

# 22T

WITH FLIGHT INTO KNOWN ICE SYSTEM



# Quick Reference Checklist

for

SR22T Aircraft Serials 0001T and Subsequent with Flight Into Known  
Ice (FIKI) System Installation



**CIRRUS**  
A I R C R A F T

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 13772-003 Original Release. These procedures do not supersede the procedures in the basic POH. In the event of conflict, the basic POH shall take precedence.

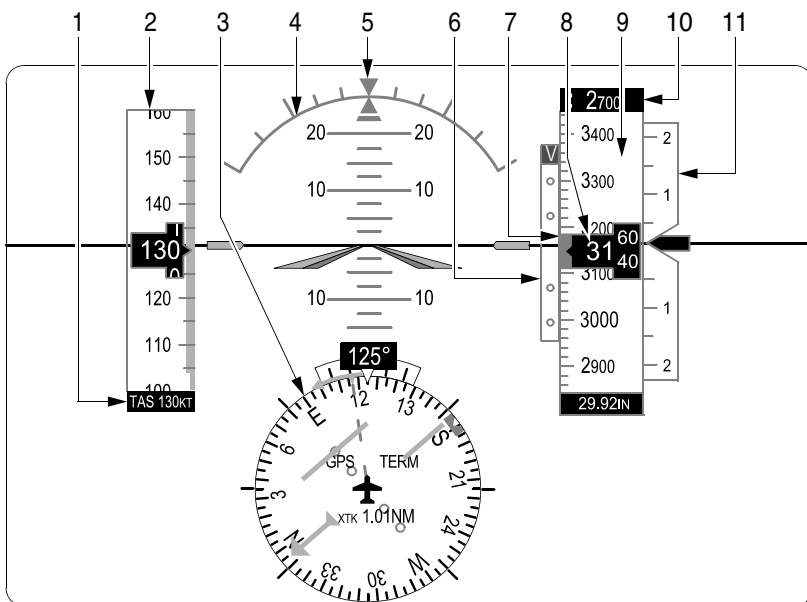
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# CIRRUS PILOT CHECKLIST

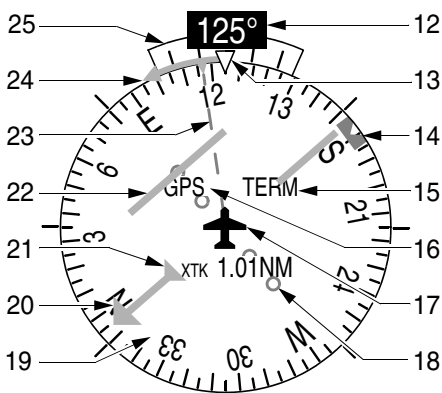
MODEL SR22T

## Primary Flight Display



### 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



HSI DETAIL

21. To/From Indicator
22. Course Deviation Indicator
23. Current Track Indicator
24. Turn Rate/Heading Trend Vector
25. Turn Rate Indicator

SR22\_FM07\_2790

## Airspeeds for Normal Operation

### **Takeoff Rotation:**

- Normal, Flaps 50%..... 70 KIAS
- Obstacle Clearance, Flaps 50%..... 78 KIAS

### **Enroute Climb, Flaps Up:**

- Best Rate of Climb, SL ..... 101 KIAS
- Best Rate of Climb, 10,000..... 101 KIAS
- Best Angle of Climb, SL..... 84 KIAS
- Best Angle of Climb, 10,000 ..... 84 KIAS
- Normal, Full Power, Full Rich Climb ..... 120 KIAS

### **Landing Approach:**

- Normal Approach, Flaps Up ..... 90-95 KIAS
- Normal Approach, Flaps 50% ..... 85-90 KIAS
- Normal Approach, Flaps 100% ..... 80-85 KIAS
- Short Field, Flaps 100% (V<sub>REF</sub>) ..... 77 KIAS

### **Go-Around, Flaps 50%:**

- Full Power..... 80 KIAS

### **Maximum Recommended Turbulent Air Penetration:**

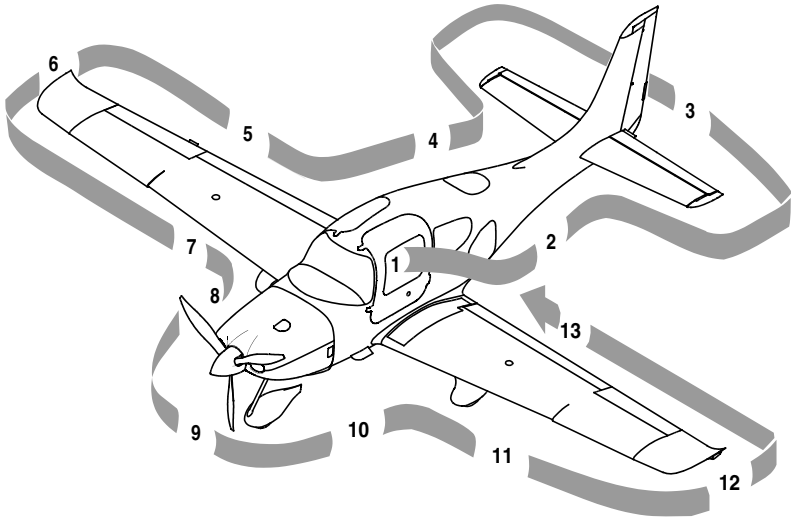
- 3400 lb..... 133 KIAS
- 2900 lb..... 123 KIAS

### **Maximum Demonstrated Crosswind Velocity:**

- Takeoff or Landing ..... 20 Knots

### **Anti-Ice System:**

- Minimum Airspeed For FIKI Conditions.....95 KIAS\*  
*\*Includes all phases of flight, including approach, except as required for takeoff and landing.*
- Max Airspeed Anti-Ice System Ops..... 177 KIAS and 204 KTAS
- Recommended Holding Airspeed..... 120 KIAS



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. Battery 1 Master Switch ..... ON
  - h. Avionics Cooling Fan ..... Audible
  - i. Oxygen Masks/Cannulas and Hoses ..... Check Condition
  - j. Oxygen System ..... ON
    - (1) Quantity ..... Verify adequate supply for flight with reserve
    - (2) Flow ..... Check flowmeter on all masks
    - (3) Oxygen System ..... OFF
  - k. Lights ..... Check Operation
  - l. Stall Warning ..... Test

- m. Fuel Quantity ..... Check
- n. Fuel Selector ..... Select Fullest Tank
- o. Flaps ..... 100%, Check Light ON
- p. Oil Annunciator.....On
- q. Bat 2 Master Switch ..... OFF
- r. Circuit Breakers..... Set
- s. Avionics Master Switch ..... ON
- t. Cabin Speaker ..... ON
- u. Cabin Doors ..... Close
- v. WIND SHLD Push-Button ..... Press
  - (1) Verify evidence of anti-ice fluid from spray nozzles.
- w. ICE PROTECT System Switch..... ON
- x. ICE PROTECT Mode Switch..... NORM
  - (1) Metering Pump Duty Cycle..... Verify 30s ON, 90s OFF
  - (2) Anti-Ice Fluid and Endurance Indications ..... Check
- y. ICE PROTECT System Switch..... OFF
- z. PUMP BKUP Switch ..... ON
  - (1) Metering Pump Duty Cycle..... Verify Continuously ON
  - (2) Anti-Ice Fluid and Endurance Indications ..... Check
- aa. PUMP BKUP Switch ..... OFF
- ab. ICE Inspection Lights Switch..... ON
  - (1) Verify LH and RH Operation.
- ac. PITOT HEAT Switch ..... ON 45 seconds, then OFF
  - (1) Exit airplane and verify Pitot Mast is hot.
- ad. ICE PROTECT System Switch..... ON
- ae. ICE PROTECT Mode Switch..... HIGH
  - (1) Metering Pump Duty Cycle..... Verify Continuously ON
  - (2) Anti-Ice Fluid and Endurance Indications ..... Check
- af. Fire Extinguisher ..... Charged and Available
- ag. Emergency Egress Hammer ..... Available
- ah. CAPS Handle ..... Pin Removed

*(Continued on following page)*

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. Stabilizers Porous Panels..... Condition / Security  
(1) Verify Evidence of Anti-Ice Fluid Along Length of Panels and Elevator Horns.
  - d. Elevator and Tab ..... Condition and Movement
  - e. Rudder ..... Freedom of Movement
  - f. Rudder Trim Tab..... Condition and Security
  - g. 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
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. Strobe, Nav 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. Porous Panels ..... Condition and Security
    - (1) Check Evidence of Anti-Ice Fluid Along Length of Panels.
  - c. Stall Warning Transducer Faceplate ..... Perceptibly Hot
  - d. Stall Warning Vane..... Very Hot
    - (1) Verify Stall Warning System audio annunciation within 4 seconds after lifting stall vane with wooden tooth pick or tongue depressor.
  - e. Fuel Cap..... Check Quantity and Secure
  - f. De-Ice Fluid Reservoir ..... Verify Desired Quantity
  - g. Fuel Drains (2 underside)..... Drain and Sample
  - h. De-Ice Fluid Vent (underside) ..... Unobstructed
  - i. Wheel Fairings ..... Security, Accumulation of Debris
  - j. Tire ..... Condition, Inflation, and Wear
  - k. Wheel and Brakes ..... Fluid Leaks, Evidence of Overheating, General Condition, and Security.
  - l. Chocks and Tiedown Ropes ..... Remove
  - m. Cabin Air Vent ..... Unobstructed
8. Nose, Right Side
  - a. Vortex Generator..... Condition
  - b. Ice-Inspection Light ..... Condition / Security
  - c. Cowling ..... Attachments Secure
  - d. Exhaust Pipe ..... Condition, Security, and Clearance
  - e. Gascolator (underside)..... Drain for 3 seconds, Sample
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..... Check adequate Ground Clearance
  - f. Spinner..... Condition, Security, and Oil Leaks

