



FAA APPROVED

AIRPLANE FLIGHT MANUAL

FOR

MAULE M-7-260C

Airplane Serial No. _____

Registration No. _____

THIS DOCUMENT MUST BE KEPT IN THE AIRPLANE AT ALL TIMES.

FAA APPROVED: Eugene L. Bollin
for Manager, Aircraft Certification Office
Federal Aviation Administration
Atlanta, Georgia USA

DATE: 10-19-98

EXPERIENCE THE PERFORMANCE
2099 Georgia Hwy. 133 South~Moultrie, GA 31768
Tel: 912-985-2045~Fax: 912-890-2402

MAULE AEROSPACE TECHNOLOGY, INC.
AIRPLANE FLIGHT MANUAL
MAULE **M-7-260C**

Page i

LOG OF REVISIONS

REV.	TO PAGES	DESCRIPTION	APPROVAL AND DATE
A	4	Vendor part number change.	<i>for Eugene L. Bollin</i> Manager, Aircraft Certification Office, FAA Atlanta, Georgia Date: <u>6-23-99</u>
B	12	Corrected (fully retracted) to read (first notch) in Item F.	<i>for Robert B. Mandell</i> Manager, Aircraft Certification Office, FAA Atlanta, Georgia Date: <u>SEP 10 1999</u>
C	19 2 4 13	Add "- D" to Item 5.a. Corrected unusable fuel to read 2.3 gallon. Added McCauley Propellers B2D37C224-[]/[]-90RA-10.5 and B3D32C414-[]/[]-82NDA-2.	<i>for Eugene R. Bollin</i> Manager, Aircraft Certification Office, FAA Atlanta, Georgia Date: <u>4-17-00</u>
D	3, 5, 12-16	Changed primary airspeed units to knots.	<i>for Clint Wall</i> Manager, Aircraft Certification Office, FAA, Atlanta, GA Date: <u>MAR 07 2002</u>
E	11	In 3.3.A. FLAP SETTINGS, corrected Landing flap handle position to read: Fourth Notch for 48° flap position. In 3.3.B. RECOMMENDED FLAP SETTINGS, corrected Landing flap setting to read: - Normally Fourth Notch (48°/full flaps).	<i>for Clint Wall</i> Manager, Aircraft Certification Office, FAA, Atlanta, GA Date: <u>MAY 24 2002</u>

MAULE AEROSPACE TECHNOLOGY, INC.
AIRPLANE FLIGHT MANUAL
MAULE M-7-260C

Page ii

LOG OF SUPPLEMENTS

SUPP. NO.	NO. OF PAGES	DESCRIPTION	APPROVAL DATE
1	21	Inst. of Wipline 3000 Amphibious Floats - Maule Dwg 9186A . (03/12/99) Rev. A	08/19/02
2	8	Inst. of Aqua 2400 Floats - Maule Dwg 9135A , Rev. E or later. (11/19/99) Rev. A	08/19/02
3	6	English to Metric Conversion Charts - required in aircraft when registered in Canada .	09/03/99
4	5	Inst. of S-TEC System 20 Single Axis Autopilot Model ST-810-20 (14v) - Maule Dwg 9197A , Rev. C or later. (Sea)	07/05/01
5	5	Inst. of S-TEC System 30 Two Axis Autopilot Model ST-810-30 (14v) - Maule Dwg 9197A , Rev. C or later. (Sea)	07/05/01
-	5	Inst. of S-TEC System 20 Single Axis Autopilot Model ST-872-20 (28v) - Maule Dwg 9211A . (Sea)	06/25/01
-	5	Inst. of S-TEC System 30 Two Axis Autopilot Model ST-872-30 (28v) - Maule Dwg 9211A . (Sea)	06/25/01
-	3	Inst. of GARMIN GNS-430 (GPS/NAV/COMM) System - Maule Drawing 7205A .	01/03/01
-	3	Inst. of GARMIN GNC-300XL (GPS/COMM) System - Maule Dwg 7207A .	01/03/01
-	3	Inst. of GARMIN GNC-250XL (GPS/COMM) System - Maule Dwg 7209A .	01/03/01
-	3	Inst. of Bendix-King KLX-135A (GPS/COMM) System - Maule Dwg 7219A .	01/03/01
-	5	Inst. of S-TEC System 20 Single Axis Autopilot Model ST-873-20 (14/28v) - Maule Dwg 9212A . (Land)	10/15/01
-	5	Inst. of S-TEC System 30 Two Axis Autopilot Model ST-873-30 (14/28v) - Maule Dwg 9212A . (Land)	10/15/01
-	5	Installation of Apollo MX20 Multi-Function Display - Maule Drawing 7265A.	08/15/02
-	8	Installation of GARMIN GNC-420 (GPS/COMM) System per Maule Drawing 7251A .	06/30/03
-	9	Installation of GARMIN GNS-530 (GPS/NAV/COMM) System per Maule Drawing 7253A .	06/30/03
-	4	Installation of GARMIN GTX-330 Mode S Transponder Traffic Information System (TIS) per Maule Drawing 7255A .	06/30/03

