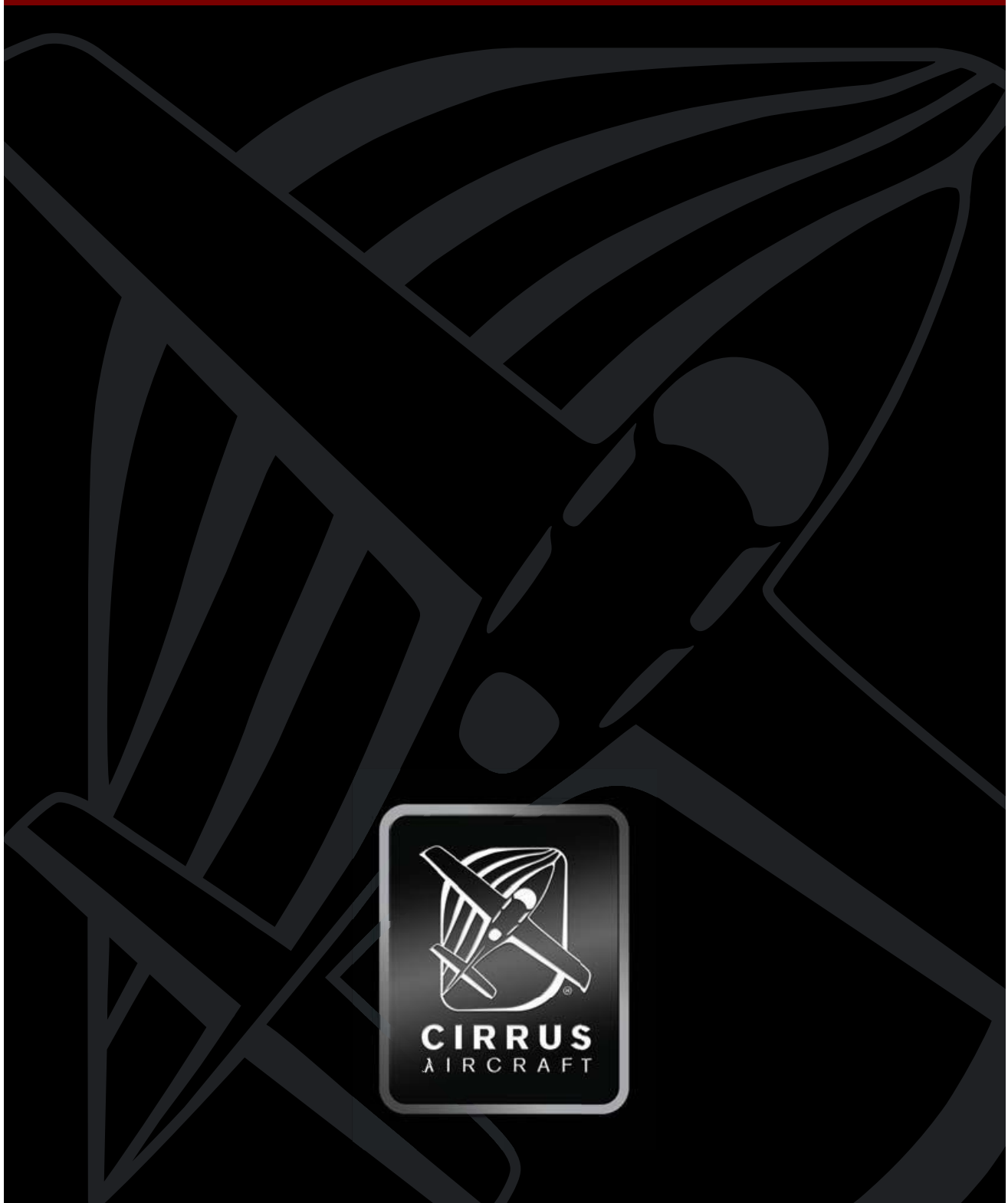
PILOT'S CHECKLIST

SR20

WITH CIRRUS PERSPECTIVE+ AVIONICS



Quick Reference Checklist

for

SR20 Serials 2339 and Subsequent

with Cirrus Perspective^{+} Avionics

The procedures in this publication are abbreviated and derived from procedures in the FAA Approved Airplane Flight Manual and Pilot's Operating Handbook (POH) P/N 11934-005, Original Issue. These procedures do not supersede the procedures in the POH. In the event of conflict, the POH shall take precedence.

ISSUED: March 2017

P/N 11935-006

Normal Procedures

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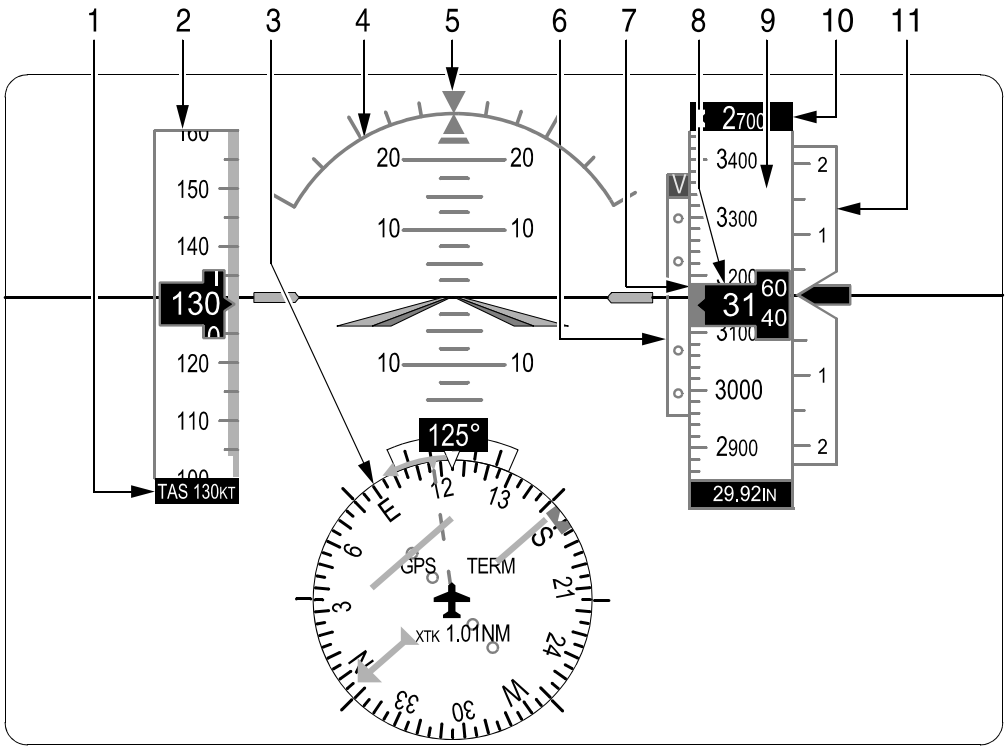
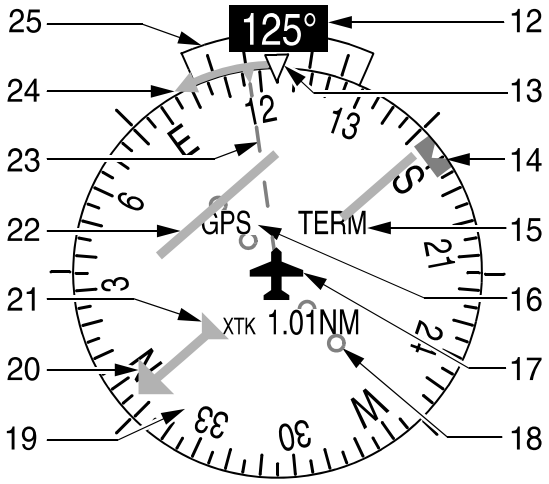
Primary Flight Display





HSI DETAIL
Typical View

LEGEND

1. True Airspeed
2. Airspeed Indicator
3. Horizontal Situation Indicator (HSI)
4. Attitude Indicator
5. Slip/Skid Indicator
6. Vertical Deviation Indicator (VDI)
7. Selected Altitude Bug
8. Current Altitude
9. Altimeter
10. Selected Altitude
11. Vertical Speed Indicator (VSI)
12. Current Heading
13. Lubber Line
14. Selected Heading Bug
15. Flight Phase
16. Navigation Source
17. Aircraft Symbol
18. Course Deviation Scale
19. Rotating Compass Rose
20. Course Pointer
21. To/From Indicator
22. Course Deviation Indicator
23. Current Track Indicator
24. Turn Rate/Heading Trend Vector
25. Turn Rate Indicator

SR20_FM07_5348

Airspeeds for Normal Operation

Takeoff:

- Normal, Flaps 50%..... 71-75 KIAS
- Short Field, Flaps 50%..... 71 KIAS
- Obstacle Clearance, Flaps 50%..... 81 KIAS

Enroute Climb, Flaps Up:

- Normal, SL ..... 96 KIAS
- Normal, 10,000'..... 92 KIAS
- Best Rate of Climb, SL ..... 96 KIAS
- Best Rate of Climb, 10,000..... 92 KIAS

Landing Approach:

- Normal Approach, Flaps Up ..... 89 KIAS
- Normal Approach, Flaps 50% ..... 84 KIAS
- Normal Approach, Flaps 100% ..... 78 KIAS
- Short Field, Flaps 100%..... 78 KIAS

Go-Around, Flaps 50%:

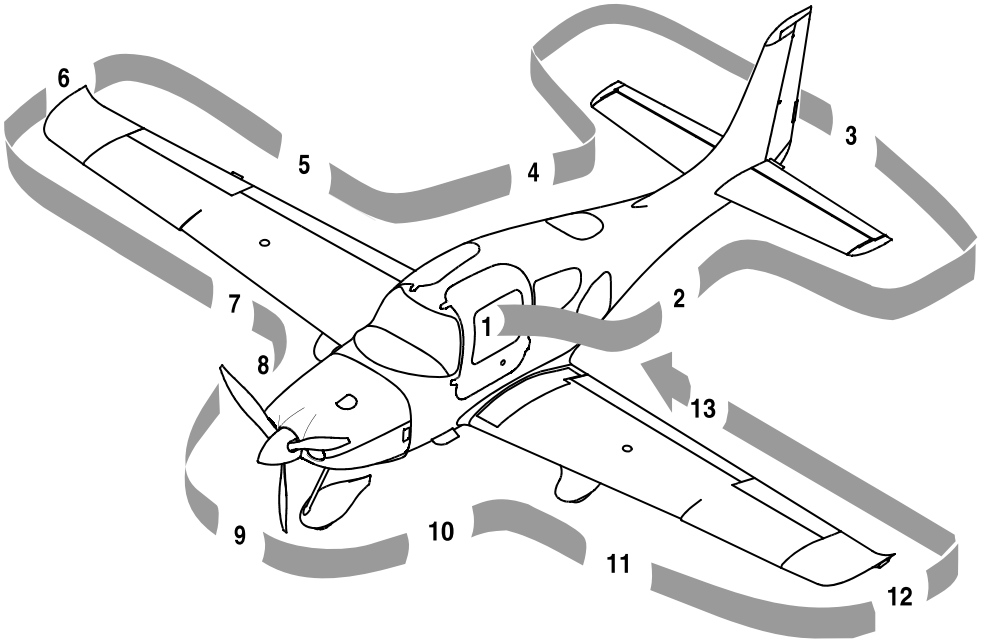
- Full Power..... 81 KIAS

Maximum Recommended Turbulent Air Penetration:

