/n POH-003500 and transferred weight and balance data and any other required information. Placed the new Pilot Operating Handbook and the reference manual in the aircraft.
- \* Removed the corrosion from the right wing bottom leading edge. Treated the area with etch and alodine. Prepped, primed and painted with a matching color. Polished the area.
- \* Removed the left wing outboard stall strip and found the foam in the strip hard and missing in areas. Removed and replaced the tow foam peices, p/n D4615T in the stall strip. Removed residual adhesive from the stall strip and the TKS panel. Frepped the TKS panel and reattached the stall strip with adhesive. Also, sealed the other stall strips with silver RTV.
- \* Removed the second most aft rudder push rod and rod end. Cleaned the inside of the rod. Drilled holes for the new rod end. Installed the new rod end using hysol and new roll pins. Reinstalled and secured the rod. Also noted that the other rod ends have incorrect washers on both bell cranks. Removed and replaced the hardware on the bell cranks using the correct type washers. Checked the rudder travels and adjusted as necessary to Manufactures specifications.
- \* Re-torqued the brass fitting between the metallic line and the flexible line to the hydraulic brake fluid reservoir. Cleaned the area and will continue to monitor
- \* Removed the left nose landing gear door and door hinge. Drilled identical holes in the new door hinge. Frepped, primed and paint the hinge a matching color. Riveted the hinge, p/n 550032-007 to the gear door. Reinstalled the door. Primed and painted the rivets with a match color. Performed a gear swing with satisfactory results.
- \* Disconnected the aft left main gear door at the rod end. Removed the bolt at the inboard end of the link and at the aft end attach point of the main landing gear. Installed shims, p/n 510004-015 between plates as necessary. Reinstalled the bolts and torqued to specifications. Checked the forward and aft play and noted to be within Mooney Service Manual specifications. Reattached the aft gear door and link and safetied.

\* Adjusted the travel at the clamp on the oxygen bottle control. Operationally tested with satisfactory results.

- \* Removed and replaced the cabin heat cable, p/n 640258-007. Lubricated the cable and operationally tested with satisfactory results.
- \* Removed the compass and trimmed the gasket for a better fit. Reinstalled the compass and operationally tested with no faults noted.
- \* Removed the left fuel vent plastic scoop from the aircraft. Primed and painted a new scoop with matching color paint. Removed residue sealant and broken rivets from the inside of the wing bay. Drilled holes in the new scoop. Installed the new scoop, p/n 210399-001 using rivets. Also, sealed the edges of the scoop. Riveted an access panel. Prepped, primed and painted the rivets with a matching color.
- \* Installed a new nutplate behind the pilot side panel and seat belt.
- \* Removed and disassembled the landing gear actuator. Complied with Mooney Service Bulletin M20-282, Part 1. Removed and replaced the no back clutch spring. Also, found the rotation torque on the no back clutch drive to be out of specified limits. Adjusted the rotation torque by removing shims as necessary. Tested the rotation torque and noted to be within M20-282 limits. Complied with Eaton Service Instructions 102000-1-901, Revision 2 Steps 1 through 22. Reinstalled the actuator and torqued to specification. Next Due @ 1963.9 ACTT
- \* Removed, deflated and sent the oxygen bottle out for hydrostatic testing. Received, inspected, installed & serviced bottle. p/n 895-08015, s/n 2628 with oxygen @1575 psi. The 15 year life limit of the bottle expires April 2007 & is due for replacement at that time.
- \* Performed a general paint touch up on the aircraft.
- \* Complied with Mooney Service Bulletin M20-285A, Stabilizer Trim Torque Tube inspection in accordance with the accomplishment instructions and steps 1 through 6. Found the bolt installed incorrectly on the down spring control assembly attach point. Removed and correctly installed the bolt and safetied. Inspected the torque tube with no damage noted. Complied with instructions 30-31, figures M20-285-1, -1A, -2. No further action required.
- \* Removed and replaced the landing gear lower down lock bulb, p/n 327. Operationally tested with satisfactory results.

