



FAI SPORTING CODE

Section 3 – Gliding

Annex D

Rules for the Official IGC Pilot Ranking List



2020 Edition

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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

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Annex D - Rules for the Official IGC Pilot Ranking List

2020 EDITION

CHANGE RECORD
(Baseline: rev 2019_1.0)

Note: Due to the nature of the IGC Ranking List system all changes concerning the actual calculation are applied retroactively also to all previously held championships.

SIGNIFICANT CHANGES

5.5	Competition Quality Factor	Reduction of QF now only by age of event, as per approved proposal 6.3.4 at the IGC Plenary 2020. <i>(introduced: rev. 2020-1.0)</i>
7.2	Pilots Rating score	New formula as per approved proposal 6.3.3 at the IGC Plenary 2020 <i>(introduced: rev. 2020-1.0, corrected rev. 2020-1.2)</i>

MINOR CHANGES

5.2	Competition Rating	Clarified that JWGC and WWGC are examples of “restricted entry” and therefore Cat 1 standard applies <i>(introduced: rev. 2019-1.2)</i>
5.4	Competition Rating Calculation	Clarification that pilots with total score = 0 are to be excluded from the calculation <i>(introduced: rev. 2019-1.4)</i>
5.5	Competition Quality Factor	Clarification that pilots with total score = 0 are to be excluded from the calculation <i>(introduced: rev. 2019-1.4)</i>
5.6	Pilot's Rating Score	Clarified the rules for Two Seater teams and the responsibility of the competition organizer to point out P1 (according to approved proposal 8.3.5 at the IGC Plenary 2019), as well as included an example of an invalid team setup in Cat2 events and how to handle such situation. <i>(introduced: revs. 2019-1.0, 2019-1.3, 2020-1.0)</i>
5.7	Pilot's Score calculation	Included clarifying example and note that also “HC” pilots receive Ranking Points <i>(introduced: revs. 2019-1.5, 2020-1.1)</i>

GENERAL

1.1 PURPOSE OF ANNEX

This Annex is published to provide rules and procedures for the Official IGC Pilot Ranking List (hereafter called the “Ranking List”). The Ranking List shall provide a ranking of Individual pilots as well as countries. Published at <http://www.fai.org/gliding/rankings>.

1.2 BACKGROUND

The Ranking List was established in 2001 and became active from January 2003. At the FAI International Gliding Commission (IGC) Plenum meeting held in Lausanne in March 2006, it was decided that, considering the maturity of the Ranking List and rule set driving the Ranking List, it was reasonable to review the existing rule set, and convert them into an Annex to the FAI Sporting Code Section 3, Gliding.

The establishment of a Ranking List for countries was likewise adopted at the meeting in Lausanne in 2006, and has been included in this Annex.

2 OBJECTIVES

The objectives of the IGC Official Ranking System are

- to represent as accurately as possible the relative performance of competition pilots from their results in national and international soaring competitions
- to promote soaring competition
- to create a focus for promotion of competitive soaring
- to promote the development of a high quality international competition structure
- to create resources within the IGC to enable them to raise the standard of IGC category 1 soaring competitions and improve contact between the media and Soaring.

The IGC ranking system provides an official seeding list of competition glider pilots participating in International contests and contests sanctioned for inclusion.

The Ranking List is updated after each competition.

The Ranking List has three main components: Competition Rating, Pilot Scores and Country Scores.

- The Competition Rating depends on the type of competition, the quality of the pilots competing and the number of competition days.
- The Pilots score is the result of their performance in IGC sanctioned competitions. It is calculated using their personal score relative to that of the winner's and the Competition Rating.
- A Country's Score is based on the average of the 5 highest ranked pilots of that country.

3 SANCTIONED COMPETITIONS

3.1 CATEGORY 1 EVENTS

All IGC category 1 events i.e. World and Continental Championships and Sailplane Grand Prix Finals are automatically included in the Ranking List as category 1 events.

3.2 CATEGORY 2 EVENTS

The results of other international competitions or national championships may also be included in the Ranking List under the following conditions.

