

# Introduction to the 2018 SSA Competition Rules

This document (effective March 2018) presents rules governing National and Regional soaring competitions sanctioned by the Soaring Society of America (SSA).

Rules for U.S. soaring competitions are maintained by the SSA Contest Rules Committee and approved by the SSA Board of Directors. The Rules Committee is made up of the SSA Competition Committee Chairman and four elected members. An annual election is held to select members for open positions; all pilots on the current U.S. Competition Pilot Ranking List are eligible to vote.

Within this document, paragraphs are marked as follows:

- » - marks a section that includes changes for 2018
- ‡ - marks an item that has changed for 2018

Certain rules have explanatory text, which appears in the Guide to the Rules, found at the end of this document.

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# 2018 SSA Competition Rules

## 1.0 GENERAL

### 1.1 Purpose

**1.1.1** The purpose of a National Soaring Championship is to determine a National Champion and to measure the performance of all entrants. Performance in National competitions will be used to provide a basis for pilots to qualify for entry into future soaring championships and to select pilots for the U.S. Team in International Competition.

**1.1.2** The purpose of a Regional Soaring Championship is to determine a Regional Champion and to measure the performance of all entrants within each class. Performance in Regionals will be used to provide a basis for pilots to qualify for entry into future soaring Championships.

**1.2** Soaring Championships are organized in accordance with the Sporting Code of the FAI (Federation Aeronautique Internationale) under the authority of the NAA (National Aeronautic Association), and are sanctioned by the SSA (Soaring Society of America).

**1.3** These rules are the agreement between Contest Officials, entrants, and the SSA by which fair and consistent competition is maintained. Failure to hold the contest in conformance with these rules may result in disallowance of the contest or competition days by the SSA.

**1.4** Copies of these rules are available from the SSA. Comments should be addressed to the Chairman of the SSA Contest Committee and/or current members of the Rules Committee in care of the SSA.

**1.5** Within these rules, unless otherwise noted:

- Distances are in statute miles
- Speeds are in statute miles per hour
- Weights are in pounds
- Altitudes are in feet
- Altitudes AGL are referenced to the elevation of the home airfield
- Times-of-day are based on a local 24-hour clock

**1.6** National competitions held at the same place and times as other competitions are to be given preference for entry positions, and in gridding and launching. When in the judgment of the Competition Director it is practical, re-launches of National entrants should also be given preference over those of other classes.

### 1.7 Rules Waivers

**1.7.1** Competition organizers may request waivers from the provisions of these Rules. Such requests shall be submitted in writing to the SSA Competition Committee Chairman, and should include full detail as to the purpose and operation of the requested waiver.

**1.7.2** The normal deadline for a rules waiver request shall be 10 days prior to the Preferential Entry Deadline.

**1.7.3** The Competition Committee Chairman, in consultation with members of the SSA Rules Committee, shall make a prompt decision to grant or deny the waiver, and shall communicate this decision in writing.

### 1.8 Rules Interpretation

**1.8.1** Any SSA member may at any time request an interpretation of a Rule. Such requests shall be submitted to the SSA Rules Committee Chairman.

**1.8.2** The Rules Committee Chairman, in consultation with members of the SSA Rules Committee, shall make a prompt interpretation and shall communicate this in writing.

## 2.0 SANCTIONING

**2.1** Sanctioning is the process by which the SSA ensures that a soaring contest is conducted according to rules and procedures that have been shown to lead to safe and fair competition.

**2.2** To obtain a contest sanction, contest organizers must complete a National or Regional Application for Sanction form (hereinafter referred to as the AFS form) and submit it to the SSA Contest Committee.

**2.3** For National competitions, the AFS form should be submitted in time for review prior to the Fall SSA Board of Directors meeting in the calendar year two years prior to the competition. For Regional competitions, the AFS form may be submitted between 90 days and two years prior to the scheduled start of a competition; a submission at least 6 months in advance is recommended.

**2.4** A completed AFS form includes the dates selected for the competition. To minimize conflicts with other competitions:

- Organizers of National competitions are expected to coordinate with the SSA Contest Site Selection Subcommittee.
- Organizers of Regional competitions are expected to check the dates of competitions already approved for Sanction.

**2.5** The AFS form includes a requirement for specific insurance coverage. A continuing condition for a Sanctioned competition is that the specified coverage remain in effect through the final scheduled day of the competition.

**2.6** Included with the AFS form shall be a detailed description of any requested waiver from the provisions of these Rules. With the exception of any granted waiver, Sanctioned competitions must be conducted in strict accordance with these Rules.

**2.7** Approval process

**2.7.1** For National contests, the SSA Contest Committee Chairman and the Contest Site Selection Subcommittee review the AFS form and present recommendations for contest sanctions to the SSA Board of Directors, which retains the final authority to grant or deny Sanction for National contests.

**2.7.2** For Regional contests, the SSA Contest Committee Chairman and the Regional Director for the proposed contest's SSA Region review the AFS form and announce a decision to grant or deny an SSA Sanction. This decision normally is announced within 3 weeks of receipt of the AFS form.

**2.8** Once a Sanction has been granted, any change to the information provided on the original AFS form requires further review and approval of the SSA Contest Committee.

### **3.0 » CONTEST PERSONNEL**

**3.1** Key Personnel

**3.1.1** Contest Manager

Responsible for the overall management of the contest. Is subject to approval by the SSA Contest Committee at least 60 days before the contest.

**3.1.2** Operations Director

Appointed by and is accountable to the Contest Manager. Is responsible for all field operations such as towplane operations, sailplane and vehicle movement on the ground, sailplane launches, and landing procedures.

**3.1.3** Competition Director

**3.1.3.1** The Competition Director (hereinafter referred to as the CD) shall be an experienced competition official nominated by the sponsor at least 60 days before the contest and approved by the SSA Contest Committee. The CD works for the Contest Manager, but is responsible to the SSA for insuring compliance with these rules and fair competition.

**3.1.3.2** The CD supervises the Contest Competition Committee, task selection, flight documentation procedures and analysis, start and finish procedures and scoring.

**3.1.3.3** The CD must not be an entrant in any competition over which that CD has authority.

**3.1.4** Contest Competition Committee

Chaired by the CD, it consists of up to three other members appointed by the CD. These members should be experienced competition pilots, officials of the contest or pilots with a good understanding of sailplane competition. (Entrants are not eligible.) The Contest Competition Committee is responsible for rules interpretation, assessment of penalties, and protest resolution.

**3.1.5** Task Advisory Committee

**3.1.5.1** This committee assists the CD in the selection of tasks, though the ultimate responsibility for task selection lies with the CD alone.

**3.1.5.2** This committee will be composed of two pilots entered in the contest, selected by the CD.

**3.1.5.3** Minimum qualification for the first position shall be a finish in the top 20% of a previous contest at the same level as this contest.

**3.1.5.4** Minimum qualification for the second position shall be a good knowledge of soaring conditions in the contest area.

**3.1.6** Other key personnel:

- Scorer
- Chief Tow Pilot
- Meteorologist

**3.1.7** Retrieve Office

**3.1.7.1** This is a single person or a small group that keeps track of pilot landings and coordinates retrieves (both by trailer and aerotow) for pilots that land away from the home airfield. The Retrieve Office is supervised by the Contest Manager.

**3.1.7.2** On each official practice day and all competition days it shall be the duty of the Retrieve Office to ensure that all pilots who have made a contest launch are accounted for after landing. Pilots are required to assist in this accounting under the provisions of ¶ 10.10.2.1 and ¶ 10.10.2.2. The Retrieve Office will stay open until all pilots are accounted for or until an announced cutoff time, whichever is later. If the Retrieve Office is informed of a crew-pilot rendezvous problem, it will stay open until told the problem is resolved.

**3.2** † Acknowledgment of contest volunteers

**3.2.1** A non-entrant who acts as a contest official named in ¶ 3.1 is eligible for a one-year extension on the SSA Pilot Ranking List. Such an extension must be requested of the SSA in writing and may not occur more often than once in three years.

**3.2.2** † Pilots who serve as Contest Manager, Competition Director or Scorer are eligible for the following:

- exemption from the requirement to pay a Sanction Fee for SSA-Sanctioned competitions they enter for which first competition day falls within a one-year period that starts on the last scheduled day of competition.
- enhanced entry priority at one future SSA-sanctioned competition, until the end of the following calendar year. The pilot must notify the SSA Competition Committee and the contest to which entry is sought prior to that contest's Preferential Entry deadline.

**3.2.3** To be eligible for the provisions of ¶ 3.2.2, a person must serve as one of the named officials for an entire competition, and be listed on the SSA Pilot Ranking List.

**3.3** † In nearly all cases, contest personnel are unpaid or lightly compensated volunteers. As a condition of participation, pilots and crews agree to conduct themselves accordingly, treating contest personnel with courtesy and consideration. Failure to do so may be grounds for removal from the competition and exclusion from future entry.

## **4.0 » PERIOD OF THE CONTEST**

**4.1** † The period of the contest shall include all scheduled competition days, as specified by contest organizers on the Application for Sanction form.

**4.2** National competitions

**4.2.1** For Club Class and Sport Class Championships, the period of competition shall be at least seven, but not more than ten consecutive days.

**4.2.2** For competitions in other classes, the period of competition shall be nine or ten consecutive days.

**4.2.3** For contests scheduled for fewer than 10 days, organizers may specify (on the AFS form) that one additional consecutive day is provisional. This provisional day shall be used if, and only if, 2 or 3 valid competition days have been achieved at the end of the originally scheduled days.

**4.2.4** The practice period shall be one or two days immediately preceding the period of competition. All contest support functions (Start/Finish, Scoring, sailplane weighing, retrieve office, etc.) should be operational during this period.

**4.2.5** An official National Championship requires a minimum of three valid competition days (¶ 11.1.3).

### 4.3 Regional competitions

- 4.3.1 For a Super-Regional contest (§ 5.1.2), the period of competition shall be from five to ten consecutive days.
- 4.3.2 For other Regional contests, the period of competition shall be from three to seven days, in not more than three periods.
- 4.3.3 An unofficial practice period may be scheduled prior to the first competition day.
- 4.3.4 An official Regional Championship requires a minimum of two valid competition days (§ 11.1.3).

## 5.0 » ENTRIES

5.1 For Regional competitions, contest organizers will declare (on the AFS form) the competition type, which shall be one of the following:

- normal Regional competition: A contest in which pilots who reside within the contest's SSA Region receive priority for all entry positions.
- Super-Regional competition: A contest in which pilots who reside within the contest's SSA Region receive priority for zero to 50% of available entry positions, as selected by contest organizers on the AFS form.

### 5.2 Entrants

#### 5.2.1 Number

##### 5.2.1.1 Minimum number within a class for an Official competition

- For a National competition: either eight regular entrants with a final score not less than 40% of the winner's final score, or five regular entrants with a current pilot ranking score greater than 92.0 and a final score not less than 75% of the winner's final score.
- For a Regional competition: five regular entrants with a final score greater than zero.

##### 5.2.1.2 Maximum

**5.2.1.2.1** The total number of sailplanes is limited to 65, unless a smaller maximum number is designated by contest organizers on the AFS form and approved by the SSA Contest Committee Chairman. This is a maximum for all classes in all contests being held at one site simultaneously.

**5.2.1.2.2** No sooner than the close of Preferential Entry and no later than 30 days prior to the scheduled start of competition, contest organizers may request of the SSA Contest Committee Chairman authorization for a maximum number of sailplanes smaller than that of § 5.2.1.2.1. This number shall not be smaller than the number of entries already received at the time the announcement is made.

**5.2.1.2.3** If more than one National contest is being held simultaneously, the maximum number of entrants in each shall be in proportion to the number of applications for each received prior to the Preferential Entry Deadline (§ 5.3.3), but not less than ten.

**5.2.1.2.4** Applicants to an oversubscribed Regional contest shall be accepted without regard for the competition class to which they have applied.

#### 5.2.2 Types

**5.2.2.1** All entrants are either regular entrants or guests.

**5.2.2.2** A Junior entry is one whose pilot's 25th birthday occurs in the current or a future calendar year.

**5.2.2.3** A Single-Pilot entry includes only one pilot-in-command

##### 5.2.2.4 Team entries

**5.2.2.4.1** A Group Team entry is one for which two to four pilots plan to act as pilot-in-command (either in a single-place or a multiplace sailplane). Group team entries are allowed at Regional but not at National Contests.

**5.2.2.4.2** A Multiplace Team entry is one for which two pilots will fly together in a multiplace sailplane, taking turns as pilot in command. Each pilot must meet entry requirements and be aboard for all contest flights.

**5.2.2.4.3** For either type of team entry, one pilot must pay the full entry fee; others on the same team must each pay the SSA sanction fee. Team entries shall be indicated on scoresheets using the last name of each pilot, joined with an ampersand.

**5.2.2.5** The type of entry must be declared at registration and may not change after the first contest launch.

**5.2.3** Shared sailplane - Two or more single-pilot entrants may share one sailplane. Each must use a unique contest ID and each is scored separately. One sharing entrant must pay the full entry fee, and all sharing entrants must pay the SSA sanction fee. The CD shall be informed which pilot is to act as pilot-in-command prior to each contest flight.

**5.2.4** Passengers - An entrant may carry passengers in a multi-place sailplane.

**5.2.5** Nationality

**5.2.5.1** A US pilot is one who is a US citizen or a Lawful Permanent Resident as defined by the US Immigration and Naturalization Service (i.e. possesses a valid "Green Card"); others are considered foreign pilots.

**5.2.5.2** Foreign pilots are eligible to be listed and scored as regular entrants.

**5.2.5.3** At a National championship, only US pilots are eligible to be declared US National Champion ([¶ 7.1.1](#)).

**5.3** Entry Procedures

**5.3.1** Pilot Ranking Score

**5.3.1.1** A prospective entrant's Pilot Ranking Score is the greater of:

- A ranking score from the current SSA Pilot Ranking List
- The best pilot ranking score obtained in an SSA-sanctioned contest during the current calendar year and prior to the Preferential Entry Deadline.

**5.3.1.2** If an applicant has earned a greater ranking score in a SSA-sanctioned contest subsequent to the publication of the Pilot Ranking List, it is the applicant's responsibility to submit this to contest organizers.

**5.3.1.3** In the case of a team entry, the least favorable Pilot Ranking Score of any team member is used, but a team ranking score earned jointly by all team members will be used if more favorable.

**5.3.1.4** Pilots with no ranking score are considered unranked; their Pilot Ranking Score is zero.

**5.3.2** Preference Number

**5.3.2.1** Except for a Regional Sport Class entry, an applicant's Preference Number is the Pilot Ranking Score of [¶ 5.3.1](#).

**5.3.2.2** For a Regional Sport Class entry, inverted preference applies: an applicant's Preference Number is 100 minus the Pilot Ranking Score of [¶ 5.3.1](#). But contest organizers may limit the entry slots to which inverted preference applies; for other entry slots, the Preference Number is the Pilot Ranking Score.

**5.3.2.3** Each of the following that applies causes 100 to be added to the preference number:

- An applicant who meets the provisions of [¶ 3.2.2](#)
- For any Regional contest ([¶ 5.1](#)), an applicant who finished first in any class of the most recent SSA-sanctioned Regional contest at this site within the previous 2 calendar years
- For a Super-Regional competition ([¶ 5.1](#)), an applicant who resides within the contest's SSA Region and is among the top-ranking N applicants, where N is the number of entry positions selected by the organizers for priority under [¶ 5.1.2](#).
- For a normal Regional contest ([¶ 5.1](#)), an applicant who resides within the contest's SSA Region

**5.3.3** The Preferential Entry Deadline is 60 days prior to the first scheduled competition day.

**5.3.4** Entry applications ([¶ 5.5.2](#)) received no later than the Preferential Entry Deadline are ranked in order by Preference Number (and in case of ties, by date of application).

**5.3.5** At the Preferential Entry Deadline, applicants are assigned to available entry slots in order by rank. Any surplus of applications forms a ranked standby list.

**5.3.6** Prior to the Preferential Entry Deadline, Contest organizers may designate up to 2 qualified pilots to be granted preferential entry regardless of their ranking score. This provision is intended for use on behalf of those who have contributed significantly to contest organization and operation.

**5.3.7** Applications received later than the Preferential Entry Deadline are ranked by date of application (and in case of ties, by preference number) and added to the standby list.

**5.3.8** After the Preferential Entry Deadline, applicants are admitted to open entry slots in order from the standby list.

**5.3.9** The position of a prospective entrant who has not appeared and paid the full entry fee by 09:00 of a class's first scheduled competition day is considered to be open and available to a pilot on the standby list.

### **5.3.10** Foreign Pilots

**5.3.10.1** Foreign pilots ([¶ 5.2.5.1](#)) with a Pilot Ranking Score ([¶ 5.3.1](#)) greater than zero are eligible for entry in the same way as US pilots.

**5.3.10.2** Unranked foreign pilots are eligible for entry under the following rules:

**5.3.10.2.1** Two preferential entry positions are available. Priority for these goes to one pilot per foreign country, by date of application.

**5.3.10.2.2** If one of these positions remains open at the Preferential Entry Deadline, it can be taken by an additional foreign pilot from the country already represented, with priority by date of application.

**5.3.10.2.3** Unranked foreign applicants are included among those eligible for entry from the standby list ([¶ 5.3.5](#) - [¶ 5.3.8](#)).

**5.3.11** Successful applicants should be notified as soon as possible, and always within a week of acceptance

## **5.4** » Fees

**5.4.1** The entry fee will be as announced. A deposit is required when an entry application is submitted. The sponsor may impose a surcharge ([¶ 5.4.2.4](#)) for entries received after the Preferential Entry Deadline.

### **5.4.2** » Fee Amounts

#### **5.4.2.1** » Entry fees

**5.4.2.1.1** ‡ Entry fees are structured as a fixed base fee plus an amount per aerotow, as specified by contest organizers on the AFS form. If the fees exceed the following recommendations, pre-approval by the SSA Competition Committee is required.

**5.4.2.1.2** The recommended maximum fixed base fee is \$300 for National contests and \$200 for Regional contests. This base fee may be increased by up to \$25 to cover pre-existing local per-pilot fees that apply to all pilots (not solely pilots entered in a competition) who fly at the contest site.

**5.4.2.1.3** The recommended maximum aerotow fee is \$55. Organizers may require non-refundable pre-payment for a specified number of aerotows, the maximum of which shall be 3 fewer than the number of scheduled competition days for Nationals and 2 fewer than the number of scheduled competition days for Regionals.

**5.4.2.1.4** Organizers who face local circumstances that increase costs are encouraged to apply (on the AFS form) for a waiver that requests increased fees.

**5.4.2.3** The entry deposit is \$150.

**5.4.2.4** The maximum late-entry surcharge is \$100, which may be added to the required entry deposit.

#### **5.4.2.5** Sanction fees

**5.4.2.5.1** The entry fee includes a contest sanction fee. The sanction fee amount is \$60 for National contests and \$45 for Regional contests.

**5.4.2.5.2** Sanction fees are to be paid by contest sponsors to the SSA at the conclusion of the contest. If the competition is not Official ([¶ 4.2.5](#), [¶ 4.3.4](#), [¶ 5.2.1.1](#)), half the fee is paid to the SSA and the remainder is refunded to entrants.

**5.4.2.5.3** No Sanction Fee is owed by an entrant who qualifies under [¶ 3.2.2](#), and who makes this known to contest organizers during registration. The Sanction Fee is deducted from the entry fee. In case of questions as to qualification, organizers should consult with the SSA Contest Committee.

**5.4.2.6** Rules governing fee amounts shall be those in effect at the start of competition. If these have been altered between the time the contest was granted its sanction and the start of competition, the new fees and fee limits shall apply.

**5.4.3** ‡ The pre-paid aerotows of [¶ 5.4.2.1.3](#) may be taken at any time during the period of the contest ([¶ 4.0](#)). Aerotows taken for practice purposes are not included.

**5.4.4** The deadline for canceling an entry with full refund of fees paid is 30 days prior to the first scheduled competition day; after

this time, money will be refunded at the discretion of the Contest Manager. But an applicant on the Standby list who cancels immediately upon notification that an entry position has become open receives a full refund.

## **5.5 Pilot Qualifications and Entry Requirements**

### **5.5.1 Experience requirements**

**5.5.1.1** Applicants can qualify via any of the following:

- Have a Pilot Ranking Score (§ 5.3.1) greater than zero.
- Present evidence both of having completed a previous National soaring contest and of recent cross-country soaring experience.
- Foreign pilots may present evidence of having earned the FAI Gold Badge and of experience in soaring competition.

