

# The 2004 Rules for BGA Rated Competitions

**Issue 2 dated 20<sup>th</sup> February 2004**

## FOREWORD

Welcome to the 2004 edition of the Rules for BGA Rated Competitions.

This year, after a comprehensive review of airspace infringements incurred during 2003 we have modified the rules and increased the penalty structure for airspace infringements and strongly recommend that pilots and competition organisers familiarise themselves with the new rules.

We have also modified the Start Height penalty structure, simplified the scoring formula for the calculation of Distance points, changed the team selection criteria for the Women's Worlds and amended the Handicap indices for the DG range of two seat gliders with the inclusion of the DG 1000.

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.

Finally, I would like to thank all the committee members for their hard work, innovative ideas, and tremendous dedication.

Ron Bridges  
Chairman  
Competition & Awards Committee

### Committee Members

David Allison	Trophies & Awards
Russell Cheetham	Competition Calendar, NATS & Airspace Liaison
Paul Crabb	Scoring & Turning Points
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Peter Masson	Junior Nationals, BGA & Team Web Page.
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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.Gender.** Wherever the word he, his or him is used, it should be taken as he/she, his/hers or him/her.

**1.3.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.

**1.4.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

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 nominated 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.

## 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, vary penalties within the limits set down in the appropriate section, 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 is final.

## 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.

**6.2.Junior Championship.** Applications should reach the BGA office prior to the end of April. Only pilots whose 26<sup>th</sup> birthday falls after the year of competition are eligible. Pilots with insufficient experience to enter may apply to fly in a two-seater with an experienced competition pilot.

**6.3.Nationals.** 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. Priority, if oversubscribed, is decided by the rating list followed by late entries in date order of application.

**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.

**6.5.Team Entry.** Two or more pilots may compete in the same glider in the Junior Championship, Overseas Nationals 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. Relevant 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 above.

**6.7.Hors-concours.** The principal purpose is to allow suitably experienced visiting foreign pilots to enter British competitions and pilots, selected to fly together in a future international competition, to practise team flying. 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 Directors discretion.

## 7. LOCAL RULES

**7.1.General.** Local Rules must not restate BGA rules. Any local rules that are at variance with these 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 BGA registration form and any rules that are additional to these rules.

**7.3.Additional information.** Normally included are, the start procedure to be used, start point co-ordinates and details of finish lines. 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 the organisation are already equipped to download.

## 8. REGISTRATION

**8.1.Form.** This should 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 and produce their logger(s) for identification. At the same time, or subsequently during the competition, pilots may be required to produce supporting documentation for any of the information on the registration form.

## 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, RAFGSA R-numbers, 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. A handicapped or other championship may also be held.

**10.2. Club Class.** Water ballast must not be carried, scores are handicapped, and only gliders listed in Appendix 1 with a Speed Index not exceeding 96 are eligible to enter. Eligible gliders subsequently modified by the addition of winglets or wing fairings may compete at their appropriately adjusted Speed Index. Increases to the standard wingspan are not acceptable.

**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.

**10.4. 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 competition.

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

**10.6. Changes.** A Glider shall not, during a contest, change task groups or vary its configuration from that declared at registration.

## 11. WEIGHT

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

- Manufacturers structural limit
- Standard and 15metre classes – 525 kilos
- 18metre class – 600 kilos
- Open Class – 750 kilos, except that two seat engine equipped gliders that exceed this limit with two crew members on board will be allowed to compete, but may not fly with disposable ballast.

**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 thus eradicating aggressive, and 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 contestants’ complaints 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.

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.
- 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. 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 2/7<sup>th</sup> 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-gliders 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 to be 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 must not be cancelled except for safety or sporting reasons.
- 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 were 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 IGC approved GPS Flight Recorders or those approved by the BGA Competitions Committee which presently include EW, Varcom, LX5000 v6.0 or later. The IGC list may be viewed at [http://www.fai.org/gliding/gnss/approved\\_gnss\\_flight\\_recorders.asp](http://www.fai.org/gliding/gnss/approved_gnss_flight_recorders.asp)

**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.

**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 IGC secure files on a diskette provided the information has been downloaded in the presence of another competitor or contest official.