*(Continued on following page)*

- g. Slinger Ring..... Evidence Of Anti-ice Fluid
  - h. Air Inlets ..... Unobstructed
  - i. Alternator ..... Condition
10. Nose, Left Side
- a. Landing Light..... Condition
  - b. Engine Oil..... Check 6-8 quarts, Leaks, Cap & Door Secure
  - c. Cowling ..... Attachments Secure
  - d. External Power ..... Door Secure
  - e. Vortex Generator ..... Condition
  - f. Ice-Inspection Light ..... Condition / Security
  - g. Windshield Spray Nozzles..... Condition / Security
  - h. Exhaust Pipe(s)..... Condition, Security, and Clearance
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. De-Ice Fluid Vent (underside) ..... Unobstructed
  - g. Cabin Air Vent ..... Unobstructed
  - h. Fuel Cap..... Check Quantity and Secure
  - i. De-Ice Fluid Reservoir ..... Verify Desired Quantity
  - j. Leading Edge and Stall Strips..... Condition
  - k. Porous Panels ..... Condition / Security  
(1) Check Evidence of Anti-Ice Fluid Along Length of Panels.
12. Left Wing Tip
- a. Fuel Vent (underside)..... Unobstructed
  - b. Pitot Mast (underside) ..... Cover Removed, Tube Clear
  - c. Strobe, Nav 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
14. Cabin
- a. Fluid Quantity ..... Verify 5 Gallon Minimum
  - b. ICE PROTECT System Switch..... OFF
  - c. Battery 1 Master Switch ..... OFF
  - d. Avionics Master Switch ..... OFF
  - e. Cabin Speaker ..... OFF
  - f. Flaps ..... 0%

## 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 & SECURE

## Starting Engine

1. External Power (If applicable) .....CONNECT
2. Brakes ..... HOLD
3. Bat Master Switches.....ON (Check Volts)
4. Strobe Lights ..... ON
5. Mixture .....FULL RICH
6. Power Lever ..... FULL FORWARD
7. Fuel Pump .....BOOST
8. Propeller Area..... CLEAR
9. Power Lever ..... OPEN ¼ INCH
10. Ignition Switch .....START (Release after engine starts)
11. Mixture .....LEAN  
until RPM rises to a maximum value. Leave the mixture in this  
position during taxi and until run-up.
12. Power Lever ..... RETARD (to maintain 1000 RPM)
13. Oil Pressure ..... CHECK
14. Alt Master Switches ..... ON
15. Avionics Power Switch ..... ON
16. Engine Parameters ..... MONITOR
17. External Power (If applicable) .....DISCONNECT
18. Amp Meter/Indication..... CHECK

STARTING  
ENGINE

## Cold Weather Operation: Starting

1. Ignition Switch ..... OFF
2. Propeller ..... Hand TURN several rotations
3. External Power (If applicable) ..... CONNECT
4. Brakes ..... HOLD
5. Bat Master Switches ..... ON (check voltage)
6. Mixture ..... FULL RICH
7. Power lever ..... FULL FORWARD
8. Fuel Pump ..... HIGH BOOST/PRIME, then BOOST
9. Propeller Area ..... CLEAR
10. Power Lever ..... OPEN ¼ INCH
11. Ignition Switch ..... START (Release after engine starts)
12. Power Lever ..... RETARD (to maintain 1000 RPM)
13. Oil Pressure ..... CHECK
14. Alt Master Switches ..... ON
15. Avionics Power Switch ..... ON
16. Engine Parameters ..... MONITOR
17. External Power (If applicable) ..... DISCONNECT
18. Amp Meter/Indication ..... CHECK
19. Strobe Lights ..... ON

## 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

STARTING  
TAXI

## Before Takeoff

1. Doors ..... LATCHED
2. CAPS Handle ..... Verify Pin Removed
3. Seat Belts and Shoulder Harness ..... SECURE
4. Fuel Quantity ..... CONFIRM
5. Fuel Selector ..... FULLEST TANK
6. Fuel Pump ..... BOOST
7. Mixture ..... FULL RICH
8. Flaps ..... SET 50% & CHECK
9. Transponder ..... SET
10. Autopilot ..... CHECK
11. Navigation Radios/GPS ..... SET for Takeoff
12. Cabin Heat/Defrost ..... AS REQUIRED
13. Brakes ..... HOLD
14. Power Lever ..... 1700 RPM
15. Alternator ..... CHECK
  - a. Pitot Heat ..... ON
  - b. Navigation Lights ..... ON
  - c. Landing Light ..... ON
  - d. Annunciator Lights ..... CHECK  
Verify both ALT 1 and ALT 2 caution lights out and positive amps indication for each alternator.
16. Voltage ..... CHECK
17. Pitot Heat ..... AS REQUIRED
18. Navigation Lights ..... AS REQUIRED
19. Landing Light ..... AS REQUIRED
20. Magnetos ..... CHECK Left and Right  
RPM drop must not exceed 150 RPM for either magneto. RPM differential must not exceed 75 RPM between magnetos
  - 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. Flight Instruments, HSI, and Altimeter..... CHECK & SET
- 24. Flight Controls .....FREE & CORRECT
- 25. Trim.....SET Takeoff
- 26. Autopilot.....DISCONNECT
- If Icing Conditions are Anticipated Immediately After Takeoff:*
- 27. ICE PROTECT Switch ..... ON
- 28. ICE PROTECT Mode Switch ..... NORM / HIGH
- 29. PITOT HEAT Switch..... ON
- 30. Cabin Heat..... HOT
- 31. Windshield Defrost ..... ON
- 32. Ice-Inspection Lights.....AS REQUIRED
- 33. Verify airframe is free of contamination immediately before takeoff.
- 34. Flaps.....RETRACT as soon as practical

BEFORE  
TAKEOFF

**Normal Takeoff**

1. Brakes..... RELEASE (Steer with Rudder Only)
2. Power Lever..... FULL FORWARD
3. Engine Parameters.....CHECK
4. Elevator Control ..... ROTATE Smoothly at 70-73 KIAS
5. At 80 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 70 KIAS
7. Airspeed at Obstacle ..... 78 KIAS

**Full Power Climb: Rich of Peak Technique**

1. Oxygen .....AS REQUIRED
2. Power Lever ..... FULL FORWARD
3. Mixture..... Maintain Fuel Flow in GREEN ARC
4. Flaps..... Verify UP
5. Airspeed ..... 120 KIAS
6. Fuel Pump .....BOOST
7. Fuel Flow ..... MONITOR
8. Engine Parameters..... MONITOR

**Cruise Climb: Lean of Peak Technique**

1. Power Lever .....REDUCE to 30.5 in.Hg
2. Mixture.....LEAN to cyan target or less
3. Minimum Airspeed..... 120 KIAS
4. Fuel Pump .....BOOST
5. Oxygen ..... AS REQUIRED
  - a. Oxygen Masks/Cannulas ..... DON

TAKEOFF  
CLIMB

- b. Oxygen System..... ON
- c. Flow Rate ..... ADJUST for planned cruise altitude
- d. Flowmeters and Quantity .....MONITOR
- 6. Cylinder Head Temperatures.....MONITOR

## Icing Conditions: In Flight

### If Icing Conditions Exist:

- 1. PITOT HEAT Switch..... Verify ON
- 2. ICE PROTECT System Switch ..... ON
- 3. ICE PROTECT Mode Switch ..... NORM / HIGH
- 4. WIND SHLD Push-Button..... PRESS AS REQUIRED
- 5. Monitor ice accumulation.

*If ice accumulation occurs:*

- a. ICE PROTECT Mode ..... HIGH

*If ice continues accumulating:*

- b. ICE PROTECT Mode Push-Button .....MAX

*If ice accretions do not shed:*

- c. PUMP BKUP Switch ..... ON
- d. Perform Anti-Ice System Failure checklist.

### Inadvertent Icing Encounter:

- 1. PITOT HEAT Switch..... Verify ON
- 2. ICE PROTECT System Switch ..... ON
  - a. ICE PROTECT Mode Push-Button .....MAX  
to initially dissipate ice accumulation, then
  - b. ICE PROTECT Mode Switch..... HIGH / NORM  
If excess ice accumulation occurs, then:
  - c. ICE PROTECT Mode Push-Button .....MAX
- If ice does not shed perform Anti-Ice System Failure checklist.*
- 3. WIND SHLD Push-Button..... PRESS AS REQUIRED
- 4. Airspeed ..... MAINTAIN 95-177 KIAS  
or less than 204 KTAS

*(Continued on following page)*

## Icing Conditions: In Flight

### While in Icing Conditions:

1. FLAPS ..... UP
2. Ice-Inspection Lights.....AS REQUIRED
3. Cabin Heat.....HOT
4. Windshield Defrost ..... ON
5. Anti-Ice Fluid Quantity ..... MONITOR
  - a. Ensure adequate quantity to complete flight.

