

# The 2008 Rules for BGA Rated Competitions

**Revision 1**

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## FOREWORD

### Welcome to the 2008 Revision 1 edition of the Rules for BGA Rated Competitions.

The only changes in this revision from the previously released 26<sup>th</sup> March 2008 version are the addition of WA28 handicap and the inclusion of the rating system text which leaves the system unchanged compared to 2007 except that now both placing and points score (with a 50/50 weighting) are now used to determine pilot rating score at a particular competition.

The following changes have been made to the 2007 edition.

- Following a further year of feedback following the revised finishing rules designed to further ensure safety for persons and property outside the airfield boundary, a number of small changes have been made to procedures. The option to set a minimum height for go around has been removed. This option was intended to separate slower direct landing pilots with pilots with excess energy needing to go around. However, it is apparent that the option could in some instances prove more hazardous than the perceived benefit. The definition of being dangerously and unnecessarily low when not in the process of landing, currently set at 30 feet, has also been extended to include inside the airfield boundary as well as outside it.
- Reference to the 20 metre Class Two-Seater Championship has been added in all appropriate sections.
- The UK Nationals Club Class definition has been enlarged to include all gliders of BGA handicap of 98 and below prior to performance enhancement handicap additions, and any glider on the current IGC Club Class handicap list.
- The handicap increments and application of such for gliders fitted with additional performance enhancements has been amended.
- Previously disallowed by the rules, pilots may now exceptionally use radio not only to obtain permission to enter an ATZ but also to make courtesy position calls when near sensitive airspace boundaries or in emergency.
- There is now effectively a buffer within the vertical penalty start volume as there is now no penalty for starting between 0 and 100ft over the prescribed maximum start height. Penalties still apply within the vertical penalty start volume but they apply from 100-250ft only and are listed in Section 34.
- The rating value for competitions and procedure to compile a rating list of all competitors from this seasons events is currently being revised and will be confirmed in a later revision of the rules.
- A specific height verification procedure for flight recorder data has been included that requires the organiser to issue a daily QNE altitude(height of airfield above 1013.25 HPa pressure altitude). The procedure defines and standardises the method that will be adopted to interpret flight recorder evidence.
- An administration penalty has been introduced where a valid flight recorder calibration chart cannot be provided in the event that flight recorder log shows an airspace infringement when checked in accordance with the defined procedure.

The following significant changes were made to the 2006 edition.

- It became a requirement to have the finish line so positioned to ensure that the inbound track from the last turn point or suitable control point is no more than 30 degrees to the perpendicular, takes into account conflict with any person, vehicle or structure on the approach and maximises the direct landing area beyond.

- It was made a requirement to show evidence of third party insurance and FAI licence on registration at contest site.
- Section 39 (International team selection) was re-written to remove ambiguity and a requirement for voting transparency was added.
- In cases of damage to aircraft, it was made acceptable to replace damaged outer panels and winglets with either stubs or lower span parts provided that it is within the C of A and the original handicap will apply.
- Despite the rule changes with respect to safety of persons outside the airfield boundary made in 2006, the CAA agreed with recent AAIB findings that gliders in competitions flying low level approaches that are deemed not in accordance with “normal aviation practise”, as required by the Rules of the Air Rule 5 (low flying rule), pose a danger to the public. Specifically, the CAA concern remained about flight prior to the finish where pilots were seen in the past to fly at very low level, often parallel to the ground, sometimes adjusting altitude to maintain minimal margin over intervening obstructions in such a way as to limit a pilot’s view of any people, vehicles or structures close to or in their path. To ensure that these concerns are addressed, the definitions and penalties with regard to dangerous/hazardous flying on approach to the finish line and prior to landing were refined in the 2007 handbook. Pilots were asked additionally to ensure that they are fully 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).
- Section 36 (Calculation of Scores) was re-written to follow the pattern of the scoring process so as to be easier to understand. The minimum designated task time for AAT was reduced to 2 hours for all competitions including Nationals and the minimum fixed course task length in the Club Class Nationals was reduced to 120km.
- Handicaps were defined or amended for the following glider types – Nimbus 2cs (23.5m), ASG29 (18m), ASG29 (15m), Duo Discus X, Duo Discus (w), Duo Discus, DG1000 (20m), DG300 (w), DG303, DG100/101 (fixed) and Grob 109b. The wing span that gliders must now have to become exempt from the after market winglet handicap was increased to 21m.
- It became possible for pilots to specify at registration a replacement glider that they may use over one pre-defined period of the competition.
- It became no longer required to download IGC files from loggers in the presence of another competitor or official provided it is in secure format.
- Competitors were required to be reminded in the local rules that they must be aware of and fly within the requirements of Rules of the Air Rule 5 (low flying rule) and CAP393 ANO Article 74 (reckless or negligent endangerment of any person or property)