TABLE OF CONTENTS

ITEM

COVER PAGE

LOG OF REVISIONS..... i

LOG OF SUPPLEMENTS..... ii

TABLE OF CONTENTS..... iii

& iii

SECTION I GENERAL

Plan View..... 1

1.1 Maximum Weight..... 2

1.2 Center of Gravity Limits..... 2

1.3 Maneuvers..... 2

1.4 Fuel Capacity..... 2

SECTION II LIMITATIONS

2.1 Airspeed Limits..... 3

2.2 Power Plant Limits..... 4

2.3 Flight Load Factors..... 5

2.4 Placards..... 5

SECTION III NORMAL PROCEDURES

3.1 Preflight Inspection..... 7

3.2 Operating Check Lists..... 8

3.3 Normal Flight Operations..... 11

3.4 Door-Off Operation..... 13

3.5 Noise Level..... 13

3.6 Anti-Collision Light..... 13

SECTION IV EMERGENCY PROCEDURES

4.1 Emergency Basic Rules..... 14

4.2 Engine Emergency Shutdown..... 14

4.3 Engine Fire During Starting..... 14

4.4 Engine Fire After Starting..... 14

4.5 Emergency Exit on the Ground..... 14

4.6 Takeoff Abort..... 14

4.7 Engine Failure After T.O. or Forced Landing..... 14

4.8 Partial Power Failure During Flight of After T.O..... 15

4.9 Complete Power Failure During Flight..... 15

4.10 Engine Airstart..... 15

4.11 Electrical Fire..... 15

4.12 Engine Fire During Flight..... 15

4.13 Smoke and Fume Elimination..... 16

4.14 Structural Damage..... 16

4.15 Recovery From Inadvertent Spins..... 16

4.16 Alternator Failure..... 16

TABLE OF CONTENTS

ITEM

SECTION V **WEIGHT AND BALANCE AND EQUIPMENT LIST**

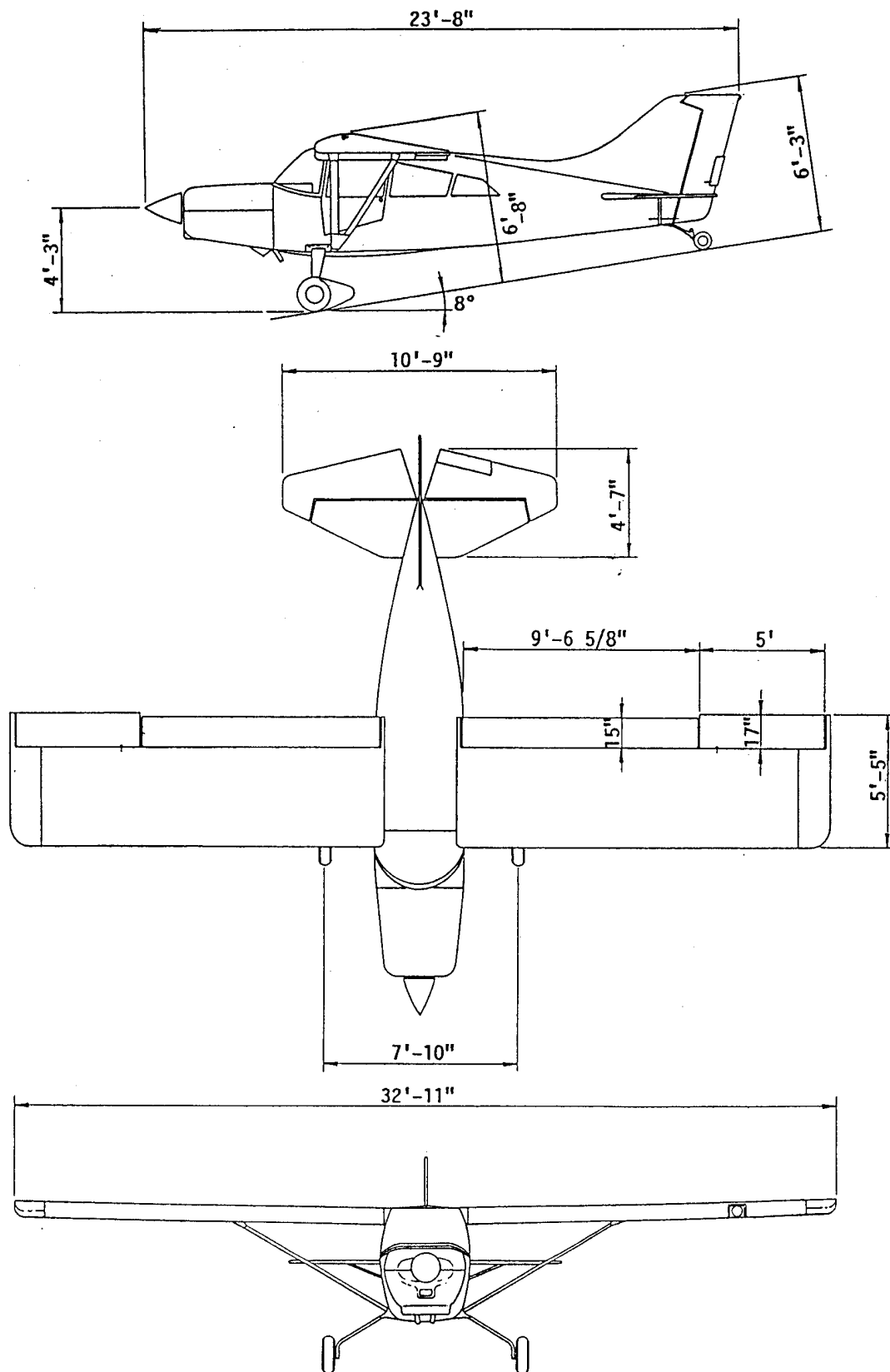
- 5.1 Weight and Balance Data..... 17
Required Equipment List Provided for each Airplane

SECTION VI **AIRCRAFT SERVICING, HANDLING AND MAINTENANCE**

- 6.1 Introduction..... 33
6.2 Airplane Inspection Period..... 33
6.3 Preventive Maintenance that may be Accomplished
by a Certified Pilot..... 33
6.4 Alterations or Repairs to Airplane..... 33

SECTION VII **MANUFACTURER'S DATA**

Optional Equipment List



SECTION I

GENERAL: NORMAL CATEGORY OPERATION

1.1 **MAXIMUM WEIGHT:** 2500 Pounds

1.2 **CENTER OF GRAVITY LIMITS:** +15.0 to +20.0 @ 2500 lbs.
+12.5 to +20.0 @ 1700 lbs. or less

Straight line variation between points given
Datum: Wing Leading Edge

NOTE: It is the responsibility of the pilot to assure that the airplane is properly loaded.
Refer to the Weight and Balance Data for baggage/cargo loading recommendations and loading graphs.

////////////////////
////CAUTION////
////////////////////
CHECK WEIGHT AND BALANCE CAREFULLY, ESPECIALLY WHEN
USING THE 5TH SEAT OR WHEN CARGO OR BAGGAGE IS CARRIED IN
THE REAR CABIN AREA. ALSO, FLIGHT PLANNING SHOULD INCLUDE
ALLOWANCE FOR FORWARD C.G. SHIFT WITH FUEL BURN.

1.3 **MANEUVERS:** Only Normal Category Maneuvers including Stalls, Lazy Eights, Chandelles
and steep turns involving bank angles not greater than 60° are approved in
this airplane.

////////////////////
////CAUTION////
////////////////////
AEROBATICS AND INTENTIONAL SPINS PROHIBITED.

1.4 **FUEL CAPACITY:**

Usable Fuel: MAIN TANKS - 21.5 Gal. each
OPTIONAL AUXILIARY TANKS - 15.0 Gal. or 21.0 Gal. each*

Unusable Fuel: 2.3 Gallons per Main Tank

*Fuel Capacity - See Instrument Panel Placard for Auxiliary Tank configuration installed in
this aircraft.

////////////////////
////CAUTION////
////////////////////
FUEL REMAINING IN TANK WHEN INDICATOR READS EMPTY CANNOT
BE USED SAFELY IN FLIGHT.

FAA APPROVED
DATE: 10/19/98
Rev. C dated: APR 17 2000

PAGE 2

SECTION II

LIMITATIONS

2.1 AIRSPPEED LIMITS: All airspeeds are Indicated Airspeeds (IAS).

A. AIRSPEED INDICATOR MARKINGS:

Red Radial, (V_{NE}) - 158K (182 mph)

Yellow Arc, Caution Range - 128 - 158K (147 - 182 mph)

Green Arc, Normal Operating Range - 54 - 128K (62 - 147 mph)

White Arc, Flap Operating Range - 43 - 83K (50 - 95 mph)

B. EXPLANATION OF AIRSPEED INDICATOR MARKINGS:

Red Radial Line - Never Exceed Speed (V_{NE}) 158K (182 mph): Maximum safe airspeed in smooth air.

Yellow Arc - Caution Range, 128 - 158K (147 - 182 mph): Operation in this speed range should be conducted only in smooth air and control movements should not be large or abrupt.

Green Arc - Normal Operating Range, 54 - 128K (62 - 147 mph): Extends from flaps up, power off stall speed at 2500 lbs. (V_{S1}) to design cruise speed (V_C).

White Arc - Flap Operating Range, 43 - 83K (50 - 95 mph): Extends from full flap, power off minimum stall speed at 2500 lbs. (V_{SO}) to the Maximum flaps extended speed (V_{FE}).

