

# 1-26 CHAMPIONSHIPS RULES 2018

March 26, 2018

## 1 ORGANIZATION

These rules govern the 1-26 Championships.

### 1.1 Rule Changes

At the Championships, rule changes may only be made by majority vote of the Competition Director, Association President and Rules Committee members. Normally, rules changes will be allowed only for safety reasons, but may also be made to address unforeseen circumstances which violate the intent of the 1-26 Championship Rules or the scoring system. Written changes to the rules will be distributed to contestants before implementation.

## 2 REGISTRATION

### 2.1 Registration for the 1-26 Championships requires the following:

- Current membership in the 1-26 Association and the SSA.
- A valid FAA private or higher pilot certificate with glider rating or equivalent foreign license recognized by the FAA.
- Experience in cross-country glider flying, off field landings and thermaling in gaggles. This may include, but does not require an FAI Silver Badge, Sweepstakes Program flights or other contest experience. The novice pilot who can thermal in gaggles safely and land off-field safely is qualified to compete. Novice contestants must discuss their experience with and be approved by the CD or CD's designate.

### 2.2 Pilot Status

Pilots may compete as individuals or as team entrants. Each pilot must register his/her status as an individual or team entrant no later than the first contest day pilot's meeting, and must declare the contest number of the 1-26 to be flown. Team entrants may include two or three pilots, who may fly separate gliders but must use only one contest number.

## 3 SAILPLANES AND EQUIPMENT

**3.0** Only Schweizer 1-26 sailplanes with standard airworthiness certificates are eligible. Pilots may replace a damaged 1-26 which shall be reported to the Competition Director.

**3.1** The three-digit 1-26 serial number is the contest number and must be displayed on the vertical tail in not less than 6" high numerals. The Competition Director may accept a different display if the glider identification is otherwise easily made.

**3.2** A parachute must be worn on every contest flight.

**3.3** It is recommended that a functioning personal emergency location beacon (ELB) be used on all contest flights. A sponsor may require that a functioning ELB be used on all contest flights. Such requirement shall be publicized at the time of the contest bid.

## **4 CONTEST REQUIREMENTS**

**4.1** An official Championship contest will consist of eight consecutive competition days, of which, a minimum of three scored Contest Days will qualify the contest as a 1-26 Championship event.

**4.2** A Contest Day is one in which every pilot is given an opportunity to start and the credited flight distance of each of the top one third of the pilots attempting the task, ordered by distance, is at least 30 miles. Pilots who have achieved a credited flight distance of 5 miles are considered to have attempted the task.

**4.3** A mandatory pilot's meeting shall be held on the evening before the first scheduled competition day to present a briefing on safety, the rules, field operations and review of other contest-related matters. Pilots who fail to attend may not compete until they have been briefed on the contents of this meeting by the Competition Director or the Championship Manager. All pilots must read these rules prior to this meeting.

## **5 TASKING**

### **5.1 Modified Assigned Speed Task (MAT)**

The MAT is speed task over a course with one or more turn points, with a finish upon entry into the finish cylinder. The turn point cylinder radii are 1.0 mile. The CD shall assign a minimum task time, a minimum task distance of not less than 30 miles, a turn point sequence and a finish cylinder radius. The CD may assign from zero to 11 turn points. Assigned turn points must be attempted in the assigned sequence, but a contestant may elect to return home and finish after any turn point in the sequence. Contestants who achieve all assigned turn points in the assigned sequence may then elect to fly to additional turn points prior to finishing. No turn point may be repeated unless at least two intervening turn points are achieved. Contestants who fail to achieve the minimum task distance assigned by the CD will be scored for distance only.

### **5.2 Turn Area Task (TAT)**

The TAT is a speed task over a course through one or more assigned turn areas with a finish on entry into the finish cylinder. The turn areas are cylinders centered on a turn point. The CD shall designate a minimum task time, a minimum task distance of not less than 30 miles, a turn area sequence and a finish cylinder radius. The radius for each turn area cylinder shall be a whole number of miles not greater than 25 as assigned by the CD. The perimeters of successive turn area cylinders shall be no closer than 5 miles. Contestants who fail to achieve the minimum task distance assigned by the CD will be scored for distance only.

