

ADDENDUM TO LOCAL REGULATIONS

ALTITUDE VERIFICATION

Introduction

For the purposes of altitude verification, the scorers will group GPS instruments into three broad categories:

Group 1: Instruments incorporating a pressure sensor to be able to record and/or display barometric altitude. (Some may also display GPS altitude)

Group 2: Instruments recording only GPS altitude

Group 3: Instruments (primarily Garmins) that incorporate a pressure sensor, such that the recorded altitude is a continuous updated combination of GPS height and barometric altitude.

Pilots should be aware of which altitude(s) each of his GPS units records and displays. Note that in some instruments there will be a difference between the pressure altitude height and the height displayed in flight. This can be up to 200 to 300m on a high-pressure, hot day.

GPS set-up

Group 1:

All the barometric instruments should be set at the task briefing, either with the predicted QNH for the day or with the take-off height (which then calculates the QNH automatically), displayed on the task board. It is highly recommended to set alti2 (if available) to QNE (1013.25hPa).

Group 2:

No special set-up. Pilots flying with GPS-only altitude units should be aware that there can be a difference between barometric and GPS altitude of up to 200 to 300m.

Group 3:

The auto-calibrate function must be switched off. And the unit must be calibrated to launch height or QNH taken from the task board.

Note: Restricted airspace will be indicated on maps provided.

Verification by Scorers (Using FSflight, SeeYou and CompeGPS)

To verify infractions of competition altitude limits, track log altitude data will be standardised using standard barometric altitude (Pressure Altitude) of 1013.25hPa.

Group 1:

Typically, all the Flytec/Brauniger instruments (Group 1) will download correctly and the Pressure Altitude will be recorded in the kml and igc track log.

Other barometric instruments in Group 1 will have altitude corrected to 1013.25hPa by the scorers ($1013.25 - \text{QNH} * 27\text{ft/hPa}$) to derive the actual (standardised) flight altitude.

Group 2:

Pilots with instruments recording GPS-only altitude: The difference between the GPS altitude and the pressure altitude will be derived by referencing track(s) from an instrument used on that task that gives both measures (eg Compeo+/6030). The pilot's GPS altitude will be adjusted using this difference. For some units, the scorers may have to factor in the ellipsoid/geoid difference as well.

Group 3:

Due to the nature of these instruments, it is essential that the auto-calibrate function is switched off, thereby recording true barometric altitude. They will be treated the same as Group 1 instruments. It is recommended that pilots flying with an instrument in this group, fly with a back-up GPS from another group. Pilots flying with only Garmins are likely to be subject to greater scrutiny and more frequent altitude checks.

Note: Restricted airspace will be indicated on maps provided.