FAA APPROVED

DATE: 10/19/98

Rev. D dated: MAR 07 2002

PAGE 3

2.2 POWER PLANT LIMITS:

Engine:	Lycoming IO-540-V4A5
Engine Limits:	260 hp @ 2700 RPM, Full Throttle Continuous
Propeller:	MT-Propeller: MTV-14-B/190-17 Hartzell: HC-C2YR-1BF/F8477D-9 HC-C3YR-1RF/F7693(F)-()* McCauley: B2D37C224-[]/[]-90RA-10.5 or -12 B3D32C414-[]/[]-82NDA-2 or -4
Fuel:	100/100LL Minimum Grade Aviation Gasoline
Engine Instrument Markings:	
Cylinder Head Temperature:	Green Arc - Normal Operating Range, 200°F - 435°F Red Radial - Operating Limit, 500°F
Oil Temperature:	Green Arc - Normal Operating Range, 140°F - 245°F Red Radial - Operating Limit, 245°F
Oil Pressure:	Green Arc - Normal Operating Range, 55 to 95 psi Yellow Arc - Caution Range, 25 to 55 and 95 to 115 psi Red Radial - Minimum Operating Pressure, 25 psi, Maximum Operating Pressure, 115 psi
Manifold Pressure	Green Arc - Normal Operating Range, 14.5 to 29 ins. of Mercury
Fuel Flow	Red Radial - Maximum, 8.9 psi or 26.9 gph
Tachometer:	Green Arc - Normal Operating Range, 2000 - 2700 RPM Red Radial - Maximum RPM, 2700 RPM

* Limited to no dash number (78" diameter) to -2 (76" diameter)

FAA APPROVED: 10/19/98
Rev. A dated: 6/23/99
Rev. C dated: APR 17 2000

PAGE 4

- 2.3 FLIGHT LOAD FACTORS: Flaps Fully Retracted: 3.8g Positive to 1.5g Negative
Flaps Extended: 1.9g Positive to 0g Negative

NOTE: DESIGN MANEUVERING SPEED: The maximum safe airspeed at which full aerodynamic controls can be applied (V_A) is 109K (125 mph). This airspeed is not marked on the air-speed indicator.

2.4 PLACARDS:

The following placards are in the cockpit in clear view of the pilot:

"THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FLIGHT MANUAL AND IN THE FORM OF PLACARDS AND MARKINGS."

"NO AEROBATIC MANEUVERS INCLUDING SPINS, APPROVED."

"ROUGH AIR OR MANEUVERING SPEED 109K (125 MPH) I.A.S."

"THIS AIRPLANE APPROVED FOR DAY OR NIGHT IFR NON-ICING FLIGHT WHEN EQUIPPED IN ACCORDANCE WITH FAR 91 OR FAR 135."

"DO NOT TURN OFF ALTERNATOR IN FLIGHT EXCEPT IN CASE OF EMERGENCY."

"FUEL REMAINING IN TANK WHEN INDICATOR READS ZERO CANNOT BE USED SAFELY IN FLIGHT."

"SEE LOADING INSTRUCTIONS IN WEIGHT AND BALANCE SECTION OF AIRPLANE FLIGHT MANUAL."

"DEMONSTRATED CROSSWIND 12K (14 MPH)"

On the instrument panel at the auxiliary tank transfer switches:

FUEL TRANSFER PUMPS		
PUSH FOR		PUSH FOR
AUX. QUANT.		AUX. QUANT.
LEFT	RIGHT	

FUEL CAPACITY: MAIN TANKS 21.5 GAL. USABLE EACH, AUX. TANKS * GAL. USABLE EACH.

* 15 Gal. or 21 Gal. Instrument Panel Placard will show capacity of the tanks installed in this aircraft.

FAA APPROVED
DATE: 10/19/98
Rev. D dated: MAR 07 2002

PAGE 5

2.4 PLACARDS: (Cont'd)

At the main fuel tank selector valve on the left kick panel:

FUEL SELECTOR VALVE

LEFT: 21.5 GAL.
OFF BOTH
RIGHT: 21.5 GAL.

Located on flap control handle:

"FLAPS / PULL ON / 2ND NOTCH / TAKEOFF / 4TH NOTCH / LANDING."

In rear cabin area:

"CHECK WEIGHT AND BALANCE CAREFULLY WHEN USING 5TH SEAT OR
LOADING REAR/CARGO/BAGGAGE."

"MAX. REAR SEAT LOADING IS 170 LBS."

"CARGO OR BAGGAGE LIMITATIONS

MAX. LOAD AREA "A" 170 LBS.

MAX. LOAD AREA "B" 350 LBS.

MAX. LOAD AREA "C" 250 LBS.

FAA APPROVED
DATE: OCT 19 1998

PAGE 6

SECTION III

NORMAL PROCEDURES:

3.1 PREFLIGHT INSPECTION:

A. INTERIOR:

- | | | |
|----|------------------------------|---|
| 1. | BAT Switch..... | ON |
| 2. | Fuel Gauges..... | CHECK INDICATIONS |
| 3. | Auxiliary Fuel Pumps..... | ON, THEN OFF (LISTEN TO VERIFY OPERATION) |
| 4. | All Electrical Switches..... | OFF |
| 5. | BAT Switch..... | OFF |
| 6. | Flaps..... | FULL DOWN (4TH NOTCH) |

EXTERIOR: Begin at the left front door, proceed around the left wing to the nose area, then around the right wing and back to the fuselage, then around the tail section.

- | | | |
|-----|---|---|
| 1. | Fuel drains behind step..... | DRAIN (2) |
| 2. | Left Flap..... | CHECK HINGES & CONTROL ATTACHMENTS |
| 3. | Aileron..... | CHECK HINGES & CONTROL ATTACHMENTS |
| 4. | Left Wing Top..... | CHECK FOR WRINKLES AS INDICATION OF INTERNAL DAMAGE |
| 5. | Left Wing Main & Aux Fuel Tank Drain..... | DRAIN (2) |
| 6. | Left Wing Tip & Nav Light..... | CHECK FOR DAMAGE |
| 7. | Auxiliary Fuel Tank..... | VISUALLY CHECK QUANTITY |
| 8. | Landing Light..... | CHECK FOR DAMAGE |
| 9. | Left Wing Tiedown..... | REMOVE |
| 10. | Pitot Tube..... | REMOVE COVER |
| 11. | Stall Warning Switch..... | CHECK FOR FREEDOM OF MOVEMENT |
| 12. | Main Fuel Tank..... | VISUALLY CHECK QUANTITY |
| 13. | Left Landing Gear..... | CHECK TIRE INFLATION AND BRAKE LINE SECURITY |
| 14. | Bottom left side of Cowl..... | DRAIN GASCOLATOR (1) |
| 15. | Top Cowl, Oil Access Door..... | CHECK OIL QUANTITY |
| 16. | Propeller..... | CHECK LEADING EDGE FOR DAMAGE. CHECK SPINNER FOR SECURITY |
| 17. | Air Inlets..... | CHECK FOR FOREIGN OBJECTS, INSPECT VISIBLE CONNECTIONS AND COMPONENTS |

FAA APPROVED
 DATE: OCT 19 1998

PAGE 7

3.1 PREFLIGHT INSPECTION: (Cont'd)

- | | |
|---|---|
| 18. Right Landing Gear..... | CHECK TIRE INFLATION &
BRAKE LINE SECURITY |
| 19. Right Wing & Controls..... | INSPECT SAME AS LEFT WING |
| 20. Wing Main & Aux Fuel Tank Drain..... | DRAIN (2) |
| 21. Right Fuselage, Side, Top & Bottom..... | INSPECT FOR WRINKLES
AS INDICATION OF
INTERNAL DAMAGE |
| 22. Right Side Static Port..... | CLEAR |
| 23. Right Stabilizer..... | CHECK ATTACHMENT POINTS
& FLYING WIRES |
| 24. Right Elevator..... | CHECK HINGE POINTS |
| 25. Rudder..... | CHECK HINGE POINTS,
CONTROL ATTACHMENT
& NAV. LIGHT |
| 26. Tailwheel..... | CHECK FOR INFLATION,
ATTACHMENTS, REMOVE
TIEDOWN |
| 27. Left Elevator..... | CHECK TAB CONTROLS
& ALL HINGE POINTS |
| 28. Left Stabilizer..... | CHECK ATTACHMENT POINTS
& STRUT |
| 29. Left Fuselage, Side, Top & Bottom..... | CHECK FOR WRINKLES AS
INDICATION OF INTERNAL
DAMAGE |
| 30. Left Side Static Port..... | CLEAR |

3.2 OPERATING CHECK LISTS:

A. BEFORE STARTING:

- | | |
|---|-----------|
| 1. Seat Belts & Shoulder Harnesses..... | FASTENED |
| 2. Flaps..... | RETRACTED |
| 3. Circuit Breakers..... | CHECK |

