

GROUND PROCEDURES

Cirrus SR22T

N927CS

1. Cabin

- a. Required Documents On Board
- b. Avionics Power Switch OFF
- c. Bat 2 Master SwitchON
- d. PFD Verify On
- e. Essential Bus Voltage 23-25 Volts
- f. Flap Position LightOUT
- g. Battery 1 Master SwitchON
- h. Flaps100%, Check Light ON
- i. Avionics Cooling Fan Audible
- j. Oxygen System (if req'd)ON
 - i. Oxygen Masks/Cannulas & Hoses..... Check
 - ii. QuantityVerify adequate supply
 - iii. Flow Check flowmeter on all masks
 - iv. Oxygen System OFF
- k. Avionics Power Switch ON
- l. Lights Check Operation
- m. Pitot Heat (limit 45 seconds ON) .. Check, WARM
- n. Stall Warning Test, HOT
- o. ICE PROTECT System Switch OFF
- p. Fuel Quantity Check
- q. Fuel Selector Select Fullest Tank
- r. Avionics Power Switch OFF
- s. Bat 1 and 2 Master Switches OFF
- t. Circuit Breakers In
- u. Fire ExtinguisherCharged and Available
- v. Emergency Egress Hammer..... Available
- w. CAPS Handle Pin Removed

2. Left Fuselage

- a. Door Lock Unlock
- b. COM 1 Antenna (top)Condition
- c. Transponder AntennaCondition
- d. Wing/Fuselage FairingCheck
- e. COM 2 Antenna (underside)Condition
- 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 StabilizersCondition
- c. Stabilizers Porous Panels Condition / Security
- d. Elevator and Tab.....Condition and Movement
- e. Rudder Freedom of Movement
- f. Rudder Trim Tab Condition and Security
- g. Hinges, bolts, 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 / Rub Strips..... Condition, Security
- b. Aileron and Tab Condition and Movement
- c. Aileron Gap Seal..... Security
- d. Hinges, arm, bolts, cotter pins Secure

6. Right Wing Tip

- a. Tip..... Attachment
- b. Strobe, Nav Light, Lens Condition, 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. TKS Fluid Tank Verify Desired Quantity
 - i. Filler Cap..... Condition and Security
 - ii. Fluid Vent (underside) Unobstructed
- d. Porous Panels Condition and Security
- e. Lift Transducer Faceplate..... Perceptibly Hot
- f. Lift Transducer Vane..... Very Hot
- g. Fuel Drains (2 underside) Drain and Sample
- h. Wheel Fairings Security, Debris
- i. Tire Condition, Inflation, Wear
- j. Wheel and Brakes..... Fluid Leaks, Evidence of Overheating, General Condition, and Security
- k. Chocks and Tiedown Ropes..... Remove

8. Nose, Right Side

- a. Vortex Generator..... Condition
- b. Ice-Inspection Light..... Condition / Security
- c. Cowling Attachments Secure
- d. Exhaust PipeCondition, Security, Clearance
- e. Gascolator Drain, Sample

9. Nose gear, Propeller, and Spinner

- a. Tow Bar..... Remove and Stow
- b. Strut Condition
- c. Wheel Fairing..... Security, Debris
- d. Wheel and Tire Condition, Inflation, Wear
- e. Propeller Check Ground Clearance
- f. Spinner Condition, Security, Oil Leaks
- g. Air Inlets Unobstructed
- h. Alternator Condition

10. Nose, Left Side

- a. Landing Light..... Condition
- b. Engine Oil 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 Pipes.....Condition, Security, Clearance

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Cirrus SR22T

N927CS

11. Left Wing Forward and Main Gear

- a. Wheel fairingsSecurity, Debris
- b. Tire.....Condition, Inflation, 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. TKS Fluid TankVerify Desired Quantity
 - i. Filler Cap..... Condition and Security
 - ii. Fluid Vent (underside).....Unobstructed
- h. Leading Edge and Stall Strips..... Condition
- i. Porous Panels..... Condition / Security