### **5.3 Task Changes**

The Competition Director may change the task at any time before the launch by conducting a pilots meeting. The CD may change the task after the launch has begun, but before the task opens by announcement on 123.3 MHz or locally assigned frequency. A radio roll call of the contestants will be made to verify that each contestant is aware of the task change.

If any contestant fails to respond to the roll call a predetermined visual signal will be displayed on the ground to indicate that the task has been changed. Contestants are responsible for checking for the visual signal prior to starting the task. The CD shall delay the opening of the task for at least 10 minutes after completion of the roll call and display of the visual signal.

## **6 CONTEST PROCEDURES**

### **6.1 Pilots Meeting**

A pilot's meeting is held prior to each day's task which will include the following:

- A briefing for the primary task and distribution of backup tasks.
- A weather briefing.
- Appropriate score sheets will be distributed as are available.
- The Designated Launch Grid (DLG) is the order of launch positions all of which will be determined on the first competition day by contest officials using a random drawing of contest numbers. The launch order shall be altered on each competition day following a successful contest day by placing the front 20% of the grid list at the back of the grid.
- The finish cylinder closing time will be announced at the first pilots' meeting and shall not be changed thereafter.
- The Grid Time will be announced.

### **6.2 Grid Time**

Contestants must have their gliders in the DLG position at Grid Time and be prepared to launch within 15 minutes. The CD may require a contestant not ready for a punctual takeoff to withdraw from the DLG for a launch after completion of the DLG. A contestant may withdraw from the DLG at any time. Contestants who withdraw shall not be launched as part of the DLG.

### **6.3 Launching**

Launches will normally be to 2,000 feet AGL and to a specified drop zone. The pilot may release at any time during the tow. A pilot may take any number of tows. Launching operations shall commence when soaring flight can be sustained as determined by the CD. Contestants who withdraw from the DLG or take additional launches after completion of the DLG (relights) are not by definition part of the DLG.

## **7 STARTING PROCEDURES**

### **7.1 Start Cylinder**

Each task shall include a Start Point with a Start Cylinder having a radius of at least two miles. Normally, the start cylinder will be positioned so that the edge of the cylinder in the direction of the first turn point/turn area will be close to the Championship site. The altitude of the Start Cylinder is limited only by local airspace restrictions and FAR rules.

### **7.2 Prior to Start**

Following the last launch of the DLG and before the task is opened, the CD shall determine that all pilots in the DLG have a reasonable opportunity to start. If each contestant within the DLG does not have that opportunity, the CD shall call a no contest day. The determination of reasonable opportunity shall be made by the CD alone and cannot be challenged. This rule is intended to address rapidly changing weather conditions, and other non-skill factors that prevent one or more pilots from starting in accordance with the CD's criteria for opening the task.

### **7.3 Opening the Task**

The task shall be opened by the CD no sooner than ten minutes after the last launch of the DLG. The time interval will be determined by the CD on the basis of soaring conditions and compliance with Rule 7.2. The CD shall provide advance notice of task opening by announcements such as, "Task will open in ten minutes, and "Task is now open."

### **7.4 Start Criteria**

Following the task opening and after release from tow, a valid start occurs each time the contestant's track log shows the glider exits the start cylinder, provided that at least one track log fix exists within the start cylinder preceding the exit from the cylinder. For each valid start, the start time and exit location from the start cylinder shall be determined by the scorer by interpolating between the latest fix within the start cylinder and the next fix outside the start cylinder. The credited leg distances are calculated in accordance with Rule 12.3. The scorer shall use the best scoring valid start.

### **7.5 Penalty Start**

A contestant may claim a start without a fix recorded within the start cylinder after the task opens if the closest fix is within 1 mile of the start cylinder. Such a start incurs a penalty. See Rule 13.5 to determine the penalty.

## **8 FLIGHT RULES**

### **8.1 Thermaling Direction**

All thermaling shall be to the left within the start cylinder(s) and MAT cylinders. Left turns are not mandatory within TAT cylinders.

## **8.2 Visual Flight Rules**

Contestants are required to comply with FAR Visual Flight Rules.

