

# The 2010 Rules for BGA Rated Competitions

**Issue date 18th March 2010**

## FOREWORD

### Welcome to the 2010 edition of the Rules for BGA Rated Competitions.

The following changes have been made to this edition and pilots are well advised to carefully read the text relating to these changes as some are very significant :-

- **Airspace infringement penalties.** There is now a very simple penalty structure which awards a small but significant 50 point penalty for a single or series of infringements of prohibited airspace as defined by these rules of less than 200 metres horizontally or 100ft. vertically. For a single or series of infringements simultaneously greater than 200metres horizontally and 100ft. vertically, then the penalty is 500 points and will result in day disqualification and ultimately event disqualification for significant infringements on subsequent days.
- **Start procedure.** The procedure has been changed so that pilots are not now required by the rules to place themselves at a precise altitude around the start point prior to starting whilst monitoring time, position, altitude and other gliders. To achieve this, the Director is required to set the maximum start height approximately 1000 ft. above the local cloud base likely to be experienced in the start area as the line opens, thus eliminating in most instances the requirement to monitor time and altitude as well as limiting the possibility of gliders requiring to descend into start gaggles from above. Pilots are required to remain clear of cloud and in full visibility of all gliders in the same thermal when within 10km of all start and base airfield reference points. Cloud flying is not permitted prior to starting and the radius of the start volume has been reduced to 5km. The start method now closely mirrors that used in IGC sanctioned International events.
- **Use of radio.** When competing in UK National Championships, Overseas Championship or Junior Championship, blind radio transmissions or transmissions made between competitors for the purpose of either leading, guiding, finding or using lift are now prohibited. This rule is intended to discourage team flying in National and Junior Championships to encourage individual free thinking and to ensure that individual prowess is appropriately rewarded.
- **Flarm devices.** There is now a requirement to register at check-in the type and serial no. of any Flarm or similar proximity warning devices to be carried in the glider and that they are set in the required "stealth" or equivalent mode. In this mode, all safety functionality of the standard device both for the receiving and transmitting glider is fully retained but only contacts within a certain range and altitude appear on any radar map display fitted. It is intended that this will eliminate any tactical advantage that may encourage over-reliance on such displays and also discourage the practise of switching off equipment to avoid detection which is self defeating from the perspective of the intended enhanced conflicting traffic awareness.
- **FR logging time interval.** Flight recorders must now be set to record at an interval of 12 seconds or less. Previously this was 60 seconds for pure gliders and 10 seconds for gliders with means of propulsion.
- **Anti-Doping.** The section has been amended to reflect the formal undertaking of the BGA to adopt UK Anti-Doping rules as well as those of the FAI.
- **Enhanced option TP size reduction.** The radius of the 180 sector of an enhanced option TP to be used in showery weather has been reduced from 20km to 10km.
- **TP penalty area.** The penalty area surrounding standard and enhanced option sector turn points has been standardised. Control at a turn point but with a penalty will be given for logged points 500m or less from any part of the defined sector.
- **Junior WGC team selection procedure.** There is now a requirement to fully participate in a senior UK Nationals event in any class in either of the two years prior to selection as well

as achieving a top 20 place in one of the last two UK Junior Championships in order to be eligible for selection. It is intended that with this experience, pilots selected will be better able to cope with the demands of this high level International event.

- **Handicap amendments.** The handicaps of the most recent generation and highest performing 18 and 20m flapped gliders have been increased by 1%.

The following changes were made in the 2009 edition.

- It became a requirement to submit at registration at the contest site a valid calibration chart for all flight recorders to be used during the competition in addition to the current requirement to show evidence of third party insurance and FAI licence.
- The Director may now change the release zone at any time if it is considered to be necessary for sporting reasons.
- The text regarding aircraft markings was amended to cover the requirement to carry National aircraft markings and the additional competition requirement to carry tri-graph or competition number under the wing as well as on both sides of the fin was amplified.
- The requirement to specify a circling direction within 10km of the airfield or start points was deleted.
- The option to create a task with multiple alternative turnpoints (historically prescribed for showery conditions) was removed.
- A new fixed course task type utilising an “enhanced option” turnpoint design was introduced to facilitate fixed course speed tasks to be set sensibly on showery days. It is hoped that this will discourage the setting of AAT’s on such days as this was not their intention nor are the scoring parameters set in such a way to give equitable scoring when used in this way.
- The buffer within the vertical penalty start volume of 100ft introduced in 2008 was removed.
- The mechanical team selection process for European Championships was amended to identify a longer ordered list of potential participants still initially primarily based mechanically on most recent Nationals performance.
- A system was introduced to generate class based World Championship squads from which selection is undertaken by vote as before. Whilst the make up of the voting panels remained unchanged, the requirement for the votes cast to be transparent was withdrawn.
- The procedure for testing self-sustainer engines for the purpose of engine noise monitoring and/or to establish engine serviceability was amended to close a possible loophole that might have allowed a pilot to use the engine to avoid a land out and then re-start.
- An additional appendix was added to illustrate the various height references used throughout this handbook – in particular QNE

As a committee, we actively seek the views of competition organisers and pilots alike as the competition sport continues to evolve. As part of this continuing process, we welcome individual suggestions, which can be made directly through the competition feedback page on the BGA web site.

I would like to thank all the committee members for their hard work, innovative ideas, and dedication in their allotted tasks and in the production and maintenance of this handbook.

Russell Cheetham  
Chairman  
Competition & Awards Committee

## Committee Members

Russell Cheetham	Competition Calendar, NATS Liaison, alternative IGC delegate
Peter Masson	Junior Nationals, Nationals entry and BGA webmaster
Philip Sturley	British Team Manager
John Wilton	Rating Lists
Richard Smith	Minutes Secretary
Ollie Ward	Awards
Paul Candler	Scoring
Brian Spreckley	IGC delegate
Neil Goudie	Forums and Communication
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## 1. PRELIMINARY REMARKS

**1.1. Wording.** Throughout these rules, the words "must", "shall", and "may not" indicate mandatory requirements; "should" indicates a recommendation; "may" indicates what is permitted, and "will" indicates what is going to happen.

**1.2. Units.** Speed in kilometres per hour; Wind Speed in knots; Height in feet above the airfield; Altitude in feet above mean sea level; Directions and Radials in degrees true; and Distance in metres and kilometres.

**1.3. GPS Datum.** WGS 84.

## 2. COMPETITION VENUE APPROVAL

**2.1. Nationals.** Suitable clubs will be invited by the Competitions Committee to bid.

**2.2. Regionals.** Any club may apply to the Competitions Committee to run a BGA rated Regional Competition. Those without a proven competition track record will be required to satisfy the Competitions Committee that they have the expertise. It may be necessary to apply control over dates to reduce competition conflicts.

## 3. DIRECTOR AND ASSISTANTS

All competitions must have a Director who has overall responsibility for ensuring that suitable personnel, equipment and facilities are available for the efficient organisation and running of a BGA rated competition. The Director, or appointed deputy, must be available throughout the competition period and at the end ensure results are promptly forwarded to the BGA office in the required format. The Director must appoint a specific person as Safety Officer, who may be the Deputy Director. The Director must ensure that the conduct of competition flying with respect to finishing is continually observed by himself or appointed person or both.

## 4. STEWARDS

Suitably experienced competition pilots shall be appointed as stewards to monitor the conduct of the competition and report any unfairness or infringement of the regulations, investigate protests, and arbitrate on any ambiguity in the regulations. Stewards must hold no executive position in the organisation of the competition nor be competitors. They need not be in continuous attendance throughout the competition and a quorum for a meeting is two. Where no rule exists to cover a specific case, the Stewards should refer to the BGA Competitions Committee Chairman for guidance. The stewards' decision on any protest is final and may not be varied.

## 5. CANCELLATION

Once entry fees have been paid, a competition must not be cancelled, except for reasons of 'force majeure' and only after consultation with the BGA competitions committee or (if already started) the stewards.

## 6. PILOT ENTRY

**6.1. General.** All pilots, except two-seater P2s, must hold a valid Competition Licence. Only pilots of British nationality, or principally resident within the UK and subject to British income tax, may qualify for the title of National Champion and be awarded BGA trophies. Pilots not meeting the British Nationality or residency requirement may enter any BGA competition but will gain no priority rating and will not affect other competitors' ratings other than by virtue of their daily performance affecting the number of points allocated.

**6.2. Junior Championship.** Applications should reach the BGA office prior to the end of March. Only pilots whose 26<sup>th</sup> birthday falls after the year of competition are eligible.

**6.3. UK National and Overseas Championships.** To avoid placement on the late entry list, applications must reach the BGA office by January 31<sup>st</sup> on the form available from the BGA office or web site. All pilots must have previously competed as P1 in a BGA rated competition or if a foreign pilot, in an equivalent event abroad. Priority, if oversubscribed, is decided by the rating list followed by late entries in date order of application. In any case, an application must be received via the BGA office, even if a late entry, to allow the pilot to enter the competition.

**6.4. Regionals.** Entry must be made directly to the organising club with priority, if oversubscribed, decided by the date order the entries are received or by a ballot of all applicants. Pilots from outside the organising club must have the same opportunity of entry including notification of entry procedure.

**6.5. Team Entry.** Two or more pilots may compete as a team entry in the same glider in the Junior Championship, Overseas Championship and Regionals. Pilots must not compete in more than one glider in the same task group.

**6.6. Multi-seaters.** The registered pilot must be generally accepted as more proficient than any other occupant of the glider. Relative proficiency should be determined by the current rating list. A multi-seat glider may be flown on a team basis in accordance with **6.5**.

**6.7. Hors-concours.** The Competition Committee must approve all National Championship hors-concours entries. Whether hors-concours entrants are included in the normal launch order or placed at the rear of the grid is at the Director's discretion.

## 7. LOCAL RULES

**7.1. General.** Local Rules must be approved by the Competition Committee prior to publication. Distribution should ensure competitors receive them at least three weeks before the competition starts.

**7.2. Contents.** As a minimum they must define the boundaries of the airfield, times for pilot registration, list of voice communication radio frequencies permitted and their intended use, a copy of the current BGA registration form and any rules that are additional to these rules. They must also contain a reminder to fly within the requirements of CAP393 ANO Section 2 Rules of the Air Article 5 (low flying rule) and CAP393 ANO Section 1 Article 74 which states: "A person shall not recklessly or negligently cause or permit an aircraft to endanger any person or property".

