



# FAI Sporting Code

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*Fédération  
Aéronautique  
Internationale*

## Section 7A – Class O

### **HANG GLIDERS** CLASSES I / II / IV / V

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Editor's note: The FAI Sporting Code for Hang Gliding consists of the General Section and Section 7 combined. In cases of doubt, consult the General Section to establish the principles before applying the specific rules which appear in this Section 7.

Hang gliding is a sport in which both men and women participate. Throughout this document the words "he", "him" or "his" are intended to apply equally to either sex unless it is specifically stated otherwise.

## **FEDERATION AERONAUTIQUE INTERNATIONALE**

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1 FAI Statutes, Chapter 1, para. 1.6

2 FAI Sporting Code, General Section, Chapter 3, para 3.1.3.

3 FAI Statutes, Chapter 1, para 1.8.1

4 FAI Statutes, Chapter 2, para 2.1.1; 2.4.2; 2.5.2 and 2.7.2

5 FAI Bylaws, Chapter 1, para 1.2.1

6 FAI Statutes, Chapter 2, para 2.4.2.2.5,

7 FAI Bylaws, Chapter 1, para 1.2.3

8 FAI Statutes, Chapter 5, para 5.1.1; 5.5; 5.6

9 FAI Sporting Code, General Section, Chapter 3, para 3.1.7

10 FAI Sporting Code, General Section, Chapter 1, paras 1.2. and 1.4

11 FAI Statutes, Chapter 5, para 5.6.3

12 FAI Bylaws, Chapter 1, para 1.2.2

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# 1 INTRODUCTION

## 1.1 Description

Section 7 of the Sporting Code deals with records, proficiency badges, world and continental championships for hang gliders and paragliders in all classes. For ease of reading and to allow the various disciplines covered by Section 7 to develop individually it is split into four sub-sections:

- A. Hang Gliding (Classes 1, 2, 4 & 5, including short course speed events and aerobatics)
- B. Paragliding (Class 3 excluding Paragliding Accuracy but including aerobatics)
- C. Paragliding Accuracy
- D. Records and Badges (all Classes)

Note: Separate sub-sections may be created in future for sub-disciplines such as aerobatics and speed gliding if a regular and viable sequence of Category 1 events develops. Technical aspects of aerobatics are currently published separately in Annexes to both Section 7A (Hang Gliding) and 7B (Paragliding).

All sanctioned competitions will strictly follow the class definitions and safety standards contained within Section 7.

## 1.2 Conjunction

Section 7 is to be used in conjunction with the General Section (GS) of the Sporting Code. In the event of ambiguity the General Section takes precedence.

## 1.3 General Section

The following subjects are detailed in the General Section.

FAI authority - responsibilities	(Chapter 1)
Definitions	(Chapter 2)
Penalties - protests	(Chapter 5)
Sporting Licences	(Chapter 8)
Appeals before FAI	(Chapter 9)

The General Section also contains the general principles for the following:

Sporting Events	(3)
Observers and Officials	(4)
World Records	(6)
Flight Measurement and Control	(7)

This Section 7 (sub-section A) deals with details of these subjects, which are specific to hang gliders.

## 1.4 Development of Sub-Sections

It shall be considered a general principle of the development of these regulations that they remain consistent throughout the various disciplines except where this is impractical due to basic differences in the Classes or where the traditional format of Category 1 events in a particular discipline require different regulations.

## 1.5 General requirements for hang gliders

### 1.5.1 Definitions of hang gliders, as per General section.

A glider capable of being carried, foot launched and landed solely by the use of the pilot's legs.

#### 1.5.1.1 Hang glider classes

Class 1: Hang gliders having a rigid primary structure with pilot weight-shift as the sole method of control, and which are able to demonstrate consistent ability to safely take-off and land in nil-wind conditions. Subsidiary controls affecting trim and/or drag are permitted, but only if they operate symmetrically.

Sport Class: a sub-class of Class 1. All gliders must meet the Class 1 definition above and in addition:

- They must be production models of hang gliders for which a certificate of airworthiness for type is in issue from either the HGMA, BHPA or DHV.
- Must be currently available for sale to the general public or have previously been available for sale for a minimum period of one year.
- Must be constructed of original parts only, except for retro-fitted streamlined uprights and base tubes supplied by the manufacturer.
- Must have a king post which is an essential part of the design and which supports the majority of the wing load when the wing is not flying.
- Pitch stability devices must be within the manufacturer's stated tolerances.
- The pilot must be within the manufacturer's stated weight range.

Class 2: Hang gliders having a rigid primary structure with movable aerodynamic surfaces as the primary method of control, and which are able to demonstrate consistent ability to safely take-off and land in nil-wind conditions.

Class 3: Hang gliders having no rigid primary structure (paragliders), and which are able to demonstrate consistent ability to safely take-off and land in nil-wind conditions. This class is not considered further in this sub-section.

Class 4: Hang gliders that are unable to demonstrate consistent ability to safely take-off and/or land in nil-wind conditions, but otherwise are capable of being launched and landed by the use of the pilots legs.

Class 5: Hang gliders having a rigid primary structure with movable aerodynamic surfaces as the primary method of control in the roll axis and which are able to demonstrate consistent ability to safely take-off and land in nil-wind conditions. No pilot fairings are permitted. No pilot surrounding structures are permitted, apart from a harness and control frame.

**Note:** Minimum Hang Gliding Safety Standards are outlined in chapter 13.

**Note:** Pilot fairings are defined in chapter 20.7.

**Note:** For the purposes of demonstration, "nil-wind" shall mean a headwind of less than 1 m/s (3.6 km/h; 2.2 mph).

### **1.5.2 Start of hang glider flight**

A hang glider flight shall start by foot launch from a hill or by means of mechanical equipment (aero-tow, winch launch, etc.) except that:

1.5.3.1. For competitions where launching is by tow, wheels, including those which are dropped immediately after take-off, may be permitted by the organisers provided it can be demonstrated that the hang glider complies with 1.5.1.

1.5.3.2. Wheels or similar aids to take-off and landing are permitted for permanently disabled pilots, provided that non-disabled pilots can fly the glider without them.

## **1.6 Competition Flight Definitions**

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The words "hang glider" cover all classes. These definitions take precedence over the ones given in the General Section.

### **1.6.1 A flight**

A flight by a hang glider starting at take-off (1.6.7.1) and ending with the landing (1.6.12.1) .

### **1.6.2 Free flight**

That part of a flight, in which the hang glider is not towed, carried or assisted by another aircraft or separate external or jettisonable power source.

### **1.6.3 Flight performance**

The achievement attained during free flight.

### **1.6.4 Uncompleted flight**

A flight is deemed to be uncompleted if:

- An accident occurs during the flight resulting in the death of the pilot within 48 hours, or;

- Any part of the hang glider or its equipment is shed or jettisoned other than permitted jettisonable equipment, ballast or fuel declared in advance.

### **1.6.5 Types of flight**

#### **1.6.5.1 Distance flight:**

A flight measured for distance between either a take-off place (1.6.7.2) or a departure point (1.6.7.3) and a finish point (1.6.12.3).

#### **1.6.5.2 Goal flight:**

A flight from a departure point to a finish point specified in writing before take-off. A goal flight may be measured for distance and/or speed.

#### **1.6.5.3 Speed flight:**

A flight timed for speed between a departure point and a finish point.

#### **1.6.5.4 Competition Flight or Task:**

This may be a combination of the above with the various elements being specified at the task briefing.

### **1.6.6 Courses**

A course consists of the straight line(s) between a departure point and a finish point via any turn or control points in the designated or pre-declared sequence.

#### **1.6.6.1 Closed circuit course:**

- Out-and-return Flight: A flight to a turn point with return along the reciprocal course to the departure point.
- Triangular Course: A flight around two turn points with return to the departure point.
- Polygon Course: A flight around a course with three or more turn or control points and with return to the departure point.

#### **1.6.6.2 Lap:**

A single completed flight around a closed circuit course. A flight may include more than one lap of a course.

#### **1.6.6.3 Measurement:**

Task distance is measured as the shortest distance that pilot has to fly in order to complete the task.

### **1.6.7 Start of a flight**

#### **1.6.7.1 Launch/Take-off:**

The point and/or time at which all parts of the hang glider or its crew cease to be in contact with or connected to the ground or water.

#### **1.6.7.2 Take-off place:**

The point from which the take-off is made. If operating from an airfield, the point may be taken as the centre of the airfield.

#### **1.6.7.3 Start Point/Departure point:**

The take-off place; or the point of release of tow; or the crossing of a start line; or a ground feature. In Category 1 competitions flight distance will be measured from the take-off point.

#### **1.6.7.4 Start time:**

The time of the hang glider at the departure point or the time of crossing the start line. In Category 1 competitions this will be specified in the Local Regulations.

#### **1.6.7.5 Start altitude:**

The altitude of the hang glider above sea level at the departure point.

#### **1.6.7.6 Point of Release.**

The place vertically below the hang glider when it releases from a tow.

#### **1.6.7.7 Start line:**

A gateway of a designated width and height, the base being specified on the surface or the boundary of the start cylinder specified for the task.

#### **1.6.7.8 Types of start:**

- Flying Start. The hang glider is in free flight when crossing the start line or departure point
- Standing Start. A start by a stationary hang glider timed from the giving of a "go" signal.



#### 1.6.7.9 Start Sector

A designated sector, marked either by physical features on the ground, or a specified shape and size which is oriented around a physical feature on the ground, or a specified shape and size which is oriented around GPS co-ordinates (or a set of GPS co-ordinates). The local regulations will detail the types and shapes of start sectors that will be used; the sizes may vary and be detailed in each task briefing. The start may be defined as either entering or leaving the sector.

#### 1.6.7.10 Start Periods

A start period is a period of time, usually between 15 and 30 minutes, at the commencement of which pilots may fly the speed section of a competition task. Pilots starting after the commencement of one start period and before the commencement of another will be scored as if they had started at the commencement of the earlier period. The opening time of the first start period is to be specified at the task briefing and the total number of starts is also to be specified.

### 1.6.8 Turn point

A clearly defined feature on the surface, or GPS coordinates, which are precisely specified before take-off.

#### 1.6.8.1 Rounding the turn point:

A turn point is rounded when it is proved that the designated zone or sector has been entered.

#### 1.6.8.2 Turn point cylinders

A turn point cylinder may be specified by GPS coordinates and radius. Flight to a cylinder turn point is verified when the pilot's track log shows a point inside the specified cylinder or two points where a straight line drawn between them passes through the specified cylinder (16.4.2).

### 1.6.9 Control point

A control point is a point, which the hang glider is required to over-fly or to land at during a flight along a course.

### 1.6.10 Designated sequence

The order in which the turn or control points shall be flown.

### 1.6.11 Speed Section

A section of the course in a competition task where all pilots are timed from the start of the section until its completion. The start time may be the precise time of each pilot's start or the commencement of the start period (1.6.7.10) in which each pilot commences flying the Speed Section. *The finish of the Speed Section is often assumed to be goal but this is not necessarily the case.*

### 1.6.12 Finish of flight

#### 1.6.12.1 The Landing

The point and/or time at which any part of the hang glider or its crew

- First touches the ground or, (if specified in local regulations)
- Comes to rest after landing.

#### 1.6.12.2 Landing place:

Either the centre of the airfield or the precise place at which the landing is made.

#### 1.6.12.3 Finish point:

Either the landing place or the crossing of a finish line.

#### 1.6.12.4 Finish line:

A gateway of designated width and height with the base indicated on the surface. In Category 1 competitions the Finish Line may be designated by GPS co-ordinates and the Local Regulations shall specify the width it extends to on either side of this point and any height restrictions for crossing the line. Any line so designated shall be considered to be at 90° to the course line.

#### 1.6.12.5 Crossing the Finish Line

The finish line is considered to be crossed when the nose of the hang glider cuts the finish line before a landing is made. Refer to 17.2 for crossing goal lines in Soaring Competition,

#### 1.6.12.6 Finish Sectors

A designated sector, marked either by physical features on the ground, or a specified shape and size which is oriented around a physical feature on the ground, or a specified shape and size which is oriented around GPS co-ordinates (or a set of GPS co-ordinates). The local regulations shall detail the type, shape and size of finish sectors that will be used.

1.6.12.7      Finish time:

The time at which the glider crosses the finish line or enters the finish sector.

## **2 CIVL RECOGNISED 1<sup>ST</sup> CATEGORY EVENTS**

### **2.1 General Rules**

The general rules for First Category hang gliding events are contained in the General Section and Section 7A Sporting Codes. Local Regulations are rules for a particular event and may not conflict with Section 7A; they shall be approved by CIVL and not be subsequently changed. For Short Course Speed events Chapter 19 gives additional rules and exceptions from some rules in this chapter. Detailed rules for the technical and scoring aspects of aerobatic competition in hang gliding appear in S7A – Aerobatic Annex, which for the convenience of pilots is published as a separate document. Competition organisers must read that document in conjunction with this full version of the rules for hang gliding Category 1 events and with the General Section of the FAI Sporting Code.

First Category events are World Championships, Continental Championships and World Air Games.

### **2.2 World and Continental Championships**

The purpose of the championships is to provide safe, fair and satisfying contest flying in order to determine the world or continental champion in each class, and to reinforce friendship among pilots of all nations. They should also determine the champion national teams except in Class 2, which will be an individual contest.

### **2.3 Authority and Bids**

#### **2.3.1 Eligibility to Bid**

A world or continental championship may be organised only by a NAC accepted by CIVL as competent to run the event. To be eligible, the NAC making the bid shall, as a minimum, have held a national championship or FAI Category 2 competition with a minimum entry of 50 on the proposed site(s) within the last four years before the bid is received. Observers acceptable to CIVL shall either have attended such an event or will be invited to do so before CIVL awards the Championship.

#### **2.3.2 Preliminary Bids**

A preliminary bid must be received by CIVL three years before the proposed event.

#### **2.3.3 Detailed Bids**

The detailed bid is then presented to CIVL two years before it. Even in the case of previously 'un-awarded' championships, there must be at least a year between the bid and the event. If presenting a detailed bid the organiser is to provide completed copies of the questionnaire which is sent out with the bid requirements; this is to be provided in time for delegates to study prior to the actual presentation of the bid.

#### **2.3.4 Competition Sites and Flying Area**

These should be chosen with safety as the primary consideration. Where airspace restrictions would limit competition flying and the bid organisers anticipate relaxation of these restrictions for the first category event, a letter from the relevant Civil Aviation Authority confirming this must be submitted with the bid.

#### **2.3.5 Safety Screening of Bids**

All bids for Category 1 events must be assessed by the appropriate sub committee with regards to safety. To be approved, the organiser must have experience at organising safe and successful international competitions.

#### **2.3.6 Practice Event**

The organiser must arrange a practice event on the proposed site one year before the Category 1 event and as close to the proposed championship dates as is practical. CIVL shall appoint a steward to attend the practice event to provide advice to the organiser and to report on any organisational or site modifications required. If the practice event cannot take place for any reason the Category 1 event shall be cancelled. Organisers of all practice events (including Pre-WAG) are to apply for Category 2 status for these events (Chapt 4).

#### **2.3.7 Invitations to Participate**

As soon as possible after CIVL awards a championship, the organisers must send invitations to participate, with response forms, to all NAC's.

### **2.4 General Organization**

#### **2.4.1 Championship flights**

Shall be controlled in accordance with the regulations contained in the Sporting Code (General Section and Section 7) and the published local regulations for the event, using Local Regulations master document (Chapter 9).

**2.4.2 Event Period**

The total period of the championships shall not exceed 14 days including the opening and the closing ceremony. Competitors are subject to all relating to championship flying throughout this period, whether flying a task or not.

**2.4.3 Minimum Representation**

In each Class, for world championships a minimum of 4 countries with a total of 8 competitors available to fly during the championship is required for the title of Champion to be awarded; for continental championships, a minimum of 3 countries with a total of 8 competitors is required.

**2.4.4 Official practice period**

Of not less than two and not more than five days immediately preceding the opening of the championships shall be made available to all competitors. On at least one day a task shall be set, flown and scored under competition conditions except that the scores shall not be counted in the championship. All competition staff must be present for this task as the aim is to fully test all aspects of the organisation as well as familiarising pilots with competition procedures.

**2.4.5 Headquarters**

The competition headquarters, all pilot information, maps and any GPS uploads must be prepared before registration is scheduled to commence.

**2.4.6 Title of World or Continental Champion.****2.4.6.1 Minimum score**

The title shall be awarded only if the sum of the daily winner's scores is equal to, or more than 1500 points, as determined by the GAP scoring formulas.

**2.4.6.2 Extension of flying**

If there is to be a cut in the number of competitors during the event, refer to chapter 5. In the event of continued bad weather a task may be set on the day reserved for the prize-giving, in order to validate the championship, but the total championship period may not be extended.

**2.4.6.3 Task Validity**

To count as a championship task all competitors in the class shall have been given the opportunity of having at least one competition flight in time to carry out the task.

**2.4.7 Protests**

Shall be dealt with by a nominated international jury of three members from different nations appointed by CIVL. The time limit within which a protest must be made and the amount of the protest fee shall be stated in the Local Regulations. If the protest is upheld the fee is returned. The protest fee may not be larger than \$50 US, or €50 for championships held on the European continent.

**2.4.8 The Organisers**

Are responsible for travel, accommodation, meals and refreshments for the International Jury and Stewards.

**2.4.9 The winner**

Shall be the pilot gaining the highest total points in his class. The Team winner shall be the team as defined in the appropriate scoring rules gaining the highest total points in the class.

**2.4.10 The FAI Gold, Silver and Bronze medals**

These shall be awarded to the pilots placed first, second and third in each class, with FAI Diplomas for those placed first to tenth. FAI medals will also be awarded to the National Teams placed first, second and third, and if CIVL decides, smaller FAI medals may be awarded to all members of such teams. All full size FAI medals and any smaller FAI medals awarded up to a maximum of 6+2 will be paid for by CIVL. The organiser is responsible for transportation and any customs costs.

The Organisers may award further trophies and/or prizes.

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**2.5 Local regulations****2.5.1 The local regulations**

These are the rules for a specific event prepared by the organisers for submission to and approval by CIVL. They must use the format in chapter 9 and be sent to the President of CIVL at least eight months before the event. CIVL should involve all stewards who will be working at an event in the approval process for the Local Regulations. Any version of the Local Regulations published by the organisers before approval by CIVL must display a clear and prominent statement to that effect. The entry application form and the proposed entry fee stating what is included in the fee shall be sent to CIVL at the same time. As a minimum the following should be included in the fee:

- One map or chart of an adequate scale which must clearly indicate ALL take offs, landing fields, necessary turn points, restricted airspace, off limit landing areas and any other restricted areas. The chart must have a clearly visible grid that matches the GPS co-ordinates used for the competition
- Contest numbers and, identity badges where required
- All competition papers

For the minimum possible additional fee to pilots, organizers shall provide:

- Transport of gliders and pilots to and from the take-off site
- Retrieval from out landings along stated routes
- (Optionally) packed lunches or restaurant coupons on each flying day.

### **2.5.2 Entry Forms and Local Regulations**

The entry application forms together with the approved local regulations and other information useful to competitors shall be published on the CIVL website and notified to delegates after approval and at least five months before the event. The organisers may additionally send this documentation direct to FAI member associations. They may also supply competitors with supplementary information on arrival at the championship site but the CIVL Bureau must have approved any matter intended to have the force of a competition rule as a minimum.