## **8.3 Communications**

Pilot/crew radio transmissions shall be confined to position reports, crew instructions, pilot-crew relays, task change relays, finish communications, surface conditions and matters of safety.

Pilot/crew reports or discussions of soaring conditions are prohibited.

Pilot/crew communications on the start/finish frequency are subject to penalty by the Competition Director.

# **9 FINISHING PROCEDURES**

## **9.1 Finish Cylinder Entry**

The finish cylinder normally will be centered on the contest site runway, and at least 1 mile in radius, but shall be determined by the CD. When approaching the finish cylinder and approximately four miles away, the contestant shall transmit on 123.3 or locally assigned frequency "Call sign, four miles from a direction, i.e. southeast, west, etc." As the 1-26 enters the finish cylinder, the contestant shall transmit on 123.3 or locally assigned frequency their ID and the intended traffic pattern for landing. The finish cylinder has no minimum altitude.

## **9.2 Landing**

The contestant must land within ten minutes after finishing the task or a penalty may be applied. The best scoring entry of the finish cylinder shall define the task finish.

## **9.3 Relaunch**

A contestant may make another attempt at the task after finishing the task, on landing back without task completion, or after an auto retrieve after landing out.

An additional attempt to fly the task is not permitted after a flying retrieve (aerotow or ground launch).

# **10 FLIGHT DOCUMENTATION**

## **10.1 GPS Documentation**

The GPS generated track log(s) will provide the principal documentation of the flight. All contest time functions such as recording of task opening, grid time, launch time, and landing shall use GPS clocks. All distances shall be in statute miles. All track logs and landing cards shall be available for inspection by the contestants.

## **10.2 Downloading Track Logs**

Contestants may use any GPS data logger capable of recording time and horizontal position in IGC format. Appropriate cables may be required by the scorer. The

Contest Director shall require the use of data loggers that also record altitude where local controlled airspace is defined by altitude and there exists a potential for penetrating controlled airspace. Altitude is determined by pressure altitude data. Data from loggers which record only satellite altitude data will be adjusted to the calculated equivalent pressure altitude.

### **10.3 Tampering**

Any flight log that, in the scorer's judgment, has been tampered with will be disregarded and the contestant scored as DNC for the day.

### **10.4 Task Credit**

For task credit, the track log shall record the start, the pertinent turn points in the sequence claimed or assigned in accordance with the turn point credit rules, the finish cylinder entry and landing.

### **10.5 Restricted Airspace**

A contestant will receive a DNC for the contest day if the track log indicates that the contestant entered Class A, B, C or active Restricted or Prohibited airspace. The CD may evaluate any appropriate data and other information for the determination of airspace violations. Gaps in the flight record do not infer an airspace violation.

### **10.6 Landing Cards**

Landing cards and track logs must be turned in to the scorer or his designee within one hour of landing at the contest site, or as soon as possible after an out landing. The landing card shall list all turn points claimed in the proper sequence. Turn-in time for landing cards will be recorded.

## **11 LAND OUTS**

### **11.1 Required Call-in**

Contestants who land out shall promptly call Championship Headquarters providing all information specified on the landing card and, for MAT tasks, the intended destination prior to landing. Another call to Championship Headquarters shall be made advising that pilot and crew are together. Calls can be made by radio if receipt by Championship Headquarters is acknowledged.

### **11.2 Verification of Landing Site**

In the event of a logger failure, the contestant shall record the name, address, and telephone number of a witness on the landing card. The contestant shall record the latitude and longitude of the landing location as accurately as possible by available navigation aids, such as GPS or current sectional chart.

## **12 SCORING**

### **12.1 Calculations**

Credited flight distance shall be determined by using the WGS – 84 ellipsoid. Final individual pilot scores shall be the total of the daily points earned. Final team scores shall be the total of the daily points earned by the team. No pilot of a team may score more than 70 % of the contest days during the Championships. If more than one team pilot competes on the same day, the team will decide which flight should be used. Final score ties are resolved against the pilot with the lowest score on any Contest Day. The scoring formulas and terminology are presented in Appendix A.