**5.5.1.2** For Regional contests, an applicant can also qualify via any of the following:

- Present proof of having earned the FAI Silver Badge and the Gold Badge distance leg
- Provide evidence of a valid flight accepted by the On-Line Contest (OLC) scored at a distance of at least 300 km
- For Sport class, present proof of having earned the FAI Silver Badge
- For Sport Class, provide evidence of a valid flight accepted by the On-Line Contest (OLC) scored at a distance of at least 100 km

### **5.5.2 Entry application requirements**

**5.5.2.1** To be considered for entry, an applicant must submit the following to the contest organizers:

- An SSA number indicating current voting or student SSA membership
- Evidence of meeting experience requirements (§ 5.5.1)
- The entry deposit (§ 5.4.2.3)
- A Pilot Ranking score and source, if earned in the current year (§ 5.3.1.2)
- Declaration of the competition class to which entry is sought
- If the applicant is a US pilot, SSA Region of residence
- If the applicant is a Foreign pilot, country of citizenship
- Whether entering as regular entrant or guest

**5.5.2.2** The date of application is the date on which these submissions are completed.

### **5.5.3 Contest registration requirements**

**5.5.3.1** In addition to the requirements of § 5.5.2, at contest registration each entrant must:

**5.5.3.1.1** Present proof of holding a valid FAA Private or Commercial Glider Pilot Certificate. Foreign pilots (§ 5.2.5) may present an equivalent certificate from their country. For Regional Sport-class competitions, instructors and students at US Service Academies may present the appropriate endorsement making them eligible as pilot-in-command.

- Present proof of voting or student SSA membership valid through the final scheduled contest day.
- Declare the sailplane to be flown and its official configuration. A sailplane will be accepted provided it meets all applicable provisions of these rules.
- Declare ownership of the registered sailplane, or show permission of the owner to fly the sailplane in the competition.
- Present proof of insurance applicable to the registered sailplane and pilot(s), effective through the final scheduled competition day, showing coverage of at least one million dollars (\$1,000,000) per occurrence for bodily injury and property damage liability, with no reduction in coverage for persons outside the insured sailplane.
- Complete the contest registration form and the waiver/signature form.
- Pay the balance of fees owed.

#### **5.5.3.2** Entry Deadline

Registration must be complete by 09:00 of the first scheduled competition day; no entries will be accepted later than this.

#### **5.5.4** Tow pilot requirements

Prior to conducting any tow operations, pilots of aircraft that provide launches for contest sailplanes must:

- Present proof of holding a valid FAA Pilot Certificate.
- Present proof of ownership of the tow aircraft, or permission of the owner for its use in contest towing operations.
- Present proof of insurance for the tow aircraft with a minimum coverage of \$1,000,000 per occurrence for bodily injury and property damage liability.
- Receive a briefing from the Chief Tow Pilot.

### **5.6** » Contest Information

#### **5.6.1** Control Points

**5.6.1.1** Control points include turnpoints, start points and finish points.

**5.6.1.2** Each control point shall be assigned a unique numeric ID and alphanumeric name.

**5.6.1.3** The latitude and longitude of each control point shall be specified. Coordinates of points that coincide with a ground feature shall be accurate to 200 ft or better based on the WGS-84 datum.

**5.6.1.4** The elevation of each control point shall be specified, with an accuracy of 50 ft or better.

**5.6.1.5** At least one control point shall be located on the home airfield. This shall be designated the home point, and its altitude shall be used as the official altitude of the home field.

**5.6.1.6** A point to be used as a finish gate shall mark the center of the gate and include the true track of a glider crossing perpendicular to the gate, accurate to 5 degrees or better.

**5.6.1.7** The standard format for control point data shall be the Cambridge .DAT format.

#### **5.6.2** Airspace

**5.6.2.1** Closed airspace includes Class A, Class B, Class C, Prohibited areas, airspace outside US territory, and other airspace in which VFR flight by non-transponder-equipped aircraft is not allowed or would require a specific clearance. Any airspace that lies directly above such closed airspace is itself considered closed.

**5.6.2.2** Restricted areas (including areas covered by a Temporary Flight Restriction) are also closed. All airspace directly above such areas is itself closed, except in the case of designated areas for which the CD has specified an upper limit to the closed airspace (as an altitude MSL). This limit shall be set sufficiently above the actual top of the underlying Restricted area as to make inadvertent descent into that area unlikely. Descent below the CD-designated upper limit incurs a Serious Airspace Penalty ([¶ 12.2.5.6](#)).

**5.6.2.3** The CD may declare additional airspace to be closed.

**5.6.2.4** Closed airspace is considered closed at all times, except as specifically announced by the CD.

**5.6.2.5** Because airspace changes (including but not limited to Temporary Flight Restrictions) can be implemented at any time, all pilots should be aware that perfect accuracy of airspace data cannot be guaranteed. If discrepancies arise, they will be resolved by reference to the official definition of airspace in effect at the time of flight, subject to modifications previously announced by the CD.

**5.6.2.6** The standard format for closed airspace data shall be the .SUA format.

#### **5.6.3** Contest Databases

**5.6.3.1** Official databases in computerized form of control points ([¶ 5.6.1](#)) and of closed airspace ([¶ 5.6.2](#)) should be made available no later than 30 days prior to the first scheduled competition day.

**5.6.3.2** Each database shall include a unique version number or date/time, which shall be changed each time any change is made to the data.

**5.6.3.3** Copies of the current databases shall be readily available to entrants at the contest site.

**5.6.3.4** If after distribution of any pilot kit ([¶ 5.6.4](#)), any change to an official database is necessary, the CD will ensure that each entrant is notified of the new version and acknowledges this notification by signature.

**5.6.3.5** Scoring shall be based on the current version of contest databases.

#### **5.6.4** † Pilot's Kit

At registration, each entrant will be provided with the following contest-related information and documents. These may be supplied in printed or electronic form, at the discretion of contest organizers.

##### **5.6.4.1** Required

- A list of all key contest personnel (§ 3.1).
- A diagram of the contest site showing runways, taxiways, trailer tie-down areas, vehicle routes, and start, finish, relight and gridding areas.
- Gridding, launch and relaunch procedures
- Communication procedures for off-site landings.
- List of designated airfields (§ 10.10.3.2)
- A map or diagram showing the location of all control points
- Designation of the current database versions for control points (§ 5.6.1) and closed airspace (§ 5.6.2)

##### **5.6.4.2** Suggested

- A map or diagram showing local names for geographic features.
- A roadmap covering the contest area.
- The list of entrants and crews
- The schedule of social events

#### **5.7** Competition Classes

**5.7.1** National competitions are held in each of the classes described in § 6.11.1 through § 6.11.7.

**5.7.2** Regional competitions include one or more of the classes described in § 6.11, as selected by the contest organizer on the AFS form.

**5.7.3** Regional competitions may include handicapped classes as follows:

**5.7.3.1** Entries to a handicapped class can be restricted based on criteria specified by the contest organizers on the AFS form. Possible criteria include (but are not limited to) one or more FAI classes, maximum wingspan or a handicap range (or a combination).

**5.7.3.2** The handicap ranges of classes may overlap.

**5.7.3.3** Competition classes can be labeled, promoted and tasked to appeal to pilots by skill level rather than or in addition to limitation on sailplanes.

**5.7.3.4** Gliders in a FAI handicapped class shall be assigned handicaps from the SSA Handicap Table based on the glider's reference weight, without adjustment for actual flying weight.

**5.7.3.5** If participation in an announced class is deemed to be inadequate, the CD may elect to combine classes into a handicapped class.

#### **5.8** Guests

**5.8.1** Organizers may, at their discretion, accommodate pilots who wish to fly as guests.

**5.8.2** Guest pilots must meet all the provisions of § 5.0, including the specific requirements of § 5.5. But organizers may announce (prior to the Preferential Entry Deadline) that the provisions of § 5.5.3.1.3 are relaxed for guest pilots, and declare what restrictions apply to the sailplanes that guest entrants may fly.

**5.8.3** Organizers may set a partial or pro-rated fee for a guest pilot who wishes to fly only part of a contest. Such a partial fee should cover daily costs and a reasonable share of fixed costs.

**5.8.4** Guests are expected to comply with all rules, and are specifically enjoined from providing aid to other pilots during flight. Any exemption from the provisions of these Rules requires a waiver from the SSA Contest Committee.

**5.8.5** The performance of guest pilots shall not influence the scoring or ranking of regular entrants.

**5.8.6** Guest entrants are ineligible for the tangible awards of ¶ 7.0.

## **6.0 » SAILPLANES AND EQUIPMENT**

### **6.1 General**

**6.1.1** A sailplane must have a valid airworthiness certificate issued by the civil aviation authority of the country in which it is registered. It must comply with applicable US Federal Aviation Regulations and meet all the requirements of the class in which it is entered.

**6.1.2** The CD has the right to inspect equipment at any time during the contest.

#### **6.1.3 Exchange of components**

**6.1.3.1** A sailplane's major components include the fuselage, wings (including separable wingtips), empennage, and power unit (in the case of a motorized sailplane).

**6.1.3.2** Except as provided in these Rules, the exchange of a sailplane or major component is not allowed.

**6.1.3.3** If the CD determines that a sailplane was damaged through no fault of the pilot or crew, exchange is permitted provided the replacement exactly matches the damaged component.

**6.1.3.4** In the case of damage to separable wingtips whose span is less than 40 inches, exchange is permitted without considering fault and without the requirement that the replacement be an exact match. The CD must be informed and such an exchange may not be done more than once during a contest.

#### **6.1.4 Official Configuration**

**6.1.4.1** A sailplane's official configuration is the one used during the first competition takeoff.

**6.1.4.2** Except as provided in these Rules, the official configuration may not be altered unless such alteration may be performed in flight.

### **6.2 Contest ID**

**6.2.1** Each entrant must have a unique Contest ID, consisting of up to three characters (letters or digits). If more than one entrant wishes to use a certain ID, preference will be given first to the entrant using an ID officially assigned by the SSA and second to the entrant who first registered for the competition.

**6.2.2** The Contest ID shall be displayed in a contrasting color on both sides of the vertical tail (minimum height 12 inches) and under the right wing (bottom of ID toward the trailing edge of the wing; minimum height is the smaller of 24 inches or 90% of the wing chord excluding a control surface).

### **6.3 Motorized Sailplanes**

**6.3.1** A motorized sailplane is one that incorporates a power unit available for use in flight that adds energy to the air through which the sailplane flies.

**6.3.2** Unless otherwise specified in ¶ 6.11, motorized sailplanes are permitted.

**6.3.3** If motorized sailplanes are permitted, the following rules apply:

**6.3.3.1** Each motorized sailplane must carry a flight recorder capable of showing when the power unit is used. Each flight is scored up to the latest fix prior to use of the power unit.

**6.3.3.2** If a flight log shows no valid fixes for a period longer than one minute, the flight will be scored as if the power unit had been used.

**6.3.3.3** The pilot of a motorized sailplane may elect to use the power unit after an outlanding.

**6.3.3.4** It shall be the responsibility of the pilot to supply the equipment necessary to meet and ensure compliance with the provisions of this rule, and to demonstrate its satisfactory operation to the CD and the Scorer prior to the start of competition.

**6.3.3.5** Self-launching may be done, in accordance with ¶ 10.6.3.

**6.3.3.6** Except as provided for by ¶ 10.6.3, any use of the power unit ends competition flying for the day. The pilot shall return to the home airfield without attempting to proceed further on task; failure to comply can be considered Unsportsmanlike Conduct. (Penalty described in ¶ 12.2.5.3.)

## 6.4 » Multi-place Sailplanes

**6.4.1** Multi-place sailplanes may be entered in any class whose rules they meet.

**6.4.2** Except as provided in ¶ 6.11, multi-place sailplanes may be flown solo or with passenger(s); in all cases weight restrictions must be met.

**6.4.3** ‡ Two pilots in a multi-place sailplane are not a team entry unless team entries are allowed and the multiplace team entry provisions of ¶ 5.2.2.4 are met.

**6.4.4** ‡ For a contest in the 20-Meter Multiplace class, if one pilot of a multiplace team entry becomes unable to participate, the entry may be changed to an individual entry.

## 6.5 Required Equipment

### 6.5.1 Parachutes

Each occupant of a sailplane must be protected by a parachute. This can be accomplished by either of the following:

- Each occupant wears a parachute.
- The sailplane is fitted with a ballistic parachute system approved by the sailplane manufacturer and designed to safely lower the plane and all occupants to the ground.

### 6.5.2 Emergency Location Devices

Emergency Location Devices are electronic devices that may be used to assist in locating downed sailplanes. Each must be a standard production model produced in quantity by a reputable manufacturer.

**6.5.2.1** The following categories of Emergency Location Devices are recognized:

- Type 1: Emergency Locator Transmitter (ELT) - an impact-activated beacon conforming to FAA TSO C91, C91a or C126.
- Type 2: Position tracker - a device that without pilot action transmits regular reports of an aircraft's in-flight position in such a way that these reports are readily available to contest officials in near real time.

**6.5.2.2** When announced on the AFS form, a device in one of these categories (as specified by contest organizers) shall be required in every sailplane. When Type 2 devices are specified, a Type 1 device shall be considered an acceptable substitute.

**6.5.2.3** Notwithstanding other provisions within these Rules, Emergency Location Devices shall not be considered proscribed 2-way communication devices (¶ 6.6.3).

**6.5.3** An aircraft-band VHF radio.

## 6.6 Restricted Equipment

**6.6.1** Each sailplane is prohibited from carrying any instrument that:

- Permits flight without reference to the ground.
- Is capable of measuring air motion or temperature at a distance greater than one wingspan.

**6.6.2** [deleted]

**6.6.3** Carrying any two-way communication device is prohibited with the following exceptions, each of which must be a standard, commercially available model:

- An aircraft-band radio (¶ 6.5.3)
- An aircraft transponder
- A wireless telephone (not to be used for in-flight two-way communications)
- A position tracker (¶ 6.5.2.1.2)
- An anti-collision device
- A device that receives weather data

**6.6.4** Reception of aircraft tracking data from any ground source is prohibited.

**6.6.5** Violations of any provisions of this Rule are considered Unsportsmanlike Conduct. (Penalty described in ¶ 12.2.5.3.)

## 6.7 Flight Documentation Equipment

**6.7.1** All Flight Documentation is accomplished by means of a Flight Recorder.

### **6.7.2** Definitions

- Flight Recorder - A device that makes a continuous computerized log of a sailplane's position.
- Flight Log - The record of a flight made by a Flight Recorder and transferred to a file on a scoring computer.
- Fix - the record of a single position point, including time, latitude, longitude and altitude. A valid fix is one that lies along the flight track of the sailplane, and is not displaced from that flight track by an implausible distance or time. Throughout these Rules, only valid fixes are considered; invalid fixes are ignored.
- Security check - a software check supplied by the Flight Recorder manufacturer that verifies that a Flight Log has not been altered since it was produced by the Flight Recorder.

### **6.7.3** Altitude recording

**6.7.3.1** A Flight Recorder may record altitude derived from a calculated position.

**6.7.3.2** A Flight Recorder may record a calibratable pressure altitude. Altitudes may be adjusted according to the best available calibration data.

**6.7.3.3** If a Flight Recorder records both calculated and pressure altitude, pressure altitude will be the primary data source and calculated altitude will be the backup data source for flight evaluation.

### **6.7.4** Flight Recorder requirements

**6.7.4.1** All Flight Recorders used for Flight Documentation must:

- Provide horizontal position referenced to the WGS-84 geographic datum.
- Be configured to use a fix interval of five (5) seconds or less.

**6.7.4.2** Flight Recorders used in a motorized sailplane shall include a means of determining when the power unit was used.

**6.7.4.3** Acceptable flight recorders are listed in Appendix B.

### **6.7.5** Flight Log data format

**6.7.5.1** The Flight Log from a Flight Recorder must be in (or readily convertible to) a file that fully conforms to the IGC standard format.

**6.7.5.2** A valid log file must include:

- A unique Flight Recorder ID.
- The date of the flight.
- The entrant's competition ID and name.
- A record of valid fixes ([¶ 6.7.2](#)).

### **6.7.6** Data Transfer and Security

**6.7.6.1** A Flight Log may be transferred directly from a Flight Recorder to the scoring computer under the direct supervision of the Scorer.

**6.7.6.2** A Flight Log may be submitted to the Scorer via any data medium or transmission scheme suitable to the Scorer. Logs submitted in this way must pass the Security Check.

**6.7.6.3** The Scorer has the right to request a re-transfer of a Flight Log directly from a Flight Recorder to verify security or to replace missing or damaged data. Such request shall be made no later than 09:00 on the day following the flight. A pilot who in response to such a request fails to produce a valid Flight Log is scored as if no Flight Log was submitted.

### **6.7.7** Accessories

It is the responsibility of each entrant, prior to the start of competition, to ensure that Scorer is provided with all software and hardware (cables, etc.) needed to transfer, convert and check Flight Logs, and to demonstrate their satisfactory operation.

## **6.8** Weight

### **6.8.1** Limitations

**6.8.1.1** No sailplane shall fly at a weight greater than the maximum certificated gross weight in the country of origin, nor greater than 1873 pounds (850 kilograms).

**6.8.1.2** For handicapped classes (¶ 6.11), aero tow launches are limited to a weight of 1653 pounds (750 kilograms), with the exception that multi-place gliders may launch by aero tow at a greater weight provided they carry no disposable or fixed ballast other than for center-of-gravity adjustment.

**6.8.1.3** Competition Weight

Applies to handicapped classes (¶ 6.11) in which handicaps are subject to adjustment for weight.

**6.8.1.3.1** For Group Team and Multiplace Team entries, Competition Weight is the largest weight at which the sailplane is expected to launch for any contest flight, as declared by the entrant(s) prior to the start of competition. The sailplane shall not exceed this Competition Weight plus 10 pounds for any contest launch.

**6.8.1.3.2** For other entries, Competition Weight is the weight at the first contest launch. The sailplane shall be within 10 pounds of this weight for every contest launch.

**6.8.1.3.3** The Competition Weight is used in the determination of a sailplane's handicap, per ¶ 11.4.1.5.6.

**6.8.2** Weighing

**6.8.2.1** The CD shall declare whether a weighing done as sailplanes are moved to the launch grid is Official or not; any weighing done after gridding shall be considered Official.

**6.8.2.2** If at an Official weighing a sailplane is found to be out of compliance with limitations, the weight of that sailplane must immediately be altered to a legal value. If the amount out of limitation was more than 25 pounds, a penalty will be applied (¶ 12.2.5.4).

**6.8.2.3** After official weighing or gridding, weight may not be altered so as to be out of limitations, and may not be increased more than 5 pounds above the weight at weighing or gridding.

**6.8.3** Disposable ballast

**6.8.3.1** Except as specified in ¶ 6.11, disposable ballast is allowed. But for Regional contests, organizers may specify (on the AFS form) that designated classes will use no-ballast rules every day.

**6.8.3.2** When disposable ballast is allowed, the CD may on any day announce prior to the first launch that no-ballast rules are in effect. For National contests, this provision should be used only under unusual circumstances.

**6.8.3.3** When no-ballast rules are in effect:

- Disposable ballast is prohibited with the exception of disposable tail ballast.
- Fixed ballast is permitted, but not more than an amount that brings the sailplane to its maximum handicap weight, as specified in the SSA Sailplane Handicap List.

**6.9** Wingspan

**6.9.1** The Wingspan is defined as the length of the horizontal projection of the wings, from one extreme tip point to the other, with the wings in their completely unloaded "zero-G" shape. Wingspan may be measured by any suitable means, provided the wings are supported to reasonably approximate the unloaded shape.

**6.9.2** If a nominal wingspan is specified in ¶ 6.11, the maximum span shall be the nominal wingspan plus 2.5 centimeters. No sailplane whose wingspan exceeds the maximum span shall be allowed to compete.

**6.10** Towropes

**6.10.1** Contest organizers shall provide towropes of a strength suitable for typical maximum glider weights. Entrants with unusually lightweight gliders may provide their own weak links.

**6.10.2** Contest towropes shall employ standard Tost rings. Entrants with gliders needing different rings must supply them.

**6.11** » Sailplane Classes

**6.11.1** Open Class

- No nominal wingspan applies - an Open-class sailplane may change span at any time.
- This is an unhandicapped class (¶ 11.4.1.1).

### 6.11.2 † 20-Meter Multiseat Class

- Nominal wingspan is 20.0 meters.
- Sailplanes must accommodate at least two adults, and at least two seats must be occupied during each contest flight.
- Handicapping based on relative performance will apply.
- For National contests, the maximum handicap shall be 0.905.
- For Regional contests, organizers may elect to specify a larger maximum handicap up to 1.20, and that no-ballast rules will apply.

### 6.11.3 18-Meter Class

- Nominal wingspan is 18.0 meters.
- This is an unhandicapped class (§ 11.4.1.1).

### 6.11.4 15-Meter Class

- Nominal wingspan is 15.0 meters.
- This is an unhandicapped class (§ 11.4.1.1).

### 6.11.5 Standard Class

- Nominal wingspan is 15.0 meters.
- Any method of changing the wing profile other than the normal use of ailerons is prohibited. Lift-increasing devices are prohibited, even if unusable.
- The sailplane must be fitted with airbrakes which cannot be used to increase performance. Drag parachutes are prohibited.
- Pilots of non-production Standard Class sailplanes must obtain a letter of approval from the SSA Contest Committee before entry can be accepted.
- Sailplanes are assigned a handicap from the SSA Standard Class Handicap List; the maximum handicap shall be 0.95. Handicaps are not adjusted for weight or configuration changes.

### 6.11.6 Sport class

- No-ballast rules shall apply (§ 6.8.3).
- Sailplanes are assigned a handicap from the SSA Handicap List. Contest organizers may restrict entries to a specified handicap range.

