FAI Sporting Code

Fédération Aéronautique Internationale

Section 7D – Class O
Records and Badges

Hang Gliders and Paragliders
Classes 1 to 5

2022 Edition
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Maison du Sport International
Av. de Rhodanie 54
CH-1007 Lausanne
(Switzerland)
Tél. +41 (0)21 345 10 70
Fax +41 (0)21 345 10 77
E-mail: sec@fai.org
Web: www.fai.org

FEDERATION AERONAUTIQUE INTERNATIONALE
MSI - Avenue de Rhodanie 54 – CH-1007 Lausanne – Switzerland

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1 FAI Statutes, ...Chapter 1, ... para. 1.6
2 FAI Sporting Code, Gen. Section, ...Chapter 4, ... para 4.1.2
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 By-Laws, ...Chapter 1, ... para 1.2.1
6 FAI Statutes, ...Chapter 2, ... para 2.4.2.2.5
7 FAI By-Laws, ...Chapter 1, ... paras 1.2.2 to 1.2.5
8 FAI Statutes, ...Chapter 5, ... paras 5.1.1, 5.2, 5.2.3 and 5..2.3.3
9 FAI Sporting Code, Gen. Section, ...Chapter 4, ... para 4.1.5
10 FAI Sporting Code, Gen. Section, ...Chapter 2, ... para 2.2.
11 FAI Statutes, ...Chapter 5, ... para 5.2.3.3.7
12 FAI Statutes, ...Chapter 6, ... para 6.1.2.1.3

Editor's Note:
The FAI Sporting Code for Hang Gliding (hang gliders and paragliders) consists of the General Section and Section 7 combined. Section 7 consists of this section and the relevant discipline subsection. In cases of doubt, consult the General Section to establish the principles before applying the specific rules which appear in Section 7.

Hang gliding (hang gliding and paragliding) 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.

Table of Contents

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.

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. For ease of reading and to allow the various disciplines covered by Section 7 to develop individually it is split into multiple sub-sections:
Discipline specific subsection:
Common. Common rules and recommendations for all Category 1 and Category 2 events across all Hang gliding and Paragliding disciplines.
7A. Hang Gliding (Classes 1, 2, 4, 5) and Paragliding (Class 3) Cross Country.
7B. Paragliding (Class 3) Aerobatics.
7C. Paragliding (Class 3) Accuracy.
7D. 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.

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 7D deals with details of these subjects, which are specific to hang gliders and paragliders.

1.4. General Requirements for Hang Gliders

1.4.1. 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.

1.4.1.1. 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.

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.
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 role 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: Pilot fairings are defined in 10.3 below.
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).

1.4.1.2. Types of classes

For record purposes there are five classes: 1, 2, 3, 4 and 5. Class 5 gliders may set records in both Class 2 and Class 5.

1.4.2. 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:

1.4.2.1. Tow launching

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 1.4.1.

1.4.3. Wheels or similar aids of take-off

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.

1.4.4. Powered hang gliders

1.4.4.1. A powered hang glider or paraglider for Delta or Paragliding badges

A powered hang glider or paraglider may be used to obtain Delta or Paragliding badges provided it complies with 1.4.1 and there is proof that the power source was not operated during the qualifying part of the flight performance.

1.4.4.2. A powered hang glider or paraglider to claim Continental or World hang gliding records

A powered hang glider or paraglider may be used to claim Continental or World hang gliding records provided that it complies with 1.4.1 and there is proof that the power source was stopped prior to the start point and was not capable of being restarted in flight.

1.5. Flight Definitions

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

1.5.1. A flight

A flight by a hang glider starting at take-off (1.5.7.1) and ending with the landing (1.5.12.1) .

1.5.2. Qualifying 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.

1.5.3. Flight performance

The achievement attained during qualifying flight.

1.5.4. Uncompleted flight

A flight is deemed to be uncompleted if:
An accident occurs during the flight resulting in the death of any member of the crew 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.

1.5.5. Types of flight

1.5.5.1. Distance flight

A flight measured for straight-line distance between either a take-off place (1.5.7.2) or a start point (1.5.7.3) and a finish point (1.5.12.3).

1.5.5.2. Goal flight

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

1.5.5.3. Duration flight

A flight timed from take-off to landing. Landing must be completed by twilight or sunset time, according to local air laws (night flying is prohibited).

Note: FAI does not recognise duration as a category for hang glider records.

1.5.5.4. Height flight

A flight measured for height achieved or maintained. Height is defined as the vertical distance from the take-off place or release from tow.
Note: FAI does not recognise height flight as a category for hang glider records.

1.5.5.5. Altitude flight

A flight measured for altitude achieved or maintained. Altitude is defined as the vertical distance from mean sea level.
Note: FAI does not recognise altitude flight as a category for hang glider records.

1.5.5.6. Gain of height flight

A flight measured for gain of height between any low height and the subsequent greatest height during qualifying flight.

1.5.5.7. Speed flight

A flight timed for speed between a start point and a finish point, possibly around one or more turn points, specified in writing before take-off.

1.5.5.8. Free Distance Flight

The Start Point and position checkpoint(s) of free distance record flight performances may be declared post flight. The free distance record types are:

- Free distance: a flight from a start point to a finish point with no position checkpoint.
- Free out and return distance: a closed course flight having one position checkpoint.
- Free distance using up to 3 position checkpoint: a flight from a start point via up to 3 position checkpoints to a finish point. Only the position checkpoint must be at least 10 kilometres apart and may be claimed only once.
- Free distance around a triangle:
- a closed course flight via 3 position checkpoints, independent of the position of the start/finish point. The official distance is given by the sum of the legs of the triangle formed by the position checkpoints.
- a flight around 2 position checkpoint with return to the start/finish point
- the start/finish point is not position checkpoint unless specifically declared as such.

1.5.6. Courses

A course consists of the straight line(s) between a start point and a finish point via any turn or control points in the designated or pre-declared sequence. A closed course may involve one, two, or three intermediate turn points.

1.5.6.1. Declared Course

A course declared in advance in writing by the pilot.

1.5.6.2. Closed circuit course

- Out-and-return Flight: A flight to a turn point with return along the reciprocal course to the start/finish point.
- Triangular Course: a flight around 2 turn points with return to the start/finish point. For badges, there are no constraints on the shape of the triangle, but for records there are. See 3.4
- Polygon Course: A flight around a course with 3 or more turn or control points and with return to the start point. Note: FAI does not recognise the polygon course as a category for records, but they may be used for badges where verified by OLC rules.

1.5.6.3. Lap

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

1.5.7. Start of a flight

1.5.7.1. 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.

1.5.7.2. Take-off place

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

1.5.7.3. Start Point

The take-off place; or the point of release of tow; or the crossing of a start line; or departure from a cylinder observation zone recorded by a GPS or an approved flight recorder.

1.5.7.4. Start time

The time of the hang glider at the start point.

1.5.7.5. Start altitude

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

1.5.7.6. Point of Release

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

1.5.7.7. Start line

A gateway of a designated width and height, the base being specified on the surface.

1.5.7.8. Ground Signal

A ground signal may be used to indicate the start of a task or section of a task. A ground signal may be a start point or a control point.

1.5.7.9. Types of start

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

1.5.8. Turn point

1.5.8.1. Definition of a Turn Point

GPS coordinates, which are precisely specified before take-off.