### After Leaving Icing Conditions:

1. Anti-Ice System ..... OFF
2. Airspeed .....as flight CONDITIONS DICTATE
3. Ice-Inspection Lights.....AS REQUIRED
4. Cabin Heat.....AS REQUIRED
5. Windshield Defrost .....AS REQUIRED
6. WIND SHLD Push-Button..... PRESS AS REQUIRED

## Cruise

1. Oxygen ..... AS REQUIRED
2. Cruise Altitude ..... ESTABLISHED
3. Power Lever ..... REDUCE to 30.5 in.Hg or less
4. Fuel Pump .....AS REQUIRED
5. Mixture..... ADJUST
6. Engine Parameters ..... MONITOR
7. Fuel Flow and Balance ..... MONITOR

*If any CHT's exceed 420°F:*

8. Mixture ..... LEAN 0.5 GPH and MONITOR

*If Icing Conditions are Encounters During Cruise:*

9. Perform Checklist..... Icing Conditions - In Flight
10. Engine Power..... INCREASE to maintain cruise speed.
11. Autopilot.....As Required  
 Disconnect every 30 minutes to detect any out-of-trim conditions.  
 When disconnecting the autopilot with ice accretions on the airplane, the pilot should be alert for out-of-trim forces.

## Descent

1. Oxygen ..... AS REQUIRED
2. Altimeter ..... SET
3. Cabin Heat/Defrost ..... AS REQUIRED
4. Landing Light ..... ON
5. Fuel System ..... CHECK
6. Power Lever ..... AS REQUIRED

*For Rapid Descent:*

- a. Power Lever ..... Smoothly REDUCE MAP 18 to 20 in.Hg
7. Mixture ..... AS REQUIRED

*For Rapid Descent:*

- a. Mixture ..... Maintain CHTs above 240°F
8. Brake Pressure ..... CHECK

### If Icing Conditions Exist:

1. ICE PROTECT System Switch ..... ON
2. ICE PROTECT Mode Switch ..... HIGH
3. Monitor ice accumulation.

*If ice does not shed:*

- a. ICE PROTECT Mode Push-Button ..... MAX
- b. Perform Anti-Ice System Failure checklist.
4. WIND SHLD Push-Button ..... PRESS AS REQUIRED
5. Ice-Inspection Lights ..... AS REQUIRED
6. Flaps ..... 50%
7. Airspeed ..... Minimum of 95 KIAS

### **Before Landing**

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

### **Normal Landing**

- 1. Flaps ..... 100%
- 2. Airspeed ..... 80-85 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 ..... 77 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 ..... 75-80 KIAS  
*After clear of obstacles:*
- 5. Flaps ..... UP

## After Landing

1. Power Lever ..... 1000 RPM
2. Fuel Pump ..... OFF or BOOST
3. Mixture ..... LEAN to obtain maximum idle RPM
4. Flaps ..... UP
5. Transponder ..... STBY
6. Lights ..... AS REQUIRED
7. Pitot Heat ..... OFF

*If Exiting Icing Conditions:*

8. PITOT HEAT Switch ..... OFF
9. ICE PROTECT System Switch ..... OFF
10. PUMP BKUP Switch ..... OFF
11. Ice-Inspection Lights ..... OFF

## Shutdown

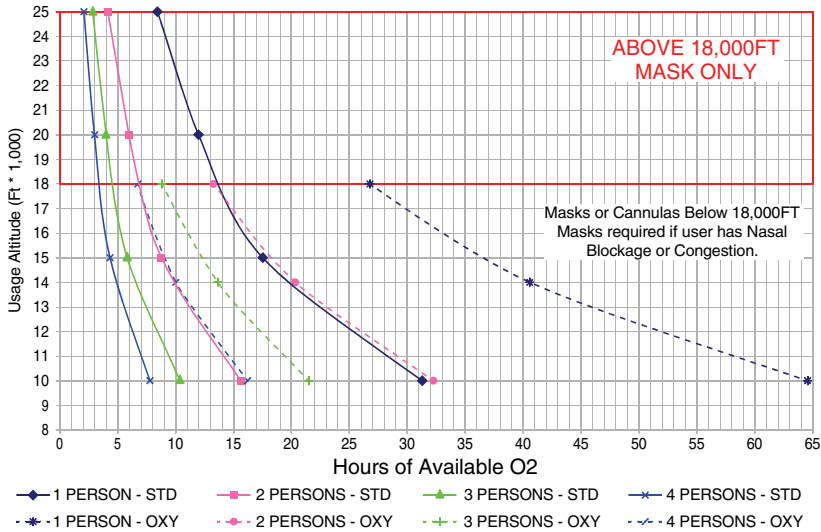
1. Fuel Pump (if used) ..... OFF
2. Throttle ..... IDLE
3. Ignition Switch ..... CYCLE
4. Mixture ..... CUTOFF
5. All Switches ..... OFF
6. Magnetos ..... OFF
7. ELT ..... TRANSMIT LIGHT OUT
8. Chocks, Tie-downs, Pitot Covers ..... AS REQUIRED

## Oxygen Duration (Precise Flight System)

### Oxygen System Usage Duration - A4 Flowmeter

(STD) Standard Cannula/Mask - (OXY) Oxymiser Annual  
 Tested Values at Altitude for flow rates STPD

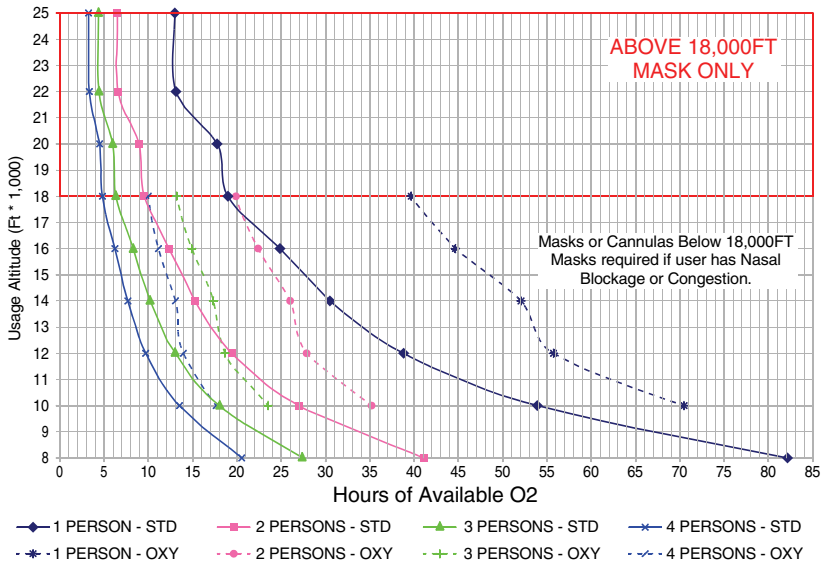
(77 Cu. Ft. Serviced to 1,800 PSIG -5%), Flow Rates are For Reference Only



### Oxygen System Usage Duration - A5 Flowmeter

(STD) Standard Cannula/Mask - (OXY) Oxymiser Annual  
 Tested Values at Altitude for flow rates STPD

(77 Cu. Ft. Serviced to 1,800 PSIG -5%), Flow Rates are For Reference Only



O2 DURATION

SR22\_FM09\_3295

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**CIRRUS** PILOT CHECKLIST

MODEL SR22T

**Takeoff Distance: 3400 LB**

<b>Weight: 3400 LB</b> <b>Approx. Speed at Ltoff: 72 KIAS</b> <b>Speed over 50 Ft. Obstacle: 78 KIAS</b> <b>Flaps: 50%</b> <b>Power: Full Throttle, Mixture Set</b> <b>Runway: Dry, Paved, Level</b>			<b>Headwind: Subtract 10% for each 12 knots headwind.</b> <b>Tailwind: Add 10% for each 2 knots tailwind up to 10 knots.</b> <b>Dry Grass: Add 15% of ground roll to distances.</b> <b>Runway Slope: Reference Caution.</b> <b>Air Conditioner: Add 100' to ground roll and 150' to distance over 50' obstacle if Air Conditioner if ON during takeoff.</b>				
PRESS ALT FT	DISTANCE FT	TEMPERATURE ~°C					ISA
		0	10	20	30	40	
SL	Grnd Roll	733	792	853	917	983	822
	<b>Total</b>	1138	1223	1312	1403	1498	1267
1000	Grnd Roll	782	845	910	978	1049	864
	<b>Total</b>	1207	1297	1391	1488	1588	1325
2000	Grnd Roll	834	902	971	1044	1119	909
	<b>Total</b>	1280	1376	1476	1579	1686	1386
3000	Grnd Roll	891	963	1037	1115	1195	956
	<b>Total</b>	1359	1461	1566	1676	1789	1451
4000	Grnd Roll	952	1029	1108	1191	1277	1006
	<b>Total</b>	1443	1551	1664	1780	1901	1519
5000	Grnd Roll	1018	1099	1185	1273	1365	1059
	<b>Total</b>	1533	1648	1768	1892	2020	1591
6000	Grnd Roll	1088	1176	1267	1362	1460	1115
	<b>Total</b>	1629	1752	1879	2011	2147	1667
7000	Grnd Roll	1164	1258	1355	1457	1562	1175
	<b>Total</b>	1733	1863	1999	2139	2284	1747
8000	Grnd Roll	1246	1347	1451	1559	1672	1238
	<b>Total</b>	1844	1983	2127	2276	2431	1832
9000	Grnd Roll	1335	1442	1554	1670	1791	1305
	<b>Total</b>	1963	2111	2265	2424	2589	1922
10000	Grnd Roll	1430	1545	1665	1789	1919	1376
	<b>Total</b>	2091	2249	2413	2582	2758	2017