**7.3. Additional information.** Normally included are the start point co-ordinates, details of finish lines and control points and specifications of any additional airspace or airspace dispensation that may be applied. Also generally attached are domestic and site information plus a list of the anticipated entrants. Of help to competitors is a list of Flight Recorder types and media storage devices that the organisation are already equipped to download and a list of required documents to be produced at registration.

## 8. REGISTRATION

**8.1. Form.** The form shall be completed and delivered to the organising club as directed. If any of the details submitted change, a fresh form must be completed. The contents of the registration form must, as a minimum, mirror the requirements of the BGA sample form downloadable from the BGA website including all pilot declarations.

**8.2. On site.** Prior to flying, competitors must attend registration, show evidence of appropriate glider third party insurance, FAI competition licence and valid calibration chart for each flight recorder to be used. Pilots must also declare all Flarm or similar proximity warning devices listing type and serial numbers, and confirm that they have been set to "Stealth" or equivalent setting.

Subsequently during the competition, pilots may be required to produce supporting documentation for any of the information declared on the registration form. Scrutineering of the glider to be used and any equipment onboard may also be undertaken by the organisation before launching on the first day and on any subsequent day to ensure compliance with the rules.

## 9. GLIDER IDENTIFICATION

**9.1. Position.** Gliders must display their BGA tri-graph or Competition number as large as practicable in a contrasting colour on both the underside of the starboard wing approximately 2½ metres from the fuselage with the top of the identification towards the leading edge, and on both sides of the fin/fin & rudder.

**9.2. National Aviation Authority Markings.** Appropriate National Aviation Authority issued registration markings must additionally be displayed as required.

## 10. CLASSES AND GROUPS

**10.1. Task groups.** A competition may consist of one or more task groups determined either by FAI class, or glider speed index. The national championships shall be sub-divided into the FAI classes of Open, 18 metre, 15 metre, Standard and Club Class, each producing a national champion. An Overseas handicapped championship may also be held.

**10.2. Club Class.** Water ballast must not be carried, scores are handicapped, and gliders listed in Appendix 1 with a Speed Index not exceeding 98 before additional performance enhancement handicap increments, are eligible to enter. In addition, all gliders listed on the current IGC Club Class handicap list are eligible. All gliders will fly at their allotted BGA Speed Index.

The only ballast of any sort that is permissible is that intended solely for the purpose of centre of gravity adjustment. This must be securely installed in such a way as to not invalidate the glider's C of A.

Two seat gliders may be flown in the Club Class, provided that at registration it is declared whether the glider is flown solo or dual. The number of people on board may not be changed during the competition and in all cases the P2 must meet the requirement of 6.6.

**10.3. Junior Championship.** If the entry is of sufficient size, the competition may be divided into two groups on the basis of pilot experience and expectation, not glider performance. These will form the Junior Nationals, from which the champion will be determined, and Junior Regionals. Pilots should nominate their class preference. Gliders with a speed index not exceeding 106 are eligible to enter.

**10.4. Overseas Championship.** The rules for this event will be in accordance with this handbook except that specific alternative rules may be trialed. If this is the case, they will be highlighted in the local rules. This event will not be held in 2010.

**10.5. Minimum size.** For pilots to qualify for a rating and, where applicable, a title of National Champion, there must be not less than 10 gliders competing in their task group on the first day of the competition.

**10.6. Maximum size.** A task group shall not be larger than can normally be launched in less than one hour.

**10.7. Changes.** A glider shall not, during a contest, change task groups or vary its configuration from that declared at registration other than as allowed in 24.2. However, one complete change of glider may be declared at registration to be actioned on a specific day and to run for a defined number of calendar days, provided that the handicap of the replacement is within the limit of the task group or the same as the glider replaced. The change, or any details of the change may not be cancelled unless the Director is satisfied that the replacement glider has been damaged beforehand or in transit and the pilot is not seeking a tactical advantage. Changing the configuration of the same glider is not regarded as a glider replacement and is therefore not permitted within the context of this section.

## 11. WEIGHT

**11.1. Maximum.** The take-off mass of a glider shall be the lower of: –

- Manufacturers certificated limit
- Standard and 15 metre classes – 525 kg.
- 18 metre class – 600 kg.
- Open Class – 850 kg.

**11.2. Weighing.** Organisers are encouraged to check weigh gliders if they suspect that limits are being overlooked. To be effective, this may require some restrictions on the loading and dumping of ballast prior to launch.

## 12. PILOT SAFETY COMMITTEE

**Purpose.** To ensure, by use of 'peer pressure', that safe flying and airmanship standards are followed by all (including tug pilots) with regard to the high concentration of gliders that a contest creates.

**Goal.** To ensure all are aware of their responsibility for the safety of fellow pilots and other people and property on and off the airfield, thus eradicating aggressive and/or marginal flying in the bid for extra performance.

**Operation.** All competitors must make themselves available for the post unless they have already served on a PSC this year. Prior to the commencement of the competition the Director will nominate three pilots and a reserve and, at the initial briefing, call for any further nominations. Pilots will elect three pilots and a reserve.

The PSC will then be available to investigate complaints from competitors related to safety and flying standards during the competition. If considered necessary a verbal or written warning should be issued, with serious cases referred to the Competition Director if a penalty is recommended.

It is intended that considerable discretion should remain with the PSC to deal with complaints without involving the Organisation. However, as it acts purely in an advisory capacity and is not empowered to impose penalties, behaviour considered to warrant further action must be reported to the Competition Director.

A member of the PSC may resign if he feels it is affecting his own competition result, with the next placed candidate filling the position.

**NB.** The PSC is not a forum to air competitors' non-safety related grievances.

### 13. DAILY TASK BRIEFINGS

The organisers must hold a task briefing every day of the contest at 09.30 hours (or other published time) that includes the following: -

- Previous day's results (if applicable).
- Meteorological forecast.
- The day's primary and secondary task sheets, if any, for each task group.
- Airspace restrictions and hazards that might affect competitors and are additional to those shown on the latest aviation maps, i.e. NOTAM information and active parachute zones to be treated as prohibited airspace.
- The day QNE altitude (height of the base airfield in relation to forecast 1013.25 HPa pressure level) – see Appendix 3
- Time on grid and earliest time of first launch (if not on the task sheet).
- Time of last launch (not earlier than 1800 hours).
- Tug and glider relight landing areas.
- Finishing procedures.
- Administrative notices.
- Date and time of next briefing.

Flight and safety requirements given at briefing carry the status of Local Regulations.

Pilots unable to attend briefing must ensure they are in possession of all relevant briefed information prior to launching.

### 14. ADDITIONAL BRIEFINGS

- The Director may hold additional briefings for any reason provided reasonable steps are taken to notify all pilots of the time and place (which may be at the launch point).
- An additional briefing must be held if a task not previously briefed is to be flown, with at least 20 minutes from its completion to the start of launching.
- The Director must ensure all pilots are aware of any resulting changes.
- An additional briefing is not required if a previously briefed alternative task is to be flown. However, the Director must ensure every pilot is aware of the change at least 10 minutes before launching commences. This ruling also applies to a change of designated task time for an Assigned Area Task.

### 15. LAUNCHING

- Launches must be by aero tow, unless stated otherwise before entry fees are paid.
- Gliders should be towed to the release zone specified for each task group and be 'waved-off' by the tug but may release earlier at their discretion. The Director may change the release zone at any time if it is considered to be necessary for sporting reasons.

- Each task group must be launched separately, except as specified for relights, the first launch of each task group being at the Director's discretion.
- If competitions include a National Championship and Regional Task Group, the Nationals must always be launched first. In this case, Organisers must ensure all Regional's pilots are aware of this prior to entering.
- All gliders of a task group should have the opportunity of a competition launch within one hour. This can normally be achieved by having not more than six gliders per tug.
- Within each task group the order of launch shall be in order of registration letters or competition numbers with the first to take-off on the first flying day being selected by lot. Thereafter the order shall advance after each contest day by 2/7ths of the number of competitors in the group.
- Pilots who refuse a launch shall follow the relight procedure. A pilot who is unready for his grid order launch shall be deemed to have refused a launch.
- Organisers may group gliders and launch them in their group provided that for each glider its launch position is within five places of its official place.
- Motor-glidern may be grouped together in list order to assist launch point organisation, or be positioned so that their slipstream does not hazard other aircraft.
- The Director or his deputy should be present at the launch point during the main periods of glider launching and must suspend launching if it appears dangerous to continue.

## 16. ADDITIONAL LAUNCHES (RELIGHTS)

- If a pilot wishes to be launched either after refusing the offer of a launch or after landing back at the airfield he must, when fully ready to launch, notify the Launch Marshal and position his glider as instructed.
- If the launching of another Task Group is in progress, every fifth launch must be available for 'relights' of any previous Group.
- If a pilot fails to be launched satisfactorily through no fault of him or his crew, he must be offered an additional launch without delay.
- A glider that lands outside the official boundary of the airfield (except as above) shall not be permitted any further contest launches on that day. Where doubt exists on a pilot's entitlement to a relight, he should be launched, and the dispute resolved later.
- Each relight automatically cancels all previous starts unless the task has been completed.
- Self-Launching Gliders must land within the boundary of the airfield, and launch in sequence as directed by the Launch Marshal.

## 17. TASK POSTPONEMENT OR CANCELLATION

- Once launching has commenced, the task may be cancelled for safety or sporting reasons only.
- The Director may delay the opening of the start for either of the above reasons.
- Prior to the start line opening the Director may cancel the task and at his discretion require pilots to land back for a further briefing. This rule would only be invoked if the weather was unsuitable and it may be possible to task in a different direction. There must be a minimum time of one hour between the recall and first launch on any subsequent task.
- If after the start line has opened all gliders land back, the Director may set an alternative task.
- Once a launch postponement or task cancellation has been made, the decision must not be reversed.

## 18. FLIGHT VERIFICATION

**18.1. Method.** Flight Verification, both primary and secondary, must be derived from an IGC approved GPS Flight Recorder (FR).

For engine equipped gliders competing without the engine disabled, any FR used for verification must be fitted with an IGC approved engine noise level detector. The IGC list of approved Flight Recorders may be viewed at <http://www.fai.org/gliding/gnss>

**18.2. Control.** Valid control within a Start or Turnpoint zone is achieved by having a logged point, or any part of the line joining 2 consecutive logged points, within the zone. Start and Finish times are calculated by interpolation. Height verification for the purposes of screening flight logs for any airspace infringements or to confirm control at the start will use the procedure in Appendix 2.