12. Left Wing Tip

- a. Fuel Vent (underside).....Unobstructed
- b. Pitot MastCover Removed, Tube Clear
- c. Pitot Probe Unobstructed, Very Hot
- d. Strobe, Nav Light, Lens.....Condition and Security
- e. Tip Attachment

13. Left Wing Trailing Edge

- a. Flap / Rub StripsCondition, Security
- b. Aileron Freedom of movement
- c. Aileron Gap SealSecurity
- d. Hinges, arm, bolts, cotter pins.....Secure

V-SPEEDS		INFO	
Vso	64	Oil (full/min)	8 / 6
Vs	74	Fuel [use]	94.5 [92]
Vr	77	Weight TO	3600
Vx	88	Weight Lnd	3400
Vy	103	Demo Xwind	21
Vg	92		
Vfe 50%	150	App FL 100%	80 – 85
Vfe 100	110	App FL 50%	85 – 90
Va	140/123	App FL 0%	90 – 95
Vno	176		
Vne	205		

ANTI-ICE PREFLIGHT

- a. Bat 1 Master Switch..... ON
- b. Avionics Master Switch ON
- c. Cabin Speaker..... ON
- d. Cabin Doors.....Close
- e. Fluid Quantity.....Verify 5 Gallon Minimum
- f. WIND SHLD Push-ButtonPress
 - i. Verify deicing fluid from spray nozzles
- g. PUMP BKUP Switch..... ON
 - ii. Metering Pump Duty Cycle.....
 - Verify Continuously ON
 - iii. Deicing Fluid & Endurance Indications.....Check
- h. PUMP BKUP Switch OFF
- i. ICE PROTECT System Switch ON
- j. ICE PROTECT Mode SwitchNORM
 - iv. Metering Pump Duty Cycle.....
 - Verify 30s ON, 90s OFF
 - v. Deicing Fluid & Endurance Indications.....Check
- k. ICE PROTECT Mode Switch.....HIGH
 - vi. Metering Pump Duty Cycle.....
 - Verify Continuously ON
 - vii. Deicing Fluid & Endurance Indications.....Check
- l. ICE PROTECT System Switch OFF
- m. ICE Inspection Lights SwitchON (LH and RH)
- n. PITOT HEAT SwitchON 45 seconds, then OFF
- o. Bat 1 and 2 Master Switches OFF
- p. Avionics Master Switch OFF
- q. Stabilizer Porous Panels.....
 - Verify Evidence of Deicing Fluid Along Length of Panels and Elevator Horns
- r. Wing (R&L) Porous Panels.....
 - Check Evidence of Deicing Fluid Along Length of Panels
- s. Spinner Ring..... Evidence of Deicing Fluid



FLIGHT NORMAL PROCEDURES

BEFORE STARTING ENGINE

1. Preflight Inspection COMPLETE
2. Weight and Balance Verify in Limits
3. Emergency Equipment ON BOARD
4. Passengers BRIEFED
5. Seat, Belt, & Harness ADJUST, SECURE

STARTING ENGINE (With Battery)

Cold WX: Hand turn prop several rotations.

1. External Power (if req) CONNECT
2. Brakes HOLD
3. Bat Master Switches ON (Check volts)
Alt Master Switches OFF
4. Strobe Lights ON
5. Mixture FULL RICH
6. Power Lever FULL FORWARD
7. Fuel Pump BOOST
1st start of day: PRIME 02 sec then BOOST
Cold WX: PRIME 15 sec then BOOST
8. Propeller Area CLEAR
9. Power Lever OPEN 1/4"
10. Ignition Switch START
Starter limits: 10 sec ON, 20 sec OFF
11. Mixture LEAN
Cold WX: Do not lean
12. Power Lever RETARD (1000 RPM)
13. Oil Pressure CHECK
14. Alt Master Switches ON
15. Avionics Power Switch ON
16. Engine Parameters MONITOR
17. External Power DISCONNECT
18. Amp Meter/Indication Check
19. Initial Fuel SPECIFIED via MFD

