

APPENDIX E

TREATMENT OF AIRSPACE INFRINGEMENT

AIRSPACE WARNING

Neither “Buffer zone” nor “Buffer time” is allowed in order to authorize any “short time” airspace infringement.

In consequence, according to SC3 Annex A and competition software matrix used for scoring, one fix inside a closed airspace or above an absolute altitude limit is enough to flag an airspace infringement and give an airspace warning.

METHODS TO CALCULATE THE ABSOLUTE ALTITUDE OF A GNSS FR

A Using SeeYou:

1. Calculate lower limit of concerned area (closed airspace or absolute altitude limit) from a pressure level corresponding to STD (1013 hPa) using ICAO Standard Atmosphere (ISA)
2. Screen the barogramme graph, detect red areas.
3. zoom in and step to the highest or first fix in the concerned area
4. Read the altitude in figures
5. Read the value of QNH calculated by SeeYou.
6. Calculate FR height above 1013 hPa using SeeYou-QNH altitude and ISA
7. Use the figure in 6 for calibration
8. Compare the calibrated altitude calculated in 7 with the lower limit of the concerned area calculated in 1. If higher than lower limit of the concerned area, penalty is given.

B Using raw data from the FR IGC-file

1. Calculate lower limit of concerned area (closed airspace or absolute altitude limit) from pressure level corresponding to STD (1013 hPa) using ISA
2. Use SeeYou to find the time (fix) for the highest or first fix in the Gliding Sector
3. Find the time in the IGC file and the corresponding altitude (which is given in STD)
4. Calibrate that value
5. Compare the calibrated altitude calculated in 4 with the lower limit of the concerned area calculated in 1. If higher than lower limit of the concerned area, penalty is given.

The difference between method A and B is that when SeeYou calculates QNH, it does it from the field elevation (275 m) and this will then include the errors of the FR. Using Method B there should be no errors. It was found that the differences between method A and B was in the order of 5 m.

Method A is the normal method that will be used by the organizers for the treatment of all airspace and absolute altitude limit infringements during the competition.

Method B could be used by the organizers, as secondary method, ONLY in case of closed airspace « short » infringement.