### **2.5.3 Failure to follow the time schedule**

Failure to follow the time schedule or procedures may mean non-acceptance of the event.

### **2.5.4 Measurement of Distance**

All distance measurements in Local Regulations and task briefings for Category 1 events shall be given in metric units.

### **2.5.5 Changes to Local Regulations**

The organiser shall make any changes to Local Regulations which are necessary to comply with rule changes published in the Sporting Code between the date of approval (by CIVL) of those regulations and the start of the championship. The published rules and regulations, including supplementary regulations, may not be altered once the competition has officially started. Any additional requirements within the rules needed during the event shall not be applied retrospectively. The CIVL Steward and Jury President must approve any further additions to the Local Regulations and such additions must be approved by a majority of the team leaders; only minor or necessary matters may be so approved.

## **2.6 Responsibilities of the organiser and the director**

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### **2.6.1 The NAC**

The NAC Organising the championships shall appoint a Competition Director acceptable to CIVL not less than six months before the event. The CIVL Bureau must approve any change of Director. He is also responsible for:

- Publishing a final entry list by the start of briefing on the first flying day.
- Issuing the daily results with minimum delay.
- Reporting the full results, including details of protests or serious problems encountered, to his NAC with copies to FAI and CIVL.

### **2.6.2 The Competition Organiser**

After the pre-competition the organisers must institute the changes requested by the steward unless the organisers present a written document explaining why these changes are undesirable. The final agreement between the organiser and the CIVL should include a requirement for a certain minimum number of competition staff personnel. The organisers must implement any safety recommendations of the CIVL experts.

At the Plenary prior to the competition, the Bureau will discuss the requirements with the competition organiser. If the competition organiser does not implement the requirements, the Jury President may suspend the competition until such a time that the requirements are satisfied.

#### **2.6.2.1 Safety Director**

The Competition Organiser shall appoint a Safety Director acceptable to the CIVL Bureau whose sole responsibility is safety. A review of the suitability of the Safety Director should be made by the Steward after the pre-meet and the bureau may require a replacement Safety Director. The Director must be fluent in both English and the local language. A permanent safety channel and separate telephone numbers must also be allocated for his use. The Safety Director must have knowledge and experience of the site being flown and ideally he must have experience in appropriate competitions.

#### **2.6.2.2 Safety Director Responsibilities**

The Safety Director is responsible for monitoring all aspects of safety. These matters include but are not limited to: wind speed, the presence of thunderstorms and other potentially dangerous meteorological conditions. Further duties are to monitor in-air crowding at take-off and the presence of dangerous air traffic. He may also prevent pilots launching with unsafe equipment. He shall have a duty to give a mandatory safety briefing (Chapter 19) to all pilots prior the commencement of championship flying.

The Safety Director also has a responsibility to attend task advisory committee meetings, monitoring the setting of goals and routes. He should attend safety committee meetings and accept input from the Safety Committee. The Safety Director should collect accident reports and discuss the accidents with the Steward and present the conclusions at the pilot briefing. He is also responsible for checking that all pilots have reported back.

The Safety Director may stop a task or suspend launch at any point for reasons of safety. He shall report his decisions to the Jury president.

#### **2.6.2.3 Pilot Entry**

The Competition Organiser must follow 3.4.8.2 "Competition Organisers Responsibilities" with regard to pilot entry criteria.

### **2.6.3 Task Advisory Committee (TAC)**

This shall be a small committee, which will include at least two elected pilots and a FAI Steward. Task setting and selection remains the ultimate responsibility of the Competition Director, but a task will not be flown without prior reference to the TAC.

### **2.6.4 Safety Committee**

A Safety Committee must be formed and shall include a minimum of three pilots elected by the team leaders. It shall be responsible for evaluating all tasks and advising the Competition Director and Safety Director as to the safety of each proposed task prior to task briefing. It also has a duty to monitor the flying operations and report to the Competition Director when conditions become unsafe either on launch or on course. No person may be a member of both the Safety Committee and the TAC.

The Competition Director is responsible for determining safe or unsafe flying conditions, while the Safety Committee serves as a check and balance for safety considerations. The ultimate responsibility for a pilot's safety lies with the decisions of the pilot himself and is not guaranteed by the actions or decisions of the Competition Director or the Safety Committee.

### **2.6.5 Overcrowding.**

The competition organisers must avoid dangerous overcrowding in the air. As a guide, tasks must be organised in a way that groups of 100 pilots or more would not be together in the air. If the competition organiser wishes to exceed this limit, they must substantiate the reasons why this will be safe to the CIVL plenary. The details shall be covered in Local Regulations

### **2.6.6 Pre-flyers**

Experienced pre-flyers must be available. Further details are in Chapter 8.

### **2.6.7 Emergency medical provisions**

An English speaking emergency doctor or medical technician with proper equipment must be available at take off and at a strategic location during the task. A helicopter with rescue equipment must be available. The normal expected response time has to be announced in the bid and in the local regulations.

### **2.6.8 Championships for more than one class**

May be flown simultaneously, but they remain separate championships. Where they are flown from the same site, operations may be conducted under the charge of a single Director. However, if the classes fly from separate sites, each site must have its own Director or Deputy Director

### **2.6.9 Competition Preparations**

To avoid pilots travelling to Championships which may have their validity refused because of lack of preparation of the competition facilities, the CIVL will publish details regarding the competition preparations on the CIVL web site.

**2.6.10 Action in the event of a casualty or serious accident**

The organiser shall follow the procedures outlined in the FAI document "Guidelines in the Event of a Casualty or Serious Accident at FAI Airsports Events" which the FAI supplies to all championship organisers.

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**2.7 Programme and facilities**

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**2.7.1 Provision of information**

The organisers shall provide all facilities necessary for the satisfactory operation of the championships and circulate the following information, as appropriate, as far in advance as possible:

- Programme of the championships with dates and times
- Names of the Competition Director, key officials and stewards
- General operational information, including meteorological, medical and safety arrangements, repair facilities and communication information
- Meteorological facilities including daily forecasts with synoptic charts, and satellite presentation
- Information on likely tasks
- Airspace restrictions and any hazardous considerations
- Accommodation and food arrangements, including facilities for press and visitors
- Plans of airfields or sites to be used, showing flying layout and location of entrances and administrative and domestic buildings, car and trailer parks
- Full list of documents and equipment to be provided by competitors
- A provisional entry list on request
- Details of extra language or interpreting facilities

**2.7.2 Website**

The organiser shall provide a competition website at least 6 months before the championship starting date. It shall give the information listed at 2.7.1 above and details of entry requirements, deadlines and procedures for the championship. A copy of the Local Regulations should be available for download from the site and a link provided to that document on the FAI/CIVL website. If Local Regulations are posted to the site prior to being approved by CIVL then they should be clearly marked "NOT YET APPROVED BY CIVL".

**2.7.3 Ceremonies**

The programme for the opening ceremony shall be given in writing to team leaders on arrival. The programme for the closing ceremony and prize giving shall also be published, in writing, at least four days in advance of the ceremony.

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**2.8 Stewards and Jury**

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**2.8.1 Powers and description**

These are detailed in the General Section.

**2.8.2 Appointment of Stewards.**

The CIVL shall appoint one or more stewards in consultation with the event organiser according to the needs of the championship. If an entry of more than 100 is expected, at least two stewards will usually be required. Stewards shall be of different nationalities, and not that of the organiser unless specifically authorised by the CIVL Bureau. However, in the event of the last-minute absence of an appointed steward, a replacement of any nationality, and acceptable to the President of the Jury, may be invited. Stewards must be able to speak English, and have extensive experience of international hang gliding, paragliding or other FAI competitions. At least one steward should, if possible, be able to speak the language of the organisers. A minimum of one steward shall be present at each site during competition operations.

**2.8.3 The International Jury**

CIVL shall appoint an international jury of three different nationalities. No member of the jury may belong to the host country unless specifically authorised by the CIVL Bureau.

**2.8.4 Authority of Stewards**

The steward cannot override the decisions of the championship director, but the steward should point out to the championship director that his/her actions may fail under a protest.

**2.8.5 Authority to Stop Event**

The steward must report to the jury president if rules are not being applied or if adequate safety measures are not in place. The Jury President can temporarily stop the event according to the rules of the General Section.

**2.8.6 Funding of Jury and Stewards**

#### **2.8.6.1 By The Organiser**

The Competition Organiser is responsible for travel, accommodation, meals and refreshments for the international jury and steward(s). Travel shall be arranged after consultation and agreement with FAI officials. The minimum standards to be provided at the event are:

- An individual room in the equivalent of 2 star hotel, with, when available, air conditioning should the temperatures be above 30°C.
- Suitable dedicated transport for the Jury and Steward(s) must be provided. This transportation will consist of two vehicles in proper working order unless the Steward of the Pre-competition deems otherwise. This transport will be insured in full for accidental damage liability or the Organiser will indemnify the jury and stewards in respect of such costs.
- A suitable sum for out-of-pocket expenses must be allocated for jury members. The amount, which would be reasonable, will be agreed between the Jury President and the Competition Organiser.

The organiser is also responsible for these costs for the steward at the practice competition and may be required to fund the cost of an extra visit by the steward, or another suitable person appointed by the Bureau. This additional visit will be authorised by the Bureau where it is necessary to confirm that matters, identified as essential after the practice event, have been properly dealt with.

#### **2.8.6.2 By CIVL**

The CIVL is responsible for payment to the steward at 1st Category events and authorised test events of €50 per scheduled competition day, up to a maximum of 14 days. This payment is to be made after a correctly completed expenses form is submitted to the FAI Secretariat and approved as required by current CIVL procedures.

#### **2.8.7 Equipment**

The Competition Organiser is responsible for providing Jury and Steward(s) with a minimum of one radio compatible with competition frequencies and one cell 'phone compatible with the local system when needed.

### **2.9 Team leader responsibilities**

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#### **2.9.1 Liaison**

The Team Leader is the liaison between the organisers and his team and is responsible for the proper conduct of his team members, for ensuring that they do not fly if ill or suffering from any disability which might endanger others and that they understand the rules.

#### **2.9.2 Authority**

The team leader has the authority to remove any member of his team from an event.

#### **2.9.3 Accidents**

Each team leader is responsible for submitting a report to the Safety Director for any accident involving a member of his/her team. This shall be submitted prior to the team leaders meeting on the day following an accident. Each team leader should also be familiar with the FAI document Guidelines in the Event of a Casualty or Serious Accident at FAI Air Sport Events, which is available from the FAI website.

### **2.10 Hang gliders and associated equipment**

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All aircraft and ancillary equipment which is provided by the competitors, must be of a performance and standard suitable for the event. Refer to chapter 13, Hang Glider Safety Standards

#### **2.11 Insurance**

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Documentary proof of insurance as specified by the organiser on the entry form or in the local regulations shall be made available to the organisers before starting to fly from the competition site.

#### **2.12 Contest numbers**

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The organisers shall allocate numbers or letters to each competing glider. When specified in the Local Regulations these shall be displayed on the glider. This will normally be on the underside of the right wingtip with the top of the numbers or letters towards the leading edge, and may also be on the pilot's helmet or on other equipment. Numbers may be additionally required on top of the wing.

The size of the figures and the area on the wing to be kept clear for this purpose shall be stated in the local regulations when required.

Failure to display numbers as required is a technical offence and may be penalised accordingly.



## **2.13 Registration and Scrutineering**

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On arrival at the championships site each team leader and his team members shall report to the Registration Office to have their documents checked and to receive any supplementary regulations and information. The end of the official Registration Period is considered to be the official start of the championship.

After the opening of the launch window on the first scheduled competition day no change of pilot or glider may be made except as specified under the conditions of 2.16.4 (Damage to a competing glider).

## **2.14 Briefing**

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The Director shall hold a briefing for team leaders and/or competitors before each task, at which full meteorological and operational information concerning the tasks shall be given. Task, weather, airspace information, and any special requirements shall be in writing. If possible, a meteorologist prepared to answer questions from pilots shall give weather briefings.

Flight safety requirements given at briefing shall carry the status of regulations.

Briefing may be postponed from the set time in the event of bad weather and further briefing be given if necessary.

All briefings must be conducted in English only.

## **2.15 Team leaders' meetings**

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Communication between the organisers and competitors is, in addition to daily briefing, normally through team leaders' meetings. These shall be held at the Director's initiative but shall also be held within 18 hours if five or more team leaders request a meeting.

## **2.16 Operational regulations**

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### **2.16.1 Compliance with the law.**

Each competitor is required to conform to the laws and to the rules of the air of the country in which the championship is held.

### **2.16.2 Airworthiness.**

Each glider shall be flown within the limitations of its certificate of airworthiness or permit to fly and its manufacturer's published limitations. Any manoeuvre hazardous to other competitors, or the public and unauthorised aerobatics is prohibited.

### **2.16.3 Pre flight check**

Each glider shall be given a pre-flight check by its pilot and may not be flown unless it is serviceable. Pilots shall ensure that they have a proper hang check/leg loop check immediately prior to launch.

### **2.16.4 Damage to a competing glider**

Any major damage shall be reported to the organisers without delay and the glider may then be repaired. Any replacement parts must conform exactly to the original specifications. If permission is given by the Director to replace the glider temporarily or permanently for reasons of damage or loss or theft beyond the control of the pilot, it may be replaced by an identical make and model, or one of similar or lower performance and eligible to fly in the same class.

## **2.17 Flight safety**

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### **2.17.1 Safety Briefing**

It is mandatory for all pilots to attend the Safety Director's briefing (2.6.2.2) prior to the commencement of flying; pilots who fail to do so will not be allowed to compete.

### **2.17.2 Dangerous flying conduct**

It is the responsibility of every pilot to fly in such a way that personal safety and the safety of others is maintained at all times. Directors may penalise competitors who fail to observe this rule, or exclude them from the results.

### **2.17.3 Helmet and parachute**

A helmet is not compulsory in hang gliders with enclosed cockpits if it will restrict pilot vision, but is compulsory in all other classes.

With the exception of Short Course Speed events, pilots must carry a serviceable rescue parachute.

Further safety requirements may be detailed in the local regulations.

**2.17.4 All flying banned**

Both the Competition Director and the Safety Director have the power to ban flying from the site if a task or day is cancelled due to dangerous conditions.

**2.17.5 Fitness**

A pilot may not fly unless he is fit. Any injury, drugs or medication that might affect the pilot's performance in the air must be reported to the Director before flying.

**2.17.6 Pilot competence**

Both the Competition Director and the Safety Director, in agreement with the steward, have the power to exclude from the championship pilots who demonstrate a lack of the necessary skills for safe launching, flight or landing.

**2.17.7 Drugs**

Performance enhancing drugs are prohibited. "Refer to General Section 3.11.2"

**2.17.8 Ballast**

A competing glider may carry jettisonable ballast only in the form of fine sand or water. A pilot shall avoid dropping ballast at any time in a manner likely to affect other competing gliders and other third parties. Note: See also section 12.4.

**2.17.9 Collision avoidance**

Competitors shall at all times adhere to the international rules of the air (*published by ICAO*). Ridge soaring, turning and landing patterns shall be complied with and a proper lookout kept at all times. A glider joining another in a thermal shall circle in the same direction as that established by the first regardless of height separation. All pilots must read and understand the explanation of proper thermal procedures presented in Chapter 17. Failure to follow these guidelines may result in penalties to the pilot concerned including disqualification from the event.

A competitor involved in a collision in the air must not continue the flight if the structural integrity of his glider is in doubt.

**2.17.10 Cloud flying**

Cloud flying is prohibited and gliders may not carry gyroscopic instruments or other equipment permitting flight without visual reference to the ground. The organisers may include special instruments by type or name under this prohibition. Proven cases of cloud flying will result in a penalty being applied; this will be a zero score for the day of the first offence and exclusion from the remainder of the competition for any subsequent offence.

**2.17.11 Radio**

Where national law permits, it is mandatory for pilots to carry a radio receiver compatible with the organiser's published frequency for safety communications. This must be switched on in flight and set to either the competition frequency or that of his team leader.

**2.17.12 Suspension, cancellation or stopping a task****2.17.12.1 Suspension**

The Competition director may suspend the launch if conditions become unsuitable, for safety reasons. If launching is suspended only for a short period, the Director need not cancel the task.

**2.17.12.2 Cancellation**

The Competition Director may cancel a task before any competitor has taken off if the weather becomes unsuitable or for safety reasons.

**2.17.12.3 Stopping**

The Competition Director has the power to stop a task after some or all pilots have taken off only in an emergency resulting from hazardous weather or other conditions which could not be avoided by the pilots, and which would endanger their safety. The Safety Director also has the power to stop a task.

**2.17.13 Maximum Wind Speed**

The organiser shall include in the Local Regulations a reasonable maximum wind speed in which a task may be flown.

**2.17.14 Pilot Reporting of Safety****2.17.14.1 In Flight**

All pilots have the responsibility to monitor the flying conditions and should report to the Competition Director directly or through the team leaders when conditions become unsafe on course. To avoid confusion this should be done using the phrases: Level 1 (safe), Level 2 (strong), Level 3 (too strong).

#### 2.17.14.2 On Landing

The Landing Verification Form (16.6.3) must contain tick boxes for completion by each pilot as follows:

- ☐ 1 – Safe
- ☐ 2 – Unsafe in some parts
- ☐ 3 – Unsafe

The organiser is to make these forms available to the steward.

### **2.18 Test flying**

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No competitor may take-off during a competition day from the competition site without the permission of the Director. This may be given for test flying; however, if the task for that class has started the pilot must land after the test flight and make a competition take-off on the task.

### **2.19 External aid to competitors**

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The following limitations are so that, as far as possible, the contest shall be between individual competitors, neither helped nor controlled by external aids.

#### **2.19.1 Navigation**

Any help in navigation or thermal location by any non-competing aircraft, including competing gliders not in the act of carrying out the task of their own class, is prohibited. Pre-fliers (Wind dummies) must land or fly in a designated area as soon as possible after task flying has started (see Chapter 8, Pre-fliers).

#### **2.19.2 Radio**

When radio transmitters are permitted in the local regulations one transmitter is permitted in each competing glider, one for the use of the team leader and one in each of a maximum of two retrieve vehicles. These radios are for communication between competitors and between them and the organisers. They may not be used to contact ATC other than for obtaining permission from an airfield to land on it, unless the organisers specifically require this. Permitted frequencies will be specified in the local regulations. The above does not apply to emergency location transmitters (ELTs), which are incapable of voice transmission.

#### **2.19.3 GPS**

The use of GPS, or similar positioning systems, by competitors in the air is permitted for navigation and flight recording purposes.

### **2.20 Retrieving**

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A pilot making an outlanding shall return by surface transport. Aero tow retrieves or return by aircraft are prohibited except as detailed in the local regulations. If organisers provide retrieves, the next task may not be started unless all serviceable competing hang gliders are retrieved in time to participate.

### **2.21 Rest days**

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The director may declare a rest day after not less than four consecutive days of flying unless this is the last day of the competition except that no more than two rest days may be declared in any competition. The policy on rest days shall be declared before the first competition day.

### **2.22 Championship classes**

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#### **2.22.1 Number of classes**

The organisers shall hold the championship in one or more of the classes as approved by CIVL (see 1.5), provided that in each class at least eight pilots from three countries are entered in continental championships and from four countries in other championships, with entry fees paid, and available to fly during the competition.