- 3150 Lb ..... 133 KIAS
- 2700 Lb ..... 123 KIAS
- 2300 Lb ..... 114 KIAS

Maximum Demonstrated Crosswind Velocity:

- Takeoff or Landing..... 20 Knots



SR22_FM04_1454

Preflight Inspection

1. Cabin
   - a. Required Documents ..... ON BOARD
   - b. Avionics Power Switch ..... OFF
   - c. Bat 2 Master Switch ..... ON
   - d. PFD ..... VERIFY ON
   - e. Essential Bus Voltage ..... 23-25 VOLTS
   - f. Flap Position Light ..... OUT
   - g. Bat 1 Master Switch ..... ON
   - h. Avionics Cooling Fan ..... AUDIBLE
   - i. Avionics Master Switch ..... ON
   - j. Fuel Quantity ..... CHECK
   - k. Fuel Selector ..... SELECT FULLEST TANK
   - l. Flaps ..... 100% CHECK LIGHT ON
   - m. Lights ..... CHECK OPERATION
   - n. Stall Warning System Inlet ..... UNOBSTRUCTED

(Continued on following page)

o. Stall Warning ..... TEST
p. Pitot Heat ..... ON
(1) Verify probe is hot.
q. Pitot Heat ..... OFF
r. Avionics Master Switch ..... OFF
s. Bat 1 and 2 Master Switches ..... OFF
t. Alternate Static Source ..... NORMAL
u. Circuit Breakers ..... IN
v. Fire Extinguisher ..... CHARGED AND AVAILABLE
w. Emergency Egress Hammer ..... AVAILABLE
x. CAPS Handle ..... PIN REMOVED

2. Left Fuselage
a. Door Lock ..... UNLOCK
b. COM 1 Antenna (top) ..... CONDITION AND ATTACHMENT
c. Transponder Antenna (underside) ..... CONDITION AND ATTACHMENT
d. Wing/Fuselage Fairing ..... CHECK
e. COM 2 Antenna (underside) CONDITION AND ATTACHMENT
f. Baggage Door ..... CLOSED AND SECURE
g. Static Button ..... CHECK FOR BLOCKAGE
h. Parachute Cover ..... SEALED AND SECURE

3. Empennage
a. Tiedown Rope ..... REMOVE
b. Horizontal and Vertical Stabilizers ..... CONDITION
c. Elevator and Tab ..... CONDITION AND MOVEMENT
d. Rudder ..... FREEDOM OF MOVEMENT
e. Rudder Trim Tab ..... CONDITION AND SECURITY
f. Attachment hinges, bolts and cotter pins ..... SECURE

4. Right Fuselage
a. Static Button ..... CHECK FOR BLOCKAGE
b. Wing/Fuselage Fairings ..... CHECK
c. Door Lock ..... UNLOCK

(Continued on following page)

5. Right Wing Trailing Edge
   a. Flap and Rub Strips (if installed) ..... CONDITION AND SECURITY
   b. Aileron and Tab ..... CONDITION AND MOVEMENT
   c. Aileron Gap Seal ..... SECURITY
   d. Hinges, actuation arm, bolts, and cotter pins ..... SECURE
6. Right Wing Tip
   a. Tip ..... ATTACHMENT
   b. Wing Tip Light and Lens ..... CONDITION AND SECURITY
   c. Fuel Vent (underside) ..... UNOBSTRUCTED
7. Right Wing Forward and Main Gear
   a. Leading Edge and Stall Strips ..... CONDITION
   b. Fuel Cap ..... CHECK QUANTITY AND SECURE
   c. Fuel Drains (2 underside) ..... DRAIN AND SAMPLE
   d. Landing Light ..... CONDITION
   e. Wheel Fairings ..... SECURITY, ACCUMULATION OF DEBRIS
   f. Tire ..... CONDITION, INFLATION, AND WEAR
   g. Wheel and Brakes ..... FLUID LEAKS, EVIDENCE OF OVERHEATING, GENERAL CONDITION, AND SECURITY
   h. Chocks and Tiedown Ropes ..... REMOVE
8. Nose, Right Side
   a. Engine Oil ..... CHECK 6-7 QUARTS, LEAKS
   b. Engine Oil Dipstick/Filler CAP & Door ..... SECURE
   c. Cowling ..... ATTACHMENTS SECURE
   d. Exhaust Pipe ..... CONDITION, SECURITY, AND CLEARANCE
9. Nose gear, Propeller, and Spinner
   a. Tow Bar ..... REMOVE AND STOW
   b. Strut ..... CONDITION
   c. Wheel Fairing ..... SECURITY, ACCUMULATION OF DEBRIS
   d. Wheel and Tire ..... CONDITION, INFLATION, AND WEAR
   e. Propeller ..... CONDITION (INDENTATIONS, NICKS, ETC.)
   f. Spinner ..... CONDITION, SECURITY, AND OIL LEAKS
   g. Air Inlets ..... UNOBSTRUCTED

(Continued on following page)

10. Nose, Left Side
    a. Cowling ..... ATTACHMENTS SECURE
    b. Gascolator (underside)... DRAIN FOR 3 SECONDS, SAMPLE
    c. External Power .....DOOR SECURE
11. Left Main Gear and Forward Wing
    a. Wheel Fairings ..... SECURITY, ACCUMULATION OF DEBRIS
    b. Tire ..... CONDITION, INFLATION, AND WEAR
    c. Wheel and Brakes ..... FLUID LEAKS, EVIDENCE OF OVERHEATING, GENERAL CONDITION, AND SECURITY
    d. Chocks and Tiedown Ropes ..... REMOVE
    e. Fuel Drains (2 underside)..... DRAIN AND SAMPLE
    f. Fuel Cap..... CHECK QUANTITY AND SECURE
    g. Leading Edge and Stall Strips..... CONDITION
12. Left Wing Tip
    a. Fuel Vent (underside) .....UNOBSTRUCTED
    b. Pitot Mast (underside) ..... COVER REMOVED, TUBE CLEAR
    c. Wing Tip Light and Lens ..... CONDITION AND SECURITY
    d. Tip .....ATTACHMENT
13. Left Wing Trailing Edge
    a. Flap And Rub Strips (If installed) .....CONDITION AND SECURITY
    b. Aileron .....FREEDOM OF MOVEMENT
    c. Aileron Gap Seal ..... SECURITY
    d. Hinges, actuation arm, bolts, and cotter pins ..... SECURE

Before Starting Engine

1. Preflight Inspection ..... COMPLETED
2. Weight and Balance..... VERIFY WITHIN LIMITS
3. Emergency Equipment ..... ON BOARD
4. Passengers.....BRIEFED
5. Seats, Seat Belts, and Harnesses .....ADJUST AND SECURE

Starting Engine

1. External Power (If applicable) ..... CONNECT
2. Brakes ..... HOLD
3. Bat Master Switches ..... ON (CHECK VOLTS)
4. Strobe Lights ..... ON
5. Power Lever ..... OPEN ¼ INCH
6. Mixture ..... CUTOFF
7. Propeller Area ..... CLEAR
8. Fuel Pump ..... ON
9. Mixture ..... ADVANCE TO RICH UNTIL STABLE FUEL FLOW IS INDICATED (3 - 5 SECONDS)
10. Mixture ..... CUTOFF
11. Ignition Switch ..... START (RELEASE AFTER ENGINE STARTS)
12. Mixture ..... SMOOTHLY ADVANCE TO RICH (AFTER ENGINE STARTS)
13. Power Lever ..... RETARD (MAINTAIN 1000 RPM)
14. Fuel Pump ..... OFF
15. Oil Pressure ..... CHECK
16. Alt Master Switches ..... ON
17. Avionics Power Switch ..... ON
18. Engine Parameters ..... MONITOR
19. External Power (If applicable) ..... DISCONNECT
20. Amp Meter/Indication ..... CHECK

Before Taxiing

1. Flaps ..... UP (0%)
2. Radios/Avionics ..... AS REQUIRED
3. Cabin Heat/Defrost ..... AS REQUIRED
4. Fuel Selector ..... SWITCH TANK

Taxiing

1. Parking Brake ..... DISENGAGE
2. Brakes ..... CHECK
3. HSI Orientation ..... CHECK
4. Attitude Gyro ..... CHECK
5. Turn Coordinator ..... CHECK

Before Takeoff

1. Doors ..... LATCHED
2. CAPS Handle ..... VERIFY PIN REMOVED
3. Seat Belts and Shoulder Harness ..... SECURE
4. Air Conditioner ..... AS DESIRED

• Caution •

Use of RECIRC mode prohibited in flight.

5. Fuel Quantity ..... CONFIRM
6. Fuel Selector ..... FULLEST TANK
7. Flaps ..... SET 50% AND CHECK
8. Transponder ..... SET
9. Autopilot ..... CHECK
10. Navigation Radios/GPS ..... SET FOR TAKEOFF
11. Cabin Heat/Defrost ..... AS REQUIRED
12. Brakes ..... HOLD
13. Mixture ..... FULL RICH
14. Power Lever ..... 2200 RPM
15. Alternator ..... CHECK
    a. Pitot Heat ..... ON
    b. Navigation Lights ..... ON
    c. Landing Light ..... ON
    d. Annunciator Lights ..... CHECK
16. Voltage ..... CHECK
17. Pitot Heat ..... AS REQUIRED
18. Navigation Lights ..... AS REQUIRED
19. Landing Light ..... AS REQUIRED
20. Magnetos ..... CHECK LEFT AND RIGHT
    a. Ignition Switch ..... R, NOTE RPM, THEN BOTH
    b. Ignition Switch ..... L, NOTE RPM, THEN BOTH
21. Engine Parameters ..... CHECK
22. Power Lever ..... 1000 RPM
23. Fuel Pump ..... ON
24. Flight Instruments, HSI, and Altimeter ..... CHECK AND SET
25. Flight Controls ..... FREE AND CORRECT
26. Trim ..... SET TAKEOFF
27. Autopilot ..... DISCONNECT

Normal Takeoff

1. Brakes.....RELEASE (STEER WITH RUDDER ONLY)
2. Power Lever ..... FULL FORWARD
3. Engine Parameters .....CHECK
4. Elevator Control .....ROTATE SMOOTHLY AT 71-75 KIAS
5. At 85 KIAS, Flaps ..... UP

Short Field Takeoff

1. Flaps 50%
2. Brakes ..... HOLD
3. Power Lever ..... FULL FORWARD
4. Engine Parameters .....CHECK
5. Brakes.....RELEASE (STEER WITH RUDDER ONLY)
6. Elevator Control .....ROTATE SMOOTHLY AT 71 KIAS
7. Airspeed at Obstacle ..... 81 KIAS

When clear of obstacle:

8. Flaps ..... UP

Climb

1. Climb Power..... SET
2. Flaps ..... VERIFY UP
3. Mixture.....LEAN AS REQUIRED FOR ALTITUDE
4. Engine Parameters .....CHECK
5. Fuel Pump .....AS REQUIRED

Cruise

1. Fuel Pump ..... OFF

• Note •

The Fuel Pump must be set to ON during maneuvering flight (i.e. flight training maneuvers, chandelles, stalls, etc.).

