Cirrus SR 22
Quick Reference Checklist

For simulation use only, not for real world flight

AIRSPEEDS FOR NORMAL OPERATION

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

Enroute Climb, Flaps Up:
- Normal ..... 110-120 KIAS
- Best Rate of Climb, SL ..... 101 KIAS
- Best Rate of Climb, 10,000 ..... 95 KIAS
- Best Angle of Climb, SL ..... 78 KIAS
- Best Angle of Climb, 10,000 ..... 82 KIAS

Landing Approach:
- Normal Approach, Flaps Up ..... 90-95 KIAS
- Normal Approach, 50% ..... 85-90 KIAS
- Normal Approach, Flaps 100% ..... 80-85 KIAS
- Short Field, Flaps 100% (V_{REF}) ..... 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 of Landing ..... 20 Knots

PREFLIGHT

Avionics Power Switch ..... OFF
Bat 2 Master Switch ..... ON
Avionics Cooling Fan ..... Audible
Voltmeter ..... 23-25 Volts
Flap Postion Light ..... OUT
Bat 1 Master Switch ..... ON
Fuel Quantity ..... Check
Fuel Selector ..... Select Fullest Tank
Flaps ..... 100%, Check Light ON
Oil Annunciator ..... ON
Lights ..... Check Operation
Bat 1 and 2 Master Switches ..... OFF
Alternate Static Source ..... NORMAL
Circuit Breakers ..... IN
Elevator ..... Movememnt
Rudder ..... Movement
Ailerons ..... Movement

BEFORE STARTING ENGINE

Preflight Inspection ..... COMPLETED

STARTING ENGINE

External Power (If applicable) ..... CONNECT
Brakes ..... HOLD
Bat Master Switches ..... ON (Check Volts)
Strobe Lights ..... ON
Mixture ..... FULL RICH
Power Lever ..... FULL FORWARD
Fuel Pump ..... PRIME, then BOOST
Propeller Area ..... CLEAR
Power Lever ..... OPEN 1/4 INCH
Ignition Switch ..... START (Release after engine starts)
Power Lever ..... RETARD (to maintain 1000 RPM)
Oil Pressure ..... CHECK
Alt Master Switches ..... ON
Avionics Power Switch ..... ON
Engine Paramaters ..... MONITOR
External Power (If applicable) ..... DISCONNECT
Ammeter ..... CHECK

BEFORE TAKEOFF

Brakes ..... CHECK
Flaps ..... UP (0%)
Radios/Avionics ..... AS REQUIRED
Cabin Heat/Defrost ..... AS REQUIRED

TAXIING

HSI Orentation ..... CHECK
Attitude Gyro ..... CHECK
Turn Coordinator ..... CHECK

BEFORE TAKEOFF

Brakes ..... HOLD
Flight Controls ..... FREE & Correct
Trim ..... SET Takeoff
Autopilot ..... DISCONNECT
Flaps ..... SET 50% & CHECK
Flight and Engine Instruments ..... CHECK
HSI and Altimeter ..... CHECK & SET
Fuel Quantity ..... CONFIRM
Fuel Selector ..... FUELLEST TANK
Propeller ..... CHECK
- Power Lever ..... INCREASE to detent

Note RPM rises to approximately 2000 RPM and manifold pressure increases slightly as Power Lever is set in dentent

- Power Lever ..... 1700 RPM

Alternator ..... CHECK
- Pitot Heat ..... ON
- Avionics ..... ON
- Navigation Lights ..... ON
- Landing Light ..... ON (3-5 seconds)

Verify both ALT 1 and ALT 2 caution lights out and postive amps indication for each alternator. If necessary, increase RPM to extinguish ALT 2 caution light. ALT 2 caution light shall go out below RPM.