1.5.8.2. Rounding the turn point

A turn point is rounded when the entire hang glider is proved that the designated observation zone has been entered. See 1.5.13.

1.5.9. 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.

1.5.10. Designated sequence

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

1.5.11. Position checkpoint

A position checkpoint is a point with GPS coordinates, which the pilot proves to have over-flown during a flight of which the route has not been declared in advance.

1.5.12. Finish of flight

1.5.12.1. The Landing

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

- First touches the ground.
- Comes to rest after landing.

1.5.12.2. Landing place

Either the centre of the airfield or the precise place with GPS coordinates, at which the landing is made.

1.5.12.3. Finish point

Either:

- The landing place
- The entry of an observation zone (or optionally a sector, if a flight data recorder is used instead of a GPS).
- For free distance and free distance using up to 3 position checkpoint flights (1.5.5.8) the furthest point flown, measured from the take off or start point.
- For Closed course flight finish point is same as start point.

1.5.12.4. Finish time

The time at which the glider reaches the finish point.

1.5.13. Observation Zone

The zone which it must be proved that the glider entered in order to validate a start point, turn point or finish point. These may be either the FAI Observation Zones (FAI sectors) specified in the General Section or as defined below.

If the flight performance is validated by GPS, a cylindrical observation zone shall be used. If an approved IGC flight data recorder is used, a cylindrical observation zone is preferred, but a FAI sector, as defined in Section 3 (Gliders) of the Sporting Code, as reproduced below in 1.5.13.3,may be used.

1.5.13.1. Cylindrical observation zone

A turn point cylinder may be specified by GPS coordinates and radius. The record or badge distance will be the minimum distance it is possible to fly by entering the specified observation zones. For badges and records, the radius of the turn point shall be 400m equally all around the turn point coordinates.

1.1.1.1.1. Turn Point Cylinder

A cylinder of 400m radius around a set of GPS co-ordinates.

1.1.1.1.2. Start or Finish Cylinder

A cylinder of 400m radius around a set of GPS co-ordinates. Larger radii might be used in competitions; see Section 7A – Class O.

1.5.13.2. FAI sector observation zones

A sector observation zone is the airspace above a 90-degree sector of a cylinder with its apex at the waypoint. This sector is:

a) For a turn point: symmetrical to and remote from the bisector of the inbound and outbound legs of the turn point,

b) For a start point: symmetrical to and remote from the outbound leg,

c) For a finish point: symmetrical to and remote from the inbound leg.

1.5.13.3. Section 3 observation zone

This observation zone is the airspace above a 90-degree sector with its apex at the waypoint. This sector is:

a) For a turn point, symmetrical to and remote from the bisector of the inbound and outbound legs of the turn point,

b) For a start point, symmetrical to and remote from the outbound leg,

c) For a finish point, symmetrical to and remote from the inbound leg.

1.5.14. Claims and records publication

3D track-logs in IGC format must be submitted with all claims. They will be published on the FAI/CIVL website along with the claims. All records will be published along with their track-logs.

2. FAI PROFICIENCY BADGES

2.1. Description

FAI proficiency badges are standards of achievement, which do not require to be renewed. They are intended to provide a graduated scale of difficulty to measure and encourage the development of a pilot's flying skill, particularly in cross-country flying.

The Bronze badge should be achievable by most pilots within the first year of active flying and landing accuracy, with the silver following in the next year or two. The gold badge should be achievable for most pilots within the first five years of cross country flying. The diamond badge should be achievable by perhaps half of all pilots within ten years of flying."

"In any one year, we would expect that for advanced-rated (IPPI 4 or 5) pilots, the bronze badge distance would be flown by 100% of them, the silver badge distance would be flown by more than 75%, the gold badge distance would be flown by 50%, and the diamond badge distance would be flown by perhaps 15-25%. Results may vary from one nation to another, however the qualifications are the same in every country. Delta badges are for pilots flying hang gliders in classes 1, 2 4 and 5. Paragliding badges are for class 3. Accuracy badges are for Paragliders.

2.2. Requirements

Any type of open or closed course may be used for the distance requirement of the Delta and Paragliding Bronze, Silver and Gold badge. For the Delta and Paragliding Diamond badge, the open course may be either straight distance or distance via 3 turn points. The closed course may be out-return, or triangle of any shape.

2.2.1. Delta Bronze Badge (classes: O-1,2,4,5)

- Distance 30 km
- Or Duration 1,5 hours
- Or Gain of Height 500 m

2.2.2. Delta Silver Badge (classes: O-1,2,4,5)

- Distance 100 km
- and Duration 3 hours
- and Gain of Height 1000 m

2.2.3. Delta Gold Badge (classes: O-1,2,4,5)

- Distance 150 km
- and Duration 5 hours
- and Gain of Height 2000 m

2.2.4. Delta Diamonds

There are three separate Delta Diamonds, which may be obtained independently from each other:

- Diamond Open Course: 300 km
- Diamond Gain of Height: 3000 m
- Diamond Closed Course: 300 km

2.2.5. Paragliding Bronze Badge

- Distance 30 km
- Or Duration 1,5 hours
- Or Gain of Height 500 m

2.2.6. Paragliding Silver Badge

- Distance 75 km
- And Duration 3 hours
- And Gain of Height 1000 m

2.2.7. Paragliding Gold Badge

- Distance 125 km
- And Duration 5 hours
- And Gain of Height 2000 m

2.2.8. Paragliding Diamonds

There are three separate Paragliding Diamonds, which may be obtained independently from each other:

- Diamond Open Course: 200 km
- Diamond Gain of Height: 3000 m
- Diamond Closed Course: 200 km

2.2.9. Bronze Landing Accuracy

Four consecutive landings within 1m of the centre of the target

2.2.10. Silver Landing Accuracy

Four consecutive landings with a total score of 1m or less

2.2.11. Gold Landing Accuracy

Four consecutive landings on the pad within 10cm of the centre of the target

2.2.12. Diamond Landing Accuracy

There are three separate Paragliding Diamonds, which may be obtained independently from each other:

- Five consecutive scores of 5cm or less
- Four consecutive landings with a combined total of 10cm or less
- Three consecutive scores of 0

2.2.13. Validity of the flights

Flights achieved before May 1st 2012 do not count for Accuracy badge.

2.3. Special Conditions

- The pilot shall be alone on the hang glider.
- For soaring badges, flights may be completed in any order and any flight may count for any badge for which it fulfils the requirements.
- For Accuracy badges, flights shall be completed in FAI sanctioned competitions, and the scores shall be validated in the final results of the competitions. Drop score is not dropped for the purpose of the record or badge achievement.

2.4. Issue of Badges

Badges shall be issued only with the pilot's NAC approval. The NAC shall keep a register of pilots' names and dates of completion of the badge flights.
Badges may be issued as follows

- The NAC orders badges from FAI and issue them to its pilots; or
- The pilot asks the NAC to approve his/her performance and pay a fee to FAI. The pilot then receives the badge from the CIVL Administrator.

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2.5. Sporting Licence Requirements for Badge Flights

A sporting licence is not required for badge flights. An official observer is recommended for soaring flights, but is not required provided an acceptable validation method is used (e.g. WXC, OLC, Leonardo, etc). In Accuracy flights, the Chief or Event Judge will validate the scores, which are then included in the competition results.