### 6.11.7 Club class

- Nominal wingspan is 15.0 meters.
- No-ballast rules shall apply (§ 6.8.3).
- Sailplanes are assigned a handicap from the SSA Handicap List. The handicap range shall be 0.898 to 1.02.

### 6.11.8 FAI handicapped class

- Sailplanes are assigned a handicap from the SSA Handicap List. Handicaps are not adjusted for weight or configuration changes.
- Contest organizers may specify a handicap range; sailplanes with a handicap greater than the specified maximum may compete under the provisions of § 11.4.1.4.
- This class is used in Regional but not in National contests.

## 7.0 AWARDS

### 7.1 National competitions

7.1.1 Awards will be made to the US pilots who are regular entrants and achieve the best results in the following categories:

#### 7.1.1.1 Final score

- in the U.S. National Open Class Championships - The Richard C. duPont Memorial Trophy with medallion and endowment check

- in the U.S. National 18-Meter Class Championships - The Charlie Spratt 18-Meter Class Trophy
- in the U.S. National 15-Meter Class Championships - The 15-Meter Trophy
- in the U.S. National Standard Class Championships - The Standard Class Trophy
- in the U.S. National Sport Class Championships - The Lattimore Trophy
- by a Junior entrant in the U.S. National Sport Class Championships - Bronze Medallion
- Foreign pilots whose scores would qualify for the above awards will receive a certificate of achievement.

#### 7.1.1.2 Scored speed on any task

- in the U.S. National Open Class Championships - The Larissa Stroukoff Memorial Trophy
- in the U.S. National 15-Meter Class Championships - The Joe Giltner Trophy
- in the U.S. Standard Class Championships - The Jon Kubly Trophy

#### 7.1.1.3 Sportsmanship (as determined by the Contest Competition Committee)

- at the U.S. National Sport Class Championships - The Ed Finegan Trophy

#### 7.1.2 Regular entrants will be ranked and SSA Awards provided as follows:

- Gold Award - Highest Final Score
- Silver Award - Second Highest Final Score
- Bronze Award - Third through Xth Highest Final Score

X = 4 for 20-24 entrants

X = 5 for 25-29 entrants

X = 6 for 30-34 entrants, etc.

#### 7.2 In each class of a Regional contest, regular entrants will be ranked and SSA Awards provided as follows:

- Silver Award - Highest Final Score
- Bronze Awards - Second Through Xth Highest Score

X = 3 for 10-19 entrants

X = 4 for 20-29 entrants

X = 5 for 30-39 entrants, etc.

#### 7.3 Junior and Feminine National Champions

**7.3.1** The titles of Junior and Feminine National Champion will be awarded each year upon the completion of all National competitions.

**7.3.2** The Junior or Feminine National Champion is the eligible pilot who achieves the highest percentage of the maximum possible score (the sum of all winning daily scores) at any US National Soaring Championship during the calendar year.

**7.3.3** A minimum of 60% of the maximum possible score must be achieved for a Junior or Feminine National Champion to be declared.

**7.3.4** The Junior National Champion is awarded the Rudolf W. Mozer Trophy.

#### 7.4 In case of ties, duplicate awards are presented.

#### 7.5 Contest Organizers may present commemorative, daily and other awards, as they see fit.

### 8.0 PROTEST

**8.1** Each entrant is expected to follow these rules and the rulings of the CD, who is the enforcer and arbiter of these rules. For a protest against a ruling of the CD to be sustained there must be clear evidence that a provision of these Rules was not followed.

**8.2** An entrant may request an explanation of an action or decision made by any contest official. This request shall be made of the CD, either orally or in writing. The CD shall respond in kind, as promptly as possible and always within 24 hours.

**8.3** An entrant who believes that these Rules have been incorrectly applied shall deliver a written protest to the CD within 24 hours of the time of the protested incident, action or score.

**8.4** The CD shall issue a prompt written ruling on the protest, giving the reason for the ruling. In arriving at a decision, the CD shall seek advice from the Contest Competition Committee and may ask for statements from witnesses, etc. The ruling shall be issued within 24 hours of receipt of the written protest.

**8.5** Appeal of a decision of the CD shall be directed to the SSA Contest Committee Chairman and must include all relevant documents such as the written protest, the CD's written decision, statements of witnesses, etc. Written notification of intent to appeal must be given to the CD within 24 hours of the CD's decision and the appeal must be delivered to the SSA within ten days of the decision. The Chairman of the SSA Contest Committee shall seek advice from members of the SSA Rules Committee, and shall make a prompt response, in writing, giving a decision and the reason for it.

**8.6** Further appeal may be directed to the SSA Board of Directors which may revise or let stand the decision of the Contest Committee. If the SSA Board of Directors elects to revise the decision, it shall make a prompt response in writing.

## **9.0 SAFETY**

**9.1** A contest should be run with the greatest emphasis on safety. No phase of the operation of the contest or interest in competition can be allowed to compromise safety. Each pilot, crew member, and Contest Official must carry out his responsibility to prevent unsafe practice. The Contest Manager has the primary responsibility for the preparation of a safe plan of operation to be carried out by the Operations Director, CD, other contest staff, pilots and crews.

**9.2** A Safety Briefing is strongly recommended at each daily pilots' meeting. Suggested briefing subjects include start procedures, gaggle flying, maximum speeds, finishing, landing and rollout procedures, off-airfield landings, safety equipment, and local concerns.

**9.3** Circling within 5 miles of the contest site or within an active start cylinder will be to the left.

**9.4** Judgments affecting flight safety are the sole responsibility of the pilot in command. This includes (though is not limited to) any decision to fly into weather, over rough terrain or hazardous areas, and the evaluation of the safety of any potential landing site.

**9.5** Sailplanes and trailers will be tied down when unattended.

**9.6** The following are prohibited:

- Aerobatics
- Flying within clouds
- Flight after Contest Sunset ([¶ 12.2.5.2](#)).

**9.7** Test flights may be made before the launch line opens if authorized by the CD.

**9.8** The CD may declare a rest day if previous contest flying has created a potential fatigue problem for pilots.

**9.9** The Contest Manager shall make available a Safety Box for pilots (and officials) to anonymously submit written comments on any incident or action they feel should be brought to the attention of the CD. The CD shall review the contents of the Safety Box daily and take action as deemed appropriate.

**9.10** During take-off and landing operations, all pilots and towpilots should monitor the contest frequency for information pertaining to flight safety.

**9.11** Competitors are expected to comply with Federal Aviation Regulations applicable to non-transponder-equipped aircraft operating under Visual Flight Rules.

**9.12** If an aircraft may have suffered damage, the CD has the right to ask that it be examined by a qualified inspector prior to further flight.

**9.13** Entrants who are involved in or witness any accident or incident shall cooperate with the CD in completion of the associated Accident/Incident Report ([¶ 13.2](#)).

**9.14** Disqualification of an Unsafe Pilot

**9.14.1** A pilot who, in the opinion of a CD or Contest Manager, has demonstrated a problem or a history of safety related problems during participation in one or more contests is subject to review and action by the SSA. Such review will take place upon the

submission by a CD or Contest Manager to the SSA Contest Committee Chairman of a written complaint stating the history of the alleged problem(s). This history should be as complete as possible and include statements by witnesses whenever applicable.

**9.14.2** The complaint shall be reviewed by an Investigating Committee consisting of the Chairman of the Contest Committee and the SSA Rules Subcommittee. Witnesses may be interviewed for additional information. If the complaint appears credible, it will be discussed in detail with the pilot, if he or she is willing to discuss the complaint. The Investigating Committee will present its findings in writing to the SSA Board of Directors, along with a recommendation for action. Such recommendation may be for no action, counseling, probation, restriction to certain types and/or levels of competition, a ban from competition for a specified period, or a permanent ban. The final action taken shall be determined by the Board of Directors.

**9.14.3** The Investigating Committee shall when feasible make its recommendation within 30 days of the submission of a request for review.

**9.15** If a crash or other incident requires that a competitor abandon the task, the day results can be discarded. The CD may take this action directly, or pilots may petition under this section or ¶11.1.3.

**9.16** A pilot involved in a midair collision becomes ineligible for additional scored distance at the time and position of the collision. The pilot is still eligible for the airport landing bonus.

## **10.0 » CONTEST FLYING**

### **10.1 Daily Times**

**10.1.1** Time of earliest soarable weather - estimated by the CD based on the daily weather forecast.

**10.1.2** Grid Time - the time at which all sailplanes should be on the launch grid, as specified by the CD each day. This time should be at least one hour after the close of a daily pilots' meeting, and 25 minutes before the expected time of the first launch.

**10.1.3** Launch Begins - as announced by the CD, but generally not sooner than 25 minutes after grid time or the end of a pilots' meeting held prior to the first launch.

**10.1.4** Start Opens - at the time of the first launch.

**10.1.5** Task Opens - at a time designated by the CD, about 15 minutes after the last competitor who accepts his designated launch starts his takeoff roll.

**10.1.6** Finish Opens - at the time of first launch.

**10.1.7** Launch Line Closes - three hours before Contest Sunset, unless extended by the CD.

**10.1.8** Contest Sunset - the CD shall designate a Contest Sunset time, which should be approximately 10 minutes prior to the earliest time of sunset at the contest site during the period of competition.

**10.1.9** Start Closes - 30 minutes prior to Contest Sunset time.

**10.1.10** Finish Closes - at Contest Sunset time.

### **10.2 Meetings and Task Notification**

**10.2.1** A mandatory pilots' contest briefing will be held prior to the first competition launch. A pilot not in attendance must be briefed by the CD prior to that pilot's first competition flight. The purpose of this briefing is to discuss competition rules, Start/Finish procedures, airport operations and contest safety.

**10.2.2** A daily pilots' meeting will be held prior to launch with the following suggested format:

- Contest Manager - Administrative announcements, results of previous task.
- Operations Director - Operational comments, gridding and launch.
- Meteorologist - Weather briefing, current NOTAM information as supplied by the Federal Aviation Administration
- Competition Director - Safety briefing, proposed and alternate tasks.

**10.2.3** After Grid Time, the CD may call a pilots' meeting near the launch line to confirm or change the task to be flown. The CD shall ensure that each pilot is aware of the task.

**10.2.4** The CD may change the task after the launch has begun but before the task opens, using these procedures:

**10.2.4.1** Pilots that have not yet launched can be notified in person of a task change.

**10.2.4.2** For pilots that have launched, a task change will be announced on the contest frequency and a roll call (in alphanumeric order by contest ID when practical) taken to verify that each pilot is aware of the announcement. If a pilot fails to respond, the CD will re-transmit the information to that pilot, and will then assume that the pilot has the new information.

**10.2.4.3** Neither a change of task opening time nor an increase in the Maximum Start Height requires a roll call - an announcement on the contest frequency is sufficient.

**10.2.4.4** When practical, task changes within 10 minutes of task opening time should be avoided.

### **10.3** Tasks

#### **10.3.1** Task parameters

**10.3.1.1** Parameters applicable to all competitions:

- Minimum length of first leg: 5 miles
- Minimum length of subsequent task legs: 2 miles
- Maximum number of task turnpoints: 11

**10.3.1.2** For National competitions:

- Standard Minimum Task Distance:  
60 miles for classes listed as unhandicapped in ¶ 6.11; 50 miles for other classes
- Standard Minimum Task Time: 3.0 hours
- Standard Task Time: 4.0 hours

**10.3.1.3** For Regional competitions:

- Standard Minimum Task Distance:  
50 miles for classes listed as unhandicapped in ¶ 6.11; 40 miles for other classes
- Standard Minimum Task Time: 1.5 hours for Sport class; otherwise 2.0 hours
- Standard Task Time: 2.0 hours for Sport class; otherwise 2.5 hours

#### **10.3.2** Task Types

**10.3.2.1** Assigned Task (AT) - Speed over a course of one or more designated turnpoints, with a finish at the contest site. This task is available when the ratio of largest to smallest handicap within a class is less than 1.15. In Regional competitions, the CD should use this task only when the range of pilot skill within a class is appropriately narrow.

**10.3.2.2** Modified Assigned Task (MAT) - Speed over a course of one or more turnpoints, with a finish at the contest site.

**10.3.2.2.1** The CD shall designate a minimum flight time.

**10.3.2.2.2** The CD may designate from zero to 11 turnpoints. Designated turnpoints must be attempted in the designated sequence, but a pilot may elect to finish after any turnpoint in the sequence.

**10.3.2.2.3** A pilot who achieves all designated turnpoints may elect to fly to additional turnpoints. Such pilot-selected turnpoints must comply with any restrictions the CD has imposed under ¶ 10.3.2.2.4, and no turnpoint may be repeated unless at least two intervening turnpoints are claimed (the Start and the Finish are not turnpoints).

**10.3.2.2.4** The CD may restrict:

- The maximum number of turnpoints to a number less than the normal maximum of 11
- The number of times any particular turnpoint may be claimed
- The choice of the first turnpoint (applies only if the CD designates no turnpoints per ¶ 10.3.2.2.2)

**10.3.2.2.5** The CD may designate a final turnpoint that all pilots must use immediately prior to a finish. This final turnpoint shall be no further than 10 miles from the finish (gate or cylinder center).

**10.3.2.3** Turn Area Task (TAT) - Speed over a course through one or more turn areas, with a finish at the contest site.

**10.3.2.3.1** Turn areas are turnpoints with a designated radius defining a cylinder.

**10.3.2.3.2** The CD shall designate a minimum flight time, a sequence of one or more turnpoints and a radius for each which shall be an integral number of miles not greater than 30.

**10.3.2.3.3** Turnpoint cylinders shall be chosen so that no task leg can be shorter than the restrictions imposed by ¶ 10.3.1.1.

**10.4** [moved]

**10.5** Flight Documentation

**10.5.1** General

**10.5.1.1** All contest flights shall be documented by means of a Flight Recorder (¶ 10.5.2).

**10.5.1.2** Flight Documentation consists of a Flight Log and any Task Claim form pertinent to the flight.

**10.5.1.3** Task Claim Form

**10.5.1.3.1** A Task Claim Form is submitted to the Scorer in the following circumstances:

- A Modified Assigned task was flown
- A Safety finish (¶ 10.9.5) is claimed
- The pilot of a motorized sailplane used the power unit after launching
- Flight Documentation includes an incomplete flight log

**10.5.1.3.2** After scores have been calculated and before they are Official, any pilot may submit a subsequent Task Claim form for the purpose of obtaining a more accurate score (¶ 11.2.2.7).

**10.5.1.4** The CD and the Scorer shall ensure that all flight documentation is promptly analyzed. Documentation submitted by 20:00 should be analyzed before the next pilots' meeting; documentation submitted later should be analyzed before 12:00 the next day.

**10.5.1.5** The Scorer shall publish daily flight documentation available to entrants no later than the next daily pilot meeting. This requirement can be satisfied by posting such documentation in an accessible place on a common storage medium (e.g. compact disk or thumb drive), or on a website to which access is readily available to any entrant.

**10.5.1.6** At the end of the competition the Scorer will publish all flight documentation to a publicly accessible website.

**10.5.2** Flight Log requirements

**10.5.2.1** A valid Flight Log is one that:

- Was produced by a Flight Recorder that meets the provisions of ¶ 6.7.4
- Shows the takeoff, the path of the flight, and the landing.
- Has a typical interval between fixes of 5 seconds or less.
- Between takeoff and landing, shows no interval between fixes exceeding 15 minutes (See ¶ 6.3.3.2 for motorized sailplanes constraint).

**10.5.2.2** At any control point, valid control requires that the Flight Log show the entire path of the sailplane within 2 miles of the control cylinder.

**10.5.3** Turnpoint control

**10.5.3.1** The standard turnpoint radius is 1.0 miles; this applies except when the CD declares a different radius as part of a Turn Area Task.

**10.5.3.2** Penalty-free control at a turnpoint requires at least one fix whose distance to the turnpoint is not greater than the turnpoint radius.

**10.5.3.3** If the closest fix is outside the turnpoint radius, a miss distance shall be calculated: it is the distance from the closest fix to the turnpoint, minus the turnpoint radius. If the miss distance is not greater than 1 mile, turnpoint control is valid but a penalty applies (¶ 12.1.3.1); if greater than 1 mile, there is no valid control.

**10.5.4** Flight log problems

**10.5.4.1** Use of multiple incomplete flight logs

**10.5.4.1.1** A pilot with multiple incomplete flight logs may receive credit for a flight by submitting all available flight documentation.

**10.5.4.1.2** The CD shall examine all flight documentation to determine the points at which the flight was properly controlled. Any portion of a Flight Log may be used to determine proper control.

**10.5.4.2** An entry may make use of the provisions of ¶ 10.5.4.1 once during a competition without penalty; subsequent use of the rule incurs a penalty (¶ 12.1.3.7) for each such case.

## **10.6 » Launching**

### **10.6.1 Order of Launch**

**10.6.1.1** The initial day's launch positions will be determined at random. Positions for subsequent days will be determined by placing the front 20% of the previous competition day's list at the back of the launch grid, for each class.

**10.6.1.2** If the grid layout has multiple gliders in each row, organizers may elect to allow row gridding: pilots are assigned a grid position but may place their gliders on any available position within their assigned row on a first-come, first-served basis or as instructed by the CD. (But any division between competition classes shall be preserved.)

**10.6.1.3** Grid lists for all competition days will be made available no later than the second daily pilots' meeting.

**10.6.1.4** The CD shall maintain an auxiliary launch list, indicating the order of launches after the last scheduled grid position. Pilots who wish to pull back or re-launch are placed on this list on a first-come, first-served basis.

### **10.6.2 Launch procedure**

**10.6.2.1** Pilots should have their planes in the proper grid position at Grid Time and be ready to launch 20 minutes after Grid Time. A pilot who is not in proper position at Grid Time, or is not ready to launch in sequence will be deemed to have pulled back.

**10.6.2.2** A pilot may pull out of his grid position at any time and move so as to launch in accordance with the CD's auxiliary launch list(¶ 10.6.1.4). Such pull-backs are intended to be used to deal with unforeseen problems, and not as a routine part of contest strategy.

**10.6.2.3** [deleted]

**10.6.2.4** [deleted]

**10.6.2.5** Launches aborted due to no fault of the sailplane pilot will be re-launched as soon as is practical.

**10.6.2.6** Sniffer - The CD may select a radio-equipped sailplane, flown by an experienced soaring pilot, to obtain an accurate assessment of the soaring conditions and to assist in selection of the time for the first launch.

**10.6.2.7** Relaunches from any class should be given priority over classes that have not begun to launch. (¶ 1.6)

**10.6.2.8** The order of launching classes may alternate. But classes that have not yet achieved the required number of valid days for a valid contest (¶ 4.2.5 or ¶ 4.3.4) and which may still do so are to be given priority.

**10.6.2.9** Except as provided in ¶ 10.6.3 contest launches will be by aerotow. The aerotow operation should be capable of launching all sailplanes in one hour or less. Towplanes will tow at 80 miles per hour (unless otherwise requested) in a pre-selected pattern to an altitude of 2000 ft AGL (or as specified by the CD).

**10.6.2.10** The Operations Director will record take-off roll times, sailplane competition ID, and towplane numbers.

**10.6.2.11** Re-launch following retrieval from off-site landings will not be allowed. However, the CD may permit relaunches after off-site landings due to a condition judged to be the responsibility of the contest organization.

**10.6.2.12** The CD may suspend the launch for safety reasons. Launching should be resumed at the earliest practicable time, preserving launch order. The CD will declare a no-contest day if the delay is so long that the remaining soaring day makes fair competition unlikely.

### **10.6.3 » Motorized sailplane engine-use procedures**

When approved by contest organizers and the CD, pilots of motorized sailplanes may elect to use their engines, in accordance with the following rules.

#### **10.6.3.1 General**

**10.6.3.1.1** The final responsibility for any decision to use an engine lies with the pilot.

**10.6.3.1.2** Any use of the engine other than for self-launch (§ 10.6.3.2) must be noted on a Task Claim form submitted to the Scorer.

**10.6.3.1.3** When these procedures call for a descent, the flight log must show that the subsequent climb was achieved only in normal lift, and not as the result of a pull-up from high speed.

**10.6.3.1.4** The penalty for violations of these procedures shall consist of a fixed minimum (§ 12.1.3.4) plus a number of points that in the estimation of the CD represents the maximum possible advantage obtained from the violation. Height violations normally incur a penalty of one point per foot.

**10.6.3.1.5** Any use of the engine not within three (3) miles of the home airfield or of a location covered by the CD's self-launch procedures (§ 10.6.3.2.1) ends a pilot's competition flying for the day.

#### **10.6.3.2** Self-launch

**10.6.3.2.1** Pilots shall follow procedures and a flight path as specified by the CD. These shall be chosen to maximize safety (which includes ensuring adequate separation from other sailplanes and allowing for a sailplane with engine problems to make a safe unpowered return to the home field) and to minimize competitive imbalance by keeping all sailplanes in substantially the same conditions of weather and lift.

**10.6.3.2.2** Engines must be shut down no higher than an altitude specified by the CD, which shall normally be 800' higher than the aerotow release altitude.

**10.6.3.2.3** Sailplanes that exceed the aerotow release altitude under power must within ten (10) minutes after engine shut-down be at a designated position close to the normal aerotow release area and no higher than normal aerotow release height.