## Takeoff Distance: 2900 LB

<p><b>Weight: 2900 LB</b>  <b>Approx. Speed at Liftoff: 67 KIAS</b>  <b>Speed over 50 Ft. Obstacle: 72 KIAS</b>  <b>Flaps: 50%</b>  <b>Power: Full Throttle, Mixture Set</b>  <b>Runway: Dry, Paved, Level</b></p>	<p><b>Headwind: Subtract 10% for each 12 knots headwind.</b>  <b>Tailwind: Add 10% for each 2 knots tailwind up to 10 knots.</b>  <b>Dry Grass: Add 15% of ground roll to distances.</b>  <b>Runway Slope: Reference Caution.</b>  <b>Air Conditioner: Add 100' to ground roll and 150' to distance over 50' obstacle if Air Conditioner if ON during takeoff.</b></p>
--	--

PRESS ALT FT	DISTANCE FT	TEMPERATURE ~°C					ISA
		0	10	20	30	40	
SL	Grnd Roll	485	524	564	606	650	544
	Total	766	823	882	944	1007	852
1000	Grnd Roll	517	559	602	647	694	571
	Total	812	872	935	1000	1068	891
2000	Grnd Roll	552	596	642	690	740	601
	Total	861	925	992	1061	1133	932
3000	Grnd Roll	589	637	686	737	791	632
	Total	914	982	1053	1126	1202	975
4000	Grnd Roll	630	680	733	788	845	665
	Total	970	1043	1118	1196	1277	1021
5000	Grnd Roll	673	727	783	842	903	700
	Total	1030	1108	1188	1271	1357	1069
6000	Grnd Roll	720	778	838	900	965	737
	Total	1095	1177	1262	1351	1442	1120
7000	Grnd Roll	770	832	896	963	1033	777
	Total	1164	1252	1343	1437	1534	1174
8000	Grnd Roll	824	890	959	1031	1106	819
	Total	1239	1332	1428	1529	1632	1231
9000	Grnd Roll	883	954	1028	1104	1184	863
	Total	1318	1418	1521	1627	1738	1291
10000	Grnd Roll	946	1022	1101	1183	1269	910
	Total	1404	1510	1620	1733	1851	1354

TAKEOFF

## Cruise Performance

**Conditions:**

- Weight..... 3200 LB
- Winds..... Zero

• Note •

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

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

CRUISE PERFORMANCE			ISA -30°C		ISA		ISA +30°C	
Altitude (ft MSL)	Power (% of 315)	FF (GPH)	TAS (KTAS)	Econ (nm/gal)	TAS (KTAS)	Econ (nm/gal)	TAS (KTAS)	Econ (nm/gal)
2000	85%	18.3	163	8.9	170	9.3	176	9.6
	75%	16.4	158	9.6	163	9.9	168	10.2
	65%	14.6	149	10.2	154	10.6	159	10.9
	55%	12.7	139	11.0	144	11.3	148	11.6
4000	85%	18.3	167	9.1	174	9.5	180	9.8
	75%	16.4	161	9.8	166	10.1	172	10.4
	65%	14.6	152	10.4	157	10.8	162	11.1
	55%	12.7	142	11.1	146	11.5	151	11.8
6000	85%	18.3	171	9.3	178	9.7	184	10.0
	75%	16.4	164	9.9	169	10.3	175	10.6
	65%	14.6	155	10.6	160	11.0	165	11.3
	55%	12.7	144	11.3	149	11.7	153	12.0
8000	85%	18.3	174	9.5	181	9.9	187	10.2
	75%	16.4	167	10.1	173	10.5	178	10.8
	65%	14.6	157	10.8	163	11.2	168	11.5
	55%	12.7	147	11.5	152	11.9	156	12.3
10000	85%	18.3	178	9.7	185	10.1	191	10.4
	75%	16.4	170	10.3	176	10.7	181	11.0
	65%	14.6	160	11.0	166	11.4	171	11.7
	55%	12.7	149	11.7	154	12.1	159	12.5
12000	85%	18.3	181	9.9	188	10.3	195	10.6
	75%	16.4	173	10.5	179	10.9	185	11.2
	65%	14.6	163	11.2	169	11.6	174	11.9
	55%	12.7	152	11.9	157	12.3	161	12.7

## Cruise Performance

CRUISE PERFORMANCE			ISA -30°C		ISA		ISA +30°C	
Altitude (ft MSL)	Power (% of 315)	FF (GPH)	TAS (KTAS)	Econ (nm/gal)	TAS (KTAS)	Econ (nm/gal)	TAS (KTAS)	Econ (nm/gal)
14000	85%	18.3	185	10.1	192	10.5	198	10.8
	75%	16.4	176	10.7	183	11.1	188	11.5
	65%	14.6	166	11.4	172	11.8	177	12.2
	55%	12.7	154	12.1	160	12.5	164	12.9
16000	85%	18.3	189	10.3	196	10.7	202	11.0
	75%	16.4	179	10.9	186	11.3	192	11.7
	65%	14.6	169	11.6	175	12.0	181	12.4
	55%	12.7	157	12.3	162	12.8	167	13.1
18000	85%	18.3	192	10.5	200	10.9	206	11.3
	75%	16.4	183	11.1	190	11.5	196	11.9
	65%	14.6	172	11.8	178	12.2	184	12.6
	55%	12.7	160	12.6	165	13.0	170	13.3
20000	85%	18.3	196	10.7	204	11.1	211	11.5
	80%	17.4	191	11.0	199	11.4	205	11.8
	75%	16.4	186	11.3	193	11.8	200	12.2
	65%	14.6	175	12.0	182	12.5	187	12.9
	55%	12.7	163	12.8	168	13.2	173	13.6
22000	85%	18.3	200	10.9	208	11.3	215	11.7
	80%	17.4	195	11.2	203	11.7	210	12.1
	75%	16.4	190	11.6	197	12.0	204	12.4
	65%	14.6	179	12.2	185	12.7	191	13.1
	55%	12.7	165	13.0	171	13.4	175	13.8
24000	85%	18.3	204	11.1	212	11.6	219	12.0
	80%	17.4	199	11.5	207	11.9	214	12.3
	75%	16.4	194	11.8	201	12.2	208	12.6
	65%	14.6	182	12.5	189	12.9	195	13.3
	55%	12.7	168	13.2	174	13.6	178	14.0
25000	85%	18.3	206	11.2	214	11.7	222	12.1
	80%	17.4	201	11.6	209	12.0	216	12.4
	75%	16.4	196	11.9	203	12.4	210	12.8
	65%	14.6	184	12.6	190	13.1	196	13.5
	55%	12.7	169	13.3	175	13.8	180	14.1

CRUISE

## Landing Distance

<b>WEIGHT: 3400 LB</b> <b>Speed over 50 Ft Obstacle: 77 KIAS</b> <b>Flaps: 100%</b> <b>Power: Idle</b> <b>Runway: Dry, Paved, Level</b>				<b>Headwind: Subtract 10% for each 13 knots headwind.</b> <b>Tailwind: Add 10% for each 2 knots tailwind up to 10 knots.</b> <b>Runway Slope: Reference Notes</b> <b>Dry Grass: Add 20% to Ground Roll</b> <b>Wet Grass: Add 60% to Ground Roll</b>			
PRESS ALT FT	DISTANCE FT	TEMPERATURE ~°C					ISA
		0	10	20	30	40	
SL	Grnd Roll	1082	1121	1161	1200	1240	1141
	Total	2262	2316	2372	2428	2485	2344
1000	Grnd Roll	1122	1163	1204	1245	1286	1175
	Total	2317	2374	2433	2492	2551	2391
2000	Grnd Roll	1163	1206	1248	1291	1334	1210
	Total	2375	2436	2497	2559	2621	2441
3000	Grnd Roll	1207	1251	1295	1339	1384	1247
	Total	2437	2501	2565	2630	2696	2493
4000	Grnd Roll	1252	1298	1344	1390	1436	1285
	Total	2503	2569	2637	2705	2774	2548
5000	Grnd Roll	1300	1348	1395	1443	1490	1324
	Total	2572	2642	2713	2785	2857	2605
6000	Grnd Roll	1350	1399	1449	1498	1547	1365
	Total	2645	2719	2794	2869	2945	2665
7000	Grnd Roll	1402	1453	1504	1556	1607	1408
	Total	2723	2800	2879	2958	3038	2728
8000	Grnd Roll	1456	1509	1563	1616	1669	1452
	Total	2805	2887	2969	3052	3136	2794
9000	Grnd Roll	1513	1569	1624	1679	1735	1497
	Total	2892	2978	3064	3152	3240	2863
10000	Grnd Roll	1573	1630	1688	1746	1803	1545
	Total	2984	3074	3165	3257	3350	2936

• Note •

• Note •

LANDING

Performance of the airplane with the TCM TSIO-550-K turbocharged engine installed is equal to or better than the performance described in the following tables.

## Stall Speeds with Ice Accumulation

**Conditions:**

- Weight ..... 3400 LB
- CG ..... Noted
- Power ..... Idle
- Bank Angle ..... Noted

• Note •

Altitude loss during wings level stall may be 600 feet or more.

KIAS values may not be accurate at stall.

ICE PERF  
STALL

Weight	Bank Angle	STALL SPEEDS					
		Flaps 0% Full Up		Flaps 50%		Flaps 100% Full Down	
		KIAS	KCAS	KIAS	KCAS	KIAS	KCAS
LB	Deg						
<b>3400</b>  <b>Most FWD CG</b>	0	75	73	70	68	66	64
	15	76	74	72	69	65	65
	30	80	79	75	73	69	69
	45	88	87	81	81	76	76
	60	104	104	97	97	90	90
<b>3400</b>  <b>Most AFT CG</b>	0	73	71	69	67	65	63
	15	74	72	71	68	64	64
	30	77	76	74	72	68	68
	45	85	84	80	80	75	75
	60	100	100	95	95	89	89

## Cruise Performance with Ice Accumulation

**Conditions:**

- Cruise Weight ..... 2900 LB
- Winds ..... Zero

• Note •

Aircraft with optional Air Conditioning System - Cruise performance is reduced by 2 knots. For maximum performance, the air-conditioner should be off.