3. WORLD AND CONTINENTAL RECORDS

3.1. General rules

3.1.1. General Section

See Sporting Code General Section, reference Chapter 6.

3.1.2. Fees

The FAI Secretariat charges NACs an administration fee for processing record applications, see "https://www.fai.org/record-breakers-space" for details of current charges.

3.2. Permitted Records

3.2.1. Types of Record for PG and HG

The following types of flight performance may be recognised as hang gliding and paragliding records:

- Free distance
- Straight distance to a declared goal
- Declared distance around a triangular course
- Declared distance using up to 3 turn points
- Declared out-and-return distance
- Free distance around a triangular course
- Free distance using up to 3 position checkpoints
- Free out-and-return distance
- Speed around triangular courses of 25, 50, 100, 150, and all multiples of 100 km
- Speed over out-and-return courses of 100 and all multiples of 100 km
- Gain of height

3.2.2. Types of Record for PGA

- Accuracy landing (PG only): Number of consecutive valid rounds in FAI sanctioned competitions with a score of 0
- Accuracy landing (PG only): Number of consecutive valid rounds in FAI sanctioned competitions with a score of =<5cm together with the sum of those scores measured in cm.

3.2.3. Types of Record for PG Aerobatics

- Number of Infinity tumbling rotations,
- Number of Esfera rotations,
- Number of Misty flip rotations,
- Number of Twister rotations,
- Number of Heli to SAT rotations.

3.2.3.1. Launch type distinction for PG Aerobatics

- Foot launch

- Airborne launch (from helicopter, balloon, D-bag, Roll over, etc)
- Winch

3.2.4. Minimum Increase in Flight Performance

3.2.4.1. Distance flight

To be recognised as a new record all distance flights must exceed the previous record by a minimum of one kilometre, speed flights must better the previous record flight performance by 0,1 km/h the gain of height record must show an improvement of minimum of 100m.
All record achievements shell be rounded to 100m for distance and 0,1 km/h for speed. 50m or 0,05km/h is rounded up.

3.2.4.2. Accuracy flights

To be recognised as a new record all accuracy flights must exceed the previous record by a minimum of one round, or a minimum of one (1) cm.

3.2.4.3. Aerobatics flights

To be recognised as a new record all aerobatics flights must exceed the previous record by a minimum of one rotation.

3.2.4.4. Equal result

If a pilot score equals a previous record, a pilot may claim equal record.

3.2.5. Classification of Records

Records listed in 3.2.1 and 3.2.3 may be claimed in the following categories:

- General category - The best performance achieved by a solo pilot.
- Multiplace category - For the best performance in this category, the age of each occupant other than the designated pilot-in-command shall not be less than 14 years. Only the pilot in command need hold an FAI Sporting Licence but only holders of FAI Sporting Licences can be co-holders of a record .
- Female category - The best performance achieved by a solo woman.

Records listed in 3.2.2 may be claimed in the following categories:

- General category - The best performance achieved by a solo pilot.
- Female category - The best performance achieved by a solo woman.

3.3. Special Requirements

3.3.1. Advance notice

Advance notice is required for all record attempts, except at the competitions where FAI officials are present and proper arrangements have been made to control the attempt. The pilot must make the record attempt declaration to his NAC prior to taking off via email or electronic means.

Only a single declaration may be made for a record attempt, except that free distance and distance to a declared goal may be declared together. Where a declaration for a distance record has been made and the existing associated speed and/or free-distance record is bettered in that flight no separate declaration is required.

3.3.2. Exceptions

Except as stated in 3.3.2.1 or 3.3.2.2., and 3.3.2.3 a GPS or flight data recorders that comply with the IGC (sporting code section 3) standards, and optionally a barograph, shall be used on all record attempts. It must show that no intermediate landing was made and generally substantiate the flight.

3.3.2.1. FAI First Category event

In FAI First Category events a barograph is not required for record and badge flights made during closed circuit tasks, which contribute to the final scores, provided the organiser agrees to provide the necessary flight documentation.
Notification of a record that has been broken during a First Category event can be sent directly to FAI. Such a notification must only include information necessary to prove that the conditions have been met. However the notification sent directly to FAI must also be sent to the record claimants NAC.

3.3.2.2. FAI sanctioned Accuracy competitions

In FAI sanctioned Accuracy competitions, the Chief or Event Judge validates the flights that contribute to record and badge attempts. The scores contribute to the final results, submitted by the organisers to CIVL. For record attempts, consecutive flight scores may be recorded across multiple competitions. The official results of all FAI sanctioned Accuracy competitions, reported as part of the WPRS, can be used to prove a pilot's flight scores are consecutive across competitions, and that he has not competed in additional sanctioned competitions in the interim.
At least one judge from the CIVL list of judges must be judging at the relevant competitions.
Notification must be received by FAI within 7 days of its completion (that starts the day the consecutiveness of the round has been broken) as a record attempt, unless an extension is granted.

3.3.2.3. Aerobatics records

For aerobatics records, there is no need to use a GPS device, but flights must follow rules as stated in 5.2.7.

3.3.3. Breaking records

Any record(s) may be broken on any flight for which the requirements are met, except that:

- On a speed flight over a triangular or out-and-return course only the record distance immediately less than the distance flown will count for a record (e.g. a flight of 207 km may break only the 200 km record).
- On completion of a flight to goal, it is permitted to continue on for straight Distance, the distance being measured from the Start Point to the furthest point flown (1.5.12.).

3.3.4. Task Declaration

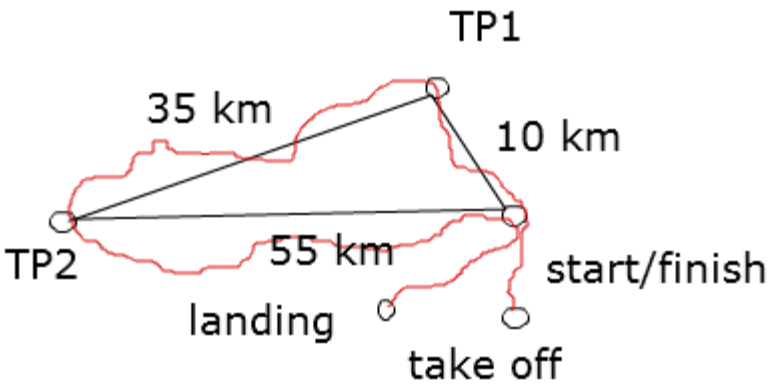
For records, an official observer is required. When a record flight is to be validated by use of a GPS or flight data recorder, the task declaration must state the type of start, turn and finish points to be used e.g. FAI Sector or cylinder. If a GPS is being used to validate the flight, a copy of the task declaration must be filled out and presented to the official observer prior to the start of the flight; additionally, the pilot shall enter the course into the GPS' route table. If an IGC flight data recorder is being used, the declaration needs to be made solely in the instrument itself.
For Accuracy landing no declaration of the task is necessary.