**18.3. Handing in.** On completion of a task, all evidence must be booked in within 60 minutes. It will remain under the responsibility of the Organisation until released back to the competitor. Pilots may hand in secure IGC files on a data storage device.

**18.4. Period.** The flight record must include all flying conducted on the day prior to reaching the scored landing point.

**18.5. Time intervals.** Flight Recorders must be set to store position records at not greater than 12 second intervals.

**18.6. Calibration.** A calibration chart from a test carried out within the preceding 5 years from the date of every competition day must be submitted to the Organisation at registration for each flight recorder. Data from flight recorders will not be accepted as evidence of flight performance unless a qualifying FR calibration can be shown to exist.

**18.7. Software & hardware.** It is the responsibility of the competitor to ensure the Organisation is in possession of the required software, connecting cable and/or storage media reading device for their FR or IGC file.

**18.8. Analysis and Scoring Programs** employed by competition organisations should be approved by the BGA Competitions Committee prior to use. Currently only SeeYou scoring script version UK2010a and later versions are approved.

## 19. STARTING

**19.1. Start Zone.** This is formed by a 5km radius semi-circle centred on the Start Point orientated opposite to the direction of the first turning point and is shown, surrounded by a further 500m horizontal and 250 feet vertical penalty start volume, figure 1. Starts outside these volumes are uncontrolled.

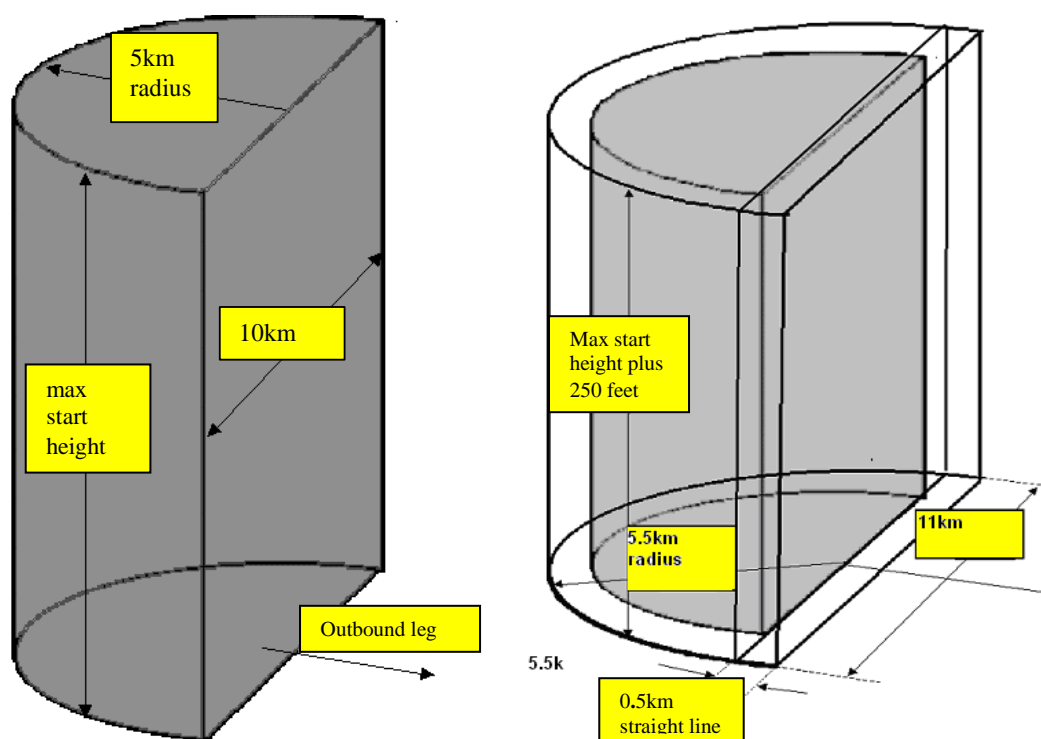


Figure 1

**19.2. Start announcement.** There will be start time announcements, together with **maximum** start height, made on the competition frequency 10, 5, and 1 minute prior to and on opening.

**19.3. Maximum Start height.** The maximum start height should be set approximately 1000 feet above the cloud base level expected in the start area when the start gate opens but should also take into account airspace limitations. To best achieve this, the final decision should be made just prior to the first start line open announcement.

**19.4. Start open time.** The start for each task group will open not less than 10 minutes, plus 1 minute for each 200 feet or part thereof by which the cloud base exceeds 3000 feet, after the last competitor in that task group has had the option to launch.

**19.5. Cloud flying before start.** Cloud flying is prohibited prior to starting.

**19.6. Safety and airmanship around start zone.** Pilots must remain clear of cloud and in full visibility of all gliders in the same thermal when within 10km of any start zone and base airfield reference point.

**19.7. Control.** The latest time after completion of the launch phase, and with the start open, that a Start Zone was exited in any direction horizontally or vertically. The declared Maximum Start Height must not be exceeded in the 2 minutes prior to Starting. If a start incurs a penalty and an earlier valid start gives a better score, the earlier start time will apply.

**19.8. Pilot reporting.** Within 30 minutes of starting, the Organisation must be advised of the gliders start time by radio or crew. Errors in reported start time of more than 2 minutes will be penalised.

## 20. TASKS

There are three types of task:

**20.1. Fixed Course.** This is a race either round a closed circuit course, or to a remote goal, with one or more turnpoints. Entry into turning point sectors must be achieved in the order set. Two laps of a closed circuit course may be set provided that it is not an out and return and each lap is at least 100 km.

**20.2. Enhanced Option Fixed Course.** As Fixed Course except "Enhanced option" 180 degree sector turnpoints may be used either exclusively or mixed with normal 90 degree sector turnpoints. The 180 degree sector turnpoint should only be used when the angle made between inbound and outbound legs is less than 90 degrees.

The purpose of this type of Fixed Course task is for it to be set on showery days where there is some doubt as to whether it will be possible to safely fly into the 0.5km radius of the TP as is usual for Fixed Course tasks.

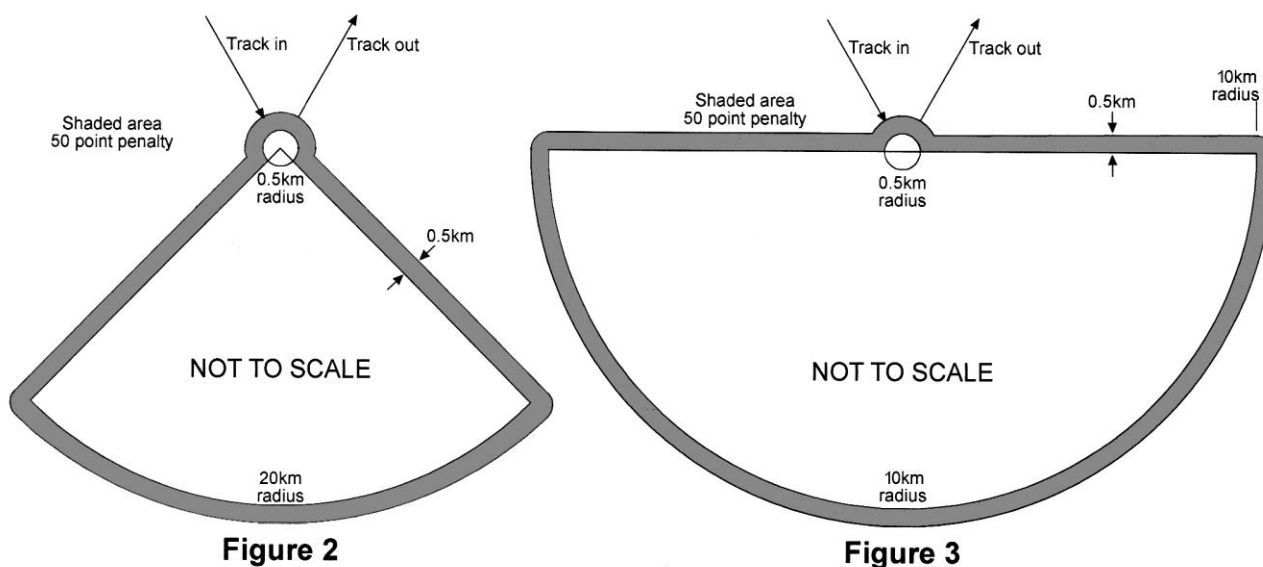
**20.3. Assigned Area.** This is a race round pilot selected points within prescribed areas in task order. A Designated Time is set which will penalize competitors racing for a shorter period. This type of task is intended to be set when soaring conditions are likely to be uniform over the task area.

## 21. TURNPOINT

**21.1. Definition.** The Latitude and Longitude co-ordinates published by the Competition Organiser.

**21.2. Fixed Course.** A circle of 500m radius plus a 90 degree sector of radius 20 kilometres opposite the bisector of the inbound and outbound direct tracks. There are Penalty areas of a further 500m surrounding the circle and 90 degree sector. This is shown by figure 2.

**21.3. Enhanced Option Fixed Course.** A circle of 500m radius plus a 180 degree sector of radius 10 kilometres opposite the bisector of the inbound and outbound direct tracks. There are Penalty areas of a further 500m surrounding the circle and 180 degree sector. This is shown by figure 3.



**21.4. Assigned Area.** A circle of set radius from a defined point or, a sector between specified radials from a defined point with a maximum and optional minimum distance. A 500m Penalty Zone surrounds the Area. As this may not be recognised by the scoring programs, pilots believing they have rounded and given 'No Control' should apply to the Scorer for a manual assessment.

## 22. FINISHING

**22.1. Finish Line Options.** The Organisation shall specify in the Local Rules the type of finish being used together with the flight patterns to be followed after crossing the line.

**22.1.1. Finish line.** A line of defined length and direction, orientated from between 0-30 degrees to the perpendicular of the inbound track line and situated such that gliders can safely land directly beyond it without turning. Positioning of the finish line and inbound track to it should take into account any potential conflict with any person, vehicle or structure on the approach to and around the finish line and should normally be placed near the runway threshold to maximise the safe landing area beyond. A Control point should be utilised as necessary to ensure compliance to the above.

**22.1.2. Finish Ring.** A ring of specified radius around a finish point encompassing the airfield and its landing circuits. The finish ring option may only be considered for use in cases where other airfield activity that cannot be controlled by the organisation makes part of the circuit unavailable to the competitors and must have specific competition committee approval.