2. Cruise Power ..... SET
3. Mixture..... LEAN AS REQUIRED
4. Engine Parameters ..... MONITOR
5. Fuel Flow and Balance ..... MONITOR

Cruise Leaning

Mixture Description	Exhaust Gas Temperature
Best Power	100 °F Rich Of Peak EGT
Best Economy	Peak EGT

Descent

1. Altimeter ..... SET
2. Cabin Heat/Defrost .....AS REQUIRED
3. Landing Light .....ON
4. Fuel System.....CHECK
5. Mixture .....AS REQUIRED
6. Brake Pressure .....CHECK

Before Landing

1. Seat Belt and Shoulder Harness ..... SECURE
2. Fuel Pump .....ON
3. Mixture.....FULL RICH
4. Flaps.....AS REQUIRED
5. Autopilot.....AS REQUIRED

Normal Landing

1. Flaps..... 100%
2. Airspeed .....81-83 KIAS

   If Icing Conditions Exist:

   a. Airspeed on Short Final ..... 88 KIAS
3. Power Lever.....AS REQUIRED

   After touchdown:
4. Brakes.....AS REQUIRED

Short Field Landing

1. Flaps 100%
2. Airspeed ..... 78 KIAS
3. Power Lever ..... AS REQUIRED

After clear of obstacles:

4. Power Lever ..... REDUCE TO IDLE

After touchdown:

5. Brakes ..... MAXIMUM

Balked Landing/Go-Around

1. Autopilot ..... DISENGAGE
2. Power Lever ..... FULL FORWARD
3. Flaps 50%
4. Airspeed ..... BEST ANGLE OF CLIMB (81 KIAS)

After clear of obstacles:

5. Flaps ..... UP

After Landing

1. Power Lever ..... 1000 RPM
2. Fuel Pump ..... OFF
3. Flaps ..... UP
4. Transponder ..... STBY
5. Lights ..... AS REQUIRED
6. Pitot Heat ..... OFF

Shutdown

1. Fuel Pump (if used) ..... OFF
2. Throttle ..... IDLE
3. Ignition Switch ..... CYCLE
4. Mixture ..... CUTOFF
5. All Switches ..... OFF
6. Magnetos ..... OFF
7. ELT ..... TRANSMIT LIGHT OUT
8. Chocks, Tie-downs, Pitot Covers ..... AS REQUIRED

Performance

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• Note •

Aircraft with optional Air Conditioning System: Brake Horsepower is reduced by approximately 6 BHP.

Takeoff Distance: 3150 LB

WEIGHT = 3150 LB **Approx. Speed at Liftoff = 75 KIAS** **Speed over 50 Ft. Obstacle = 81 KIAS** Flaps 50%; Full Throttle, Mixture Set; Dry, Level, Paved Runway	**Headwind:** Subtract 10% for each 12 knots headwind. **Tailwind:** Add 10% for each 2 knots tailwind up to 10 knots. **Runway Slope:** Refer to list of factors. **Dry Grass:** Add 15% of ground roll to distances. **Air Conditioner**: Add 100 feet to ground roll and 150 feet to distance over 50' obstacle if Air Conditioner is ON during takeoff.

PRESS ALT FT	DISTANCE FT	TEMPERATURE ~ °C						
		0	10	20	30	40	50	ISA
SL	Grnd Roll	1503	1623	1748	1877	2011	2150	1685
	50 ft	2273	2443	2618	2799	2986	3179	2530
1000	Grnd Roll	1653	1784	1921	2063	2210	2363	1825
	50 ft	2491	2675	2867	3065	3270	3482	2732
2000	Grnd Roll	1818	1962	2113	2269	2431	2599	1978
	50 ft	2730	2932	3142	3359	3584	3817	2953
3000	Grnd Roll	2002	2161	2326	2498	2676	2862	2145
	50 ft	2995	3217	3447	3686	3932	4187	3195
4000	Grnd Roll	2206	2381	2563	2753	2950	3154	2329
	50 ft	3288	3532	3785	4048	4319	4599	3460
5000	Grnd Roll	2433	2626	2827	3037	3254	3479	2530
	50 ft	3614	3883	4161	4449	4747	5055	3749
6000	Grnd Roll	2687	2900	3122	3353	3592	3841	2752
	50 ft	3976	4272	4578	4895	5224	5563	4066
7000	Grnd Roll	2969	3205	3450	3705	3970	4245	2995
	50 ft	4379	4705	5042	5392	5754	6127	4414
8000	Grnd Roll	3322	3586	3861	4146	4442	4750	3300
	50 ft	4883	5246	5622	6013	6416	6833	4851
9000	Grnd Roll	3752	4050	4360	4682	5017	5364	3669
	50 ft	5495	5904	6328	6767	7221	7691	5380
10000	Grnd Roll	4240	4577	4927	5291	5670	6062	4082
	50 ft	6188	6649	7127	7621	8133	8663	5970

Takeoff Distance: 2600 LB

WEIGHT = 2600 LB **Approx. Speed at Liftoff = 69 KIAS** **Speed over 50 Ft Obstacle = 75 KIAS** Flaps 50%; Full Throttle, Mixture Set; Dry, Level, Paved Runway	**Headwind:** Subtract 10% for each 12 knots headwind. **Tailwind:** Add 10% for each 2 knots tailwind up to 10 knots. **Runway Slope:** Refer to list of factors. **Dry Grass:** Add 15% of ground roll to distances. **Air Conditioner**: Add 100 feet to ground roll and 150 feet to distance over 50' obstacle if Air Conditioner is ON during takeoff.

PRESS ALT FT	DISTANCE FT	TEMPERATURE ~ °C						
		0	10	20	30	40	50	ISA
SL	Grnd Roll	913	986	1061	1140	1221	1305	1023
	50 ft	1408	1513	1621	1732	1848	1967	1566
1000	Grnd Roll	1004	1083	1166	1252	1342	1435	1108
	50 ft	1542	1656	1775	1897	2024	2154	1692
2000	Grnd Roll	1104	1192	1283	1378	1476	1578	1201
	50 ft	1690	1815	1945	2079	2218	2361	1828
3000	Grnd Roll	1215	1312	1412	1517	1625	1738	1303
	50 ft	1854	1991	2133	2281	2433	2590	1978
4000	Grnd Roll	1339	1446	1556	1671	1791	1915	1414
	50 ft	2036	2186	2342	2504	2672	2844	2141
5000	Grnd Roll	1477	1595	1717	1844	1975	2112	1536
	50 ft	2237	2403	2574	2752	2936	3126	2320
6000	Grnd Roll	1631	1761	1896	2036	2181	2332	1671
	50 ft	2461	2643	2832	3028	3230	3440	2516
7000	Grnd Roll	1803	1946	2095	2250	2411	2577	1818
	50 ft	2710	2911	3119	3335	3558	3788	2731
8000	Grnd Roll	2017	2178	2344	2518	2697	2884	2004
	50 ft	3021	3245	3477	3718	3967	4224	3001
9000	Grnd Roll	2278	2459	2647	2843	3046	3257	2228
	50 ft	3399	3651	3913	4184	4464	4754	3328
10000	Grnd Roll	2575	2779	2992	3213	3442	3681	2478
	50 ft	3827	4112	4406	4711	5027	5353	3693

Cruise Performance

Conditions:

- Mixture ..... Target Fuel Flow*
- Weight ..... 2600 LB
- Winds ..... Zero
- Shaded Cells: Cruise Pwr above 85% not recommended.

*For power settings greater than 75% power, Best Power.

• Note •

Subtract 10 KTAS if nose wheel pant and fairing removed. Lower KTAS by 10% if nose and main wheel pants and fairings are removed.

Aircraft with optional Air Conditioning System: Cruise performance is reduced by 2 knots. For maximum performance, turn air conditioner off.

Aircraft with optional Enhanced Vision System: Cruise performance is reduced by up to 1 knot.

Press Alt			ISA - 30°C			ISA			ISA + 30°C		
	RPM	MAP	PWR	KTAS	GPH	PWR	KTAS	GPH	PWR	KTAS	GPH
2000	2700	27.1	94%	151	16.5	90%	156	15.8	85%	158	15.2
	2500	27.1	86%	148	14.9	82%	151	14.2	78%	153	13.7
	2500	26.0	81%	145	14.2	77%	148	13.6	73%	150	11.5
	2500	24.9	77%	142	13.5	73%	144	12.3	69%	146	10.9
	2500	23.8	72%	139	13.3	68%	140	11.6	65%	142	10.3
	2500	22.7	67%	135	12.5	64%	136	10.9	61%	138	9.7
	2500	21.6	62%	130	11.7	59%	132	10.3	56%	132	9.1
	2500	20.5	58%	126	11.0	55%	127	9.6	52%	127	8.5
	2500	19.4	53%	121	10.2	50%	121	9.0	48%	121	8.0
4000	2700	25.2	88%	152	15.6	84%	155	14.9	80%	157	14.4
	2500	25.2	80%	147	14.1	76%	150	13.4	73%	152	11.2
	2500	24.1	76%	144	13.4	72%	146	12.0	68%	148	10.6
	2500	23.0	71%	140	13.0	67%	142	11.3	64%	144	10.0
	2500	21.9	66%	136	12.2	63%	138	10.6	60%	139	9.4
	2500	20.8	61%	132	11.4	58%	133	9.9	55%	134	8.8
	2500	19.7	57%	127	10.6	54%	128	9.3	51%	128	8.2
	2500	18.6	52%	121	9.9	49%	122	8.6	47%	122	7.7
	2500	17.5	47%	115	9.1	45%	115	8.0	42%	115	7.1

