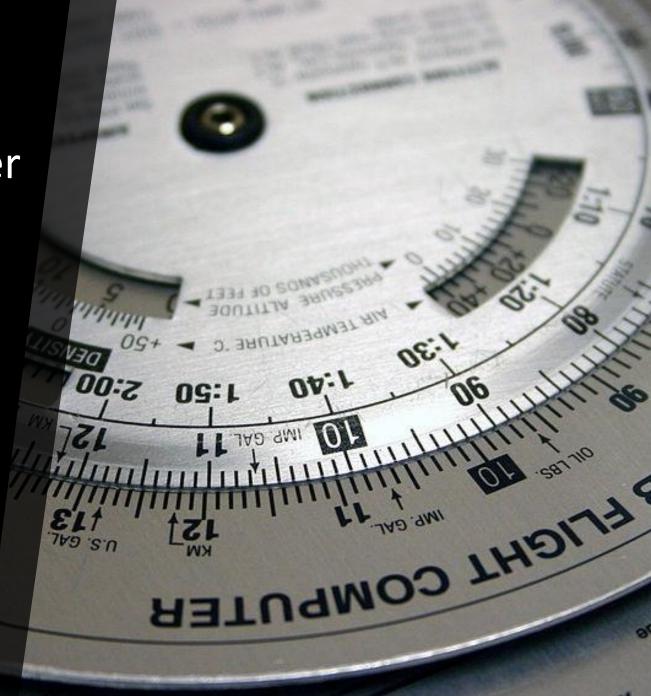


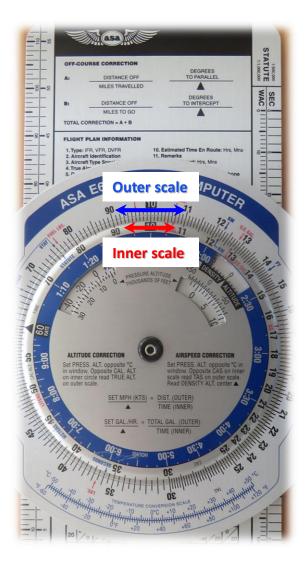
E6B Nav Computer Calculations

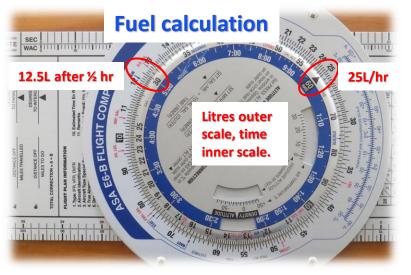
The following content is in A4 size enabling the content to be printed easily.



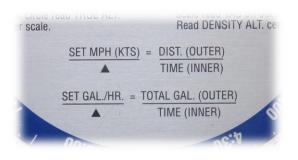
Content copyrighted by Sunair Aviation Ltd.

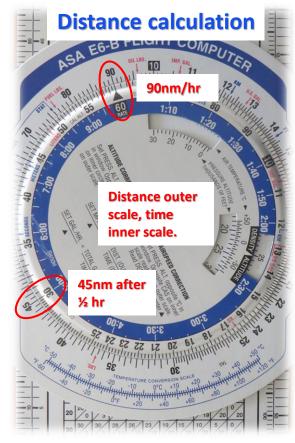
E6B NAV COMPUTER (Calculator side)





If the rate pointer is placed on the fuel consumption rate, the fuel burn can be calculated for a given time factor (e.g. C150 burns 25L per hour).





If the rate pointer is placed on the aircraft's GS, the distance can be calculated for a given time factor (C150 cruises at 90kts).

E6B NAV COMPUTER (Calculator side)



At MSL, in ISA conditions (15°C) CAS & TAS are the same.

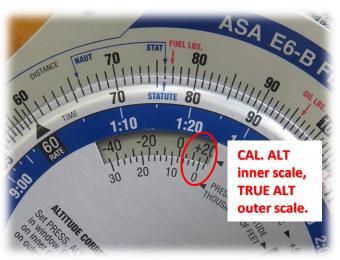
Airspeed correction



At 10Øft, in ISA conditions (-5°C @ 10Øft) TAS will now be more than CAS.



At 10Øft, with a warmer ambient temperature (+10°C) TAS is even greater.



Altitude correction

At MSL, in ISA conditions (15°C) CAL. ALT is the same as TRUE ALT.



At 10Øft, with a warmer temperature than ISA (10°C) CAL. ALT will be less than TRUE ALT.