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  
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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. Nationals, Overseas and 20m Two-seater Championship.** 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, 20m two seater 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 Competitions 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, 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 procedure to be used, start point co-ordinates and details of finish lines and control points. 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.

## 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.

**8.2. On site.** Prior to flying, competitors must attend registration, show evidence of appropriate glider third party insurance and FAI competition licence, and produce their logger(s) for identification. 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 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 identification as large as practicable in a contrasting colour on 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. Markings.** The only ones allowed without specific Competition Committee approval are, registered BGA competition markings, BGA trigraphs, and appropriate Airworthiness Authority issued registrations.

## 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 and 20 metre Two seater 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. 20 Metre Two seater Championship.** The event will be un-handicapped, the glider used must have span not exceeding 20 metres and two people must be on board at all times. The primary registered pilot must be regarded as of higher proficiency than the registered second pilot/passenger. In all cases, the pilot and second pilot/passenger must be declared and recorded each day.

**10.5. 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. For 2008, a variable, achieved speed handicap system will again be trialed as used in 2007.

**10.6. 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.

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

**10.8. 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 10.7.

## 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.
- 20 metre Two-seater Class – 750 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 and competition officials 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)
- 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 aerotow, 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.

- 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 Regionals 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 store position records at not greater than 60 second intervals except for engine enabled gliders where the maximum interval is 10 seconds.

**18.6. Calibration.** A calibration chart from a test carried out within the preceding 5 years must be available to the Organisation. An administration penalty will be applied in the event that a valid calibration chart cannot be produced within the protest period should a flight log provisionally show an airspace infringement.

**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.

## 19. STARTING

### 19.1. Start Zone types.

**19.1.1. Semi-circle.** This is formed by a 6 km radius from the Start Point orientated opposite to the direction of the first turning point and is shown, surrounded by a further  $\frac{1}{2}$  km horizontal and 250 feet vertical penalty start volume, figure 1. Starts outside these areas are uncontrolled.