3.4. Additional Conditions

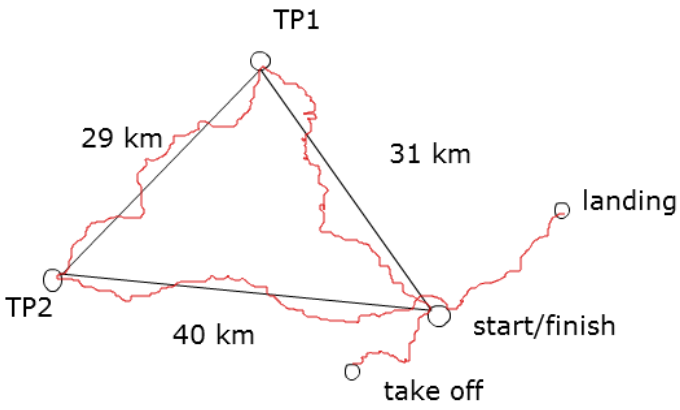
3.4.1. Triangle Courses

For a record no side of a triangular course may have a length of less than 28% of the total distance of the course.

invalid 100-km triangle



valid 100-km triangle



3.4.2. Remote take-off and/or landing point

A pilot may take-off from a point remote from the start point and/or land at a point remote from the finish point of the flight provided that the start and finish points are declared and the pilot is properly controlled over-flying these points. Any distance flown before the start point or after the finish point is not counted towards the course distance.

3.4.3. Altitude differential in record and badge flights

The loss of height permitted between the start altitude and the finish point, regardless of method of launch, is limited as follows:

3.4.3.1. Speed and Distance flights

Speed and/or Distance flights up to and including 125 km. The loss of height must not exceed 2% of the distance flown. No claims will be accepted for flights that do not satisfy this requirement.

3.4.3.2. Speed and Distance

Speed and distance flights exceeding 125km: no time or distance penalty is applied for height differential. Where tow-launch or powered launch of any type is used, release or engine off height must not exceed 1,000m above the ground level of the place of launch.

3.4.3.3. Aerobatics

No limitation in altitude/height at which the manoeuvre can be started. For safety reasons, the minimum height at which the manoeuvre must be completed is:

- Misty flips, Twister and Heli to SAT: 200 m AGL
- Infinity tumbling and Esfera: 400 m AGL

3.5. Continental Records

3.5.1. Administration

Record homologation is to be carried out by the FAI Secretariat and fees should be set by the Secretariat in line with those currently charged for World Records. The claim process for Continental Records shall be the same as the current procedure for claiming World Records.
Both World and Continental record can be claimed on one form.

3.5.2. Principles

- The time limits, process and proofs required for record claims shall be the same as is currently the case for World Records.
- Continental Records shall be available for the same categories and types of flight performance as currently exist for World Records.
- The appeals process for dealing with record disputes should be the same as for World Records.
- Continental Records shall only be permitted for the continental regions specified in the General Section.
- The first date on which continental records may be set is 1st May 2009.

3.5.3. Eligibility

Only pilots who have an FAI Sporting Licence issued by a nation which is a part of a particular continental region may set a Continental Record for that continental region.

3.5.4. Qualifying Flights

3.5.4.1. Where Flown

Continental Records may only be claimed for flights which start within the continental region for which the record is claimed and the majority of the flight is made within that continental region.
This rule does not apply for Accuracy and Aerobatics records.

3.5.4.2. Flight Performance

Minimum flight performance for the initial continental record in any category or type shall be:

i. Where a world record has been previously homologated in any continental region by a pilot from that region the minimum flight performance for any subsequent record must exceed that of the previously homologated world record.
ii. Above the flight performance level of any existing national record set in that continent before the introduction of continental records and notified to the FAI Secretariat by 1st April 2009. These are published on the FAI/CIVL website.
iii. Where no performance is recorded for a given record category and type, the CIVL Bureau may set a minimum level and these are also published on the FAI/CIVL website.

4. TABLE OF CERTIFICATES AND PROOFS – SOARING FLIGHTS

THE FOLLOWING CERTIFICATES, PROOFS AND INFORMATION ARE REQUIRED FOR RECORDS AND FAI SILVER AND GOLD BADGES AND DIAMONDS

Information required	Claim Statement	Evidence of take-off and start	Declaration of goal and turn points	Evidence of reaching each turn point	Evidence of landing or arrival at goal	Barogram or printout of GPS altitude plot	Barogram Calibration	GPS or Flight Recorder
Date of flight	X	X	X	X	X	X		
Name of pilot and address	X	X	X	X	X	X		
Nationality	X							
Type, category and class of record or badge	X	X	X	X	X			
Performance claimed	X							
No. & expiry of FAI Licence	X							
Type & Number of glider	X	X	X	X	X	X		
Type & Number of barograph						X	X	X
GPS Calibration certificate							X	
No intermediate landing						X	X	X
Take-off place	X	X						
Start point	X	X	X					
Start altitude		X						
Start time	X	X						
Type of launch or tow	X	X						
Certificate of aero tow release		X						
Goal and turn points	X		X	X	X			
Time of declaration of above				X				
Time of landing at goal, or finish time	X X				X			
Landing place, if not a goal	X				X			
Altitude at finish point	X				X			
Distance	X							
Distance penalty (if any)	X							
Date & signature of pilot	X		X					
Date & signature of calibration laboratory official(2)							X	
Date & signature of official observer	X	X	X	X	X	X		
Name & sex of passenger(s)		X	X					
Age declaration signed by passenger (s)	X							
Tracklog in IGC format								X

(1) Altitude (record claims only)
(2) Not required for GPS or IGC flight data recorder
Signature of Official Observer with declaration of freedom of interest in the claim.

NB: For Accuracy Badge & Record claims, the proofs required are: A copy (photocopy or scan) of the Official Scoring sheets signed by the pilot and the Chief/Event Judge, and an electronic copy of the final results file sent to the CIVL Competition Coordinator. Badge & Record claims should be made on the PG Accuracy Application form supplied in chapter 7 below.

5. CONTROL AND MEASUREMENT OF FLIGHTS

GS references: chapter 4 - Observers - Officials, chapter 7 - Measurement Requirements

5.1. Special Rules for Hang Gliders & Paragliders

Control of flights shall be effected by official observers except that aero tow pilots may certify the altitude, time and point of release from tow. Official observers are required for all record attempts, and are recommended for badge flights.
Evidence of the landing place shall be taken from the GPS or IGC flight data record track-log, and optionally additionally by witness statement if that witness is an FAI Observer.
For Accuracy flights, control is effected by the Organiser and Chief or Event Judge. No additional observers are required.

5.2. Measurement

The following requirements apply to all flights for records and proficiency badges:

5.2.1. Measurement of distance

For all records and for badge flights, distances shall be measured by GPS or approved flight data recorder. In this case, the GPS datum used shall be WGS84 and the earth model shall be the WGS84 Ellipsoid. See General Section.

5.2.2. Measurement of speed.

The average speed of the flight is the total minimum course distance divided by the elapsed time from the start point to the finish point. See 5.2.4.

5.2.3. Measurement of altitude

Altitude and altitude gain shall be by barograph, or by a GPS or flight data recorder with barometric altitude encoding in the tracklog (3D). A tracklog recording interval not exceeding 1 second shall be used.

5.2.4. Measurement of time

Where a GPS or approved flight data recorder is used to validate a flight and the track-log has 2 points either side of the start or goal line (or cylinder circumference) at most 1 seconds apart, then the start or finish time is interpolated from these points (constant speed being assumed).

5.2.5. Validation Using Start, Turn or Finish Cylinders

The record or badge distance shall be calculated as the minimum distance it is possible to fly by entering the cylinder observation zones. See 1.5.13.3.1. The minimum distance is defined as the straight-line distance between each pair of turn points, decreased by 800 meters for each **turn point** and 400 meters for each **Start/Finish point**.