BEFORE TAXIING

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

TAXIING **Max continuous RPM 1000**

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

Cirrus SR22T N927CS

3. Belts and Harness SECURE
4. Air Conditioner AS DESIRED
Use of RECIRC mode prohibited in flight
5. Fuel Quantity CONFIRM
6. Fuel Selector FULLEST TANK
7. Fuel Pump BOOST
8. Mixture FULL RICH
9. Flaps Set 50% and CHECK
10. Transponder SET
11. Nav Radios/GPS SET for takeoff
12. Cabin Heat/Defrost AS REQUIRED
13. Brakes HOLD
14. Power Lever 1700 RPM
15. Alternator CHECK
Pitot Heat, Nav Lights, Land Light ON
Annunciator Lights CHECK
16. Voltage CHECK
17. Pitot Heat AS REQUIRED
18. Nav, Landing Lights AS REQUIRED
19. Magnetos CHECK (drop <150, diff <75)
20. Engine Parameters CHECK
21. Power Lever 1000 RPM
22. Instrument, HSI, Altimeter CHECK, SET
23. Flight Controls FREE & CORRECT
24. Autopilot... ENGAGE, override, DISENGAGE
25. Trim TEST and SET Takeoff
26. TOGA Pressed
27. Takeoff Briefing COMPLETE

INFLIGHT CHECKS ON NEXT CARD

SECURING AIRPLANE

1. Avionics CHECK 121.5
2. ELT Transmit Light OUT
3. Fuel Pump OFF
4. Power Lever IDLE
5. Ignition Switch GROUNDING CHECK
6. Mixture CUTOFF
7. All Switches except Strobe OFF
8. Ignition Switch OFF, *key on dash*
9. Exterior, Interior & Panel Lights OFF
10. CAPS Handle PIN INSTALLED
11. Pitot Cover INSTALLED
12. Chocks, Tie Down, Cover INSTALLED
13. Tires and Aircraft INSPECTED

ENGINE FIRE DURING START

1. Mixture CUTOFF
2. Fuel Pump OFF
3. Fuel Selector OFF
4. Power Lever ADVANCE
5. Starter CRANK

FLIGHT NORMAL PROCEDURES

NORMAL TAKEOFF

- | Vr 77 | Vx 88 | Vy 103 | Vz 120 |
|--|-------|--------|--------|
| 1. Takeoff Briefing COMPLETE | | | |
| 2. Door LATCHED | | | |
| 3. Fuel Pump BOOST | | | |
| 4. Fuel Selector FULLEST TANK | | | |
| 5. Mixture FULL RICH | | | |
| 6. Flaps VERIFY 50% unless 0% req | | | |
| 7. Takeoff Trim VERIFIED | | | |
| 8. TOGA Pressed | | | |
| 9. Lights SET | | | |
| 10. Air Conditioner Not in RECIRC mode | | | |
| If icing conditions anticipated after takeoff: | | | |
| a. ICE PROTECT System Switch ON | | | |
| b. ICE PROTECT Mode Switch . NORM/HIGH | | | |
| c. PITOT HEAT ON | | | |
| d. Cabin Heat HOT | | | |
| e. Windshield Defrost ON | | | |
| f. Ice Inspection Light As Required | | | |
| g. Verify Airframe is free of contamination | | | |
| h. Flaps RETRACT as soon as practical | | | |
| 11. Brakes RELEASE | | | |
| 12. Power Lever FULL FORWARD | | | |
| 13. Engine Instruments CHECK | | | |
| 14. Rotate 77-80 KIAS | | | |
| 15. Flaps UP, 90 KIAS | | | |

SHORT FIELD TAKEOFF

1. Steps 1-9 of Normal Takeoff then:
2. Flaps 50%
3. Brakes HOLD
4. Power Lever FULL FORWARD
5. Engine Instruments CHECK
6. Brakes RELEASE
7. Rotate **77 KIAS**
8. Airspeed at obstacle 85 KIAS

CLIMB (Rich of Peak)

1. Power Lever FULL FORWARD
 2. Mixture Fuel Flow in GREEN ARC
 3. Flaps Verify UP
 4. Airspeed 120 KIAS
 5. Fuel Pump BOOST
 6. Fuel Flow MONITOR
 7. Engine Parameters MONITOR
 8. Oxygen As Required
- For Cruise Climb (lean of peak):**
1. Power Lever <= 30.5" MP
 2. Mixture Lean to <= Cyan target
 3. CHT's MONITOR