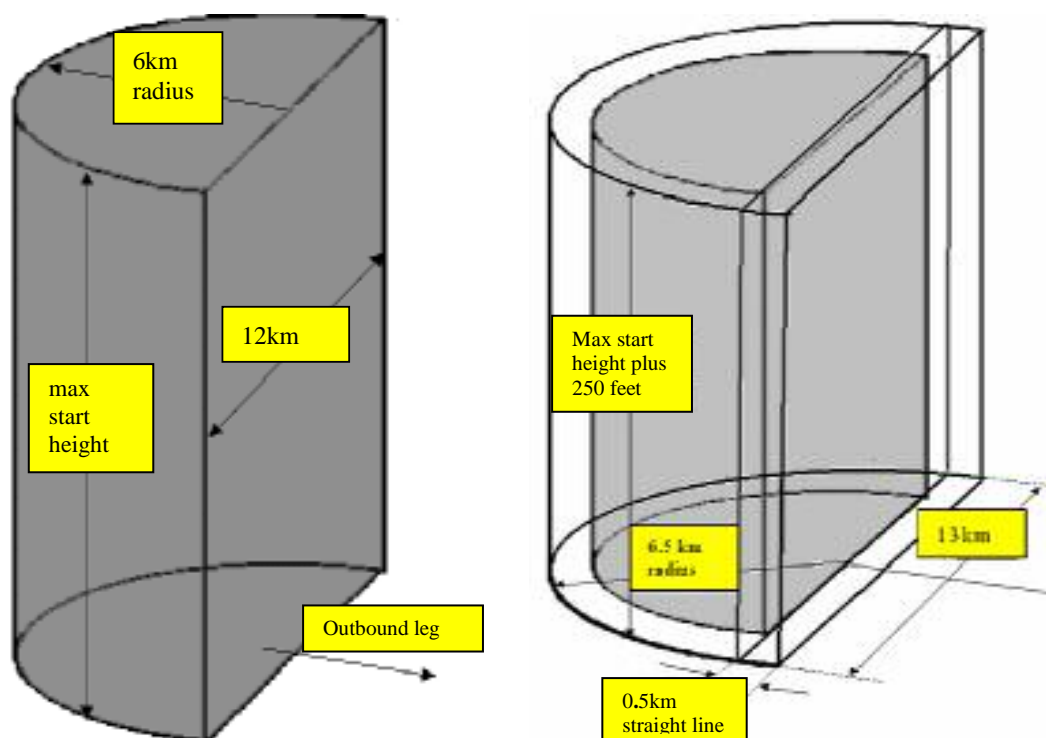


Figure 1

**19.1.2. Multiple Cylinders.** These are of  $\frac{1}{2}$  kilometre radius and each pilot will be allocated a minimum of two per day. Notification will be confidential, although pilots may disclose their details. Ideally, no more than 6 pilots will be allocated the same group of start cylinders and it is preferable if one is close to the airfield. Pilots are free to choose from which of their allocated cylinders they start or restart. Penalty volumes similar to 19.1.1 apply.

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

**19.3. Start height.** The start height should be the maximum taking into account soaring conditions, cloud base, and airspace. 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 start height exceeds 3,000 feet, after the last competitor in that task group has had the option to launch.

**19.5. 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 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.

**19.6. 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 two 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 turning points. Turning points must be rounded 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 kms.

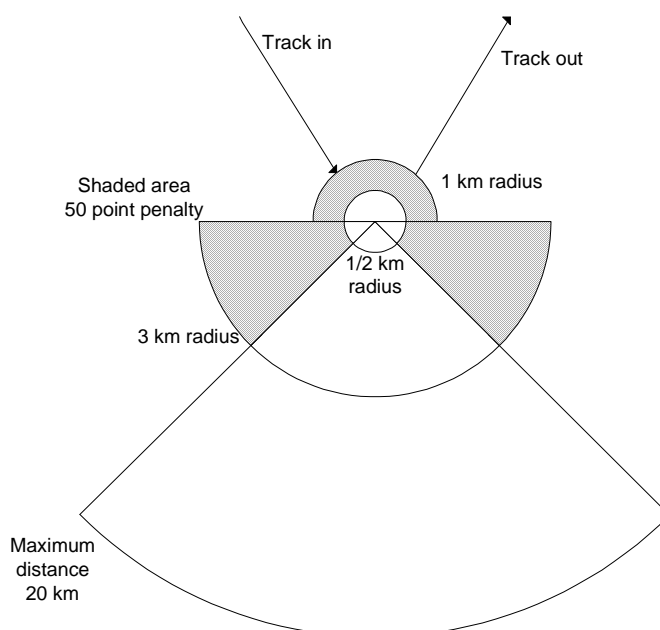
Up to three alternative turning points may be set at each corner of a task with pilots free to select, in flight, which alternative to round. In this case, the total distance via any of the alternatives must be about the same and the tracks leading into them should be contained within a sector of 30°.

**20.2. 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.

## 21. TURNPOINT

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

**21.2. Fixed Course.** A circle of ½ kilometre 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 ½ km surrounding the ½ km radius circle, and a 180 degree sector of 3 km radius orientated as the 90 degree sector. This is shown by figure 2. If the Turnpoint is alternative, the 90 and 180-degree sectors are expanded to include the bisector of all possible inbound and outbound direct tracks.



**Figure 2**

**21.3. 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 ½ km 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 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 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 on the general allocated glider frequencies or if briefed, on a specific local airfield traffic frequency.
- Exceptionally, radios may also be used 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.
- Pilots must use the call sign registered to the glider in the Installation Licence.
- Pilots may use codes provided that they are obvious and not designed to mislead other competitors.