**18.4. Time intervals.** Flight Recorders must store position records at not greater than 60 second intervals.

**18.5. Calibration.** A calibration chart from a test carried out within the preceding 5 years must be available to the Organisation.

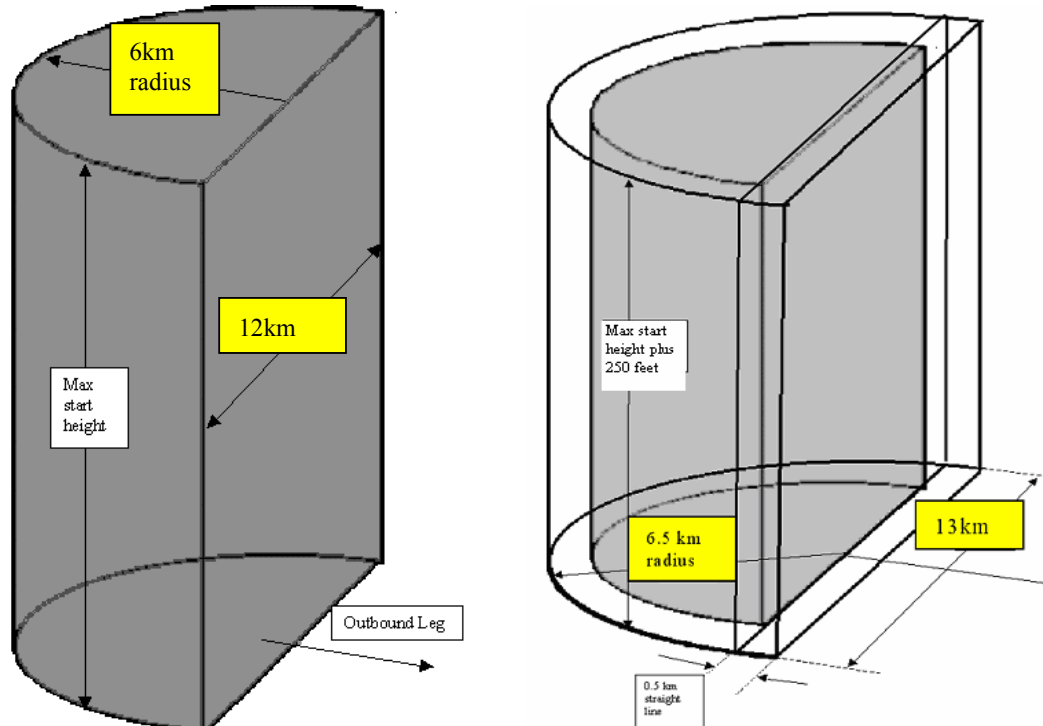
**18.6. Software & hardware.** It is the responsibility of the competitor to ensure the Organisation are in possession of the required software and/or connecting cable for their Flight Recorder.

**18.7. 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 the start is open, that a Start Zone was exited either, horizontally in any direction, 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. If the Start Point is also a task Turnpoint, then an acknowledged radio call must be made to the Organisation within 10 minutes of starting.