They must be organised with the authorization of the relevant National Aero Club (NAC).

They must be approved by the IGC and pay the appropriate sanction fee.

In Nationals Championships, only the results of pilots holding a valid FAI Sporting Licence can be taken into account.

Qualifying Sailplane Grand Prix contests, also rated as Category 2 events, are automatically included in the Ranking List.

3.3 COMPETITION SANCTION FEE

The competition sanction fees will be paid according to the conditions referred to on the Ranking List web page "Enter Competition".

The levels of Sanction fees are determined by the IGC bureau.

4 RANKING LIST MANAGEMENT AND ADMINISTRATION

4.1 MANAGEMENT

The Ranking List is managed and administrated by an IGC Ranking List Manager and an IGC Ranking List Administrator.

The IGC Ranking List Manager is responsible to the IGC for the satisfactory operation of the Ranking List. Comments, complaints or queries about any of the items below shall be directed to the IGC Ranking List Manager:

- Queries regarding the rules, or how the system works;
- Queries relating to your position in the Ranking List;
- Registration of a competition for inclusion in the Ranking List.

Amendment of pilot or competition details shall be directed to the IGC Ranking List Administrator.

Contact details can be found at the FAI/IGC web site.

4.2 INCLUSION OF COMPETITION RESULTS

(The exact time of all deadlines stated below is 24:00:00 UTC.)

4.2.1 Submission of results

The Competition Organizer is responsible for the provision of the final results from the competition.

Results should be submitted within 15 days of the completion of the competition in one of the formats specified on the Ranking List webpage if not otherwise agreed with the Ranking List team.

As a Competition Season runs from October 1st of the previous year to September 30th of the current year, results shall be submitted for inclusion no later than October 31st. Later submissions will not be uploaded and the fee paid will be forfeited.

Example: Competition Season 2019 runs from October 1st, 2018 to September 30th, 2019. Results for any gliding event of the Competition Season 2019 are to be submitted no later than October 31st, 2019.

Results shall include every competitor's Ranking List Identifier, otherwise they are regarded as incomplete and returned to the Competition Organizer for adjustment.

Note: The submission deadline above applies to the complete result, i.e. submitting results without RL-ids, thus incomplete results before October 31st but then failing to submit adjusted results before that date means that the deadline has not been met and the results are not eligible for inclusion.

If a pilot is not previously registered in the Ranking List, his/her Ranking List identifier should be obtained by registering the pilot on the RL web site.

The Ranking List will normally be updated not later than one week after the reception of the results. In urgent cases the RL team can be contacted to upload results sooner.

Final rankings for the recent Competition Season will be calculated and published based on the data included in the Ranking List on December 31st. For practical reasons Preliminary Final Rankings will be calculated and published soon after September 30th based on the data included in the Ranking List by the date of calculation.

Example: Competition Season 2019 runs from October 1st, 2018 to September 30th, 2019. Final rankings for the Competition Season 2019 will be calculated and published based on the RL data from December 31st, 2019. Soon after September 2019 the RL team will calculate and publish Preliminary Final Rankings for the Competition Season 2019. Without this pilots flying in the Southern Hemisphere and producing results for the Competition Season 2020 during the remainder of the Calendar Year 2019 would have to wait for their updated rankings based on the new results until January 1st, 2020.

4.2.2 Pilot details

Basic pilot details such as name and nationality will be taken from the Ranking List. For pilots currently not registered basic details will be taken the material provided by the Competition Organizer. (The pilots Nationality should be given as the country in which his/her sporting licence is issued. IOC Country Codes are to be used).

The pilot can provide additional information directly via the web interface or by contacting the IGC Ranking System Administrator.

4.2.3 Correction of errors

Results are continuously updated and the pilots are therefore encouraged to regularly check their RL profile.

If there are any errors or omissions the organiser or competing pilot shall contact the RL Administrator with the relevant details at the latest by December 31st of the year the Competition Season's end.

Example: Competition Season 2019 runs from October 1st, 2018 to September 30th, 2019. Requests for correction of errors are to be submitted no later than December 31st, 2019.