E6B NAV COMPUTER (Calculator side)

Division



First step, rotate '15' on the inner scale till it's under '12' on the outer scale. Find '10' on the inner scale and above that, read the time in minutes on the outer scale (8 minutes).

Example info:

- 12Øft descent
- 1500fpm
- Descent time?

Multiplication

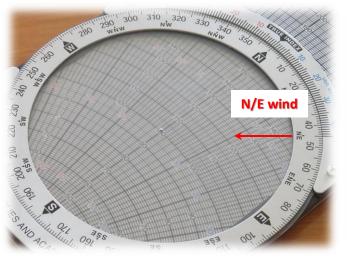


First step, rotate '10' on the inner scale till it's under '15' on the outer scale. Find '8' on the inner scale and above that, read the altitude gained after the climb (12Øft).

Example info:

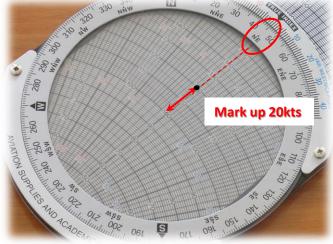
- 8 minute climb
- 1500fpm
- Climb altitude?

E6B NAV COMPUTER (Wind scale side)

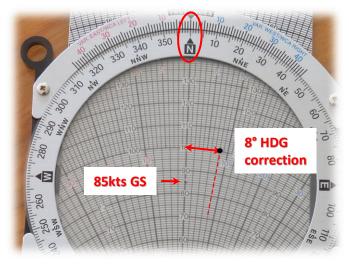


The desired TRK is 000°, cruise speed is 100kts (TAS) and the wind is from 045° at 20kts

Example info: TRK - 000°M TAS - 100kts WV - 045°M/20kts HDG/GS - ?



First step, place the wind direction under the index and then make a mark 20kts up from the grommet.



Next, rotate the disc to place the desired TRK under the index and slide the scale down till the mark touches the 100kt line. Read GS under the grommet, and HDG correction (in degrees) at the mark.

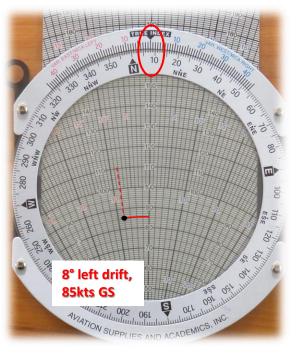
To maintain TRK, 8° right HDG correction must be applied.



HDG & GS calculation

E6B NAV COMPUTER (Wind scale side)



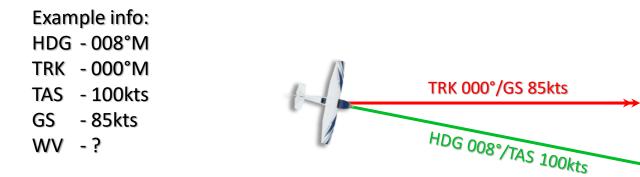


First step, place HDG under the index, and slide the scale down to place TAS under the grommet. Make a mark where the GS line meets the drift line.

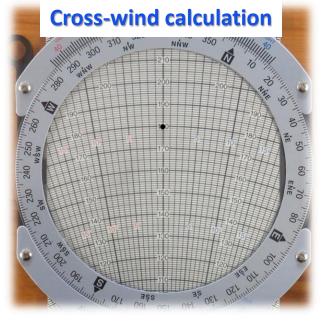
To maintain TRK, you've applied 8° left drift correction.



Next rotate the disc to place the mark directly down from the centre. Read the wind direction under the index and speed down from the grommet.



E6B NAV COMPUTER (Wind scale side)



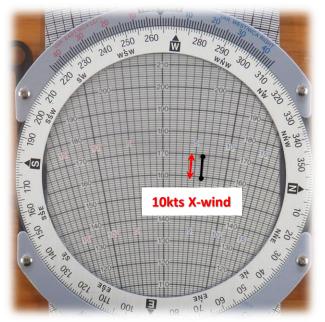
Example info: - WV 330°/20kts - RWY HDG 000°

First step, place the wind direction under the index and mark up from the grommet the speed.



Next, rotate the disc to place RWY HDG under the index. Draw a straight line from the mark to the centreline. Read the head-wind component between the line and the grommet (17kts).

WV 330°/20kts



Rotate the disc ≈ 90° to parallel the horizontal line drawn with a radial drift line. Read the cross-wind value between the ends of the horizontal line drawn (10kts).