## 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.

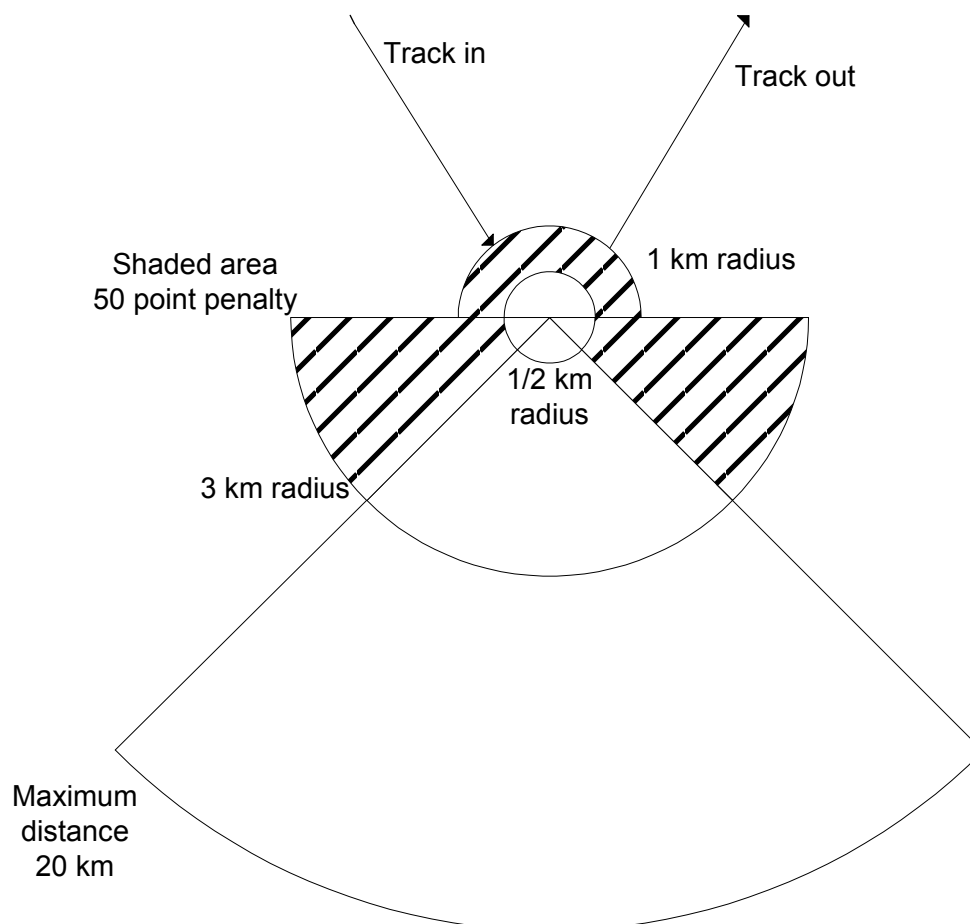
Up to three alternative turning points may be set at each corner of a task with pilots free to select, in flight, which alternative to round. In this case, the total distance via any of the alternatives must be about the same and the tracks leading into them should be contained within a sector of 30°.

**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. An 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 select and specify the type of finish to be used.

**22.1.1. Finish line.** A clearly visible line of defined length situated such that gliders can safely land beyond it.

**22.1.2. Finish Ring.** A ring of specified radius around a finish point encompassing the airfield and its landing circuits.

**22.2. Control.** Given by the glider crossing the line under its own momentum and in the correct direction. Gliders landing at their goal 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.

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 B – Above FL 245.

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 block exemption obtain from the controlling authority.

## 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 but not entire outer wing panels.

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 Outlanded at the point of the collision.

## 25. RADIO

- The use of radios is confined to voice communication between pilots, crews and officials on the allocated glider frequencies.
- They must not be used to contact ATC except for obtaining permission to enter an ATZ or land at an airfield or as specifically required by the Competition Director.
- Pilots must use the call sign registered to the glider in the Installation Licence.
- Pilots may use codes provided 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, except as required by competition organisers is prohibited.

## **27. DELETED**

## **28. 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 and the sports council do not, at present, plan to carry out drug testing at gliding competitions. Their position is reviewed annually, and their brief covers all UK sporting activities. However, competitors must submit to drugs testing if required to do so by the Organiser. A positive result, or failure to submit to a test, will result in disqualification and exclusion from UK competitions for at least one year.

In general, the following are forbidden: –

Stimulants, including excessive concentrations of caffeine, and some common cold remedies such as Contac 400, Procol, Nirolex Expectorant Linctus; Beta 2 agonists and Beta-Blockers; Narcotic analgesics, including codeine, heroin, morphine; Anabolic Steroids, Diuretics, Alcohol and corticosteroids.

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. The pilot's GP should be consulted in the first instance. Additionally, the BGA have lists of permitted drugs and difficult cases may be referred to the sports council.

## **29. 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 bearing and distance from a feature on the 1:500,000 map. In addition the pilot should give the 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 vertical separation of at least 500 feet must be maintained, the higher glider having priority.
- On leaving the cloud the pilot must call '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.

## **30. 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.

## **31. OUTLANDING**

**31.1. 3<sup>rd</sup> Party complaints.** These must all be promptly reported to the Director.

**31.2. 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

**30.2. Scoring (Cont'd)**

The most advantageous Flight Recorder logged point prior to landing, or

The next Turnpoint, if it is contained within the boundary of the airfield landed on.