**22.2. Safety and airmanship at finish.** Competitors shall be reminded in the local rules that all pilots must be aware of and fly within the requirements of CAP393 ANO Rules of the Air Section 2 Article 5 (low flying rule) and Section 1 Article 74 (reckless or negligent endangerment of any person or property). To meet this requirement, regardless of the position of the finish line, all approaches towards the airfield should prescribe a descending profile (other than to go-around where necessary), the landing area should be in the pilot's sight, and the airfield boundary must be crossed at a height which cannot endanger persons (seen or unseen), vessels or property.

**22.3. Control.** Given by the glider crossing the line or entering the finish ring under its own momentum, in the correct direction and above airfield elevation. Gliders landing within the declared boundary of the airfield having failed to correctly finish will be deemed to have finished 5 minutes after they come to rest.

## 23. AIRSPACE

It is the pilot's responsibility to ensure that Airspace is not infringed. The definition of an airspace infringement is when the flight recorder evidence shows a logged point horizontally and also vertically within prohibited airspace when assessed using the procedure in Appendix 2.

Gliders are excluded from the following Airspace during competition: –

Class A – Airways, except where they pass through a TMA or CTR of a lower status.

Class C – Above FL 195.

Class D – Mostly CTRs (Control Zones) and CTAs (Control Areas).

Prohibited Areas.

Restricted Areas, except Note 2 and 2a areas that only apply to helicopters.

Danger Areas prefixed with an ‘\*’ (subject to local bylaws) on the ICAO ½ million chart.

Any other specific areas, i.e. active parachute sites, specified by the Organisation in Local Rules or at Briefings.

Flights within certain Class D Airspace may be permitted by a briefed block exemption obtained from the controlling authority by the contest organisation.

## 24. ACCIDENTS & DAMAGE

**24.1. Reporting.** Any accident or damage affecting the Airworthiness of a glider must be reported to the Director who is responsible for ensuring that the BGA reporting procedure is followed. All competing gliders must be available for inspection at the Director’s request.

**24.2. Repair.** A damaged glider may be repaired. The following items may be repaired by replacement: control surfaces, tailplane, airbrakes, flaps, canopy, undercarriage gear and doors, propeller, non-structural fairings, wing tips and winglets. Where damage occurs to wing outer panels, wing extensions or winglets, these may be substituted with stubs or lower span extension parts provided that at all times the glider is flown within its C of A and at the original handicap.

If the damage was no fault of the pilot, the whole glider or any part of it may be replaced with the consent of the Director. Landing damage is normally assumed to be the fault of the pilot.

**24.3. Collision.** Gliders involved in an airborne collision, however minor, will for scoring purposes be deemed to have out-landed at the point of the collision.

25. **RADIO.** The use of radios is confined to voice communication between pilots, crews and officials.

- With the exception of mandatory radio procedure when flying in cloud, voice transmissions must only be made on specific frequencies prescribed by the organisers and designated in the local rules.
- Exceptionally, transmissions may also be made to contact ATC for obtaining permission to enter an ATZ, to land at an airfield, to make courtesy position calls when near to sensitive airspace boundaries or in the event of emergency.
- To improve safety, competitors should maintain a listening watch on the designated frequencies, especially during the launch, prior to starting, whilst finishing and landing, and when thermalling with other gliders.

**25.1 Use of radio to assist other competing pilots.** With the exception of mandatory radio procedure when flying in cloud, when competing in UK National Championships, Overseas Championship or Junior Championship, blind radio transmissions or transmissions made between competitors for the purpose of either leading, guiding, finding or using lift are prohibited.

## 26. EXTERNAL AIDS

- Help in finding lift by any non-competing aircraft, including competitors not in the act of carrying out the task of their own class, is prohibited.
- All data transmission between competitors or between them and the ground is prohibited, except as required by the organisers, or for safety purposes or for anti-collision warning.
- Flarm devices shall be set to “Stealth” mode or equivalent setting (known as Privacy Mode in some LX Navigation products) for the duration of the competition. Other types of devices that are able to receive and decode Flarm or other positional data radio transmissions without respecting Flarm Stealth data limiting protocol must not be used or carried in the glider.

## 27. DOPING

The British Gliding Association recognises and adopts the UK Anti-Doping Rules published by UK Anti-Doping (or its successor), as amended from time to time. Such rules take effect and will be construed as rules of the British Gliding Association. The British Gliding Association also recognises

and adopts the Fédération Aéronautique Internationale (FAI) Anti-Doping Rules and Procedures version 2.1 (or any subsequent amendments). If there is a conflict between the rules of the FAI and the UK Anti-Doping Rules the rules of the FAI will prevail.

#### Additional guidance notes for competitors

- Any substance likely to enhance performance or create an unfair advantage, whether taken intentionally or unintentionally, is forbidden in all gliding competitions. Many prescribed or over-the-counter drugs may also be prohibited.
- Some drugs prescribed for a medical condition, and whose use is necessary for safety reasons, may be permitted. It is the sole responsibility of the pilot to ensure that any drugs prescribed to him/her or purchased by him/her are permitted or that a TUE (therapeutic use exemption) is obtained to cover their use.
- A very small number of top international competitors may be required to take part in Out-of-Competition Testing. They will be informed and advised about this separately.

Links to relevant websites are

- Details of the FAI Anti-Doping Programme - <http://www.fai.org/antidoping/programme>
- FAI Anti-Doping Rules and Procedures - <http://www.fai.org/antidoping/adrp>
- List of Prohibited Substances - [http://www.wada-ama.org/Documents/World\\_Anti-Doping\\_Program/WADP-Prohibited-list/WADA\\_Prohibited\\_List\\_2010\\_EN.pdf](http://www.wada-ama.org/Documents/World_Anti-Doping_Program/WADP-Prohibited-list/WADA_Prohibited_List_2010_EN.pdf)
- Applications for TUE - <http://www.fai.org/antidoping/tue>

## **28. CLOUD FLYING**

Gliders must not enter cloud unless equipped with a serviceable radio operating on 130.4MHz.

Shortly before entering, the pilot must announce their intention on this frequency, and give the following:

- Call sign.
- Altitude above sea level and position with approximate bearing and distance from a feature on the 1:500,000 map. In addition the pilot should give the exact bearing and distance to their next task Turnpoint in degrees true and kilometres.
- Where gliders are approaching or have recently rounded a Turnpoint, the call should be relative to the nearest task Turnpoint.
- If other gliders are present in the same cloud, height information must be exchanged at regular intervals and a minimum vertical separation of at least 500 feet must be maintained, the higher glider having priority.
- On leaving the cloud the pilot must call immediately 'clear of cloud'.
- Transiting gliders must give way to circling gliders.
- Pilots must remain clear of cloud and in full visibility of all gliders in the same thermal when within 10km of any start zone and base airfield reference point.

Failure to comply with the above will be considered dangerous or hazardous flying.

Additionally, pilots must not enter cloud prior to starting even if more than 10km from the start zone reference point of the task group – see start rule 19.5.

## **29. AIRMANSHIP & SAFETY**

- On every competition flight each glider occupant must wear a parachute.
- A glider joining another in a thermal must circle in the same direction.
- Pilots must not fly if ill or suffering from any disability that might endanger the safety of themselves or others.
- Water ballast must not be jettisoned in a manner likely to be detrimental to other competitors.
- The use of Flarm (or compatible proximity warning device) is highly recommended.

## **30. OUTLANDING**

**30.1. 3<sup>rd</sup> Party complaints.** These must all be promptly reported to the Director.

**30.2. Scoring.** For calculation of scoring distance, the glider will be deemed to have landed at the most favourable of the following: –

- The place the glider comes to rest under its own momentum, except that if the landing is on an airfield then the published reference point will apply, or
- The most advantageous Flight Recorder logged point prior to landing, or
- The next Turnpoint, if it is contained within the boundary of the airfield of landing.

**30.3. Reporting.** Pilots outlanding must contact Contest Control by telephone within 1 hour from landing advising Turning points claimed and landing position. A further prompt telephone call is required advising when crew and pilot have met up.

### 31. SECOND ATTEMPT

If after any flight from which a score can be claimed the pilot wishes to make a further attempt, a valid start must be made. This invalidates any previous attempts that day.

### 32. PROTESTS

A competitor wishing to make a protest must do so to the Director, either verbally or in writing. If not satisfied with the Director's response he may, provided it is within 24 hours, make a formal written protest to the Director. If the protest is still not upheld, the Director must request the stewards meet within 24 hours to consider the protest. Stewards must reach a majority agreement before the Director's decision can be varied. Protests concerning scores must be made within 24 hours of the publication of official results for the relevant day, except that if full day and overall results cannot be published by midnight on the last day of the competition, the protest period shall be five days from the circulation of official scores.

A pilot making a formal protest must pay a deposit of £10. If the protest is upheld the deposit will be returned, otherwise it will be paid to a charity of the pilot's choice.

### 33. CONTEST MINIMA

Any day on which at least one glider scores is a contest day, and any competition with at least one contest day is a valid contest.