B. STARTING:

- | | |
|-------------------------------|--|
| 1. Parking or Toe Brakes..... | ON |
| 2. Fuel Selector Valve..... | ON FULLEST TANK, OR
BOTH IF SAME QUANTITY |
| 3. Throttle..... | OPEN 1/4 INCH |
| 4. Propeller Control..... | FULL INCREASE RPM |
| 5. Mixture Control..... | RICH (SEE NOTE NEXT
PAGE FOR HOT START) |
| 6. Anti-Collision Light..... | ON |

FAA APPROVED
DATE: OCT 19 1998

PAGE 8

3.2 OPERATING CHECK LISTS: (Cont'd)

- | | | |
|-----|-------------------------|---|
| 7. | BAT and ALT Switch..... | ON |
| 8. | Prime..... | AS REQUIRED USING BOOST PUMP |
| 9. | Mixture Control..... | FULL LEAN |
| 10. | Starter Switch..... | TWIST FULL RIGHT TO ENGAGE |
| 11. | Mixture Control..... | FULL RICH WHEN ENGINE
STARTS TO FIRE |

NOTE: FOR A HOT START, DO NOT PRIME. A HOT ENGINE MAY FLOOD ON A START ATTEMPT. TO CLEAR A FLOODED ENGINE, PULL MIXTURE FULL LEAN AND OPEN THROTTLE, CRANK WITH STARTER. WHEN ENGINE STARTS, PULL THROTTLE TO IDLE AND EASE MIXTURE TO FULL RICH.

NOTE: FOR A COLD ENGINE (FIRST START OF THE DAY), PLACE MIXTURE TO FULL RICH, THROTTLE ¼" OPEN. PRIME WITH BOOST PUMP FOR 3 TO 5 SECONDS. IF ENGINE DOES NOT START, PRIME FOR ANOTHER 3 TO 5 SECONDS. OVER-PRIME CAN BE NOTED BY FUEL COMING FROM DRAIN IN CENTER OF BOTTOM COWL.

//////////	IN EVENT OF ENGINE FIRE, CONTINUE CRANKING. PULL MIXTURE
////CAUTION////	TO FULL LEAN. IF ENGINE FAILS TO START AFTER SEVERAL
//////////	REVOLUTIONS, AND FIRE CONTINUES, SECURE IGNITION, BAT.
	AND ALT. SWITCHES, TURN FUEL VALVE OFF AND EXIT AIRCRAFT.

- | | | |
|-----|---------------------|--------------------|
| 12. | After Starting..... | CHECK OIL PRESSURE |
|-----|---------------------|--------------------|

//////////	
////CAUTION////	IF OIL PRESSURE DOES NOT EXCEED 25 PSI WITHIN 30 SECONDS,
//////////	SHUT DOWN ENGINE.

- | | | |
|-----|---|----------------|
| 13. | Alternator..... | CHECK CHARGING |
| 14. | Radios & other electrical switches..... | AS REQUIRED |
| 15. | Parking Brake..... | OFF |

C. ENGINE CHECK:

- | | | |
|----|-------------------------|--|
| 1. | Parking Brake..... | ON, IF DESIRED |
| 2. | Engine Instruments..... | CHECK, IN GREEN ARCS |
| 3. | Throttle..... | INCREASE TO 2000 RPM |
| 4. | Magnetos..... | SWITCH TO RIGHT, LEFT,
BOTH, CHECKING RPM DROPS |

//////////	A RPM DROP OF MORE THAN 175 RPM OR A DIFFERENCE BETWEEN
////CAUTION////	LEFT AND RIGHT OF MORE THAN 50 RPM IS UNACCEPTABLE.
//////////	

FAA APPROVED
DATE: OCT 19 1998

PAGE 9

3.2 OPERATING CHECK LISTS: (Cont'd)

- | | |
|-------------------------------|--|
| 5. Propeller Control..... | RETARD SLOWLY UNTIL MAXIMUM
OF 500 RPM DROP IS NOTED.
RETURN TO FULL RPM. REPEAT.
SET FULL INCREASE RPM |
| 6. Alternate Air Control..... | TURN LEFT TO UNLOCK AND PULL.
NORMAL RPM DROP WITH
ALTERNATE AIR IS APPROXIMATELY
50 RPM |
| 7. Alternate Air Control..... | PUSH IN AND TURN RIGHT TO LOCK |
| 8. Vacuum Gauge..... | CHECK IN GREEN |
| 9. Alternator..... | CHARGING: LIGHT OUT ABOVE 900
RPM |
| 10. Throttle..... | RETARD TO IDLE |
| 11. Parking Brake..... | OFF |

D. BEFORE TAKEOFF:

- | | |
|--|--|
| 1. Fuel Selector..... | ON FULLEST TANK OR BOTH |
| 2. Flaps..... | AS DESIRED FOR T.O. (MAX. 24°) |
| 3. Trim Controls..... | SET FOR TAKEOFF |
| 4. Flight Controls..... | CHECK FOR FREEDOM AND
PROPER TRAVEL |
| 5. Mixture Control..... | FULL RICH |
| 6. Propeller Control..... | FULL INCREASE RPM |
| 7. Alternate Air Control..... | PUSH COLD |
| 8. Engine Instruments..... | RECHECK IN NORMAL RANGE |
| 9. Radios..... | AS DESIRED |
| 10. Altimeter..... | SET |
| 11. Attitude Indicator..... | CHECK ERECT |
| 12. Directional Indicator..... | SET |
| 13. Seat Belts & Shoulder Harnesses..... | RECHECK FASTENED |
| 14. Doors..... | CLOSED & LATCHED |
| 15. Passengers..... | BELTS & HARNESSSES SECURED.
BRIEFED ON OPENING DOORS. |
| 16. Parking Brake..... | OFF |

E. BEFORE LANDING:

- | | |
|---|-------------------------|
| 1. Seat Belts & Shoulder Harnesses..... | FASTENED |
| 2. Fuel Selector Valve..... | ON FULLEST TANK OR BOTH |
| 3. Mixture Control..... | FULL RICH |
| 4. Propeller Control..... | FULL INCREASE RPM |
| 5. Flaps..... | AS REQUIRED |
| 6. Alternate Air Control..... | IN AND LOCKED |

FAA APPROVED

DATE: **OCT** 19 1998

PAGE 10

3.2 OPERATING CHECK LISTS: (Cont'd)

F. ENGINE SHUT DOWN:

1. Parking Brakes..... ON, IF DESIRED
2. Radios..... OFF
3. All other electrical switches..... AS DESIRED
4. Flaps..... AS DESIRED
5. Magneto Grounding Check..... PERFORM BELOW 1000 RPM
6. Mixture Control..... FULL LEAN
7. Magneto Switch..... OFF
8. Anti-Collision Light..... OFF
9. BAT & ALT Switch..... OFF
10. Parking Brake..... OFF (AS DESIRED)

3.3 NORMAL FLIGHT OPERATIONS:

A. NOTE: FLAP SETTINGS:

The following Flap Settings are available:

Flap Configuration	Flap Handle Position	Flap Position
Cruise	Handle Full Down	-7°
Flaps Up	First Notch	0°
Takeoff	Second Notch	24°
Landing	Third Notch	40°
Landing	Fourth Notch	48°

B. RECOMMENDED FLAP SETTINGS:

Flap settings are given in number of notches above the fully retracted position which is handle full down (Normal -7°).

NOTE: The airplane meets CAR 3 takeoff climb requirements at 90 mph IAS with the flaps selected in any of the following three positions: (a) Fully Retracted, Handle full down (-7°), (b) First Notch (0°), and (c) Second Notch (24°).