#### **2.22.2 Multiple Class Events**

If a championship is held in more than one class, each class shall be regarded as a championship in its own right and the organisers must, as far as possible, avoid interference of one class by another, except Category 1 Championship Organisers are strongly recommended to run Classes 2 and 5 concurrently, as long as safety is not compromised. Competition Organisers are encouraged to bid for both these class championships simultaneously.

#### **2.22.3 Launch Points**

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Where more than one class is competing from the same launch site it is recommended that organisers allocate launch priority to each class at a separate launch point, which may change daily. Where this is not practical, and in any mixed class launch lanes, the local regulations shall specify how the push rule (2.24.6) is to be applied to a queue of mixed class gliders.

#### **2.22.4 Separation of Classes**

Where both flexwing and rigid wing championships are run concurrently it is recommended that organisers separate classes as far as possible by varying launch/start times, start cylinder radius and other available means.

#### **2.22.5 Class Conformity**

Each competing glider will be subject to inspection for compliance with class rules at any time during the championships.

### **2.23 Championship tasks**

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#### **2.23.1 Task Setting**

The Competition Director is to take into consideration the level of the average pilots when setting tasks. The same task shall be set for each pilot in a particular FAI Class.

#### **2.23.2 Type of task**

A task from the following list shall be set on each flying day:

- Distance, straight or via one or more turn points. The direction in which a straight distance flight shall be flown may be designated.
- Distance out-and-return via one turn point.
- Speed to a goal either straight or via one or more turn points or speed around a closed circuit course.
- Race over a designated course.
- Speed around a closed circuit course followed by distance either around the same course or in a straight line.

#### **2.23.3 The organisers**

May propose additional tasks at the time of making their bid for the championships provided they have satisfactory experience of the new task(s) in national championships.

The task for each class may be different and a task may be set for one class only.

The Director may give alternative tasks at briefing for use if the weather deteriorates, but may not change the task once flying has started.

#### **2.23.4 Re-flights**

A competitor is permitted more than one start for a task if so stated in the local regulations.

#### **2.23.5 Closing Times**

The director shall state at briefing the times at which take-offs, start and turn points and finish lines close. A last-landing time may also be set. If the start is delayed all given times will be delayed by corresponding amounts except that the last-landing time will in no circumstances be later than sunset plus 30 minutes. It may be earlier if local national air regulations or practical considerations so require; this must be stated in the Local Regulations.

### **2.24 Launch Systems and Management**

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The organisers may use any of the following launch systems as agreed by CIVL at the time of the acceptance of the bid to run the championships. The local regulations shall state which is to be used. The local regulations must state the minimum length of time that the launch window must be open for the round to be considered valid.

#### **2.24.1 Launch window open time.**

The launch window open time will be based on the number of competitors and the number of launch points available. Normally a minimum of 45 seconds of safe launch conditions per pilot is recommended. The precise method for determining the minimum launch window open time will be a method agreed to by the Steward and the Competition Director at the Pre-competition. The launch window will be considered adequate if the amount of safe launchable time available exceeds the designated minimum time or if 90% of the pilots registered for the championship and present at the launch site have launched. The Local Regulations shall specify the circumstances in which Launch Window Extension Time may be used.

#### **2.24.2 Open window**

Free take-off without any set order. There must be a large enough rigging area for competitors with enough marshals to ensure easy entry into the take-off corridors.

There must be at least one ramp or take-off place for each 40 competitors, and competitors must be able to take-off at a rate of at least two per minute in ideal conditions.

#### **2.24.3 Start list**

Pilot's take-off in a scheduled order, which advances automatically each day.

A take-off order is made by lottery before the first task. This order advances each day by a proportion of the competitors (say 2/7). If space allows (as in an aero tow launch competition) the gliders can be placed on numbered spots before first take-off time.

#### **2.24.4 Ordered Launch**

Pilot's take-off in a scheduled order, which is determined by the Competition Director using the method approved by CIVL in the local regulations. When there are no pilots willing to launch, the Competition Director may allow pilots outside their launch order to move to the front of the launch queue, where they will be treated in the same fashion as a pilot who has 'pushed' under 2.24.6

#### **2.24.5 Other Launch System Proposal**

A new proposal by an organiser. A proposed, new launch system may be used, provided that the system has been used successfully in at least one national championship of similar size to the event for which the bid is being made. The organiser shall produce his proposals in detail before acceptance of his bid.

#### **2.24.6 Take-off 'push' system**

At sites where the pilots are required to queue to take-off, the Competition Director may use the push system. This allows any pilot to push a line of competitors by announcing to the take-off official 'Pilot number X is pushing'. Immediately, all pilots ahead of the one pushing have 30 seconds (see note) in which to decide to take-off and then a further 30 seconds to complete the take-off. A pilot who declines to take-off during his decision period must immediately go to the end of the queue. A pilot who fails to take-off within the completion period will be scored zero for the task. When the pushing pilot arrives at the take-off point he is not permitted any decision time, but must take-off within 30 seconds or be scored zero for the task. A pilot who wishes to "push" must be ready to take off immediately when he pushes and may not leave the launch line subsequently. No pilot may move into the start lane while a "push" is under way in that lane nor may any pilot initiate another "push" in that lane until the current one has been completed.

In competitions where more than one class is using a launch point or lane in the same time frame, a lane may be designated the priority lane for a given class. The push system would operate in that lane for the class given priority. Pilots not in that class will be pushed but will not be allowed to push the priority class.

**Note:** Competition Director may specify different time periods to suit local site conditions, but these must not be changed during the period of the competition.

#### **2.24.7 Launch Officials**

Where launch lanes or a queuing system is used the organiser shall provide a minimum of three launch officials per lane or launch point, whether the launch is ordered or not.

### **2.25 Start of a Task**

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#### **2.25.1 General**

Starts may be either Air or Ground Starts and may be either a single start time (Race to Goal) or a number of start periods (Elapsed Time Speed Run).

#### **2.25.2 First Start Time**

The time between the opening of the Launch Window and the first start time must be at least the minimum launch window open time specified in the Local Regulations plus a realistic period for the pilots to climb and fly to the edge of the start sector.

#### **2.25.3 Other Start System Proposal**

A new proposal by the organiser. A proposed new start system may be used, provided the system has been used successfully in at least one national championship of similar size to the event for which the bid is being made. The organiser shall produce his proposals in detail before acceptance of his bid.

### **2.26 Flying the task**

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A set course shall be flown in the direction specified at briefing.

#### **2.26.1 Failed take-off**

Or safety problem immediately after take-off which results in a landing will not count as one of the permitted number of take-offs but, if a ground start has been specified, the pilot's take-off time will be that of his first take-off attempt.

### **2.26.2 Control at starts, goals and turnpoints**

At starts, goals and turn points will be made by a method approved by CIVL and detailed in the local regulations. Details regarding crossing the finish line are explained in 13.2, Goal control

### **2.26.3 Precision landing task**

May not be combined with a distance task.

## **2.27 Out landings**

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If a pilot lands away from the designated goal for the task he must inform the organisers in person or by telephone, or radio (if permitted), with the minimum delay, at the latest by the closing time for the task. On return to base he must go to competition headquarters with his report and GPS unit. Failure to follow this procedure without good reason may result in the pilot not being scored for the task, or in charges for any rescue services, which have been called out.

Landing evidence shall be from GPS track log as evidenced by an approved GPS flight verification system (Chapter 16, Rules for GPS Flight Verification).

## **2.28 Goals in Soaring Competition**

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### **2.28.1 Physical Goals**

For championships, finish lines (goal lines) shall be a minimum of 50 m long and clearly marked on the ground. Vertical masts carrying windsocks shall indicate the ends. Further markers to aid identification of goals from a distance should take the form of large white flags or banners (minimum 2m x 1.5m) placed just to the right of the goal line when viewed from the correct direction of approach.

The goal line material on the ground is an aid to the pilots to help them see the approximate vertical plane of the goal.

### **2.28.2 Crossing Finish Lines**

In Classes 1, 2, 4 and 5 a pilot is considered to have crossed the finish line when the nose of the glider cuts the finish line in the correct direction, using only the energy of the glider but not of the pilot. A maximum height may be specified, below which the pilot must fly to be judged to have crossed a goal line. The line will be defined as a straight, vertical plane which will be accurately marked in such a way so that the goal marshal can properly control finish times. The physical marker on the ground will match the vertical plane as accurately as practical and act as a guide so that the pilots can see where the finish line is.

### **2.28.3 Virtual Goals**

Goals in championships may also be specified by map co-ordinates. The size and shape of these shall be specified in the local regulations. Such virtual goals may also be marked by physical lines on the ground but the GPS timings shall take precedence over any manual timing. Officials may also be placed at such goals and may record the order in which pilots crossed any physical line in order to assist the scorekeeper.

### **2.28.4 Suitability of Goals**

Prior to setting goals, including virtual goals, organisers must physically check that there are safe landings and no dangerous obstacles on the approaches and surrounding area. Manned goals are safer than virtual goals and competition organisers should only use virtual goals in exceptional circumstances. Stewards should consult with the Meet Director to ensure that goal fields are suitable and safe prior to the start of the championship.

## **2.29 Flight boundaries**

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### **2.29.1 National Borders**

Flights terminating beyond the boundaries of the organisers' country or state shall score only to the point where a straight line between the start point or last turn point and the landing place last cuts the boundary, unless permission to cross such boundaries is given in the local regulations.

### **2.29.2 Controlled Airspace**

The organisers shall specify in the local regulations or at briefing, controlled airspace or other areas where flight by competing gliders is prohibited or restricted. Such areas shall be precisely marked on published maps.

#### **2.29.2.1 Altitude Limits.**

The penalty for exceeding altitude limits published in airspace charts shall be a warning for the first infringement of less than 100m by a pilot. For infringements greater than this or for subsequent infringements the pilot shall score zero for the day. For infringement of altitude limits that have been specified in the Local Regulations or during the task briefing the penalty shall be specified in the Local Regulations.

#### 2.29.2.2 Horizontal Infringements.

The penalty for entering restricted or closed airspace horizontally by less than 300m shall be a warning for the first offence by a pilot. For infringements greater than this the pilot shall receive a warning and be scored as if he had landed at the point of entry. For subsequent infringements greater than 300m a pilot shall be scored zero for the day.

### **2.30 Unsporting behaviour**

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Unsporting behaviour should be dealt with according to chapter 11, Participant Incident Policy, and General Section 5.2.

### **2.31 Short course speed events**

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Refer to chapter 19, Short Course Speed Events

#### **2.31.1 Description**

Short-course speed events are those, which take place over defined courses and in which thermal lift is not significant. They include ridge-races, downhill-races and time-trials.

#### **2.31.2 Safety**

Organisers of short-course events must ensure that they are conducted in such a way that safe separation between competing hang gliders is maintained at all times.

#### **2.31.3 Variation in Rules**

Local regulations for short-course competitions that do not comply with those for Short Course Speed Events (Chapter 19) must be submitted to CIVL Bureau for approval.

## 3 ENTRY TO 1<sup>ST</sup> CATEGORY EVENTS

### 3.1 Maximum Entry

The maximum number of entries permitted in a 1st Category championship is 150. The maximum number of pilots constituting a national team is 6, except that where 3.2.5 applies it may be 8. The Local Regulations shall state:

- The maximum number of pilots that may be accepted in the championship.
- The maximum number of pilots that may be entered by a NAC.
- The number of pilots of each sex who may be entered by a NAC (if required).
- The number of pilots constituting a national team.

### 3.2 National Entry

#### 3.2.1 Team Size

When specifying the maximum team size the Local Regulations must also state the maximum number of each sex a NAC may enter in each class, if required. Team pilots must be nominated by each NAC before the start of the championship. After the opening of the launch window on the first scheduled competition day no change of pilot may be made.

#### 3.2.2 Limited Pilot Numbers

Where pilot numbers need to be limited by site considerations:

- The qualification criteria are to be defined in the Local Regulations. The criteria are adjustable according to the standard of the competition (*a 1<sup>st</sup> Category World event can be very different to an Asian Continental one*) and take into account the site capacity and the number of pilots wanted. This is done by adjusting the qualification level for entry e.g. the top X number (500, 1000, 2000 etc) of the WPRS or X km (60, 80, 100 etc) goal flight achieved in Category 2 competition).
- The allocation of places starts with: X (+2 female if appropriate) to all nations; X to be decided by the Bureau after discussion with organiser and steward. If places are still available at a deadline given in LRs these are offered in the nation WPRS order to those nations who have already entered X. If that round is completed and places are still available another round commences until the maximum entry is reached. If any round of allocation is incomplete then the pilots entered in that round are not considered to be part of the national team. If any nation gets places for more than the 6 (or 6+2) maximum team size (Rule 3.1) then those additional pilots are also considered as individual entries.
- Where a reallocation process is part of the entry rules the date for pilot qualification to be complete is to be the same as the date for commencing reallocation.

#### 3.2.3 Host Nation Team

When a reallocation system is used to increase the size of some teams, the host nation shall have the opportunity of entering the same number of pilots as the top nation, except that they may not enter males as substitutes for females with places allocated under the X + 2 rule (3.2.5). These additional pilots must fulfil the stipulated qualification criteria specified in Section 7A and the Local Regulations.

#### 3.2.4 Class 2 and 5 Teams

In Category 1 events, each NAC must fill up to full team quota in Class 5 before it can enter a Class 5 design glider in Class 2.

#### 3.2.5 A change of a competitor

From one class to another is not permitted after the closing date stated on the Entry Form unless the entry is restricted, or a particular class in the championship is cancelled.

#### 3.2.6 Women

Where there is no separate championship for women, the team size is X + 2. X will be those pilots who qualify for their national team in open selection and there may be up to 2 additional women in the team.

#### 3.2.7 Each NAC

Shall select its own team leader, competitors and crews, provided that they qualify under these rules. Not more than one pilot and two crew members are permitted for each competing hang glider.

#### 3.2.8 The team leader

May be a competitor or crew but preferably should be additional to them. If a national team has pilots flying from more than one site, the Team Leader may nominate a deputy for such sites.



### 3.3 Additional Entries

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In Open Continental Championships, if any suitable spots remain available one month before the start of the competition, CIVL will accept entries from suitable pilots from other continental regions. Such pilots will have to fit the general qualification criteria of the meet and will be selected in their WPRS order with one woman pilot accepted for every 4 males that are selected.

### 3.4 Eligibility to Compete

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#### 3.4.1 Qualifications

Qualification criteria for all pilots wishing to compete in a Category 1 competition are:

- If the competitor's country issues pilot licences for hang gliding the pilot must hold a valid licence appropriate to the glider to be flown.
- Each competitor shall hold a valid FAI sporting licence issued by his own NAC. Competitors from prospective FAI member countries may use a licence issued by the FAI Secretary General.

#### 3.4.2 Additional requirements

A pilot has to have either:

- Competed in a Category 1 hang gliding event (excluding Women's Worlds) in the four years before the qualifying date,
- Or placed in the top 2/3rds of pilots in a Category 2 hang gliding event during the 3 years prior to the Category 1 Championship.
- Or placed in the top 2/3rds of pilots in a women's world championship during the 3 years prior to the Category 1 championship.

#### 3.4.3 Other Criteria

Other qualifying criteria may be specified by CIVL and included in the approved local rules.

#### 3.4.4 Qualification after gaining an exemption

Notwithstanding the above, when a pilot has competed in a Category 1 event after gaining an exemption from the specified entry qualifications that pilot shall not be eligible for further Category 1 events unless he/she has placed in the top 2/3 of the event for which the exemption was granted.

#### 3.4.5 Qualification by class

Where a pilot seeks qualification in a hang gliding event of any class, these qualification criteria must have been fulfilled in a hang glider.

#### 3.4.6 Organising Team

No member of an NAC's organising team during a first category event may also be a competitor in that event.

#### 3.4.7 Qualification Date

Pilot qualifications must be finalised prior to the deadline for registration for the competition.

#### 3.4.8 Procedure for checking

Qualification is to be checked by three parties to avoid unnecessary travel, expenses and disappointment in the event that a pilot's entry is rejected due to not meeting the qualification criteria

- The NAC or National Association/Federation before selecting their team.
- The competition organiser.
- The pilot.

##### 3.4.8.1 Website.

Check the current Category 1 qualification list available on the CIVL website. All pilots who appear on this list will have the necessary competition qualifications.

##### 3.4.8.2 Competition organisers' responsibilities

To ensure there is a signed declaration on the entry form that each pilot meets the CIVL qualification criteria.

To have available at registration the current list of qualified pilots downloaded from the CIVL website.

To notify NACs of any pilots who do not appear to meet the qualification criteria.

**If a pilot does not meet the qualification criteria then, his/her entry cannot be accepted**

### 3.5 Exceptions

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### **3.5.1 Applications**

For any exceptions to pilot qualification requirements, applications must be made by the pilot's NAC, with supporting evidence of the pilot's international competition history. It is the responsibility of the NAC to ensure this is received by the CIVL PR Co-ordinator at least 30 days before the championship.

### **3.5.2 Guideline for approval**

Exceptions will not normally be granted in Class 1 (except for Women's Worlds). Exceptions in other classes will not normally be granted unless there is clear evidence of a lack of opportunity to qualify.

## 4 CIVL RECOGNISED 2<sup>ND</sup> CATEGORY EVENTS

### 4.1 General Rules

#### 4.1.1 Conflict

The rules for Second Category events shall be based as far as possible on those for First Category events and shall not conflict with them in principle. Where second category events are also practice events for first category events they shall use the sample local regulations in Chapter 9 and be run in accordance with Section 7A requirements for Category 1 events except for entry requirements and those for additional FAI officials.

#### 4.1.2 Language

The rules, regulations and information circulated to NACs and competitors or issued during the event shall be in English and, at the discretion of the organisers, French and/or the language of the host country. In all interpretations the English language version shall prevail.

#### 4.1.3 FAI Authority

The Rules, Regulations, programme and all other official documents shall carry the statement of FAI authority and display the FAI logo.

#### 4.1.4 Type of Event

Only competitions defined as International Sporting Events or Open National Championships (GS 3.1.3 & 4) and meeting the requirements below may be sanctioned as CIVL recognised 2<sup>nd</sup> category events. In order that international competitors will not be at a disadvantage compared with host nation pilots no Category 2 competition may be run as a series with more than one rest day between planned flying days. Multiple competitions for the same FAI Class in the same location with overlapping dates will not be accepted as 2nd Category events except that Class 1 and Sport Class events may run concurrently in the same location.

#### 4.1.5 Sporting Licence

In Second Category events a competitor must hold a current FAI Sporting Licence.

### 4.2 Requirements

#### 4.2.1 NAC Authority

Only events which have the approval of the NAC of the organiser may be sanctioned as Category 2. If the event is to be held in the territory of another NAC then the organiser must also obtain authorisation from that NAC. Proof of this authorisation must be submitted to FAI/CIVL with the application form.

#### 4.2.2 Notice of Event

Organisers must give a minimum of one month's notice of the event to the CIVL PR Co-ordinator.

#### 4.2.3 Application for Sanctioning

The organiser must provide the following a minimum of one month before the event inscription:

- A completed application form to the CIVL PR Co-ordinator.
- The sanction fee to the FAI together with a copy of the application form (7.2 refers).
- URL or e-mail address for international entries and details of fee payment method.

This will enable the event to appear on the FAI calendar and be publicised as a Category 2 event.