5.2.6. Measurement of accuracy

For all records and for badge flights, accuracy scores shall be measured by a measuring device according to as specified in Section 7C – Class O, Paragliding Accuracy CLASS 3 (4.3. Automatic Measuring Device), during valid rounds flown in an FAI sanctioned competition (Cat1. or Cat 2) and accepted by the judge(s) included in the official results submitted for that competition.
Only flights achieved on a measuring device with a 2cm DC will count towards records and badges. Flights done on a 3cm or larger DC measuring device will not be counted and will break consecutiveness if pilot competes in such a competition.

5.2.7. Measurement of aerobatics

Altitude shall be measured by barograph, proving that the manoeuvre was stopped at or above the minimum prescribed altitude. See 3.4.2.3. for minimum altitudes.
Video footage from at least 2 (two) different points of view, one of which must point to the pilot and show his action during the entire execution of the flight. The cameras must be used in a way that the manoeuvres and rotations are clearly visible and countable from either of the cameras. Video footage must not be edited, cut or in any other way manipulated and must show record flight from the start of the flight.

5.3. Altitude Distance Relationship

For allowable height loss during record and badge flights see item 3.4.2

5.4. GPS, Flight Recorders and Barographs

A serviceable GPS or approved IGC flight recorder, and optionally a barograph must be used for all badge and record flights. The GPS or flight recorder must record altitude in the track-log (i.e. the track-log is 3D); alternatively, a non-altitude-encoding GPS (i.e. a 2D track-log) may be used if supplemented by a barograph; however, no barograph is required with a 2D GPS for the bronze badge.

5.4.1. The GPS

A GPS track-log with altitude encoding (3D) may be used to validate a claim for a badge or record flight providing the track-log is nearly continuous and provides unequivocal evidence that no intermediate landing was made and it generally substantiates the flight. Interruptions in the track-log will not invalidate the flight provided the gaps do not bring into question the continuity of the flight. Generally speaking, gaps of less than 10 min. are acceptable. GPS units without altitude encoding (2D) may be used alone only for bronze badges; for silver and higher badges, and records, 2D GPS may only be used in combination with a barograph.

- The GPS data (for record attempts) shall be downloaded by the Official Observer using flight verification software (see 5.4.2 below) that reads the GPS directly, produces an IGC formatted file and incorporates a security feature to identify tampering.
- The Official Observer must clear the active GPS track-log before the start of the flight. The GPS memory should contain the start point, any turn points and the declared finish point (in addition to any other points) before the start of the flight. The route, if any, should be activated in the GPS and so observed by the Official Observer at the start of the flight.
- The recording interval of the GPS, if adjustable, should be set to an interval as short as feasible, taking into account the memory capacity of the GPS and the intended length of flight, but in any event equal or less than 1s.

5.4.1.1. 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 take-off and landing.
- With all relevant information being present on the track-log.

5.4.1.2. Essential Data

The track-log must show for any start, finish or turn point that the pilot was in the relevant observation zone i.e. one of the following:

- A point within the normal FAI sector or cylinder.
- A pair of consecutive points not more than 1 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.

5.4.2. GPS and Flight Data Recorder Verification Software

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). It must also have an integral security feature (often known as the G Security Record) which will indicate if a track-log has been tampered with at any point since recording. It is the responsibility of the NAC controlling the record attempt to provide evidence of this security to the FAI, that is, an electronic copy of the secured track-log, in FAI/IGC format.

5.4.2.1. GPS Verification procedures

- Pre-flight procedures are outlined in 5.4.2.
- Post-flight, the Official observer shall take control of the instrument and download, or observe being downloaded, the track-log and the declared turn points. It is recommended to use a purpose-built program like GPSDump, SeeYou or MaxPunkte for this purpose. The observer should then observe the pilot add personal information like name, birth date, start location, glider type, and save the file in a .igc format, ensuring that the G Security record is added.
- The official observer should then test the integrity of the data file with the appropriate validation program (often available with a name similar to vali.exe).
- The observer should now confirm that the pilot entered the observation zone for each turn point. This can be done by simply observing whether the closest track log point is within 400m of the turn point. Alternatively, open the track-log data file with a flight planning and analysis program like CompeGPS, SeeYou or StrePla. The observer should then add waypoints for the task (by downloading them from the instrument), and confirm that the pilot's flight course passed within the observation zones.
- Now the task distance can be calculated, by taking the shortest distance that the pilot must fly. For a speed flight, the elapsed time en route is divided by this task distance.
- Altitude calibration is not required for GPS or flight recorders.

5.4.3. The barograph

If used, the barogram produced by the barograph should endeavour to show that no intermediate landing was made and must generally substantiate the flight. A barogram by itself may not be used to validate a distance measurement.

- It must not be possible to adjust the recording function of the barograph in any way without breaking the seal or the possibility of this being apparent to the Observer
- The barograph must be sealed and opened only by an Official Observer who must observe the print out taking place on electronic barographs
- The barograph must be calibrated not more than 12 months before or one month after the record attempt.
- Calibration is not required for badge flights.

5.4.4. Flight data recorders

GPS units are the preferred instrumentation. However, flight data recorders that comply with the IGC (sporting code section 3) standards may be used. In that case, the pilot should consult Section 3 for further guidance on procedures, since they are slightly different than those for GPS.

5.4.5. Aero tow launches

To aid determination of the start altitude, the glider pilot (and the tug pilot when a barograph is on board) must ensure that a low point or "notch" is indicated on the barogram immediately following release.

6. HANG GLIDERS FITTED WITH A POWER SOURCE

6.1. Principle of Use

A hang gliding record may only be obtained if the power source, after being stopped, CANNOT be restarted in flight. This causes the pilot to fly as a genuine glider pilot with all the disciplines involved. If the engine is merely stopped but can be restarted during the flight in order to get out of trouble, the pilot is not subject to the disciplines of flying a glider and therefore has an advantage.

6.1.1. Records and Badges

For records and badges, the use of a motorised hang glider for FAI gliding record flights may be claimed provided there is proof that the power source prior to take-off was made incapable of being restarted in flight and that requirements, below, are fulfilled.

- Distance, speed and goal flights. No record or badge may be claimed unless the start line is crossed with the power source stopped.
- Height flights. No record or badge may be claimed unless a GPS, or flight data recorder or barograph, is carried and there is proof that the power source was stopped prior to the start of the height gain.

6.1.2. Power source recorder

Many flight data recorders or barographs are or can be fitted with a recorder to indicate when the power source is being operate; however for record attempts, flight data recorders that comply with the IGC (sporting code section 3) standards will be used.

7. TASK DECLARATION FORM

7.1. SOARING TASK DECLARATION FORM

Fill this form (paper, SMS, email, etc) and present it to the official observer prior to the start of the flight. If using a GPS or flight data recorder, also record the course in the instrument itself prior to the flight.