Cirrus SR22T N927CS

CRUISE

1. Oxygen As Required
2. Power Lever MP 30.5" or less
..... Above 18,000' min MP 15"
3. Fuel Pump As Required
4. Mixture ADJUST
5. Engine, Fuel Flow and Balance MONITOR
6. If any CHT > 420°F, lean in 0.5 GPH increment

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 Req (*no lower than 18-20"*)
7. Mixture As Req (*maintain CHT > 240°F*)
8. Brake Pressure CHECK

BEFORE LANDING

1. Autopilot AS REQUIRED
2. Fuel Pump BOOST
3. Seat Belt and Harness SECURE
4. Gas FULLEST TANK
5. Mixture FULL RICH
6. Flaps AS REQUIRED

LANDING

1. Autopilot DISENGAGE
2. Final Approach Speed... **80 KIAS, Flaps 100%**
..... **85 KIAS, Flaps 50%**
..... **90 KIAS, Flaps 0%**

Short Field:

- Final Approach Speed **79 KIAS, Flaps 100%**

BALKED LANDING

1. Autopilot AS REQ'D
2. TOGA Pressed
3. Power Lever FULL FORWARD
4. Flaps 50%
5. Airspeed 80-85 KIAS
6. Clear of obstacles, Flaps UP

AFTER LANDING

1. Power Lever 1000 RPM
2. Fuel Pump OFF or BOOST
3. Mixture LEAN to max idle RPM
4. Flaps UP
5. Transponder ALT
6. Lights AS REQUIRED
7. Pitot Heat OFF
8. ICE PROTECT System OFF
9. Airport Diagram DISPLAYED

GO TO FIRST CARD FOR SECURING AIRPLANE

FLIGHT EMERGENCY PROCEDURES

ICING CONDITIONS in Flight

- 1. PITOT HEAT Switch ON
- 2. ICE PROTECT System Switch ON
- 3. ICE PROTECT Mode Switch NORM/HIGH
- 4. WIND SHLD Push-Button PRESS As Req
- If ice accumulation occurs:*
- 5. ICE PROTECT MODE HIGH
- If ice continues accumulating:*
- 6. ICE PROTECT Mode Push-Button MAX
- If ice accretions do not shed:*
- 7. PUMP BKUP Switch ON
- 8. Perform Anti-Ice System Failure Checklist
- 9. WIND SHLD Push-Button PRESS As Req'd
- 10. Airspeed Maintain 95-177 KIAS
..... Or less than 204 KTAS

While in Icing Conditions

- 1. Flaps UP
- 2. Ice-Inspection lights As Required
- 3. Cabin Heat HOT
- 4. Windshield Defrost ON
- 5. Deicing Fluid Quantity MONITOR
- 6. Autopilot As Required
- Disconnect every 30 minutes to detect any out of trim conditions*

After Leaving Icing Condition:

- 1. Anti-Ice System OFF
- 2. All other systems As Required

Descent/Landing in Icing Conditions

- 1. Perform 'Icing Condition in Flight' checklist
- 2. ICE PROTECT Mode Switch HIGH
- 3. Flaps 50%
- 4. Airspeed Minimum of 95 KIAS
- 5. Airspeed Short Final (Flap 50%) 88 KIAS

Max Weight Icing 3400 lb
Min Airspeed Icing 95 KIAS

Flooded Engine Start

- 1. Fuel Pump OFF
- 2. Mixture FULL LEAN
- 3. Power Lever FULL FORWARD
- 4. Ignition Switch START
- Once engine starts:*
- 5. Power Lever RETARD
- 6. Mixture SLOWLY ADVANCE