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YEAR:	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations
ATE				Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)

- \* Complied with Allied Signal Inspection Bulletin 343 in accordance with the associated instructions. Removed the Trim Carrier bearings, cleaned and inspected, no defects were noted. Re-greased using MIL-G-23827 grease and reassembled the Trim Carrier bearing. Performed an operational check of the manual and electric trim system and noted smooth and satisfactory operation.
- \* Installed a helicoil in the left main wheel dust cover. Reinstalled the hardware and torqued to specifications.
- \* Cleaned the pilot seat locking pin area. Removed and replaced the pilot seat locks, p/n 140215-023 and rollers. p/n 14004-4000 Torqued the hardware to specifications and operationally tested with satisfactory results.
- \* Removed the right wing fuel drain and cleaned out debris. Reinstalled and torqued the fuel drain to specifications. Operationally tested the fuel drain and leak checked with satisfactory results.
- \* Adjusted the elevator trim arm on the bottom of the elevator trim wheel in accordance with the M20M Maintenance Manual. Operationally tested the elevator trim and noted proper indication with no faults noted.
- \* Cleaned the glareshield seal and mating surfaces of residual adhesive. Rebonded the seal to the glareshield using adhesive.
- \* Installed a new nutplate and washer to the screw for the overhead center panel above the rear seats aft left corner. Torqued the screw to specifications.
- \* Disconnected the elevator trim spring from the cable. Repositioned the cable and reinstalled the trim cable spring. Operationally tested the trim with satisfactory results.

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YEAR:	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations
DATE				Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)

I certify that this aircraft has been inspected in accordance with an Annual Inspection and was determined to be in airworthy condition and is approved for return to service. Particular details of work inspection are on file at this Repair Station under the work order listed.

Date: 1-10-07

Work Order # 41384

Tach. or Hobbs Time: 3807

Aircraft Total Time: 3807

Signature: \_\_\_\_\_

Keyson Airways Corporation  
FAA Certified Repair Station #KNMR864S

Keyson  
Airways Corporation  
Excellence in All Things Aviation



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Part No 15-0801  
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**ctions. Tests, Repairs and Alterations**

**Supplemental Logbook Entry**

Reg No: N504MB M-20-M SN 27-0127  
 Hours: Landings

Removed and replaced the Encoding Altimeter with Overhauled unit. Unit was calibrated to 35,000 ft. by Honeywell on 9/19/2006. The static system tests and inspections required by FAR 91.411 paragraph (a)(2) were performed and found to comply with FAR 43, appendix L, paragraph (a). The data correspondence tests and inspections required by FAR 91.411 paragraph (a)(3) and FAR 91.413 paragraph (b) were performed and found to comply with FAR 43, appendix F, paragraph (e)

PN Off	066-03064-0003	SN Off	1426
PN On	066-03064-0035	SN On	32746

I certify the above described maintenance is airworthy with respect to the work performed, per the requirements of FAR 145.213(a) and is approved for return to service. Details on file under Work Order # E1637A

Inspected By: *[Signature]* 10/12/2006  
 For Duncan Avionics - Morristown, NJ, CRS # D24R826Y



**ctions. Tests, Repairs and Alterations**

**Supplemental Logbook Entry**

Reg No: N504MB M-20-M SN 27-0127  
 Hours: Landings

Removed and replaced the #1 COMM/NAV with exchange unit. System OPS checks normal in accordance with the Bendix King KX-155A System Installation Manual Rev 1 May 1999.

PN Off	069-1024-43	SN Off	122896
PN On	069-1024-43	SN On	120317

I certify the above described maintenance is airworthy with respect to the work performed, per the requirements of FAR 145.213(a) and is approved for return to service. Details on file under Work Order # E2V6A

Inspected By: *[Signature]* 10/12/2006  
 For Duncan Avionics - Morristown, NJ, CRS # D24R826Y



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I certify that  
required by  
the limits of  
**TESTED**  
Transport

Encoder:  
Altimeter

W/O A1  
Date 2/1  
Infinity Aviat

Altimeter/Encoder Calibration Sheet  
Infinity Aviation Services LLC  
FAA Certified Repair Station #16FR992Y  
Form #10

Date: 2/16/08

Altitude of base  
Altitude to top

Altitude: 6000  
Altitude: 6000

ACT/TA: NSCHMB  
MFR Order #: A12089  
Model Number: KEA 1500  
Serial Number: 32746  
Encoder: 6028  
Encoder: Encoder

Iterations  
Number of Technician or Repair

Table 1: Scale Error (in 1000 ft increments) (2284' to 12000')

Indic. Altitude	Real Altitude	Diff. Reading	Alt. to 2000 ft	Final Error	± Error Tolerance
2000	4727	-1727	7	7	± 25
2000	4343	-1343	10	10	± 25
2000	465	-370	7	7	± 25
2000	492	-400	8	8	± 25
2000	0	-5	5	5	± 25
2000	200	520	11	11	± 25
2000	175	580	13	13	± 25
2000	914	915	9	9	± 25