Cruise Performance

Press Alt			ISA - 30°C			ISA			ISA + 30°C		
	RPM	MAP	PWR	KTAS	GPH	PWR	KTAS	GPH	PWR	KTAS	GPH
6000	2700	23.4	82%	151	14.7	78%	154	14.1	74%	156	11.4
	2500	23.4	75%	146	13.5	71%	148	11.7	68%	150	10.4
	2500	22.3	70%	142	12.7	66%	144	11.0	63%	145	9.7
	2500	21.2	65%	138	11.9	62%	140	10.3	59%	141	9.1
	2500	20.1	60%	133	11.1	57%	135	9.7	55%	136	8.6
	2500	19.0	56%	128	10.3	53%	129	9.0	50%	129	8.0
	2500	17.9	51%	123	9.6	48%	123	8.4	46%	123	7.4
	2500	16.8	46%	116	8.8	44%	116	7.7	42%	115	6.9
8000	2700	21.6	76%	150	13.9	72%	152	11.9	69%	154	10.5
	2500	21.6	70%	144	12.5	66%	146	10.8	63%	148	9.5
	2500	20.5	65%	140	11.6	61%	142	10.1	58%	143	8.9
	2500	19.4	60%	135	10.9	57%	137	9.4	54%	137	8.4
	2500	18.3	55%	130	10.1	52%	131	8.8	50%	131	7.8
	2500	17.2	50%	124	9.3	48%	124	8.1	45%	124	7.2
	2500	16.1	45%	117	8.6	43%	117	7.5	41%	116	6.7
10000	2700	20.0	71%	148	12.7	67%	150	11.0	64%	151	9.7
	2500	20.0	65%	142	11.5	61%	144	10.0	58%	145	8.8
	2500	18.9	60%	138	10.7	56%	139	9.3	54%	139	8.2
	2500	17.8	55%	132	9.9	52%	133	8.6	49%	133	7.6
	2500	16.7	50%	126	9.1	47%	126	8.0	45%	126	7.1
	2500	15.6	45%	119	8.4	43%	118	7.3	41%	117	6.5
12000	2700	18.5	66%	146	11.7	62%	147	10.1	59%	148	8.9
	2500	18.5	60%	140	10.6	57%	141	9.2	54%	142	8.1
	2500	17.4	55%	135	9.8	52%	135	8.5	49%	135	7.5
	2500	16.3	50%	128	9.0	47%	128	7.9	45%	128	6.9
	2500	15.2	45%	121	8.3	43%	120	7.2	40%	119	6.4
14000	2700	17.1	61%	143	10.8	57%	144	9.3	54%	145	8.2
	2500	17.1	55%	137	9.8	52%	138	8.5	50%	138	7.5
	2500	16.0	50%	131	9.0	48%	131	7.8	45%	130	6.9
	2500	14.9	45%	123	8.2	43%	123	7.1	41%	121	6.3

Landing Distance Table - Flaps 100%

WEIGHT: 3150 LB
Speed over 50 Ft Obstacle: 78 KIAS
Flaps: 100%
Power: Idle
Runway: Dry, Level Paved Surface

Headwind: Subtract 10% per each 13 knots headwind.
Tailwind: Add 10% for each 2 knots tail-wind up to 10 knots.
Runway Slope: Ref. Factors.
Dry Grass: Add 20% to Ground Roll
Wet Grass: Add 60% to Ground Roll

PRESS ALT FT	DISTANCE FT	TEMPERATURE ~ °C						
		0	10	20	30	40	50	ISA
SL	Grnd Roll	809	838	868	897	927	957	853
	Total	2557	2609	2663	2717	2773	2829	2636
1000	Grnd Roll	838	869	900	931	961	992	878
	Total	2610	2665	2722	2779	2838	2898	2682
2000	Grnd Roll	870	901	933	965	997	1029	905
	Total	2666	2725	2785	2846	2907	2970	2731
3000	Grnd Roll	902	935	968	1001	1034	1067	932
	Total	2726	2788	2852	2916	2981	3048	2782
4000	Grnd Roll	936	971	1005	1039	1073	1108	960
	Total	2790	2856	2923	2991	3060	3130	2837
5000	Grnd Roll	972	1007	1043	1079	1114	1150	990
	Total	2858	2928	2999	3070	3143	3217	2894
6000	Grnd Roll	1009	1046	1083	1120	1157	1194	1021
	Total	2931	3004	3079	3155	3232	3310	2954
7000	Grnd Roll	1048	1086	1125	1163	1201	1240	1052
	Total	3008	3086	3165	3245	3326	3409	3017
8000	Grnd Roll	1089	1128	1168	1208	1248	1288	1085
	Total	3091	3173	3256	3341	3427	3513	3084
9000	Grnd Roll	1131	1173	1214	1255	1297	1338	1119
	Total	3179	3265	3353	3443	3533	3625	3154
10000	Grnd Roll	1176	1219	1262	1305	1348	1391	1155
	Total	3272	3364	3457	3551	3646	3743	3228

Landing Distance Table - Flaps 50%

WEIGHT: 3150 LB
Speed over 50 Ft Obstacle: 82 KIAS
Flaps: 50%
Power: Idle
Runway: Dry, Level Paved Surface

Headwind: Subtract 10% per each 13 knots headwind.
Tailwind: Add 10% for each 2 knots tail-wind up to 10 knots.
Runway Slope: Ref. Factors.
Dry Grass: Add 20% to Ground Roll
Wet Grass: Add 60% to Ground Roll

PRESS ALT FT	DISTANCE FT	TEMPERATURE ~ °C						
		0	10	20	30	40	50	ISA
SL	Grnd Roll	1029	1066	1104	1141	1179	1217	1085
	Total	2704	2768	2833	2899	2966	3033	2800
1000	Grnd Roll	1067	1106	1145	1184	1223	1262	1117
	Total	2768	2836	2904	2974	3044	3115	2856
2000	Grnd Roll	1106	1147	1187	1228	1268	1309	1151
	Total	2837	2908	2980	3053	3127	3202	2915
3000	Grnd Roll	1148	1190	1232	1274	1316	1358	1186
	Total	2909	2984	3060	3137	3216	3295	2977
4000	Grnd Roll	1191	1234	1278	1322	1365	1409	1222
	Total	2987	3066	3146	3227	3309	3392	3042
5000	Grnd Roll	1236	1281	1327	1372	1417	1462	1259
	Total	3069	3152	3236	3322	3408	3496	3111
6000	Grnd Roll	1283	1330	1377	1424	1471	1518	1298
	Total	3156	3243	3332	3422	3513	3605	3183
7000	Grnd Roll	1333	1382	1431	1479	1528	1577	1338
	Total	3248	3340	3434	3529	3624	3721	3258
8000	Grnd Roll	1385	1435	1486	1537	1587	1638	1380
	Total	3346	3443	3542	3642	3742	3844	3338
9000	Grnd Roll	1439	1492	1544	1597	1650	1702	1424
	Total	3450	3553	3656	3761	3867	3974	3421
10000	Grnd Roll	1496	1550	1605	1660	1715	1769	1469
	Total	3560	3668	3778	3888	4000	4112	3509

Landing Distance Table - Flaps 0%

WEIGHT: 3150 LB
Speed over 50 Ft Obstacle: 87 KIAS
Flaps: 0%
Power: Idle
Runway: Dry, Level Paved Surface

Headwind: Subtract 10% per each 13 knots headwind.
Tailwind: Add 10% for each 2 knots tail-wind up to 10 knots.
Runway Slope: Ref. Factors.
Dry Grass: Add 20% to Ground Roll
Wet Grass: Add 60% to Ground Roll

PRESS ALT FT	DISTANCE FT	TEMPERATURE ~ °C						
		0	10	20	30	40	50	ISA
SL	Grnd Roll	1185	1228	1272	1315	1358	1402	1250
	Total	2971	3037	3105	3174	3243	3314	3071
1000	Grnd Roll	1229	1274	1319	1364	1409	1454	1287
	Total	3038	3108	3179	3252	3325	3399	3130
2000	Grnd Roll	1274	1321	1368	1414	1461	1508	1326
	Total	3109	3183	3258	3335	3412	3490	3191
3000	Grnd Roll	1322	1371	1419	1467	1516	1564	1366
	Total	3185	3263	3342	3422	3504	3586	3256
4000	Grnd Roll	1372	1422	1472	1523	1573	1623	1408
	Total	3265	3348	3431	3515	3601	3688	3323
5000	Grnd Roll	1424	1476	1528	1581	1633	1685	1451
	Total	3351	3437	3525	3614	3704	3795	3395
6000	Grnd Roll	1479	1533	1587	1641	1695	1749	1495
	Total	3441	3533	3625	3719	3814	3910	3470
7000	Grnd Roll	1536	1592	1648	1704	1760	1817	1542
	Total	3537	3634	3731	3830	3930	4031	3548
8000	Grnd Roll	1595	1654	1712	1770	1829	1887	1590
	Total	3640	3741	3844	3948	4053	4159	3631
9000	Grnd Roll	1658	1718	1779	1840	1900	1961	1641
	Total	3748	3855	3963	4073	4183	4295	3718
10000	Grnd Roll	1723	1786	1849	1912	1975	2038	1693
	Total	3863	3976	4090	4205	4322	4439	3809

Wind Components

Conditions:

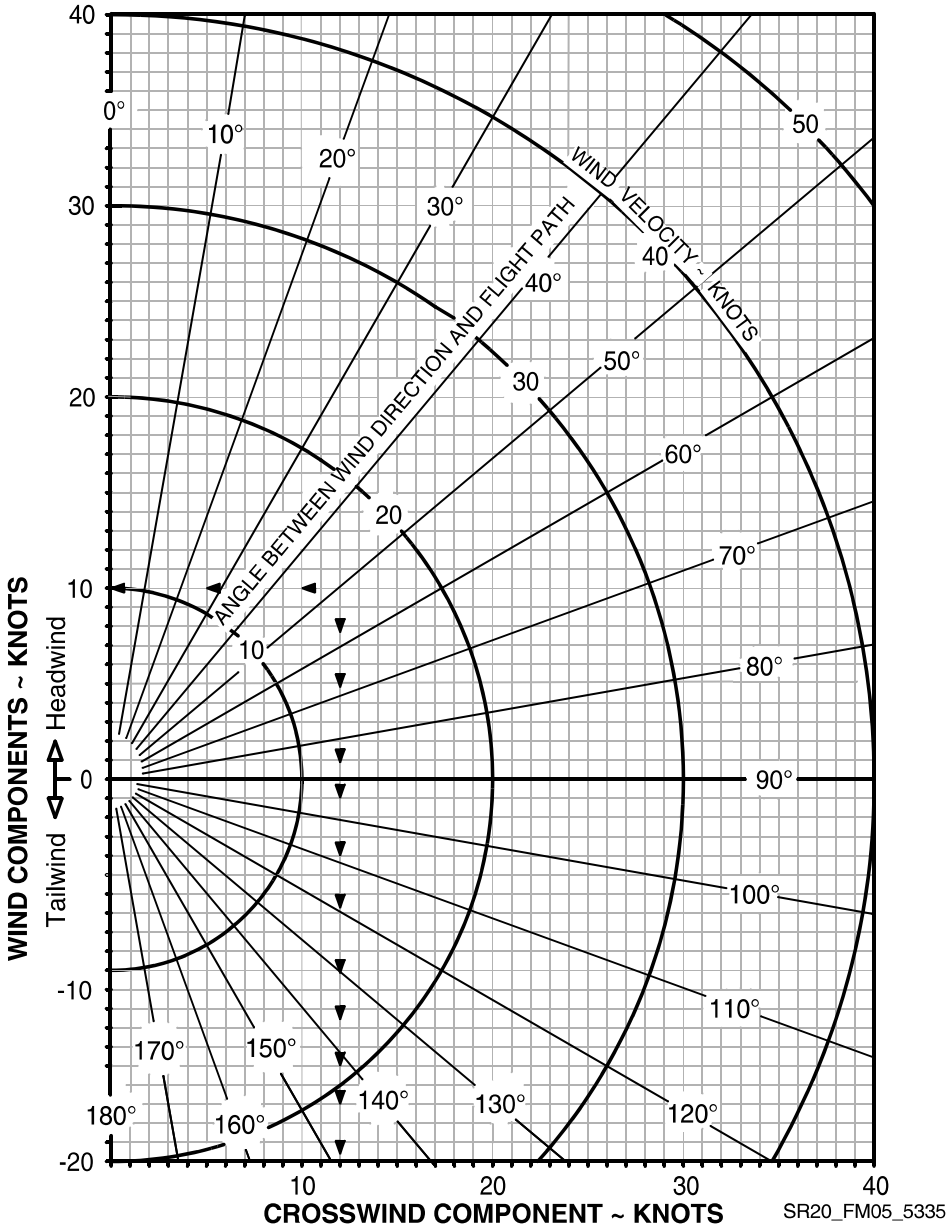
- Runway Heading ..... 10°
- Wind Direction ..... 60°
- Wind Velocity .....15 Knots

Example: (See Chart ▶ ▶ ▶)

Wind/Flight Path Angle ..... 50°
Crosswind Component..... 12 Knots
Headwind Component ..... 10 Knots

• Note •

The maximum demonstrated crosswind is 20 knots. Value not considered limiting.