Cirrus SR22T N927CS

ENGINE FAILURE IN FLIGHT

- 1. Best Glide Speed ESTABLISH (92 KIAS)
- 2. Best Place to Land SELECTED
- 3. Fuel Selector SWITCH TANKS
- 4. Ignition Switch CHECK, BOTH
- 5. Fuel Pump BOOST
- 6. Power Lever 1/2 OPEN
- 7. Mixture IDLE CUTOFF, then slowly ADVANCE until engine starts
- 8. Perform Engine Airstart or Emergency Landing Without Engine Power Checklist as Required.
- 9. CHTs and Oil Temperature VERIFY within GREEN range, warm engine at partial power if required

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

ENGINE FAILURE ON TAKEOFF

- 1. Best Speed (Glide/Land) ESTABLISH (92)
- 2. Mixture CUTOFF
- 3. Fuel Selector OFF
- 4. Ignition Switch OFF
- 5. Flaps AS REQUIRED
- 6. Power Lever IDLE
- 7. Fuel Pump OFF
- 8. Bar-Alt Master Switches OFF
- 9. Seat Belts SECURED

FORCED LANDING (Engine Out)

- 1. Best Glide Speed ESTABLISH (92 KIAS)
- 2. Radio TRANSMIT (121.5) MAYDAY
- 3. Transponder 7700
- 4. ELT ACTIVATE
- 5. Power Lever IDLE
- 6. Mixture CUTOFF
- 7. Fuel Selector OFF
- 8. Ignition Switch OFF
- 9. Fuel Pump OFF
- 10. Flaps (landing assured) 100%
- 11. Master Switch OFF
- 12. Seat Belts SECURED

FLIGHT EMERGENCY PROCEDURES

ENGINE AIRSTART

- 1. BAT Master Switches ON
- 2. Power Lever 1/2" OPEN
- 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 (if Propeller Static) 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

CAPS DEPLOYMENT

- 1. Activation Handle Cover REMOVE
- 2. Activation Handle .. PULL STRAIGHT DOWN
- Reference aircraft checklist for remaining steps*

OXYGEN FAULT

- 1. Oxygen Flow Rate CHECK
- If no flow:*
- 2. Emergency Descent to below 10,000 ft

EMERGENCY DESCENT

- 1. Power Lever IDLE
- 2. Mixture AS REQUIRED
- 3. Airspeed Vne (205 KIAS)

SPIRAL DIVE

- 1. Power Lever IDLE
- 2. Wings LEVEL
- 3. Elevator CAUTIOUS BACK PRESSURE
- Reference aircraft checklist for remaining steps*

SPIN

- 1. CAPS ACTIVATE

Attitude & Heading Reference Sys (AHRS) Fail

- 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 Instrument

Air Data Computer (ADC) Fail

- 1. ADC Circuit Breaker SET
- If open, reset (close) circuit breaker. If circuit breaker opens again, do not reset.*
- 2. Revert to Standby Instruments

Cirrus SR22T N927CS

WING FIRE

- 1. Pitot Heat Switch OFF
- 2. Navigation Light Switch OFF
- 3. Landing Light OFF
- 4. Strobe Light Switch OFF
- 5. Side slip to keep flames away from cabin
- 6. Land as soon as possible

CABIN FIRE

- 1. BAT-ALT Master Switches OFF, As Req'd
- 2. Fire Extinguisher ACTIVATE
- 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 MAX
- 14. Panel Eyeball Outlets OPEN
- 15. Land as soon as possible.

SMOKE & FUMES ELIMINATION

- 1. Oxygen Masks or Cannulas DON
- 2. Oxygen System ON
- 3. Oxygen Flow Rate MAXIMUM
- 4. Air Conditioner (if installed) OFF
- 5. Temperature Selector COLD
- 6. Vent Selector FEET/PANEL/DEFROST POSITION
- 7. Airflow Selector SET AIRFLOW TO MAX
- If source of smoke and fume is firewall forward:*
- a. Airflow Selector OFF
- 8. Panel Eyeball Outlets OPEN
- 9. Prepare to land as soon as possible.

EMERGENCY ENGINE SHUTDOWN - GROUND

- 1. Power Lever IDLE
- 2. Fuel Pump OFF
- 3. Mixture CUTOFF
- 4. Fuel Selector OFF
- 5. Ignition Switch OFF
- 6. BAT-ALT Masters OFF