### 34. LIST OF APPROVED PENALTIES

Type of offence	First offence	Repeat Offence on subsequent day	Repeat offence on further subsequent day
<b>Wrong, late or missing information</b>			
Notification of start time > 30 minutes after start	Warning	10 points	25 points
Declared start time differs from real time >2 minutes	Warning	10 points	25 points
Changing FR without advising the Organisers	10 points	20 points	25 points
FR fix interval set greater than required	Warning	10 points	25 points
Late delivery of FR or other documents > 60 minutes	Warning	10 points	25 points
Late delivery of back-up FR or documents >60 minutes from receipt of request	Warning	10 points	25 points
Missing FR evidence – exceeding 60 seconds, where it cannot be reasonably established that airspace was not infringed or engine not operated	Out-landed at that point	Out-landed at that point	Out-landed at that point

Type of offence	First offence	Repeat Offence on subsequent day	Repeat offence on further subsequent day
<b>Incorrect start and rounding of TP areas</b>			
Cloud flying prior to start	100 points	Day Disqualification – minimum 500 pts.	Disqualification
Starting from within Horizontal Penalty Area	50 points	50 points	50 points
Starting from within Vertical Penalty Volume	4 points/10ft or part	4points/10ft or part	4 points/10ft or part
Exceeding maximum start height in the 2 minutes prior to Starting	1 point /10ft. or part, above start height	1 point /10ft. or part, above start height	1 point /10ft. or part, above start height
Controlled only within a Turnpoint Penalty Area	50 points	50 points	50 points
<b>Dangerous or hazardous flying</b>			
Cloud flying – incorrect radio protocol	Warning	100 points	Day Disqualification - minimum 500 pts.
Cloud flying – within 10km. of any start zone or base airfield reference point.	100 points	Day Disqualification – minimum 500 pts.	Disqualification
Flying outside glider's C of A limits	100 points	Day Disqualification – minimum 500 pts.	Disqualification
Single or multiple penetrations of prohibited airspace simultaneously greater than 200m.horizontally and 100' vertically.	500 points	Day Disqualification – minimum 500 pts.	Disqualification
Single or multiple penetrations of prohibited airspace NOT simultaneously greater than 200m.horizontally and 100' vertically.	50 points	50 points	50 points
Finish and subsequent flying– incorrect landing pattern.	Warning	100 points	Day Disqualification – minimum 500 pts.
Finish and approach to finish – hazardous or prohibited manoeuvre including :-  1) flight below 30' AGL outside the declared airfield perimeter other than an emergency straight-in approach where it is not possible to maintain safe airspeed to maintain the minimum ground clearance or in the event of an out-landing. FR evidence from 500' above airfield elevation will be used to verify any deliberate planning of energy management that leads to flight below the minimum limit. Such proven cases will not be exempt from penalty.  2) any approach that does not describe a descending flight path other than to convert from a straight in approach to a go around or for reasons of flight safety.  3) Flight below 30' inside the airfield perimeter except when on landing approach	100 points	Day Disqualification – minimum 500 pts.	Disqualification

Type of offence	First offence	Repeat Offence on subsequent day	Repeat offence on further subsequent day
Hazardous/dangerous flying recommended by PSC for penalty, if not covered by other penalty	100 points	Day Disqualification	Disqualification
<b>Cheating or falsifying documents</b>			
Falsifying electronic files or paper documents	Disqualification		
Attempt to obtain help for finding lift from non competing glider or aircraft	Day Disqualification – minimum 500 pts.	Disqualification	
Use of any non-approved radio frequency for communication of any sort whilst airborne except with Air Traffic Services, or in emergency	Day Disqualification – minimum 500 pts.	Disqualification	
Prohibited content voice or data transmission (including Flarm device found not to have been set in Stealth mode)	100 points	Day Disqualification – minimum 500 pts.	Disqualification
<b>Other violations</b>			
Glider overweight to class and/or C of A limit	W x 2 points	n x W x 2 points	n x W x 2 points
Positive doping control	see FAI policy	see FAI policy	see FAI policy
Excess wing span when measured with wings supported to match unloaded shape with 0.3cm. allowance. The excess is rounded to the nearest cm.	1 point per cm.	1 point per cm.	1 point per cm.
Self-sustainer engine test running >30 seconds clean running	1point per second	1 point per second	1 point per second
Failure to comply with specific single procedure not covered elsewhere.	25 points	100 points	Day Disqualification – minimum 500 pts.

For scoring purposes disqualified competitors will be deemed not to have flown on the day(s).

All other penalties are applied after scores have been calculated and, except for Dangerous/Hazardous flying infringements and cheating and falsifying documents penalties, will not result in a negative score.

### 35. ENGINE EQUIPPED GLIDERS

Engine equipped gliders must comply with the following procedures:-

**35.1. Launching.** Self-launching gliders must follow the same general climb out pattern as aero towed gliders and shut down their engine in the designated release area at or below the designated release height. If the designated release height at point of shutdown is exceeded by more than 100 feet then any subsequent start will be invalid unless the pilot lands and re-launches correctly.

**35.2. Self-sustainers.** The engine will be run after launching and prior to starting for a single period of not more than 30 seconds when directed by the Competition Organisation to test engine noise monitoring, and/or as required by the pilot to establish engine serviceability. The engine test must be completed by no more than 15 minutes after the start line opening time or 15 minutes after the time of release from tow, whichever is the later.

**35.3. Further operation.** Any other engine operation prior to landing ends competition flying for that day. Self retrieving gliders must return directly to the competition site without delay to minimize the effect on pilots still competing.

### 36. CALCULATION OF SCORES

Scores are calculated each day by awarding the best performer 1,000 points, subject to any devaluation factor, and calculating other competitors' points by comparing their performance to that of the Day Winner.

The overall scores are the sum of all of the day scores.

**36.1 Glider Speed Index (Handicap).** A competitor's performance is adjusted during the scoring process by the gliders Speed Index. Most gliders and their speed index are included in the list at Appendix 1. In Open, 18M, 15M and Standard Class Nationals, a Speed Index of 100 is used for all gliders.

Additional performance enhancements to the standard glider will attract the following increments: –

36.1.1	Span	1 per ½ metre or part thereof
36.1.2	Winglets	1, unless part of the original design or marked with a (w) on the list, the only exception to this being gliders with a span of 21 metres or more prior to modification.
36.1.3	Wing Root Fairings	0.5, unless the modification is manufacturer specified on a later derivative of the same glider design enjoying the same handicap.
36.1.4	Boundary layer control trip tape on wings(excluding de-turbulating resonance composite film)	0.5, unless part of the original design specification or specified on a later derivative of the same glider design with the same handicap.

Use of boundary layer de-turbulating resonance composite film and similar technologies will not be permitted in handicapped competitions. This situation may be reviewed as understanding of the technologies and how it affects performance and certification improves.

**36.2 Windcapping.** In all competitions, an adjustment is made to the distance of each task leg flown, depending on the wind strength (in knots) and direction. For Provisional scores they may be estimated, but for Official scores they must be deduced by assessing the thermal drift from a representative cross section of competitors' Flight Recorder traces.

The wind strength is adjusted by dividing it by a contest dependant wind division factor (see 36.6), but shall not exceed a value of 30.

**36.3 Distances.** In all calculations, the Start Point, Finish Point, and Fixed Course Turnpoints are the published Latitude and Longitude coordinates. For Assigned Area Tasks, the Turn-points are the logged point in each Assigned Area that results in the greatest overall distance.

For Fixed Course tasks, the achieved distance of an uncompleted leg is the length of that leg less the distance between the Out-landing Point and the next Turnpoint, or Goal.

For Assigned Area tasks, the achieved distance of an uncompleted leg is computed as follows: -

- Mark the nearest point on the boundary of the next area from the Out-landing point or the point at which the task time expires
- Use this point to find the scoring point in the previous area that will maximize task distance and record the distance between them.
- This distance, minus the distance between the Out-landing point and the next Area, is the length of the uncompleted leg.

If an uncompleted last leg is less than zero its effect is ignored.

**36.4 Scoring Parameters and Formulae.** The following table lists and explains the key parameters and formulae used in calculating the scores; table 36.5 explains the calculation of the Qualifying Distance and 36.6 lists the contest dependant variables used in scoring. The following table not only defines each variable used in scoring, but also follows the scoring process flow.

	<b>Parameter</b>		<b>Description</b>
<b>36.4.1</b>	<b>W</b>	Contest Wind	<b>W</b> = Wind strength in knots divided by contest wind division factor from table 36.6. If result exceeds 30 then <b>W = 30</b> . See Rule 36.2
<b>36.4.2</b>	<b>H</b>	Glider Speed Index (Handicap)	See Rule 36.1
<b>36.4.3</b>	<b>Hi</b>	Leg Handicap Increment	For each leg:- <b>Hi = 100 * (√(1 - (W ÷ 46)<sup>2</sup> sin<sup>2</sup>θ) - (1 + (W ÷ 46) cosθ))</b> Where 'θ' is the non-reflex relative angle between the track and the direction the wind is coming from.
<b>36.4.4</b>	<b>HI</b>	Leg Wind Adjusted Speed Index	For each leg:- <b>HI = H + Hi</b> If result < 25, then <b>HI = 25</b> For each the leg, the actual distance is adjusted by multiplying by 100 and dividing by <b>HI</b>
<b>36.4.5</b>	<b>Dm</b>	Marking Distance	The total handicapped distance flown by a glider. The sum of <b>((Actual distance flown along each leg * 100) ÷ HI)</b> .
<b>36.4.6</b>	<b>Dmax</b>	Greatest Marking Distance	Greatest marking distance flown by any glider
<b>36.4.7</b>	<b>Dw</b>	Winner's Marking Distance	For Fixed Course Tasks only. The fastest finisher's marking distance or, if no finishers, the greatest marking distance flown by any glider
<b>36.4.8</b>	<b>Dt</b>	AAT Timeout Distance	For AATs only. The Timeout distance <b>Dt</b> is the handicapped distance flown by a glider within the designated task time. The greatest <b>Dt</b> is used in the calculation of day distance points.
<b>36.4.9</b>	<b>Tg</b>	Time taken to complete course	Glider's Finish time minus Start time in hours
<b>36.4.10</b>	<b>Td</b>	AAT Designated Task Time	In hours

		<b>Parameter</b>	<b>Description</b>
<b>36.4.11</b>	<b>Y</b>	Qualifying Distance	For Fixed Course Tasks, <b>Y</b> is an appropriate percentage of either the un-handicapped task length or windicapped task length depending on contest type, as shown in table 36.5. For AATs, <b>Y</b> is calculated by multiplying the Designated Task Time in hours by a contest dependent factor as shown in table 36.5. Minimum and maximum values for <b>Y</b> are also listed in table 36.5
<b>36.4.12</b>	<b>Sh</b>	Finisher's speed	For Fixed Course tasks, a finisher's speed is produced by dividing the Marking Distance, <b>Dm</b> , by the time taken to complete the course <b>Tg</b> . For AATs a finisher's speed is produced by dividing the Marking Distance, <b>Dm</b> , by the greater of (a) the time taken to complete the course <b>Tg</b> (b) the Designated Task Time <b>Td</b> .
<b>36.4.13</b>	<b>Vh</b>	Fastest Finisher's speed	The greatest speed of all finishers. N.B. In AATs the fastest finisher is not necessarily the winner.
<b>36.4.14</b>	<b>N</b>	Number of Participating Gliders	The number of gliders not withdrawn from the contest at the start of launching.
<b>36.4.15</b>	<b>Nl</b>	Number of Gliders launched	The number of participating gliders accepting at least one launch.
<b>36.4.16</b>	<b>Ny</b>	Number Past Y	The number of participating gliders for which <b>Dm</b> is greater than or equal to <b>Y</b>
<b>36.4.17</b>	<b>Nv</b>	Number exceeding $2/3^{\text{rds}}$ Vh	The number of participating gliders that finish with a speed exceeding $2/3^{\text{rds}}$ fastest finisher's speed. i.e. for which <b>Sh</b> > <b>0.6667 * Vh</b>
<b>36.4.18</b>	<b>Ff</b>	Day Factor	The Day Factor <b>Ff</b> is calculated by dividing the number of gliders exceeding <b>Y</b> by the number of participating gliders and multiplying by 1.25, thus if 80% or more of the gliders pass Y, Ff will be 1.  <b>Ff = 1.25 * (Ny ÷ N)</b> If result greater than 1, then <b>Ff = 1</b>
<b>36.4.19</b>	<b>D</b>	Devaluation Distance	For Fixed course tasks, <b>D = Dw</b> For AATs, <b>D = Greatest Dt</b>
<b>36.4.20</b>	<b>Da</b>	Devaluation Distance Adjustment	<b>Da = 250</b> for Nationals, <b>0</b> for Regionals and Junior Championships (see table 36.6)
<b>36.4.21</b>	<b>T</b>	Devaluation Time (for tasks with a finisher)	For Fixed course tasks, <b>T = winner's Tg</b> For AATs, <b>T = Td</b>
<b>36.4.22</b>	<b>Ta</b>	Devaluation Time Adjustment	<b>Ta = 200</b> for Nationals, <b>0</b> for Regionals and Junior Championships (see table 36.6)