Normal Takeoff - Second Notch (24°)

Normal Climb - First Notch (0°)

Best Angle of Climb - Second Notch (24°)

Cruise - Fully retracted (-7°/no notches or 0°/1st notch)

Landing - Normally Fourth Notch (48°/full flaps) - other positions optional

FAA APPROVED

DATE: 10/19/98

Rev. E dated: MAY 24 2002

PAGE 11

3.3 NORMAL FLIGHT OPERATIONS: (Cont'd)

C. CLIMBING:

Best Rate of Climb – 78K (90 mph) IAS, flaps @ First Notch (0°)

Best Angle of Climb – 65K (75 mph) IAS with flaps set @ Second Notch (24°)

////////////////// FOR TAKEOFF OR LANDING UNDER GUSTY CROSSWIND CONDI-
////CAUTION//// TIONS, FLAP SETTING OF 0° (one notch) IS RECOMMENDED.
////////////////// -7° OPTIONAL.

////////////////// USE CLIMB AIRSPEED BELOW 78K (90 MPH) ONLY AS NECESSARY
////CAUTION//// AND CHECK CYLINDER HEAD TEMPERATURE FREQUENTLY WHEN
////////////////// DOING SO.

D. RUDDER TRIM:

NOTE: To assure full effectiveness of the Right Rudder Trim:

Unlock "T" handle (1/2 turn left), depress right rudder as you pull "T" handle full out.
Lock "T" handle ½ turn right before releasing right rudder pressure. If too much trim,
move handle in until trim is correct and then lock.

E. STALLS:

Stalls are preceded by mild buffet that can be felt through the rudder pedals. The red
stall warning light on the instrument panel will illuminate at 4 to 9K (5 to 10 mph) above
the stall speed. Loss of altitude prior to recovery from a stall may be as much as 300'.

////////////////// THE STALL WARNING LIGHT IS INOPERATIVE WHEN THE BATTERY
////CAUTION//// SWITCH IS OFF.
//////////////////

F. CROSSWIND LANDINGS & TAKEOFFS:

Maximum demonstrated crosswind component is 12K (14 mph) and flap extension
should be limited to 0° (first notch) with such crosswind or higher. 12K (14 mph) is the
maximum demonstrated for certification of the airplane and is not considered limiting
with flaps at 0°.

G. FUEL SYSTEM MANAGEMENT:

Fuel is fed to the engine from the main (inboard) tanks and is controlled by the selector
valve on the left kick panel. Auxiliary (outboard) tanks feed their respective main tanks
via transfer pumps that are controlled by switches on the instrument panel.

FAA APPROVED: 10/19/98

Rev. B: 9/10/99, Rev. D dated: **MAR 07 2002** PAGE 12

G. FUEL SYSTEM MANAGEMENT: (Cont'd)

These transfer pumps transfer fuel at a rate of 0.4 gallons per minute or approximately 45 minutes for a full auxiliary tank. Since overfilling a main tank from an auxiliary tank will force excess fuel overboard, it is recommended that the transfer pumps not be activated until their respective main tanks are slightly more than one quarter full. If the tank being transferred to is feeding the engine, however, transfer can be initiated when the main tank is down to approximately one half. Confirm fuel transfer by illumination of the transfer pump switch, an increase in the respective main tank fuel gauge indicator, and a decrease on the respective auxiliary tank indicator.

3.4 DOOR-OFF OPERATION:

This aircraft may be operated with either one (not both) of the front doors removed, or when both front doors are installed, with the rear passenger door or rear passenger and baggage doors off. When doing so, observe the following additional limitations:

1. Maximum airspeed – 109K (125 mph)
2. Maximum bank angle - 30°
3. Maximum yaw angle - 10°
4. No Smoking permitted
5. Limit flight to VFR conditions

3.5 NOISE LEVEL:

The noise level obtained during certification per FAR 36, Appendix G was:

with MT propeller	4 blade	74.8 dBA	
with Hartzell (78")	2 blade	78.0 dBA	
with McCauley (78")	2 blade	78.8 dBA	(79.5"): 80.1 dBA
with Hartzell	3 blade	78.0 dBA	
with McCauley (78")	3 blade	78.0 dBA	(80"): 78.2 dBA

The noise level obtained during certification per ICAO Annex 16 Chapter 10 was:

with MT propeller	4 blade	77.9 dBA	
with Hartzell (78")	2 blade	79.7 dBA	
with McCauley (78")	2 blade	80.2 dBA	(79.5"): 81.5 dBA
with Hartzell	3 blade	79.7 dBA	
with McCauley (78")	3 blade	79.7 dBA	(80"): 79.9 dBA
with Hartzell (81")	2 blade	82.9 dBA	

No determination has been made by the Federal Aviation Administration that the noise level of this airplane is or should be acceptable for operation at, into, or out of any airport.

3.6 ANTI-COLLISION LIGHT:

////////////////////// ANTI-COLLISION LIGHT MAY CAUSE ADVERSE EFFECT ON PILOT
////WARNING//// WHEN FLYING IN VISIBLE MOISTURE OVERCAST OR HAZE. IT IS
////////////////////// RECOMMENDED THAT IT BE TURNED OFF SHOULD PILOT
DISCOMFORT BE NOTICED.

FAA APPROVED: 10/19/98
Rev. C dated: 4/17/00
Rev. D dated: MAR 07 2002

PAGE 13

SECTION IV

EMERGENCY PROCEDURES

4.1 EMERGENCY BASIC RULES:

To assist the pilot when an emergency occurs, three basic rules are established which apply to most emergencies occurring while airborne. Each aircrew member should remember them.

1. Maintain aircraft control
2. Analyze the situation and take proper action
3. Land as soon as conditions permit

4.2 ENGINE EMERGENCY SHUT DOWN:

1. Mixture - Full lean
2. Fuel Selector - Off
3. Ignition Switch - Off

4.3 ENGINE FIRE DURING STARTING:

1. Mixture - Full lean
2. Throttle - Open
3. Continue cranking for several revolutions. Attempt to draw fire inside engine.
4. Accomplish ENGINE EMERGENCY SHUT DOWN if fire continues.

4.4 ENGINE FIRE AFTER STARTING:

1. Accomplish ENGINE EMERGENCY SHUT DOWN
2. Master Switch - Off

4.5 EMERGENCY EXIT ON THE GROUND:

1. Accomplish ENGINE EMERGENCY SHUT DOWN
2. Master Switch - Off
3. Leave aircraft by either door or kick out side window panels or baggage door.

4.6 TAKEOFF ABORT: (BEFORE LIFT-OFF)

1. Throttle - Closed
2. Brakes - As Required

4.7 ENGINE FAILURE AFTER TAKEOFF OR FORCED LANDING:

1. Glide - Establish 69K (80 mph) IAS with flaps at 0°
2. Switch Fuel Selector to fullest tank

FAA APPROVED: 10/19/98
Rev. D dated: MAR 07 2002

PAGE 14

4.7 ENGINE FAILURE AFTER TAKEOFF OR FORCED LANDING: (Cont'd)

3. Electric Fuel Pump - On
4. Mixture Rich, Ignition On
5. Alternate Air Control - Pull On
6. If engine does not restart, accomplish EMERGENCY SHUT DOWN
7. Wing Flaps - As Required
8. Master Switch - Off

4.8 PARTIAL POWER FAILURE DURING FLIGHT OR AFTER TAKEOFF:

1. Mixture - Rich
2. Alternate Air Control - Pull On
3. Airspeed - Glide at 69K (80 mph) IAS if unable to maintain level flight
4. Fuel Selector - Both
5. Electric Fuel Pump - On
6. Ignition Switch - Both
7. Master Switch - On

4.9 COMPLETE POWER FAILURE DURING FLIGHT:

1. Glide - Establish 69K (80 mph) IAS
2. Attempt engine airstart if warranted

4.10 ENGINE AIRSTART:

1. Fuel Selector - Both
2. Electric Fuel Pump - On
3. Mixture - Rich
4. Ignition Switch - Both (start if propeller is not turning)
5. If engine does not start, try flooded engine clearing procedure with throttle wide open and mixture full lean.
6. If no start, make forced landing

NOTE: PROPELLER WILL NOT WINDMILL BELOW 61K (70 MPH).