#### **10.6.3.3** Re-launch

**10.6.3.3.1** Pilots may land at the home field without the use of power and then self-launch in the sequence of the CD's auxiliary launch list (§ 10.6.1.4).

**10.6.3.3.2** Pilots in the air may start their engine within three (3) miles of the home airfield and not below 1000' AGL, then follow the self-launch procedures of § 10.6.3.2. A pilot who makes use of this option is not eligible for a start time until fifteen (15) minutes after engine shutdown.

#### **10.6.3.4** † Motor test

**10.6.3.4.1** Once per flight, pilots may elect to test an engine that was not used for self-launch. The engine must be started within three miles of the home airfield, within 30 minutes of aerotow release and not below 1000 ft AGL.

**10.6.3.4.2** The flight log must show an engine run no longer than two minutes, during which the climb did not exceed 800 ft. After engine shut-down, the flight log must show that within 10 minutes the pilot returned to the altitude and approximate location of the engine start.

**10.6.3.4.3** The pilot is not eligible for a start time until two minutes after the procedures of § 10.6.3.4.2 are complete.

### **10.7** » Communication

#### **10.7.1** General

**10.7.1.1** Use of electronic communication devices outside those specified in § 6.6.3 will be considered Unsportsmanlike Conduct. (Penalty described in § 12.2.5.3.)

#### **10.7.2** » Radio usage

**10.7.2.1** † The contest frequency is 123.3 Mhz; 123.5 Mhz is used for pilot-crew communications. If 123.3 Mhz becomes unusable, the CD may designate 123.5 Mhz (or another available aviation frequency) as the contest frequency.

**10.7.2.2** The contest frequency is used for official contest functions including task announcements, task opening, starts, finishes, etc.

**10.7.2.3** All towplanes and sailplanes shall use one frequency for launches and while a sailplane is on tow; likewise, a single frequency shall be used for finishes, patterns and landings. Also see § 10.9.1.2.4.

**10.7.2.4** Normally, the contest frequency is used for both launches and landings. But the CD may announce an alternate launch/landing radio procedure using a different frequency.

**10.7.2.5** The contest frequency should be used sparingly, for necessary contest- and safety-related transmissions.

**10.7.2.6** Transmissions shall use the ICAO phonetic alphabet when appropriate.

**10.7.2.7** While on course, each pilot should monitor the contest frequency for safety messages from other pilots.

**10.7.2.8** Crews shall not initiate a radio call to their pilot, except in an emergency, or to relay information previously transmitted by the CD. Otherwise, transmission of soaring or contest information to pilots by crew is prohibited.

**10.7.2.9** Except under the provisions of ¶ 10.7.2.10, air-to-air and ground-to-air radio communication for any reason other than safety is prohibited; an Unsportsmanlike Conduct penalty may apply (¶ 12.2.5.3).

**10.7.2.10** In Regional competitions, air-to-air radio communication between competing pilots is permitted, subject to the following rules:

**10.7.2.10.1** Such communications shall exclusively use aviation radios, and shall be done in a way that does not interfere with normal contest procedures conducted on the contest frequency.

**10.7.2.10.2** For any reason other than safety, radio communication with pilots not entered in the competition and ground-to-air communication are prohibited.

**10.7.2.10.3** Contest organizers may elect to disallow the radio communication provided for in this Rule; this should be announced well prior to the Preferential Entry Deadline. Such communication may be disallowed for some classes and not for others.

**10.7.2.10.4** The CD may temporarily or permanently disallow radio communication that proves detrimental to the operation or safety of the contest.

## **10.8 » Starting**

### **10.8.1 Task opening**

**10.8.1.1** As the last pilot who accepts the designated launch starts the takeoff roll, the CD will announce the time of the class's task opening, which should be approximately 15 minutes after this launch, and long enough to allow this pilot a fair chance to climb prior to the task opening.

**10.8.1.2** After the announcement of task opening time, the CD should consult with the task advisors as to whether the selected task is fair and safe. If a delay or a task change is deemed necessary, this should be announced 10 minutes or more before task opening time; task changes later than this should be avoided when possible.

**10.8.1.3** An advisory should be transmitted five minutes before the task opens.

**10.8.1.4** An advisory should be transmitted at the time the task opens.

### **10.8.2 Valid start**

**10.8.2.1** A valid start is a start obtained after the task has opened and after the pilot's last launch. A pilot must have a valid start to be given a scored start time and position. The best-scoring valid start of the claimed task is used.

**10.8.2.2** A start is not valid while on tow or while a motorized sailplane's power unit is in use.

### **10.8.3 Start geometry**

**10.8.3.1** Each task shall include a Start Point and a Start Radius which shall be 5 miles.

**10.8.3.2** The Start Point should be chosen so that pilots are likely to be able to find lift prior to starting and to return to the home field if they fail to do so.

### **10.8.4 [deleted]**

### **10.8.5 Start control**

**10.8.5.1** Each task shall include a Maximum Start Height (MSH) above the home field. This height should normally not be less than 3500' AGL and shall not be more than 10000' AGL.

**10.8.5.1.2** When feasible, Maximum Start Height should be set at least 500 ft below expected cloudbase or the top of dry lift.

**10.8.5.1.3** Maximum Start Height shall be communicated as its equivalent MSL altitude.

**10.8.5.2** The Start Point, Start Radius, and MSH define a three-dimensional Start Cylinder.

**10.8.5.3** A start occurs each time a sailplane exits a Start Cylinder (either through the side or the top); at least one fix must lie within the cylinder. The following shall be determined:

- Start Fix - the latest fix within the Start Cylinder
- Start Time - the interpolated time the sailplane exited the Start Cylinder
- Start Position - the interpolated position at the Start Time

**10.8.5.4** A pilot may claim a start based on a fix near to but not within the Start Cylinder; such a start incurs a penalty. The following shall be determined:

- Start Fix - the fix claimed by the pilot
- Start Time - the time of the Start Fix.
- Start Position - the position of the Start Fix

**10.8.5.5** For each start, the following shall be determined:

- Control Fix - the fix with the greatest altitude during the 2 minutes preceding the Start Fix.
- Control Height - the difference (in feet) between the altitude of the Control Fix and the elevation of the home field.
- Start Distance - the distance (in miles) from the Start Fix to the Start Point.

**10.8.5.6** If the Control Height exceeds MSH or the Start Distance exceeds the Start Radius, a penalty will apply ([¶ 12.1.3.3](#)).

**10.8.6** ‡ The distance of the first task leg shall be taken as the distance from the Start Position to the control fix at the first turnpoint.

**10.8.7** While inside or within 2 miles of any Start Cylinder that has been designated for use by any competition class, pilots are expected to avoid flight at indicated airspeeds greater than 115 mph and to pay particular attention to safe flight near circling sailplanes.

#### **10.8.8** Start time reporting

Start time reporting is optional and always at the discretion of the pilot. Such reports shall be transmitted on the contest radio frequency and should be accurate within two (2) minutes. Deliberate mis-reporting of start times can be penalized as Unsportsmanlike Conduct.

**10.8.9** During contests that include more than one competition class, starts should be chosen to minimize the possibility of conflicts between pilots of different classes.

### **10.9** » Finishing

#### **10.9.1** General

##### **10.9.1.1** Finish Type

For each task the CD shall specify a flying finish procedure: either a Finish Cylinder ([¶ 10.9.2](#)) or a Finish Gate ([¶ 10.9.3](#)). But a Finish Gate shall not be used for any Regional Sport-class task, nor on any day when a Finish Cylinder is also in use at the same site.

##### **10.9.1.2** Communications

**10.9.1.2.1** When four miles from the Finish Point, the pilot should transmit "[Contest ID] four miles." When a finish could come from more than one direction, radio calls should include the direction from which the pilot is finishing.

**10.9.1.2.2** When a finish cylinder is in use ([¶ 10.9.2](#)), the pilot should transmit "[Contest ID] Finish" when crossing the perimeter of that cylinder.

**10.9.1.2.3** Pilots are encouraged to make additional radio calls when these would increase safety, but to avoid unnecessary radio chatter.

**10.9.1.2.4** When an alternate frequency is in use for landings, pilots should change from the contest frequency to the landing frequency at a designated distance greater than 4 miles from the finish point and make all subsequent transmissions on the landing frequency.

**10.9.1.3** During finishes, contest officials may provide information concerning the runway in use and the estimated wind direction and velocity. They will not be responsible for giving traffic control information.

**10.9.1.4** Pilots must pay particular attention to safety during the process of finishing, landing, and rolling to a stop. A pilot whose finish, pattern, landing, or rollout is deemed unsafe by the CD is subject to a penalty for unsafe operation ([¶ 12.2.5.1](#)).

## **10.9.2** » Finish Cylinder

**10.9.2.1** A task shall include a Finish Point not more than 2 miles from the home field and a Finish Radius not greater than 2 miles.

### **10.9.2.2** » Minimum Finish Height

**10.9.2.2.1** ‡ Each task shall include a Minimum Finish Height (MFH), set by the CD at least high enough that pilots who obtain a valid finish can return to the home airfield for a normal pattern and landing. The MFH shall not be less than 800 ft AGL at a radius of 1 mile.

**10.9.2.2.2** The MFH shall be communicated as its equivalent MSL altitude.

**10.9.2.3** The Finish Point and Finish Radius define a three-dimensional Finish Cylinder that extends from the ground to an unlimited altitude. A competitor is eligible for a finish time when a flight log shows a fix within this cylinder that is later than any control fix at a task turnpoint or turn area and the provisions of [¶ 10.9.2.5](#) are met.

**10.9.2.4** The cylinder entry time is the interpolated time the sailplane first entered the Finish Cylinder. The Finish Altitude is the interpolated altitude at the cylinder entry time.

**10.9.2.5** » The Finish Height Difference is the Minimum Finish Altitude (Minimum Finish Height converted to MSL) minus the Finish Altitude.

**10.9.2.5.1** ‡ When the Finish Height Difference is not greater than 400 ft, the pilot is eligible for a finish time, at the cylinder entry time.

**10.9.2.5.2** ‡ When the Finish Height Difference is greater than zero and less than or equal to 400 ft, a penalty ([¶ 12.1.3.5](#)) applies; such penalty shall not yield a score lower than if Finish Height Difference exceeded 400'.

**10.9.2.5.3** ‡ When the Finish Height Difference is greater than 400 ft, the task is incomplete. The distance of the final task leg shall be computed per [¶ 10.9.2.6](#).

**10.9.2.6** The distance of the final task leg shall be no greater than the distance from the control fix at the final turnpoint to the Finish Point, minus the Finish Radius

## **10.9.3** Finish Gate

**10.9.3.1** A task shall include a Finish Point which is the center of the Finish Gate, and a finish direction which is the true ground track of a sailplane crossing perpendicular to the finish gate.

**10.9.3.2** The Finish Gate is a vertical plane of unlimited height approximately 3300 ft wide with its bottom at 50 ft AGL. At least one end of the Finish Gate will be clearly marked on the ground. Pilots electing to fly through the Finish Gate must pass through it only in the specified direction with sufficient energy to fly a full or partial pattern to a safe landing on the airfield.

**10.9.3.3** [moved]

**10.9.3.4** As the sailplane crosses the Finish Gate, Gate personnel may transmit "Mark" and then "[Contest ID] Good Finish," or "[Contest ID] Bad Try". A "Bad Try" will be given when the passes through the gate in the wrong direction or is judged to be below 50 ft AGL; Bad Tries are reported to the CD and the Scorer, and may be subject to a penalty for unsafe operation ([¶ 12.2.5.1](#)).

**10.9.3.5** In the case of a Bad Try, a rolling finish ([¶ 10.9.4](#)) is used - the pilot shall not attempt another flying finish.

**10.9.3.6** In the case of a Good Finish when the flight log shows that the sailplane passed within the horizontal limits of the gate in the proper direction, the finish time is taken as the interpolated time the sailplane crossed the finish gate. Otherwise, a rolling finish is used.

**10.9.3.7** The distance of the final task leg shall be taken as the distance from the control fix at the final turnpoint to the Finish Point.

## **10.9.4** Rolling finish

**10.9.4.1** When a Finish Gate is in use, the CD shall designate one or more rolling finish areas on the home airfield.

**10.9.4.2** Communications: When four miles from a rolling finish, the pilot should transmit "[Contest ID] four miles, rolling finish."

**10.9.4.3** Pilots performing a rolling finish shall touch down and roll to a stop as specified by the CD, and will be timed as the sailplane comes to a complete stop.

**10.9.4.4** If announced by the CD prior to the start of competition, a time adjustment will be added to rolling finishes. This adjustment will be based on the vertical and horizontal distance between the rolling finish and the location designated for a flying finish.

**10.9.4.5** The CD shall ensure that the Scorer is informed of all rolling finishes, including the time adjustment (if any) that applies to each.

## **10.9.5 » Safety finish**

**10.9.5.1** ‡ The Safety finish area is a cylinder centered on the Finish Point with a radius of 5, 10 or 15 miles, as announced by the CD.

**10.9.5.2** If weather conditions warrant, the CD may activate the Safety finish by a radio announcement on the contest frequency.

**10.9.5.3** When a Safety finish is active, a pilot may claim a finish by obtaining one fix within the Safety finish cylinder, provided the slope from the claimed fix to the Projected Finish Location is not less than 200 ft per mile and no claimed turnpoint was achieved after the time of the claimed fix. A Safety Finish must be claimed using a Task Claim form (§ 10.5.1.3.1).

**10.9.5.3.1** When a Finish Cylinder is in use, the Projected Finish Location is the nearest part of the Finish Cylinder at the minimum finish height.

**10.9.5.3.2** When a Finish Gate is in use, the Projected Finish Location is the Finish Point.

**10.9.5.4** After a Safety finish there is no requirement to return to the home field; a pilot may elect to land at any location or to remain flying.

**10.9.5.5** The pilot's scored finish time is taken as the time of the claimed fix plus a time adjustment of forty (40) seconds per mile for the distance from the claimed fix to the Projected Finish Location.

**10.9.5.6** The CD may de-activate the Safety finish. At least 5 minutes notice of the time of de-activation shall be transmitted on the contest frequency.

## **10.10 Post-Flight**

### **10.10.1 Landing at the Contest Site**

#### **10.10.1.1 Flight Documentation Interval (FDI)**

This is the maximum time that may elapse between a landing at the contest site and the submission of valid flight documentation (§ 11.2.2) to the Scorer. (Penalty specified in § 12.1.3.6.)

**10.10.1.2** When not otherwise designated by the CD, a FDI of 1 hour shall apply.

### **10.10.2 Landing away from the Contest Site**

#### **10.10.2.1 Submission of Flight Documentation**

**10.10.2.1.1** The pilot shall submit flight documentation to the Scorer as soon as practicable. In general, this should be done within one hour of returning to the contest site. But in no case shall it be later than 09:00 of the next day.

**10.10.2.1.2** Flight documentation may be submitted to the Scorer in person on standard media acceptable to the scorer (which shall always include IGC files on SD cards and USB-connected memory devices). Documentation may also be submitted remotely by any means (e.g. email) acceptable to the Scorer. For a flight that ended in an outlanding, the Scorer must receive Flight Documentation no later than 09:00 of the next day, or a penalty shall apply (§ 12.2.5.5).

#### **10.10.2.2 Notification of outlanding**

**10.10.2.2.1** It is a pilot's first duty, after landing and securing the sailplane, to complete an Outlanding Report and then telephone the contest site. Pilots who fail to promptly supply full information are subject to an administrative penalty (§ 12.1.3.8).

**10.10.2.2.2** The Outlanding Report should include a contact telephone number, the turnpoints achieved, the landing location and retrieve instructions. If the landing site is an airfield, the name of the airfield suffices as the location; otherwise, the latitude/longitude coordinates of the landing site, accurate within 0.5 miles, shall be included.

**10.10.2.2.3** The telephone call is normally directed to the contest Retrieve Office. Pilots may alternatively contact their crews with the necessary information, directing their crews to supply this to the Retrieve Office prior to departing the contest site. Pilots who fail to ensure that the Retrieve Office is properly notified may be subject to an administrative penalty (§ 12.1.3.8).

**10.10.2.2.4** Use of other means of communication is authorized only when telephone contact is impractical.

**10.10.2.3** Retrieves will normally be by vehicle and trailer. Aerotow retrieves (using towplanes authorized by the CD) are permitted from sites approved by the CD on a first-to-telephone-in/first-served basis. Pilots of sailplanes capable of self-launch may elect to self-retrieve.

### **10.10.3** Airfield landing bonus

**10.10.3.1** A pilot with an incomplete task who lands at a designated airfield can receive a score bonus for such a landing.

**10.10.3.2** The landing must take place at a field designated by the CD as eligible for such a bonus. Eligible fields shall be designated prior to the start of the competition. Unless otherwise announced, all airfields depicted on a current Sectional chart shall be considered eligible. The home airfield is always eligible.

**10.10.3.3** A pilot whose scored distance is zero receives no bonus.

**10.10.3.4** A pilot of a motorized sailplane who uses the motor before landing can be eligible for a bonus, under the following provisions:

**10.10.3.4.1** The flight log shows that the motor was started within two (2) miles of an eligible airfield (§ 10.10.3.2) and at least 1000' above that airfield's elevation. Distance from airfield to be determined based on the FAA official airport coordinates or by the CD.

**10.10.3.4.2** The bonus is claimed on a Task Claim form submitted to the Scorer.

### **10.11** Multiple Task Attempts

**10.11.1** A task may be attempted more than once; the best-scoring attempt will be used.

**10.11.2** An outlanding (or the use of a motorized sailplane's power unit other than as specified in § 10.6.3) ends an entrant's competition flying for that day.

### **10.12** Airspace

**10.12.1** Tasks should be set to avoid flight through closed airspace (§ 5.6.2) or areas of high-density traffic.

**10.12.2** A start cylinder or a turn area used with a Turn Area Task may overlap closed airspace. Such overlap does not alter a pilot's responsibility to remain clear of the closed airspace.

#### **10.12.3** Airspace clearance requirements

**10.12.3.1** Horizontal: A serious violation occurs if any fix lies within closed airspace.

**10.12.3.2** Vertical:

- A minor violation occurs if any fix has a vertical separation from closed airspace less than 500 ft but not less than 100 ft.
- A serious violation occurs if any fix has a vertical separation from closed airspace less than 100 ft.

#### **10.12.4** Penalty application

Multiple minor airspace violation penalties (§ 12.1.3.9) may be applied to one flight, but not more than one per 5 minutes. No more than one serious airspace violation penalty (§ 12.2.5.6) shall apply to one flight. When both minor and serious violations occur, only the serious violation shall be applied.

**10.12.5** Gaps in a Flight Log longer than one minute shall be interpreted unfavorably to the pilot. During each such gap:

- The closest horizontal approach to or from the nearest closed airspace shall be calculated assuming a speed of 100 mph
- If in the judgment of the CD there was any realistic possibility of a vertical airspace violation, the closest vertical approach to the nearest closed airspace shall be calculated based on a vertical speed of 1000 ft per minute

## 11.0 » SCORING

### 11.1 General

**11.1.1** A Contestant is a regular entrant whose Scored Distance (§ 11.2.3) is greater than zero, or whose actual landing was not at the contest site.

**11.1.2** A Finisher is a Contestant with a complete task (§ 11.2.2.4).

**11.1.3** A valid competition day is a day on which every regular entrant is given a fair opportunity to compete, and at least 25% of Contestants achieve a Handicapped Distance not less than the Standard Minimum Task Distance (§ 10.3.1.1).

**11.1.4** Only the best flight on each valid competition day shall count towards an entrant's final score.

**11.1.5** When more than one complete flight log is available, the best-scoring such log is used to evaluate a flight.

### 11.2 Task Measurement

#### 11.2.1 Precision

**11.2.1.1** Times will be rounded to the nearest whole second. The CD should ensure that all clocks used for contest timing are synchronized and correct.

**11.2.1.2** Control points (§ 5.6.1), landing sites, and other points of significance will be designated by latitude/longitude coordinates with accuracy per § 5.6.1.3.

**11.2.1.3** Distances will be calculated to an accuracy of 0.01 miles or better using Great Circle methods, based on a spherical earth of radius 3958.7559 miles (6371.0 kilometers).

**11.2.1.4** When time interpolation is called for during evaluation of a flight log, the interpolation shall be linear with distance.

#### 11.2.1.5 Altitude measurement

**11.2.1.5.1** When the Scorer must measure a pilot's height above ground level (AGL), this height shall be the difference between the altitude of a recorded fix and that of a fix recorded on the ground. For all purposes except finish height, a fix prior to takeoff shall be used. For finish height, the Scorer shall use the more favorable of a pre-takeoff or post-landing fix.

**11.2.1.5.2** When the Scorer must measure a pilot's height above sea level (MSL), this shall be the height AGL as determined under § 11.2.1.5.1 plus the altitude of the home field.

#### 11.2.2 Task Evaluation

**11.2.2.1** Each pilot shall submit flight documentation each day a launch is made; it shall accurately document each flight that the pilot made. Failure to submit flight documentation incurs a contest penalty (§ 12.2.5.5).

**11.2.2.2** If the flight documentation includes a Task Claim form under the provisions of § 10.5.1.3, task evaluation is based on this form, which may not be altered once submitted; but a subsequent Task Claim can be submitted under the provisions of § 11.2.2.7.