	<b>Parameter</b>	<b>Description</b>
<b>36.4.23</b>	<b>F</b> Day Points	<b>F</b> is the minimum value from (a) <b>Ff * 1000</b> (b) <b>Ff * ((5 * D) – Da)</b> (c) <b>Ff * ((400 * T) – Ta)</b> (for tasks with a finisher) (d) <b>0</b> if task distance is less than contest minimum task length (see table 36.6)
<b>36.4.24</b>	<b>Fv</b> Day Speed Points	The proportion of Day Points awarded for speed depends on the proportion of gliders that complete the course in excess of 2/3 <sup>rds</sup> of the fastest finisher's speed, to the number of gliders launched. It falls linearly from 66.67%, when all gliders complete at sufficient speed, to zero with no finishers. <b>Fv = 0.6667 * F * (Nv ÷ NI)</b>
<b>36.4.25</b>	<b>Fd</b> Day Distance Points	<b>Fd = F – Fv</b>
<b>36.4.26</b>	<b>Ps</b> Glider Speed Points	The speed points gained are proportional to the amount by which a finisher's speed exceeds 2/3 <sup>rds</sup> of the fastest speed. <b>Ps = 3 * Fv * ((Sh ÷ Vh) – 0.6667)</b> If the result is less than zero then <b>Ps = 0</b>
<b>36.4.27</b>	<b>Pd</b> Glider Distance Points	For Fixed Course Tasks: All finishers receive the same distance points as the winner so in this case: <b>Pd = Fd</b> Non-finishers receive the Day Distance Points multiplied by the ratio of their marking distance to the greatest marking distance: <b>Pd = Fd * (Dm ÷ Dmax)</b> For AATs Finishers exceeding 2/3 <sup>rds</sup> of the greatest marking distance receive the same distance points as the winner so in this case: <b>Pd = Fd</b> The remainder receive the Day Distance Points multiplied by the ratio of their marking distance to 2/3 <sup>rds</sup> of the greatest marking distance: <b>Pd = Fd * Dm ÷ (Dmax * 0.6667)</b> For non-finishers <b>Pd = Fd * (Dm ÷ Dmax)</b>
<b>36.4.28</b>	<b>P</b> Glider Points	<b>P = Ps + Pd</b> (sum is rounded to nearest integer, 0-5 rounded up)

### 36.5 Qualifying Distance

	<b>Fixed Course</b> Y = %age of task length	<b>AAT</b> Y = Time in hrs multiplied by	<b>Minimum Y</b> (km)	<b>Maximum Y</b> (km)
<b>Open Nationals</b>	50% Wind adjusted	40	100	200
<b>18m and 15m Nationals</b>	50% Wind adjusted	36	90	180

<b>Standard and Club Nationals Overseas Handicapped Championships</b>	50% Wind adjusted	32	80	160
<b>Junior Championships and Regionals</b>	40% Un-handicapped	30	60	120

### 36.6 Contest Dependent Variables

	Task Minima (See 36.4.25)		Contest Wind Division Factor (See 36.4.1)	Devaluation Adjustment (see 36.4.20, 36.4.22)	
	Fixed Course Task Length (km)	AAT Designated Task Time (hrs)		Distance Da =	Time Ta =
<b>Open Nationals</b>	150	2.0	1.18	250	200
<b>18m Nationals</b>	150	2.0	1.10	250	200
<b>15m Nationals</b>	150	2.0	1.04	250	200
<b>Standard Nationals</b>	150	2.0	1.00	250	200
<b>Club Nationals</b>	120	2.0	1.00	250	200
<b>Handicapped Nationals</b>	150	2.0	1.00	250	200
<b>Junior and Regional Championships</b>	80	2.0	1.00	0	0

### 37. PUBLICATION OF SCORES.

Provisional day scores should be published as soon as possible. Day score sheets must contain each competitor's position, day points, name, glider type, glider identity, start time, finish/elapsed time, actual speed/distance flown and, for handicapped competitions, glider handicap. Official day scores, including description of any penalties or warnings, should be available at the first task briefing on the following day. If there are no protests or requirements for additional evidence these scores become final 24 hours after publication. Otherwise scores become final 24 hours after the determination of any protest or alteration in the light of additional evidence, and publication of amended scores. Final day scores should be published as soon as practicable and duplicated so that each pilot can retain a copy.

Copies of the last day scores must be available within 5 working days (Organisers should consider using the BGA's or their own Web site) and the final competition scores must be distributed to competitors within 10 days from the end of the competition. If these are subject to protests and amendments, the final results or amendments thereto, must likewise be distributed to competitors within a further 12 days, i.e. within 22 days from the end of the competition.

All hors-concours pilots and any pilots who are not of British nationality, nor principally resident in the UK and subject to the payment of British taxes, must be annotated on entry and result sheet.

### 38. RATING LIST.

The **Rating List** ranks pilots for entry into oversubscribed National competitions. It is calculated from performances in BGA rated competitions and International Championships held during the previous twelve month period ending September 30<sup>th</sup> together with devalued ratings from the

previous year's list. Performances in foreign competitions will be considered provided pilots apply to the BGA with a list of results prior to September 30<sup>th</sup>.

**38.1. Competition Rating.** This is derived by adjusting the **Base Rating** for the type of competition, from the following table, by the number and perceived quality of entrants. The **Base Rating** and **Standard Entry** for foreign competitions will be determined individually by the Competitions Committee based on their perceived individual merit.

**Comp Rating = Base Rating + (No. of Competitors – Std Entry) x ½ + Pundits x 10**, where **Pundits = No. of competitors with current Rating Score greater than the Comp Base Rating**. For non-UK competitions **Pundits = zero**.

Type of Competition	Base Rating	Std Entry
UK National Championships, except the Junior Nationals	1000	45
UK Overseas Handicapped Championships	950	30
UK Regionals and Junior Championships	750	15
World Championships except the Women's and Junior	1400	25
European Championships - except the Women's and Junior	1300	25
Other International Championships	1000	25

**38.2. Rating Score.** A competition winner receives a **Rating Score** equal to the **Competition Rating**. Other participants' **Rating Score** is calculated using the **Competition Rating**, their final position and their points score relative to the winner. All pilots receive a **Rating Score** for every competition entered during the twelve month period plus one calculated by deducting 250 from the previous year's highest **Rating Score**. Pilots' positions on the **Rating List** depend on their highest **Rating Scores**.

**Rating Score = Comp Rating - 475 x (Pilot Position – 1) ÷ (No. of Competitors – 1)**  
**- 475 x MIN((Winner's Points – Pilot's Points) ÷ (0.6 x Winner's Points), 1)**

If **Rating Score < minus 200** then **Rating Score = minus 200**

**38.3. Team Entries.** When more than one pilot during a competition acts as pilot in a single seat aircraft or in the case of a two-seater when more than one pilot qualifies as registered pilot, only the pilot who earns the greatest proportion of the winner's points on the days flown receives a **Rating Score** calculated from glider's final competition position and the total points score.

**38.4. Ties.** These are resolved in favour of the pilot with the highest percentage of the winner's points in their **Rating Score** competition.

## 39. INTERNATIONAL TEAM SELECTION

**39.1. Timing.** Selection procedures are carried out at the end of the UK competition season prior to any International Championship and Pre-Worlds for all Northern Hemisphere competitions. For competitions in the Southern Hemisphere, the World Championship team selection is carried out prior to the Pre-World competition.

**39.2. Qualifications.** The Sporting Code requires that competitors in International Championships meet all the following criteria: –

- Satisfy the FAI Sporting Code General Section 3.7 regarding citizenship and representation.
- 250 total hours pilot in command, of which at least 100 hours is in sailplanes.

- Hold a current FAI Sporting Licence.
- Have competed in two National Championships – not applicable for Junior Championships.
- Junior competitors must not have a 25th birthday prior to the 1st January in the year that the Championship commences.

### 39.3. World Championships (unrestricted)

**39.3.1 Open, 18 metre, 15 metre, Standard and Club Class.** 2 competitors are selected by vote for each class from a voting panel, all being eligible for selection with any World Champion from the previous event in class also selected. The voting panels consist of all pilots who have achieved a placing in the top 50% rounded to the nearest place, of the appropriate preceding two UK National Championships in class plus any other pilots in the class team squad.

Where places are limited per National aero club at a particular event site resulting in the potential of one or more of the selected pilots losing their starting rights, priority will be given to the first choice pilots in class and then, where possible, to remaining second choice pilots based on their position in the IGC pilot ranking list on the date specified for final entry submission.

Without exception, team selection and entry authorisation will be based solely upon perceived ranked pilot ability as defined using the procedures in 39.3, irrespective of opportunity that may be provided by wild card rules of IGC.

**39.3.2 Class Team Squad.** After the World Championship is completed, a new class team squad is formed consisting of the selected participants in class of the just completed unrestricted World Championship plus those selected participants from the previous unrestricted World Championship in class. The squad is then subsequently enlarged to include the top three placed pilots in the two Nationals in class held prior to the team vote as well as participants in class that achieve a top 40% position rounded to the nearest place in the European Championship prior to the team vote. Pilots are deleted from the squad prior to voting if they have not achieved a top 50% placing rounded to the nearest place in at least one of the last three Nationals in class preceding the vote. The identification of class squad members is intended to aid BGA marketing projects and to help target pre-event training opportunities.