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

**32. 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.

**33. 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.

**34. 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.

**35. PENALTIES**

Competitors disqualified will, for scoring purposes, be deemed not to have flown on the day(s).

All other penalties are applied after scores have been calculated and, except for Airspace infringements, will not result in a negative score.

The following Penalties should be applied.

**35.1. Start.** Starting from within the Horizontal Penalty Area: 50 points. Starting within the Vertical Penalty Volume: 2 points per 10 feet, or part thereof, above Start Height. Exceeding Start Height by more than 100 feet in the 2 minutes prior to Starting: 1 point per 10 feet or part thereof above Start Height. In cases where more than one infringement has been committed, only the greater Penalty will be applied.

**35.2. Procedural rules.** Failure to comply: 20 points.

**35.3. Turning.** Controlled within the Turnpoint Penalty Area without having entered the Turnpoint zone: 50 points.

**35.4. Weight.** Glider overweight: 2 points per kg above their permitted weight times the number of similar offences.

**35.5. Excess span.** Up to 50 mm: 1 point per mm per day. Greater than 50 mm: disqualification. Measurement to be made with the wings supported to allow the glider to match its unloaded shape.

This depends on the design of the glider, but will generally mean that the trailing edge is straight along the length of the wing.

**35.6. Airspace.** Each infringement is assessed vertically and horizontally and the lower figure applied. The vertical penalty is 1 point for every 5 feet or part thereof.

Horizontally the penalty is 1 point per 10 metres or part thereof measured to the nearest edge of the Airspace. For an active parachute zone specified by the competition organisation the penalty is 2 points per 5 metres or part thereof for the first 500 metres plus a further 300 points if the infringement exceeds 500 metres.

The Airspace penalty applied will be the sum of all offences during the day. For a second day of infringement the penalty will be doubled with further days being quadrupled.

Any glider incurring 200 or more airspace penalty points on more than two days will be disqualified from the competition.

Loss of Flight Recorder information that might have shown evidence of an Airspace infringement: 100 points.

**35.7. Dangerous Flying.** 100 points. Included in this is exceeding the gliders limitations.

**35.8. Cheating.** Day disqualification.

### 36. ENGINE EQUIPPED GLIDERS

Engine equipped gliders must comply with the following procedures. Failure to do so will result in day disqualification.

**36.1. Flight recorder.** Self-sustaining gliders competing without the engine disabled, and all self-launching gliders, must be fitted with a Flight Recorder, inaccessible during flight, that registers any period with the Means of Propulsion in operation.

**36.2. Launching.** Self-launching gliders must fly to the glider dropping zone, climbing not above the launch height, and retract the engine.

**36.3. Self-sustainers.** After each launch, the engine must be operated below 2,500 feet height for a single period of not more than 2 minutes to prove the integrity of the engine monitoring system. Subsequently, prior to starting the task, there must be at least one logged point below 2,010 feet height.

**36.4. Further operation.** A second engine run prior to landing terminates competition flying for the day.

### 37. 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.

Points calculated from the scoring formulae are rounded up or down to the nearest integer, with  $\cdot 5$  rounded up.

The overall scores are the sum of day scores.

#### 37.1. Legend.

Distances	
Dtask	Task length (shortest un-handicapped)
Y	Qualifying distance
Dm	Handicapped Marking distance
Dmax	Greatest marking distance of any glider
Df	Greatest marking distance of any finisher

Td Dt	Marking distance in Designated Task Time
Dw	Winners Marking Distance
Speeds	
Sh	Wind adjusted handicapped speed
Vh	Greatest handicapped speed
Numbers	
N	Participating gliders
Nl	Participating gliders launched
Ny	Gliders reaching or exceeding Y
Nv	Gliders equalling or exceeding 2/3rds Vh
Nf	Gliders who complete the task and finish
Handicapping	
W	Contest Wind in kilometres per hour
θ	Contest wind direction
H	Speed Index (glider handicap)
Hi	Leg wind increment
Hl	Leg speed index adjusted for wind
Points	
F	Day total points
Fd	Day distance points
Fv	Day speed points
Pd	Glider distance points
Ps	Glider speed points
Times	
St	Start time
Tf	Finish time
Tg	Time to complete the course
Td	Designated Time for Assigned Area Tasks
Factors	
Ff	Day points reduction Factor

**37.2. Participating Gliders ‘N’.** All competing gliders that have not withdrawn from the contest prior to the commencement of launching.