#### 11.2.2.3 Valid turnpoints

**11.2.2.3.1** Task turnpoints are valid when they meet the control requirements of § 10.5.3.

**11.2.2.3.2** For each such valid turnpoint, the Scorer determines a control fix. When the requirements of § 10.5.3.2 are met, this is the fix within the turnpoint cylinder that in combination with other control fixes gives the pilot the greatest scored distance; otherwise, the fix closest to the turnpoint is used as the control fix.

**11.2.2.3.3** Each control fix is used as the terminating point of one task leg and the originating point of the subsequent leg.

**11.2.2.3.4** If a flight is being evaluated based on a Task Claim form that includes an invalid turnpoint, the Task Claim is considered to have ended at the last valid turnpoint.

**11.2.2.4** Task completion - The pilot has completed the task if all turnpoints are valid, yield a handicapped distance (§ 11.4.3) not less than the Standard Minimum Task Distance, and the pilot obtained both a scored start time and a finish time prior to finish closing. Otherwise the task is incomplete.

**11.2.2.5** For incomplete tasks, a scored landing point shall be determined by the Scorer. This is generally the fix that yields the greatest scored distance, but the following restrictions apply:

- The fix shall be no later than Contest Sunset time.
- For a motorized sailplane, the fix shall be prior to use of the power unit

**11.2.2.6** While it is the Scorer's duty to ensure that documentation is evaluated and scores are calculated promptly and accurately, it is the duty of each entrant, prior to a day's scores becoming Official, to review scores and bring to the attention of the Scorer any question that arises or problem that is found.

#### **11.2.2.7** Subsequent Task Claim

**11.2.2.7.1** After initial submission of flight documentation, a pilot may elect to submit a subsequent Task Claim form to the Scorer. A pilot may do this to claim control fixes different from those determined by the Scorer, to correct a prior task claim, or in general to obtain a more accurate score.

**11.2.2.7.2** A subsequent Task Claim form will be accepted if it is received within 24 hours of the initial submission of flight documentation and if it results in a more accurate score.

#### **11.2.2.8** Procedures for airspace clearance violations

**11.2.2.8.1** If it is determined that a flight includes a serious airspace clearance violation, the Scorer shall give the affected pilot the opportunity to withdraw the flight log for that flight. This withdrawal shall be treated as a failure to submit flight documentation.

**11.2.2.8.2** [deleted]

**11.2.2.8.3** A withdrawn flight log is not published, and no copy is retained by the Scorer.

**11.2.2.8.4** A pilot with more than one contest flight that includes either a serious airspace violation or a failure to submit flight documentation is disqualified from the competition.

### **11.2.3** Scored Distance

**11.2.3.1** Scored distance is the sum of the distance achieved on each leg of the task (but no leg shall have a length less than zero).

**11.2.3.2** For all Tasks, the first leg originates at the start position ([¶ 10.8.5.3](#)).

**11.2.3.3** For completed tasks, the final leg ends at the Finish Point; any finish radius is subtracted from its length.

**11.2.3.4** For incomplete tasks, a length for the incomplete task leg is calculated. This shall be the distance from leg's originating point to the control point being sought (which shall be the valid control point that yields the best distance) minus the distance from the scored landing point to that control point. If the point being sought was the Finish Point, this leg length shall not be greater than the full length of the final leg minus any finish radius.

**11.2.3.5** Scored Distance is zero if:

- The pilot has no valid start time ([¶ 10.8](#)).
- The pilot lands at the home field (or the pilot of a motorized sailplane used the power unit after starting and before landing) and Handicapped Distance ([¶ 11.4.3](#)) is less than half the Standard Minimum Task Distance ([¶ 10.3.1.1.1](#)).

### **11.3** Scoring Nomenclature

- AFBONUS - Airfield Landing Bonus ([¶ 10.10.3](#), [¶ 11.4.6](#))
- BESTDIST - Best handicapped distance achieved ([¶ 11.5.6](#), [¶ 11.6.9](#))
- BESTSPD - Best Speed ([¶ 11.4.4](#))
- Contestant - defined in [¶ 11.1.1](#)
- Finisher - defined in [¶ 11.1.2](#)
- HCP - Sailplane's Handicap Factor ([¶ 11.4.1](#)).
- HCPDIST - Handicapped Distance ([¶ 11.4.3](#)).
- MAXDP - Maximum Distance Points ([¶ 11.5.3](#), [¶ 11.6.4](#))
- MAXSP - Maximum Speed Points ([¶ 11.5.2](#), [¶ 11.6.3](#))
- MINTIME - Minimum Flight Time, as declared by CD ([¶ 10.3.2.2.1](#), [¶ 10.3.2.3.2](#))

- POINTS - the calculated score (§§ 11.5.5, § 11.5.7, § 11.6.8, § 11.6.10)
- Scored Distance - defined in § 11.2.3
- SCR - Scored Completion Ratio (§§ 11.5.1, § 11.6.2)
- SMTT - Standard Minimum Task Time (§ 10.3.1.1)
- SPEED - Scored speed (§§ 11.5.4, § 11.6.7) - applies only to a Finisher
- STF - Short Task Factor (§ 11.4.5)
- STOC - Scored Time on Course (§ 11.6.6) - applies only to a Finisher
- TOC - Actual Time on Course (§ 11.4.2) - applies only to a Finisher
- UF - Undertime Finishers (§ 11.6.1)

## 11.4 » Scoring Equations - General

### 11.4.1 » Handicap Factor

**11.4.1.1** For an unhandicapped competition class, each sailplane is assigned a Handicap Factor (HCP) of 1.0, which is not modified for weight, sailplane configuration, or other reasons.

**11.4.1.2** For a handicapped competition class, each sailplane is assigned a Handicap Factor from the appropriate SSA Handicap List. An entrant planning to fly a sailplane not listed must obtain a Handicap Factor by contacting the SSA Contest Committee at least 30 days prior to the scheduled competition.

**11.4.1.3** When a minimum handicap has been specified, sailplanes with a lower handicap in the SSA Handicap list are ineligible, nor may any sailplane compete with an adjusted handicap (§ 11.4.1.5) lower than the minimum.

**11.4.1.4** When a maximum handicap has been specified, this is the maximum that will be assigned. Sailplanes with a listed or adjusted handicap greater than the maximum are eligible, but they are assigned the maximum handicap.

**11.4.1.5 »** Unless otherwise specified in § 6.11, sailplanes that compete in a configuration different from that on which the listed handicap was based receive handicap adjustments, as follows:

**11.4.1.5.1 ‡** If a sailplane's wingspan has been increased and no specific Handicap Factor for the sailplane with that span is listed, its Handicap Factor shall be multiplied by the following:

$$1.0 - ((\text{wingspan}) - (\text{original span})) / (5 * (\text{original span}))$$

**11.4.1.5.2** When winglets are added to a sailplane not handicapped with winglets, the Handicap Factor shall be multiplied by 0.99.

**11.4.1.5.3** When wing turbulation is applied to a sailplane handicapped without turbulation, the Handicap Factor shall be multiplied by 0.99.

**11.4.1.5.4** When wing-root fairings are added to a sailplane handicapped without fairings, the Handicap Factor shall be multiplied by 0.99.

**11.4.1.5.5** Other significant aerodynamic modifications may result in a lower Handicap Factor being assigned.

**11.4.1.5.6** When weight adjustments apply and Competition Weight (§ 6.8.1.3) is different from the specified Handicap Weight, the Handicap Factor shall be multiplied by the following:

$$1.0 - ((\text{Competition Weight}) - (\text{Handicap Weight})) * 0.0002$$

**11.4.2** Time on course:  $\text{TOC} = (\text{Scored finish time}) - (\text{Scored start time})$

**11.4.3** Handicapped Distance:  $\text{HCPDIST} = \text{HCP} * \text{Scored Distance}$

**11.4.4** Best Speed:  $\text{BESTSPD} = \text{Greatest value of SPEED achieved by any Finisher}$

**11.4.5** Short Task Factor:

- If there are no Finishers,  $\text{STF} = 1.0$
- Otherwise,  $\text{STF} = (\text{TOC of Finisher with BESTSPD}) / \text{SMTT}$  (but not greater than 1.0)

**11.4.6** Airfield Landing Bonus

- For eligible pilots (§ 10.10.3),  $\text{AFBONUS} = 25$

- Otherwise, AFBONUS = 0.

### 11.5 Scoring Equations - Assigned Task

**11.5.1** Scored completion ratio:  $SCR = (\text{Number of Finishers}) / (\text{Number of contestants})$

**11.5.2** Maximum Speed Points:  $MAXSP = STF * (600 + 660 * SCR)$  (but not greater than  $STF * 1000$ )

**11.5.3** Maximum Distance Points:  $MAXDP = MAXSP * (0.8 - 0.2 * SCR)$

**11.5.4** Speed:  $SPEED = HCPDIST / TOC$

**11.5.5** Points for Finishers: POINTS shall be equal to the largest of the following three quantities:

- $MAXSP * SPEED / BESTSPD$
- $MAXDP + 30 + MAXSP * 0.2 * ((SPEED/BESTSPD) - 0.4)$
- $MAXDP + 30$

**11.5.6** Best Distance: BESTDIST is the greatest value of HCPDIST achieved by any regular entrant.

**11.5.7** Points for Non-Finishers:  $POINTS = AFBONUS + MAXDP * HCPDIST / BESTDIST$

### 11.6 Scoring Equations - Turn Area Task and Modified Assigned Task

**11.6.1** Undertime finishers:  $UF = \text{Number of Finishers whose TOC is more than 15 minutes less than MINTIME}$

**11.6.2** Scored completion ratio:  $SCR = ((\text{Number of Finishers}) - 0.75 * UF) / (\text{Number of contestants})$

**11.6.3** Maximum Speed Points:  $MAXSP = STF * (600 + 500 * SCR)$  (but not greater than  $STF * 1000$ )

**11.6.4** Maximum Distance Points:  $MAXDP = MAXSP * (0.8 - 0.2 * SCR)$

**11.6.5** [deleted]

**11.6.6** Scored Time on Course:

- For finishers whose TOC is not less than MINTIME:  $STOC = TOC$
- For finishers whose TOC is less than MINTIME:  $STOC = MINTIME - (MINTIME - TOC) / 10$

**11.6.7** Speed:  $SPEED = HCPDIST / STOC$

**11.6.8** Points for Finishers: POINTS shall be equal to the larger of the following two quantities:

- $MAXSP * SPEED / BESTSPD$
- $MAXDP * HCPDIST/BESTDIST + 30$  (But not greater than  $MAXDP + 30$ )

**11.6.9** Best Distance:

If there are no Finishers, BESTDIST is the greatest value of HCPDIST achieved by any pilot.

Otherwise, BESTDIST is the larger of the following two quantities:

- Greatest HCPDIST achieved by any Finisher
- $BESTSPD * MINTIME$

**11.6.10** Points for Non-Finishers:  $POINTS = AFBONUS + MAXDP * HCPDIST / BESTDIST$

(but not greater than  $AFBONUS + MAXDP$ )

### 11.7 Rounding of Scores

Full available mathematical precision shall be carried through all calculation steps. Scores shall be rounded to the nearest whole number, but only as the final calculation step.

### 11.8 Scoring Guest Pilots

**11.8.1** Terms such as "Best Speed" and "Best Distance" refer to the performance of regular entrants only; guest pilots achieving a better daily result shall receive a proportionally extrapolated score.

**11.8.2** On a day when the only finishers are guest pilots, the highest speed shall be assigned a score of 600 points.

**11.8.3** At the option of contest organizers, guest pilots shall be ranked and listed either separately from regular entrants at the bottom of official score sheets, or along with regular entrants.

## 11.9 Status of Scores

**11.9.1** The initial status of a class competition day is Preliminary; scores published under this status are typically incomplete and subject to considerable change.

**11.9.2** Once flight documentation for all class entrants is received by the Scorer, the status of a competition day becomes Unofficial. Scores are subject to change due to analysis of flight documentation, imposition of penalties, resolution of protests, etc.

### 11.9.3 Official status

**11.9.3.1** A class contest day acquires its Official status 24 hours after the latest of:

- All flight documentation is analyzed and published in accordance with ¶ 10.5.1.5.
- Final unofficial scores are published
- Protests are resolved
- 09:00 the day following the contest day

**11.9.3.2** A class day that meets the requirements of ¶ 11.1.3 has the Official status of Valid; otherwise it is a No-Contest day. The CD should announce the status when the day becomes Official.

**11.9.3.3** Other than to correct errors caused by incorrect scoring, no changes to scores are allowed after a class day's official status is declared. If changes to scores are authorized by the CD, then the status of the day reverts to Unofficial.

**11.9.4** Contest status - The results of a class competition become Official 48 hours after the final official status of every scheduled competition day has been declared. No score changes of any kind are allowed after a contest is declared Official.

## 11.10 Publication of Scores

**11.10.1** Unofficial score sheets and flight documentation should be published as soon as practicable, but no later than the next daily Pilot Meeting (or 09:00 the next day, in the case of a day without a Pilot Meeting).

**11.10.2** A score sheet shall be published on every day that any entrant achieved a scored distance greater than zero.

**11.10.3** An Official score sheet shall be published as soon as possible after a competition day is declared Official (¶ 11.9.3).

**11.10.4** Published score sheets shall include, at a minimum:

- Each pilot's name and Contest ID
- Each pilot's cumulative score and rank
- Notation as to pending protests
- Notation as to whether scores are Preliminary, Unofficial or Official

**11.10.5** Score sheets that show daily scores should also include:

- A description of the task
- Speed (for finishers) and distance
- Any applicable penalties or score adjustments
- Daily rank

## 11.11 Pilot Ranking Calculation

**11.11.1** National competitions: For a contest with at least four valid competition days (¶ 11.1.3), the Contest Weighting Factor is 100.0. For a contest with three valid competition days, the Contest Weighting Factor is 95.0.

**11.11.2** Regional competitions: For a contest with at least three valid competition days (¶ 11.1.3), the Contest Weighting Factor is 92.0. For a contest with two valid competition days, the Contest Weighting Factor is 88.0

**11.11.3** Ranking Score = (Contest Weighting Factor) \* (Pilot's final score) / (Largest final score by a regular entrant)

(but Ranking Score shall not be greater than the Contest Weighting Factor)

**11.11.4** Team entries receive a ranking score that applies to the team; individual members of the team receive a ranking score equal to 75% of the team's ranking score.

## 12.0 » PENALTIES

## 12.1 » Task Penalties

**12.1.1** Task penalties apply only to the pilot's score for the day on which the violation occurred. If the day is not a valid competition day, a task penalty does not apply.

**12.1.2** If the amount of a pilot's task penalties equals or exceeds the pilot's daily score, the pilot receives a score of zero.

### 12.1.3 » Task penalty categories

**12.1.3.1** Missed turnpoint (¶ 10.5.3.3): penalty =  $25 + 100 * (\text{miss distance})$

**12.1.3.2** [deleted]

**12.1.3.3** ‡ Start penalty (¶ 10.8.5.6): penalty = The sum of the following (neither of which shall be less than zero):

- Distance penalty =  $(\text{Start Distance} - \text{Start Radius}) * 100$
- Height penalty =  $(\text{Control Height} - \text{MSH}) / 4$ .

**12.1.3.4** Self-launch penalty (¶ 10.6.3.1.4): minimum penalty = 100

**12.1.3.5** ‡ Finish penalty (¶ 10.9.2.5.2):

- If Finish Height Difference does not exceed 200 ft, penalty =  $(\text{Finish Height Difference}) / 4$
- Otherwise, penalty =  $50 + (\text{Finish Height Difference} - 200) * 1.75$
- In no case shall the finish penalty be greater than to yield the score that would have resulted if Finish Height Difference exceeded 400 ft.

**12.1.3.6** Flight Documentation Interval exceeded (¶ 10.10.1.1): penalty = 25

**12.1.3.7** More than one case of incomplete flight documentation (¶ 10.5.4): penalty = 25

**12.1.3.8** Administrative violations: maximum penalty = 50

Rules violations that do not fall into other categories are termed Administrative; violations can be assessed a penalty or a fine of up to \$5, as determined by the CD and the Contest Competition Committee.

**12.1.3.9** Minor Airspace violation (¶ 10.12.3.2 and ¶ 10.12.4): penalty = 25

**12.1.3.10** ‡ Missed turnpoint (¶ 10.5.3.3): penalty =  $100 * (\text{miss distance})$ .

## 12.2 Contest Penalties

**12.2.1** Contest penalties apply whether or not the day on which the penalty is imposed is a valid competition day.

**12.2.2** When a precise penalty is not specified, the amount shall be determined by the CD and the Contest Competition Committee.

**12.2.3** If a contest penalty exceeds a pilot's daily score, the excess amount is subtracted from the pilot's cumulative score.

**12.2.4** Contest penalties shall be reported to the SSA Competition Committee.

### 12.2.5 Contest penalty categories

**12.2.5.1** Unsafe operation (including all phases of flight and ground operation) (¶ 10.9.1.4, ¶ 10.9.3.4): maximum penalty = disqualification.

**12.2.5.2** Landing after the time of Contest Sunset: penalty = 200 points.

**12.2.5.3** Unsportsmanlike conduct (including falsification of flight documentation) (¶ 6.3.3.6, ¶ 6.6.5, ¶ 10.7.1.1, ¶ 10.7.2.9, ¶ 10.8.8): maximum penalty = disqualification from the contest and ineligibility for Sanctioned competitions for a period of 5 years.

**12.2.5.4** Underweight or overweight (¶ 6.8.2.2): penalty =  $(W - 10)^2 / 10$

(W is the number of pounds under or over the correct weight)

**12.2.5.5** Failure to submit flight documentation (¶ 10.10.2.1.2, ¶ 11.2.2.1): penalty = 100

**12.2.5.6** Serious Airspace clearance violation (¶ 10.12.3): penalty = 100 + loss of all daily points

## 13.0 REPORTING REQUIREMENTS

### 13.1 Daily Reporting

**13.1.1** The CD and the Scorer shall ensure that contest scores are reported at least daily to the SSA website. When possible, preliminary scores should be posted by 20:00, and updated as changes are made and when scores become Official.

**13.1.2** A brief narrative describing each contest day is recommended for inclusion with submitted scores.

**13.2** The CD shall ensure that an Accident/Incident Report is filled out for every incident that caused, or had a reasonable probability of causing, damage or injury.

**13.3 Administrative Reporting**

Within 14 days of the last scheduled competition day, the Contest Manager shall send the following:

**13.3.1** To each entrant and the SSA:

- The Contest Financial Report

**13.3.2** To the SSA:

- A copy of each entrant's Registration Form
- The balance of Sanction Fees owed
- Complete Official Scores in computerized form
- The Contest Summary Report
- Each applicable Accident/Incident Report ([¶ 13.2](#))

# Rules Guide

**A1.6** This rule makes it clear that when contests are co-located, National competitions are given priority. "Preference" does not necessarily mean that National pilots must be launched first every day, it just means that the CD must consider the needs of the National contest first.

**A3.1.3** The Competition Director must not be a contestant. Demands on the CD's time make it impractical for the CD to fly the competition tasks. The CD could possibly fly as sniffer (Rule 10.6.2.6), to get a good feel for the day's conditions.

**A3.1.5** Task advisors should have the qualifications listed, and be decisive. Radio discussions of the task should be limited to the CD and the Task Advisors, unless another pilot's input is specifically requested by the CD.

If you are selected as a Task Advisor, be prepared to give the CD a brief and unambiguous opinion of the flying conditions and the chance of completing contemplated tasks.

**A3.2.1** The Contest Manager should make a point of sending to the SSA the names of any contest officials eligible for extension of entry priority under this rule.

**A5.2.1.2.1** A particular site may be suitable for a smaller number of competitors, and thus may request a smaller maximum on the Application for Sanction form submitted to the SSA. If a smaller limit is imposed, it will be announced well in advance.

**A5.2.3** To avoid confusion, sharing pilots may not use identical contest IDs. One of them should fly with a modified ID (this can usually be done quickly with colored tape).

**A5.3.11** In addition to those who have been accepted, pilots placed on standby should be notified of their position on the standby list.

**A5.4.2.4** There is no obligation to collect a surcharge for late entries; if used, it must be applied fairly.

**A5.4.3** Note that "period of the contest" (Rule 4.1) now includes only scheduled competition days. Both at National and Regional contests, practice days are not included so practice tows are not covered.

**A5.5.1.1.2** Note that the exception applies to a pilot who has completed a previous National contest. The intent is to accommodate obviously experienced pilots who have not flown in a recent contest.

**A5.5.3.2** The physical presence of an entrant is not required at the time of entry deadline (registration). An entrant who wishes to arrive late may do so provided all contest registration requirements of Rule 5.5.3.1 have been completed prior to the specified deadline time and arrangements have been made to receive the required safety briefing directly from the CD. All pilots have a right to know about any entrant who plans to arrive late.