#### 4.2.4 International Participation

In order to be recognised as a Category 2 event a minimum of 25% of the maximum available places must be set aside for pilots from nations other than that of the organiser e.g. if the maximum number is 100, 25 of these places will be set aside for international competitors. The registration deadline for foreign pilots shall be no sooner than 15 days before the start of the competition, after that date unused places can be filled at the discretion of the organiser.

### 4.3 Validation

#### 4.3.1 Minimum Numbers

The minimum number of competitors required to validate a Second Category event shall be stated in the regulations for that event and shall not be less than 15 in Class 1 and 6 in Class 5. The organiser may decide the minimum number of pilots required to validate Class 2 and Aerobatic events.

#### 4.3.2 Maximum Numbers

The maximum number of pilots must not exceed 150, the maximum number permitted in Category 1 events.

#### **4.3.3 Minimum Number of Tasks**

The minimum number of tasks for a Category 2 event to be valid is two and all valid tasks flown shall be scored.

### **4.4 Results**

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#### **4.4.1 Deadline for Provision**

Organisers of Category 2 events must provide official results to the CIVL PR Coordinator within 7 days of the end of the competition. If results have not been received by that date, CIVL will send a reminder to the organiser and the NAC concerned at the 7 day point. If no official results are received by the 14 day point, another reminder will be sent and any available unofficial results (obtained from a reliable source) will be added to the WPRS list. If the official results have still not been received by the 30 day point, the unofficial results will be deemed to be final and official.

#### **4.4.2 Format of Results**

All results should have the CIVL ID number for each pilot recorded. The following formats are acceptable for input to the WPRS:

- FSDB file from FS

- The full RACE database

- An Excel format (.xls or .csv) file with the results in the following order:

  - Name (First name followed by family name) Nation (IOC abbreviated codes) Total (score) FAI\_licence (number) CIVL\_Pilot\_ID

PDF files are not acceptable.

#### **4.4.3 Finality of Results**

All results and rankings published on the CIVL website will be deemed to be final after 3 months have elapsed since the last day of the competition.

### **4.5 WPRS**

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Category 2 events will gain WPRS points for the pilots competing in accordance with current WPRS rules.

### **4.6 Complaints, Protests and Appeals**

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The method and timing limits for complaints and protests shall be stated in the local regulations and be in accordance with the FAI General Section. The rights of Appeal to the FAI are defined in Chapter 9 of the General Section and any such appeals should be directed through the NAC of the pilot concerned, except where GS states otherwise.

### **4.7 Safety**

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It is recommended that Category 2 events comply with the safety requirements for Category 1 events as well as any additional ones needed for local conditions. If no separate Safety Director is appointed for a Category 2 event the Competition Director must give a safety briefing to all pilots prior to the commencement of flying.

## 5 SCORING 1<sup>ST</sup> CATEGORY EVENTS

### 5.1 General

#### 5.1.1 Competitions With A Cut

1st Category events are to be run as a single group; a “cut” . may not be used to reduce numbers for subsequent rounds. Organisers of other events may find details of how to run a competition with a cut in Practical Guidelines for Organisers of FAI/CIVL Competitions.

#### 5.1.2 Aerobatics and Speed Gliding

The scoring system to be used will be approved by CIVL and described in the local regulations. More specific information regarding scoring systems for these events will be found in the chapter relating to Short Course Speed events (chapter 19) and the Aerobatic Annex to Section 7A.

### 5.2 Scoring Systems

#### 5.2.1 Approved Systems

A scoring system that has been approved by CIVL (5.3.2) will be used for competition scoring. All such systems shall be tested at a major competition before being used in a first category event. Soaring competition is scored using the RACE or FS scoring programme with GAP 2000, OzGap, or GAP 2002 formulas. Explanation documents for these formula are available separately from the FAI office or from the Internet.

#### 5.2.2 Local Regulations

The scoring system must be consistent with local regulations, which must specify in detail the way in which any variable within a formula is to be determined. It is also important that the design of the competition, especially the selection of tasks and local factors complements the scoring system.

### 5.3 Scoring formula

#### 5.3.1 Purpose

The object of the scoring system is to reward pilots for their performances as fairly as possible.

#### 5.3.2 Announcement of Championship Formula

The organisers are to publish the name of the formula to be used a minimum of 3 months before the event.

### 5.4 Flight verification

#### 5.4.1 By GPS

When an approved GPS flight verification (Chapter 16) system is being used, this evidence can be used to claim a pilot's best position on course as the pilot's finish of the flight (landing position).

#### 5.4.2 Landing Place

In championships, verification of the landing place may be made from a GPS track log as evidenced by an approved GPS flight verification system. See chapter 16.

#### 5.4.3 GPS Rules

Detailed rules for GPS verification sectors are found in Chapter 16.

### 5.5 Scoring

#### 5.5.1 Minimum Distance

In the absence of any day validation in the scoring system, a championship task is defined as one in which not fewer than 20% of the gliders in the class fly the minimum scoring distance as stated in the scoring formula. This distance may be varied by agreement with CIVL as the performance of gliders improves, but in any case, shall be a constant throughout a championship.

#### 5.5.2 Calculation of Scores

The overall results shall be computed from the approved scoring system. The status of guest pilots for scoring purposes shall be stated in the Local Regulations.

A score given to a competitor shall be expressed to the nearest whole number, 0.5 being rounded up.

If the scores of the first, second or third in each class are identical, the tie shall be broken by counting the highest task positions of the tied pilots with the pilot, or team, having the highest number being declared winner. If this does not break the tie, joint champions will be declared.

Any rounding up of scores is to be done after the application of penalties.

### **5.5.3 Times and distances**

Are measured via correctly controlled turn points as accurately as practical and any rounding of distances shall be in accordance with the approved scoring formula.

### **5.5.4 Pilots Who Do Not Fly**

#### **5.5.4.1 DNF**

A pilot who is present at the launch site for the task but decides not to fly shall score zero and shall be indicated as DNF on the score sheet.

#### **5.5.4.2 DSQ**

A pilot who is disqualified is to score zero and be indicated as DSQ on the score sheet for that task and all subsequent tasks.

#### **5.5.4.3 ABS**

A pilot who withdraws due to illness or accident shall be marked as ABS (absent) for all subsequent tasks and no longer be counted in the group or class for the purposes of scoring for each task that he or she remains unfit to fly. A pilot who withdraws due to an equipment problem may also be marked as ABS subject to approval by the Safety Director; any such pilot is to continue to be shown as ABS for subsequent tasks until the Safety Director has approved repaired or replacement equipment.

### **5.5.5 Deduction of penalty points**

Shall be made after scoring is completed.

### **5.5.6 Negative score**

If a pilot's score is for any reason negative, including penalties, his score for that task shall be zero. Negative scores may not be carried forward.

### **5.5.7 Upper limit**

An upper limit to a task score must be set unless the formula includes an automatic limiting factor.

### **5.5.8 Scoring of Stopped Task**

A task which is stopped, but not cancelled, shall be scored if a minimum of one and a half hours have elapsed since the first valid start taken by a competing pilot, or a least one pilot has achieved in goal. Pilots will be scored up to the point in time when the task was stopped, less a specified "score back" time; this "score back" time is to be equal to the time between start gates or a minimum of 15 minutes in the case of single start gate task. This will be applied to all pilots, whether in goal or en route to goal but this will not cause a task not to be scored if a pilot has landed in goal before the task was stopped.

### **5.5.9 Score sheets**

Shall be labelled PROVISIONAL and OFFICIAL as appropriate, and marked with the date and time of issue.

## **5.6 Compensating Scores**

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### **5.6.1 Assisting injured pilots**

A competitor who lands or limits his flight specifically to help an injured pilot must not be disadvantaged by this action. At any point if a pilot lands or limits his flight to help another pilot his score for the day shall be his average day-weighted of what he scored in the previous rounds. However, as the meet progresses that score will change to take into account his average day-weighted of the whole meet so the score will be adjusted after each task. A meet director may also award extra points. For guidelines to procedures concerning pilots in danger, see Chapter 18, Guidelines for Assistance to a Pilot in Danger.

### **5.6.2 As a Result of Complaint or Protest**

If a protest from a pilot or group of pilots is upheld, the jury must consider compensating affected pilots, bearing in mind the rights of other pilots in the competition, and only cancel the task if there is not other fair option.

## **5.7 Team size and scoring**

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### **5.7.1 Use of Filters**

The RACE scoring programmes permit the use of filters when calculating results. In Category 1 events where guest pilots are permitted e.g. continental championships, guest pilots may not be filtered out when calculating results as they will already have affected relative performances by their presence during the task and may also have affected the lead co-efficient in the flight verification programme.

#### **5.7.2 Number of Scores to Count**

Team scoring for hang gliding competition (except Aerobatics and Speed Gliding) will be the sum of the best three team members, being added daily to produce a total score for the competition.

Team size will be stated in the local regulations and the means for avoiding dangerous overcrowding in the air will be explained in the local regulations.

### **5.8 Competition validity**

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A 1st Category competition will be deemed valid for the purposes of awarding Championship titles if the sum of the daily winners' scores is equal to or more than 1500 points, as determined by the authorised scoring formulas.

### **5.9 List of Penalties**

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#### **5.9.1 Permitted Penalties**

The Championship Director shall impose penalties for infringement of, or non-compliance with, any Rule or Local Regulation. The severity of the penalties may range from a minimum of a warning to disqualification as appropriate for the offence. Except where otherwise stated in this document or in the Local Regulations for the event, the penalties imposed by the Championship Director shall be at his discretion and may be one of the following:

- Warning.
- Operational disadvantage.
- Deduction of points. This may be a finite number of points or a percentage of the winner's score. A finite number may be up to the entire score of a pilot for that day.
- Alteration of placing order.
- Disqualification.

#### **5.9.2 Application of Penalties**

The Championship Director shall be consistent in the application of penalties . but may increase these penalties for repetition of the same offence by one or more competitor.

### **5.10 The World Pilot Ranking System (WPRS)**

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The WPRS is a system designed to rank all pilots who fly in FAI sanctioned competitions around the world. A separate ranking is produced for each of the flying disciplines of hang gliding and paragliding.

Each ranking is calculated from the results of FAI sanctioned competitions using the current WPRS formula to give each pilot ranking points.

Nation rankings are calculated by aggregating the individual WPRS points of a specified number of pilots from each nation.

## 6 CHECK LISTS FOR CHAMPIONSHIP ORGANISERS

CIVL has produced a Guidebook for Competition Organisers which is available for downloading from the CIVL website at [http://www.fai.org/hang\\_gliding/documents/](http://www.fai.org/hang_gliding/documents/). This should be consulted as part of the competition preparations. As should the publication Guidelines in the Event of a Casualty or Serious Accident at FAI Air Sport Events, which is issued to organisers of 1st Category events.

### 6.1 Preparation

Preparing a bid to organise a championship

- Sites. Suitability, accessibility, availability, permissions for use
- Airspace. Free or available above take-off and task flying areas, prohibited areas, frontier crossing arrangements.
- Radio. Permission to use and on what frequencies, licence requirements.
- Meteorology. Period of best weather, forecasts during the event. Satellite weather monitor.
- Maps of task area. Scale and availability.
- Medical. Any vaccinations recommended for competitors.
- Event Headquarters. Suitability, location, communication equipment. .
- Director and key officials. Qualifications, languages, availability, experience and qualifications of the Safety Director.
- Finance and sponsorship. Is there enough money to run the event?
- Local facilities. Hotels, camping sites, car hire, shops, repair facilities.
- Insurance. Required cover for organisers and for competitors, including public liability.
- Entry Fee. Amount, what is covered by fee. Currency exchange.
- Timescale. Is there enough time to organise the event properly?
- Bid preparation for CIVL. Dates, detailed information package, Local regulations problems or queries, sanction fee for 1st category events.
- FAI Entry Rule. Will any FAI member be refused entry to country?
- Early arrivals. Will it be necessary to set a date before which competitors should not arrive?
- Guest pilots. Eligibility, invitations.
- Customs. Inform customs at all main entry points of championship and nature of equipment which will accompany pilots. Inform team leaders which customs points have been notified.
- Championship information. Provision of a website as the main means of disseminating information prior to the championship is mandatory and this must be complete with all relevant information at least 60 days before the closing date for entries. This website should also be the main external medium for publishing results and should be updated regularly during the meet. An interactive registration system is also desirable.
- Compliance with FAI Code on the Environment (see FAI website)

### 6.2 Flying sites

**Location. a/ Hill sites.** Wind direction suitability, height above valley, configuration, surface, size of take-off area, number of ramps, enough rigging area, power wire and other hazards, helicopter landing space, car park, shelter and refreshment, toilets, telephone and Windsock.

**b/ Aero tow sites.** Airfield large enough in all wind directions, facilities, noise.

- Distance to site(s). Road access suitable for private cars or only 4-wheel drive vehicles or organiser's trucks, cable car or mountain railway to take-off area, parking available part way up for cars not going to top, organiser transport arrangements to sites.
- Task flying area. Type and suitability of terrain. Unlandable and built up areas difficult to avoid, local road quality for retrieves, suitable goal landing fields and height AMSL, road traffic problems, any prohibited landing areas
- Weather. Site prone to low cloud, possibility of wave or fohn, best time of day for thermals from slope, possibility of residual lift late in afternoon, known turbulence areas and type of conditions.
- Retrieves. Organiser vehicle arrangements, vehicles to be provided by competitors, HQ telephones for outlanders, retrieve radio frequencies.
- Start marshals. Name of marshal(s) in charge at take-off site(s), number of helpers, take-off area equipment (windsock, first aid, etc).
- Facilities. Shelter, refreshments, washrooms.
- Mobile teams. Goal crews and Ground clock/signal operators, full equipment (tarps, goal-line markers, windsocks, maps, binoculars, etc.)
- Launch communications. Each launch marshal to have a radio where more than one launch is used.



### 6.3 Headquarters

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- Building suitable and big enough for large competitor reception area, including message boxes for mail and notices.
- Secretarial staff office
- Director/scoring office with computers.
- Jury/meeting room
- Store room
- Sales point/press room.
- Communications Telephones, fax, word processors, typewriters, copiers
- Office furniture & equipment. Enough for efficient working of staff and FAI officials. Photocopier.
- Notice boards for briefing, task and met info, turn point photos, results, news cuttings, general (lost, found etc), large black/chalk board for urgent notices and messages.
- Office consumables. Enough paper, pens, glue-sticks, tipex, notepads, waste-baskets etc. ruler and usual office equipment.
- Administrator Name of person in charge of HQ office, number of helpers available.
- Specialist staff: scoring computer operator, film processor and assessor, press secretary, social and ceremonies secretary, newsletter editor if appropriate. Liaison with police, military, public services.
- Proximity of refreshments, restaurant, lavatories, public telephone, post-box etc.
- Entry application and forms
- Timescale for sending out request for provisional entries, official entry form printing, return of entry form date, entry fees.
- Entry form preparation: See chapter 10.
- It is highly desirable that one or more computers linked to the internet are provided for pilot use.

### 6.4 Accident and Emergency Requirements

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- Rescue/First Response Services. Doctor, emergency first response arrangements in task areas, first aid and helicopter availability, including response times.
- Emergency communications. Separate frequencies and mobile (cell) 'phone numbers are required for the Safety Director.
- Safety equipment. As recommended in the Competition Organiser's Handbook.
- Mandatory Safety Briefing for all competitors.
- Provision of safety information and communications card for all competitors.
- Information on wind limits for safe flying of tasks.

### 6.5 Local regulations and reports

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Local Regulations preparation and Reports to FAI

- Local Regulations doc. Use document in chapter 9. Any proposals for additions or modifications to be requested when presenting the bid to CIVL.
- Report to FAI This has to be sent to FAI as soon as possible after the event (48hr), and must include full results, number of protests and any special difficulties. Publicity photographs can be sent. Photographs may be sent during the event to the FAI office by e-mail. Copy has to be sent to the president of CIVL.

### 6.6 Forms and briefing notes

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Time and score sheets must be printed before the start of the event, and all pilot reports etc officials should be supplied with tough clipboards, pens etc. so that they can work effectively.

Forms needed include:

- Final correct entry list giving pilot name, nationality, age, hang glider type, competition number
- Take-off order list, and if necessary, start time list
- Finish line/time list
- Pilot flight report form, with map tracing sheet
- Official's receipt form for flight reports and films
- Out landing witness certificate, if not on pilot report form
- Request in local language to help or telephone for pilot, if necessary
- Daily task details and daily met information for each pilot
- Score sheets headed by date and task details and distance
- Team competition score sheets, including accumulated scores
- All forms must have space for date and compiler's name.
- Start and Finish line forms should not be pre-printed with contest numbers in order; the compiler must enter numbers in the order of take-off or arrival.
- Officials using timesheets must have easy access to the time on the official clock, and use only this time.

- Official outlanding map. This must be of larger scale or the same scale as pilot's maps. Pins must have contest numbers written clearly on them. Maps and pins must be duplicated so that the previous day's evidence can remain until after protest period.
- Identity/name badges for all participants, medal/mementos for all.

## 7 SANCTION FEES

Sanction fees for FAI/CIVL events to be paid by the organizers of such events to FAI/CIVL are as follows:

### 7.1 First category events

#### 7.1.1 Amount of Fees

For all Category 1 events the sanction fee will be €3.20 per pilot per scheduled flying day, not including practice days or specific days dedicated to the opening and closing ceremonies. Notwithstanding this formula, sanction fees will not exceed:

World Championships and WAG in each class: €5,120

Continental Championships: €3,200

#### 7.1.2 New Events

To encourage new Championships, the Sanction Fee payable by the organiser of a first-time 1st Category event is reduced by 50%.

#### 7.1.3 Method and Timing of Payment

Deposit payable when presenting bid (all first-category events): €640, refundable if the bid fails.

The top three nations in the WPRS at the time the Local Regulations are approved by CIVL shall be designated to pay their entry fees direct to the FAI and this will be held as a deposit. If the event is deemed successful then the Sanction Fee is paid from these funds and the remaining moneys are paid to the organiser.

The nations which will pay their entry fees directly to FAI will be announced in the CIVL approved local regulations for the event. Any unpaid sanction fees, FAI officials' expenses and any performance financial penalties may be deducted from these entry fees.

### 7.2 Second Category Events

The fee for any second category event is the equivalent of the single entry fee (the pilot-participation fee, inclusive of such compulsory 'extras' such as films, lift-passes, etc., but exclusive of accommodation). The fee is payable in Euros and shall be a minimum of €20 to cover administrative costs. If an organiser of a 2<sup>nd</sup> Category event is found not to have checked each competitor's FAI Sporting Licence a warning letter will be sent by CIVL to the NAC for the first offence and for any subsequent offences a financial penalty will be imposed, this will be that the sanction fee will be doubled for the next sanction application from that country.

### 7.3 Payment of fees

All fees have to be paid to FAI/CIVL before a competition starts. Fee payments must be accompanied by a reference which includes the full name of the competition, the class(es) of competition and the name of the organiser. The clearing code (SWIFT/BIC) of the FAI's bank and the IBAN code must now always be included.

FAI bank account details:

Crédit Suisse Private Banking  
Rue du Lion d'Or 5-7  
Case postale 2468  
CH- 1002 Lausanne  
Switzerland

Account name	Fédération Aéronautique Internationale
Account Number (Euro):	0425-457968-32
IBAN Code:	CH31 0483 5045 7968 3200 0
SWIFT/BIC Code:	CRES CHZZ 10A

## **8 PRE-FLYERS (WIND DUMMIES) & OTHER FLYERS**

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### **8.1 Objective**

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The object of pre-flyers is to assist the Director in deciding when to start take-offs, and to provide information to competitors about the thermal prospects.