**37.3. Speed Index ‘H’.** A competitor’s performance is adjusted during the scoring process by the gliders Speed Index. Most gliders are included in the list at Appendix 1. Additional performance enhancements to the standard glider will attract the following increments: –

**37.3.1.Span.** 1 per ½ metre or part thereof.

**37.3.2. 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 greater than 18 metres prior to modification.

**37.3.3. Wing root fairings.** 1.

**37.3.4.Other.** Decided by the Director until assessed by the Competitions Committee.

Owners of gliders not listed should apply to the Competitions Committee for a Speed Index.

In Open, 18M, 15M and Standard Class Nationals, a Speed Index of 100 is used.

**37.4. Windcapping.** In all competitions, an adjustment is made to the distance of each task leg flown, by a Contest Wind ‘W’ assessed in knots. For Provisional scores this may be estimated, but for Official scores it must be deduced by thermal drift from a representative cross section of competitors’ Flight Recorder traces. The Contest Wind is then divided by 1.18 for the Open Class, 1.1 for the 18M Class, 1.04 for the 15M Class, and 1 for all other Classes. If the result exceeds 30kts, then a Contest Wind ‘W’ of 30 kts is applied.

**37.4.1. Leg Handicap Increment ‘Hi’.** Calculated as follows: –

$$Hi = 100 \times (\sqrt{(1 - (W \div 46)^2 \sin^2 \theta)} - (1 + (W \div 46) \cos \theta))$$

Where ‘ $\theta$ ’ is the non-reflex relative angle between the track and the direction the wind is coming from.

**37.4.2. Wind adjusted Speed Index (HI).**

$$HI = H + Hi \text{ Except, If } HI < 25 \text{ then } HI = 25$$

**37.5. 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 Turnpoints 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 maximise 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.

**37.5.1. Handicapped distances flown ‘Dm’ & ‘Td Dt’.** The total handicapped distance flown by a glider is the sum of the distance flown along each leg multiplied by 100 and divided by the appropriate wind adjusted speed index for that leg.

$$Dm = \text{Sum of } ((\text{Actual distance} \times 100) \div HI) \text{ for each leg}$$

$$Td Dt = \text{Sum of } ((\text{Actual distance} \times 100) \div HI) \text{ for each leg flown within the Designated Time of an Assigned Area task.}$$

**37.5.2. Qualifying distance Y.** For Fixed course tasks, in National Championships Y shall be 50% of the handicapped task length declared at briefing and for Regionals Y shall be 40% of the unhandicapped nominal task length declared at briefing. The following minimum and maximum values apply: –

	Minimum	Maximum
Nationals Open Class	100	200
Nationals 18M Class	90	180
Nationals 15M Class	90	180
Nationals Std. Class	80	160
Nationals Club Class	80	160
Handicapped Nationals	80	160
Regionals	60	120

For Assigned Area tasks the minimum and maximum distances are determined by the Designated Task Time: –

	Time in hours x	Minimum	Maximum
Nationals Open Class	40	100	200
Nationals 18M Class	36	90	180
Nationals 15M Class	36	90	180
Nationals Std. Class	32	80	160
Nationals Club Class	32	80	160
Handicapped Nationals	32	80	160
Regionals	30	60	120

**37.6. Finisher's speed 'Sh'.** Produced by dividing the Marking Distance '**Dm**' by the time to complete the course '**Tg**' or, for AATs, by the Designated Task Time '**Td**' if it is greater than '**Tg**'.