### **12.2 Re-scoring**

Re-scoring of contest days may be considered only (i) if errors or ambiguities are discovered in the rules, or (ii) if errors are made in scoring one or more contest pilots. In case of (i), corrections shall be made by majority vote of the Competition Director, current Association President and Rules Committee members. Written corrections shall be distributed to contestants as soon as possible and be effective for the entire duration of the competition.

Errors of type (ii) discovered during the competition should be communicated to the Scorer, who has authority to make corrections. Scoring errors discovered after the end of the competition require a written request for re-scoring within 14 calendar days after the last contest day. The request must support the change of the final first, second or third place winners of either individual or team contestants. The request should be submitted to the Association President, Rules Chair and contest Scorer for review. Any scoring changes determined by such review will be published for the membership.

### **12.3 Completed Task Distance**

Task distance is calculated from the start cylinder exit location through each properly credited turn point or turn area to the entry location of the finish cylinder. At each credited turn point or turn area, the scorer shall determine the fix that, in combination with other fixes, gives the contestant the greatest credited distance. Each such fix, termed a control fix, is used as the terminating point of one task leg and the initial point of the subsequent leg. If only the penalty zone (Rule 13.4) is penetrated, the control fix within the penalty zone shall be used for leg distance calculations. If the turn point or turn area cylinder is penetrated, the control fix within the cylinder shall be used for leg distance calculations.

### **12.4 Uncompleted Task Landing Point**

A scored landing point shall be determined by the Scorer for uncompleted tasks, which is the track log fix that yields the greatest scored distance. In case of data logger failure, the pilot shall pinpoint the landing site for the Scorer on a sectional chart and have a witness verify the landing point. Flight claims are subject to verification.

## **12.5 Uncompleted Task Distance Calculation**

Task distance is calculated from the task start cylinder exit location through each properly credited turn point or turn area to the end of the uncompleted leg, minus the distance from the landing point to the end of the uncompleted leg. If the latter distance is greater than the uncompleted leg, distance credited is the sum of the lengths of all the legs completed in proper sequence.

## **13 TURN POINT CREDIT AND PENALTIES**

### **13.1 Turn point and Turn Area Credit**

A contestant shall receive credit for reaching a turn point or turn area if the track log shows the nearest fix is no more than 1 mile outside of the turn point cylinder or turn area cylinder.

### **13.2 Assigned Turn Points and Turn Areas – Penalty**

If the nearest fix is greater than 1 mile outside of the turn point cylinder perimeter or turn area cylinder perimeter, the contestant's score shall be computed as if a landing were made at the coordinates of the nearest fix.

### **13.3 Pilot Selected Turn Points (MAT) – Penalty**

If the nearest fix is greater than 1 mile outside of the turn point cylinder perimeter, the contestant's score shall be computed as if the turn point was not achieved.

### **13.4 Turn Point and Turn Area Penalty Zone**

A penalty is assessed when the contestant's nearest fix is greater than zero and equal to or less than 1 mile outside of the turn point cylinder perimeter or turn area cylinder perimeter. A penalty of one point per each whole 0.02 miles from the cylinder perimeter shall apply.

### **13.5 Penalties**

All points earned by a single team pilot on more than 70% of the contest days shall be deducted from the team entrant's score.

The Start Penalty is calculated as follows:

- Start Penalty = (Start Distance in miles - Start Cylinder Radius in miles) X 200 points.
- Where Start Distance = The distance, to the nearest 0.1 miles, from the Start Point to the Start Fix.
- Start Fix = The fix that is closest to the start cylinder after the task is opened.
- Start Time = The time of the Start Fix.

A daily penalty cannot result in a daily score of less than zero. The Contest Director may apply penalties for the following:

- Unsafe flying or unsportsmanlike conduct. Penalty amount shall be at the CD's discretion, but not less than 100 points per infraction.
- A 50 point penalty for failure to turn in track log and required landing card within an hour of finishing or landing back without a finish.
- A 50 point penalty for failure to comply with the landing time interval.



## 14 Awards

**14.1 Individual Pilot First, Second, Third Place Permanent Trophies** Individual Permanent awards will be provided by the sponsor to each of the three highest cumulative scoring individual pilots.