#### 39.3.3 Pilot Options

Current Champions must defend their title and although they may vote, they will be removed from any further selection options for concurrent events. All other pilots eligible for entry in more than one class may choose which class they wish to compete in.

Priority for choice of class is determined by vote order. In all cases where there is an option, pilots must make their preferences known within two weeks of notification of the vote result.

### 39.4. European Championships

**39.4.1 Open, 18 metre, 15 metre, Standard and Club Class.** Competitors may only compete in the class from which they qualify, with priority for the team of two per class determined by the criteria below in order:-

Current European Champion in class will also be selected in addition.

- Current National Champion
- Current European silver and bronze medal holders
- Current World Championship gold, silver and bronze medal holders
- Current National second and third place holders
- Next most recent National first, second and third place finishers
- Most recent World team vote priority order

### 39.4.2 Pilot Options

Current European Champions must defend their title. All other pilots eligible for entry in more than one class may choose which class they wish to compete in.

In all cases where there is an option, pilots must make their preferences known within two weeks of notification of “eligibility for entry”.

**39.5. Junior World Championships.** Pilots are ranked by a voting panel consisting of all pilots who have achieved a top 20 place in either of the preceding two UK Junior Championships. Up to 6 pilots may be selected. To be eligible for possible selection, pilots must be a member of the voting panel and have additionally competed fully in a senior UK National Championship in any class within the last two years.

**39.6. Women’s World Championships.** Up to 6 competitors are selected by the following criteria in order:-

- Medal winners from the preceding two Women’s World Championships.
- Top 40% (rounded to the nearest place) position in a UK National Championship in the preceding two years.
- Subject to the Team Coaches endorsement and Competition Committee approval, positions below the top 40% in a UK National Championships in the preceding two years but subject to having competed in a UK National Championships in the preceding two years.

Class choice is determined by the priority order with the highest placed medal winner having first choice through to the lowest percentage placed UK Nationals place having last choice.

**39.7. World Class.** At present there is insufficient UK interest for this class to be supported.

**39.8. Commitment Fee.** All pilots selected, may, at the discretion of the team manager, be required to pay the BGA a sum equalling the competition entry fee or £1,000 whichever is the least. This fee to be reimbursed to pilots prior to the event starting. Any pilot subsequently withdrawing without a satisfactory replacement being found or allowed to compete will forfeit their Commitment Fee.

**39.9. Voting System.** This appears convoluted but minimises the effect of tactical voting. For the result to be accepted, at least 50% of the voting panel must return a valid vote.

**39.9.1 Valid vote** is one where all available places on the ballot paper have been completed with different eligible pilot names which do not include that of the voter.

### 39.9.2 Procedure.

**Step 1.** Delete from all ballot papers the name of anyone who has not submitted a valid vote.

**Step 2.** Delete any already selected pilot from all ballot papers. Make separate piles of ballot papers for each pilot who now heads the list on any of them.

**Step 3.** Action the following options as applicable until the required list of pilots is achieved.

**Option 1.** A pilot heading the list on more than 50% of votes is selected. Go to **Step 2**.

**Option 2.** With no pilot having an overall majority but there are two clear leaders, the one placed above the other on the majority of ballot papers is selected. Go to **Step 2**.

**Option 3.** With a tie(s) preventing there being two clear leaders, all ballot papers are re-allocated between the tied pilots in favour of the highest placed on each list. The pilot with the least votes is eliminated. This process is repeated until only one of the tied pilots remains. If this results in a single pilot remaining, he/she is selected, if there are two, repeat the procedure to select one. Go to **Step 2**.

**Tie-breaking.** If **Option 2** produces a tie or **Option 3** fails to resolve one, then the pilot placed higher on the current BGA Rating List predominates.

**APPENDIX 1. GLIDER SPEED INDICES**

AC-4C	85	DG202 (15m)	97
Acro Twin 2	85	DG202 (17m)	101
Acro Twin 3	89	DG300 club (retractable)	95
Antares (18m)	111	DG300	96
Antares (20m)	114	DG300 (w)	97
ASG29 (15m)	104	DG303	97
ASG29 (18m)	111	DG400 (15m)	97
ASH25	114	DG400 (17m)	101
ASH25 (25.6m)	115	DG500/505 trainer (fixed gear)	90
ASH25 (26m)	115	DG500/505 trainer (retractable)	92
ASH25B(27m)	116	DG500/505 Orion (20m)	98
ASH26	110	DG500/505 (20m) flapped	100
ASK13	67	DG500/505 (22m)	104
ASK14	72	DG600 (17m)	105
ASK16	60	DG600 (15m)	99
ASK21	85	DG600 (15m-w)	100
ASK23	85	DG600 (18m)	107
Astir CS	89	DG800 (18m)	110
Astir Jeans	86	DG800 (15m-w)	103
ASW12	105	DG1000 (20m)	102
ASW15	89	DG1000 (18)	96
ASW17	106	DG1000 (18) (fixed gear)	94
ASW19a,b	93	Diamant 18	100
ASW19club	90	Diamant (16.5m)	89
ASW20	98	Discus	98
ASW20b,c	100	Discus (w)	99
ASW20bl,cl	103	Discus 2 , 2 (w) & 2c (15m)	100
ASW20f	98	Discus 2c (18m)	106
ASW20FL	101	Duo Discus	101
ASW20L	101	Duo Discus (w)	102
ASW22 (24m)	115	Duo Discus X	102
ASW22b	117	Eagle	68
ASW22bl	118	Fauvette	74
ASW24	97	FK3	89
ASW24 (w)	98	Foka 4	81
ASW27a,b	104	Foka 5	83
ASW28	100	Glasflugel 304	99
ASW28-18 (15m)	100	Glasflugel 604	107
ASW28-18 (18m)	106	Grob 102	85
Bergfalke 4	69	Grob 109b	70
Bergfalke	65	Grunau Baby	55
BG135	74	Hornet	90
Blanik	65	Iris	80
Bocian	65	IS28b	80
Calif A21	100	IS29d	83
Capstan	62	IS32	101
Cirrus (17.7m)	94	Jantar 1	105
Cirrus (18.8m)	96	Jantar 2	106
Club Libelle	86	Janus a,b	96
Cobra 15	85	Janus c (fixed gear)	98
Dart 15	76	Janus c (retractable)	100
Dart 17r	83	Jaskolka	69
DG300 club (fixed)	93	JS1a,b	111
DG100/101	90	JP15-36a	87
DG100/101 (fixed)	88	K-18	81
DG200	97	K-2	64

K-6cr	76	Pik20	96
K-6e	81	Pilatus B4 (fixed gear)	80
K-7	64	Pilatus B4 (retractable)	82
K-8	69	Pirat	78
Kestrel 19	102	Prefect	56
Kestrel 20	104	Puchacz	80
Kestrel 22	107	PW 5	81
KH1	87	Salto (15.5m-w)	87
Kite 2a	60	SB 5a,b,c	81
Kranich	58	SB 5e (16.5m)	83
Lak12	105	SD 3/15	81
Lak17a (15m)	103	SF 26	69
Lak17a (15m-w)	104	SF 27a	82
Lak17a (18m)	110	SF 27b	83
Lak 19 (15m-w)	100	SFH 34	85
Lak 19 (18m)	106	SHK-1	89
Libelle 301	96	Sie3	81
LS1 (0,c,d)	88	Silene	88
LS1-0 (fixed)	85	Sky	67
LS1f	91	Skylark 2	67
LS3 (15m)	98	Skylark 3	77
LS3 (17m)	102	Skylark 4	78
LS4	96	Speed Astir	96
LS6 (15m)	101	Sport Vega	89
LS6 (15m-w)	102	SPS 31	64
LS6c (17.5m)	106	Std Jantar	92
LS6c (18m)	107	Std. Cirrus	90
LS7	97	Std. Cirrus (16m)	92
LS7 (w)	98	Std. Libelle	89
LS8 (15m)	100	Stemme S10	104
LS8-18 (18m)	106	Super Blanik	72
L-Spatz	72	Superfalke	64
M 100S	72	Swallow	62
M 200	74	SZD 59	92
Marianne	91	SZD 30	78
Meise	62	SZD 50	80
Mini Nimbus	98	SZD 51 Junior	83
Mistral c (fixed)	88	SZD 55	98
Mosquito a,b	98	SZD 56	103
Moswey 3	69	T21	50
Moswey 4	72	T53	69
Mucha Std	65	Tandem Falke	60
Nimbus 3 (25.5m)	116	Torva	83
Nimbus 2,b,c	106	Twin Astir	87
Nimbus 2cs (23.5m)	111	Vega (17m)	101
Nimbus 3 (24.5m)	115	Vega (15m)	97
Nimbus 3d	114	Ventus a,b (16.6m)	104
Nimbus 3d (25.5m)	115	Ventus a,b,c (15m)	101
Nimbus 4	118	Ventus c (17.6m)	106
Nimbus 4d	116	Ventus 2a,b,ax	104
Oly 403	76	Ventus 2c,cx,cxa (15m)	104
Oly 463	76	Ventus 2c,cx (18m)	110
Olympia 2	62	Ventus 2cxa (18m)	111
Olympia 419	78	Viking	85
Pegasus Club (fixed gear)	92	Weihe	67
Pegasus	95	WA28	86
Phoebus 17	93	Zugvogel 3b	83