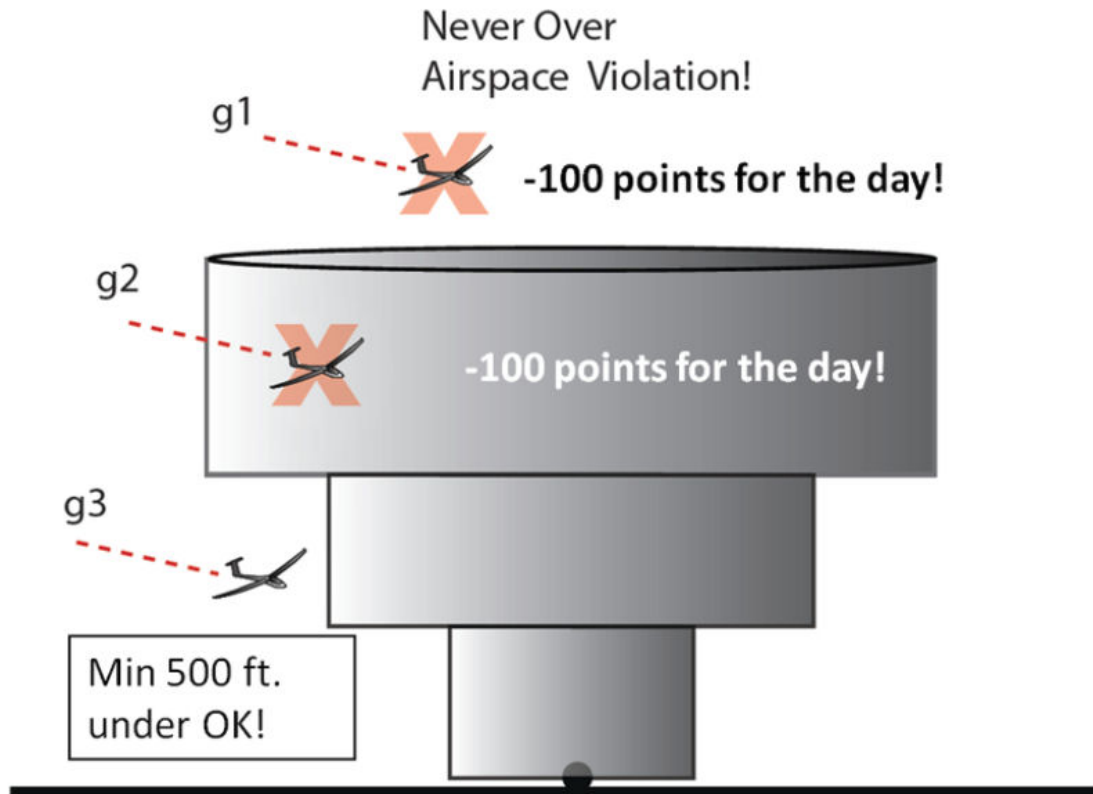
**A5.5.4** The SSA Board of Directors has specified that insurance coverage is mandatory for towplanes.

**A5.6.1.1** Note that start and finish cylinders and finish gates are usually different and rarely the same point as the home turnpoint. Thus, they should appear as different points in the turnpoint list, and the proper distinction should be made when calculating task distance.

**A5.6.1.3** Mapping software such as GoogleEarth is typically the best way to check the accuracy of control point coordinates.

**A5.6.2** The Worldwide Soaring Turnpoint Exchange server contains links to official FAA special use airspace data. Also

available is a program that can be used to create airspace files in the .SUA format, covering an area defined by latitude and longitude and including specified airspace classes.



Note: this diagram is for illustration only, the text of the rules is authoritative.

### ***Closed Airspace Clearance Requirements***

**A5.6.2.1** You may not fly above or into closed airspace. You must stay 500 feet below the floor of closed airspace.

**A5.6.2.2** This rule allows the CD to designate and permit overflight of Restricted areas (which includes TFRs, but no other types of airspace). The top specified for such an airspace area must be well above the actual top of the underlying Restricted area, to make it unlikely that any pilot will descend into the Restricted area, even if unexpected sink is encountered. An altitude that yields a glide of no less than 250 feet per mile from anywhere above the Restricted area to its outermost edge is recommended.

**A5.6.3** In order to ensure that this process works smoothly, it is important that every version of a control point file include a unique version number, so it's easy to tell if it's the current one.

**A5.6.3.1** It is desirable that the list of control points and their coordinates be produced and cross-checked well before the start of a contest. Yet last-minute adjustments are occasionally found necessary. This rule describes specific procedures that must be followed if changes are made after the distribution of any pilot's kit: each affected pilot must be given a copy of the update, and must acknowledge receipt by signature. The CD must retain the signatures as proof that proper notification was given.

**A5.8.2** Note that pilots who fly as guests must be qualified in all respects - guest status is not to be used as a means of circumventing qualification or standards. Guest pilots must pay the Sanction fee (which, among other things, insures proper status under contest insurance coverage).

**A6.1.4** In this rule, "Configuration" refers to the full aerodynamic configuration of the glider. Thus, for example, this rule prohibits changing the angle at which ailerons are set unless such change can be accomplished in flight (which would be legal in Open, 18-meter and 15-Meter classes, but not in Standard class).

Open class provides a special case - span change are allowed at any time (and this includes wingtip swaps). But note that a big-span glider competing in a Sport-class contest is not in Open class and so is not allowed this freedom.

**A6.3.1** It is an enabled motor that defines a motorglider; gliders with motors are considered non-motorized if the motor is unavailable for use during flight. Thus, a pilot may fly with a motor that is not enabled but which can be enabled after a landout and then used to fly home.

**A6.3.3.4** Note that this rule requires that, prior to the start of the contest, the CD inspect and approve the special equipment that a motorglider must carry. The pilot must request that the CD do the inspection.

**A6.4** Note that a multi-place sailplane is not necessarily a team entry (Rule 5.2.2.4 and Rule 5.2.2.5).

**A6.5.1.2** To be acceptable, a ballistic parachute system must have specific approval from the manufacturer. The approval must mention the parachute make and model, and certify that it is designed to lower the aircraft and occupants safely. (Some ballistic parachutes are designed only to stabilize the sailplane, giving the occupants more time to bail out.)

#### **A6.5.2** Emergency Locator Transmitters

Though they are not required, the Rules Committee is on record as recommending the use of an ELT by every competition pilot. The potential safety benefit is large, and the cost is relatively low.

**A6.6.3** Information or data received during flight that has been requested by the pilot is considered 2-way communication, even if its transmission was arranged prior to takeoff.

SPOT and InReach are examples of air-to-ground position reporting devices.

Examples of anti-collision devices include Flarm, PCAS such as the Zaon MRX unit, and ADS-B. Though Flarm is not required, the Rules Committee recommends the use of Flarm by every competition pilot.

**A6.7.2.3** The definition makes it clear that a fix is a single point. In depicting fixes, software may in some cases show a circle rather than a point; for the purposes of deciding if a fix is sufficiently close to a turnpoint, measurement is taken to the center of such a circle, not to its perimeter.

**A6.7.3.1** Users of Flight Recorders that record only GPS altitude need to be aware that GPS altitude can differ from barometric altitude (often by a substantial amount either way at higher altitudes) depending on temperature. Unless the pilot has a way of monitoring GPS altitude, altitude-related penalties may inadvertently occur.

**A6.7.5.1** The specification for the IGC file format is in Appendix 1 of <http://www.fai.org/gnss-recording-devices/igc-approved-flight-recorders>.

**A6.7.6** Scorers should not take security lightly. Pilots should not be tempted to quickly edit logs to remove start, finish, turnpoint, or airspace penalties from their flight logs. The file security check is the only way of making sure pilots do not quickly edit their flight logs to remove a few offending fixes, as well as more complex cheating by flight log modification. Any log that comes in on a file must pass the check. (The only exception are some PDA loggers which are allowed at sports class regionals, which do not produce file security checks). Scorers should look closely at any log with absent or failed file-security check for signs of tampering, especially at start, turnpoints, finish, and near restricted airspace. If at all possible, the log should be transferred directly to the scoring computer, or to a computer owned by the scorer or the contest rather than using any programmable equipment (laptop, pda) owned by the pilot. File security check failures should be extremely rare.

**A6.7.7** Note that it is the pilot's responsibility to show the CD and the Scorer that a flight recorder and software can meet specified requirements, and that the effort involved is reasonable. The job of checking out flight recorders and software should be done well before the start of competition. It is the pilot's responsibility to provide contest organizers with the necessary software and hardware to download the pilot's flight log.

### **A6.8.2** Managing weighing

Prior to the start of the contest, create a chart showing each glider's Contest ID, the maximum allowable weight, and the weight of the main gear and the tail at that maximum weight. Once this is done, only the main gear need be weighed to verify compliance. Consider establishing weights in the "tow-out configuration" (e.g. attached to the tow vehicle), as this allows weight to be checked with minimum time and effort.

At the mandatory safety briefing, weighing procedures (locations, times, etc.) should be announced to all pilots.

Scales should be located so that it is convenient for a glider to be weighed on the way to the grid. Weights should be taken with the wings balanced (not necessarily exactly level) in a cross or headwind (never a tailwind). Unofficial weighings can be done early in the day, but once a glider is officially weighed, Rule 6.8.2.2 applies: a violation can be considered unsportsmanlike conduct.

Pilots high on the score sheet (say, positions 1 through 5) should be weighed every day. Others can be weighed at random. With portable scales, weight checking can be done on the grid, between grid time and launch time.

Note that Rule 12.2.5.4 specifies the penalty when a glider is over or under weight.

Not all contests will have means for precise enforcement of weight rules (i.e. scales). This does not mean that weight rules are suspended - pilots are expected to make a good-faith effort to comply.

**A6.8.3** Under no-ballast rules, water ballast is not allowed, not even with the dump system disabled (but note the tail ballast exception of Rule 6.8.3.1). Fixed ballast is legal. It is the pilot's responsibility to maintain weight and balance within the limits published in the Sailplane Owner's/Operator's Manual.

**A6.9.1** If there is any question about the unloaded shape of the wings, it can be determined by observing the shape a wing assumes when removed from the sailplane and held leading-edge-down.

**A6.9.2** An allowance of 2.5 cm (approximately 1 inch) is provided as a tolerance for errors in measurement, errors in supporting the wings, and errors due to thermal expansion of the sailplane and/or measuring device.

**A8.3** The CD must take any protest seriously, and investigate each one carefully; the entire Contest Competition Committee (Rule 3.1.4) should be involved.

**A8.5** If a protest cannot be resolved to the satisfaction of all, this rule allows an appeal to the SSA Contest Committee. Thorough, written documentation must be included.

**A9.2** Some kind of safety briefing should be part of every daily pilot's meeting. A common and effective technique is ask a pilot to prepare a 5-minute talk concerning a safety subject of the pilot's choice. Such pilots should be contacted at least a day in advance, and the CD should ensure that the pilot's presentation is appropriate.

**A9.3** If non-contest flights will also take place, pilots must be instructed that they, too, must abide by this rule. Any circling glider is likely to attract a gaggle, so pilots must be competent to fly in close proximity to others.

**A9.9** The safety box provides a method for anonymous comments on safety to reach the CD. It should be in a secure location accessible to all pilots. The CD should check it twice a day, taking whatever unofficial action seems appropriate, and keeping all submissions confidential.

**A9.12** A examination is especially advisable in cases where flutter or an overly-hard landing is suspected (since hidden damage has been found to be common in such cases).

**A9.15** This provision should be applied only in a serious case when pilot help is truly needed. Examples include helping to locate a downed pilot or helping with rescue efforts, either from the air or after landing nearby.

**A9.16** No points are available for further flight, though airfield landing bonus points still apply. The pilot retains sole judgment & responsibility for continued flight safety.

**A10.1.2** Grid time is usually declared once and remains constant throughout a contest. This is convenient and avoids confusion, but can cause the loss of valuable soaring time on days that start earlier than normal. There is no reason why a CD should not declare an earlier-than-normal grid time if weather dictates.

**A10.1.3** Between the meeting and the first launch should be sufficient time for task programming and pre-launch checks. When limited time is available the CD needs to ensure the first-launching pilots have a sufficient and safe amount of time to get ready (e.g. the pilot's meeting should be at the front of the grid and pilots in the first wave to launch should be given early warning).

#### **A10.2.1** Critical Assembly Check

A Critical Assembly Checklist is a short list of checks mandatory for safe flight. It is developed from manufacturer's recommendations and the service history of an aircraft model. A partner is recommended (though not required) as an independent check that all listed items are correct. The SSA recommends:

- That each pilot or owner develop a Critical Assembly Checklist for each aircraft
- That each pilot perform a Critical Assembly Check each day
- That each pilot arrange an independent verification of the Critical Assembly Check by another person
- That a conspicuous mark be applied to the left wing-root area indicating that the Critical Assembly Check has been completed and verified. This can be a mark made on the wing-root tape, or a separate piece of colored tape.
- That the presence of the confirming mark be a requirement for towline hookup

All aspects of aircraft safety, including correct assembly and its verification, are always the pilot's responsibility; these recommendations in no way diminish this.

Contest Organizers can, at their option, announce (at the pre-contest mandatory safety briefing) a requirement for the confirming mark at the left wing root and refuse to provide a launch until it is present.

**A10.2.2** There is no requirement to name a task at the morning pilot's meeting, but it is a good idea for the task sheet to list several possible tasks, and for the CD to designate one as the primary task for the day. In the absence of any subsequent change, this is the task that will be flown.

**A10.2.3** A pilots' meeting at the front of the grid need not be called if the day's task has already been named and is unchanged. If the task is changed, the CD must ensure that each pilot has been informed of the change. By making such an announcement during a mandatory meeting, the CD has met his responsibility to inform all pilots; a subsequent change requires a roll call of all pilots.

**A10.2.4** This rule allows the task to be changed "in the air", by means of a roll call. A typical scenario in tricky weather is that the CD wishes to start the launch before it is clear what is the right task to call. After some radio discussion, the task advisors and the CD agree on a task. The CD announces the task (including turnpoints, start & finish directions, etc.), and then conducts a roll call to ensure that all pilots understand the new task. A roll call starts with the announcement "Answer with your Contest ID if you understand the new task." Then the CD runs down the list of Contest IDs, and each pilot answers when his Contest ID is transmitted.

If a task changes while the launch is in progress, pilots still on the ground can be directly notified by the CD and thus omitted from the radio roll call.

**10.3.1** When considering the maximum number of task turnpoints (set in this rule at 11), note that the start and finish points are not turnpoints.

The Standard Minimum Task Time is intended to be a minimum, not a target. Multiply the estimate of the winner's speed by this time to get the minimum length of task that should be called, weather permitting. A longer task is desirable if the weather will allow it.

**A10.3.1.1** The minimum time is supposed to be a minimum, not a target. Multiply the estimate of the winner's speed by the minimum time to get the minimum length of task that should be called, weather permitting. A longer task is desirable if the weather will allow it.

**A10.3.1.2** Task-setting considerations for the CD.

General:

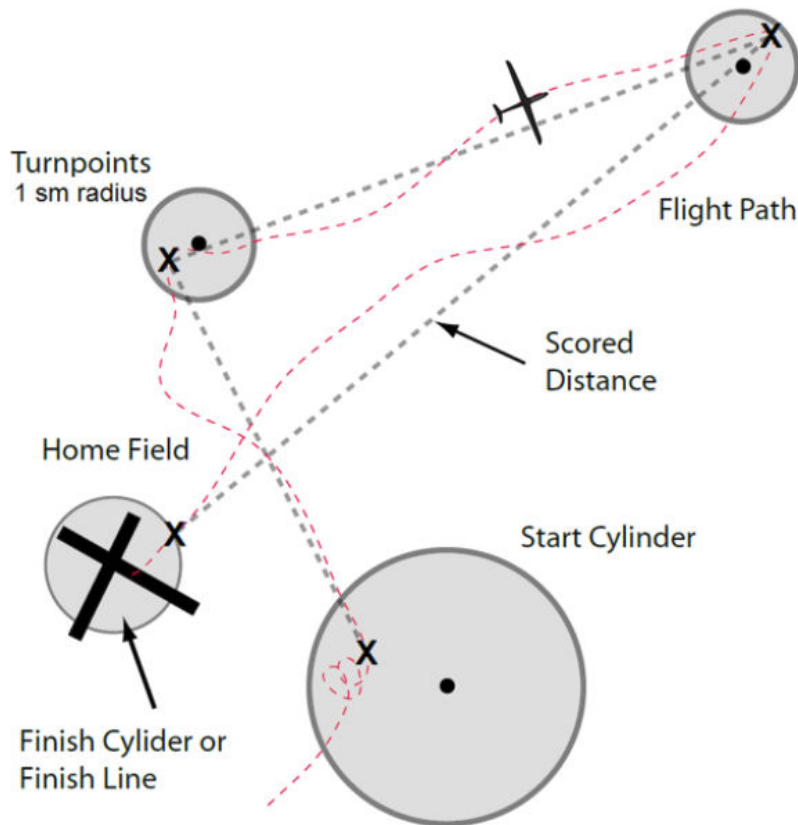
- Select good (i.e. knowledgeable, fair and decisive) task advisors, and use them.
- Use the best available weather sources; get weather updates as appropriate.
- Aim for a mix of tasks, balanced across all task types.
- Be ready to modify estimates - and to change tasks - in response to how conditions develop.
- Understand the importance of an efficient launch. The ideal would be to get everyone into the air in 5 minutes. That isn't possible, but anything that makes the launch go more smoothly is welcome. The saving of even a few seconds per launch adds up.
- On difficult days, keep trying until it is really too late to get a fair task in. Listen principally to the weatherman, rather than pilots who may be complaining that they'd prefer to pack up their gliders and go swimming.
- Try to use the full day, not merely the best part of it. Inevitable, 60-90 minutes or more are lost to the launch and pre-start. Try to call tasks that make good use of the rest.

- Use distant turnpoints in good weather - save the nearby ones for the tough days. Visiting a variety of turnpoints adds interest to a contest.
- With Minimum-time tasks (TAT and MAT), inexperienced pilots especially should be made aware of the significance of the Standard Minimum Task Distance. A pilot who flies the minimum possible distance may not get credit for a finish. This is doubly important in handicapped classes, where the minimum distance necessary to qualify for a finish depends on a glider's handicap. On weak days, inexperienced pilots should be made aware of minimum distance rules: pilots who return to the airport for a landing must achieve half the minimum distance to receive a score greater than zero, and thus to count as competitors.
- Calling an entirely new task while pilots are in the air tends to produce confusion and compromise safety (pilots are distracted while programming the new task). CDs should strive to avoid the need for this. It's good practice always to include several tasks on the daily task sheet, so any task change simply consists of announcing the ID of the new task (which pilots have already programmed). These pre-announced tasks should fully cover the anticipated range of soaring conditions.

Daily:

- Estimate the times at which soarable conditions will start and end.
- Estimate the times when tasks are likely to open (depends on launch order, class size, launch efficiency, etc.).
- From these estimates, calculate a maximum time on task (from task-opening time to the estimated end of the day).
- Estimate the speed that the winners will achieve.
- Select three tasks appropriate to the predicted conditions. At the pilots' meeting, name the longest of these as the primary task.
- Be ready to launch 30 minutes before the earliest possible start of the day.
- If required, launch the sniffer as early as is practical. Launch the fleet as soon as the conditions are acceptable (see the comments for Rule 10.6.2.6, below).
- Make a point of consulting the task advisors between 15 and 10 minutes before the task opens, to verify that those in the air feel the contemplated task will be safe and fair.

**A10.3.1.3** This rule imposes an effective maximum length on a task, especially on days where soarable weather is predicted to end early.



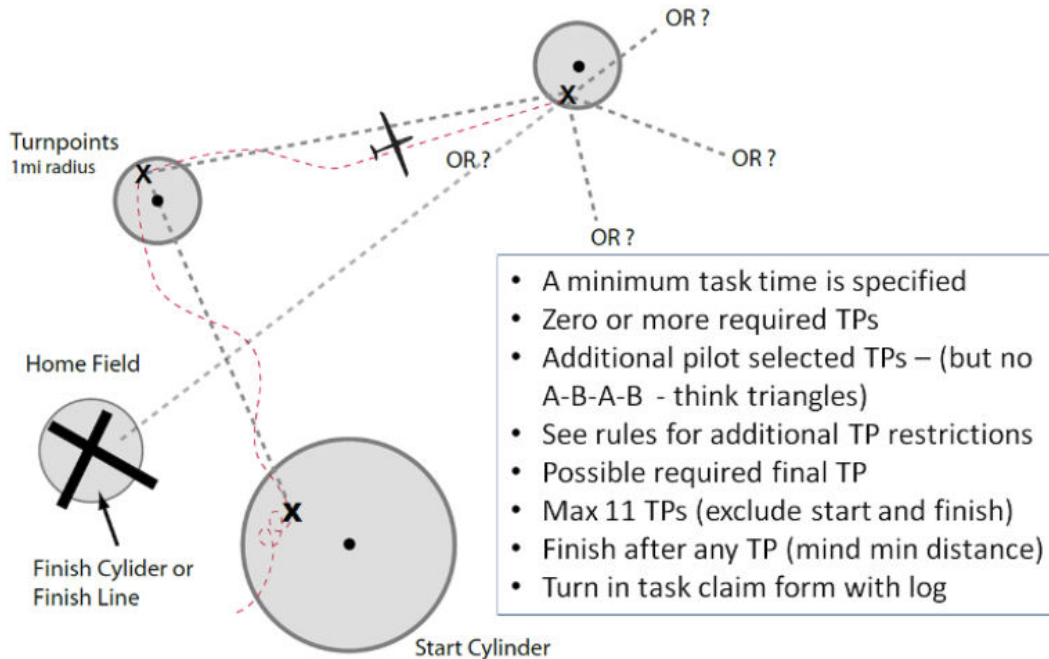
Note: this diagram is for illustration only, the text of the rules is authoritative.