**37.7. Day Points 'F'.** The number of points available to the winner, between 0 and 1000, are the lowest resulting from each of the criteria applied separately. For fixed course tasks, '**D**' = the winner's distance '**Dw**', and '**T**' = the winners time '**Tg**'. For AATs, '**D**' = the greatest marking distance flown by any pilot within the Designated Task Time '**Td Dt**', and '**T**' = Designated Task Time '**Td**'. The Day factor '**Ff**' is applied to each criterion decreasing the available points depending on how many pilots exceed '**Y**'. '**Ff**' rises from zero, when no pilots exceed it, to 1 when 80% do.

$$F = 1000 \times Ff$$

$$\text{Nationals } F = ((5 \times D) - 250) \times Ff$$

$$\text{Regionals } F = (5 \times D) \times Ff$$

$$\text{Nationals } F = ((400 \times T) - 200) \times Ff \text{ (for tasks with a finisher)}$$

$$\text{Regionals } F = (400 \times T) \times Ff \text{ (for tasks with a finisher)}$$

$$F = 0 \text{ If } D_{\text{task}} < 80\text{km for Regionals and Junior Nationals, or AAT Time} < 2\text{hrs}$$

$$F = 0 \text{ If } D_{\text{task}} < 150\text{km for Nationals including Handicapped, or AAT Time} < 2.5\text{hrs}$$

$$\text{Where } Ff = 1.25 \times (Ny \div N) \text{ If } Ff > 1 \text{ Then } Ff = 1$$

**37.8. Day Speed Points 'Fv'.** The proportion of Day Points 'F' awarded for speed depends on the percentage of the gliders launched '**Nl**', which complete the course in excess of 2/3rds of the winner's speed '**Nv**'. It falls linearly from 66.67%, when all gliders complete at sufficient speed, to zero with no finishers.

$$Fv = 0.6667 F \times (Nv \div Nl)$$

**37.9. Glider's Speed Points 'Ps'.** The speed points gained are proportional to the amount by which a finisher's speed '**Sh**' exceeds 2/3 of the fastest speed '**Vh**'.

$$Ps = 3 \times Fv ((Sh \div Vh) - 0.6667) \text{ If } Ps < 0 \text{ Then } Ps = 0$$

**37.10. Day Distance Points 'Fd'.** This equals Day Points 'F' minus Day Speed Points 'Fv'.

**37.11. Glider's Distance Points 'Pd'.**

**37.11.1. Fixed Course Tasks.** All finishers receive the same distance points as the winner so in this case '**Pd**' = '**Fd**'. Non-finishers receive the Day Distance Points '**Fd**' multiplied by the ratio of their marking distance '**Dm**' to the greatest marking distance '**Dmax**'.

For finishers **Pd** = **Fd**

For non-finishers **Pd** = **Fd** x (**Dm** ÷ **Dmax**)

**37.11.2. Assigned Area Tasks.** Finishers exceeding  $2/3^{\text{rd}}$  of the greatest marking distance ‘**Dmax**’ receive the same distance points as the winner so in this case ‘**Pd**’ = ‘**Fd**’. The remainder receive the Day Distance Points ‘**Fd**’ multiplied by the ratio of their marking distance ‘**Dm**’ to  $2/3^{\text{rd}}$  of the greatest marking distance ‘**Dmax**’.

If  $Dm < 0.66667 \times Dmax$  Then  $Pd = Fd \times Dm \div (Dmax \times 0.66667)$

For non finishers  $Pd = Fd \times (Dm \div Dmax)$

### 38. PUBLICATION OF SCORES.

Provisional day scores should be published as soon as possible. A day score sheet(s) 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 any penalties, 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.

### 39. 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 lists of results prior to September 30<sup>th</sup>.

**39.1. 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.

Type of Competition	Base Rating	Std Entry
<b>UK National Championships, except the Junior Nationals</b>	<b>1000</b>	<b>45</b>
<b>UK Overseas Handicapped Championships</b>	<b>950</b>	<b>30</b>
<b>UK Regionals and Junior Nationals</b>	<b>750</b>	<b>15</b>
<b>UK Junior Regionals</b>	<b>500</b>	<b>15</b>
<b>UK Motor Glider Competition</b>	<b>650</b>	<b>15</b>
<b>World Championships except the Women’s and Junior</b>	<b>1400</b>	<b>25</b>
<b>European Championships - except the Women’s and Junior</b>	<b>1300</b>	<b>25</b>
<b>Other International Championships</b>	<b>1000</b>	<b>25</b>

**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

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

**Rating Score = Comp Rating + 950 x ((1 – Pilot Position) ÷ No. of Competitors)**

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

**39.3. Team Entries.** When more than one pilot acts as P1 in the same aircraft during a competition, only the pilot who earns the greatest proportion of the winners points on the days flown receives a **Rating Score** calculated from gliders final competition position.