Task:

Class (O-1,2,3,4,5); Category (G, F, M); Description (e.g. 25 km)

Date & Time:

Time of declaration must be before the flight start (for records only; badge flights need not be pre-declared)

Pilot:

Name & signature

Glider:

Class, make, model and serial number

Take-off and Start Pt.:

Description & Coordinates: (e.g. FAI Start Point or Cylinder)

Turn Pt. 1:

(If applicable, description & Coordinates: (e.g. FAI Turn Point or Cylinder with 400m radius)

Turn Pt. 2:

(If applicable, description & Coordinates: (e.g. FAI Turn Point or Cylinder with 400m radius)

Turn Pt. 3:

(If applicable, description & Coordinates: (e.g. FAI Turn Point or Cylinder with 400m radius)

Finish Pt.:

(If applicable, description & Coordinates: (e.g. FAI Finish Point or Cylinder with 400m radius)

Official Observer:

Name, date & signature (O.O. is required for record flights, and is recommended for badge flights)

Fédération Aéronautique Internationale
Application Form for Soaring Flight Badge & Record Claims

Type of Record: World ☐ Continental ☐

Please print clearly!
Name, Nationality _____ Sex _____
Pilot's Address _____
_____
National Aero Club _____
NAC member N° _____
FAI Sporting Lic. N°_____
CIVL ID: _____ Class 3 Category: _____ (Gen. or Fem.)

READ THIS NOW! **NOTES & INSTRUCTIONS** **READ THIS NOW!**

General: The current FAI Sporting Code (General Section and Section 7) defines all requirements for badges & records in hang gliders Class 1,2,3,4, & 5 and should be read in conjunction with current publications from your national aero club (NAC).
Evidence: While it is desirable that all evidence be completed on this form, separate pieces of paper are acceptable if they contain all relevant information and are certified by the Official Observer (O.O.).

OFFICIAL OBSERVER CERTIFICATE (For additional observers, use a separate sheet of paper).
Name of chief controlling official observer (please print):_____
O.O. N°:_____ O.O. Address:_____
I certify I am satisfied with the veracity and completeness of the pilot's documentation, and request that the NAC and/or FAI process the record or badge claim. O.O.
Signature:_____

FLIGHT DETAILS (Required for all flights).
Date of flight:_____ Place of take-off:_____
Type of take-off (foot, aerotow, winch tow, vehicle tow, other):_____
Glider type & serial N°:_____

PASSENGER CERTIFICATE (Only required for multiplace records).
I certify that the passenger is at least 14 years old. Pilot signature:_____
Passenger Name, Age, Sex:_____
Passenger Address:_____
Passenger Signature:_____

AEROTOW / WINCH RELEASE / ENGINE-OFF CERTIFICATE (Required if foot-launch takeoff not used.)
I certify the glider was released at: (exact position):_____
at:_____ hours at:_____ metres AMSL / AGL. O.O. signature:_____
Tow pilot/driver name (print):_____ Tow vehicle registration:_____
Tow pilot/driver signature:_____

BAROGRAPH CERTIFICATE (Required only if barograph was used).
I certify that I inspected the barograph and observed it function before flight. O.O.
Signature:_____
Barograph Model, Serial N°:_____ Flight Recording N° (if applicable):_____
I certify I inspected the barograph after flight; it appeared un-tampered with. . O.O.
Signature_____

GPS CERTIFICATE (Required if GPS was used).
I certify that I inspected the GPS and observed it function before flight.
O.O. Signature_____
GPS (Make & Model):_____ Serial N°_____
I certify I inspected the GPS after flight; it appeared un-tampered with.
O.O. Signature_____
I certify that I was present when the flight tracklog was downloaded using_____(name of tracklog verification program) and that it fully supported the claimed flight_____
O.O. Signature _____

DIFFERENCE of HEIGHT CERTIFICATE (Required for all speed and distance flights).

I certify that the altitude of the pilot at the departure point was_____ metres AMSL.
I certify that the altitude of the finish point is _____ metres AMSL,
providing a difference of _____m.
The distance flown was _____km.
The ratio of distance (in metres) to difference in height is_____
(Determine altitude of pilot at departure point through observation or preferably by inspection of barogram, with barograph clock synchronised to O.O.'s clock, and with pilot communicating to O.O. the time of crossing the departure point.).

ALTITUDE CLAIM (Required for all claims involving gain of height).
Type of claim (Silver, Gold, Diamond, Record, Other):_____
Initial low point of flight _____ m AMSL. Subsequent high pt. _____ m AMSL.
Difference: _____ m.
For barographs only (not GPS): I certify I have examined and found correct the barogram calibration trace made on (date) :_____.O.O. signature:_____

DISTANCE or SPEED CLAIMS (Required for all flights over open or closed courses).
Claim is made for (check off or circle applicable category or categories):

Free Distance: (silver: open course) (gold, diamond: open or closed course)	❑ Silver (HG 100 km) (PG 75 km)	❑ Gold (HG 150 km) (PG 125 km)	❑ Diamond	(HG 300 km) (PG 200 km)	❑ Record
					❑ Record
Distance to goal: Out-and-return or Triangle Distance			❑ Diamond	(HG 300 km) (PG 200 km)	❑ Record
Duration	❑ Silver (3 hr) (HG,PG)	❑ Gold (5 hr) (HG,PG)			

Out-and-return Speed (Course of 100, 200, or 300 km) ❑ _____ km Record
Triangle Speed (Course of 25, 50, 100, 200 or 300 km) ❑ _____ km Record

HG, PG, Bronze badge (open or closed course distance)
❑ Distance 30 km (PG, HG,RW) or
❑ Duration 1.5 hour or
❑ height gain 500m

Claimed performance: _____ km DISTANCE; and/or _____ km/h SPEED; _____ h:min TIME.

TURN POINT/GOAL DECLARATION (Required before flight, otherwise invalid. Data should match Task Declaration Form)
I declare the flight course listed below. Pilot's signature:_____
Takeoff Place:_____ Lat._____°N/S; Long._____ °W/E
Start point:_____ Lat._____°N/S; Long._____ °W/E
1st turn point:_____ Lat._____°N/S; Long._____ °W/E
2nd turn point:_____ Lat._____°N/S; Long._____ °W/E
3rd turn point:_____ Lat._____°N/S; Long._____ °W/E
Finish point:_____ Lat._____°N/S; Long._____ °W/E
Landing point:_____ Lat._____°N/S; Long._____ °W/E
I certify that I witnessed the GPS tracklog cleared before flight, and that I took possession of the GPS after the flight. I examined the GPS tracklog evidence post-flight and verify that the turn points were rounded in the correct sequences and that the pilot's glider entered the observation zones.
O.O. Signature:_____

START & FINISH TIME CERTIFICATE (Required only for speed tasks).
I certify that I have examined the pilot's GPS tracklog, or witnessed cross the start & finish lines, and submit the following times:

Start time:_____ HH:MM:SS; Finish time:_____ HH:MM:SS; Course time:_____ HH:MM:SS.
O.O. Signature:_____

LANDING CERTIFICATE (Required for all distance and speed flights).
I certify that I landed the glider at (exact position):_____
at:_____ HH:MM (landing time). Pilot's signature:_____
O.O./witness name, address (print), signature:_____
2nd witness name, address (print), signature:_____

PILOT'S STATEMENT (Required for all badge and record claims).
I certify that this is a true statement regarding a flight made by me, and I request that the NAC process the claim. Attached is all required supporting evidence. I understand that an incomplete or incorrect application will be returned to the presiding O.O. I certify that the flight was made in accordance with the national air regulations and with the FAI Sporting Code (General Section and Section 7).

