US Sport Aircraft, Inc.

SportCruiser
Standard Operating
Procedures and
Maneuvers Supplement¹

¹This Supplement is not a replacement for personal Flight Instruction and shall only be used in conjunction with a SportCruiser qualified Flight Instructor.  www.USSportAircraft.com
Normal Takeoff
Transponder to altitude
Fuel pump on
Flaps 0-10°
Trim set
Flight Controls free and correct
Check for traffic
Line up on centerline
Full power
Stick should be located in the middle of the travel space
Steer with feet only
Gradually apply back pressure to rotate
but leave the mains on the ground
Liftoff 50 kts

Climb
Climb out 70 kts
Fuel pump off – 800’ agl (over dry land)
Flaps up – 150’ agl positive rate of climb
Follow noise abatement procedures

Cruise
Lower nose to achieve level flight
Reduce power to 5,000 RPM
Reset trim to remain in level flight
Verify: flaps up, fuel pump off, engine instruments green

Before Landing
Transponder to altitude, Listen to AWOS and/or request Airport Advisory 10 nm from airport
5 nm from airport begin self announcing position
Enter traffic pattern following noise abatement procedures
As you enter the pattern power back to 4,000 RPM to get aircraft slowed down
Fuel Selector on fullest tank
Fuel pump on
Landing light on
Landing

**Downwind** leg 4,000 RPM, 80 kts level flight, re-trim. Abeam of numbers, reduce power to 3000 RPM, add flaps White arc, pitch for 60 kts descent.

**Base** adjust power if need be for appropriate descent altitude and to maintain 60 kts descent.

**Final** adjust power if need be for appropriate descent altitude and to maintain 60 kts descent. Once the runway is made, reduce power to idle. Begin transition from maintaining airspeed to maintaining attitude. Focus eyes at far end of the runway. Gradually increase back pressure on stick to try and hold aircraft 2 feet off the runway as long as possible. Use your feet to point airplane down the runway and hand to maintain altitude and keep it over the centerline. Once main wheels touch the ground, steer with feet. Gradually lower the nose wheel and begin applying brakes as needed.

After Landing

Clear runway
Make radio call
Reset trim, Flaps up, Fuel pump off, Landing light off
Transponder on Standby
**Slow Flight**
2 clearing turns
Reduce power to 3,000 RPM
Increase pitch attitude and trim to maintain altitude
Once within the white arc, smoothly lower flaps
Adjust pitch and power to maintain altitude at 40 kts

**Recovery**
Full power
Pitch for level attitude
Smoothly raise flaps while in the white arc

**Power Off Stall**
2 clearing turns
Reduce power to 3,000 RPM
Increase pitch attitude and trim to maintain altitude
Once within the white arc, smoothly lower flaps
Adjust pitch and power to maintain altitude until 60 kts
At 60 kts, reduce power to idle and establish 60 kts glide
Descend 300 feet and then gradually pitch back to maintain altitude and induce a stall.

**Recovery**
Simultaneously apply full power, right rudder as needed, pitch for level attitude, and remove first notch of flaps.
Once airspeed has increased to 60 kts, establish 60 kts climb
Smoothly raise flaps and climb to desired altitude.
Return to cruise flight

**Power On Stall**
2 clearing turns
Reduce power to 3,000 RPM
Increase pitch attitude and trim to maintain altitude
Adjust pitch and power to maintain altitude until 50 kts
At 50 kts, apply full power, right rudder, and immediately slowly pitch back to further reduce airspeed until stall
Watch coordination and maintain heading

**Recovery**
Pitch for level attitude
Once airspeed has increased to 65 kts, establish 65 kts climb
Smoothly raise flaps and climb to desired altitude.
Return to cruise flight.
For all low altitude reference maneuvers, Fuel Pump on, Landing Light on, pick emergency landing field

**Steep Turns**
2 clearing turns
4,200 RPM - Establish cruise flight at or below 86 kts
Trim airplane for level flight
Choose landmark for entry heading
Begin roll to 45° bank
At 30°, add 200 RPM and continue roll to 45° adjusting back pressure as needed Maintain altitude
Roll out at entry altitude and heading.