### **8.2 Timing of Flights**

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To give the Competition Director the information he needs, the pre-flyers must fly when and where he wants them to, even if this results in their landing out.

### **8.3 Limit of Flights**

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When competition flying begins, the pre-flyers have done their job and must land or fly in a designated area as soon as possible so that they do not interfere with competition flying.

### **8.4 Status and Expertise**

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Pre-flyers must be a part of the organization and receive similar benefits as other helpers. They must not be members of teams.

Pre-flyers should be pilots of equivalent skill to the competitors. It should be an honour to be chosen as a wind dummy and good ones are valuable at assisting in task decisions.

The status of pre-flyers and their important role in championships should be recognised.

### **8.5 Other Flyers**

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#### **8.5.1 Free Flyers**

Free flyers and personnel associated with teams must not be permitted to fly the tasks or sections of it; it is particularly important that they do not approach goal fields.

#### **8.5.2 Media**

For each task the Meet Director, after consultation with the Steward, will determine the press flying activity for the day. On days when media flying is to take place the Meet Director is to brief Team Leaders and FAI Officials in advance. It is mandatory for GPS to be carried by all press aircraft and for the pilot to maintain radio communication with the Safety Director; press aircraft are to fly down and land immediately if communications are lost.

### **8.6 Meet and Safety Directors**

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Neither the Meet Director nor the Safety Director shall fly while a task is in progress; end of a task is defined as when all competing pilots have reported back. This does not exclude either official from flying in a helicopter or other such aircraft to aid in a search.

## 9 LOCAL REGULATIONS

### 9.1 Purpose

Local Regulations are provided to supply team leaders and pilots with information and rules which are additional to those already published in the General Section of the FAI Sporting Code and this section. They should also cover those areas where Section 7A or the General Section give discretion or a choice in the rule. They should not repeat material that is published in the other documents.

### 9.2 Hierarchy

Local Regulations may not conflict with rules already published in either the General Section or Section 7A of the FAI Sporting Code. The hierarchy of rules is that Section 7A takes precedence over Local Regulations and the General Section takes precedence over Section 7A.

### 9.3 Format

Local Regulations for FAI First Category events are to be in the order and format used in this sample so that team leaders and pilots become familiar with a consistent layout and order of content. This format should also be used for the practice event prior to a Category 1 championship.

### 9.4 Sample

#### LOCAL REGULATIONS FOR

(Specify Continent e.g. EUROPEAN or WORLD) (Specify Class or Classes) HANG GLIDING CHAMPIONSHIPS  
(Full title of the championships)



AT (Location and country) .....

ON (Dates) .....

ORGANISED BY .....

ON BEHALF OF THE  
FÉDÉRATION AÉRONAUTIQUE  
INTERNATIONALE

(E-Mail) Address of the organising National Aero Club: .....

(E-Mail) Address to which any correspondence should be sent in advance of the event:  
.....

Website where information about the competition can be found: .....

These local regulations are to be used in conjunction with General Section and Section 7A of the FAI Sporting Code. Reference numbers for Section 7A used in this text should be cross checked with the latest edition of Section 7A.

**A. PURPOSE**

The purpose of the championships is to provide safe, fair and satisfying contest flying in order to determine the champion in each Class and to reinforce friendship amongst pilots and nations. **(2.2)**

**B. PROGRAMME**

Registration & Training	.....
Opening Ceremony	.....
First Competition Briefing	.....
Mandatory Safety Briefing	.....
Contest Flying Days	.....
Closing Ceremony & Prize Giving	.....

**C. OFFICIALS**

Competition Director	.....
Safety Director	.....
Deputy Competition Director	.....
Organisation Director	.....
Competition Office Manager	.....
Take-off marshal	.....
Goal marshal	.....
Scoring	.....
Transport Manager	.....
etc.	.....
International Jury      President	.....
Members	.....
Stewards	.....

**1. ENTRY**

**1.1** The Championships are open to all Member and Associated Member countries of the FAI who may enter any number of pilots not exceeding ..... and two additional women in Class .....

**1.2** The maximum team size is .....(If more than one class is run indicate the team size for each class) **(3.2.1)**  
Where there is no separate championship for women, the team size is X + 2. X will be those pilots who qualify for their national team in open selection and there may be up to 2 additional women in the team. **(3.2.5)**

**1.3** Entries must be made on the official Entry Form.

**1.4** The entry deadline is .....

**1.5** The entry fee is ..... per pilot and ..... per team leader and assistant.  
For late entry fee payment (after the entry deadline) .....% surcharge will be applied.  
Applications, with fees paid, not received by the entry deadline may be refused.

**1.6** For the above mentioned fee the organiser will conduct the Championships and provide **(2.5.1)**:  
.....  
.....  
etc.

**1.7** The following NAC's will pay their entry fee directly to the CIVL/FAI account:  
..... **(7.1.3)**

The FAI account details are:  
Credit Suisse Private Banking  
Rue du Lion d'Or 5-7  
Casa postale 2468  
CH-1002 Lausanne  
Switzerland

Account name : Federation Aeronautique Internationale  
 Account number: (Euro) 0425-457968-32  
 IBAN code : CHF31 0483 5045 7968 3200 0  
 Swift code : CRES CHZZ 10A

## 2. CHAMPIONSHIP VALIDITY.

**2.1** To be valid a world championship must have not less than 8 participants in a Class representing not less than 4 countries with entry fees paid and available to fly on the first day.

To be valid a continental championship must have not less than 8 participants in a Class representing not less than 3 countries with entry fees paid and available to fly on the first day. **(2.4.3)**

**2.2** The title of World or Continental Champion shall only be awarded if the sum of the daily winner's scores is equal to, or more than 1500 points, as determined by the GAP scoring formulas. **(2.4.6.1)**

## 3. GENERAL COMPETITION RULES

### 3.1 REGISTRATION

On arrival the team leader and competitors shall report to the Registration office to have their documents checked and to receive supplementary regulations and information. The end of the official Registration period is considered to be the official start of the championship. **(2.13)**

**3.2** The following are required:

- Pilot qualifications
- Evidence of competitor's nationality
- Pilot's valid FAI Sporting License
- Receipt for payment of entry fees by the closing date
- Satisfactory evidence of glider airworthiness **(12.2.6.3)**
- Certificate of Insurance
- GPS of each competitor for registration

**3.3** The registration office will be open from ..... to ..... on .....

**3.4** At the first team leader briefing task advisory and safety committees will be chosen. **(2.6.4 and 2.6.5)**

## 4. WIND SPEED (2.17.11)

The maximum wind speed in which a task shall be flown is ..... This shall be measured at ..... (location).

## 5. EQUIPMENT

### 5.1 Communication equipment

Radio transceivers are permitted. Radios are for communication between competitors, team leaders, drivers and the organisers. Only frequencies allocated by the organisers may be used. All pilots and crews are requested to submit their team frequencies and mobile telephone numbers to the competition director. This information will be used by the competition director for safety purposes. **(2.19.2)**

**5.2** Policy about competition numbers **(2.12)**

**5.3** Etc.

## 6. TAKE-OFF METHODS

### 6.1 Foot launch from hill sites

Depending on the take-off free-take off or ordered launch will be used.

The take off "push" system will be used. **(2.24.6)**

Only pilots ready to take off in the launch lanes are allowed to push.

**6.2** Take-off sites:

.....  
 .....

**6.3 (Aero) Towing**

- Name of the airfield
- Location
- Size and lay-out of the take-off area
- Number of tugs
- Tow rope length
- Weak link strength
- Aero tow release height
- Etc.

**6.4** In the event of dangerous overcrowding in the air around launch the competition director may close the launch temporarily until congestion has eased.

**7. WAYPOINTS**

**7.1** Cylinder starts will be used and these may be either entry or exit. The type of start and the dimensions may vary from task to task and will be specified at each task briefing **(1.6.7.9)**

**7.2** Turn Points will be cylinders of 400m radius unless otherwise specified at the task briefing **(1.6.8)**

**7.3** Goals will be physical and manned by marshals; they must be crossed at a maximum altitude of .....  
Finish timings will be recorded by goal marshals with GPS used as a backup **(13.1)**

**OR**

Goals will be virtual and may be either a virtual line or a cylinder with type, size and co-ordinates specified at the task briefing **(13.1.3)**

**OR**

Goals will be a virtual line with the length and co-ordinates specified at each task briefing. There will also be a manned physical line at those co-ordinates and marshals will record the order of the first ..... gliders crossing that line. The recorded order of finishing will take precedence over GPS tracklog order.

**8. RETAKE-OFF**

A competitor will be allowed ..... take-off(s) to attempt the task within the stated take-off period. A failed take-off attempt or safety problem arising immediately after take-off which results in a landing will not count as one of the permitted number of take-offs. Pilots must report to the Start Marshall before the second take-off attempt. **(2.26.1)**

**9. TASK PERIOD**

Times of window open for take-off and time for the closing of the window, turn points and last landing will be displayed in writing. Any window extension policy will also be displayed in writing.

The minimum period of time that the launch window will remain open for the day to be considered valid is **(2.24.1)**: .....

(For example: 45 seconds per pilot divided by the number of launch points that can be used.)

**10. SCORING AND FLIGHT VERIFICATION**

**10.1** Scoring will be done according to the Race scoring programme, version ..... using the ..... scoring formula. **(5.2.1)**. GAP parameters will be announced at the first team leader briefing. The GPS map datum is ..... (e.g. WGS 84) and the format to be used is ..... (e.g. hddd<sup>0</sup>mm.mmm')

**10.2** GPS track log evidence is the only way to verify and provide data for flights.

The track logs of two GPS's together may be used to provide a required track log.

To be considered valid, the GPS track log has to comply with the current requirements in Section 7A of the FAI Sporting Code, Chapter 17. **(16.2.2)**

**10.3** Team scoring. State approved team score procedure **(5.6)**

**10.4** For scoring purpose, where guest pilots (i.e. those from other continental regions) compete in continental championships they do not appear in scores for that championship but they are not to be filtered out by RACE during the scoring calculations as they will have affected the way some championship pilots fly the task **(5.6.1)**



**10.5** Scoring a stopped task. A task which has been stopped but not cancelled shall be scored if 2 hours have elapsed since the first valid start taken by a competing pilot. **(5.5.8)**

**10.6** A pilot who lands (or limits his flight) to assist another pilot in distress shall be scored for the day. This score shall be the average day-weighted of what he scored in the previous rounds, or the average pilot score if this happens on the first task. However, as the meet progresses that score will change to take into account his average day-weighted scores of the whole meet so the score will be adjusted after each task. The competition director may also award extra points. **(5.5.9)**

**10.7** Pilots may use any model of GPS unit that is compatible with the flight verification software to be used at this event but must, as a minimum, fly with one 3D GPS. The following models of GPS instrument will be supported.....

Pilots with other models may be required to provide hardware, software and methodology for downloading.

## **11. PENALTIES (5.8)**

Give details of the penalties that may be awarded by the Meet Director, including those for pilots starting too early.

## **12. REST DAYS (2.21)**

The competition director may declare a rest day after not less than four days of consecutive flying, unless this is the last day of the competition. The policy on rest days will be declared before the first competition day

or

There will be no rest days

or

.....

## **13. COMPLAINTS AND PROTESTS**

The organiser shall publish provisional task results in the evening of the day the task was flown. When this is not possible (late retrievals), they will be published at ..... the next day.

Competitors are recommended to request correction of mistakes as soon as possible. A complaint in writing may be made to the Organiser, preferably by the team leader to request a correction.

The time limit for complaints is ..... on the day following the day when the task in question was flown.

If the complainant is not satisfied with the outcome, the team leader or pilot may make a protest in writing to the Competition Director or his deputy (See General Section chapter 5).

The time limit for protests is ..... hours after publication of the provisional results or the results of the complaint, except that after the last competition task it is ..... hours.

The protest fee is ..... It will be returned if the protest is upheld. **(2.4.7)**

## Annex A to Sample Local Regulations

### ENTRY FORM FOR

(Title of championships, Dates, Location, Country)

Name of National Aero Club

Address

tel/fax \_\_\_\_\_

We wish to enter the following competitors who qualify under the FAI Nationality or Residence Rules (General Section 3.7.):

Name	Nat/Res	Age	Sex	Comp. Class	Sporting Licence n°	CIVL Pilot ID	Pilot Qualification IPPI card

- Note that insurance document should be provided with English translation where necessary
- Contact name and Tel number for medical emergency (e.g. next of kin)
- Medical details (blood group, allergies, etc.)
- Confirmation that qualification criteria met.
- Address /Tel number during competition
- Names of others sharing accommodation

The maximum number of gliders which may be entered is \_\_\_\_\_ with not more than \_\_\_\_\_ in any Class.

Name of Team Leader \_\_\_\_\_

Names/number of Assistants if known \_\_\_\_\_

Names/number of accompanying technical officials if known \_\_\_\_\_

#### ENTRY FEES.

For each pilot (insert amount)

For each assistant (insert amount)

For the Team Leader (insert amount)

For each technical official (insert amount)

Total

This amount is enclosed/will be paid by (date) \_\_\_\_\_  
 in the form of (currency) \_\_\_\_\_ .

The following is included in the entry fee:

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---

---

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---

I/We declare that the above information is true, and that all the pilots meet the required qualifications for entry to this competition (evidence attached) as per rule 2.11. of Section 7.

Signed \_\_\_\_\_

Name \_\_\_\_\_ Position in NAC \_\_\_\_\_ Date \_\_\_\_\_

**INSURANCE.** It is the responsibility of each competing pilot to ensure that he has valid insurance cover as follows:

- Public liability risk: ..... (give requirements)
- Personal accident/hospitalisation/repatriation..... (give requirements)

The following insurance may be arranged on arrival through the organisers: .....(details)

The organisers will require competitors to provide the following proofs of insurance before flying:  
 .....(details)

**PUBLICITY.** A passport type photograph and a short biographical note for each pilot and the team leader should be provided either with this Entry Form or at latest at Registration

**GLIDER AIRWORTHINESS.** The form of affidavit at Annex B is mandatory and must be signed by the pilot and witnessed or the additional documentation specified in 2.13 produced for prototype gliders.

**WAIVER OF LIABILITY.** The waiver at Annex C should be signed by the pilot, witnessed and produced at registration providing it is legally enforceable in the country hosting the championship.

## Annex B to Sample Local Regulations

### CERTIFIED GLIDER STATEMENT

I, the undersigned, declare that the Class \_\_\_\_\_ glider \_\_\_\_\_ (make) \_\_\_\_\_ (model) I will fly in the \_\_\_\_\_ (Name of event) \_\_\_\_\_ Championship, from \_\_\_\_\_ to \_\_\_\_\_ (dates) is certified by one or more of the internationally recognized certifying bodies (namely the DHV, HGMA or the BHPA). Furthermore I declare that it is in certified configuration and I undertake not to alter this configuration. I understand that I am the sole individual responsible for the integrity of my glider.

Signed on this date: \_\_\_\_\_

\_\_\_\_\_  
Signature of Participant

\_\_\_\_\_  
Printed name of Participant

Address of Participant: \_\_\_\_\_

\_\_\_\_\_  
Signature of Witness

\_\_\_\_\_  
Printed name of Witness

Address of Witness: \_\_\_\_\_

**If your glider is not a certified model or is not in certified configuration**

**DO NOT SIGN THIS STATEMENT**

**but instead comply with Section 7A 12.2.6.3**

## Annex C to Sample Entry Form

### RELEASE OF LIABILITY, WAIVER OF LEGAL RIGHTS

Please read carefully. This is a release of liability, waiver of legal rights :

1. I am a participant in the ..... Championships held at ..... from ..... to .....200\_ "the Championships"). I acknowledge that participating in the Championships or any other activity related thereto (collectively, the "Events") involves INHERENT DANGERS, may be HAZARDOUS and involves RISK OF PHYSICAL INJURIES OR DEATH. I expressly assume all risks associated with participating in the Events, including, without limitation to direct participation in the Championships or in training sessions, accessing restricted areas, sharing area facilities with people not directly involved in the Events and travelling in and between the Events' venues. Despite all the risks, I voluntarily choose to take part in the Events. (Initials:.....)
2. In consideration of receiving permission to take part in the Events, I agree to release and hold harmless the contest organisers, the ..... National Aeroclub, the property owners of the operation areas (including launch and landing areas), the Fédération Aéronautique Internationale and its ..... Commission de Vol Libre, their respective affiliates, agents, officers, directors, owners, commission or jury members, contractors, volunteers, employees and insurers (collectively, the "Released Parties") from any and all claims I might make as a result of physical injury, including death, or property damage sustained in connection with the Events. I promise not to sue the Released Parties and agree that if anyone is physically injured or property is damaged while I am engaged in the Events, I will have no right to make a claim or file a lawsuit against the Released Parties. The provisions of this paragraph 2 shall not apply to misconduct determined to have been undertaken intentionally or recklessly. (Initials:.....)
3. This Release of Liability, Waiver of Legal Rights supersedes any other agreements or representations by or between the parties and is governed by the laws of ..... I intend this document to be interpreted as broadly as possible. I agree that exclusive jurisdiction and venue for any legal action shall be in .....courts and such courts have personal jurisdiction. (Initials:.....)
4. If any part of this agreement is determined to be unenforceable under the applicable law, all other parts shall still be given full force and effect and the agreement shall be completed in respect of the aspects covered by the part which is declared unenforceable as to give effect to the intent herein expressed to the fullest extent permissible by law. (Initials:.....)

**I HAVE CAREFULLY READ THIS DOCUMENT AND FULLY UNDERSTAND ITS CONTENTS. I AM AWARE THAT THIS IS A RELEASE OF LIABILITY, WAIVER OF LEGAL RIGHTS AND I SIGN IT OF MY OWN FREE WILL.**

Signed on this date : \_\_\_\_\_

\_\_\_\_\_  
Signature of Participant

\_\_\_\_\_  
Printed name of Participant

Address of Participant : \_\_\_\_\_

\_\_\_\_\_  
Signature of Witness

\_\_\_\_\_  
Printed name of Witness

Address of Witness: \_\_\_\_\_

## 10 GUIDELINES FOR ASSISTANCE TO A PILOT IN DANGER

All pilots must pack their gliders immediately after landing: a glider lying open on the ground means "I need help!"  
A pilot witnessing any kind of accident must try to inform the organiser as soon as possible using the safety radio frequency.

It is recommended that all pilots have first aid qualifications.

Calling procedure: "MAYDAY, MAYDAY, MAYDAY". Give details of:

- Nature and location of the accident;
- Position of the victim;
- Name of pilot reporting the accident;
- Description of pilot/glider in trouble.

### 10.1 Rescue actions in competition

#### 10.1.1 The objective:

- To propose to the pilots a list of things to do when they are giving assistance to a pilot.
- To propose to the organiser an idea for a procedure for the rescue service.
- To push the pilots to assume their responsibilities in case of an accident, avoiding the possibilities of an excess of zeal, which could generate an excess of extra points.

This list could be used by the organiser and/or the jury in order to attribute compensation points to the pilots who gave assistance.

#### 10.1.2 Organization duties:

- A radio arrangement that covers the whole course.
- To make clear & precise decisions with the injured pilot and/or with the pilot who is giving assistance.
- If possible put the rescue aid in touch with the accident area.
- Transmit all information to the rescue aid (general state of the injured, location, etc...)
- Cancel the rescue action (if needed) if it was asked by some persons external to the competitions.