## ***Assigned Task Overview***

### **A10.3.2.1 Assigned Task**

This task is appropriate when sailplane performance, pilot skill and weather uncertainty are all within a range that the CD feels is acceptably small. When they are not, the result can be an overcall (only the fast pilots get home) or an undercall (fast pilots are home with plenty of soarable conditions still left in the day).

Using the help of the weatherman and the task advisors, the CD should estimate the speed that the day winner is likely to be able to achieve, and the amount of time available from task opening to the end of soarable conditions. The right task length is then the distance that a pilot who maintains 75% of the winner's speed will be able to cover in the time available.



Note: this diagram is for illustration only, the text of the rules is authoritative.

## ***Modified Assigned Task Overview***

### **A10.3.2.2 Modified Assigned Task**

The MAT is well suited to contests in which pilot ability varies considerably, and to days where the weather may be significantly better or worse than the forecast. Because it is time-limited, it "scales itself" to the actual conditions of the day, and to the abilities of individual pilots. Pilots can react to weather issues found on course by selecting turnpoints that give the best conditions (and which steer clear of problem weather). Because a pilot is allowed to finish after any turnpoint, it tends to produce a lower rate of outlandings in difficult conditions.

The CD has many options here: He can assign few or no turnpoints, leaving the course decisions to the pilots. (Note that when no points are assigned, the CD can restrict the choice of the first turnpoint, for example to send the pilots into the same general area without specifying just one point.) He can assign a few points that will send pilots to a limited part of the task area.

A "long MAT" is the common term for a MAT that includes lots of assigned turnpoints - spanning enough distance to consume much or all of the MINTIME (and possibly more points than any pilot will be able to reach). This makes for something similar to an Assigned Task, with the added feature that slow pilots can choose to return home for a finish after reaching any assigned point - an attractive option.

But the "long MAT" can be tricky. Here are a couple of problems that occasionally affect fast pilots who reach a late turnpoint well under MINTIME:

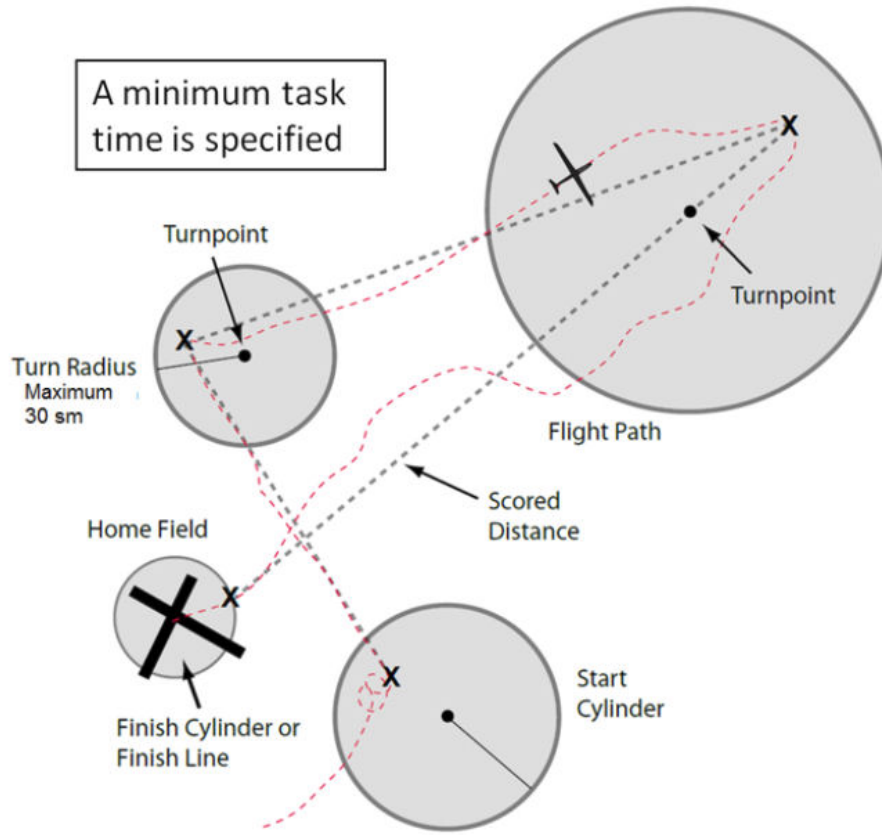
- They find that attempting the next point in the assigned sequence would add enough extra distance that there's a risk of not being able to complete the task.
- They discover that the next point in the assigned sequence requires flying into soaring conditions that are obviously worse than those encountered to that point.

In each of these cases fast pilots face a difficult choice: head home for a finish under MINTIME (which would waste the good speed achieved to that point) or try for the next assigned point (which may incur a substantial risk of getting slow or outlanding). Meanwhile, slower pilots who reach that late turnpoint have an easy decision: they head directly home for a finish that will not be under MINTIME - they have no reason to attempt the treacherous next turnpoint, and may well score better than some or all of the faster pilots. A task that tends to punish fast pilots and reward slower ones is clearly not a good choice.

The right way to deal with these challenges is as follows:

- Unless there's good confidence that end-of-the-day conditions at all assigned turnpoints will be reliable, limit the distance required to reach all points to about 75% of what fast pilots can be expected to achieve in MINTIME.
- When the distance required to reach all assigned turnpoints is more than this 75%, take care that the late turnpoints are spaced in such a way that the extra distance required to reach each one is acceptably low and steadily decreases.

**A10.3.2.2.5** Feedback from pilots indicate that when using a MAT, a steering turn of 1 mile radius can be problematic as it may create high speed traffic converging from multiple directions (especially in the West). A better alternative may be a cylinder finish with a larger (2 mile) radius and no steering turn.



Note: this diagram is for illustration only, the text of the rules is authoritative.

## ***Turn Area Task Overview***

### **A10.3.2.3 Turn-Area Task**

This is also a time-limited task, so, like the MAT, it works on days of unpredictable weather and with a range of pilot skill and sailplane performance. Turn areas do not force pilots to a single point and thus allow fairer and safer flying on days with thunderstorms or other localized weather problems.

It is important to carefully consider the minimum and maximum possible distances. In general, the shortest possible distance should be really short - about how far a pilot would fly in the declared minimum time if he maintained half the winner's estimated speed. The longest possible distance should be unreachable in the minimum time, requiring at least 130% (or more) of the winner's estimated speed. Take care about forecast weather - if bad soaring conditions cause pilots to avoid, say, half of the first turn area, this may mean they have few options in subsequent areas (fast pilots may be forced to the back of each).

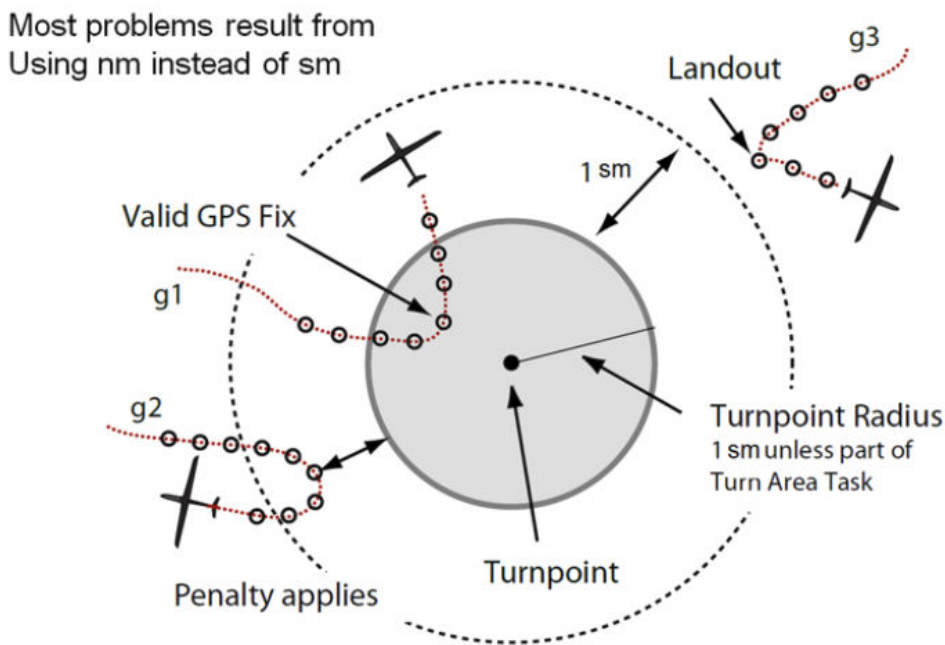
A well-designed TAT will generally have a reasonably large (say, 15+ mile radius) final turn area located so that the distance from its closest point to home is about 10 miles. This will allow pilots to "tune" their distances near the end of their flight. If the

minimum possible final leg is long, pilots must turn for home without much certainty as to conditions during the final hour of their flight.

A TAT with small turn areas can behave sort of like an Assigned Task with enlarged turnpoints. One option is to assign several small areas and one final larger one. If all areas are small, the MINTIME should be set small enough that even the fastest pilot cannot complete the minimum distance in that time.

**A10.5.1.5** This rule gives competitors the explicit right to examine any pilot's task claim and/or flight log.

**A10.5.1.6** The requirement to publish flight documentation to a website is best met by use of publication features built into Winscore. Best practice is for scorers to publish all logs to the SSA website daily.



Note: this diagram is for illustration only, the text of the rules is authoritative.

## ***Turnpoint Control***

**A10.5.3** Turnpoint Control and Evaluation

**A10.6.1.4** This rule means that a pilot who wishes to launch in other than the assigned sequence must inform the CD, who maintains a list of the order of these auxiliary launches.

**A10.6.2.1** Experience has shown that grid position markers are essential for smooth gridding. They should be conspicuous,

properly spaced, and immovable. On a paved runway, pieces of duct tape can work. On grass, spray paint is sometimes used (it may need to be renewed during the contest).

**A10.6.2.2** A pilot who pulls out of the assigned launch sequence is not automatically placed on the auxiliary launch list - he must see the CD and request this (Rule 10.6.1.4). A pilot may choose to wait before requesting a relaunch.

Note that this rule discourages pull-backs of the "I'd really prefer a later launch" type.

**A10.6.2.6** The choice of a Sniffer can be important; the best is a reasonably proficient contest pilot, flying a glider of performance and wing loading similar to those in the contest, who can give objective reports on the height and strength of lift, and some evaluation of how conditions appear away from the home field. The right sniffer can be a real asset; the wrong one can unnecessarily delay the launch. If no qualified sniffer is available, consider using one of the designated Task Advisors, or a willing pilot at the front of the launch grid.

Some pilots are of the "AGL" persuasion; others are strictly "MSL". Because there are two types, the sniffer should be told to use the phrase "AGL" or "MSL" in every altitude report.

Conditions that keep one glider in the air may not be sufficient for the whole fleet. In general, there should be at least 5-mile visibility and the sniffer should be able to maintain 2500' AGL before the fleet is launched (the CD may vary these criteria as local conditions dictate).

It can be convenient to use a willing pilot near the front of the daily launch grid. But sniffing can be a burden, so the CD should spread this duty: if the same pilot is at the front of the launch grid more than once, consider using another pilot who is close to the front.

On days of obviously excellent conditions, the sniffer simply represents unnecessary expense and delay, and should not be used.

**A10.6.2.9** The route towplanes follow should allow for gliders to release in an area where lift can be expected, to expend some altitude searching for it, and to return home for a safe landing if none is found.

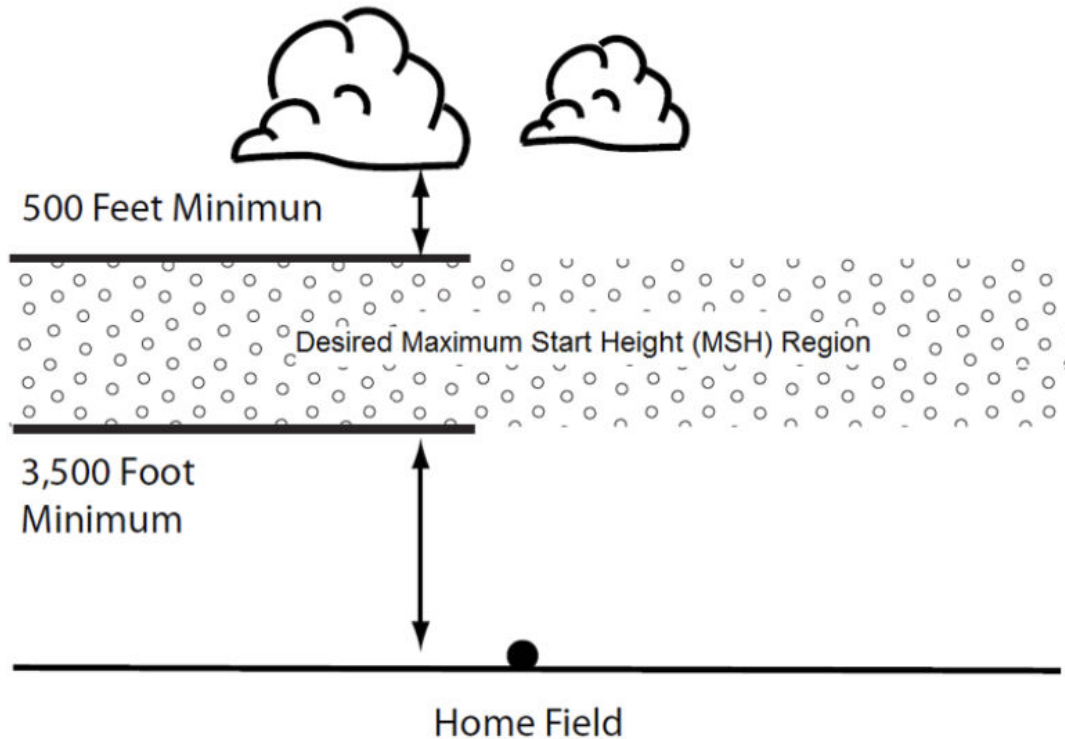
**A10.6.3.2** Experience shows that starting a motorglider engine on the ground has considerable inherent hazard. This should be done with particular care not to endanger people or aircraft, either with exhaust / prop blast or with inadvertent motion of the glider.

**A10.7.2** The CD should take care that no information disclosing competition status be broadcast by contest officials. For example, pilots may choose to broadcast the fact that they have outlanded (by a transmission to crew on 123.5), but this should not be done by contest officials (it could give a competitive advantage to pilots still flying).

**A10.7.2.3** This rule makes it clear that towplanes and sailplanes are to be on the same frequency while towing gliders.

**A10.7.2.4** Local constraints may dictate that a frequency other than 123.3 MHz be used for takeoffs and landings. The CD must make the procedures for use of a frequency other than 123.3 explicitly clear.

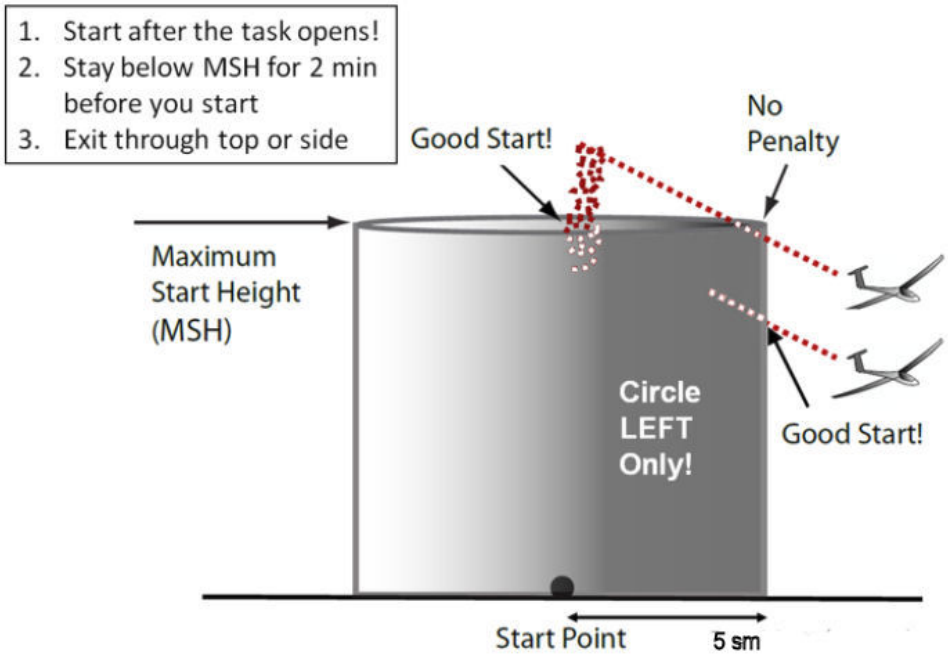
**A10.8.5** These paragraphs describe the only ways in which a pilot can obtain a scored start time; without this, the pilot's score will be zero (Rule 11.2.3.5). Note that a pilot must have a start after the task has opened and after his last launch.



Note: this diagram is for illustration only, the text of the rules is authoritative.

### ***Maximum Start Height Guideline***

**A10.8.5.1** CDs are encouraged to set maximum start height 500 feet below cloudbase or the top of dry lift, for safety and to encourage FAR compliance. With respect to the top of dry lift, this avoids long, dense-gaggle climbs and circling in weak lift to/at the top of the weak bubble. To do this, the CD can set a fairly conservative initial start height, and then increase it if advisers report an unexpectedly high cloud base or top of lift.



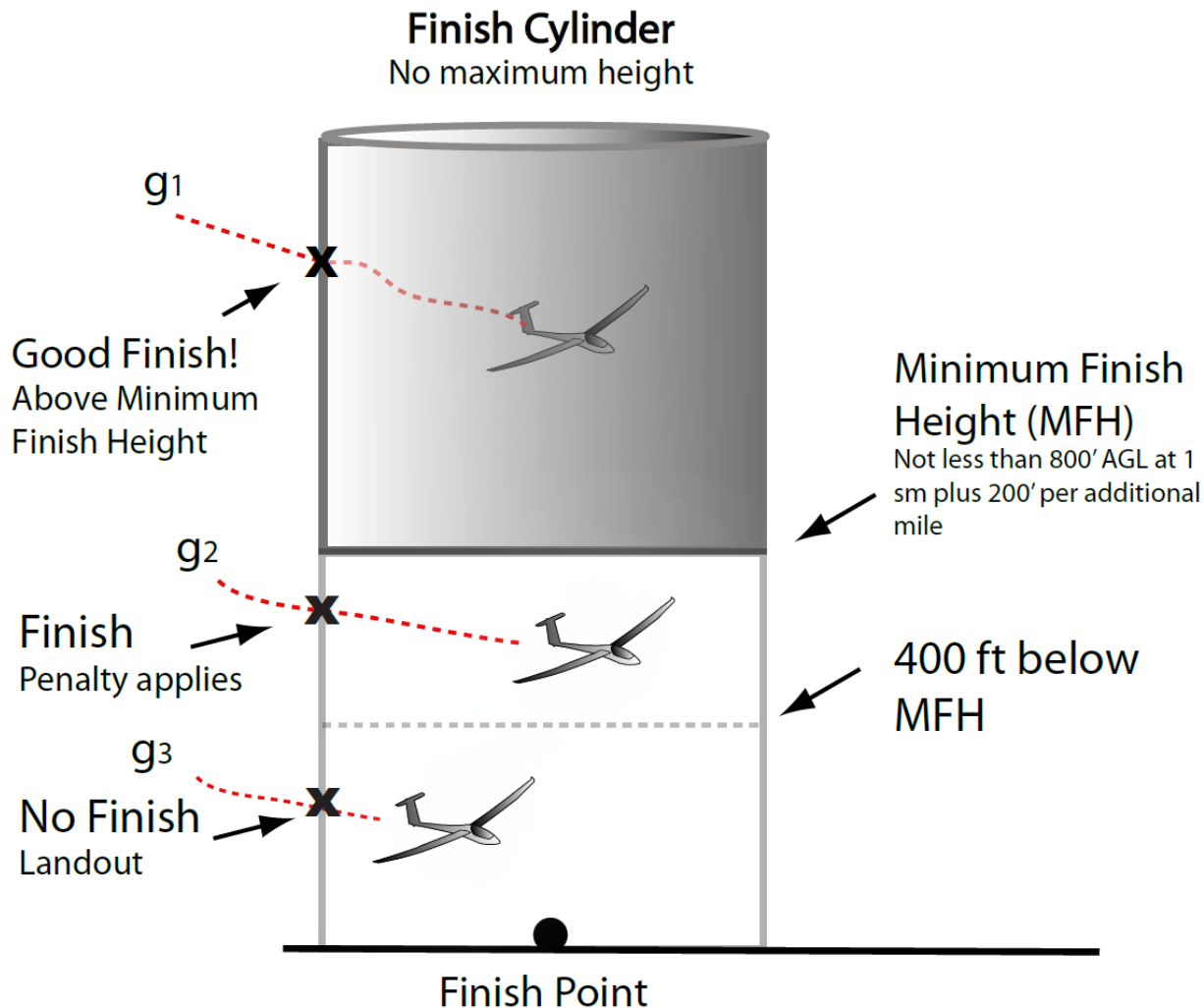
Note: this diagram is for illustration only, the text of the rules is authoritative.