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

#### 40. INTERNATIONAL TEAM SELECTION

**40.1. 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.

**40.2. Pilot Options.** Pilots eligible for entry in more than one class may choose. In the cases where the vote is for more than one class, it is pilot choice with priority decided by vote result. In all cases where there is an option, pilots must make their preferences known within two weeks of notification of the vote result.

**40.3. 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 25<sup>th</sup> birthday prior to the 1<sup>st</sup> January in the year that the Championship commences.

**40.4. Eligibility.** All members of a voting panel who are eligible to compete, see **39.3.**

**Qualifications**, may be considered for a team place.

**40.5. Commitment Fee.** All pilots selected must pay the BGA a sum equalling the competition entry fee or £1,000, whichever is the least, no later than 8 weeks prior to the start of the competition which will be reimbursed to pilots during the competition. Any pilot subsequently withdrawing without a satisfactory replacement being found will forfeit their Commitment Fee.

#### 40.6. World Championships.

**40.6.1. Open, 18 metre, 15 metre, Standard and Club Class** competitors are selected individually by class. The voting panels consist of all pilots who have achieved a top 20 place in either of the appropriate preceding two UK National Championships. 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.

**40.6.2. Junior** 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.

**40.6.3. Women's** 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.

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.

#### **40.7. European Championships.**

**40.7.1. Open, 18 metre, 15 metre, Standard and Club Class** competitors may only compete in the class from which they qualify. Pilot priority is determined by the following criteria in order:-

- Top two medal winners from the appropriate class in the previous European Championship.
- In the absence of a European medal winner, the top two medal winners from the appropriate class in the previous World Championship.
- Top five position in the previous appropriate UK National Championship.
- Subject to Competition Committee approval, positions below the top five in the previous appropriate UK National Championship.

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

**40.9. 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.

**40.9.1. 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.

#### **40.9.2. 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 Rating List predominates.

**APPENDIX 1. GLIDER SPEED INDICES**

AC-4C	85	DG303	98
Acro Twin 2	85	DG400 (15m)	97
Acro Twin 3	89	DG400 (17m)	101
ASH25	114	DG500/505 trainer (fixed gear)	90
ASH25 (25.6m)	115	DG500/505 trainer (retractable)	92
ASH25 (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
ASK21	85	DG600 (15m)	99
ASK23	85	DG600 (15m-w)	100
Astir CS	89	DG600 (18m)	107
Astir Jeans	86	DG800 (18m)	110
ASW12	105	DG800 (15m-w)	103
ASW15	89	DG1000 (20M)	102
ASW17	106	DG1000 (18)	96
ASW19a,b	93	DG1000 (18) (fixed gear)	94
ASW19club	90	Diamant 18	100
ASW20	98	Diamant (16.5m)	89
ASW20b,c	100	Discus	98
ASW20bl,cl	103	Discus (w)	99
ASW20f	98	Discus 2 & 2 (w)	100
ASW20FL	101	Duo Discus	102
ASW20L	101	Eagle	68
ASW22 (24m)	115	Fauvette	74
ASW22b	117	FK3	89
ASW22bl	118	Foka 4	81
ASW24	97	Foka 5	83
ASW24 (w)	98	Glasflugal 304	99
ASW27a,b	104	Glasflugal 604	107
ASW28	100	Grob 102	85
Bergefalke 4	69	Grunau Baby	55
Bergefalke	65	Hornet	90
BG135	74	Iris	80
Blanik	65	IS28b	80
Bocian	65	IS29d	83
Calif A21	100	IS32	101
Capstan	62	Jantar 1	105
Cirrus (17.7m)	94	Jantar 2	106
Cirrus (18.8m)	96	Janus a,b	96
Club Libelle	86	Janus c (fixed gear)	98
Cobra 15	85	Janus c (retractable)	100
Dart 15	76	Jaskolka	69
Dart 17r	83	JP15-36a	87
DG300 club (fixed)	93	Ka18	81
DG100/101	90	Ka2	64
DG200	97	Ka6cr	76
DG202 (15m)	97	Ka6e	81
DG202 (17m)	101	Ka7	64
DG300 club (retractable)	95	Ka8	69
DG300	96	Kestrel 19	104