#### 10.1.3 Obligations of the injured pilot.

If he is physically able, the pilot must:

- Take some landmarks in order to facilitate the location of the accident zone and the altitude of the accident and the GPS co-ordinates.
- To make contact with the organisation from the air by radio or by mobile phone (better radio contact).
- Alert message like My name is...number....

#### 10.1.4 Obligations of pilots who witness an accident.

If at all possible, the pilot must:

- Contact control and state that: I am a witness of an accident at such place.
- The injured has a glider of such construction....., such colour.....
- I can/can't land close to him
- What must I do?
- If possible, His name is.....his number is.....Can he speak, can he move ?

#### 10.1.5 Waiting for the organization decision and then

Land near by, or stay in the air, close to the accident for a better localisation, or go on with the task.

#### 10.1.6 If radio contact with the organization is impossible

- Throw a flare
- If there is another pilot near by, or in radio contact with you ask him to contact the organization landing near a telephone, stay in an area that allows the maximum contact with the pilot in order to give information about how the rescue is progressing.
- If you are alone, you have to judge according to the area, the impact, the presumed state of the pilot, whether you would do better to land nearby the injured pilot or land near to a telephone.

#### 10.1.7 Further information to give to organization on reaching the injured pilot

- Accessibility of the injured, distance of the 1<sup>st</sup> road, trees, slope, cliffs, etc.
- State of the injured pilot: conscious/unconscious, pulse, breathing, mobility, opened fracture/closed fracture, internal/external haemorrhage etc.

#### **10.1.8 Protect & rescue the injured pilot**

- Avoid injuring yourself, land only if you can do so in total security
- Approach calmly to the injured pilot. If possible approach from the side or from below in order to avoid falling stones.
- Secure the zone.

#### **10.1.9 Once discovered**

Once the rescue team have the location of the injured pilot, prepare the area for the arrival of a helicopter (fold up the gliders) and protect the injured pilot:

- Do not move him.
- Cover him if he is cold.
- Speak to him even if he is unconscious.
- Find out if his vital functions (pulse, breathing) are efficient and do not intervene if you are not competent.
- If you have no choice, intervene medically mouth to mouth/heart massage

## 11 PARTICIPANT INCIDENT POLICY

This policy provides guidelines for censuring the conduct of competition participants with respect to their behaviour towards CIVL representatives, officials or other competitors at CIVL sanctioned meets.

These participants are competitors, team leaders and ground crew. The CIVL representatives are Stewards, Jury members or Technical directors. In addition other meet officials may be considered CIVL representatives under this policy.

In general, practical rulings and other decisions adversely affect the scores of one or more pilots. These pilots, their team leaders or team members may be angered by these decisions.

It is reasonable to expect argument and disagreement on the part of these individuals but abusive language and excessively loud delivery are not acceptable

In addition physical abuse / threats / (hitting, kicking or spitting) is totally intolerable.

The following guidelines are provided for such abusive behaviour.

### 11.1 Procedure

A full report of the incident must be delivered to the CIVL Bureau as soon as possible after the event. For 1<sup>st</sup> Category and practice events the senior CIVL official present is responsible for providing this report. The report should be accompanied by the names and addresses of witnesses if any. The Bureau or a specially appointed committee will review this report, make enquiries and where necessary choose a procedure from the following options

### 11.2 Lesser offences

These offences consist of the use of moderately abusive language or hitting an official with an object not causing physical damage (liquids, paper, dirt, etc.).

Punishment (in order of severity)

- The offending individual and his/her Aero club receives a letter of reprimand from the CIVL
- The offending individual is required to send a letter of apology to the offended official before he is allowed to participate in another CIVL sanctioned event.

### 11.3 Serious offences

These offences include the use of excessively abusive language, hitting an official with fists feet or other body parts as well as hitting with solid objects (sticks, rocks etc.) or otherwise causing bodily abuse (tripping pushing etc.)

#### 11.3.1 Punishment

in order of severity

Note. The punishments in the lesser offences may be invoked as well as the following:

- The offending individual may get a point reduction from his or her score. If the offender is a team leader, the point reduction may be for the entire teams overall score.
- The offending individual may be banned from CIVL sanctioned events for a specific period of time including a lifetime ban.

The Competition Director has the power to immediately ban or disqualify a pilot for physical attack on any official or other competitor.

Abusive behaviour is considered unsportsmanlike like conduct and should be treated as such. Likewise abusive behaviour on the part of CIVL official is considered unprofessional conduct and will be dealt with a similar manner as above. Punishment will be elimination of the official from the roster of acceptable Steward, Jury, Judge or Technical Directors.



## 12 HANG GLIDING SAFETY STANDARDS

### 12.1 Purpose

The purpose of these standards is to insure a certain minimum level of structural integrity and pilot safety in hang gliders of classes 1, 2, 4 and 5.

In general hang gliders should comply with the load test certification standards of, the HGMA, BHPA or DHV, or similar testing body.

Where dimensional limits are applied to structures, these have been chosen such that adequate strength is achievable with materials currently in use.

Reduced strength due to use of unconventional materials meeting these dimensional limits is the competitors responsibility. Where relevant the conventional material is stated.

These standards override the certified configuration of a glider.

### 12.2 Structural limits

#### 12.2.1 Structural Cables

Minimum diameter of any structural external wire cables is 1.9 mm or 5/64 inches.

#### 12.2.2 Wire Attachment Points

Where an external compression strut is braced with rigging wires they must attach within 10cm of the point where the compression load is applied.

Side-wires shall attach to A-frames at no more than 10cm above the plane of the control tube, measured when the glider is resting on a horizontal surface.

*Explanatory Notes: References to compression struts and rigging wires refer to the loads placed on parts of a glider by flight stresses. Gliders with cantilevered wings do not apply compression loads to the uprights, while in general, Class 1 gliders do have uprights which are under compression in flight.*

*Control cables are not deemed to be structural.*

*Any external part of the glider which has compression loads placed upon it during flight is an "external compression strut", and therefore bracing wires attached to it shall conform to these rules.*

*Where the terminology or definitions which are used in these rules are in question with any particular glider, the relevant protest committee will provide a ruling.*

#### 12.2.3 Control Bars (base tubes)

If a control bar is load bearing and made of materials other than metal, it must have an internal steel rigging cable that serves as a structural backup. If a non-metallic base tube (control bar) does not show clear evidence of an internal rigging cable (end pins or vibration when tapped) the pilot must supply a manufacturer's affidavit verifying the presence of a cable in the base tube.

#### 12.2.4 Pilot Suspension Systems

The pilot suspension must include a non-metallic load bearing material of minimum 50 mm<sup>2</sup> cross-section area (normal material Nylon woven webbing with 1000kg breaking strain). The attachment loop must have a backup, which bypasses any mechanical devices and either the main, or backup must be non-metallic. If an integral (one piece) harness suspension/hook-in system is employed, the backup may have a mechanical link which allows it to loop around the keel and attach to itself independently of the primary system.

#### 12.2.5 Rescue Parachutes

A rescue parachute must be capable of deployment by both the right and left hand of the pilot in a normal flying attitude.

### 12.3 Airworthiness of Competing gliders

#### 12.3.1 Airworthiness

Each glider shall be of sufficient performance and standard of airworthiness to meet the demands of international championships. This could be demonstrated by a valid certificate or statement of airworthiness provided by the NAC entering the glider.

#### 12.3.2 Configuration

A Glider showing a certification certificate produced by a CIVL recognised testing body cannot be changed in any way in its configuration. A glider that has been changed in its configuration even slightly in comparison with the

tested model or a glider that has not been tested is considered as a prototype and must comply with the following requirements:

### **12.3.3 Glider identification and documentation**

Each glider must have a serial number for identification and the pilot must produce the following documents:

- The manufacturer's agreement for a nominated pilot to fly the prototype.
- For hang gliders see Safety standards requirements in Chapter 12.

### **12.3.4 Change in glider configuration or construction**

A glider shall fly throughout the championships as a single structural entity using the same standard of components used on the first day. Concessions to this rule are made to cover the case of essential repairs (see 2.16.4. Damage to a glider).

### **12.3.5 Acceptance check.**

All hang gliders must be made available to the organisers during the period of registration, for an acceptance check, in the configuration in which they will be flown. After the opening of the launch window on the first scheduled competition day no changes of hang glider may be made (see 2.16.4.).

### **12.3.6 Airworthiness checks.**

At any time during the championships the organisers and FAI officials have the right to inspect any competing glider and, if necessary, ground it for safety reasons. They may also apply any other penalties listed in these rules and the Local Regulations for non-compliance with class or airworthiness standards.

## **12.4 Pitch Stability**

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CIVL officials at Category 1 events can measure and record sprog settings on competing hang gliders or perform other inspections. All competing pilots should co-operate with the officials in order to collect safety data. This data will be used to provide an understanding of the current safety situation in hang gliding competitions.

## **12.5 Ballast**

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### **12.5.1 Limits**

A competing glider may carry jettisonable ballast only in the form of fine sand or water. A pilot must avoid dropping ballast at any time or in a manner likely to affect other competing gliders or third parties.

The weight limit in Class 5 for all equipment (without glider), clothes and ballast is to be 25 Kg. Any pilot equipped with a second parachute can exceed this limitation by the value of the weight of his second parachute and its deployment system. The weight limit with an additional parachute is 3kg above the 25 kg limit. Weight can be measured at take-off or landing (bare foot with T shirt and trousers, then equipped) by the organisers at the request of the stewards or of the organisers.

In all cases, pilots must also comply with the weight limitations set by the manufacturer and the authority who provided the certificate of airworthiness;

Pilots not complying with those rules will be removed from the meet.

### **12.5.2 Penalties**

The normal penalty for non-compliance is a 20 % reduction in score for the last round flown, except where specified differently elsewhere in these regulations. If during a subsequent round the glider is again found to be non-compliant a 0 score will result for that round. At the discretion of the Meet Director a lesser penalty may be applied in rare cases due to extenuating circumstances.

## 13 ADVICE ON PREPARING A PROTEST

The current version of the CIVL Jury & Steward Handbook contains comprehensive instructions on the procedures involved when a protest is submitted at a 1<sup>st</sup> Category championship. These notes are intended as a guide to team leaders or individuals preparing protests.

### 13.1 Hierarchy of Rules

This will be:

- FAI General Section.
- Section 7, i.e. this book.
- The Local Regulations.
- Any supplementary notices issued subsequently which may have had an effect upon the published rules.

### 13.2 Procedure

Prior to submitting a protest you must have attempted to resolve the problem by means of a complaint to the Meet Director. If your complaint is resolved the procedure stops there, if it is not you may proceed to a Protest and the deadlines for these are specified in the Local Regulation, together with the protest fee. The Meet Director should note the time that a protest is presented to him and pass it to the Jury President without delay.

Protests are submitted by a pilot's team leader on his/her behalf. This is the case even where a team leader may not agree with the protest. If the pilot has no separate team leader he/she may submit the protest personally.

Each protest must be in writing, in English and be accompanied by the protest fee. If the protest is upheld the fee will be returned. It should be headed with the Championship title and the name and nationality of the protestor.

It should be clear what the protest is against e.g. against a decision that the pilot infringed a rule (or rules) or against the penalty awarded for that infringement (points deduction, zero score, DSQ etc. It may not be just a general complaint against the organiser.

It may be that both of the above are protested e.g. "I protest against the decision that I infringed Rule ##. In addition I believe the penalty awarded to be too severe if I had infringed that rule".

The protest should state what redress the protester wants and which rules he/she believes are relevant.

The protest should finish with signature, date and time.

If the protest is against more than one thing the reasons, explanations etc. should be kept separate so as to assist the Jury. For each element of the protest the following should be stated (where applicable):

- (a) The reason you believe the decision or penalty is wrong (quoting Rule numbers if they support the case). E.g. it may be that you believe another pilot has been treated differently in similar circumstances.
- (b) Any witnesses you believe will support your version of events.
- (c) Any mitigating factors.

Where possible you should submit written evidence from any supporting witnesses with your protest.

The jury should deal with the protest as soon as possible. This may involve interviewing witnesses, obtaining evidence from the Meet Director, other officials and the Steward. Since the competition has to continue while this is going on people may be seen separately. The jury may announce their decision at the end of hearing the evidence or may consider matters further on their own before reaching a decision. When a decision has been made it will be put in writing, signed by all jury members and copies made for the jury members, the Meet Director, the protestor and for posting on the official notice board together with the protest.

## 14 AWARDS CEREMONIES AT CATEGORY 1 EVENTS

### 14.1 Introduction

In the past, organisers of FAI Category 1 championships had no clear guidance on how to structure award ceremonies. As a result, the standard of these ceremonies has varied greatly from one event to another and was sometimes of unacceptable quality. To ensure consistency at all FAI Category One event ceremonies, and guarantee that minimum standards of dignity and protocol are adhered to, a standard format for Awards Ceremonies at FAI Category One events has been agreed and is the basis for the following protocols.

### 14.2 Award Ceremony Procedure

#### 14.2.1 Preparation

- The awards podium, FAI flag and the flags of the medal winners and National Anthem of the individual Gold Medal winner and the winning team will be prepared in advance.
- The awards podium will be set up in the following configuration:
  - Silver: Left-hand side (as viewed by spectators) - Second highest podium (2)
  - Gold : Center - Highest Podium (1)
  - Bronze: Right-hand side – The same height or slightly lower than Silver (3)
- A person from the organising staff should escort medal winners to a medal staging area.

#### 14.2.2 Procedure

- The announcer will introduce the award ceremony and then announce each category/class (as appropriate) receiving medals as the winners move into the podium area in order and take up a position behind the awards podium. A member of the organising staff should be on hand to guide competitors to the appropriate position and the order in which competitors move into the area must be in a sequence so as to position the medal winners behind the correct podium.
- The announcer must mention who (with appointment or title) will award the medals and diplomas (this may be the FAI President, Air Sport Commission President, his/her designee or a local dignitary).
- The winning pilots or teams will be called forward by name and country, one by one separately, and in reverse order i.e. Bronze – Silver - Gold. The medal winners will step up onto the podium only when called by the announcer.
- The first Medal-winning individual or team (Bronze) will step up onto the podium, and the medal and diploma will be awarded. Next the Silver-medal-winning Individual or Team will be called to the podium and will receive the medal and diploma, followed finally by the Gold medal presentation, using the same procedure. A moment will be allowed after the award of each medal for photographs.
- After all medals have been awarded, the anthem of the Gold Medal-winning individual or team will be played as their country's flag is raised (if the winner is not representing a country, play the FAI anthem). The flagpoles must be of different heights, with the tallest in the centre for the flag of the 1<sup>st</sup> placed competitor or team, and two shorter ones to the right and left for the 2<sup>nd</sup> and 3<sup>rd</sup> placed competitors or teams. All flags must be raised to the top of the poles. The flag poles must be of an appropriate height for their location, so as to give a distinguished look to the flag ceremony.
- The individual or team winners will pose for group photographs for a minute before stepping off the award podium.
- First, 2<sup>nd</sup>, and 3<sup>rd</sup> placed competitors, and 1st, 2nd, and 3rd placed National teams, must attend the awards ceremonies. Furthermore, all competitors are expected to attend the awards ceremonies.

## 15 RULES FOR GPS FLIGHT VERIFICATION

### 15.1 General

#### 15.1.1 1st Category Events

Flights in Category 1 Championships will be verified using GPS track-log evidence. The FAI have the right to use all data collected in 1<sup>st</sup> Category events, including track logs, and may publish such data.

#### 15.1.2 Notification

The competition organization may only use flight verification software that has been evaluated by the relevant CIVL committee as being suitable and secure. The organiser should publicize a minimum of 3 months before the start of the event which software will be used, by name and version number.

#### 15.1.3 GPS Units

Pilots may use any model of GPS unit that is compatible with the flight verification software to be used at the event (see also 15.6.1). The organiser should state in the Local Regulations which models of GPS instrument will be supported. Pilots with other models may be required to provide hardware, software and methodology for downloading.

#### 15.1.4 IGC Standard Equipment

Competitors who wish to use IGC standard equipment are welcome to do so, provided the competitor provides all necessary hardware, software and methodology for downloading, and all IGC standards are properly followed.

### 15.2 GPS Use

#### 15.2.1 Back-up GPS

A pilot may use multiple GPS's for verification and backup and may submit multiple track-logs to the scorer. The evidence will be chosen so that the pilot's best possible score, from all correctly obtained data, will be taken for flight verification.

#### 15.2.2 Multiple Track logs

Pilots may submit evidence for a flight using data from two (or more) GPS units, each covering part of the flight as long as the Competition Director is satisfied that the data was obtained by the pilot submitting it during the task it is offered as evidence of.

#### 15.2.3 Track log Submission

Flight evidence submitted may only be submitted for the claimed flight.

#### 15.2.4 Registration of GPS Units

The Local Regulations may require all pilots to lodge the make, model and serial number of all GPS devices that they intend to use during the competition with the competition scorer. If the device a pilot nominated is damaged during the competition the pilot may wish to use an alternative device. The competition organiser or launch marshal must be given the make, model and serial number of this alternative device prior to a pilot launching to fly a round for which the pilot hopes to use the device's track-log for verification.

The Competition Director should ensure that each pilot has a unique make, model and serial number combination (i.e. no pilots are sharing devices) and they or their assistants must check the device's make, model and serial number prior to every task verification. Any GPS submitted which does not match the lodged information may be rejected for verification.

### 15.3 Sectors

#### 15.3.1 Size of Sectors

Competitions will be run on the basis of using cylindrical sectors. The radius will be 400m unless specified differently in the local regulations or at task briefing.

#### 15.3.2 Accuracy of GPS sectors

As only GPS evidence is used in a Category 1 competition, physical features on the ground are to be taken as a guide only. The use of virtual turn points not related to ground features are also permissible. The coordinates supplied by the competition organiser will be the turn points, goal and start points that the pilots will fly to except

that, where manned goals are used, the pilots must cross the physical, marked goal line. An error margin of 0.5% will be allowed to compensate for any error in position recording by the GPS instrument.

## **15.4 Track log**

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### **15.4.1 GPS Data**

The pilot must provide an unambiguous track log that shows without doubt that the data was collected;

- By the pilot of the hang glider on the flight in question.
- Of the declared turn point co-ordinates from the correct location in the correct sequence.
- Between the takeoff and landing.
- With all relevant information being present on the track log.

### **15.4.2 Essential Data**

The track log must show for any start, goal or turn point that is claimed for the flight, one of the following:

- A tracklog point within the stipulated sector, plus the allowable sector additions for possible GPS error. The dimensions of sectors may be stipulated either in the Local Regulations or in the task briefing.
- A pair of consecutive tracklog points not more than 30 seconds apart for which a straight line drawn from the first point to the second point passes through the allowable sector, plus the allowable sector additions for possible GPS error

### **15.4.3 Start Data**

Where the point being claimed is a start point and the track-log has 2 points either side of the start at most 30 seconds apart, then the start time is interpolated from these points (constant speed being assumed). Otherwise a start time is taken from the last point within the sector during the start window for exit start sectors or the first point within the sector during the start window for entry start sectors. See 16.5.7.3 for early starts.

### **15.4.4 Missing track log**

If a pilot can produce no track log, written verification by launch officials of take off within the authorised launch window will result in that pilot being scored to minimum distance rather than given a zero score.