### **14.2 Team Pilot First, Second, Third Place Permanent Trophies**

Team trophies will be provided by the Sponsor to each member of the two highest cumulative scoring teams. If there are six or more teams entered, each member of the third highest scoring team will receive a third-place team trophy.

### **14.3 Perpetual Traveling Awards**

Perpetual Traveling Awards will be made to contestants credited with the following achievements in the annual 1-26 Championships.

- **THE MARION C. CRUCE TROPHY** - Individual pilot with highest final score.
- **THE BOB McNIELL/FRED CUNY MEMORIAL TEAM TROPHY** - the team pilots with the highest final score.
- **THE PRESIDENT'S TROPHY** - The pilot with the fastest flight. In the event of a tie, the trophy is awarded to the pilot with the highest total Championship score.
- **THE OLD GOAT TROPHY** - The pilot with the highest average daily score who has celebrated his/her 70th birthday on or before the start of the Championship. The candidate must have flown at least 30% of the Contest Days.
- **THE DAVID C. JOHNSON MEMORIAL TROPHY** - The pilot with the highest average daily score who is flying in the 1-26 Championships for the first time. If a team member, the candidate must have flown at least 30% of the contest days. All members of the team are co-winners with the trophy so inscribed.
- **THE VIRGINIA M. SCHWEIZER TROPHY** - The female pilot who has the highest average daily score. The candidate must have flown at least 30% of the Contest Days. The award is presented only in those competitions in which two or more women pilots are entered.
- **THE JOHN P. GREENE MEMORIAL TROPHY** - The pilot under age 30 (at the end of the Championship) with the highest average daily score. The candidate must have flown at least 30% of the Contest Days. A pilot over the age of 21 shall not be eligible to win this trophy, if he/she has won the trophy in a prior year and another contestant is eligible.
- **THE OLD BUZZARD TROPHY** - The oldest pilot competing in the contest.

- **The Spiffy Award** is an annual award given to the owner of the most attractive qualifying 1-26 at the Championships.

## **APPENDIX A: 1-26 CHAMPIONSHIP SCORING SYSTEM**

### Scoring Nomenclature

- **D** - A Contestant's credited flight distance.
- **Db** - The best credited flight distance of all the contestants.
- **DNC** - A Contestant with a credited flight distance of less than 5 miles or a violation of rule 10.5. Such Contestant receives zero points for the day and is not considered to have attempted the task. See Rule 4.1.
- **DVb** - The credited flight distance achieved by the fastest finisher.
- **FR** - Finisher Ratio = # of finishers/ # Contestants with 5 or more miles credited flight distance.
- **LR** - Land Out Ratio = # of land outs/ # Contestants with 5 or more miles credited flight distance. The term "land outs" above shall include all nonfinishers with 5 or more miles credited flight distance.
- **MTD** - Minimum task distance set by the Competition Director.
- **MTT** - Minimum task time set by the Competition Director.
- **Finisher** - A Contestant with a completed task, provided the credited flight distance equals or exceeds the MTD.
- **T** - A finisher's elapsed time in hours from the finisher's official start time to the finisher's finish time, but not less than the MTT.
- **V** - A finisher's speed.
- **Vb** - The speed of the fastest finisher.
- **VsP** - The score of the slowest finisher before subtraction of penalties.

### **Scoring Equations - MAT and TAT.**

- $V = \min(D/T, D/MTT)$ .
- Score for finishers:  $\text{Score} = 1000 \times ((V/Vb \times FR) + LR)$ .
- Score for non-finishers when there is at least one finisher:  $\text{Score} = .99 \times VsP \times \min(1, D/DVb)$ .
- Score if there are no finishers:  $\text{Score} = 1000 \times D/Db$  Score computations
- Landing point coordinates are taken from GPS coordinates verified in the track log or in case of logger failure, provided by the pilot.
- Task leg distances and achieved distances are rounded to the nearest 0.1 statute mile. Times are recorded to the nearest second. Full mathematical precision shall be carried through all calculation steps. Daily scores shall be rounded to the nearest whole number of points as the final calculation step.
- All DNC penalties shall be applied before the scoring process begins. All other penalties shall be applied after scoring computations of speed and distance have been calculated.