Basic Instruments 5 - Compasses

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Many pilots rely on GPS to indicate direction but a number of us still like to fly with a magnetic compass. The preferred type of compass for PG or HG is usually a ball type compass which shows the direction the aircraft is pointing rather than one with a needle which points north. Compasses designed for canoeing are sometimes quite good for PG and HG but may need to be kept approximately level.



We must be careful where we position our compass on our flight deck. Any nearby magnetic material will cause it to misread. Other instruments and radios are likely to have magnetic material in them. Some batteries can be magnetic.

Note that a GPS inherently indicates the direction a glider is moving rather than the direction it is pointing. GPS's which indicate which way a glider is pointing usually have a built in magnetic compass. Some GPS units show the direction the glider is pointing when it is stationary but when it is moving they then show the direction it is moving. This is fine as long as the pilot can deal with this ambiguity. However in many (stressful!) circumstances the direction an aircraft is pointing is more important than the direction it is moving which is why many pilots like to have a magnetic compass.

Electronic magnetic compasses work very well but, for the mostpart, seem to use a lot of battery power. Better ones should become available as the technology improves.

Magnetic Variation

A magnetic compass needle will not point exactly towards true north

everywhere on earth. Magnetic variation is the difference between "true north" and "magnetic north" and changes with time. At the present time in the UK true north is near enough to magnetic north for the variation to be ignored for PG and HG but in some parts of the world it can be more than 30 degrees. A good map will show the magnetic variation of the area it covers so the user can compensate.

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