Requests for correction of errors after above deadline will still be honoured but the final rankings for the Competition Season concerned will not be updated in retrospect.

Note: This is of concern to pilots who, for example have failed to provide their correct RL-id or have been assigned a newly created RL-id instead of using their pre-existing one. Notifying the RL team of such errors after above deadline means that the final rankings of the Competition Season concerned will not be changed, but the pilot's ranking in the Competition Season currently on-going might be positively affected.

4.2.4 Procedure for correction of errors

All requests for correction to pilot or competition details shall be made on line via email to the Ranking List Manager or Ranking List Administrator.

In the event of any dispute regarding the entry of a Competition's results or a pilot's details, the organiser or pilot may make a direct appeal to the IGC Bureau who will decide the matter with finality. Any appeal should be made via the IGC secretary.

5 COMPUTATION OF COMPETITION RATING AND PILOT SCORES

5.1 OVERVIEW

Both Competition Rating and Pilot Scores are expressed as a number from 0 to 1000. Furthermore, a Quality Factor is defined for each Competition, as a number between 0 and 1.

- The Competition Rating depends on the type of competition and on the quality of the pilots competing.
- The Pilot Scores is the result of his/her performance in IGC sanctioned competitions.
- The Quality Factor depends on the number of competing pilots and the number of competition days. The Quality Factor will reduce with the age of a contest.

5.2 COMPETITION RATING

Each contest can have several qualifying competitions, one for each separately scored class in the contest. For ranking purposes, competitions are divided into the following categories:

- Cat 1+: First Category FAI Competitions such as World Championships in each of the FAI classes and the Sailplane Grand Prix Finals.
- Cat 1 standard: First Category FAI events with restricted entry and continental championships, or any other international event approved by IGC as First Category.

Note: This means that Junior WGC and Women WGC are Cat 1 standard. Definition of these restricted entries is made in Sporting Code 3D Annex A section 1.3.4 "Competitions with restricted entries".

- Cat 2: Any other International Competitions or National Championships sanctioned by the IGC for Ranking List inclusion. All Qualifying Sailplane Grand Prix contests are approved as Category 2 events and automatically included in the Ranking List. For advice on competition approval see chapter 3 "Sanctioned Competitions".

5.3 ACTIVE COMPETITION PERIOD

5.3.1 Active Competition Period of Category 1 events

For Category 1 events a maximum of two events in a sequence is scored. The active Competition Period is limited by a maximum of 5 years.

5.3.2 Active Competition Period of Category 2 events

For Category 2 events the active Competition Period is limited by a maximum of 4 years.

5.4 COMPETITION RATING CALCULATION

Competition ratings are calculated using the Pilot Scores (PS) of the 5 highest ranked pilots finishing in the top half of a contest by position, or scoring more than 85% of the winners score.

$$\text{Competition_Rating} = 0.1 \times (5 \times \text{Maximum_Rating} + \text{PS1} + \text{PS2} + \text{PS3} + \text{PS4} + \text{PS5} + 100)$$

The competition rating is limited within the range appropriate to the Competition category outlined below. A minimum Pilot Score is also outlined below and will be used in the event that a greater Pilot Score cannot be achieved by the five highest ranked pilots.

Competition category	Cat 1+	Cat 1 std	Cat 2+
Maximum Rating	1000	980	960
Minimum Rating	960	900	800
Minimum Pilots Score	900	800	620

Note: The number of pilots used for the calculations above includes only competitors with a total score >0. Any pilot with status DNF (Did Not Fly) every single competition day is to be considered a non-competitor and has to be purged from the entry list. Pilots with total score of 0 but at least one competition day where the status is other than DNF, for example DNS or a penalty zeroing the day's pilot score, are considered to have taken part in the competition and are thus to be included in the entry list.