## 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.

## 27. DOPING

The misuse of drugs intended to enhance performance, reduce stress, lessen fatigue etc, is forbidden in all gliding competitions. At present there are no known drugs that enhance pilot performance. However, competitors must submit to drugs testing if required to do so by the Organiser, UK Sport or FAI. A positive result, or failure to submit to a test, will result in disqualification and may lead to further sanctions as required by current FAI anti-doping rules.

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 are permitted or that a TUE (therapeutic use exemption) is obtained to cover their use.

The definitive list of forbidden substances and the specific requirements of FAI policy that the BGA subscribe to can be found at [http://www.wada-ama.org/rtecontent/document/2008\\_List\\_En.pdf](http://www.wada-ama.org/rtecontent/document/2008_List_En.pdf)

## 28. CLOUD FLYING

Gliders must not enter cloud unless equipped with a serviceable radio operating on 130.4 MHz. Shortly before entering, the pilot must announce his intention on this frequency, and give his: -

- 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 have recently rounded a Turnpoint and are in the vicinity of gliders still approaching it, 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 not fly in cloud within 10 km of the centre of the base airfield, nor within 10 km of any start zone.

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

## 29. AIRMANSHIP & SAFETY

- On every competition flight each glider occupant must wear a parachute.

- Within 10 km of the base airfield, all gliders must circle to the left.
- 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.

### 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	Second offence	Further offence
<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 docs. excluding FR calibration > 60 minutes	Warning	10 points	25 points

<b>Type of offence</b>	<b>First offence</b>	<b>Second offence</b>	<b>Further offence</b>
Late delivery of back-up FR or docs. excluding FR calibration >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
Failure to submit a valid calibration chart within the protest period if an airspace infringement is provisionally identified.	100 points	100 points	100 points
<b>Incorrect start or rounding of TP or Areas</b>			
Starting from within Horizontal Penalty Area	50 points	50 points	50 points
Starting from within Vertical Penalty Volume	0 to 100ft. – no penalty. 100 to 250 feet – 20 points + 1 point/5ft. or part	0 to 100ft. – no penalty. 100 to 250 feet – 20 points + 1 point/5ft. or part	0 to 100ft. – no penalty. 100 to 250 feet – 20 points + 1 point/5ft. or part
Exceeding start height by more than 100 feet 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 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 airfield centre or any start zone of any class	100 points	Day Disqualification – minimum 500 pts.	Disqualification
Flying outside glider's C of A limits	100 points	Day Disqualification – minimum 500 pts.	Disqualification
Airspace – each infringement is assessed vertically and horizontally and the lower penalty applied. Horizontal distance is measured to the nearest edge of the airspace. The penalty applied will be the sum of all infringements in a day. Multiple infringements on any day are classed as one offence.	1 point per 5 ft. vertically 1 point per 10m.horizontally	2 points per 5 ft. vertically 2 points per 10m.horizontally	4 points per 5ft. vertically 4 points per 10m.horizontally
Briefed Parachute zone infringement	2 points/5m if <500m. If >=500m, 500 points	4 points/5m if <500m. If >=500m, 1000 points	8 points/5m if <500m. If >=500m, 2000 points
Persistent infringement of airspace and/or briefed parachute zones of more than 200 points per day on more than two days	Disqualification		
Finish and subsequent flying– incorrect landing pattern.	Warning	100 points	Day Disqualification – minimum 500 pts.

<b>Type of offence</b>	<b>First offence</b>	<b>Second offence</b>	<b>Further offence</b>
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
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	
Non-approved data transmission	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 for a single period of not more than 30 seconds prior to starting, when directed by the Competition Organisation to test engine noise monitoring, and/or as required by the pilot to establish engine serviceability.