Weight and Balance

Loading Calculations

For Moment/1000, refer to Loading Data table on following page.

Description	Weight	Moment/1000
1. Basic Empty Weight *Includes unusable fuel and full oil*		
2. Front Seats Occupants *Pilot and Passenger (total)*		
3. Rear Seats Occupants		
4. Baggage Area *130 lb maximum*		
5. **Zero Fuel Condition Weight** *Sub total items 1 thru 4*		
6. Fuel Loading *56 Gallon @6.0 lb/gal. maximum*		
7. **Ramp Condition Weight** *Sub total items 5 and 6*		
8. Fuel for start, taxi, and run-up *Normally 9 lb at average moment of 922.8*	-	-
9. **Takeoff Condition Weight** *Subtract Item 8 from item 7*		

Calculation Instructions

1. Enter the current basic empty weight and moment from the aircraft's Weight and Balance Record.
2. Enter the total weight and moment/1000 for the front seat occupants from the adjacent Loading Data Table.
3. Enter the total weight and moment/1000 for the rear seat occupants from the adjacent Loading Data Table.
4. Enter the total weight and moment/1000 for the baggage from the adjacent Loading Data Table.
5. If desired, subtotal the weight and moment/1000 entries from steps 1 - 4.
6. Enter the weight and moment/1000 of usable fuel loaded on the airplane.
7. Subtotal the weight and moment/1000.
8. Enter values for typical start, taxi, and run-up operations of 9 pounds at an average moment/1000 of 1.394.
9. Subtract step 8 weight and moment/1000 from the Ramp Condition Weight to determine the Takeoff Condition Weight and moment/1000.
   a. Verify Takeoff Weight does not exceed the 3150 pounds.
   b. Verify Moment/1000 falls between the interpolated minimum and maximum values listed on the adjacent Moment Limits Table.

Loading Data

Use this table to determine the Moment/1000.

Weight LB	Fwd Pass FS 143.5	Aft Pass FS 180.0	Baggage FS 208.0	Fuel FS 153.8	Weight LB	Fwd Pass FS 143.5	Aft Pass FS 180.0	Fuel FS 153.8
20	2.87	3.60	4.16	3.10	220	31.57	39.60	34.08
40	5.74	7.20	8.32	6.20	240	34.44	43.20	37.18
60	8.61	10.80	12.48	9.29	260	37.31	46.80	40.27
80	11.48	14.40	16.64	12.39	280	40.18	50.40	43.37
100	14.35	18.00	20.80	15.49	300	43.05	54.00	46.47
120	17.22	21.60	24.96	18.59	320	45.92	57.60	49.57
140	20.09	25.20	27.04*	21.69	336**	48.79	61.20	52.05
160	22.96	28.80		24.78	360	51.66	64.80	
180	25.83	32.40		27.88	380	54.53	68.40	
200	28.70	36.00		30.98	400	57.40	72.00	

* 130 lb Maximum

** 56 U.S Gallons Usable

Moment Limits

Use this table to determine if Loading Calculations are within limits.

Weight	Moment/1000		Weight	Moment/1000	
LB	Minimum	Maximum	LB	Minimum	Maximum
2200	304	326	2700	375	398
2250	311	333	2750	383	406
2300	318	341	2800	390	414
2350	326	348	2850	398	421
2400	333	354	2900	406	429
2450	340	362	2950	414	437
2500	347	369	3000	421	444
2550	354	375	3050	429	452
2600	362	383	3100	438	459
2650	369	390	3150	445	467

Temperature Conversion

To convert from Celsius (°C) to Fahrenheit (°F), find in the shaded columns the number representing the temperature value (°C) to be converted. The equivalent Fahrenheit temperature is read to the right.

▶ EXAMPLE: 38°C = 100°F.

To convert from Fahrenheit (°F) to Celsius (°C), find in the shaded columns the number representing the temperature value (°F) to be converted. The equivalent Celsius temperature is read to the left.

▶ EXAMPLE: 38°F = 3°C.

Temp to Convert °C or °F			Temp to Convert °C or °F			Temp to Convert °C or °F		
°C	◀ ▶	°F	°C	◀ ▶	°F	°C	◀ ▶	°F
-50	**-58**	-72	-17	**2**	36	17	**62**	144
-49	**-56**	-69	-16	**4**	39	18	**64**	147
-48	**-54**	-65	-14	**6**	43	19	**66**	151
-47	**-52**	-62	-13	**8**	46	20	**68**	154
-46	**-50**	-58	-12	**10**	50	21	**70**	158
-44	**-48**	-54	-11	**12**	54	22	**72**	162
-43	**-46**	-51	-10	**14**	57	23	**74**	165
-42	**-44**	-47	-9	**16**	61	24	**76**	169
-41	**-42**	-44	-8	**18**	64	26	**78**	172
-40	**-40**	-40	-7	**20**	68	27	**80**	176
-39	**-38**	-36	-6	**22**	72	28	**82**	180
-38	**-36**	-33	-4	**24**	75	29	**84**	183
-37	**-34**	-29	-3	**26**	79	30	**86**	187
-36	**-32**	-26	-2	**28**	82	31	**88**	190
-34	**-30**	-22	-1	**30**	86	32	**90**	194
-33	**-28**	-18	0	**32**	90	33	**92**	198
-32	**-26**	-15	1	**34**	93	34	**94**	201
-31	**-24**	-11	2	**36**	97	36	**96**	205
-30	**-22**	-8	3	**38**	100	37	**98**	208
-29	**-20**	-4	4	**40**	104	38	**100**	212
-28	**-18**	0	6	**42**	108	39	**102**	216
-27	**-16**	3	7	**44**	111	40	**104**	219
-26	**-14**	7	8	**46**	115	41	**106**	223
-24	**-12**	10	9	**48**	118	42	**108**	226
-23	**-10**	14	10	**50**	122	43	**110**	230
-22	**-8**	18	11	**52**	126	44	**112**	234
-21	**-6**	21	12	**54**	129	46	**114**	237
-20	**-4**	25	13	**56**	133	47	**116**	241
-19	**-2**	28	14	**58**	136	48	**118**	244
-18	**0**	32	16	**60**	140	49	**120**	248

Abnormal Procedures

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Abnormal Procedures

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Flight Environment

Inadvertent Icing Encounter

1. Pitot Heat ..... ON
2. Exit icing conditions. Turn back or change altitude.
3. Cabin Heat ..... MAXIMUM
4. Windshield Defrost ..... FULL OPEN
5. Alternate Induction Air ..... ON

Inadvertent IMC Encounter

1. Airplane Control ..... ESTABLISH STRAIGHT AND LEVEL FLIGHT
2. Autopilot ..... ENGAGE TO HOLD HEADING AND ALTITUDE
3. Heading ..... RESET TO INITIATE 180° TURN

Door Open In Flight

1. Airplane Control ..... MAINTAIN

Abnormal Landings

Landing With Failed Brakes

One brake inoperative

1. Land on the side of runway corresponding to the inoperative brake.
2. Maintain directional control using rudder and working brake.

Both brakes inoperative

1. Divert to the longest, widest runway with the most direct headwind.
2. Land on downwind side of the runway.
3. Use the rudder for obstacle avoidance.
4. Perform *Emergency Engine Shutdown on Ground* Checklist.

Landing With Flat Tire

Main Gear

1. Land on the side of the runway corresponding to the good tire.
2. Maintain directional control with the brakes and rudder.
3. Do not taxi. Stop the airplane and perform a normal Engine *Shutdown*.

Nose Gear

1. Land in the center of the runway.
2. Hold the nosewheel off the ground as long as possible.
3. Do not taxi. Stop the airplane and perform a normal Engine *Shutdown*.

Engine System

Low Idle Oil Pressure

OIL PRESS Caution

OIL PRESS

1. If In-Flight.....LAND AS SOON AS PRACTICABLE

Starter Engaged Annunciation

START ENGAGE Caution

START ENGAGE

On-Ground

1. Ignition Switch ..... DISENGAGE PRIOR TO 10 SECONDS
2. Wait 30 seconds before next start attempt.

   If starter does not disengage (relay or solenoid failure):
3. BAT 1 Switch ..... OFF
4. Engine ..... SHUTDOWN
5. STARTER Circuit breaker ..... PULL

In-Flight

1. Ignition Switch ..... ENSURE NOT STUCK IN START
2. STARTER Circuit breaker ..... PULL
3. Flight.....CONTINUE
   Engine start will not be available at destination.

Fuel System

Low Fuel Quantity

FUEL QTY Caution

FUEL QTY

1. Fuel Quantity Gages.....CHECK

   If left & right fuel quantities indicate less than or equal to 8 gallons per side:

   a. Land as soon as practicable.

   If left & right fuel quantities indicate more than 8 gallons per side:

   a. Flight .....CONTINUE, MONITOR

Left OR Right Fuel Tank Quantity

Conduct the following procedure if either of the annunciations listed below are displayed on the MFD.

L FUEL QTY or R FUEL QTY Advisory

L FUEL QTY	R FUEL QTY

1. Indicated (L or R) Fuel Quantity Gage.....CHECK

   If fuel quantity indicates less than or equal to 8 gallons:

   a. If On-Ground ..... REFUEL PRIOR TO FLIGHT

   b. If In-Flight .....CONTINUE, MONITOR

   If fuel quantity indicates more than 8 gallons:

   a. If On-Ground ..... CORRECT PRIOR TO FLIGHT

   b. If In-Flight .....CONTINUE, MONITOR

Fuel Imbalance

FUEL IMBALANCE Caution

FUEL IMBALANCE

1. Fuel Quantity Gages.....CHECK
2. Fuel Pump .....ON

   If Fuel Pump is already ON for vapor suppression, pump should be left in this position for tank switch.
3. Fuel Selector ..... SELECT FULLEST TANK
4. Fuel Pump .....AS REQUIRED

   After switching tanks, message will remain until sensed imbalance is less than 7.5 gallons.