Date:_____ Pilot's signature:_____

Fédération Aéronautique Internationale
Application Form for PG Accuracy Badge & Record Claims

Type of Record: World ☐ Continental ☐

Please print clearly!
Name, Nationality _____ Sex _____
Pilot's Address _____
_____
National Aero Club _____
NAC member N° _____
FAI Sporting Lic. N° _____
CIVL ID: _____ Class 3 Category: _____ (Gen. or Fem.)

READ THIS NOW! **NOTES & INSTRUCTIONS** **READ THIS NOW!**

General: The current FAI Sporting Code (General Section and Section 7) defines all requirements for badges & records in hang gliders Class 1,2,3,4, & 5 and should be read in conjunction with current publications from your national aero club (NAC).
Evidence: Photocopies or scans of the official competition scoring sheets, signed by the pilot and the Chief/Event Judge, plus the relevant competition results files (Excel) must accompany this claim sheet.

FAI SANCTIONED COMPETITION DETAILS (List all competitions for which scores count for the badge/record claim).
Name of competition:_____
Dates & Location:_____
Name of organiser/club:_____
Name of Chief or Event Judge:_____
Number of valid rounds flown in the competition:_____

FLIGHT DETAILS (Required for all flights).
Number of consecutive flights/scores contributing to this claim:_____
Scores of consecutive flights recorded:_____
Sum of scores of consecutive flights:_____
Date(s) of flights/scores:_____
Type of take-off (hill/foot launch, winch tow, vehicle tow, other):_____
Glider make & model:_____

CHIEF/EVENT JUDGE DECLARATION (Required for each competition with scores counting towards the claim).
I certify that the pilot scored the above stated scores consecutively in valid rounds in the *(name)* _____competition on *(dates)*_____.
Chief/Event Judge signature:_____

ORGANISER DECLARATION (Required for each competition with scores counting towards the claim).
I certify that the pilot was an official competitor in the *(name)*_____competition on *(dates)* _____and that the results submitted to the CIVL Competition Coordinator were approved by the Chief/Event Judge_____
Organiser signature:_____

PILOT'S DECLARATION (Required for all badge and record claims).
I am submitting this claim for the following Badge and/or Record:
_____
I certify that the information on this form is a true statement regarding the scoring flights made by me, and I request that the NAC process the claim. Attached is all required supporting evidence (Score Sheets and Final Results files). I understand that an incomplete or incorrect application will be returned to the relevant Chief/Event Judge or Organiser. I certify that the flights were made in accordance with the national air regulations and with the FAI Sporting Code (General Section and Section 7).

Date:_____ Pilot's signature:_____

7.2. AEROBATICS TASK DECLARATION FORM

Fill this form (paper, SMS, email, etc) and present it to the official observer prior to the start of the flight.

Task:

Class (O-3); Category (G, F, M); Description (e.g. Infinity tumbling)

Date & Time:

Time of declaration must be before the flight start (for records only)

Pilot:

Name & signature

Glider:

Class, make, model and serial number

Start Pt. and type of start:

Description & Coordinates: (e.g. London, D-bag helicopter)

Official Observer:

Name, date & signature (O.O. is required for record flights)

Fédération Aéronautique Internationale
Application Form for PG Aerobatics Record Claims

Type of Record: World ☐ Continental ☐

Please print clearly!
Name, Nationality _____ Sex _____
Pilot's Address _____
_____
National Aero Club _____
NAC member N° _____
FAI Sporting Lic. N° _____
CIVL ID: _____ Class 3 Category: _____ (Gen. or Fem.)

READ THIS NOW! **NOTES & INSTRUCTIONS** **READ THIS NOW!**

General: The current FAI Sporting Code (General Section and Section 7) defines all requirements for badges & records in hang gliders Class 1,2,3,4, & 5 and should be read in conjunction with current publications from your national aero club (NAC).

Evidence: While it is desirable that all evidence be completed on this form, separate pieces of paper are acceptable if they contain all relevant information and are certified by the Official Observer (O.O.).

OFFICIAL OBSERVER CERTIFICATE (For additional observers, use a separate sheet of paper).
Name of chief controlling official observer (please print):_____
O.O. N°:_____ O.O. Address:_____
I certify I am satisfied with the veracity and completeness of the pilot's documentation, and request that the NAC and/or FAI process the record or badge claim. O.O. Signature:_____

FLIGHT DETAILS (Required for all flights).
Type of claim (Infinity tumbling rotations, Helicopter revolutions, Misty flips,…):_____
Date of flight:_____ Place of take-off:_____
Type of take-off (foot, winch tow, airborne, other):_____
Glider type & serial N°:_____

PASSENGER CERTIFICATE (Only required for multiplace records).
I certify that the passenger is at least 14 years old. Pilot signature:_____
Passenger Name, Age, Sex:_____
Passenger Address:_____
Passenger Signature:_____

AEROTOW / WINCH RELEASE / ENGINE-OFF CERTIFICATE (Required if foot-launch takeoff not used.)
I certify the glider was released at: (exact position):_____
at:_____ hours at :_____ metres AMSL / AGL. O.O. signature:_____
Tow pilot/driver name (print):_____ Tow vehicle registration:_____
Tow pilot/driver signature:_____

BAROGRAPH CERTIFICATE
I certify that I inspected the barograph and observed it function before flight. O.O. Signature:_____
Barograph Model, Serial N°:_____ Flight Recording N° (if applicable):_____
I certify I inspected the barograph after flight; it appeared un-tampered with. . O.O. Signature:_____

VIDEO CERTIFICATE
I certify that I inspected the video from all cameras used and observed it function before flight. O.O. Signature_____
Video camera (Make & Model) _____ Serial N_____
I certify I inspected the video after flight; it appeared un-tampered with. . O.O. Signature_____
I certify that I was present when the video of the flight was downloaded and was not edited in any way and it fully supported the claimed flight._____ O.O. Signature:_____

PILOT'S STATEMENT (Required for all record claims).
I certify that this is a true statement regarding a flight made by me, and I request that the NAC process the claim. Attached is all required supporting evidence. I understand that an incomplete or incorrect application will be returned to the presiding O.O. I certify that the flight was made in accordance with the national air regulations and with the FAI Sporting Code (General Section and Section 7).

Date:_____ Pilot's signature:_____

8. OFFICIAL OBSERVERS

8.1. Authority

Official Observers are appointed by a NAC (or its delegated National Association). They are empowered to control and certificate flights for FAI Records, Badges, Championships and Competitions in their own country and in another country if its NAC gives permission.

8.2. Register

The NAC or its National Association is responsible for keeping a register of its Official Observers, for providing briefing or instruction and ensuring that access to changes to the Sporting Code is available to them. The national register should be reviewed and updated at intervals of not more than 5 years.

8.3. Qualifications

Official Observers must know the Sporting Code General Section and Section 7 and have the integrity to control and certificate flights without favour.
Official Observers may not act as such for any flight in which they are pilot or passenger or have a personal, financial or business interest. (Owning or part owning the hang glider is not of itself considered financial interest.).

8.4. Control

Control means observing of Take-off, Departure, Finish and Landing; checking GPS, flight recorders, barographs, cameras; downloading and print-out of barographs or GPS track logs, and the signing of all certificates covering the evidence concerned for the flight. The observer must also confirm that he has identified the pilot as the individual claiming the record and that he is flying a glider of the appropriate class.