- 118 ASW22bl, Nimbus 4
- 117 ASW22b
- 116 Nimbus 3 (25.5m), ASH25b (27m), Nimbus 4d
- 115 ASH25 (25.6m), ASH25 (26m), Nimbus 3, (24.5m), ASW22 (24m), Nimbus 3d (25.5m)
- 114 ASH25, Nimbus 3d Antares(20m)
- 111 Nimbus2cs (23.5m) , ASG29 (18m), JS1a,b, Antares (18m), Ventus2cxa(18m)
- 110 ASH26 Ventus2c, cx (18m), Lak 17a (18m), DG 800 (18m),
- 107 LS 6c (18m), DG 600 (18m), Glasflugel 604, Kestrel 22
- 106 Nimbus 2, b, c, ASW17, LS8-18 (18m), LS 6c (17.5m), Ventus c (17.6m), Jantar 2, Lak 19 (18m), ASW28-18 (18m), Discus 2c (18m)
- 105 DG 600 (17m), Jantar 1, Kestrel 20, ASW12, Lak 12
- 104 ASW27a,b, ASG29 (15m), Ventus2 a,b,ax, Ventus2c,cx,cxa (15m), Lak 17a (15m-w), Ventus a, b (16.6m), Kestrel 20, DG 500/505 (22m), Stemme S10
- 103 SZD 56, DG 800 (15m-w), Lak 17a (15m), ASW20bl, cl,
- 102 Duo Discus X, Duo Discus (w) LS 3 (17m), LS 6 (15m-w), Kestrel 19, DG1000 (20m)
- 101 Duo Discus ,LS 6 (15m), Ventus a,b,c (15m), IS 32, ASW20L, ASW20FL, Vega L (17m), DG 400 (17m), DG 202 (17m),
- 100 Discus 2, 2 (w) & 2c (15m), LS 8 (15m), ASW28, ASW28-18 (15m), ASW20b, c, DG 600 (15m-w), Lak 19 (15m-w), DG 500/505 (20m) (flapped), Calif A21, Diamant 18, Janus, c (retractable)
- 99 Glasflugel 304, Discus(w), DG 600 (15m)
- 98 Discus, ASW24 (w), LS7 (w), SZD 55, Mosquito a,b, ASW20, ASW20f, Mini Nimbus, LS 3 (15m), Kestrel (17m), Janus c, (fixed), DG 500/505, Orion (20m)
- 97 DG 200, DG 202 (15m), Vega (15m), DG 400 (15m), ASW24, LS 7, DG303, DG300 (w)
- 96 LS 4, DG 300, Libelle 301, Pik 20, Speed Astir, Cirrus (18.8m), Janus a,b, DG 1000 (18m)
- 95 Pegasus, DG 300 Club (retractable)
- 94 Cirrus (17.7m), DG 1000 (18m, fixed)
- 93 ASW19 a,b, DG 300 Club (fixed), Phoebus 17
- 92 Std Jantar, Pegasus Club (fixed), SZD 59, Std. Cirrus (16m), DG 500/505 trainer (retractable)
- 91 LS1f, Marianne
- 90 DG 100/101, Std. Cirrus, Hornet, ASW19 club, DG 500/505 trainer (fixed)
- 89 ASW15, Std. Libelle, SHK-1, Astir CS, Acro Twin 3, Diamant (16.5m), FK3, Sport Vega,
- 88 LS1 (0,c,d), Silene, Mistral c(fixed), DG100/101 (fixed)
- 87 JP15-36a, KH1, Twin Astir, Salto (15.5m-w)
- 86 Astir Jeans, Club Libelle, WA28
- 85 Acro Twin 2, ASK 21, ASK 23, Cobra 15, SFH 34, Viking, AC-4C, Grob 102, LS 1-0(fixed)
- 83 Dart 17r, Foka 5, IS29d, SB 5e(16.5m), Torva, Zugvogel 3b, SZD 51, Junior, SF 27b
- 82 SF 27a, Pilatus B4 (retractable)
- 81 Foka 4, K-6e, SB5a, b, c, SD3/15, Sie3, PW5, K-18
- 80 Pilatus B4 (fixed), Iris, IS28b, SZD50, Puchacz
- 78 SZD 30, Pirat, Skylark 4, Olympia 419
- 77 Skylark 3
- 76 K-6cr, Dart 15, Oly 403, Oly 463
- 74 BG135, Fauvette, M200
- 72 ASK14, L-Spatz, M100S, Moswey 4, Super Blanik
- 70 Grob 109b
- 69 Bergfalke 4, Jaskolka, Ka8, Moswey 3, SF26, T53
- 68 Eagle
- 67 ASK13, Sky, Skylark, 2, Weihe
- 65 Bergfalke, Blanik, Bocian, Mucha Std.
- 64 Superfalke, K-2, K-7, SPS31
- 62 Capstan, Meise, Olympia 2, Swallow
- 60 ASK16, Kite 2a, RF-5b, Tandem Falke
- 58 Kranich, Mu13
- 56 Prefect
- 55 Grunau Baby
- 50 T21
- 46 Falke

## **APPENDIX 2. HEIGHT VERIFICATION PROCEDURE**

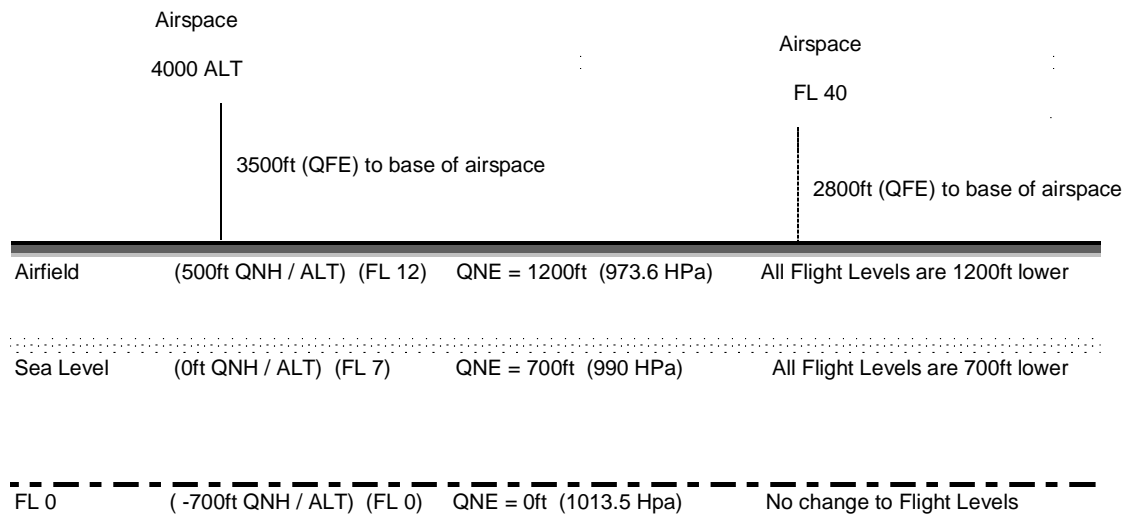
**For checking for vertical infringement in airspace designated by flight level (eg. FL45),** the day QNE altitude (height of the base airfield in relation to forecast 1013.25 HPa pressure level) will be derived and noted on the task sheets and must not be subsequently changed unless a new task sheet is produced and the change is briefed. Any verification software will use the logged take-off height and correct all the recorded heights by the offset between QNE altitude and logged take-off height. If an airspace infringement is indicated then the pilot must submit a valid calibration chart within the protest period to avoid an additional admin penalty in accordance with Section 34. For the purpose of any calibration corrections, the documented error at the 1013.25 HPa pressure altitude must be added or subtracted as appropriate to all readings within the calibration to correct the chart to suit the verification procedure. In any case, the calibration record will be used to reduce, eliminate or increase the airspace penalty as appropriate.

**For checking for vertical infringement in airspace designated by flight altitude above sea level (eg. 3500ALT),** any verification software will correct all logged readings by the offset of documented airfield altitude from logged take-off height. If an airspace infringement is indicated then the pilot must submit a valid calibration chart within the protest period to avoid an additional admin penalty in accordance with Section 34. Any adjustment required by reference to the calibration chart is deduced by identifying the difference in error between calibrated chart reading closest to airfield height compared to that closest to height of infringement. In any case, the calibration will be used to reduce, eliminate or increase the airspace penalty as appropriate.

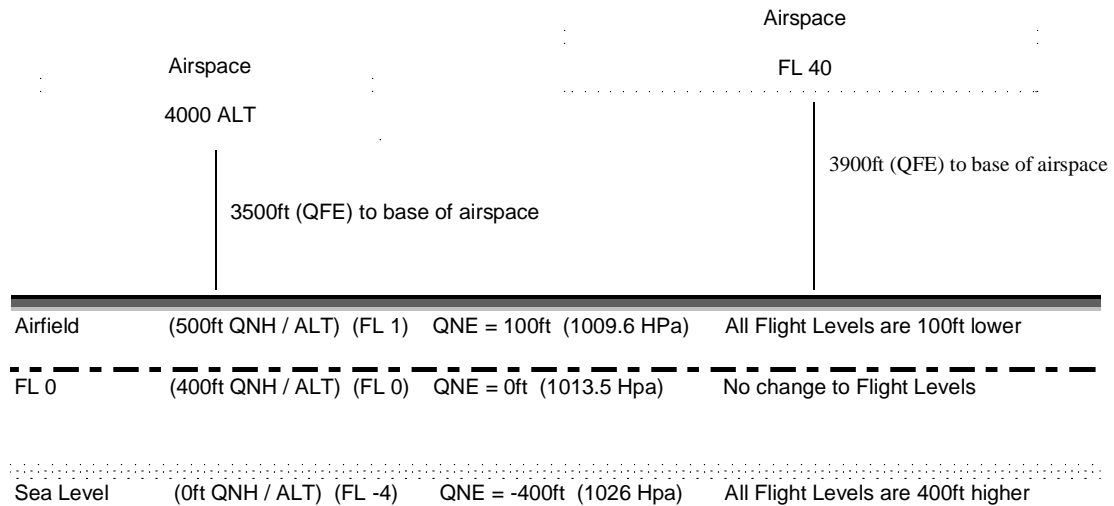
**For checking for vertical infringement of start height above airfield elevation (eg. 4000ft QFE) or during the pre-start interval,** any verification software will correct all logged readings by the offset of documented airfield altitude from logged take-off height. If an infringement is indicated then the pilot may submit a valid calibration chart within the protest period. Any adjustment required by reference to the calibration chart is deduced by identifying the difference in error between calibrated chart reading closest to airfield height compared to that closest to height of infringement. In any case, the calibration will be used to reduce, eliminate or increase the airspace penalty as appropriate.

**APPENDIX 3. EXPLANATION OF HEIGHT REFERENCE**

**Example 1 : Low Pressure day - Pressure at Sea Level = 990 HPa**



**Example 2 : High Pressure day - Pressure at Sea Level = 1026 HPa**



1 HPa (mb) pressure change = 30 feet approx.  
 FL0 = 1013.25 HPa (standard Sea Level pressure)

- QFE : Height in feet above the airfield
- QNH : Height in feet above Sea Level – same value as ALT
- QNE : Height in feet above 1013.25 HPa (standard Sea Level pressure)
- ALT : Height in feet of airspace above Sea Level – same value as QNH
- FL : Height of “Flight Level” airspace above 1013.25 HPa measured in hundreds of feet e.g. FL45 = 4500 ft
- AGL : Height in feet of airspace Above Ground Level