***Exit the Start Cylinder Through the Side or Top***

**A10.8.5.3** You can start either by climbing out the top of the start cylinder, or exiting out the side

**A10.9** The CD should ensure that all pilots are supplied with a good diagram and explanation of finish and landing procedures.

With a Pilot-Selected task and a finish gate, although finishers may arrive from any direction, they must fly through the gate only in the designated direction. This may require a pilot to fly wide of the gate and then "hook" the end of it to get a proper finish. Flying through the finish gate in the wrong direction gets a "bad try", is unsafe and is subject to penalty.



### A10.9.2 Cylinder Finish

A cylinder finish means that the race does not end at the airport - it ends at a defined altitude and distance from the airport. Use of the cylinder for a finish is desirable in a number of circumstances including:

- The contest is held at a public-use airfield where the field is open to non-contest traffic during the finish
- The contest includes a Regional Sport class (for which a cylinder finish is mandatory)
- A finish line creates the potential for low energy finishes over densely populated or busy areas (e.g. roads)

- Any other circumstance that creates safety issues for a line finish

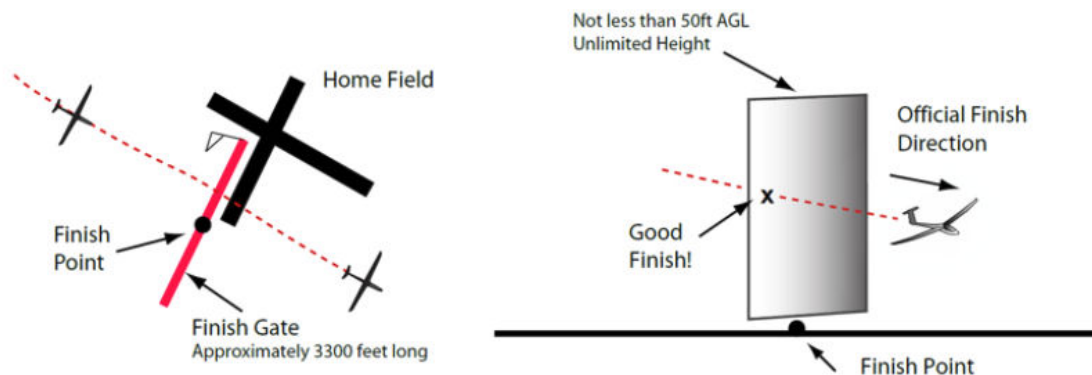
**A10.9.2.1** The requirement that the Finish Point be within 2 miles of the home airfield may not suit certain unusual cases. Should a remote finish be needed, a waiver is available; this can be requested using the procedures of Rule 1.7. Take care that a remote finish allows pilots to make a subsequent safe landing.

### **A10.9.2.2** Minimum Finish Height

In setting the Minimum Finish Height (MFH), the CD should consider expected weather, glider performance, pilot skill and experience, terrain, landability, relations with property owners likely to receive landing gliders along final glide routes and near the airfield, and anticipated local traffic. All finishing pilots should have sufficient altitude to safely merge into the pattern, land normally, and roll safely clear.

Note that the MFH is the minimum height for a penalty-free finish. Because a valid finish (with a penalty) may be up to 400 ft below the MFH, this lower height should be considered when setting the MFH. The lowest permissible MFH is 800' AGL at a mile, which leaves the lowest valid finisher with 400' for a pattern and landing.

When non-contest traffic is possible during the time gliders are finishing, consider a MFH of at least 1000' AGL at one mile, plus 200' per mile beyond that, with the goal that contest and non-contest traffic can be smoothly integrated into a normal pattern.



Note: this diagram is for illustration only, the text of the rules is authoritative.

## ***Finish Gate***

### **A10.9.3** Gate Finish

This is the "traditional" low-altitude finish. It is more dramatic and spectator-friendly than a Cylinder finish, but it also presents some complications and risks that should be understood:

- Pilots and gate personnel should understand that the radio call of "Mark - Good finish [contest ID]" is not official: the Scorer determines whether the finish was within the lateral limits of the gate.
- Gate personnel do determine whether the finish was sufficiently high. If a finish was low, they must inform the CD. They must also note which pilots do a rolling finish, and supply this information to the Scorer.

- On a task when finishes may come from several directions, some pilots may need to "hook" the end of the gate - to fly around it so they can finish in the specified direction. Flying through the gate in the direction opposite to the finish is a safety violation.
- If local considerations make unpredictable finish direction a problem, the Cylinder Finish should be used.
- All pilots should understand that the "low pass" or "beat up" maneuver is potentially hazardous -- it has led to stalls and spin entries, and to closer-than-comfortable encounters between sailplanes.

**A10.9.3.2** The minimum finish height of 50 feet is intended to be interpreted somewhat loosely, as "approximately one wingspan". It is not intended that finish heights be precisely measured or that a pilot should be penalized for a finish at 48 feet. But "worm burner" finishes at only a few feet are prohibited and should be penalized.

Safety can be enhanced by locating the finish gate in such a way that there is no conflict between finishers and aircraft in the landing pattern (e.g. the finish gate is east of the runway and landing patterns are flown on the west side). There is no requirement that the gate be located over the airfield - there may be good reason to locate it well to one side.

**A10.9.3.4** A pilot who elects to do a flying finish must have sufficient energy for a safe pattern; attempting a pattern with too little energy could be subject to an unsafe flying penalty.

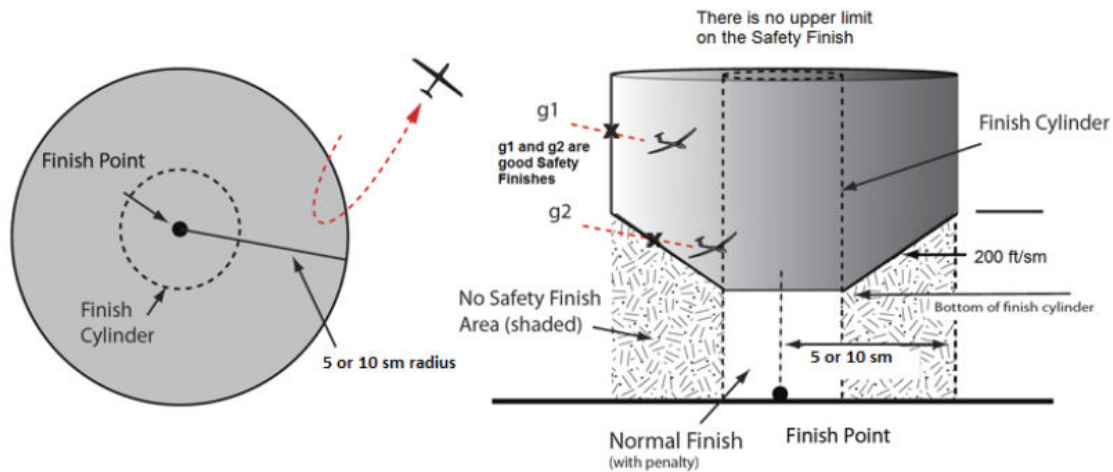
**A10.9.3.5** Violations of this rule should be considered unsafe operation (Rule 12.2.5.1).

**A10.9.4.1** The CD must designate one or more rolling finish areas (which could be "anywhere on the airfield"). There is no connection between these areas and the Finish Gate (where flying finishes are done).

**A10.9.4.3** Note that the time of a rolling finish has nothing to do with when - or whether - the glider crosses the plane of the finish gate. The finish time is always the time the wheel stops rolling.

**A10.9.4.4** Time added under this rule is not a penalty, but simply an adjustment to approximate the time the glider would have finished had it been flown to the location of the gate. Use of finish time adjustments will require careful work by finish gate crew. All time adjustments must be announced before the start of the contest.

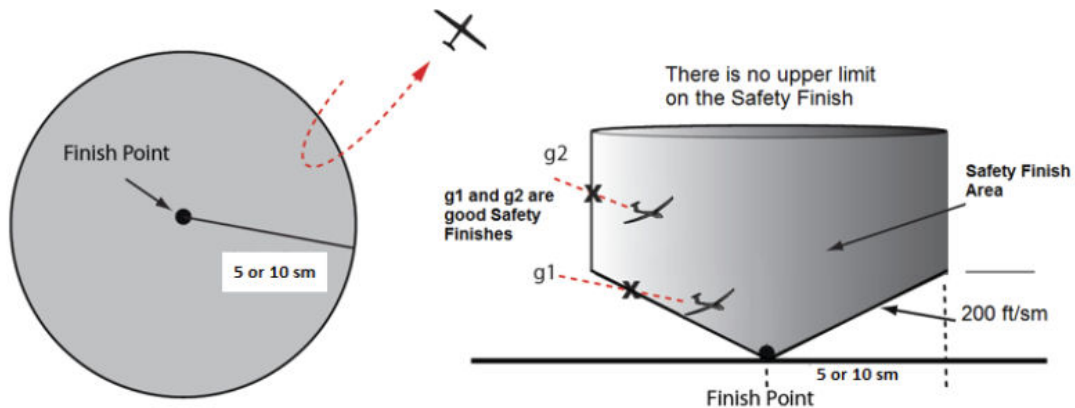
**A10.9.5.1** Note that the larger 10 mile radius can substantially affect the fairness of the race, especially on MAT tasks where pilots may be approaching from opposite directions.



Note: this diagram is for illustration only, the text of the rules is authoritative.

## ***Safety Finish when using a Finish Cylinder***

**A10.9.5.3.1** To achieve a safety finish when a finish cylinder is in use, you must get within the CD-defined radius (5, 10 or 15 mi) of the Finish Point and have a slope to the nearest point on the floor of the finish cylinder (the Minimum Finish Height - Rule 10.9.2.2) of at least 200 feet/sm. There is no graduated penalty for being low as there is with the normal cylinder finish



Note: this diagram is for illustration only, the text of the rules is authoritative.

## ***Safety Finish when using a Finish Gate***

**A10.9.5.3.2** To achieve a safety finish when a finish gate is in use, you must get within 5 sm of the Finish Point and have a slope to the Finish Point of at least 200 feet per mile.

**A10.10.1** To verify FDI compliance, there must also be a system for recording the time at which flight documentation is turned in.

**A10.10.1.1** Note that any pilot (including a non-finisher) who lands at the home field is subject to a penalty if the FDI is exceeded.

**A10.10.2.2.1** This rule requires that a competitor who lands out call in (by telephone, not radio, unless a telephone is unavailable); the call must include the information on the Outlanding Report form (landing location, turnpoints claimed, etc.). It is natural for a pilot to be principally concerned with the retrieve, yet barring an emergency the Retrieve Office should insist on a full report.

Pilots are encouraged to call their crews directly. But the Retrieve Office must be fully informed before crew departs for the retrieve.

**A10.10.2.2.2** This rule means that all landings at any airfield are considered equivalent. A pilot cannot receive credit for more distance by flying to the far end of a runway, nor lose distance by electing to fly the safest available landing pattern.

**A10.10.2.3** Aerotow retrieves must be organized and managed by someone who is familiar with local towing considerations. The departure and return of tugs and gliders must be tracked. Fees and procedures should be spelled out in advance.

### **A10.10.3** Airfield landing bonus

Contest organizers are encouraged to note fields on a Sectional chart that are not suitable, and fields not on a Sectional that are landable. It is a good policy to see that points marked as landable in any official database of control points coincide with those for which an airfield bonus applies.

But no such efforts in any way modify the pilot's responsibility to evaluate the safety of any potential landing spot, as wording in Rule 9.4 makes clear. It will always be the case that some airfields shown on a Sectional chart are awkward or unsuitable for gliders, especially for long-wingers. No pilot should be under the mistaken impression that the possibility of a landing bonus constitutes an endorsement of the safety of an airfield.

**A10.11** This rule makes it clear that a pilot may attempt a task more than once, without the need to first land and turn in flight documentation.

### **A11.1.3** Fair opportunity to compete

The wording "a fair opportunity to compete" provides a means by which a CD can decide to "scrub" an otherwise valid competition day if he feels it was unfair. This is appropriate only under extraordinary circumstances. In general, only some sort of "force majeure" that prevents fair competition qualifies. An example might be an emergency that closed the airfield, making it impossible for some pilots to finish.

More difficult are cases where weather is the problem: weather is often unfair, but to a great extent this unfairness is an inherent part of soaring competition. Yet there can be cases where problem weather justifies the cancellation of a day. One example would be a day on which unflyable or unsafe conditions such as frontal passage or thunderstorm development overrun the tow release/start area, limiting the ability of pilots - especially those who are late in the launch sequence - to stay airborne. Frequent consultation with airborne task advisors as to fairness and safety of conditions and the status of pilots will greatly help the CD make good decisions in such circumstances.

It should not be a requirement that all pilots must achieve a problem-free start, nor should late-to-launch pilots be granted a veto. In some cases the skill that pilots exhibit before a task opens is important to their daily score. But the CD should use all available information, including direct observation, reports from advisors & other selected pilots, and tracking data to make an informed decision about fairness and safety.

When this is genuinely in doubt, it's appropriate to postpone the task opening time. Whenever possible, this should be done with at least 10 minutes notice - very short notice can cause problems for pilots who are ready to start.

When doubts about safety and fairness cannot be resolved, it makes sense to cancel a task rather than opening it. This may cause grumbling, especially if conditions later turn favorable - but a CD is fully justified in not proceeding simply in the hope that a task may eventually prove fair and safe. And the decision not to open a task is not grounds for a protest.

**A11.1.5** In the case of minor discrepancies between flight logs (such as between one that shows a pilot just outside a cylinder, and another that shows him just inside) the pilot is scored using the most favorable one. However, the pilot has to use a whole log, not mix and match snippets from multiple logs.

**A11.2.1.3** This radius is the standard FAI earth radius.

The great circle distance from the point whose coordinates are LAT1/LON1 to the point whose coordinates are LAT2/LON2 is given by the formula:

$$(\text{EARTH'S RADIUS}) * \arccos (\sin (\text{LAT1}) * \sin (\text{LAT2}) + \cos (\text{LAT1}) * \cos (\text{LAT2}) * \cos (\text{LON1} - \text{LON2}))$$

**A11.2.2.1** It is important for all pilots to understand that flight documentation must be submitted every day on which a launch is made, even if the task was not attempted. A common problem arises when a pilot decides early not to attempt the task: he lands, packs up and leaves the field without submitting flight documentation. At the end of the day the Retrieve Office has no record of his whereabouts, and he may become the object of a search.

The flight documentation must reflect the flight actually accomplished, even in the case where claiming a shorter flight might be in the pilot's best interest. A deliberate violation of this rule could be considered unsportsmanlike conduct.

**A11.2.2.3** This rule specifies the way in which a task is evaluated: A pilot's claimed turnpoints are processed in order. If any is invalid, either because the pilot was not allowed to claim that turnpoint or because flight documentation does not support the claim, the task is deemed incomplete.

Note that Rule 10.3.2.2.4 allows the CD to restrict the choice of the first and final turnpoint.

**A11.2.2.7** This rule provides for the submission of a subsequent Task Claim. If the revision is not accepted (e.g. because it contained an invalid turnpoint and thus did not result in a higher score), then the original Task Claim stands unless/until a valid revision is submitted.

**A11.2.3.2** This rule allows the pilot to start by exiting the start cylinder anywhere, and to receive distance credit from that point. The start fix must be compliant with Rule 10.8.2.1.

**A11.4.5** The Standard Minimum Task Time (SMTT) is defined in Rule 10.3.1. Note how all scores are reduced if any pilot completes an assigned task in less than the SMTT. In common parlance, this is called short task devaluation.

**A11.5** Strategic considerations for pilots flying assigned tasks

Since the course is fixed, the important decision is that of when to start. This is largely determined by how long you expect the task to require (which is directly related to your estimated average speed) and what you expect the weather trends to be (especially, how late in the day will good soaring conditions persist?). The longer the task relative to the conditions, the earlier you must start in order to have a reasonable chance of completion. If there is plenty of "day" available for the task, then there

is a potentially wide window in which to choose a start time; you should then time your start so as to be using the strongest part of the day.

**A11.5.1** Note that the Completion Ratio Equation for Assigned tasks (Rule 11.5.1) is different from that for Modified Assigned and Turn Area tasks (Rule 11.6.2).

**A11.5.2** Note how MAXSP will be less than 1000 if more than 40% of competitors land out. In common parlance, this is called devaluation for landouts.

**A11.5.3** Note how MAXDP increases as the percentage of finishers decreases. If 100% of competitors finish, MAXDP will be 400; if 60% of competitors finish, MAXDP will be 500.

**A11.6** Strategic considerations for pilots flying modified assigned and turn area tasks

With a Pilot-Selected task there are more choices. The most important is where in the available flying area the best soaring conditions will be found. The clues for this decision are the terrain, the weather forecast and especially the actual view of clouds and weather you get from the cockpit. If there is evidence that lift is "streeting", you should look for a course in which turnpoints line up with lift streets. It is important to keep all turnpoint restrictions in mind. Other things being equal, a course with fewer turnpoints is preferable, since every turnpoint tends to involve at least some delay.

Here are the turnpoint restrictions you must keep in mind (Rule 10.3.2.2):

- A maximum of 11 turnpoints (or a smaller number as set by the CD) may be claimed.
- The CD may restrict the total number of times that certain turnpoints may be claimed.
- Certain turnpoints may be prohibited.
- You must have at least 2 intervening turnpoints before repeating a turnpoint (but note that the start and the finish are not turnpoints).
- The CD may impose extra restrictions on the selection of the first and last turnpoints.

You should keep a careful record of the turnpoints you visit.

**A11.6.3** Note how MSP will be less than 1000 if more than 20% of competitors don't finish (as opposed to 40% for Assigned tasks - Rule 11.5.2).

**A11.6.8** Since it is very difficult to end up with the best speed if you finish in much less than MINTIME, short task devaluation for modified assigned and turn area tasks is unusual except in the case (legal but somewhat unlikely) where the CD declares a MINTIME that is less than the Standard Minimum Task Time.

**A11.7** The only rounding done prior to printing scores is of time (to the nearest whole second).

**A11.10.5** Pilots with identical scores are assigned identical ranks. Pilots listed by daily rank should be shown in descending order by rank, and within this by speed, then by distance. Among pilots with a daily score of zero, those who launched should be listed ahead of those who did not launch.

**A12.2.5.1** Unsafe operation is obviously a general term intended to cover all cases. Since safety is paramount, any such case deserves close attention and, in general, a penalty sufficient to ensure that all pilots are deterred from repeating the violation.

Particular attention must be paid to any case where the violation appears intentional and/or includes a violation of an FAR. By signing the Registration Form, all pilots agree to abide by the Rules and all applicable FARs; failure to do so can easily jeopardize not only the violator, but other pilots, non-pilots, the future of the contest, and possibly even the future of competition soaring. For this reason, it's appropriate to deal with such cases harshly.

Here are some guidelines (for a first violation):

- An inadvertent and small violation with low potential for harm (pilot finishes at 30 instead of the minimum 50 feet) - 25 points
- An inadvertent violation with significant potential for harm (confused pilot lands on a taxiway that has been declared off-limits for landing due to foot traffic) - 250 points
- A deliberate violation (unauthorized aerobatics) - 500 points
- A malicious violation (pilot does low pass just over the head of person on the ground) - disqualification from the contest

**A12.2.5.3** Unsportsmanlike conduct can be loosely defined as any attempt to gain an improper advantage. This would include a pilot's attempt to get more points than he deserves (e.g. by claiming he landed at a place different from his actual landing point), or an attempt to harm the score of another competitor (e.g. by stealing a task claim or flight log turned in by another pilot). Any such attempt must be viewed seriously and should probably receive a harsh penalty. Here are some examples of violations that could be penalized as unsportsmanlike conduct:

- Use of illegal equipment (e.g. a gyro that would allow cloud flying)
- Use of disposable ballast when it has been prohibited
- False radio transmissions (e.g. faking a landout or a valid finish)
- Prohibited radio transmissions (e.g. pilots receiving tactical information from their crews)

# Appendix B

## Approved Flight Recorders

Nov 20, 2015

	All National	Regional FAI	Regional Sports
<a href="#">IGC Approved Flight Recorders</a> *	YES	YES	YES
ILEC SN10	YES	YES	YES
flyWithCE Flight Recorder**	YES	YES	YES
OLC Blue "V" ***	NO	YES	YES

### Notes

Pilots are responsible for supplying the scorer with all necessary cables, software and instructions to download and convert logs to IGC format [Rule 6.7.7](#).

\* Listed in [IGC Approved Flight Recorders](#).

\*\* Both versions. See [Rule 6.7.3.1](#) and the related Appendix A note.

\*\*\* Any log produced by a logger that qualifies for a "Blue V" in the OLC. See [OLC Flight Recorders](#)

Contact the SSA Rules Committee to request additions to this list of approved flight data recorders.