2000 Feet Pressure Altitude										
		ISA -30°C (-19°C)			ISA (11°C)			ISA + 30°C (41°C)		
RPM	MAP	PWR	KTAS	GPH	PWR	KTAS	GPH	PWR	KTAS	GPH
2700	27.4	103%	160	24.6						
2600	27.4	99%	157	23.5						
2500	27.4	93%	153	22.1						
2500	26.4	89%	150	21.1						
2500	25.4	84%	146	20.0						
2500	24.4	80%	142	19.0						
2500	23.4	76%	137	18.0						

4000 Feet Pressure Altitude										
		ISA -30°C (-23°C)			ISA (7°C)			ISA + 30°C (37°C)		
RPM	MAP	PWR	KTAS	GPH	PWR	KTAS	GPH	PWR	KTAS	GPH
2700	25.4	96%	158	22.9						
2600	25.4	92%	155	21.9						
2500	25.4	87%	150	20.6						
2500	24.4	82%	146	19.5						
2500	23.4	78%	141	18.5						
2500	22.4	73%	136	17.4						
2500	21.4	69%	130	16.4						

6000 Feet Pressure Altitude										
		ISA -30°C (-27°C)			ISA (3°C)			ISA + 30°C (33°C)		
RPM	MAP	PWR	KTAS	GPH	PWR	KTAS	GPH	PWR	KTAS	GPH
2700	23.5	89%	155	21.2	85%	155	20.1			
2600	23.5	85%	151	20.3	81%	151	19.2			
2500	23.5	80%	146	19.1	76%	146	18.1			
2500	22.5	76%	140	18.1	72%	140	17.1			
2500	21.5	72%	134	17.0	68%	134	16.1			
2500	20.5	67%	128	15.9	64%	128	15.1			
2500	19.5	63%	120	14.9	59%	120	14.1			

ICE PERF CRUISE

## Cruise Performance with Ice Accumulation

8000 Feet Pressure Altitude										
		ISA -30°C (-31°C)			ISA (-1°C)			ISA + 30°C (29°C)		
RPM	MAP	PWR	KTAS	GPH	PWR	KTAS	GPH	PWR	KTAS	GPH
2700	21.7	83%	150	19.7	78%	150	18.6			
2600	21.7	79%	146	18.8	75%	146	17.8			
2500	21.7	75%	140	17.7	71%	140	16.8			
2500	20.7	70%	133	16.7	66%	133	15.8			
2500	19.7	66%	126	15.6	62%	126	14.8			
2500	18.7	61%	117	14.5	58%	117	13.8			
2500	17.7	57%	108	13.5	54%	108	12.8			

10,000 Feet Pressure Altitude										
		ISA -30°C (-35°C)			ISA (-5°C)			ISA + 30°C (25°C)		
RPM	MAP	PWR	KTAS	GPH	PWR	KTAS	GPH	PWR	KTAS	GPH
2700	20.0	77%	144	18.2	73%	144	17.3			
2600	20.0	71%	136	17.0	68%	136	16.1			
2500	20.0	67%	129	16.0	64%	129	15.1			
2500	19.0	63%	120	14.9	59%	120	14.1			
2500	18.0	58%	111	13.8	55%	111	13.1			
2500	17.0	54%	100	12.8	51%	100	12.1			

 ICE PERF  
CRUISE

## Landing Distance with Ice Accumulation

• Note •

Sloped Runway - Increase distances by 27% of ground roll distance for each 1% downslope. Decrease distances by 9% of ground roll distance for each 1% upslope.

<b>WEIGHT: 3400 LB</b> <b>Speed over 50 Ft Obstacle: 88 KIAS</b> <b>Flaps: 50%</b> <b>Power: Smooth power reduction from obstacle to idle at touchdown.</b> <b>Runway: Dry, Paved, Level</b>			<b>Headwind: Subtract 10% for each 13 knots headwind.</b> <b>Tailwind: Add 10% for each 2 knots tailwind up to 10 knots.</b> <b>Runway Slope: Reference Notes</b> <b>Dry Grass: Add 20% to Ground Roll</b> <b>Wet Grass: Add 60% to Ground Roll</b>			
PRESS ALT FT	DISTANCE FT	TEMPERATURE ~°C				ISA
		-20	-10	0	5	
SL	Grnd Roll	1346	1399	1452	1479	
	Total	2788	2861	2934	2972	
1000	Grnd Roll	1396	1451	1506	1533	
	Total	2856	2932	3010	3049	
2000	Grnd Roll	1448	1505	1562	1590	
	Total	2928	3008	3090	3131	
3000	Grnd Roll	1502	1561	1620	1650	
	Total	3004	3089	3174	3217	
4000	Grnd Roll	1558	1620	1682	1712	
	Total	3085	3174	3263	3309	
5000	Grnd Roll	1618	1682	1745	1777	
	Total	3170	3263	3358	3406	
6000	Grnd Roll	1680	1746	1812	1845	
	Total	3261	3359	3458	3508	
7000	Grnd Roll	1744	1813	1882		
	Total	3356	3459	3564		
8000	Grnd Roll	1812	1884	1955		
	Total	3458	3566	3675		
9000	Grnd Roll	1883	1957	2032		
	Total	3565	3679	3794		
10000	Grnd Roll	1957	2034			
	Total	3678	3798			

## Wind Components

**Conditions:**

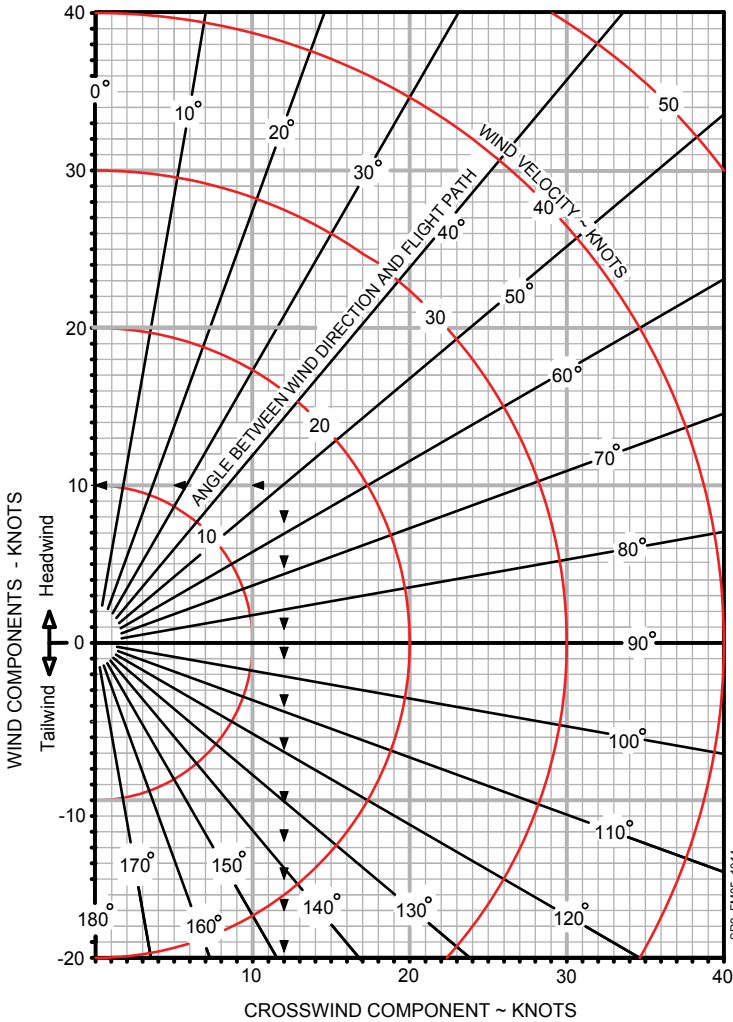
- Runway Heading ..... 10°
- Wind Direction ..... 60°
- Wind Velocity ..... 15 Knots

**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. Empty Weight <i>Includes unusable fuel and full oil</i>		
2. Front Seats Occupants <i>Pilot and Passenger</i>		
3. Rear Seats Occupants		
4. Baggage <i>130 lb maximum</i>		
5. <b>Zero Fuel Condition</b> <i>Subtotal items 1 thru 4</i>		
6. Fuel Load <i>92 Gallon @6.0 lb/gal. maximum</i>		
7. <b>Ramp Weight</b> <i>Subtotal items 5 and 6</i>		
8. Fuel for start, taxi, and runup <i>Normally 9 lb at avg. mmnt of 1394</i>	-	-
9. <b>Takeoff Weight</b> <i>Subtract Item 8 from item 7</i>		