5.5 COMPETITION QUALITY FACTOR

The maximum Rating a pilot can achieve from a given competition is limited by the quality factor. The Base quality factor reduces with the age of a contest.

$$\text{Quality_Factor} = \text{Base_quality_factor} \times \text{Entry_factor} \times \text{Day_factor}$$

with:

$$\text{Entry_factor} = \min((\text{number of pilots with score} > 0) / 10), 1)$$

$$\text{Day_factor} = \min((\text{number of valid tasks}) / 4), 1)$$

Note 1: The min(a, b) function calculates the lesser of a and b, putting both factors in the range of 0 to 1.

Note 2: The number of pilots used for the calculation of Entry_factor according to the equation above includes only competitors with a total score >0. Any pilot with status DNF (Did Not Fly) every single competition day is to be considered a non-competitor and has to be purged from the entry list. Pilots with total score of 0 but at least one competition day where the status is other than DNF, for example DNS or a penalty zeroing the day's pilot score, are considered to have taken part in the competition and are thus to be included in the entry list.

5.5.1 Base Quality Factor of Category 1 events

Base_quality_factor	All Cat1 events
From end of event until 2 years + 3 months after	0.80
From 2 years + 3 months after end of event until 4 years + 3 months after	0.60
From 4 years + 3 months after end of event	0

5.5.2 Base Quality Factor of Category 2 events

Base_quality_factor	Cat 2
From end of event until 1 year + 3 months after	0.60
Reduction per year, starting 1 year + 3 months after the end of the event	0.15

5.6 PILOT'S RATING SCORE

All competing pilots in a sanctioned competition will receive a Rating Score from that competition.

The Pilot Rating Score for Two Seater entries and entries shared by more than one pilot will be awarded to the pilot with the highest Ranking at the start of the competition. This pilot needs to fly all days of the competition. If neither pilot has a current ranking it is the pilot nominated as first pilot or P1. In both cases it is the responsibility of the Competition Organizer to determine the pilot to whom the ranking score shall be attributed and clearly state her/him as P1 in the result list.

Note 1: Since competitions can be held consecutively and the submission of results from prior contests might be delayed a situation can arise where the pilot pointed out as P1 in the beginning of the competition in retrospect has had a lower ranking as the P2. In any such case P1 shall be the pilot having the higher ranking in the RL as published 00:00:00 UTC on the first day of the competition (with first day being the first calendar day where flying could have been scheduled). It is recommended that the Competition Organizer saves a snapshot of the Ranking List or for the pilots in question in order to provide proof in case of later complaints. The RL team also provides the functionality for such snapshot.

Note 2: In Cat1 events the team must consist of the same pilots throughout the competition and both pilots need to fly each competition day. For Cat2 events it is possible to have a team consisting of a P1 who flies all days of the competitions and multiple P2's (even as far as having a new P2 each day) as long as each P2 has lower ranking than the P1. If at any day throughout the competition a P2 has a higher ranking than the designated P1 the original team's performance is to be set to "DNF" (Did Not Fly) that day and a new team, flying the same plane, is to be created, consisting of the originally designated P1 but in this new constellation considered P2 due to his/her lower ranking, and the newly added, higher ranked other pilot designated as P1. This new team is to be added as a full competitor, receiving day score for the days flown in this specific combination of P1+P2 and "DNF" otherwise. Alternatively, if all pilots designated as P1 throughout the competition choose to forfeit their ranking points they can be assigned to a newly created generic pilot, for example named "(team)", with status set to "HC" and "deceased" so that this generic pilot can never be reused. In such case the IGC Ranking List team must be notified as this alternative involves manual intervention.

The competition winner's Rating Score is equal to the Competition's Rating. All the other competing pilots receive a Rating Score proportional to their final scores.

$$\text{Rating_score} = \text{Competition_Rating} \times \text{Pilot's_score} / \text{Winner's_score}$$

5.7 PILOT'S SCORE CALCULATION

The Pilot Score is calculated from the best Rating Scores achieved, taking into account the Competitions Quality Factors.

Keep the best two Cat 1 competitions (those which yield pilot the best Rating Score). Discard all others based on Cat 1 competitions. Keep all Cat 2 Competitions without any number limitation.