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

- 118 ASW22bl Nimbus 4  
 117 ASW22b  
 116 Nimbus 3 (25.5m) ASH25 (27m)  
 Nimbus 4d  
 115 ASH25 (25.6m) Nimbus3 (24.5m)  
 ASW22 (24m) Nimbus3d (25.5m)  
 114 ASH25 Nimbus 3d  
 110 ASH26 Ventus2c (18m) Lak17a (18m)  
 DG800 (18m)  
 107 LS6c (18m) DG600(18m) Glasflugal 604  
 Kestrel 22  
 106 Nimbus 2,b,c ASW17 LS8-18 (18m)  
 LS6c(17.5m) Ventus c(17.6m) Jantar2  
 105 DG600 (17m) Jantar1 Kestrel 20 ASW12  
 Lak12  
 104 ASW27a,b Ventus 2a,b Lak17a(15m-w)  
 Ventus a,b(16.6m) Kestrel 19  
 DG500/505 (22m) Stemme S10  
 103 SZD56 Ventus 2c (15m) DG800 (15m-w)  
 Lak17a (15m) ASW20 bl,cl  
 102 Duo Discus LS3 (17m) LS6 (15m-w)  
 DG1000 (20M)  
 101 LS6 (15m) Ventus a,b,c (15m) IS32  
 ASW20L ASW20FL Vega L (17m)  
 DG400 (17m) DG202 (17m)  
 100 Discus 2 Discus 2-w LS8 (15m) ASW28  
 ASW20 b,c DG600 (15m-w)  
 DG500/505 (20m) flapped Calif A21  
 Diamant 18 Janus c (retractable)  
 99 Glasflugal 304 Discus(w) DG600 (15m)  
 98 Discus ASW24 (w) LS7 (w) SZD55 DG303  
 Mosquito a,b ASW20 ASW20f Mini Nimbus  
 LS3(15m) Kestrel(17m)  
 Janus c (fixed) DG500/505 Orion (20m)  
 97 DG200 DG202 (15m) Vega (15m) DG400  
 (15m) ASW24 LS7  
 96 LS4 DG300 Libelle301 Pik20 Speed Astir  
 Cirrus (18.8m) Janus a,b DG 1000 (18m)  
 95 Pegasus DG300 club (retractable)  
 94 Cirrus (17.7m) DG 1000 (18m fixed gear)
- 93 ASW19a,b DG 300 club (fixed) Phoebus17  
 92 Std Jantar Pegasus Club (fixed)  
 SZD 59 Std. Cirrus (16m) DG500/505 trainer  
 (retractable)  
 91 LS1f Marianne  
 90 DG100/101 Std. Cirrus Hornet ASW19club  
 DG500/505 trainer (fixed gear)  
 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)  
 87 JP15-36a KH1 Twin Astir Salto (15.5m-w)  
 86 Astir Jeans Club Libelle  
 85 Acro Twin 2 ASK21 ASK23 Cobra 15  
 SFH34 Viking AC-4C Grob 102  
 LS1-0(fixed)  
 83 Dart17r Foka5 IS29d SB5e(16.5m) Torva  
 Zugvogel 3b SZD51 Junior SF27b  
 82 SF27a Pilatus B4 (retractable)  
 81 Foka 4 Ka6e SB5a,b,c SD3/15 Sie3 PW5  
 Ka18  
 80 Pilatus B4(fixed) Iris IS28b SZD50 Puchacz  
 78 SZD30 Pirat Skylark4 Olympia419  
 77 Skylark3  
 76 KA6cr Dart15 Oly403 Oly463  
 74 BG135 Fauvette M200  
 72 ASK14 L-Spatz M100S Moswey4  
 Super Blanik  
 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 Ka2 Ka7 SPS31  
 62 Capstan Meise Olympia 2 Swallow  
 60 ASK16 Kite 2a RF5b Tandem Falke  
 58 Kranich Mu13  
 56 Prefect  
 55 Grunau Baby  
 50 T21  
 46 Falke