

PRE-SOLO TRAINING SYLLABUS

<u>ORIENTATION</u>	Walk around; explain basic controls and aircraft systems. Keep it simple. Explain briefly what will happen on the flight and sensations. During flight point out prominent landmarks.
<u>STABILITY</u>	Demonstrate that the glider is a stable platform that will fly without the assistance of the pilot. Show that the glider will recover from displacement in the pitching plane.
<u>COCKPIT CHECKS</u>	Introduce CBSIFTCB, placards, weight and balance, flight manuals.
<u>PRIMARY EFFECTS OF CONTROLS</u>	Explain you have control, I have control. Control column must be held in right hand, light but firm grip. All demonstrations and practice should start from and return to the stable platform. Elevator – controls pitch - controls attitude – AOA – speed. Aileron – roll. Rudder – yaw. Stress attitude, attitude, attitude. Control effectiveness depends on two factors – amount and rate of the control application and airspeed.
<u>SECONDARY EFFECTS OF CONTROLS</u>	Further effect of roll – glider will slip and yaw toward the lower wing. Aileron drag – downgoing aileron on the rising wing produces extra induced drag causing “adverse yaw” (Coarse use of aileron will provide a good demonstration). Further effect of rudder - outer wing speeds up and lift develops creating roll in the direction of rudder application. AIR EXERCISE - Straight and level. - Rolling on a point – approx. 5 degrees of bank only. - Use of trim- to remove control load at any given speed.
<u>TURNING</u>	<ul style="list-style-type: none"> • Demonstrate continuous – then a slipping then skidding turn. • Remember to teach Aileron as the primary control. • Introduce Lookout - Look ahead before the turn and look out during the turn. • Must keep nose attitude and bank angle consistent. • If excess rudder is being used in the turn go back and teach aileron - rudder coordination. • Using your airspeed indicator and not your attitude usually causes pitching up and down during turns. Teach attitude. • Do 360 degree turns not 180's. • Teach A.R.E. when the turn is not going well. AIR EXERCISES - Varying speed at same angle of bank. - Varying angles of bank at the same rate of roll. - Varying rates of roll. - Rolling from one turn to another.
<u>AIRBRAKES</u>	USED TO CONTROL RATE OF DESCENT. Spoils lift over that section of the wing. Produce a large amount of drag. Must lower the nose to offset drag. Increase stalling speed by approximately 2 to 5 knots.
<u>STALLING</u> Stalling can occur at any time in flight that the AOA exceeds approx. 15°.	Must do aerobatics check – HASELL. Symptoms <ul style="list-style-type: none"> • Higher than normal attitude (sometimes). • Buffeting over tail section and/or rear fuse. • Lower air speed (sometimes). • Quiet aircraft. • Sluggish controls especially ailerons. • Wing-drop at stall (sometimes). • Increased rate of descent, even if stick is back. Do not use aileron or rudder to pick up a dropped wing. If in doubt get the control column forward.

- AIR EXERCISES**
- Stalling at different nose attitudes
 - Stalling off a turn (Initiate off a slipping or skidding turn.)

- RECOVERY**
- Stick forward to regain flying speed.
 - Ease out of the dive.