Add a "virtual competition" whose Rating Score is pilot's best Rating Score minus 200, with a Quality Factor of 1.

Sort all pilot's Rating Scores by decreasing order.

Add the pilot's Rating Scores multiplied by their Quality Factor together, until the sum of the Quality Factors is at or above 1.

If the sum of Quality Factors is greater than 1, then reduce the last Quality Factor so that the sum of Quality Factors be equal to 1.

If the Virtual Competition was used in this sum, further reduce the last Quality Factor so that the sum of Quality Factors be equal to 0.99, and complete to 1 using the pilots next Rating Score instead of Virtual Competition.

Example: To recap, in order to calculate the ranking points for a pilot, we rate their performance by Pilot Rating Score (PRS) descending. The winner of a comp gets the max PRS and other pilots get a PRS which is a ratio of their points relative to the winners points.

Consider a pilot with results as depicted in the screenshot to the right. This pilot's best performance was in the WGC 2018. This comp was rated at 995.22 points, so the winner received a PRS of 995.22. The pilot thus gets the following Rating Points: $5723 / 5736 * 995.22 = 992.96$.

This comp has a quality factor (QF) of 0.8, so the pilot can use 0.8 of the PRS to calculate ranking points. This yields 794.4 ranking points. There are now 0.2 remaining from 1.0 and we use the pilot's next best performance which were the Europeans 2019. The pilot won this comp, but it is rated at 980 points, lower than the WGC 2018. Rating Points: $0.2 * 980 = 196$. Sum: $794.4 + 196.0 = 990.4$ total ranking points.

If this pilots flies no more comps, the WGC 2018 will be reduced to QF 0.6 when WGC 2020 is flown. Then the pilot's total ranking points will reduce to 987.78 ($0.6 * 992.96 = 595.78 + 0.4 * 980 = 392$). As comps get older the amount of QF that pilots can use from them reduces, so newer comps have more relevance.

Note: Pilots who participate as "HC" are treated in the same manner as everyone else when it comes to the IGC Ranking List: they count in calculation of the Competition Rating and they receive Ranking Points for their respective performance. Participating as "HC" only means that the pilot concerned does not receive the official recognition of a place in the final result list for their respective performance due to some formality mismatch, like being of nationality A but participating in country B's Nationals or flying a glider of deviating class (like being allowed to fly with a Two Seater in Standard Class). Their respective performance is still valid and thus generates Ranking Points.

Rating Points: 990.4					
Latest Competition Results					
Competition	Year	Position	Score	Pilot Rating Score	Rating Points
Nationals	19	1/50	3539	960.00	0.0
European Gliding Championships	19	1/14	3443	980.00	196.0
World Gliding Championships	18	2/48	5723	992.96	794.4
Nationals	18	1/52	3835	960.00	0.0
Nationals	18	1/41	5624	960.00	0.0

5.8 PILOT RANKING

Pilots are ranked upon decreasing Pilot Scores. Ties are initially broken by the highest single pilot rating score if a tie still exists the pilot with the highest ranking on the 30th September of the preceding year will take precedence.

6 COUNTRY SCORES

The Ranking List web site will include a Ranking by country. A Country's rating is defined as the average score of the 5 highest ranked pilots of that country. The Country Scores are updated after each contest is included in Ranking List.

Note: If the Ranking List Country Scores are to be used as a filter for entry into a competition, it is necessary to define a specific date on which the List will apply.

7 COMPETITIONS USING THE SAILPLANE GRAND PRIX RULES

7.1 RATING OF SAILPLANE GRAND PRIX

Sailplane Grand Prix World Finals will be rated as Category 1+. Qualifying SGPs will be rated as Category 2. All Grand Prix competitions will be subject to the application of Ranking List calculations as defined in section 5 of these rules to determine their Rating and Quality factor.

7.2 PILOTS RATING SCORE

Any pilot with a non-zero Pilot's score in the final result list receives a Pilot Rating Score:

$$\text{Rating_Score} = 1000 - 20 \times 20/\text{Number_of_pilots} \times (\text{Pilot_place} - 1)$$



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