NOTE: AT ALTITUDES OVER 8000 FEET, A LEANER MIXTURE MAY BE REQUIRED.

4.11 ELECTRICAL FIRE:

1. Master Switch - Off

4.12 ENGINE FIRE DURING FLIGHT:

1. Accomplish ENGINE EMERGENCY SHUT DOWN
2. Make forced landing

4.13 SMOKE AND FUME ELIMINATION:

1. Cabin Heat Knob - In
2. Cabin Air Knob - In
3. Upper Air Vents - Open
4. Pilot's Window - Open (below 104K (120 mph)

4.14 STRUCTURAL DAMAGE:

1. On Takeoff - Abort
2. In flight, maintain controllable airspeed
3. Climb to safe stall recovery altitude
4. Notify appropriate controlling agency, if appropriate.
5. Determine control difficulty airspeed by slowing down while flying straight ahead. Do not allow the aircraft to stall.
6. Make full stop landing using 4 to 9K (5 to 10 mph) above difficulty airspeed or above normal approach speed, whichever is higher.

4.15 RECOVERY FROM INADVERTENT SPINS:

Intentional spins are prohibited. If the aircraft inadvertently enters a spin, simultaneously apply full rudder opposite to the direction of rotation and full nose down elevator with ailerons neutral and reduce power to idle. When the rotation stops, neutralize the rudder and elevator, and ease back on the control wheel as required to smoothly regain level flight. Wing flaps should be retracted to avoid exceeding the maximum flap speeds during recovery.

4.16 ALTERNATOR FAILURE:

Alternator output should be monitored by reference to the ammeter located on the right side of the engine instrument cluster. Should the ammeter indicate a minus deflection when engine RPM is above 900 and/or red "ALTERNATOR OFF WARNING" light is illuminated, push ALT switch OFF then ON. Repeat two times as necessary to reset. If system will not reset, reduce the electrical load as much as possible, land as soon as practical and investigate the electrical system malfunction before further flight.

SECTION V

5.1 WEIGHT AND BALANCE:

Serial Number _____ Registration Number _____

It is the responsibility of the airplane owner and the pilot to insure that the airplane is loaded properly. The empty weight, empty weight center of gravity and useful load are listed below for this airplane as delivered from the factory. If the airplane has been altered, refer to the aircraft log and/or aircraft records for this information.

WEIGHT AND BALANCE DATA SUMMARY AS DELIVERED FROM THE FACTORY:

Basic Empty Weight (including engine oil)..... _____ Lbs.
Gross Weight..... 2500 Lbs.
Useful Load..... _____ Lbs.
Empty Center of Gravity..... _____ Inches
Empty Weight Moment..... _____ Inch Lbs.

CENTER OF GRAVITY RANGE:

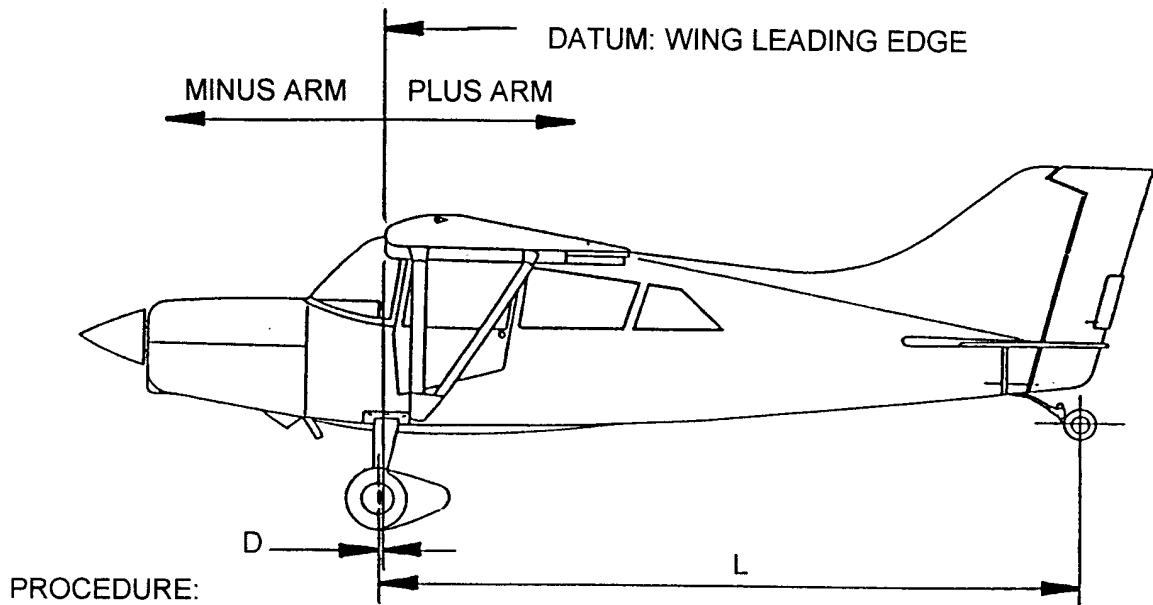
<u>At Weight of</u>	<u>Center of Gravity Range</u>
2500 lbs.	+15.0 to +20.0 inches
1700 lbs.	+12.5 to +20.0 inches

NOTE: Straight line variation between given points
DATUM: Wing leading edge

CERTIFIED BY _____ DATE _____

5.1 WEIGHT AND BALANCE: (Cont'd)

DETAILED CALCULATIONS OF EMPTY WEIGHT AND EMPTY WEIGHT CENTER OF GRAVITY AS DELIVERED FROM FACTORY:



PROCEDURE:

1. Place each of the wheels on a scale with the tailwheel elevated to place the airplane in approximately the flight attitude.
2. Place a level on the leveling mark and leveling lug on the bottom of the right wing near the root. Adjust the height of the tailwheel until the aircraft is level.
3. Measure the following distances:
 - a. Wheel base (L) - the horizontal distance from the tailwheel weight point (center of axle) to the main wheel weight point (center of axle).
 $L = \underline{\hspace{2cm}}$ Inches
 - b. Main Wheel Station (D) - the horizontal distance from the main wheel weight point (center of axle) to the datum line.
 $D = \underline{\hspace{2cm}}$ Inches
4. Measure the weights at the following points:
 - a. **Right Main Wheel**.....= Lbs.
 - b. **Left Main Wheel**.....= Lbs.
 - c. **Tailwheel**, with tare = Lbs., minus tare of Lbs.
= net Tailwheel wt. (T) of Lbs.
Total Weight as Weighted (W) = Lbs.

5.1 WEIGHT AND BALANCE: (Cont'd)

The above empty weight includes unusable fuel of 27.6 lbs. at 24 inches and 8 quarts of oil at minus 34 inches, plus all items of equipment as marked on the accompanying Equipment Lists. The Certificated empty weight is the above weight less 16 lbs. drainable oil at a minus arm of 34 inches, and for this airplane is _____ lbs. The corresponding empty weight center of gravity is _____ inches.

5. Calculations for determining weight, C.G. and moment:

a. Center of Gravity (inches) = $\frac{L \times T}{W} - D$

i.e., C.G. = _____ - _____ = _____ inches.

b. Moment (inch pounds) = $W \times \text{C.G.}$

i.e., Moment = _____ x _____ = _____ inch lbs.