- Date: 3/17/2008; Aircraft: N504MB; Type: M20M; S/N: 27-0127; Hobbs: 390.4; Total Time: 990.4
- \* Performed a 100-hour/Annual inspection on the airframe and propeller in accordance with the inspection checklist contained in the M20M Maintenance Manual.
  - \* Opened and closed the aircraft to perform inspection.
  - \* Complied with Airworthiness Directive research to 2008/3 Biweekly issuance
  - \* Completed aircraft lubrication per manufacturers recommendations
  - \* Completed the wheel bearing cleaning, inspection, and re-greasing
  - \* Completed airframe fuel strainer or fuel bowl filter cleaning.
  - \* Complied with FAR 91.207 (d) Inspection and operational check of ELT. Remove inspected and reinstalled the ELT battery(ies). The battery expiration date is on 2/2009.
  - \* Inspected the batteries, serviced electrolyte and charged batteries as required. Inspected and cleaned battery boxes. Touched up each battery box paint as required. Reinstalled batteries and electrical connections.
  - \* Removed and replaced the vacuum regulator and gyro suction filters p/n D9-18-1, B3-5-1 2J4-6.
  - \* Disassembled and inspected the fuel caps. Removed and replaced seals, p/n MS29513-010, MS29513-338 Reassembled set tab lever tension and safetied. Performed a leak check with no leaks noted.
  - \* Cleaned the landing gear. Lubricated the landing gear in accordance with the lubrication guide contained in the M20M Service Manual. Cleaned each Zerk fitting of residual grease
  - \* Removed induction air filter. Inspected and cleaned the induction air filter housing. Replaced the induction air filter and secured
  - \* Gained access to and removed each speed brake. Performed a 200 hour inspection and lubrication in accordance with Precise Flight inspection checklist Revision No. 6. Each speed brake was reinstalled and an operationally tested with satisfactory results.

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DATE	RECORDING TACH TIME	TODAY'S 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.)
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Date: 5/05/2008; Aircraft: N504MB; Type: M20M; S/N: 27-0127; Hobbs 990.4  
 \* Removed the existing batteries. Installed two new 243 batteries.

Signature: Lee Abt *[Signature]*  
 Date: 5/5/2008, W/O: 12141  
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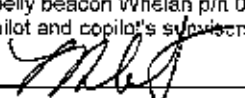
DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
10-21-08	Act 1010.0		1010.0	① Removed Four Expired Life Vests and installed four New units. Pn off - GA-12 Pn on - P0723E-10SP Sns's on - 270826, 254931, 255021, 254920 Reinspection due 8-2013. Robert E. Ulrich AP145500121
11-6-08	Act 1010.0		1010.0	① Removed and Reinstalled Fire Extinguisher after Recertification purchased. Next Hydro Due 10-2020 Next 6yr inspection due 10-2014. Pn off Pn 344 Sns off Pn U-002620. Robert E. Ulrich AP145500121



RECORDING TACK TIME	TODAY'S 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: 4/01/2009; Aircraft: N504MB; Type: M20M; S/N: 27-0127; Hobbs: 1013.1. Total Time: 1013.1  
 \* Removed and replaced the belly beacon Whelan p/n 01-0790088-11 assy p/n 9008811.  
 \* Removed and replaced the pilot and copilot's switches p/n 150083-015 and 130301-001