### **15.4.5 End of Speed Section**

Where the point being claimed is the end of a speed section and the track-log has 2 points either side of the sector boundary at most 30 seconds apart, then the finish time will be interpolated from these points (constant speed being assumed). Otherwise a finish time is taken from the first (in time) point outside the boundary of the speed section; if the end of the speed section is a goal sector then this will be the first (in time) point within the goal sector.

## **15.5 General Verification Rules**

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### **15.5.1 Minimum Track log Points**

A pilot's track log must contain sufficient track log points to verify all control features of the task that has been set, except that 17.4.4 may be applied for a start. In the event of doubt about track log validity 16.5.8 will apply.

### **15.5.2 Minimum Track log Evidence**

The verification software must confirm that all points used to verify the flight occurred at reasonable times (e.g. on the day in question, between the start of the task and the end of the task, and showing the correct chronology of start and turn points).

### **15.5.3 Evidence of Best Distance on Task**

If goal is not achieved, the end of flight may be taken as to be the point within the track-log closest to the next target (not achieved). If the task is open distance, the end of flight will be the point within the track-log that gives the pilot his/her best position according to the type of open distance being used. The time of the track log point chosen as the finish of the flight must be consistent with the flight being claimed and any landing deadlines that may be in force.

### **15.5.4 Scoring a Stopped Task**

If a task is stopped, and a minimum of one and a half hours has elapsed since the first valid start taken by a competing pilot or at least one pilot is in goal, the task will be scored. Pilots will still be scored up to the point in time when the task was stopped, less a specified "score back" time; this time will be equal to the time between start gates for an elapsed time speedrun or 15 minutes in the case of a task with a single start time. The pilots may submit their track logs to claim their finish of the flight as being the last valid track point prior to the task being stopped, or their best position on course prior to the task being stopped. No other means of flight verification will be accepted if the task is stopped. Pilots who do not present a valid track log will in this case be given a landing score according to an agreed procedure, but aerial photographs claiming a position over the ground will not be accepted. Pilots without a valid GPS track will be at a disadvantage.

### **15.5.5 Missed Features**

If the track log downloads successfully but shows that a pilot has missed feature(s) that the pilot was claiming. The backup track log(s) is to be checked. If no backup exists, or if the backup also fails to provide verification, no other means of verification shall be allowed and the pilot's flight is awarded as the "best flight" that the available GPS evidence verifies.

### **15.5.6 Best Evidence**

If a pilot has undisputed track-log points in the start or finish sector, but does not have a proper track-log which actually crosses the edge of the sector, the pilots start or finish time may be determined from the best evidence

If a pilot has two or more undisputed track logs that each show only part of the claimed flight, then the individual parts of the different track logs can be used to verify different parts of the flight.

If a pilot fails to provide evidence of finish time when required, that pilot is awarded distance points only. If a landing deadline is in effect, or if the task is stopped, then all pilots will have their finish of flight determined by the last valid point on their track logs that is before the stated landing deadline or task stop time.

Mark/Enter created waypoints will not be accepted as evidence of being in sector in 1<sup>st</sup> Category events.

### **15.5.7 Time based disputes**

#### **15.5.7.1 Crossing into start or finish sectors**

If a pilot has undisputed track-log points in the start or finish sector, but does not have a proper track-log which actually crosses the edge of the sector, the pilot's start or finish time may be determined from the best evidence that the pilot's GPS has recorded in respect to the sector.

#### **15.5.7.2 No track-log evidence of start time**

Where GAP2002 is the scoring system a pilot without evidence of start time will be given the start time equal to the start gate opening time. Otherwise, if the launch is within the start sector, and the pilot launches during the start window, but fails to provide proper evidence of start time, then the pilot is awarded a start time equal to the start window open time. The pilots elapsed flight time is then moved so that it begins at the time of the first start time of the pilots in goal (so that the Departure Point system is not compromised). If the pilot's new (artificial) goal time is outside of the advertised goal closing time, the pilot is awarded goal distance only.

#### **15.5.7.3 Early start**

Where a track log shows that the pilot started before the first permitted start time he shall be given a time penalty equal to 10 times the amount of time between his actual start time and the first permitted start time; this time penalty shall be added to his total task time. The maximum amount of early start for this rule to be applied is 5 minutes; any pilot starting earlier than 5 minutes before the first permitted start time shall be scored to minimum distance only. *The FS verification & scoring programme has an optional automatic feature to deal with infringements in accordance with this rule.*

### **15.5.8 Altitude Infringements**

Where vertical infringement of airspace, cloud or briefed altitude limits is considered possible it is the responsibility of the pilot to produce track log or barogram evidence that this did not occur.

### **15.5.9 Rejection of Track Log**

The competition organiser has the discretion to reject any track log, or part thereof if he/she feels it does not show sufficient evidence that the claimed data is genuine. In such cases the pilot is to be awarded zero points for the round.

## **15.6 Pilot Responsibilities**

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### **15.6.1 GPS Equipment**

Each pilot must ensure that he/she has equipment that is secure and compatible with the approved GPS flight verification software that is to be used. The makes and models that will be accepted for flight verification during a competition will be publicised prior to the start of the competition. In 1<sup>st</sup> Category events all pilots must, as a minimum, fly with one GPS unit capable of recording altitude as part of the track log and only track log evidence from 3D GPS units will be accepted as verification of a competition flight.

### **15.6.2 Operating Parameters**

Pilots will be required to correctly set up the operating parameters of their GPS instruments. Failure to correctly set up their GPS instruments may lead to penalties being applied.

### **15.6.3 Landing Verification Form**

Pilots will be required to correctly fill out a landing form with all relevant flight and landing information that they expect to have verified by their track log. Pilots are to sign the form to certify the authenticity of the information that they have provided. Failure to do so may lead to penalties being applied.



## 16 THERMALLING RULES AND TECHNIQUES

It is apparent from the experience of many pilots and officials at category 1 events that quite a few pilots do not know how to thermal effectively and safely with a large group of pilots. Despite the CIVL qualification requirements for the entry of these events, not all countries teach proper technique and etiquette, or may not know the universally accepted procedures. In order to enhance the safety of competitions, these rules are presented, which must be read and understood by all pilots entering CIVL sanctioned competitions.

### 16.1 Aggressiveness

One of the biggest problems in competitions with many pilots is the over-aggressiveness of certain individuals. Over-aggressiveness in crowded skies can lead to mid-air collisions, which can lead to fatalities. Nearly every pilot in a crowded thermal would like to circle tighter to better use the core, but it is impossible to do so without a great disruption of the entire circling group. A pilot that makes close passes to others or avoids clearing all turns endangers everyone, and risks the anger of his fellow pilots which may cause later confrontations. An overly aggressive pilot ultimately hurts his or her own long-term competition results.

Competition directors are required to deal with overly aggressive and unsafe pilots in the following manner: The pilot should be given a warning as soon as a confirmed report of the pilot's dangerous behaviour is presented. If the pilot doesn't stop the dangerous behaviour immediately, the pilot must be removed from the competition.

### 16.2 Entering a thermal

#### 16.2.1 First rule

*The first rule of entering a thermal is to turn in the same direction as the pilots already in the thermal (either clockwise or counter clockwise).* This rule holds strictly even if the thermal is entered well above or below the previous pilot(s). The reason for this last point is that often, lower gliders will climb more quickly and may eventually be at the same level as the higher gliders. Also, in crowded skies it is common for many pilots to join a thermal and pilots coming in between two pilots turning different directions will not know which way to turn. Often this factor results in several groups of pilots at different levels turning in different directions. When these groups merge, chaos and endangerment occurs.

So it must be stressed: Always enter the thermal in the same direction as a previous pilot no matter what the height separation. Often pilots have a turn direction preference, which induces them to turn opposite to the direction already established. Pilots with such strong preferences should not enter a competition until turning to the undesirable side is practiced to the point that the pilot is able to automatically turn in either direction.

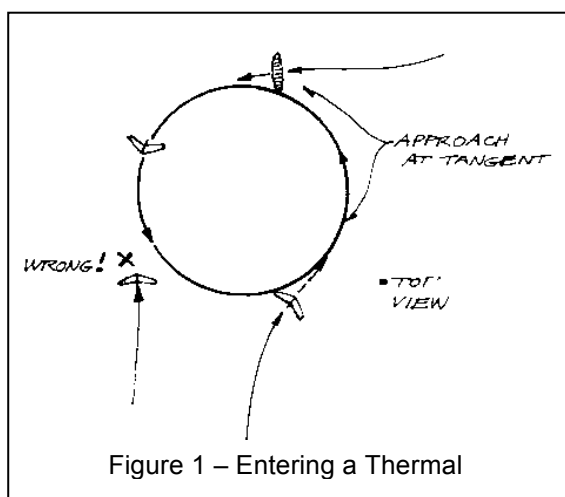


Figure 1 – Entering a Thermal

Which way should a pilot turn when entering a thermal in which pilots are turning in opposite directions? This problem is common enough and difficult. If the pilot is closer to one group (above or below), it's best to turn in the direction of that group. A pilot approaching a thermal with other pilots at similar height must circle in the same direction as the first pilots that reach the thermal.

In general, if a pilot is midway between an upper and lower group it is best to circle in the same direction as the upper group, as these gliders cannot be seen well. If the lower group climbs more quickly, these gliders can be easily seen and the turn direction reversed if required. Do not wait until they are at your level to reverse, since it may result in a mass confusion as some pilots change direction and others don't. Besides, the reason they are climbing up to you may be that their turn direction is more efficient due to a rotating thermal.

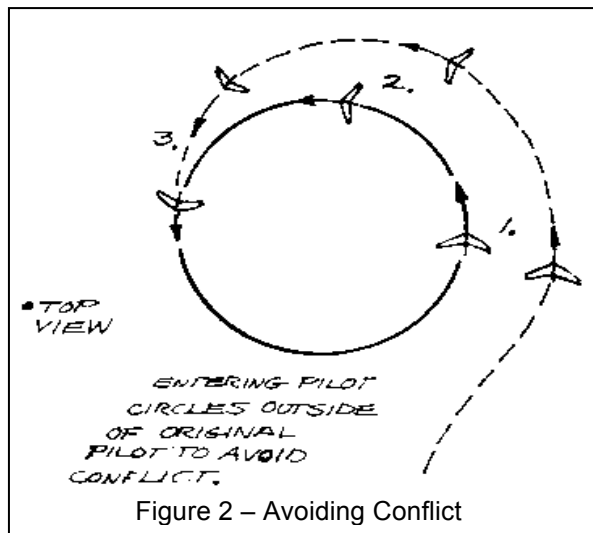
#### 16.2.2 Second rule

*The second rule for entering a thermal is to approach the thermal tangentially to the other glider's circle on the side where he or she is flying away from you.* This procedure allows a simple turn to be made to follow the previous pilot's circling path even if both pilots are at the same level (see figure 1).

Approaching a thermal circle at any point other than the tangent (where the joining pilot's flight path just touches the circle diameter) is *extremely dangerous*. Pilots doing so are guilty of inducing confrontations and possible mid-air collisions.

**Never fly through the middle of a thermal circle.**

It is ideal to arrive at a thermal circle when the pilot already circling is on the opposite side of the circle. The pilot who has established the circle must be watched to see where the tangent point is on the side of the circle being entered. By watching the pilot for two or more 360-degree turns as the thermal is approached, a suitable entry point can be determined and the entering pilot can safely join the circling pattern.



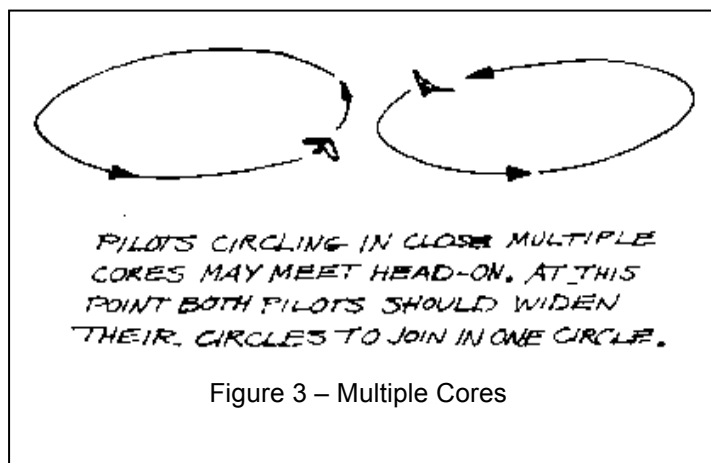
Sometimes the circle is reached when the circling pilot is on the entry side of the thermal. In this case, the approaching pilot should circle on the normal side, but further out from the centre to give the other pilot room to continue to circle with no variation in the established pattern. The entering pilot should then start circling in the same direction with a bigger radius as shown in figure 2, which will soon allow room behind the other pilot so that the ideal path can be joined by tightening up the turn. Naturally, the pilot already circling should maintain a regular circle, both so the other pilot can judge where to be, and to maintain the core position. Cooperating in this manner is what the top pilots do in order to fly more efficiently and assure safety.

### 16.3 Multiple Cores

Quite often multiple thermal cores exist in close proximity to one another. This feature presents a real problem in crowded skies, because these cores often merge as the thermal rises higher. In this instance, when a good core is encountered as a thermal climb is approached, which way is it best to turn? There are benefits and problems relating to turning in either direction. If the turn direction of the nearby circling pilot is adopted, it is possible to enter the established circle simply by making a wider turn as the other core comes closer. On the other hand, the turning gliders will be approaching head-on at the near part of the circle as the cores merge (see figure 3).

If the approaching pilot chooses to circle in the opposite direction, there is not as much head-on confrontation, but the pilot must do a full turn reversal to join the other circle as the cores merge. If other pilots have joined the new circle, this turn reversal can create great confusion and potential conflicts. For the latter reason it is recommended to turn in the same direction as other pilots in a nearby core.

Often thermals can be broken with light multiple cores appearing for a few turns then disappearing. This situation may be a result of weak heating, wind or an inversion layer. When a group of pilots are trying to work such conditions, conflicts can result. Generally, the only safe policy is to use common courtesy and good airmanship. If the cores are short-lived, it doesn't make sense to rush around like crazy towards each pilot that tightens up in a better core. All this does is create conflict with other gliders and the erratic pilot will usually miss the core while knocking out the original pilot or lower ones coming up.



The best policy is to wait until the climbing pilot is clear and enter the core without conflict. That way the entering pilot can tighten up successfully and gain the best climb. Blundering through the group trying to grab everything that is marked will just anger the other pilots who then won't cooperate and will do everything they can to block you're the offending pilot's progress. Remember, overly aggressive pilots ultimately hurt themselves psychologically.

In broken thermals, all pilots should orbit in the lifting area and allow a pilot that hits a surge of lift to tighten up and climb above. That way the crowding becomes less and everyone will have a better chance of getting up. Remember, in such conditions all pilots are your helpers, at least until you get close to goal. The weaker and more rare the lift, the more you need other gliders around to cover more area to find thermals. If you play the game of forcing others out of the lift you find yourself alone in an often fruitless hunt for lift.

## **16.4 General Rules**

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*When a pilot is thermalling in a crowd, the main rule is to maintain constant awareness.* That means looking around continuously to avoid conflicts. You must look to the outside of your turn as well as inside, for often gliders outside of you get forced inward or circling path get offset. Do not get confused by the mass of gliders above or below you. Focus on the ones at your level and a bit above and below.

The second important rule is to maintain a regular, predictable turning circle. Try to keep the same radius turn without varying it so other pilots know where you are going to be as they come around each time. Some pilots get fearful as the crowd increases and they flatten out their turns. This results in a reduce climb rate for everyone and even more crowding as more pilots end up at the same level. Maintain as tight a turn in the core as possible for maximum climb so pilots get spread out vertically, not horizontally.

Two pilots on the same level can work together very nicely at quite steep banks. To do this, maintain a constant bank and remember, as long as you can't see the other pilot he or she has either climbed above you or is on the exact opposite side of the circle and you will not hit. If you flatten out you may end up with a conflict. Three pilots can also work together in this manner if each pilot is very careful to keep a regular circle and the lift is smooth. Four pilots at the same level are too many for the efficient use of most cores.

Be aware of the fact that it always appears that the other pilot is going around your circle. This visual mirage makes you think that the other pilot is turning flatter than you. Don't make this perception error and flatten out or you'll cause conflicts. The only way to tell who is turning flatter is to see who catches up to whom. If you are catching up to the other pilots, you are turning more steeply, and vice versa.

Many pilots use techniques of quickly altering their turns when surges of lift pass through. This practice is overly aggressive in very crowded situations and will eventually get reported with a subsequent penalty. No pilot has the right to endanger others for his or her gain. Pilots should study available publications regarding thermal techniques and thermal procedures.

## 17 COMPETITION SAFETY PRESENTATION

### 17.1 General

A safety meeting attended by all pilots in a CIVL category 1 competition is required. Only by presenting the safety matters relating to the specific site and conditions can there be reasonable assurance that all pilots will have access to the important local safety information. It is mandatory for all pilots to attend such a meeting.

One method of compelling pilots to attend the meeting is to not allow a pilot to score who has not attended the meeting and signed in on a pilot list under the control of an official. Another way is to do the GPS downloads and serial number check-ins at the meeting. There may be a certain amount of resistance to such a mandatory meeting, but even very experienced pilots do not know all the unique factors of a particular site until they have flown there many times. Any very experienced pilot who knows the site may be recruited to help with or put on the safety meeting. It goes without saying that those pilots with lesser skill, experience or judgment will benefit greatly from such a meeting.

It is suggested that this meeting be presented on two different evenings before the competition starts to allow for individual schedule variations. Furthermore, even though it is mandatory, a pilot with a very reasonable excuse may be exempted as long as he or she reads an outline of the course and signs an affidavit stating that all points are well understood. Examples of such an excuse are a delayed or cancelled airplane flight or the rescue of a fellow pilot on the day of the meeting.

### 17.2 Safety Meeting Topics

The following outline consists of items that should be covered in a safety meeting. The potential topics are not limited to this list and should be tailored to the site, the discipline and the conditions involved.

#### 17.2.1 Equipment

##### 17.2.1.1 Gliders

Present a discussion of gliders appropriate for the site and conditions. If, for example landing fields are few and far between or a long way out from the mountain, pilots flying gliders with lesser performance may be cautioned to leave the mountain before getting below a given point. Any type of disallowed gliders for safety reasons should be announced.

Remind pilots to pre-flight their gliders carefully and inspect them for over-all integrity before the meet begins. Remind pilots that shipping damage is common enough and sometimes hidden.

##### 17.2.1.2 Harnesses

Remind pilots to inspect their harnesses and parachute attachment. Review the ballast rules and possibly suggest ballast limits if the site presents a challenging takeoff.

##### 17.2.1.3 Parachutes

Pilots should be reminded to inspect their parachutes and informed of any parachute repacking services available. A review of the parachute emergencies should be presented. The dangers of landing under canopy should be reviewed followed by the procedures once the pilot has landed.

##### 17.2.1.4 GPS units

Pilots should be reminded and walked through the procedures for setting their GPS units to the proper meet settings (map coordinate system, coordinate decimal placement, time, etc.)

#### 17.2.2 Communications

##### 17.2.2.1 Numbers & Frequencies

Pilots should be given the cell phone numbers and radio frequencies for reporting emergencies as well as retrieve and reporting in that they are safe.