Electrical System

Low Voltage on Main Bus 1

M BUS 1 Caution

M BUS 1

1. Perform *Alt 1 Caution (Failure)* Checklist.

Low Voltage on Main Bus 2

M BUS 2 Caution

M BUS 2

1. Perform *Alt 1 Caution (Failure)* and *Alt 2 Caution (Failure)* Checklists.

Battery 1 Current Sensor

BATT 1 Caution

BATT 1

1. Main Bus 1, 2 and Non-Essential Bus Loads ..... REDUCE
2. Main Bus 1, 2 and Essential Bus Voltages .....MONITOR
3. Land as soon as practicable.

Low Alternator 1 Output

ALT 1 Caution (Failure)

ALT 1

1. ALT 1 Circuit Breaker ..... CHECK AND SET
2. ALT 1 Master Switch ..... CYCLE

   If alternator does not reset (low A1 Current and M1 voltage):

3. ALT 1 Master Switch ..... OFF
4. Non-Essential Bus Loads ..... REDUCE
   a. If flight conditions permit, consider shedding the following to preserve Battery 1:
      (1) Air Conditioning,
      (2) Landing Light,
      (3) Convenience Power (aux items plugged into armrest jack)
5. Continue Flight, avoiding IMC or night flight as able (reduced power redundancy).

Low Alternator 2 Output

ALT 2 Caution (Failure)

ALT 2

1. ALT 2 Circuit Breaker ..... CHECK AND SET
2. ALT 2 Master Switch ..... CYCLE

   If alternator does not reset (low A2 Current and M2 voltage less than M1 voltage):

3. ALT 2 Master Switch ..... OFF
4. Continue Flight, avoiding IMC or night flight as able (reduced power redundancy).

Integrated Avionics System

Avionics Switch Off

AVIONICS OFF Caution

AVIONICS OFF

1. AVIONICS Switch ..... ON, AS REQUIRED

PFD Cooling Fan Failure

PFD FAN FAIL Advisory

PFD 1 FAN FAIL

1. AVIONICS FAN 2 Circuit Breaker ..... CYCLE

   If annunciation does not extinguish:

   a. Hot cabin temps .....LAND AS SOON AS PRACTICABLE

   b. Cool cabin temperatures .....CONTINUE, MONITOR

MFD Cooling Fan Failure

MFD FAN FAIL Advisory

MFD FAN FAIL

1. AVIONICS FAN 1 Circuit Breaker ..... CYCLE

   If annunciation does not extinguish:

   a. High cabin temps .....LAND AS SOON AS PRACTICABLE

   b. Low cabin temperatures.....CONTINUE, MONITOR

Flight Displays Too Dim

1. INSTRUMENT dimmer knob ..... OFF (FULL COUNTER-CLOCKWISE)

   If flight displays do not provide sufficient brightness:

2. Revert to standby instruments.

Pitot Static System

Pitot Static Malfunction

Static Source Blocked

1. Pitot Heat ..... ON
2. Alternate Static Source ..... OPEN

Pitot Tube Blocked

1. Pitot Heat ..... ON

Pitot Heat Current Sensor Annunciation

PITOT HEAT FAIL Caution

PITOT HEAT FAIL

1. Pitot Heat Circuit Breaker ..... CYCLE
2. Pitot Heat ..... CYCLE OFF, ON

   If inadvertent icing encountered, perform Inadvertent Icing Encounter Checklist and:

   a. Airspeed ..... EXPECT NO RELIABLE INDICATION

   b. Exit icing conditions using attitude, altitude, and power instruments.

Pitot Heat Required Annunciation

PITOT HEAT REQD Caution

PITOT HEAT REQD

1. Pitot Heat ..... ON

Flight Control System

Electric Trim/Autopilot Failure

1. Airplane Control.....MAINTAIN MANUALLY
2. Autopilot (if engaged).....DISENGAGE

If Problem Is Not Corrected:

3. Circuit Breakers .....PULL AS REQUIRED
   - PITCH TRIM
   - ROLL TRIM
   - AP SERVOS
4. Power Lever.....AS REQUIRED
5. Control Yoke .....MANUALLY HOLD PRESSURE
6. Land as soon as practicable.

Flap System Exceedance

FLAPS Caution

FLAPS

1. Airspeed ..... REDUCE

or

1. Flaps..... RETRACT

Landing Gear System

Brake Failure During Taxi

1. Engine Power.....AS REQUIRED
   - To stop airplane - REDUCE
   - If necessary for steering - INCREASE
2. Directional Control ..... MAINTAIN WITH RUDDER
3. Brake Pedal(s) ..... PUMP

   If directional control can not be maintained:
4. Ignition Switch ..... OFF

Left/Right Brake Over-Temperature

BRAKE TEMP Caution

BRAKE TEMP

1. Stop aircraft and allow the brakes to cool.

Other Conditions

Aborted Takeoff

1. Power Lever ..... IDLE
2. Brakes.....AS REQUIRED

Parking Brake Engaged Annunciation

PARK BRAKE Caution

PARK BRAKE

1. Parking Brake .....RELEASE
2. Monitor CAS for BRAKE TEMP Caution. Stop aircraft and allow the brakes to cool if necessary.

Communications Failure

1. Switches, Controls.....CHECK
2. Frequency.....CHANGE
3. Circuit Breakers ..... SET
4. Headset .....CHANGE
5. Handheld Microphone .....CONNECT

Emergency Procedures

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Emergency Procedures

Airspeeds For Emergency Operations

Maneuvering Speed:

- 3150 lb..... 133 KIAS
- 2700 lb..... 123 KIAS
- 2300 lb..... 114 KIAS

Best Glide:

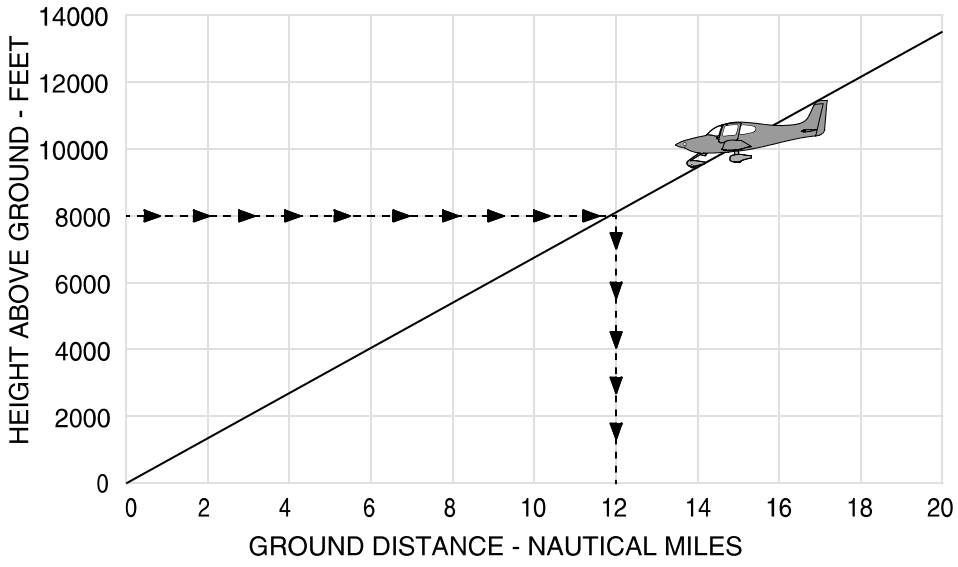
- 3150 lb..... 100 KIAS
- 2600 lb..... 92 KIAS

Emergency Landing (Engine-Out):

- Flaps Up ..... 89 KIAS
- Flaps 50% ..... 83 KIAS
- Flaps 100% ..... 78 KIAS

Maximum Glide

Glide Ratio ~ 9 : 1



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Memory Items

Checklist steps emphasized by underlining such as the example below, should be memorized for accomplishment without reference to the procedure.

1. Best Glide Speed..... ESTABLISH

Engine Failures

Engine Failure On Takeoff (Low Altitude)

1. Best Glide or Landing Speed (as appropriate) ..... ESTABLISH
2. Mixture ..... CUTOFF
3. Fuel Selector ..... OFF
4. Ignition Switch ..... OFF
5. Flaps ..... AS REQUIRED

If time permits:

6. Power Lever ..... IDLE
7. Fuel Pump ..... OFF
8. Bat-Alt Master Switches ..... OFF
9. Seat Belts ..... ENSURE SECURED

Engine Failure In Flight

1. Best Glide Speed ..... ESTABLISH
2. Mixture ..... AS REQUIRED
3. Fuel Selector ..... SWITCH TANKS
4. Fuel Pump ..... ON
5. Alternate Induction Air ..... ON
6. Air Conditioner (if installed) ..... OFF
7. Ignition Switch ..... CHECK, BOTH

If engine does not start:

8. Perform *Engine Airstart* or *Emergency Landing Without Engine Power* checklist, as required.

Airstart

Engine Airstart

1. Bat Master Switches ..... ON
2. Power Lever ..... ½" OPEN
3. Mixture ..... RICH, AS REQ'D
4. Fuel Selector ..... SWITCH TANKS
5. Ignition Switch ..... BOTH
6. Fuel Pump ..... ON
7. Alternate Induction Air ..... ON
8. Alt Master Switches ..... OFF
9. Starter (Propeller not Windmilling) ..... ENGAGE
10. Power Lever ..... SLOWLY INCREASE
11. Alt Master Switches ..... ON
12. If engine will not start, perform *Forced Landings* checklist.

Smoke and Fire

Engine Fire In Flight

1. Mixture ..... CUTOFF
2. Fuel Pump ..... OFF
3. Fuel Selector ..... OFF
4. Airflow Selector ..... OFF
5. Power Lever ..... IDLE
6. Ignition Switch ..... OFF
7. Cabin Doors ..... PARTIALLY OPEN
8. Land as soon as possible.

Cabin Fire In Flight

1. Bat-Alt Master Switches ..... OFF, AS REQ'D
2. Fire Extinguisher ..... ACTIVATE

If airflow is not sufficient to clear smoke or fumes from cabin:

3. Cabin Doors ..... PARTIALLY OPEN
4. Avionics Power Switch ..... OFF
5. All other switches ..... OFF
6. Land as soon as possible.

If setting master switches off eliminated source of fire or fumes and airplane is in night, weather, or IFR conditions:

7. Airflow Selector ..... OFF
8. Bat-Alt Master Switches ..... ON
9. Avionics Power Switch ..... ON
10. Required Systems ..... ACTIVATE ONE AT A TIME
11. Temperature Selector ..... COLD
12. Vent Selector ..... FEET/PANEL/DEFROST POSITION
13. Airflow Selector ..... SET AIRFLOW TO MAXIMUM
14. Panel Eyeball Outlets ..... OPEN
15. Land as soon as possible.