EXAMPLE OF WEIGHT AND BALANCE CALCULATION FOR LOADED AIRCRAFT:

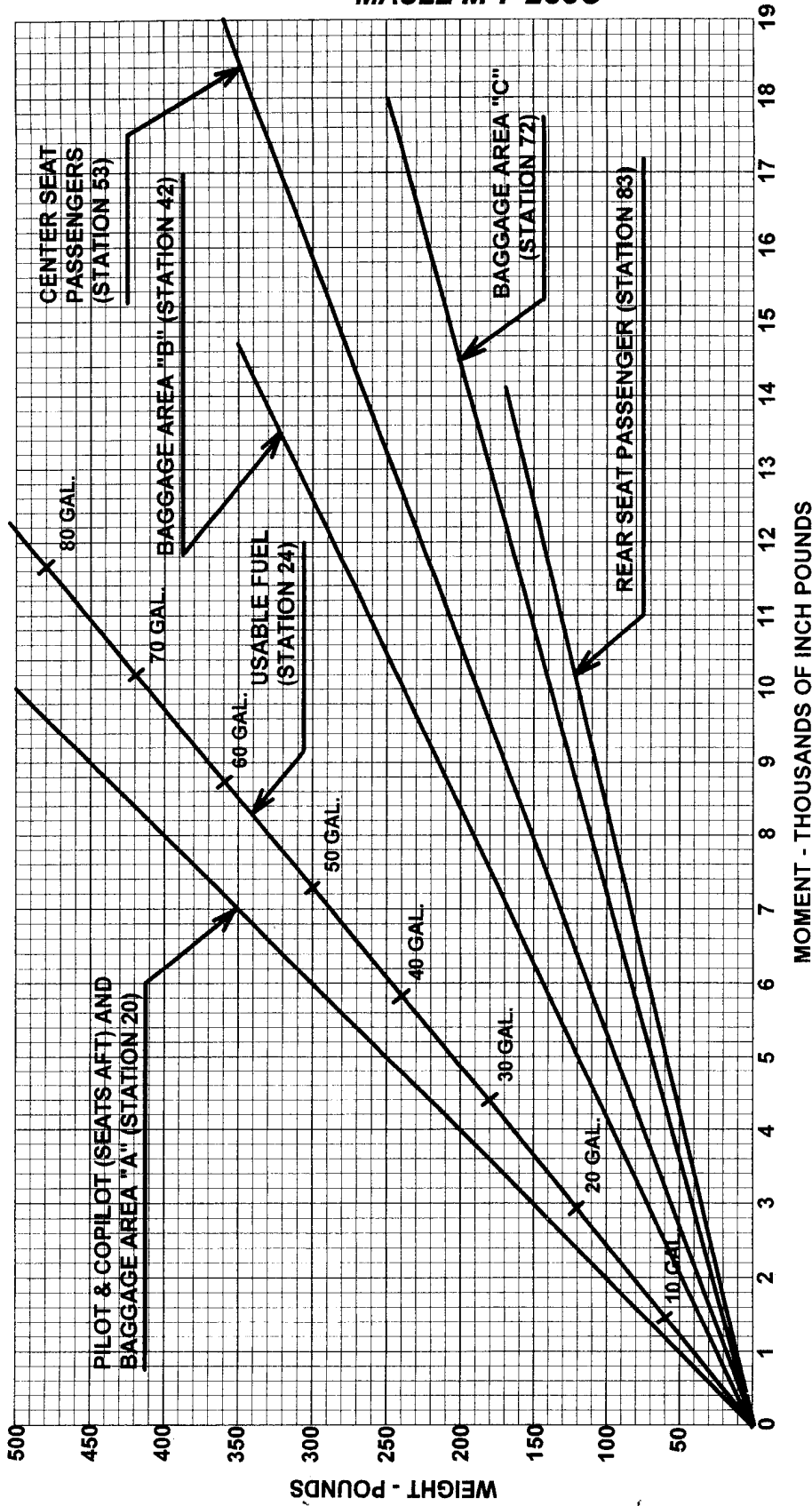
An airplane with an empty weight of 1549 lbs. and empty weight C.G. location of 11.2 inches is loaded with a pilot and front seat passenger, fuel and baggage.

Item	Weight, lbs.	C.G. Location	Moment, In.lbs.
Empty Weight (including engine oil)	1549	11.2	17,349
Pilot and Front Passenger	340	*	6,800
Fuel - 40 gal. in Mains plus 30 gal. in Auxiliary Tanks	420	*	10,080
Baggage (Area "C")	<u>150</u>	*	<u>10,800</u>
	2459	18.3	45,029

*Moments can be read directly from the loading graph.

By locating the point corresponding to 2459 lb. aircraft weight and a C.G. Location of 18.3 inches on the Center of Gravity envelope graph, you can see that this point falls within the envelope, signifying the loading is acceptable.

MAULE M-7-260C

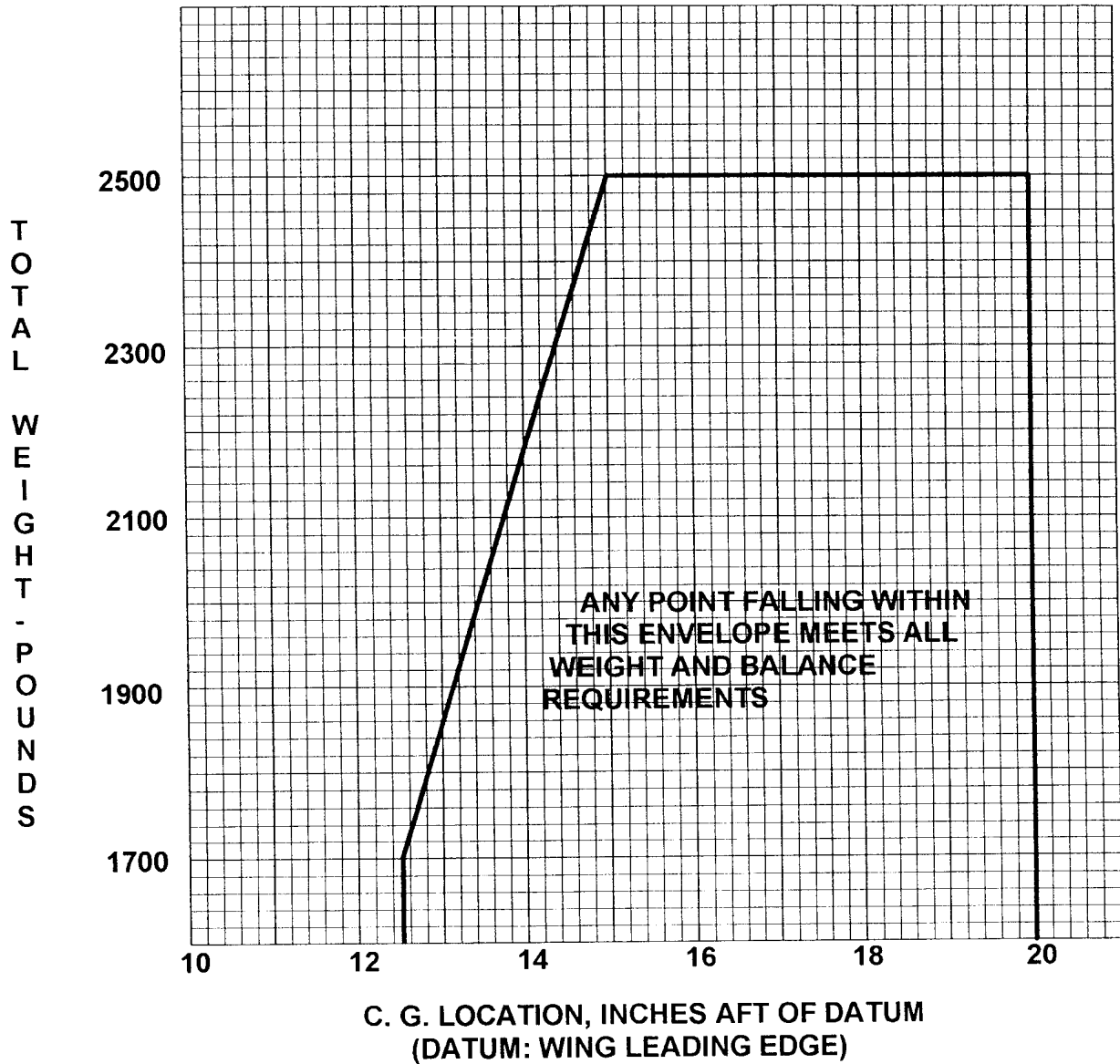


PROCEDURE FOR DETERMINING WEIGHT & CENTER OF GRAVITY:

1. Add weight to be carried to the licensed empty weight of the aircraft.
2. Find moments of item to be carried by using the above loading graph and add these moments to the empty moment of the aircraft. Divide total moment by total weight for aircraft C.G. location.
3. Using the C.G. location for Step 2, find the point on the Weight and Balance Envelope.

