

SOUTHERN CROSS GLIDING CLUB

Briefing notes for Astir - WWJ

General:

These notes are intended to draw attention to certain features of the Astir which pilots new to this aircraft should be aware of, and also its handling characteristics and operating speeds.

Daily inspection:

The particular points which should be noted are:

- The knurled locking sleeves on the wing carry-through, behind the pilot's head rest should be checked to ensure that they are secure. If in doubt, see the Astir rigging notes in the pie cart.
- The trailing edge locking sleeves should also be checked. These can be seen through the hatch in the fuselage.
- Also through the hatch, check that the Hotellier couplings on the control rods are secure. Then retape the hatch.
- The pitot tube is on the leading edge of the fin, above the total energy probe.
- The tailplane locking device projects from the leading edge of the fin, just below the tailplane. This slides up and down and should be in the fully up, locked, position and secured by tape.

Ground handling:

There are no special features involved in ground handling.

Pre-flight preparation:

Do not allow yourself to be rushed. Make sure that you are comfortable, and take time to familiarize yourself with the cockpit layout and controls. In particular note:

- The release knob is situated by the side of your leg, and can easily be covered by your trousers. It is important that if an emergency release is required you should be able to reach the knob instantly.
- The glider is fitted with a Borgelt B 50 electronic variometer system. The climb/cruise switch is on the left hand side of the cockpit, not on the panel. [Details of the Borgelt B 50 are kept in the pie cart].
- The undercarriage retracting lever is on the right side of the cockpit. Note the placard positions for wheel up and down.
- The wheel brake lever is on the joystick.
- The Astir can carry water ballast, though it is not normally flown ballasted at Camden. The dump valve lever is on the right hand side of the cockpit.
- Note that the nose attitude on the ground is quite different from that of the Junior, so try to retain a mental picture of this attitude.
- The key speeds are placarded. The most important of these are:

Stalling speed	Vs	33 knots
Manoeuvring speed	Va	92 knots. This is also max. aerotow speed.
Rough air	Vb	135 knots
Never exceed speed	Vne	135 knots. This is also max. airbrake & gear extended speed.
Min sink speed		46 knots at 450 kg, 41 knots at 350 kg.
Speed for best glide angle		56 knots at 450 kg, 51 knots at 350 kg.

Rain should cause no deterioration in flying characteristics, but heavy rain may increase the stalling speed by up to 3 knots.

As usual, the approach speed should be $1.5 V_s + \text{half the estimated wind speed}$.

Take off and flying the Astir:

The Astir is docile in all phases of flight, thus the aero-tow should present no problems. If there is a wing drop on the initial take off run it can be easily picked up in the normal way with a brisk control response. Your FUST check on release will include retracting the main wheel. This requires a somewhat harder pull than on the IS 28, but is not difficult. Ensure that the lever is moved into its detent. After release and at a safe height it is useful to carry out a HASSL check, and bring the glider to the stall. Note the attitude, control feel, and sound as the stall is approached, and the speed indication at the stall.

If conditions permit thermalling, don't forget that the climb/cruise switch should be set to `climb'.

Spinning should not be carried out in early flights, but it should be noted that spin recovery is quite normal.

The airbrakes are speed limiting in a 45 degree dive, when a maximum speed will not exceed 108 knots. Whilst new pilots should be aware of this characteristic, such a dive should not be undertaken except in emergency.

There is a warning horn which is activated if the airbrakes are opened while the wheel is retracted, so this will sound if you open the brakes to make a rapid descent.

In carrying out the pre-landing FUST check visually identify the undercarriage lever and confirm from the placards that the wheel has been lowered. Ensure that the lever is in its detent.

The circuit

The circuit, approach and landing should present no difficulty, but as is normally the case when flying a new type of glider it is advisable not to attempt a spot landing, and *not to make a full brake landing* as this results in a high rate of descent. Your landing will be judged not by where you touch down but how you touch down. With further experience of the aircraft it will be found that there is no problem with using full air brake on landing, should this be necessary.

In the hold-off look well ahead, as usual, and look for the touch down attitude memorized before take off

Braking and ground roll

The wheel brake is moderately effective and it is unlikely that the glider will tip on its nose with brake application. Nevertheless, if the tail does start to lift, ease the brake off