Wing Fire In Flight

1. Pitot Heat Switch ..... OFF
2. Navigation Light Switch ..... OFF
3. Landing Light ..... OFF
4. Strobe Light Switch ..... OFF
5. If possible, side slip to keep flames away from fuel tank and cabin.
6. Land as soon as possible.

Engine Fire During Start

1. Mixture ..... CUTOFF
2. Fuel Pump ..... OFF
3. Fuel Selector ..... OFF
4. Power Lever ..... FORWARD
5. Starter ..... CRANK
6. If flames persist, perform *Emergency Engine Shutdown on Ground* and *Emergency Ground Egress* checklists.

Smoke and Fume Elimination

1. Air Conditioner (if installed) ..... OFF
2. Temperature Selector ..... COLD
3. Vent Selector ..... FEET/PANEL/DEFROST POSITION
4. Airflow Selector ..... SET AIRFLOW TO MAXIMUM

   If source of smoke and fume is firewall forward:

   a. Airflow Selector ..... OFF
5. Panel Eyeball Outlets ..... OPEN
6. Prepare to land as soon as possible.

Forced Landings

Emergency Landing Without Engine Power

1. Best Glide Speed ..... ESTABLISH
2. Radio ..... TRANSMIT (121.5 MHZ) MAYDAY GIVING LOCATION AND INTENTIONS
3. Transponder ..... SQUAWK 7700
4. If off airport, ELT ..... ACTIVATE
5. Power Lever ..... IDLE
6. Mixture ..... CUTOFF
7. Fuel Selector ..... OFF
8. Ignition Switch ..... OFF
9. Fuel Pump ..... OFF
10. Flaps (when landing is assured) 100%
11. Master Switches ..... OFF
12. Seat Belt(s) ..... SECURED

Emergency Descent

1. Power Lever ..... IDLE
2. Mixture ..... AS REQUIRED
3. Airspeed ..... V_{NE} (201 KIAS)

Ditching

1. Radio ..... TRANSMIT (121.5 MHZ) MAYDAY GIVING LOCATION AND INTENTIONS
2. Transponder ..... SQUAWK 7700
3. CAPS ..... ACTIVATE
4. Airplane ..... EVACUATE
5. Flotation Devices ..... INFLATE WHEN CLEAR OF AIRPLANE

Landing Without Elevator Control

1. Flaps ..... SET 50%
2. Trim ..... SET 80 KIAS
3. Power ..... AS REQUIRED FOR GLIDE ANGLE

Engine System

Oil Pressure Out of Range

OIL PRESS Warning

OIL PRESS

1. Oil Pressure Gage ..... CHECK

   If pressure low/high:

   a. Power ..... REDUCE TO MINIMUM FOR SUSTAINED FLIGHT

   b. Land as soon as possible.

      (1) Prepare for potential engine failure.

Oil Temperature High

OIL TEMP Warning

OIL TEMP

1. Power ..... REDUCE
2. Airspeed ..... INCREASE
3. Mixture ..... FULL RICH
4. Oil Temperature Gage ..... MONITOR

   If temperature remains high:

5. Land as soon as possible.

Engine Speed High

RPM Warning: Engine Speed High

RPM

1. Tachometer ..... CHECK

   If engine speed normal:

   a. If On-Ground ..... CORRECT PRIOR TO FLIGHT

   b. If In-Flight ..... CONTINUE, MONITOR

   If engine speed high:

   a. Perform *Propeller Governor Failure* checklist.

2. Oil Pressure Gage ..... CHECK

High Cylinder Head Temperature

CHT Caution and Warning

CHT

On-Ground

1. Power Lever ..... REDUCE
2. Annunciations and Engine Temperatures ..... MONITOR

If Caution or Warning annunciation is still illuminated:

3. Power Lever ..... MINIMUM REQUIRED
4. Flight ..... PROHIBITED

In-Flight

1. Power Lever ..... REDUCE
2. Airspeed ..... INCREASE
3. Mixture ..... FULL RICH
4. Annunciations and Engine Temperatures ..... MONITOR

If Caution or Warning annunciation is still illuminated:

5. Power Lever ..... MINIMUM REQUIRED
6. Engine Instruments ..... MONITOR

If Caution annunciation only remains illuminated:

a. Land as soon as practicable.

If Warning annunciation remains illuminated:

a. Land as soon as possible.

Engine Partial Power Loss

1. Air Conditioner (if installed) ..... OFF
2. Fuel Pump ..... ON
3. Fuel Selector ..... SWITCH TANKS
4. Mixture ..... CHECK APPROPRIATE FOR FLIGHT CONDITIONS
5. Power Lever ..... SWEEP
6. Alternate Induction Air ..... ON
7. Ignition Switch ..... BOTH, L, THEN R
8. Land as soon as practicable.

Fuel System

Low Fuel Quantity

FUEL QTY Warning

FUEL QTY

1. Fuel Quantity Gages.....CHECK

   If fuel quantity indicates less than or equal to 7 gallons:

   a. If On-Ground ..... REFUEL PRIOR TO FLIGHT

   b. If In-Flight .....LAND AS SOON AS PRACTICABLE

   If fuel quantity indicates more than 7 gallons:

   a. If On-Ground .....CORRECT PRIOR TO FLIGHT

   b. If In-Flight .....CONTINUE, MONITOR

Fuel Imbalance

FUEL IMBALANCE Warning

FUEL IMBALANCE

1. Fuel Quantity Gages.....CHECK
2. Fuel Pump .....ON

   If the Boost Pump is already in use for vapor suppression, pump should be left in this position for tank switch.

3. Fuel Selector ..... SELECT FULLEST TANK
4. Fuel Pump .....AS REQUIRED

   After switching tanks, message will remain until sensed imbalance is less than 9.5 gallons.

Electrical System

High Voltage on Main Bus 1

M BUS 1 Warning

M BUS 1

1. ALT 1 Master Switch ..... CYCLE
2. M Bus 1 Voltage (M1) ..... CHECK

If M Bus 1 Voltage is greater than 32 Volts:

3. ALT 1 Master Switch ..... OFF
4. Perform *Alt 1 Caution (Failure)* checklist (do not reset alternator).

High Voltage on Main Bus 2

M BUS 2 Warning

M BUS 2

1. Main Bus 1 Voltage (M1) ..... CHECK

If M Bus 1 Voltage is greater than 32 Volts:

2. Perform *M Bus 1 Warning* Checklist.
3. Main Bus 2 Voltage (M2) ..... CHECK

If M Bus 2 Voltage is greater than 32 Volts:

4. ALT 2 Master Switch ..... CYCLE
5. Main Bus 2 Voltage (M2) ..... CHECK

If M Bus 2 Voltage remains greater than 32 Volts:

6. ALT 2 Master Switch ..... OFF
7. Perform *Alt 2 Caution (Failure)* checklist (do not reset alternator).

High or Low Voltage on Essential Bus

ESS BUS Warning

ESS BUS

1. Essential Bus Voltage (ESS) .....CHECK

   If Essential Bus Voltage is greater than 32 volts:

2. Main Bus 1 and Main Bus 2 Voltages (M1 and M2).....CHECK
3. Perform appropriate *M Bus 1* or *M Bus 2 Warning* checklists.

   If Essential Bus Voltage is less than 24.5 volts:

4. Perform *Alt 1 Caution (Failure)* and *Alt 2 Caution (Failure)* checklists.

   If unable to restore at least one alternator:

5. Non-Essential Loads ..... REDUCE
   a. If flight conditions permit, consider shedding:

      Air Conditioning, Landing Light, Pitot Heat, Cabin Fan, Nav Lights, Strobe Lights, Audio Panel, COM 2

6. Land as soon as practicable (Battery reserve only).

Integrated Avionics System

Attitude & Heading Reference System (AHRS) Failure

1. Verify Avionics System has switched to functioning AHRS

   If not, manually switch to functioning AHRS:

2. Failed ADAHRS Circuit Breaker ..... SET

   If open, reset breaker. If circuit breaker opens again, do not reset.

3. Be prepared to revert to Standby Instruments (Altitude, Heading)

Air Data Computer (ADC) Failure

1. Failed ADAHRS Circuit Breaker ..... SET

   If open, reset (close) circuit breaker. If circuit breaker opens again, do not reset.

2. Revert to Standby Instruments (Altitude, Airspeed).
3. Land as soon as practicable.

PFD Display Failure

1. Display Backup .....ACTIVATE
2. Land as soon as practicable.

Unusual Attitude

Inadvertent Spin Entry

1. CAPS ..... ACTIVATE

Inadvertent Spiral Dive During IMC Flight

1. Power Lever ..... IDLE
2. Stop the spiral dive by using coordinated aileron and rudder control while referring to the attitude indicator and turn coordinator to level the wings.
3. Cautiously apply elevator back pressure to bring airplane to level flight attitude.
4. Trim for level flight.
5. Set power as required.
6. Use autopilot if functional otherwise keep hands off control yoke, use rudder to hold constant heading.
7. Exit IMC conditions as soon as possible.

Environmental System Emergencies

Carbon Monoxide Level High

CO LVL HIGH Warning

CO LVL HIGH

1. Air Conditioner (if installed) ..... NOT IN RECIRC MODE
2. Temperature Selector ..... COLD
3. Vent Selector ..... FEET/PANEL/DEFROST POSITION
4. Airflow Selector ..... SET AIRFLOW TO MAXIMUM
5. Panel Eyeball Outlets ..... OPEN

   If CO LVL HIGH does not extinguish:
6. Supplemental Oxygen (if available)
   a. Oxygen Masks or Cannulas ..... DON
   b. Oxygen System ..... ON
   c. Oxygen Flow Rate ..... MAXIMUM
7. Land as soon as possible.

CAPS Deployment

• WARNING •

The maximum demonstrated deployment speed is 133 KIAS.

1. Activation Handle Cover ..... REMOVE
2. Activation Handle (Both Hands) ..... PULL STRAIGHT DOWN

After deployment, as time permits:

3. Mixture ..... CUTOFF
4. Fuel Selector ..... OFF
5. Fuel Pump ..... OFF
6. Bat-Alt Master Switches ..... OFF

   Turn the Bat-Alt Master Switches off after completing any necessary radio communications.
7. Ignition Switch ..... OFF
8. ELT ..... ON
9. Seat Belts and Harnesses ..... TIGHTEN
10. Loose Items ..... SECURE
11. Assume emergency landing body position.
12. After the airplane comes to a complete stop, evacuate quickly and move upwind.