Voltage ..... CHECK
Magnetos ..... CHECK Left and Right
- Ignition Switch ..... R, note RPM, then BOTH
- Ignition Switch ..... L, note RPM, then BOTH

Power Lever ..... DECREASE to 1000 RPM
Transponder ..... ALT
Navigation Radios/GPS ..... SET for Takeoff
Pitot Heat ..... AS REQUIRED

NORMAL TAKEOFF

Power Lever ..... FULL FORWARD
Engine Instruments ..... CHECK
Brakes ..... RELEASE (Steer with Rudder Only)
Elevator Control ..... ROTATE Smoothly at 70-73 KIAS
At 80 KIAS, Flaps ..... UP

SHORT FIELD TAKEOFF

Flaps 50%
Brakes ..... HOLD
Power Lever ..... FULL FORWARD
Mixture ..... SET
Engine Instruments ..... CHECK
Brakes ..... RELEASE (Steer with Rudder Only)
Elevator Control ..... ROTATE Smoothly at 70 KIAS
Airspeed at Obstacle ..... 78 KIAS

CLIMB

Climb Power ..... SET
Mixture ..... LEAN as required for altitude
Engine Instruments ..... CHECK
Fuel Pump ..... OFF

CRUISE

Cruise Power ..... SET
Engine Instruments ..... MONITOR
Fuel Flow and Balance ..... MONITOR
Mixture ..... LEAN as required

DESCENT

Altimeter ..... SET
Cabin Heat/Defrost ..... AS REQUIRED
Fuel System ..... CHECK
Mixture ..... AS REQUIRED
Flaps ..... AS REQUIRED
Brake Pressure ..... CHECK

BEFORE LANDING

Mixture ..... FULL RICH
Fuel Pump ..... BOOST
Flaps ..... AS REQUIRED
Landing Light ..... AS REQUIRED
Autopilot ..... DISENGAGE

NORMAL LANDING

Normal landings are made with full flaps with power on or off. Surface winds and air turbulence are usually the primary factors in determining the most comfortable approach speed.

Actual touchdown should be made with power off and on the main wheels first to reduce the landing speed and subsequent need for braking. Gently lower the nose wheel to the runway after airplane speed has dimished. This is espcially important for rough or soft field landings.

SHORT FIELD LANDING

For a short field landing in smooth air conditions, make an approach at 77 KIAS with full flaps using enough power to control the glide path (slightly higher approach speeds should be used under turbulent air conditions). After all approach obstacles are cleared, progressively reduce power to reach idle just before touchdown and maintain the approach speed by lowering the nose of the airplane. Touchdown should be made power-off and on the main wheels first. Immediately after touchdown, lower the nose wheel and apply braking as required. For maximum brake effectiveness, retract the flaps, hold the control yoke full back and apply maximum brake pressure without skidding.

CROSSWIND LANDING

Normal crosswind landings are made with full flaps. Avoid prolonged slips. After touchdown, hold a straight course with rudder and brakes as required. The maximum allowable crosswind velocity is dependent upon pilot capability as well as aircraft limitations. Operation in direct crosswind of 20 knows has been demonstrated.

BALKED LANDING

Autopilot ..... DISENGAGE
Power Lever ..... FULL FORWARD
Flaps 50%
Airspeed ..... 75-80 KIAS
Flaps ..... UP (After clear of obstacles)

AFTER LANDING

Flaps ..... UP
Power Lever ..... 1000 RPM
Transponder ..... STBY
Pitot Heat ..... OFF
Fuel Pump ..... OFF

SHUTDOWN

Avionics Switch ..... OFF
Fuel Pump (if used) ..... OFF
Mixture ..... CUTOFF
Magnetos ..... OFF
Bat-Alt Master Switches ..... OFF
ELT ..... TRANSMIT LIGHT OUT

MAXIMUM POWER FUEL FLOW

Pressure Altitude	Target Fuel Flow	Pressure Altitude	Target Fuel Flow	Pressure Altitude	Target Fuel Flow
0	27.1	7000	21.4	14,000	17.5
1000	26.2	8000	20.5	15,000	16.9
2000	25.1	9000	19.9	16,000	16.7
3000	24.3	10,000	19.5	17,000	16.2
4000	23.6	11,000	18.8	17,500	16.1
5000	22.8	12,000	18.4		
6000	22.1	13,000	17.9		

AIRSPEED CALCULATION - NORMAL STATIC SOURCE

KIAS	KCAS		
	Flaps 10%	Flaps 50%	Flaps 100%
60			58
70		68	69
80	79	80	80
90	90	91	90
100	100	101	100
110	110	111	
120	121	121	
130	131		
140	142		
150	152		
160	162		
170	172		
180	183		
190	193		
200	203		