**Turns Around a Point**
Determine wind direction
Select a suitable site. Should have emergency landing areas and not disturb the neighbors.
Establish cruise flight at or below 86 kts 4,200 RPM
Select four points around the point that are equidistance from the center. These four points are your targets.
Enter maneuver at 800 feet on downwind
When point in abeam of wing begin turn
Steepest bank should be downwind. Shallowest bank upwind.
Keep object same distance from aircraft by adjusting bank angle. Steeper brings it closer. Shallower takes it further away.

**S-Turns Across a Road**
Determine wind direction
Select road, train track, etc.
Winds should be perpendicular to road.
Establish cruise flight at or below 86 kts 4,200 RPM.
Select target distance from road.
Enter maneuver at 800 feet on downwind, perpendicular to road.
When over the road begin turn.
Steepest bank should be downwind. Shallowest bank upwind.
Airplane should be wings level only when crossing the road.
Adjust bank angle accordingly.
**Loss of Engine**
Establish and trim for best glide speed 65 kts
Select emergency landing site and head that way
*IF there is time, try to restart engine*
*A-airspeed, B-best place to land, C-cross check/communicate, D-don’t do anything dumb*
*Work right to left*
Throttle - Check
Fuel - Switch Tanks
Fuel Pump - On
Carburetor Heat - On
Magnetos - Check
Attempt re-start
*IF there is time, call for help giving position*
Radio 121.5 MHz
Transponder 7700

**Secure Engine**
If engine will not restart - Fuel Shutoff Up
Flaps - as necessary
Master – Ignition off after final flaps
Unlock canopy immediately before touchdown

**Go-Around**
Apply full power
Reduce flaps to 10°
Pitch for level attitude until 65 kts and then begin climb
Fuel pump off at 800 Feet agl or positive rate of
Climb or over land, which ever is later
Smoothly raise flaps

**Short Field Takeoff**
Transponder to altitude
Fuel pump on
30° flaps
Stop aircraft at the very end of the runway
Hold brakes and apply full power, Check Static RPM 4,800 min.
Release brakes
Stick aft for immediate nose wheel liftoff
At 40 kts rotate and climb out at 65 kts
Above obstacle height, pitch for 70 kts
Fuel pump off at 800’
**Short Field Landing**  
Set up final approach at 50-60 kts  
Establish aim point prior to actual touch down point  
After touch down, maintain full after elevator, retract flaps, apply brakes but do not skid!

**Soft Field Takeoff**  
Transponder to altitude  
Inspect field condition checking for grass height, holes, debris, and wetness  
Flaps 10°  
Fuel pump on  
Full aft pressure during taxi continuing through takeoff  
Apply full power  
As soon as main wheels leave the ground, lower nose to level attitude and fly aircraft in ground effect until 65 kts  
Climb out at 65-70 kts, 150’ agl remove flaps  
Fuel pump off – 800’ agl (over dry land)

**Soft Field Landings**  
Perform low pass to inspect field condition for grass height, holes, debris, and wetness  
Set up normal approach to landing  
Keep nose wheel off the ground as long as possible  
holding aft pressure as long as possible  
Use minimal braking and keep aircraft moving until parked

**Crosswind Takeoff**  
*Modify appropriate takeoff procedures as such:*  
Begin ground roll with aileron into the wind  
Gradually take out most of the aileron as aircraft accelerates  
Upon lift-off, establish coordinated crab into the wind

**Crosswind Landing**  
*Modify appropriate landing procedures as such*  
Add 5 kts approach speed, especially in gusts, ½ of peak gust  
Apply rudder to point nose down the runway  
Apply aileron to hold aircraft over the centerline  
**Net effect should be the aircraft slightly cross controlled with the wing down into the wind**  
**Control input should be increased as aircraft decelerates and maintained until landing**
Forward Slips
Add 5 kts to approach speed
Apply full rudder in direction of crosswind
Apply enough opposite aileron to hold the aircraft over the centerline
Pitch to maintain airspeed
Airspeed Indicator may be unreliable in slips