

## Quick Info about the instruments of Ian Forster-Lewis (B21)

A more detailed description of these B21 instruments you can read in the ASH25 documents on the website of Ian Forster-Lewis at

<http://carrier.csi.cam.ac.uk/forsterlewis/soaring/sim/fsx/simobjects/ASH25V8>



**1 Cambridge 302 Direct Digital Variometer.** displays Speed to Fly and Arrival Height

It works either as Speed To Fly (STF) or Total Energy Variometer (TE) dependent on the switch position (1b).

In this example picture:

- +250 : the expected arrival height AGL at the next waypoint in the flightplan
- 1.5: the Macready setting . This is the value of expecting average climb rate adjustable with knob (1 a.)
- 1.4: average climb (or sink) rate during the las 30 seconds.

In STF mode the main needle displays a Speed-to-fly indication (i.e. the needle moves down, as if indicating sink, to tell you to speed up and vice versa).

**1b Switch** from STF mode to TE mode and reversed .  
The recommended Speed To Fly also can be shown in the

**2 Airspeed indicator.** Click gauge for an STF indicator to appear . (140 km/h in this example)

**3 Winter TE Variometer** with MacCready Ring. For adjusting of this ring click on the left or right position of the ring.

It may be, some of my gliders hav built this Winter-Vario without TE. In this case you should switch the 302 variometer from STF mode to TE mode (1b) and click airspeed gauge for an STF indicator to appear (2)

- 4 **302 slave vario.** The needle displays NETTO climb rate (i.e. the vertical movement of the air outside the glider), by subtracting the normal aircraft sink rate from the total energy reading shown on the Winter vario.
- 5 **Moving map** displays flightplan on a relief map.
- 6 **GPSNAV** displays direction and distance to waypoint.
- 7 **Water ballast switch.**
- 8 **Ballast indicator.** displays percent of water ballast carried. (click gauge to display current aircraft weight)
- 9 **Knob for the Vario sound.** If this knob is available in the 2D panel you can activate and regulate the vario sound as it is known from Max Roodveldt's L-NAV gauge. In this case the default FSX vario sound is deactivated in the aircraft.cfg by preceding two slashes as shown:

```
//[variometers]  
// variometer.0=1
```

This knob is from a modified L NAV instrument of Max Roodveldt and requires therefore also the installation of all entries and files, as needed for the use of the CAISet instruments.