### 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 1.39.
9. Subtract step 8 weight and moment/1000 from the Ramp Weight to determine the Takeoff Weight and moment/1000.
  - a. Verify Takeoff Weight does not exceed the 3400 pounds.
  - b. Verify Moment/1000 does 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 154.9	Weight LB	Fwd Pass FS 143.5	Aft Pass FS 180.0	Fuel FS 154.9
20	2.9	3.6	4.2	3.1	300	43.1	54.0	46.5
40	5.7	7.2	8.3	6.2	320	45.9	57.6	49.6
60	8.6	10.8	12.5	9.3	340	48.8	61.2	52.7
80	11.5	14.4	16.6	12.4	360	51.7	64.8	55.8
100	14.4	18.0	20.8	15.5	380	54.5	68.4	58.9
120	17.2	21.6	25.0	18.6	400	57.4	72.0	62.0
140	20.1	25.2	27.04*	21.7	420	60.3	75.6	65.1
160	23.0	28.8		24.8	440	63.1	79.2	68.2
180	25.8	32.4		27.9	460			71.3
200	28.7	36.0		31.0	480			74.4
220	31.6	39.6		34.1	500			77.5
240	34.4	43.2		37.2	520			80.5
260	37.3	46.8		40.3	552**			85.5
280	40.2	50.4		43.4	*130 lb Maximum **92 U.S. Gallons Usable			

## Moment Limits

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

Weight LB	Moment/1000		Weight LB	Moment/1000	
	Minimum	Maximum		Minimum	Maximum
2200	304	326	2850	398	422
2250	311	333	2900	406	430
2300	318	341	2950	414	437
2350	326	348	3000	421	444
2400	333	355	3050	429	452
2450	340	363	3100	437	459
2500	347	370	3150	444	467
2550	354	378	3200	452	474
2600	362	385	3250	460	481
2650	369	392	3300	467	489
2700	375	400	3350	475	496
2750	383	407	3400	483	504
2800	390	415			

## 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 area, 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	<b>-58</b>	-72	-17	<b>2</b>	36	17	<b>62</b>	144
-49	<b>-56</b>	-69	-16	<b>4</b>	39	18	<b>64</b>	147
-48	<b>-54</b>	-65	-14	<b>6</b>	43	19	<b>66</b>	151
-47	<b>-52</b>	-62	-13	<b>8</b>	46	20	<b>68</b>	154
-46	<b>-50</b>	-58	-12	<b>10</b>	50	21	<b>70</b>	158
-44	<b>-48</b>	-54	-11	<b>12</b>	54	22	<b>72</b>	162
-43	<b>-46</b>	-51	-10	<b>14</b>	57	23	<b>74</b>	165
-42	<b>-44</b>	-47	-9	<b>16</b>	61	24	<b>76</b>	169
-41	<b>-42</b>	-44	-8	<b>18</b>	64	26	<b>78</b>	172
-40	<b>-40</b>	-40	-7	<b>20</b>	68	27	<b>80</b>	176
-39	<b>-38</b>	-36	-6	<b>22</b>	72	28	<b>82</b>	180
-38	<b>-36</b>	-33	-4	<b>24</b>	75	29	<b>84</b>	183
-37	<b>-34</b>	-29	-3	<b>26</b>	79	30	<b>86</b>	187
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TEMP  
CONVERT

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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

### 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. Airspeed ..... REDUCE to 80 – 90 KIAS
2. Land as soon as practical.

## 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**

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

### Manifold Pressure High

**MAN PRESSURE**

1. Power Lever.....REDUCE to less than 36.5"
2. Flight.....CONTINUE  
*If noticeable surging is present:*
3. Complete Overboost / Pressure Relief Valve Emergency Checklist

### Starter Engaged

**START ENGAGE**

#### On-Ground

1. Ignition Switch .....DISENGAGE prior to 20 Seconds
2. Battery Switches..... Wait 20 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

**Alternate Air Door Open Annunciation**

**ALT AIR OPEN**

- 1. Manifold Pressure.....CHECK  
*If environment suspect as cause (icing or visible debris):*
- 2. Flight Conditions..... CHANGE/EXIT
- 3. Power.....Reduce to 30.5 in.Hg when practical
- 4. Flight.....CONTINUE

**Fuel System**

**Left Fuel Tank Quantity**

**L FUEL QTY**

- 1. Left Fuel Quantity Gage .....CHECK  
*If left fuel quantity indicates less than or equal to 18 gallons:*
  - a. Flight .....CONTINUE, MONITOR

**Right Fuel Tank Quantity**

**R FUEL QTY**

- 1. Right Fuel Quantity Gage .....CHECK  
*If right fuel quantity indicates less than or equal to 18 gallons:*
  - a. Flight .....CONTINUE, MONITOR

## Electrical System

### Low Voltage on Main Bus 1

**M BUS 1**

1. Perform Alt 1 Caution (Failure) Checklist.

### Low Voltage on Main Bus 2

**M BUS 2**

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

### Battery 1 Current Sensor

**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 practical.

ELEC SYS

**Low Alternator 1 Output**

**ALT 1**

- 1. ALT 1 Circuit Breaker..... CHECK & 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) Yaw Servo,
    - (4) Convenience Power (aux items plugged into armrest jack)
- 5. Continue Flight, avoiding IMC or night flight as able.

**Low Alternator 2 Output**

**ALT 2**

- 1. ALT 2 Circuit Breaker..... CHECK & 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**

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

### PFD Cooling Fan Failure

**PFD 1 FAN FAIL**

1. AVIONICS FAN 2 Circuit Breaker ..... CYCLE  
*If annunciation does not extinguish:*
  - a. Hot cabin temperatures..... LAND AS SOON AS PRACTICAL
  - b. Cool cabin temperatures .....CONTINUE, MONITOR

AVIONICS

### MFD Cooling Fan Failure

**MFD FAN FAIL**

1. AVIONICS FAN 1 Circuit Breaker ..... CYCLE  
*If annunciation does not extinguish:*
  - a. High cabin temperatures.... LAND AS SOON AS PRACTICAL
  - 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**

- 1. Pitot Circuit Breaker..... CYCLE
- 2. Pitot Heat..... CYCLE OFF, ON  
*If inadvertent icing encountered, perform Inadvertent Icing Encounter Emergency 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**

- 1. Pitot Heat..... ON

PITOT-  
STATIC

## 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
  - YAW SERVO
  - AP SERVOS
4. Power Lever ..... AS REQUIRED
5. Control Yoke ..... MANUALLY HOLD PRESSURE
6. Land as soon as practical.

### Flap System Exceedance

**FLAPS**

1. Airspeed ..... REDUCE  
*or*
1. Flaps..... RETRACT

FLIGHT  
CONTROLS

## Landing Gear System

### Brake Failure During Taxi

1. Engine Power.....AS REQUIRED
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**

1. Stop aircraft and allow the brakes to cool.

LANDING  
GEAR

## Oxygen System

### Oxygen Quantity Low

#### *OXYGEN QTY Caution*

#### **OXYGEN QTY**

1. Oxygen Pressure and Flow Rate.....CHECK
2. Oxygen Duration.....CALCULATE
  - a. See Performance Tab - Oxygen Duration: calculate duration based on remaining pressure, number of occupants and type of device (mask or cannula).
3. Perform Normal Descent as necessary, dependant on duration calculation
4. Annunciation indicated tank pressure is between 800 and 400 PSI. See Performance Tab - Oxygen Duration.

#### *OXYGEN RQD Caution*

#### **OXYGEN RQD**

1. Oxygen Masks or Cannulas ..... DON
2. Oxygen System ..... ON
3. Oxygen Flow Rate .....ADJUST as necessary for cruise altitude

#### *OXYGEN QTY Advisory*

#### **OXYGEN QTY**

#### *On-Ground*

1. Oxygen Supply .....REPLENISH if use of oxygen is anticipated

#### *In-Flight*

1. If use of oxygen is anticipated, verify adequate oxygen supply for flight duration. See Performance Tab - Oxygen Duration.

## Anti-Ice System

### Windshield De-Ice System Malfunction

1. ICE PROTECT A Circuit Breaker..... CYCLE
2. Anti-Ice - TKS Quantity ..... SWITCH TO FULLEST TANK
3. WIND SHLD Push-Button..... PRESS AS REQUIRED  
*If the forward field of view is overly restricted during landing approach and taxiing:*
  - a. Cabin Heat .....HOT
  - b. Windshield Defrost ..... ON
  - c. Execute a forward slip as required for visibility.
  - d. Avoid taxiing without adequate forward visibility.

### Heated Stall Warning Vane Malfunction

***If ice forms on stall warning vane:***

1. STALL VANE HEAT Circuit Breaker..... CYCLE
2. PITOT HEAT Switch..... CYCLE OFF, ON

***If ice remains on stall warning vane:***

1. Stall Warning System ..... EXPECT NO RELIABLE INDICATION  
*This includes:*
  - Impending stall warning.
  - Stall speed indication.
2. Airspeed ..... MONITOR, DO NOT STALL
3. Fly published V<sub>REF</sub> speeds..... Minimum 88 KIAS with 50% Flap

### Low Fluid Quantity Caution

**ANTI ICE QTY**

1. Icing Conditions .....AVOID / EXIT

## AOA Probe Overheat Caution

**AOA OVERHEAT**

- 1. PITOT HEAT Switch..... OFF
- 2. Icing Conditions .....AVOID/EXIT

## High Pressure Caution

**ANTI ICE PSI**

- 1. Evidence of Anti-Ice Flow .....MONITOR / VERIFY
- 2. Icing Conditions .....AVOID / EXIT

## Persistent Low Pressure Caution

**ANTI ICE PSI**

- 1. ICE PROTECT A and B Circuit Breakers ..... SET
- 2. Anti-Ice - TKS Quantity..... SWITCH TO FULLEST TANK
- 3. WIND SHLD Push-Button..... PRESS
  - a. Repeat operation of windshield pump to verify system is primed properly as evidenced by anti-ice fluid exiting windshield nozzles.
- 4. ICE PROTECT Mode Switch ..... HIGH
  - If caution annunciation extinguishes:*
    - a. Anti-Ice System .....MONITOR
  - If caution annunciation does not extinguishes or intermittent:*
    - a. PUMP BKUP Switch ..... ON
    - b. Icing Conditions.....AVOID / EXIT

ANTI-ICE

## Speed Caution

### ANTI ICE SPD

1. Airspeed ..... MAINTAIN 95-177 KIAS  
or less than 204 KTAS

## Left/Right Anti-Ice Fluid Level Caution

### ANTI ICE LVL

1. Revert to manual control of the fluid source to control the fluid level quantity.  
*If ANTI ICE FLO or ANTI ICE PSI annunciates:*
  - a. Switch to opposite tank.
  - b. WIND SHLD Push-Button ..... PRESS
    - (1) Repeat operation of windshield pump to verify system is primed properly as evidenced by anti-ice fluid exiting windshield nozzles.