**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 Turn-points 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 Outlanding 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 Outlanding 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 Outlanding 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

	Parameter		Description
36.4.10	<b>Td</b>	AAT Designated Task Time	In hours
36.4.11	<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
36.4.12	<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> .
36.4.13	<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.
36.4.14	<b>N</b>	Number of Participating Gliders	The number of gliders not withdrawn from the contest at the start of launching.
36.4.15	<b>Nl</b>	Number of Gliders launched	The number of participating gliders accepting at least one launch.
36.4.16	<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>
36.4.17	<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>
36.4.18	<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>
36.4.19	<b>D</b>	Devaluation Distance	For Fixed course tasks, <b>D = Dw</b> For AATs, <b>D = Greatest Dt</b>
36.4.20	<b>Da</b>	Devaluation Distance Adjustment	<b>Da = 250</b> for Nationals, <b>0</b> for Regionals and Junior Championships (see table 36.6)
36.4.21	<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>
36.4.22	<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><math>F_f * 1000</math></b> (b) <b><math>F_f * ((5 * D) - D_a)</math></b> (c) <b><math>F_f * ((400 * T) - T_a)</math></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><math>F_v = 0.6667 * F * (N_v \div N_I)</math></b>
<b>36.4.25</b>	<b>Fd</b> Day Distance Points	<b><math>F_d = F - F_v</math></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><math>P_s = 3 * F_v * ((S_h \div V_h) - 0.6667)</math></b> If the result is less than zero then <b><math>P_s = 0</math></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><math>P_d = F_d</math></b> Non-finishers receive the Day Distance Points multiplied by the ratio of their marking distance to the greatest marking distance: <b><math>P_d = F_d * (D_m \div D_{max})</math></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><math>P_d = F_d</math></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><math>P_d = F_d * D_m \div (D_{max} * 0.6667)</math></b> For non-finishers <b><math>P_d = F_d * (D_m \div D_{max})</math></b>
<b>36.4.28</b>	<b>P</b> Glider Points	<b><math>P = P_s + P_d</math></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 Handicapped and 20m two-seater Champs.</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>20m two-seater Championship</b>	150	2.0	1.02	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 (Winner's Points – Pilot's Points) ÷ (0.6 x Winner's Points)**

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**

**39.3.1 Open, 18 metre, 15 metre, Standard and Club Class** competitors are selected by vote individually by class. The voting panels consist of all pilots who have achieved a placing in the top 50% rounded up in either of the appropriate preceding two UK National Championships in class. In the case of a pilot who has competed in the appropriate class in an International Championship during the selection year, this is extended to the preceding three UK National Championships.

#### **39.3.2 Eligibility**

Only members of the voting panel who are eligible to compete, (see 39.2 Qualifications) may be considered for a team place.

#### **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, priority is determined by the following criteria in order:-

- Current National champion
- Current European silver & bronze medal holders
- Current World Championship gold, silver & bronze medal holders
- Current National second & third place holders
- Next most recent National first, second & third place finishers

#### **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 the vote result.

**39.5. Junior World Championships.** Competitors are selected by a voting panel consisting of all pilots who have achieved a top 20 place in the preceding two Junior National Championships.

**39.6. Women's World Championships.** Selection is 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 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 must pay the BGA a sum equalling the competition entry fee or £1,000, whichever is the least, at a time required by the team manager. This fee will 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 Transparency.** All members of the voting panel will receive a full breakdown of the completed vote showing the names and choices of all panel members some time after the vote is concluded.

**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)	110	DG300	96
Antares (20m)	113	DG300 (w)	97
ASG29 (15m)	104	DG303	97
ASG29 (18m)	110	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	JP15-36a	87
DG100/101	90	K-18	81
DG100/101 (fixed)	88	K-2	64
DG200	97	K-6cr	76

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 (15m)	104
Oly 463	76	Ventus 2c,cx (18m)	110
Olympia 2	62	Viking	85
Olympia 419	78	Weihe	67
Pegasus Club (fixed gear)	92	WA28	86
Pegasus	95	Zugvogel 3b	83
Phoebus 17	93		
Pik20	96		

- 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
- 113 Antares (20m)
- 111 Nimbus2cs (23.5m)
- 110 ASH26, ASG29 (18m), Ventus2c, cx (18m), Lak 17a (18m), DG 800 (18m), Antares (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), Ventus 2a,b,ax, Ventus 2c,cx (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.