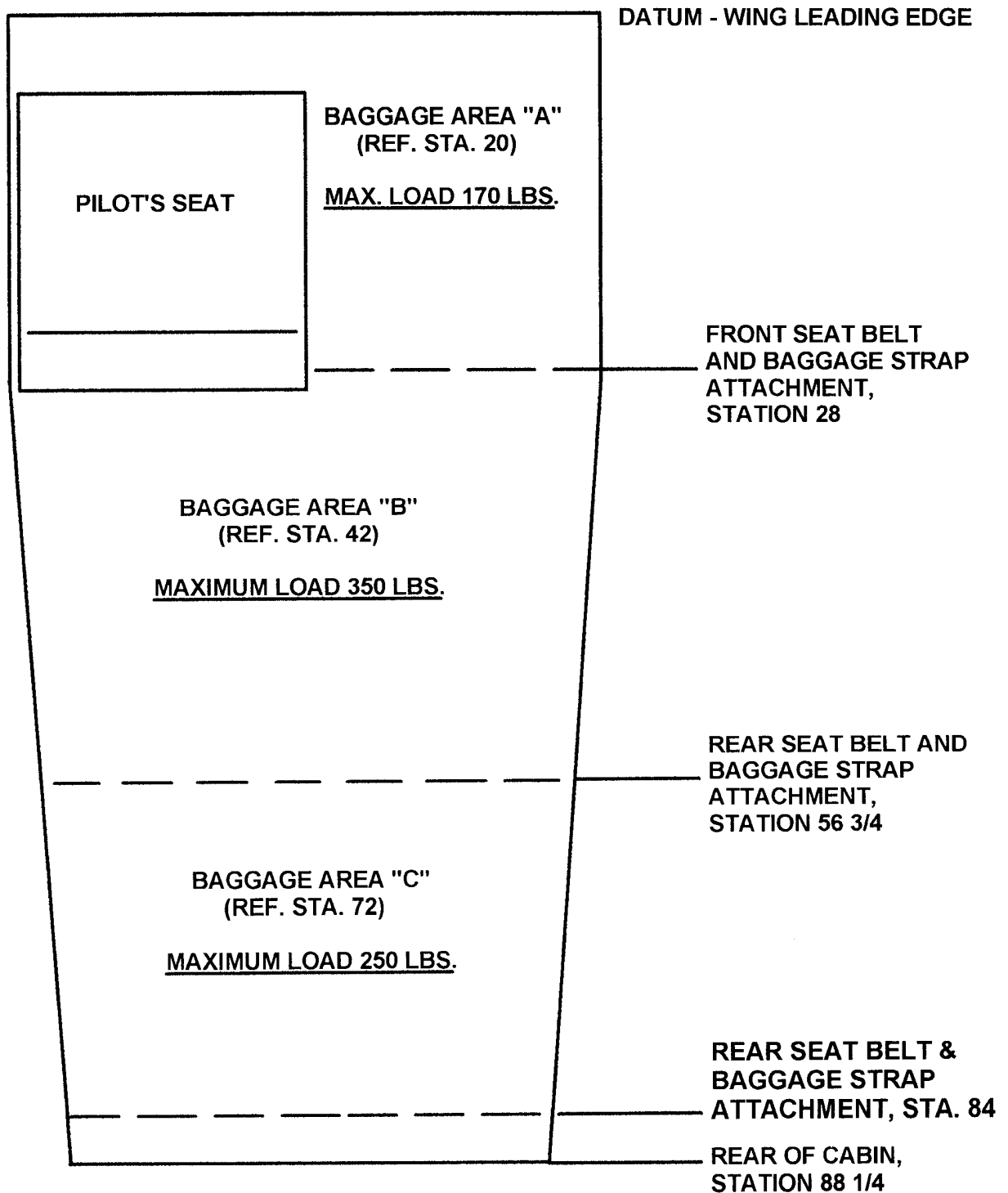
LOADING CHART

WEIGHT AND BALANCE ENVELOPE



MAULE M-7-260C

STRUCTURAL CAPACITY CHART



SERIAL NO. _____ REG. NO. _____ MODEL _____

EQUIPMENT CHANGE - WEIGHT AND BALANCE

ITEM'S (MAKE & MODEL) WEIGHT ARM MOMENTS

Previous Aircraft Empty			

- A. New Empty Weight _____ lbs.
B. New Empty Center of Gravity _____ ins.
C. New Empty Weight C.G. Moment _____ in. lbs.
D. New Useful Load _____ lbs.

Supersedes all previous weight and balance data. For aircraft loading see instructions in original weight and balance forms.

BY _____ DATE _____

SECTION VI

AIRCRAFT SERVICING, HANDLING AND MAINTENANCE

6.1 INTRODUCTION:

Our dealers and distributors are anxious to serve you and will gladly furnish advice as to proper servicing methods. You may also address request for information on any items not covered in the manual to the Service Department of Maule Air, Inc. In correspondence, please be certain to give complete information on Serial Number, engine make and model, etc.

The aircraft Type Data Plate can be found on the left side of the vertical fin just above the horizontal stabilizer. Also, pertinent engine and propeller data is in the aircraft logbook.

A Service Manual is furnished with each aircraft. Extra copies and a Parts Manual can be obtained by contacting the Service Dept. of Maule Air, Inc.

6.2 AIRPLANE INSPECTION PERIOD:

The airplane must be maintained as outlined in FAR 43. Recommended inspections are outlined in the airplane Maintenance Manual. The owner/operator is responsible for Airworthiness Directives (AD's) that may be issued from time to time. Reference should be made to FAR 91 and FAR 43 requirements for properly certified agency or personnel to accomplish the required FAA inspection and most of the manufacturer's recommended inspections. It is recommended that owner's name and address along with aircraft serial number be registered with Maule Air for any Maule Service Letters or Bulletins released affecting their aircraft.

6.3 PREVENTIVE MAINTENANCE THAT MAY BE ACCOMPLISHED BY A CERTIFIED PILOT:

- A. A certified pilot who owns or operates an airplane not used as an air carrier is authorized by FAR Part 43 to perform limited preventive maintenance on his airplane. Refer to FAR Part 43 for list of things the pilot may do. Pilots operating aircraft of other than U.S. registry should refer to the regulations of the country of certification for information on preventive maintenance that may be performed by pilots. All other maintenance required on airplane is to be accomplished by appropriately licensed personnel and that airplane dealer or service station should be contacted for further information.
- B. Preventive maintenance should be accomplished in accordance with the appropriate airplane Maintenance Manual. Manual should be obtained prior to performing preventive maintenance to be sure that proper procedures are followed.

6.4 ALTERATIONS OR REPAIRS TO AIRPLANE:

Alterations or repairs to airplane must be accomplished by licensed personnel. The FAA should be contacted prior to any alterations on airplane to insure that Airworthiness of the airplane is not violated.

FAA APPROVED:

DATE: OCT 19 1998

PAGE 33