## Stall Warning / AOA Heater Failure Caution

### ANTI ICE HTR

1. STALL VANE HEAT Circuit Breaker..... CYCLE
2. PITOT HEAT Circuit Breaker ..... CYCLE
3. Icing Conditions .....AVOID / EXIT
4. Fly aircraft normally using airframe buffet as the stall warning. Ice accumulations on the stall warning vane may result in unreliable stall warning system operation.

ANTI-ICE

## Other Conditions

### Aborted Takeoff

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

### Parking Brake Engaged Annunciation



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. Hand Held Microphone ..... CONNECT



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## Airspeeds for Emergency Operations

### *Maneuvering Speed:*

3400 lb ..... 133 KIAS

### *Best Glide:*

All Weights ..... 88 KIAS

### *Emergency Landing (Engine-out):*

Flaps Up ..... 90 KIAS

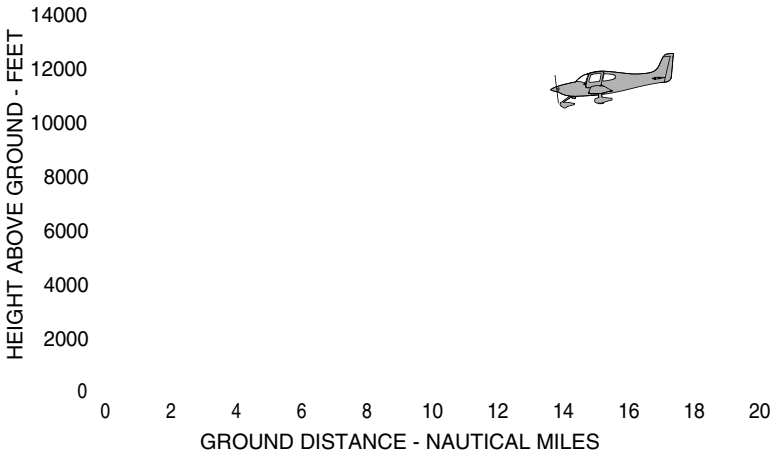
Flaps 50% ..... 85 KIAS

Flaps 100% ..... 80 KIAS

## Maximum Glide

Best Glide Speed ..... 88 KIAS at 3400 lb

### *Maximum Glide Ratio ~ 8.1 : 1*



SR22\_FM03\_3276

• Note •

Maximum Glide Ratio with Ice Accumulation ~ 7.7: 1

## 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. Fuel Selector ..... SWITCH TANKS
3. Ignition Switch ..... CHECK, BOTH
4. Fuel Pump ..... BOOST
5. Power Lever ..... ½ OPEN
6. Mixture ... IDLE CUTOFF then slowly ADVANCE until engine starts

*If engine does not start:*

7. Perform Engine Airstart or Forced Landing checklist, as required.

*If engine starts:*

8. CHTs and Oil Temperature ..... VERIFY within GREEN range, warm engine at partial power if required.

## Airstart

### Engine Airstart

1. Bat Master Switches ..... ON
2. Power Lever ..... OPEN ½ INCH
3. Mixture ..... RICH, AS REQ'D
4. Fuel Selector ..... SWITCH TANKS
5. Ignition Switch ..... BOTH
6. Fuel Pump ..... BOOST
7. Alt Master Switches ..... OFF
8. Starter (Propeller not Windmilling) ..... ENGAGE
9. Power Lever ..... slowly INCREASE
10. Alt Master Switches ..... ON
11. CHTs and Oil Temperature ..... VERIFY within GREEN range,  
warm engine at partial power if required.
12. If engine will not start, perform *Forced Landing* checklist.

**Smoke and Fire**

**Cabin Fire In Flight**

- 1. Oxygen System (if applicable) ..... OFF
- 2. Bat-Alt Master Switches ..... OFF, AS REQ'D
- 3. Fire Extinguisher ..... ACTIVATE  
*If airflow is not sufficient to clear smoke or fumes from cabin:*
- 4. Cabin Doors ..... PARTIALLY OPEN
- 5. Avionics Power Switch ..... OFF
- 6. All other switches ..... OFF
- 7. 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:*
- 8. Airflow Selector ..... OFF
- 9. Bat-Alt Master Switches ..... ON
- 10. Avionics Power Switch ..... ON
- 11. Required Systems ..... ACTIVATE one at a time
- 12. Temperature Selector ..... COLD
- 13. Vent Selector ..... FEET/PANEL/DEFROST POSITION
- 14. Airflow Selector ..... SET AIRFLOW TO MAXIMUM
- 15. Panel Eyeball Outlets ..... OPEN
- 16. Land as soon as possible.

**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.

SMOKE AND FIRE

## 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 ..... ADVANCE
5. Starter ..... CRANK
6. If flames persist, perform *Emergency Engine Shutdown on Ground* and *Emergency Ground Egress* checklists.

## Smoke and Fume Elimination

1. Oxygen Masks or Cannulas ..... DON
2. Oxygen System ..... ON
3. Oxygen Flow Rate ..... MAXIMUM
4. Temperature Selector ..... COLD
5. Vent Selector ..... FEET/PANEL/DEFROST POSITION
6. Airflow Selector ..... SET AIRFLOW TO MAXIMUM  
*If source of smoke and fume is firewall forward:*
  - a. Airflow Selector ..... OFF
7. Panel Eyeball Outlets ..... OPEN
8. Prepare to land as soon as possible.  
*If airflow is not sufficient to clear smoke or fumes from cabin:*
9. Cabin Doors ..... PARTIALLY OPEN

SMOKE  
AND FIRE

## Emergency Descent

### Emergency Descent

1. Power Lever ..... IDLE
2. Mixture ..... AS REQUIRED
3. Airspeed .....  $V_{NE}$  (200 KIAS)

## Forced Landing

### 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

### 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

FORCED LANDING

## Engine System

### Engine Partial Power Loss

1. Fuel Pump ..... HIGH BOOST/PRIME
2. Fuel Selector .....SWITCH TANKS
3. Mixture.....CHECK appropriate for flight conditions
4. Power Lever..... SWEEP
5. Ignition Switch ..... BOTH, L, then R
6. Land as soon as practical.

### Oil Pressure Out of Range

#### OIL PRESS

1. Oil Pressure Gage .....CHECK  
*If pressure high:*
  - a. Power .....REDUCE to minimum for sustained flight
  - b. Land as soon as possible.
  - c. Prepare for potential engine failure.  
(1) Continually select suitable forced landing fields.

### Oil Temperature High

#### OIL TEMP

1. Power..... REDUCE
2. Airspeed ..... INCREASE
3. Mixture ..... ADJUST fuel flow to top of green arc
4. Oil Temperature Gage .....MONITOR  
*If temperature remains high:*
5. Land as soon as possible.

## High Cylinder Head Temperature



### On-Ground

- 1. Power Lever ..... REDUCE
- 2. Annunciators 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. Mixture ..... ADJUST fuel flow to top of green arc
- 3. Airspeed ..... INCREASE
- 4. Annunciators 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 practical.*If Warning annunciation remains illuminated:*
  - a. Land as soon as possible.

## Turbocharger System Emergencies

### Unexpected Loss Of Manifold Pressure

- 1. Power ..... ADJUST to minimum required for sustained flight
- 2. Mixture ..... ADJUST for EGTs between 1300° to 1400°F
- 3. Flight ..... Descend to MINIMUM SAFE ALTITUDE from which a landing may be safely accomplished.
- 4. Flight ..... Divert to nearest suitable airfield.
- 5. Radio ..... Advise ATC landing is urgent or Transmit (121.5 MHz) MAYDAY giving location and intentions when workload permits.
- 6. Oil Pressure ..... MONITOR
- 7. Land as soon as possible.

ENGINE  
TURBO

## Manifold Pressure High

### MAN PRESSURE

1. Power Lever.....REDUCE MAP to less than 36.5 in.Hg
2. Flight.....CONTINUE  
*If noticeable surging is present:*
3. Complete Overboost / Pressure Relief Valve checklist

## Overboost / Pressure Relief Valve

1. Power Lever..... REDUCE to 30.5 in.Hg or less
2. Mixture..... ADJUST fuel flow to top of green arc  
*If continued surging is present:*
3. Land as soon as practical

## EGT, TIT or CHT Temperature Sensor Failure

1. Similar gages.....MONITOR
2. Flight.....CONTINUE  
using remaining gages as representative.

## Turbine Inlet Temperature High

### TIT

1. Mixture.....ADJUST Fuel Flow to Top of Green Arc
2. Ignition Switch ..... CHECK on BOTH  
*If TIT remains in excess of limits:*
  - a. Power ..... REDUCE
  - b. Land as soon as practical.