Emergency Procedures Checklist

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AIRSPEEDS FOR EMERGENCY OPERATIONS

Maneuvering Speed:
- 3400 lb ..... 133 KIAS

Best Glide:
- 3400 lb ..... 88 KIAS
- 2900 lb ..... 87 KIAS

Emergency Landing (Engine-Out):
- Flaps Up ..... 90 KIAS
- Flaps 50% ..... 85 KIAS
- Flaps 100% ..... 80 KIAS

ENGINE FIRE DURING START

Mixture ..... CUTOFF
Fuel Pump ..... OFF
Fuel Selector ..... OFF
Power Lever ..... FORWARD
Starter ..... CRANK
If flames persist, perform Emergency Engine Shutdown on Ground and Emergency Ground Egress checklists

BRAKE FAILURE DURING TAXI

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

ABORTED TAKEOFF

Power Lever ..... IDLE
Brakes ..... AS REQUIRED

EMERGENCY ENGINE SHUTDOWN ON GROUND

Power Lever ..... IDLE
Fuel Pump (if used) ..... OFF
Mixture ..... CUTOFF
Fuel Selector ..... OFF
Ignition Switch ..... OFF
Bat-Alt Master Switches ..... OFF

ENGINE FAILURE ON TAKEOFF (LOW ALTITUDE)

Best Glide or Landing Speed (as apprpriate) ..... ESTABLISH
Mixture ..... CUTOFF
Fuel Selector ..... OFF
Ignition Switch ..... OFF
Flaps ..... AS REQUIRED
If time permits:
Power Lever ..... IDLE
Fuel Pump ..... OFF
Bat-Alt Master Switches ..... OFF

ENGINE FAILURE IN FLIGHT

Best Glide Speed ..... ESTABLISH
Mixture ..... FULL RICH
Fuel Selector ..... SWITCH TANKS
Fuel Pump ..... BOOST
Alternate Induction Air ..... ON
Ignition Switch ..... CHECK, BOTH
If engine does not start, proceed to Engine Airstart or Forced Landing checklist, as required

ENGINE AIRSTART

Bat Master Switches ..... ON
Power Lever ..... OPEN 1/2 INCH
Mixture ..... RICH
Fuel Selector ..... SWITCH TANKS
Ignition Switch ..... BOTH
Fuel Pump ..... BOOST
Alt Master Switches ..... OFF
Starter (Propeller not Windmilling) ..... ENGAGE
Power Lever ..... slowly INCREASE
Alt Master Switches ..... ON
If engine will not start, perform Forced Landing checklist

ENGINE PARTIAL POWER LOSS

Fuel Pump ..... BOOST
Fuel Selector ..... SWITCH TANKS
Mixture ..... CHECK appropriate for flight conditions
Power Lever ..... SWEEP
Alternate Induction Air ..... ON
Ignition Switch ..... BOTH, L, then R
Land as soon as practical

LOW OIL PRESSURE

Power Lever ..... MINIMUM REQUIRED
Land as soon as practical

PROPELLER GOVERNOR FAILURE

Propeller RPM will not increase:
- Oil Pressure ..... CHECK
- Land as soon as practical

Propeller overspeeds or will not decrease:
- Power Lever ..... ADJUST (to keep RPM in limits)
- Airspeed ..... REDUCE to 90 KIAS
- Land as soon as practical

SMOKE AND FUME ELIMINATION

Heater ..... OFF
Air Vents ..... OPEN, FULL COLD
Prepare to land as soon as possible

ENGINE FIRE IN FLIGHT

Mixture ..... CUTOFF
Fuel Pump ..... OFF
Power Lever ..... IDLE
Fuel Selector ..... OFF
Ignition Switch ..... OFF
Perform Forced Landing checklist

WING FIRE IN FLIGHT

Pitot Heat Switch ..... OFF
Navigation Light Switch ..... OFF
Strobe Light Switch ..... OFF
If possible, side slip to keep flames away from fuel tank and cabin
Note: Outting the airplane into a dive may blow out the fire. Do not exceed V_{NE} during the dive
Land as soon as possible