8.5. Certification

Official Observers may only certificate an event at which they were present, except that they may certificate an outlanding if they arrive soon afterwards and there is no doubt about the position of the landing.
Air Traffic Controllers on duty are considered Official Observers for observation of take-off, start and finish lines, turn and control points and landing.
Aero tow pilots may certificate the altitude, time and point of release from aero tow.
Championship officials are considered as Official Observers for a record or badge flight made during the event and for which the documentation data is used for scoring a valid task.
Independent Witnesses may certificate an outlanding in the absence of an Official Observer. They must give their names, addresses, telephone numbers and e-mail addresses (if any) and state precisely the place and time of landing.
All certificates by people other than registered Official Observers must be countersigned as correct by the Official Observers controlling the flight. If an Official Observer considers he may not be entirely free of interest in the claim he must obtain the countersignature of an independent Official Observer.

8.6. Suspension or Cancellation of Authority

The NAC may suspend or cancel the authority of an Official Observer for negligent certification or wilful misrepresentation.

9. DISTANCE CALCULATION

The preferred method of distance calculation is the GPS or approved flight data recorder, set to use the WGS84 datum and the WGS84 Ellipsoid. However, if the pilot does not have such an instrument, and the flight is less than 100 km, he may use the following calculation method as an alternative.

Either scale the distance off the map directly using a ruler, or else locate the coordinates of the two points of interest. Find a navigational software program that will calculate the distance for you, for example (http://boulter.com/gps/distance/)

10. GUIDELINES FOR CLASS II & V DETERMINATION

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

10.1. 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 1.4). 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.

10.2. Classification Procedures

To be eligible for Class 5 records gliders must have met the classification requirements detailed in Section 7- (Hang Gliders).

10.3. Fairings

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.

11. GLOSSARY OF TERMS AND ABBREVIATION

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.
Altitude	The vertical distance from mean sea level (MSL). See also `QNH', and `Height'.
AMSL	Above Mean Sea Level
AUW	All Up Weight / Mass
Barogram	Record of atmospheric pressure measured by a barograph or similar instrument
Barograph	A self-recording aneroid barometer
C	(Temperature) - Celsius
CASI	Commission d'Aeronautique Sportive Internationale (the Air Sport General Commission)
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
Ellipsoid	A three-dimensional ellipse, commonly used as an Earth model. See under WGS84 ellipsoid
FAI	Fédération Aéronautique Internationale, the world air sports organisation, with its headquarters in Lausanne
FAI Sphere	This has a radius of 6371km exactly, and has a similar volume to that of the WGS84 ellipsoid. Where this is used for distance calculation, the distance for FAI purposes shall be the length of the arc of the great circle joining given points defined by their geographical coordinates, using the same Geodetic Datum for each set of coordinates. A short paper titled "FAI Distance Calculations" giving the appropriate formulas and methodology, is available from the FAI Secretariat. Also, a small PC based distance calculation programme is available by email from the FAI Office.
g	Acceleration due to gravity (9.81 m/sec^2)
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
Geodesic	This describes the shortest distance between two points on the surface of an ellipsoidal world model. It is the ellipsoid equivalent to a Great Circle on a sphere. Once accurate lat/longs are available based on the same geodetic datum, the ellipsoid /geodesic distance between them can be calculated using one of a number of freeware computer programs that are commonly available. For FAI distance calculation purposes, the WGS84 ellipsoid is used (GS 7.3.1.1). A small PC-based distance calculation program for the WGS84 ellipsoid is available by email from the FAI office.
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 overall 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.
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 hPa Hecto Pascal (Pressure unit, equal to a millibar)
IAS	Indicated Airspeed
ICAO	International Civil Aviation Organisation (HQ in Montreal, Canada) IGC International Gliding Commission, an Air Sport Commission of the FAI
ISA	International Standard Atmosphere
May	See under wording
Min	Minute, unit of time (UT), compared to `arcmin' which is 1 minute of angle m/s Metres per Second
MSL	Mean Sea Level
Must	See under wording
NAC	National Airsport Control
O	(FAI Class) - Hang Gliders and Paragliders
O&R or OR	Out and Return
Obligations	(such as to FAI) Obligations of NACs to the FAI are listed in the FAI Statutes, search for the word "obligations".
OO	Official Observer
OZ	Observation zone, the segment of airspace that a glider must enter to verify flight to a waypoint
PA	Paragliding Accuracy
PG	Paraglider
PHG	Powered Hang Glider
PPG	Powered Paraglider
Proficiency Badges	Badges issued by the FAI for meeting specified flight performance standards
QFE	Pressure Setting which indicates zero altitude when at airfield height
QNH	Pressure Setting which indicates height above sea level
Record(s)	Validated flight performance greater than other validated performances Shall See under `Wording'
Should	See under `Wording'
Soaring	The utilisation of the vertical component of movements of air in the atmosphere for the purpose of sustaining flight, without the use of thrust from a means of propulsion
Sporting Licence	A licence issued by the FAI and mandatory for entrants to international competitions and world or continental record attempts
S7	Section 7 of the FAI Sporting Code i.e. this section. Also sub-sections 7A to 7C.
Sphere	See FAI Sphere
TAS	True Air Speed
TL	Team Leader
TP	Turn Point, also see WP, Waypoint
Track-log	The record of a flight produced by a GPS Track-log point The individual components of a track-log

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
WADA	World Anti Doping Agency
WAG	World Air Games. An international sporting event involving several FAI air sports at the same time, see GS
WP, Waypoint	A generic term for either a start, turn or finish point claimed as part of a flight performance.
WGS 84	See under `Geodetic Datum'
WGS 84 Ellipsoid	This is an ellipsoidal earth model with an equatorial radius of 6378,1370 km and a polar radius of 6356,7523 km. It is centred on the earth's centre and orientated to the spin axis. It is generally accepted as the best simple mathematical model for the overall shape of the earth and is used as the Geodetic Datum in many aeronautical maps. See also under "Geodesic" and "Geodetic Datum". For distance calculations using the WGS84 ellipsoid, a small PC-based program is available by email from the FAI Office.
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 female gender unless the context indicates otherwise. *Italics are used for explanatory notes.*
WPRS	World Pilot Ranking Scheme. A CIVL designed and administered system of ranking pilots from FAI sanctioned competition results.

PRELIMINARY NOTIFICATION OF A NEW RECORD ATTEMPT

Important *! The National Airports Control Organization (NAC) or the Official Observer controlling the attempt* ***must*** *notify FAI of the record claim* **within 7 days** *of the completion of the flight. To ensure quick circulation of the information, we recommend that you send by fax this page to FAI at the following number : +41 21 345 1077 or by Email to <**record@fai.org**>*

Pilot's Name : _____

Nationality / National Aero Club : _____

Class : _ O (Hang Gliders) Sub-class :_____(1, 2, 3, 4, 5)

Passenger's Name : _____

Category :_____(G, F, M) Type: World Continental

Nationality / National Aero Club : _____

Hang Glider Make & Model : _____

	Type of records claimed (speed to goal,	**Performance**	**Date of the attempt**
1°)		(km, km/h, m)	
Place/Course :			
2°)		(km, km/h, m)	
Place/Course :			
3°)		(km, km/h, m)	
Place/Course :			

Name and title of the Official who prepared this claim form : _____

Signature : _____

Seal/Stamp (if any) : _____