TURBO-  
CHARGER

## Fuel System Emergencies

### Low Fuel Quantity

#### FUEL QTY

1. Fuel Quantity Gages.....CHECK  
*If fuel quantity indicates less than or equal to 9 gallons:*
  - a. Land as soon as practical.  
*If fuel quantity indicates more than 9 gallons:*
    - a. Flight .....CONTINUE, MONITOR

## Propeller System Emergencies

### Engine Speed High

#### RPM

1. Power Lever ..... REDUCE by 2 in.Hg Manifold Pressure  
*If governor is not in control (RPM reduces and remains lower after power adjustment):*
2. Perform *Propeller Governor Failure* checklist  
*If governor is in control (RPM remains high, but stable after power reduction):*
3. Power Lever ..... REDUCE below 34 in.Hg for climb, below 30.5in.Hg for cruise  
*If governed engine speed exceeds 2600 RPM:*
4. Land as soon as practical.  
*If governed engine speed is 2600 RPM or less:*
5. Flight .....CONTINUE

### Propeller Governor Failure

1. Power Lever .....Reduce to minimum necessary for sustained flight
2. Airspeed .....Reduce to 85-90 KIAS
3. Oil Pressure ..... MONITOR
4. Land as soon as able

## Electrical System Emergencies

### High Voltage on Main Bus 1

#### 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

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**

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 *Main Bus 1* or *Main Bus 2* Warning checklists  
*If Essential Bus Voltage is less than 24.5 volts:*
4. Perform Alt 1 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, Yaw Damper*
6. Land as soon as practical (Battery reserve only)

**Environmental System Emergencies**

**Carbon Monoxide Level High**

**CO LVL HIGH**

1. Air Conditioner (if installed) ..... OFF
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. Cabin Doors.....PARTIALLY OPEN
8. Land as soon as possible.

ENVIRO

## Oxygen System Emergencies

### Oxygen System Fault - Above 10,000 Ft

**OXYGEN FAULT**

1. Oxygen Flow Rate .....CHECK  
*If no flow:*
2. Initiate Emergency Descent to below 10,000 ft:
  - a. Power Lever ..... IDLE
  - b. Mixture .....AS REQUIRED
  - c. Airspeed ..... VNE (200 KIAS)  
*If flow is normal:*
3. Oxygen Flow Rate .....MONITOR
4. Initiate Normal Descent as soon as practical  
*Below 10,000 ft*
5. Oxygen System ..... OFF
6. Flight.....CONTINUE  
Remain below altitudes requiring supplemental oxygen.

### Oxygen Quantity Low

**OXYGEN QTY**

1. Oxygen Pressure and Flow Rate .....CHECK
2. Initiate Normal Descent (non-emergency) below 10,000 ft
3. Oxygen Flow Rate .....MONITOR  
*Below 10,000 ft*
4. Flight.....CONTINUE  
Remain below altitudes requiring supplemental oxygen.

OXYGEN

## Anti-Ice System

### Anti-Ice System Failure / Excessive Ice Accumulation

1. ICE PROTECT A and B Circuit Breakers ..... SET
2. Anti-Ice - TKS Quantity ..... SWITCH TO FULLEST TANK
3. WIND SHLD Push-Button..... PRESS
  - a. Repeat operation of windshield pump to verify system is primed properly as evidenced by anti-ice fluid exiting windshield nozzles.
4. ICE PROTECT Mode Switch ..... VERIFY HIGH
5. PUMP BKUP Switch..... ON  
*If determined windshield pump is not priming:*
6. Exit Icing Conditions Immediately.
7. Airspeed .....95 KIAS OR GREATER  
*Maintain a minimum airspeed of 95 KIAS or higher to stay above pre-stall buffet. If unable to maintain this airspeed, allow altitude to decrease in order to maintain 95 KIAS.*
8. Minimum Approach Speed w/ Residual Ice (Flaps 50%)... 88 KIAS  
*In severe icing conditions, it may not be possible to maintain altitude or proper glide path on approach; in this case, it is imperative that a safe airspeed be maintained, the stall warning system may not function and there may be little or no pre-stall buffet with heavy ice loads on the wing.*
9. FLAPS ..... MINIMUM REQUIRED  
*When landing is assured, select the minimum flap setting required, not to exceed 50%, and maintain extra airspeed consistent with available field length. Do not retract the flaps once they have been extended unless required for go-around.*

ICING

## Low Flow Rate Warning

**ANTI ICE FLO**

1. ICE PROTECT A and B Circuit Breakers ..... SET
2. Anti-Ice - TKS Quantity ..... SWITCH TO FULLEST TANK
3. WIND SHLD Push-Button ..... PRESS
  - a. Repeat operation of windshield pump to verify system is primed properly as evidenced by anti-ice fluid exiting windshield nozzles.
4. ICE PROTECT Mode Switch ..... HIGH  
*If warning annunciation extinguishes:*
  - a. Anti-Ice System ..... MONITOR  
*If warning annunciation does not extinguishes or intermittent:*
    - a. PUMP BKUP Switch ..... ON
    - b. Icing Conditions ..... AVOID / EXIT

## Tank Control Failure Warning

**ANTI ICE CTL**

1. Icing Conditions ..... AVOID / EXIT

## Low Fluid Quantity Warning

**ANTI ICE QTY**

1. Icing Conditions ..... AVOID / EXIT

## AOA Probe Overheat Warning

**AOA OVERHEAT**

1. PITOT HEAT Switch ..... OFF
2. Icing Conditions ..... AVOID/EXIT

ICING

## Integrated Avionics System Emergencies

### Attitude & Heading Reference System (AHRS) Failure

1. Verify Avionics System has switched to functioning AHRS.  
*If not, manually switch to functioning AHRS and attempt to bring failed AHRS back on-line:*
2. Failed AHRS Circuit Breaker ..... SET  
*If open, reset (close) circuit 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. ADC 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 practical.

### PFD Display Failure

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

## Unusual Attitude Emergencies

### 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.

## 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

SPINS AND  
OTHER

**Left/Right Brake Over-Temperature**

**BRAKE TEMP**

- 1. Stop aircraft and allow the brakes to cool.

**Starter Engaged**

**START ENGAGE**

**On-Ground**

- 1. Ignition Switch ..... DISENGAGE
- 2. Battery Switches.....Wait 1 minute 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.

**Emergency Ground Egress**

- 1. Engine ..... SHUTDOWN
- 2. Seat belts.....RELEASE
- 3. Airplane ..... EXIT

OTHER

**CAPS Deployment**

1. Airspeed ..... **MINIMUM POSSIBLE**

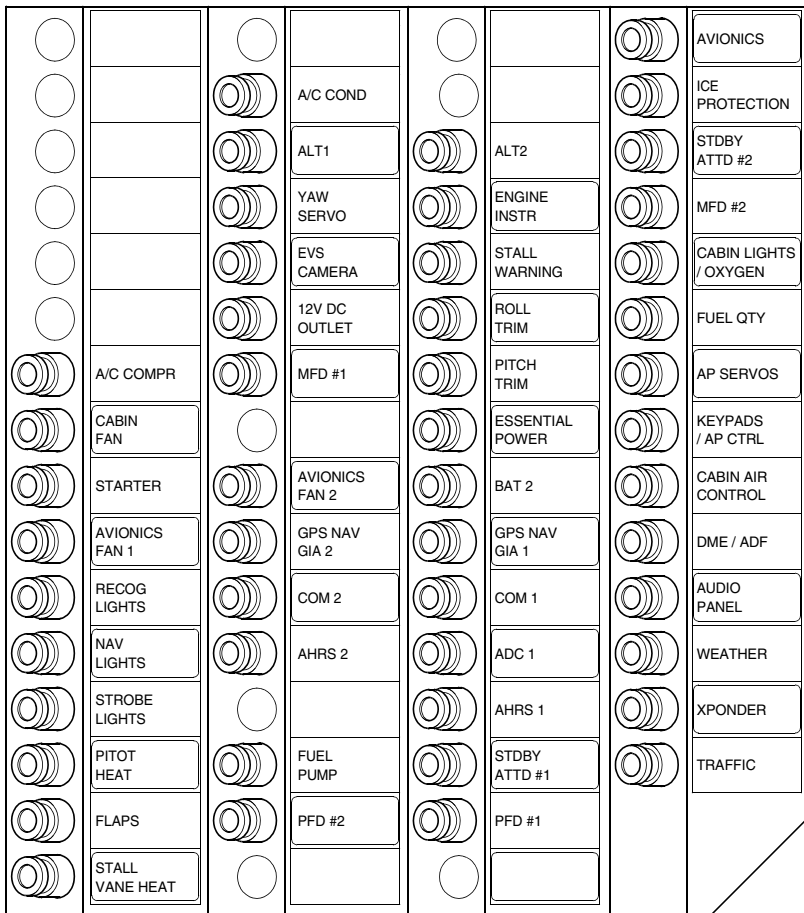
*The maximum demonstrated deployment speed is 133 KIAS.*

2. Mixture (If time and altitude permit) ..... **CUTOFF**
3. Activation Handle Cover ..... **REMOVE**
4. Activation Handle (Both Hands) ..... **PULL STRAIGHT DOWN**

**After Deployment:**

5. Mixture ..... **CHECK, CUTOFF**
6. Fuel Selector ..... **OFF**
7. Bat-Alt Master Switches ..... **OFF**
8. Ignition Switch ..... **OFF**
9. Fuel Pump ..... **OFF**
10. ELT ..... **ON**
11. Seat Belts and Harnesses ..... **TIGHTEN**
12. Loose Items ..... **SECURE**
13. Assume emergency landing body position.
14. After the airplane comes to a complete stop, evacuate quickly and move upwind.

## Circuit Breaker Panel



CB PANEL

SR22\_FM03A\_2949A