CABIN FIRE IN FLIGHT

Bat-Alt Master Switches ..... OFF, AS REQ'D
Heater ..... OFF
Air Vents ..... CLOSED
Fire Extinquisher ..... ACTIVATE
When fire extinguished, Air Vents ..... OPEN, FULL COLD
Avionics Power Switch ..... OFF
All other switches ..... OFF
Land as soon as possible
If setting master switches off elimiated source of fire or fumes and airplane is in night, weather, or IFR condtions:
Bat-Alt Master Switches ..... ON
Avionics Power Switch ..... ON
Activate required systems one at a time. Pause several seconds between activating each system to isolate malfunctioning system.

INADVERTENT ICING ENCOUNTER

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

EMERGENCY DESCENT

Power Lever ..... IDLE
Mixture ..... As Required
Airspeed ..... V_{NE} (201 KIAS)

INADVERTENT IMC ENCOUNTER

Airplane control ..... Establish Straight and Level FLight
Autopilot ..... Engage to hold Heading and Altitude
Heading ..... Reset to initiate 180° turn

INADVERTENT SPIRAL DIVE DURING IMC FLIGHT

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

FORCED LANDING

Best Glide Speed ..... ESTABLISH
Radio . Transmit (121.5 MHz) MAYDAY giving location and intentions
Transponder ..... SQUAWK 7700
If off airport, ELT ..... ACTIVATE
Power Lever ..... IDLE
Mixture ..... CUTOFF
Fuel Selector ..... OFF
Ignition Switch ..... OFF
Fuel Pump ..... OFF
Flaps (when landing is assured) 100%
Master Switches ..... OFF

LANDING WITHOUT ELEVATOR CONTROL

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

LANDING WITH FAILED BRAKES

One brake inoperative
Land on the side of the runway corresponding to the inoperative brake
Maintain directional control using rudder and working brake
Both brakes inoperative
Divert to the longest, widest runway with the most direct headwind
Land on downwind side of the runway
Use the rudder for obstacle avoidance
Perform Emergency Engine Shutdown on Ground checklist

LANDING WITH FLAT TIRE

Main Gear
Land on the side of the runway corresponding to the good tire
Maintain directional control with the brakes and rudder
Do not taxi. Stop the airplane and perform a normal engine shutdown
Nose Gear
Land in the center of the runway
Hold the nosewheel off the ground as long as possible
Do not taxi. Stop the airplane and perform a normal engine shutdown

ALT 1 LIGHT STEADY

ALT 1 Master Switch ..... OFF
Alternator 1 Circuit Breaker ..... CHECK and RESET
ALT 1 Master Switch ..... ON
If alternator does not reset:
Switch off unnecessary equipment on Main Bus 1, Main Bus 2, and the Non-Essential Buses to reduce load. Monitor voltage
ALT 1 Master Switch ..... OFF
Land as soon as practical

ALT 1 LIGHT FLASHING

Ammeter Switch ..... BATT
If charging rate is greater than 30 amps, reduce load on Main Bus 1, Main Bus 2, and Non-Essential buses
Monitor ammerter until battery charge rate is less than 15 amps
When battery charge rate is within limits, add loads as necessary for flight conditions

ALT 2 LIGHT STEADY

ALT 2 Master Switch ..... OFF
Alternator 2 Circuit Breaker ..... CHECK and RESET
ALT 2 Master Switch ..... ON
If alternator does not reset:
Switch off unnecessary equipment on Main Bus 1, Main Bus 2, and the Non-Essential Buses to reduce load. Monitor voltage
ALT 2 Master Switch ..... OFF
Land as soon as practical

PITOT STATIC MALFUNCTION

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

ELECTRIC TRIM/AUTOPILOT FAILURE

Airplane Control ..... MAINTAIN MANUALLY
Autopilot (if engaged) ..... Disengage
If Problem Is Not Corrected: Circuit Breakers ..... PULL AS Required
PITCH TRIM
ROLL TRIM
AUTOPILOT
Power Lever ..... AS REQUIRED
Control Yoke ..... MANUALLY HOLD PRESSURE
Land as soon as practical