Other Emergencies

Power Lever Linkage Failure

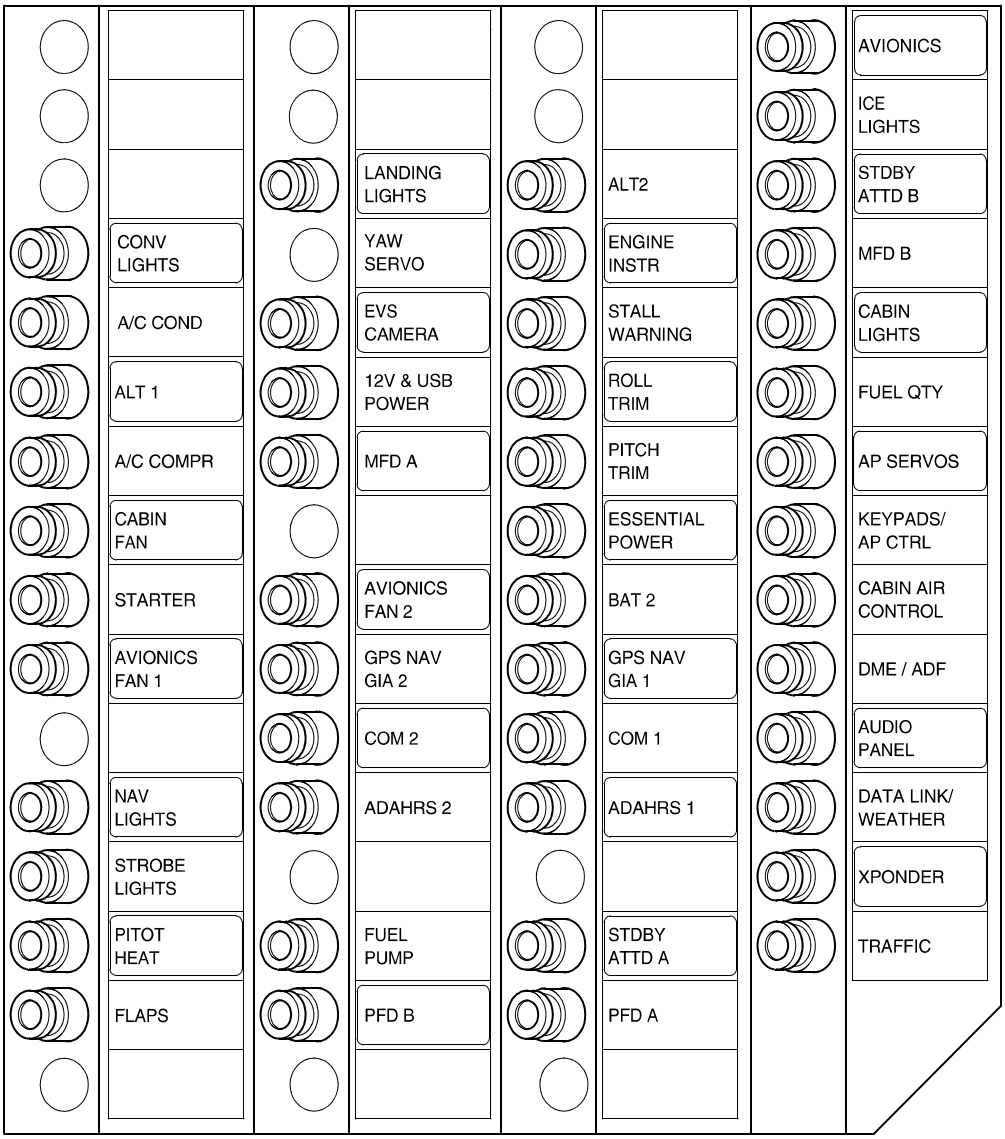
1. Power Lever Movement ..... VERIFY
2. Power ..... SET IF ABLE
3. Flaps ..... SET IF NEEDED
4. Mixture ..... AS REQUIRED (FULL RICH TO CUT-OFF)
5. Land as soon as possible.

Emergency Engine Shutdown On Ground

1. Power Lever ..... IDLE
2. Fuel Pump (if used) ..... OFF
3. Mixture ..... CUTOFF
4. Fuel Selector ..... OFF
5. Ignition Switch ..... OFF
6. Bat-Alt Master Switches ..... OFF

Circuit Breaker Panel

CRCT BREAKER PANEL



SR20_FM07_5370

Takeoff Rate of Climb

Conditions:

- Power ..... Full Throttle, 2700 RPM
- Mixture ..... Per Placard
- Flaps 50%
- Airspeed ..... Best Rate of Climb

• Note •

Rate-of-Climb values shown are change in altitude for unit time expended expressed in Feet per Minute.

Cruise climbs or short duration climbs are permissible at best power as long as altitudes and temperatures remain within those specified in the table.

For operation in air colder than this table provides, use coldest data shown.

For operation in air warmer than this table provides, use caution.

Aircraft with optional Air Conditioning System: Maximum rate of climb performance is reduced by approximately 75 feet per minute if system is ON. For maximum climb performance the air conditioner should be off.

Weight	Press Alt	Climb Speed	RATE OF CLIMB ~ Feet per Minute					
			Temperature ~ °C					
LB	FT	KIAS	-20	0	20	40	50	ISA
3150	SL	88	862	816	769	721	698	781
	2000	87	752	706	658	610	586	680
	4000	86	643	595	547	498	474	578
	6000	86	533	485	435	386	361	477
	8000	85	423	374	323	273	248	376
	10000	84	313	262	211	160	134	275
2600	SL	88	1159	1109	1056	1003	976	1069
	2000	87	1033	981	928	874	847	952
	4000	86	906	854	800	745	718	835
	6000	86	780	726	671	616	589	718
	8000	85	654	599	543	487	459	602
	10000	84	527	471	415	358	329	486

Enroute Rate of Climb

Conditions:

- Power ..... Full Throttle
- Mixture ..... Per Placard
- Flaps ..... 0% (UP)
- Airspeed ..... Best Rate of Climb

• Note •

Rate-of-Climb values shown are change in altitude in feet per unit time expressed in Feet per Minute.

For operation in air colder than this table provides, use coldest data shown.

For operation in air warmer than this table provides, use caution.

Cruise climbs or short duration climbs are permissible at best power as long as altitudes and temperatures remain within those specified in the table.

Aircraft with optional Air Conditioning System: Maximum rate of climb performance is reduced by approximately 75 feet per minute if system is ON. For maximum climb performance the air conditioner should be off.

Weight	Press Alt	Climb Speed	RATE OF CLIMB ~ Feet per Minute					
			Temperature ~ °C					
LB	FT	KIAS	-20	0	20	40	50	ISA
3150	SL	97	968	908	849	789	760	864
	2000	96	843	783	723	663	633	750
	4000	95	719	657	596	535	505	636
	6000	94	594	532	469	407	376	522
	8000	94	469	405	341	278	247	408
	10000	93	344	278	212	148	116	294
	12000	92	218	150	83	17	-15	180
	14000	91	91	21	-48	-115	-148	66
2600	SL	97	1279	1211	1143	1075	1041	1160
	2000	96	1133	1065	995	927	893	1026
	4000	95	988	918	848	778	744	893
	6000	94	842	771	699	629	594	760
	8000	94	697	624	551	479	444	627
	10000	93	551	476	402	329	293	494
	12000	92	405	328	252	177	141	362
	14000	91	258	179	101	26	-12	230

Time, Fuel and Distance to Climb

Conditions:

- Power ..... Full Throttle
- Mixture ..... Per Placard
- Fuel Density ..... 6.0 LB/GAL
- Weight ..... 3150 LB
- Winds ..... Zero
- Climb Airspeed ..... Noted

• Note •

Taxi Fuel - Add 1.5 gallon for start, taxi, and takeoff.

Temperature - Add 10% to computed values for each 10º C above standard.

Fuel flow must be set to the placarded limit for all takeoffs and climbs.

Cruise climbs or short duration climbs are permissible at best power as long as altitudes and temperatures remain within those specified in the table.

Press Alt FT	OAT (ISA) °C	Climb Speed KIAS	Rate Of Climb FPM	TIME, FUEL, DISTANCE ~ From Sea Level		
				Time Minutes	Fuel U.S. Gal	Distance NM
SL	**15**	97	864	0.0	0.0	0
1000	**13**	96	807	1.2	0.4	2
2000	**11**	96	750	2.6	0.8	4
3000	**9**	95	693	4.0	1.3	7
4000	**7**	95	636	5.6	1.7	9
5000	**5**	95	579	7.3	2.3	12
6000	**3**	94	522	9.2	2.8	15
7000	**1**	94	465	11.4	3.4	19
8000	**-1**	94	408	13.8	4.1	23
9000	**-3**	93	351	16.7	4.8	28
10000	**-5**	93	294	20.1	5.7	35
11000	**-7**	92	237	24.3	6.8	42
12000	**-9**	92	180	29.9	8.2	52
13000	**-11**	92	123	38.0	10.1	67
14000	**-13**	91	66	53.2	13.6	96

Range / Endurance Profile

Conditions:

- Weight ..... 3000 LB
- Temperature ..... Standard Day
- Winds ..... Zero
- Mixture ..... See Tables
- Total Fuel ..... 56 Gallons

• Note •

Fuel Remaining For Cruise accounts for 10.1 gallons for 45 minutes IFR reserve fuel at 75% power and fuel burn for descent.

Range and endurance shown includes descent to final destination at 160 KIAS and 500 fpm.

Range is decreased by 5% if nose wheel pant and fairings removed.

For aircraft with optional Air Conditioning System: range is decreased by 1% if system in operation.

Range is decreased by 15% if nose and main wheel pants and fairings removed.

75% POWER					Mixture = Target Fuel Flow		
Press Alt FT	Climb Fuel Gal	Fuel Remaining For Cruise Gal	Airspeed KTAS	Fuel Flow GPH	Endurance Hours	Range NM	Specific Range Nm/Gal
0	0.0	47.9	144	12.3	3.9	558	11.6
2000	0.8	47.2	146	12.1	3.9	574	12.1
4000	1.7	46.4	149	12.0	3.9	588	12.5
6000	2.8	45.5					
8000	4.1	44.3					
10000	5.7	42.7					
12000	8.2	40.4					
14000	13.6	35.0					

Range / Endurance Profile (Continued)

65% POWER					Mixture = Target Fuel Flow		
Press Alt FT	Climb Fuel Gal	Fuel Remaining For Cruise Gal	Airspeed KTAS	Fuel Flow GPH	Endurance Hours	Range NM	Specific Range Nm/Gal
0	0.0	47.9	135	10.9	4.4	596	12.4
2000	0.8	47.2	138	10.7	4.4	613	12.9
4000	1.7	46.4	140	10.5	4.4	629	13.4
6000	2.8	45.5	143	10.3	4.4	643	13.8
8000	4.1	44.3	145	10.2	4.3	655	14.4
10000	5.7	42.7					
12000	8.2	40.4					
14000	13.6	35.0					

55% POWER					Mixture = Target Fuel Flow		
Press Alt FT	Climb Fuel Gal	Fuel Remaining For Cruise Gal	Airspeed KTAS	Fuel Flow GPH	Endurance Hours	Range NM	Specific Range Nm/Gal
0	0.0	47.9	125	9.5	5.1	630	13.2
2000	0.8	47.2	127	9.3	5.1	651	13.7
4000	1.7	46.4	130	9.1	5.1	670	14.2
6000	2.8	45.5	132	9.0	5.1	687	14.8
8000	4.1	44.3	135	8.8	5.0	700	15.3
10000	5.7	42.7	137	8.7	4.9	709	15.8
12000	8.2	40.4	139	8.6	4.7	709	16.3
14000	13.6	35.0					