Signature: Lee Abt 

Date: 4/1/2009 W/O: 12193  
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RECORDING TACK TIME	TODAY'S 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: 7/06/2009; Aircraft: N504MB; Type: M20M; S/N: 27-0127; Hobbs: 1012.4; Total Time: 1013.1  
 \* Performed a 100-hour/Annual Inspection on the airframe in accordance with the inspection checklist contained in the M20M Maintenance Manual.  
 \* Opened and closed the aircraft to perform inspection.  
 \* Complied with Airworthiness Directive research to 2009/13 Biweekly issuance  
 \* Completed aircraft lubrication per manufacturers recommendations.  
 \* Completed the wheel bearing cleaning, inspection, and re-greasing  
 \* Completed airframe fuel strainer or fuel bowl filter cleaning.  
 \* Inspected the batteries, serviced electrolyte and charged batteries as required. Inspected and cleaned battery boxes. Touched up each battery box paint as required. Reinstalled batteries and electrical connections.  
 \* Removed and replaced the vacuum regulator filter B3-5-1.  
 \* Disassembled and inspected the fuel caps. Removed and replaced seals, p/n MS29513-010 MS29513-338 Reassembled set tab lever tension and safetied. Performed a leak check with no leaks noted.  
 \* Cleaned the landing gear. Lubricated the landing gear in accordance with the lubrication guide contained in the M20M Service Manual. Cleaned each Zerk fitting of residual grease  
 \* Removed induction air filter. Inspected and cleaned the induction air filter housing. Reinstalled the induction air filter and secured.  
 \* Installed Cessna Seat Stop Service Bulletin kit p/n SK210-174A on the pilot's seat in accordance with Service Bulletin SEB07-5R1 accomplishment instructions and data from DER Report #1256 date 6/29/2009. Recalculated the aircraft weight and balance. Updated the aircraft data. Accomplished 337.  
 \* Installed two new lever assemblies on the pilot's and copilot's seat with new clevis pins. Changed multiple clevis and roll pins throughout the seat to take up clearance.

RECORDING TACH TIME	TODAY'S 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.)
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Infinity Aviation Services LLC PAGE 2 OF 3

- \* Complied with Allied Signal Inspection Bulletin 343 in accordance with the associated instructions. Removed the Trim Carrier bearings, cleaned and inspected, no defects were noted. Re-greased using MIL-G-23827 grease and reassembled the Trim Carrier bearing. Performed an operational check of the manual and electric trim system and noted smooth and satisfactory operation.
- \* Reset the right main landing gear pre-load to manufacturer's specifications.
- \* Disconnected the brake reservoir line at the flare fitting and re-routed the flexible portion. Secured the flexible portion clear of the aileron and rudder control with tywraps. Bled the brake lines to ensure proper operation. Operationally tested with satisfactory results.
- \* Applied silicone spray to the alternate air micro-switch pivot. Operationally tested with satisfactory results.
- \* Removed and replaced the aft right cabin overhead lamp p/n GE1818. Operationally tested with satisfactory results.
- \* Relocated and secured the TKS tubing at the rudder stop bulkhead. Tightened the TKS fitting in the belly and cleaned for monitoring. Opened the TKS fitting in the left wing outboard of the wheel well. Replaced the o-ring and reconnected the fitting. Safetied the hardware. Secured the line with tywraps. Performed pressure and leak checks with no discrepancies noted. Operationally tested the pumps and panels with satisfactory results.
- \* Repaired the right wing strobe power supply ground wire, sleeved and replaced the terminal. Operationally tested with satisfactory results.
- \* Installed a Precise Flight Pulselite Control System p/n 1220/2405-2A in accordance with STC SA4005NM and in reference to the Mooney M20M wiring diagram p/n 800304. Operationally tested the pulse light system with satisfactory results. Accomplished 337
- \* Removed the old landing light lenses. Cut shaped and drilled new landing light lenses to fit. Replaced the left and right landing light lenses.
- \* Cleaned and monitored the fuel staining at the left fuel tank line connection flange with no leaks noted

YEAR:	RECORDING TACH TIME	TODAY'S 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.)
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Infinity Aviation Services LLC PAGE 3 OF 3

- \* Removed the old ELT. Installed a new ME406 MHz ELT p/n 455-8614 s/n 188-08406 in accordance with the Artex ME406 Installation Instructions. Operationally tested with satisfactory results. Reinstalled the empennage tail covers. Primed and painted rivets to match.
- \* Replaced three amp plug connector halves on the right bottom side of the engine compartment.
- \* Troubleshoot the overhead speaker system. Checked the wires and connections. Determined that the speaker was at fault. Removed the old speaker. Installed a new style Mooney speaker p/n S1477-06. Modified the mount slightly in order for the new speaker to fit correctly. Performed an operational check of the speaker system with satisfactory results. Work performed in reference to the M20M Maintenance Manual and Wiring Diagram.
- \* Troubleshoot the autopilot trim warning horn and found a poor connection at the audio control box. Repaired the connection. Operationally tested the trim warning horn with satisfactory results.

I certify that this aircraft has been inspected in accordance with an Annual inspection and was determined to be in airworthy condition and is approved for return to service. Pertinent details of this inspection are on file at this facility. Infinity Aviation Services LLC under the work order listed.

Signature: Lea Abt   
 Date: 7/6/2009, W/O: 112592  
 Infinity Aviation Services LLC  
 FAA Certified Repair Station  
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