##### 17.2.2.2 Rescue Procedures

Review the necessity for a downed pilot to move or bundle up his or her glider immediately if they are uninjured. Pilots should be informed what to do as a victim in the case that they can communicate. A safety card with the meet numbers and what a rescuer should do must be given to all pilots and must be in his or her possession during flight. It should be written in the local language.

##### 17.2.2.3 Procedures for pilots observing an accident.

These should be presented; review the Section 7 rules concerning aiding an injured pilot and inform pilots of the policy on awarding points. Discuss the desirability of remaining aloft above an injured pilot to aid communication and guide ground vehicles, with consideration to the possible arrival of a helicopter.

### **17.2.3 Site Requirements and Conditions**

Most of the above matters are fairly uniform from meet to meet. The real things that can change at different venues are the nature of the terrain and weather factors as presented below. The most important topic at some sites will be the weather factors.

### **17.2.4 Physical Aspects**

Review any particular matters that present challenges or greater risks due to the nature of the site. These may be (but are not limited to) the presence of water, antennas, power lines, cable cars, microwave towers, known turbulent areas, regions with few or hilly landing areas, regions with venturitis (high winds).

### **17.2.5 Launch Procedures**

If launches present a particular challenge (flat, or treacherous in a crosswind, etc.) discuss the limits of safe launching. Review the Launch Director's signal to allow launch and the intended method to avoid too much crowding above launch (such as stopping launches or a mandatory clearing of launch by pilots in the air).

### **17.2.6 Conditions**

Certain areas are notorious for changing conditions and such expected changes should be reviewed to inform pilots what to expect, what the general timing is and how to best handle the conditions. The general daily variation of conditions should be presented so pilots can be prepared. A short discussion of the necessity to launch earlier rather than later can perhaps reduce last minute scrambling (and thus reduced safety) to get off within the launch window.

## **17.3 Personal Health Matters**

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Since Cat 1 meets are typically run over consecutive days for a week or more, many pilots will be flying longer than they are used to. Thus they may run out of energy somewhere in the middle of the meet. When accumulated fatigue sets in, pilots have poorer judgment and may make random errors. Safety is greatly compromised in this case.

### **17.3.1 Rest and Nutrition**

Although it may be futile, it is our duty as organizers to remind pilots to get ample sleep each night. Furthermore, proper nutrition goes a long way towards maintaining energy levels.

### **17.3.2 Hydration**

Finally, one of the biggest factors in aviation accidents is dehydration. Pilots must be reminded to drink adequate liquids throughout the morning of the flight, just before the flight and during the flight. Also hydration after the flight is critical. Mention the dehydrating effects of all alcoholic drinks, and coffee or tea as well as sodas containing caffeine. Meet organizers are advised to have adequate water available at launch for pilots as well as staff. Naturally, desert areas require double attention to these important matters.

## **17.4 Airspace and Other Hazards**

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Pilots should be presented with a map clearly delineating the prohibited airspace (including the pertinent altitudes) and other areas that must be avoided (such as congested areas or irate landowners). Non-landable areas due to landowner hostility or lack of adequate fields should be presented on this map as well.

## 18 SHORT COURSE SPEED EVENTS

### 18.1 Title and Ranking

The title of World or Continental Champion shall be the pilot having the shortest cumulative time including penalties of all the competition rounds

The winning team shall be the team, as defined in 17.3, having the shortest cumulated time for the competition, with allowance made for any bonus or penalty score that forms part of the results.

The procedure for awarding bonus points for landing accuracy, or any other means of scoring must be detailed in the approved local regulations.

### 18.2 Glider limitations

Besides the rules stated in 2.13 concerning the requirements for hang gliders and associate equipment, the wing loading is limited as follows:

The combined weight of the glider, pilot in full flying attire, all ancillary equipment and ballast, shall not exceed a wing loading of 10 kg/m<sup>2</sup> (2.0 lbs/ft<sup>2</sup>).

Exceeding this loading will incur a time penalty.

### 18.3 General competition rules

#### 18.3.1 Radios

Voice activated microphones (VOX) are not allowed.

#### 18.3.2 Course Definition

The Competition Director in consultation with the Steward will define the course.

#### 18.3.3 Course Marking

All tasks will be races down designated courses marked by a combination of Pylons, Height Limit Pylons, Height Limit Gates or other visible markers.

#### 18.3.4 Task Winner

The pilot, who completes the course in the fastest valid time, wins.

The timing will finish as the pilot flies through the finishing gate. However, the WHGS in consultation with the Meet Organisers may award separate/additional points and/or separate/additional prize money for landing accuracy.

#### 18.3.5 Take-off Area

Preparation and takeoff areas will be marked on the ground. Pilots should be able to take off at a rate of at least two per minute providing air conditions permit. Only pilot and the organisational staff are allowed to enter the takeoff area.

#### 18.3.6 Take-off Procedure

The exact takeoff procedure of each event will be announced before the first task and displayed on the information board.

#### 18.3.7 Starting Order

Pilots shall take off in a pre-determined order. The order of the first run in any event will be made by lottery. Thereafter, the take off order will be determined by the pilot position of the previous task; the slowest pilot takes off first and the fastest pilot last.

Pilots disqualified in the previous task, take off before the slowest scoring pilot of the previous task. If in the event of there being more than one disqualified pilot, then their take off order will be determined by their relative take off positions of the previous task.

#### 18.3.8 Starting the Task

Take off must only be from the designated take off area.

The Competition Director will determine the maximum waiting time a pilot may take after being cleared to launch.

## 18.4 Types of start

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### 18.4.1 Flying start

The pilot takes off and then flies through a start timing gate at which point the timing clock starts.

### 18.4.2 Standing Start

The timing of the task starts when the first part of the glider crosses a start line positioned in front of the take off area.

### 18.4.3 Electronic Start

The timing of the task starts when the pilot during take off activates an automatic timing device. e.g. light beam or mechanical barrier

The start type may vary over the course of the championships, but will not vary over the duration of a task. Start type will be announced at the pilots' briefing.

Pilots failing to start in their correct order or within their specified waiting time will be given a new start position and incur a time penalty. The Competition Director will determine both. The penalty will depend on the design of each course and will remain fixed for that course for the duration of the event.

## 18.5 Flying the Task

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The course shall be flown in the direction specified at the pilots' briefing.

All course markers must be passed without any part of the pilot or glider being vertically over, and/or in contact with any part of, the marker. With the exception of Height Limit Gates & Height Limit Pylons, course markers can be negotiated at any altitude. If the pilot misses a pylon or gate, a penalty will be applied to the pilot's time score. This penalty must be declared before the start of the competition begins and remain the same for every round. The penalty should be large enough to prevent intentional missing of pylons but not discourage a pilot from finishing the course. A suggested penalty is 8% to 15% of the average flight time in seconds or 30 to 60 seconds.

To successfully negotiate a Control Gate, the glider must be flown in between the vertical projection of the gate pylons with some part of the pilot's body or glider passing lower than the imaginary line connecting the tops of the two gate pylons. Trailing VG (VB) ropes, harness parts, etc, are not deemed to be a part of the pilot or glider. A gate must be passed through without any part of the pilot or glider being vertically over, and/or in contact with any part of, the gate pylons. If the Height Limit Gate is set on uneven ground, the highest pylon will be deemed the height-limiting pylon.

Single course pylons may be used as Height Limiting Pylons. A Height Limiting Pylon is judged the same as a Control Gate except the pilot does not have to be a limited distance away from the pylon.

### 18.5.1 Finishing the Task

A pilot will be deemed to have finished the task when:

- They have successfully completed the course by clearing all course elements within the maximum time set for the task.
- Their time on the course exceeds the maximum time set for that course
- They fail to take off, are deemed to have landed or contacted vegetation or structure prior to reaching the finishing gate
- In the view of the Meet Officials, they fly in a reckless or otherwise unsafe manner, which risks their own safety or that of other people and/or their property
- After completion of a task, pilots must land within the official landing area. Failure to do so may risk a time penalty or disqualification from that task. The penalty or disqualification will be at the discretion of the Competition Director.

### 18.5.2 Conflict of Flight Path

If a conflict occurs during the crossing of a finishing line due to a pilot catching up with the preceding pilot, the trailing pilot can elect to pass outside the Finish Control Gate on the side which results in the longest flight path. The trailing pilot's time will be stopped when the projection of the finish line is crossed. If it is not obvious which side of the Finish control Gate results in the longest flight path, the Competition Director must declare this beforehand

Pilots must clear the landing area immediately after landing.

## 19 GUIDELINES FOR CLASS II & V DETERMINATION

The Class Definition Committee is continuing the process of investigating the possibility of adding new classes to include more specific design characteristics

These guidelines are intended to provide procedures for manufacturers and the CIVL Classification Technical Committee (hereafter referred to as the *Committee*).

### 19.1 Background

The definition of Class 2 and Class 5 hang gliders includes the requirement that it be capable of being foot launched and landed consistently in nil wind (Refer to 1.5). The reason for this requirement is to preserve the lightweight and simple nature of the class. Weight is the ultimate factor limiting performance, so this requirement helps create a level playing field while allowing reasonable design development. In order for a glider to be classified as Class 2 or Class 5 by the Committee it must be observed to be launched and landed repeatedly in nil wind. Hang gliders with aerodynamic controls that cannot pass this requirement are Class 4 gliders.

### 19.2 Manufacturer procedures

Manufacturers with a new design, intended to be either a Class 2 or Class 5 glider that they wish to enter into a CIVL sanctioned competition must contact the Committee. The Committee will either accept a videotape demonstrating the required takeoffs and landings or the manufacturer may choose to demonstrate the procedure for a Committee member or appointee. Evidence submitted solely by videotape will be ruled by Committee or the Chairman when the Committee is not convened. Evidence from an independent Committee member witness or an appointed witness will be reviewed in a timely fashion. When it is submitted, it is suggested that two weeks be allowed for proper review.

### 19.3 Videotape requirements

Videotape submitted as the sole proof of nil wind capabilities (i.e. there is no official Committee witness) must include the following:

- A continuous film of each flight including takeoff and landing shot from the landing area. A total of two flights demonstrating safe takeoffs and landings must be shown. Both takeoffs and landings must be clearly visible on the videotape. Note: the use of flaps is allowed at any point in the flight.
- The slope of the takeoff must be shown by filming the slope perpendicular to the fall line with the horizon or a visible level as reference. A normal lens setting should be used for at least part of the shooting.
- The wind streamers near the takeoff and near the landing must be clearly shown in the same continuous video as the takeoff and landing. It is suggested that the cameraman zoom in or walk to the streamer while filming.
- Still photos of two landings with a date and time stamp (data back camera) must be submitted along with the videotape as evidence that the flights occurred successively within a reasonable time period.

### 19.4 Further requirements

The maximum angle of the launch slope is 30° from the horizontal.

A light material strip such as Nylon or surveyor's tape or lengths of yarn must be used as streamer material to indicate nil wind (see 1.5). The streamer material must be free from the staff, which can be accomplished by slanting the staff. By definition, slight stirring of the streamer is allowed. We suggest lifting and dropping the streamer to prove it hasn't been artificially stiffened.

Takeoffs and landings, to be successful, must occur solely on the pilot's feet with no part of the glider touching the ground except a wing tip and/or the rear end of the keel (or tail if so equipped).

The manufacturer must declare the weight of the glider as tested.

The manufacturer must submit an affidavit stating the maximum weight of the glider to be used in competition. In addition the wing dimensions including span, root chord, tip chord (measured at the most outboard point where both the trailing edge and leading edge are straight) and area. New editions of a design which change wing loading must be re-examined.



### **19.5 Witness requirements**

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If a Committee member witness is used, no videotape is necessary, but a written report describing the two takeoffs and landings as being successful must be made by the witness. This report must include the takeoff slope angle and the wind observed. Accompanying videotape is desirable. The manufacturer is responsible for all expenses of the witness, including travel, lodging and food. Note: this procedure can take place at any agreed upon site.

If an appointed witness is used, a written report must be made *and* videotape fulfilling the requirements of 14.3 must be submitted. Note: the advantage of this procedure is that it can take place anytime suitable arrangements can be made for an appointed witness to be present.

### **19.6 Committee responsibilities**

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The Committee will meet at the CIVL plenary meeting and rule on any outstanding requests. The Committee will rule on witnessed submissions between plenary sessions in a timely fashion. At least one member must view submitted videotape or the flights in this case. The Committee will maintain a current list of accepted Class 2 gliders on the CIVL web site.

*Special Note:* Wheels are allowed on Class 2 gliders in competition. However, all launches other than tow launches must be performed on foot (see special rules for disabled pilots, 1.5.3.2).

### **19.7 Fairings**

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Fairings are not allowed on Class 5 gliders. For the purposes of this document a pilot fairing is a streamlined structure rigidly attached to the glider frame, partially or fully enclosing that pilot and as much as practical the surrounding structures. The shape of the fairing is designed to minimise the contribution to the total parasitic drag of the glider, the pilot and the pilot surrounding structures. Windscreens fairing the pilot's head that are not directly attached to a helmet are not allowed.

## GLOSSARY OF TERMS AND ABBREVIATIONS

*This section amplifies a number of terms which are used in the main text and gives some generally accepted definitions and abbreviations relevant to air sports*

### Alphabetical

2D GPS	GPS model whose track log does not include altitude coding.
3D GPS	GPS model whose track log includes altitude coding.
Aircraft	See Chapter 2 for definitions, page 2 - 1
Altitude	The vertical distance from mean sea level (MSL). See also 'QNH', and 'Height'.
AMSL	Above Mean Sea Level
ASC	Air Sport Commission responsible for a specific Sporting Code section.
AUW	All Up Weight / Mass
C	(Temperature) - Celsius
Certification	The signature on and preparation of certificates and other documents concerned with the process of flight verification with a view to validation of an FAI Flight Performance
CIVL	Commission Internationale de Vol Libre, the International Hang Gliding Commission
C of A	Certificate of Airworthiness
CP	Control Point
FAI	Fédération Aéronautique Internationale, with its headquarters in Lausanne
g	Acceleration due to gravity (9.81 m/sec <sup>2</sup> )
G	Multiple of gravity force on an aircraft under acceleration
Galileo	The future European GNSS system, equivalent to the Russian GLONASS and the US GPS satellite navigation systems
Geodetic Datum	- The mathematical model of the earth (and its orientation to the earth) which is used in laying out the positional reference system (lat/long, kilometre grid, etc) before the map projection process is used to transform the three-dimensional surface of the earth model (including topographical features and the reference grid) into a flat map sheet. Some 200 Geodetic Datums (GD) are in current use and generally were chosen for the 'best fit' of their particular mathematical model to the shape of the earth over the map area concerned. Lat/long figures, to be unambiguous, should quote the GD used which is normally given in the data at the edge of each map. The WGS 84 Datum is generally accepted as the best simple mathematical model for the <u>overall</u> shape of the earth, and is an ellipsoid with an equatorial radius of 6378.1370 km and a polar radius of 6356.7523 km, and is centred on the earth's centre and orientated to the spin axis. PC-based transformation programmes are available which convert latitudes and longitudes from those relevant to one Geodetic Datum, to WGS 84 or other Datums. Differences vary from a few metres to a few kilometres. These differences are not errors, each lat/long figure is perfectly correct, it is only the different GD (world mathematical model) which changes the lat/long figures for a given point on the earth's surface. Therefore, for distance calculations to be accurate, the lat/longs of points at the beginning and end of the leg concerned must be with respect to the same G (see para 7.3.1.1). The calculations themselves use these standardised lat/longs, applied to a distance calculation formula based on the FAI earth model given in para 7.3.1.1. The WGS 84 Datum can be used in deriving lat/longs for long distance calculations and is used by ICAO and national aviation agencies in defining highly accurate standardised runway datums for the future use of GPS as a runway approach aid.
Geodesic	The shortest distance between two points on the surface of an ellipsoid.
GLONASS	Global Orbital Navigation Satellite System, the Russian GNSS system similar to the US GPS
GNSS	Global Navigation Satellite System (Generic term for all systems such as the Russian GLONASS and the US GPS)
GPS	Global Positioning System (US GNSS System presently managed by the Department of Defense)
GPS (2D)	GPS model whose track log does not include altitude coding.
GPS (3D)	GPS model whose track log includes altitude coding.
GS	The General Section of the FAI Sporting Code
Height	The vertical distance from a given height datum such as the take-off place. See also 'QFE', and 'Altitude'.
HG	Hang Glider
Homologation	The validation of a Flight Performance by an NAC or FAI for record purposes
Host	When used in conjunction with NAC this refers to the NAC in whose territory the event is run.
hPa	Hecto Pascal (Pressure unit, equal to a millibar)
IAS	Indicated Airspeed
ICAO	International Civil Aviation Organisation (HQ in Montreal, Canada)

International Standard Atmosphere (ISA) - The ISA to be used for FAI matters is given in ICAO Document 7488 tables 3 and 4. It assumes a temperature and pressure at sea level of 15°C and 760 mm of mercury (or 1013.25 mb/hPa), and a constant temperature lapse rate from sea level of 6.5°C per 1000 m (1.98°C/3.56°F per 1000 ft) rise in height, up to a height of 11,000 m (56.5°C) which is assumed to be the Tropopause, above which constant temperature is assumed. Pressure figures from this ISA are used in calibration of barographs, because although the real atmosphere varies from day to day, for calibration purposes a set of internationally agreed figures are needed so that all calibrations are to the same datum, whether or not such figures correspond to 'true' height on a given day. A similar principle is used in calibrating pressure altimeters for aircraft, so that all aviation activities have a common standard of pressure height indication in the cockpit.

ISA	International Standard Atmosphere
min	Minute, unit of time (UT), compared to 'arcmin' which is 1 minute of angle
m/s	Metres per Second
MSL	Mean Sea Level
NAC	National Airport Control
O	(FAI Class) - Hang Gliders and Paragliders
O&R	Out and Return
OO	Official Observer
PA	Paragliding Accuracy
PG	Paraglider
QFE	Pressure Setting which indicates zero altitude when at airfield height
QNH	Pressure Setting which indicates height above sea level
S7	Section 7 of the FAI Sporting Code i.e. this section. Also sub-sections 7A to 7D.
Shall	See under 'Wording'
Should	See under 'Wording'
Space	Above the earth's atmosphere, in earth orbit or above
TAS	True Air Speed
TL	Team Leader
TP	Turn Point, also see WP, Waypoint
Tracklog	The record of a flight produced by a GPS
Tracklog point	The individual components of a tracklog
UT	UTC to the local hour convention
UTC	Universal Time Co-ordinated (ex-GMT)
Validation	An act of ratification or official approval. In FAI terms, the act of approving a Flight Performance (or an element of one such as reaching a Turn Point) for FAI purposes.
Verification	The process of checking and assembling evidence with a view to validating a Flight Performance
Vs	Stalling Speed
WAG	World Air Games
WP, Waypoint	A generic term for either a start, turn or finish point claimed as part of a flight performance.
WPRS	A CIVL designed and administered system of ranking pilots from FAI sanctioned competition results.
WGS 84	See under 'Geodetic Datum'
Wording	The use of "shall" and "must" implies that the aspect concerned is mandatory; the use of "should" implies a non-mandatory recommendation; "may" indicates what is permitted and "will" indicates what is going to happen. Words of masculine gender should be taken as including the feminine gender unless the context indicates otherwise. <i>Italics are used for explanatory notes.</i>
WPRS	World Pilot Ranking Scheme