



South African Landing Championships

OFFICIAL RULES AND REGULATIONS



AERO CLUB OF SOUTH AFRICA

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## **1 GENERAL**

1.1 The SOUTH AFRICAN LANDING CHAMPIONSHIPS (The Event) is a skills test on the ability to land an aircraft under different circumstances.

1.2 The Event is organized and controlled by THE SOUTH AFRICAN POWER FLYING ASSOCIATION and the AERO CLUB OF SOUTH AFRICA.

1.2.1 The Event will be organized and executed in accordance with the valid sporting code of the FAI these Rules and Regulations and the Supplementary Rules and Regulations for the specific year's event.

1.2.2 The competition will be held in VFR conditions as defined by ICAO.

1.2.3 All competition times specified are local times, (UTC + 2 hours), and will be based on competition time.

1.2.4 The competition may be postponed, modified in its course (part or complete), partially or completely cancelled due to weather conditions or any force majeure at the discretion of the Competition Director or Jury.

1.2.5 The Pilot in Command will be the only holder of the entry.

1.2.6 The same aircraft, power plants, propellers will be used throughout the event. Running repairs may be carried out during the event provided that they are officially recorded and reported to the Competition Director or his representative. Should these repairs alter the performance, trim or in any way not conform to the Manufacturer's specifications, the Competition Director has the right to take any further action as he deems fit. This action is final and binding and is not open to protest.

## **2. PARTICIPATION**

2.1 The event is for aircraft in GROUP 1 and in the CLASS Cla/O to Clf of the FAI sporting code but subject to the aircraft holding a valid Certificate of Airworthiness.

2.1.1 GROUP 1 aircraft are aircraft powered by one or more piston engined power plants.

2.1.2 The maximum takeoff weight must be less than 12 500 Kgs.

2.2.1 The Pilot in Command must hold a valid Private Pilot or higher license and a valid FAI Competitors license.

2.2.2 The Pilot in Command will have not less than 50 hours in Command.

2.3 The number of aircraft allowed to participate in the competition is at the discretion of the Competition Director and all entries will be accepted on a "FIRST COME FIRST SERVED" basis.

### **3 AIRCRAFT**

3.1.1 The event is for standard production and OFFICIALLY modified aircraft as well as Amateur built aircraft.

3.1.2 An Officially modified aircraft is an aircraft with modification and accessories fitted to production type aircraft in order to increase its performance. These modifications and accessories must be approved by Civil Aviation Authorities, must not hinder or limit the normal operation of the aircraft.

3.2 Each aircraft will carry all documents required by the Civil Aviation Regulations (CARs) and amendments which are in force at the time.

3.3 Aircraft are not required to have any extra or special insurance cover by the Organizers, but it is in the competitor's own interest to ensure that insurance covers are adequate and that cover is extended to cover the competition.

3.4 All aircraft must be equipped with a serviceable radio capable of Tx and Rx on all the required competition and locality frequencies.

3.5 Each competitor will fly the same aeroplane throughout the competition, except that, at the discretion of the competition director, he may change to another aeroplane of the same type if a technical malfunction occurs.

3.6.1 It is a condition of entry that every aircraft must have the main event Sponsor's decal prominently displayed on either side of the fuselage. Secondary Sponsor's decals may be displayed providing they do not obscure either the numbers or the main Sponsor's decals.

3.6.2 The full details of the Secondary Sponsor and the details of decals, etc. should be communicated to the Competition Director with the entry form, but must in any case be received 15 days before the event. These details must be forwarded by pre-paid Registered post.

### **4 ENTRY**

4.1 Entry forms and copies of the Rules and Regulations are available from:

The South African Power Flying Association ([www.sapfa.org.za](http://www.sapfa.org.za)) Click on "Entry Form", complete the form and click on submit

or

The Regional Representatives of SAPFA,

4.2.1 Entry Form to be completed and returned to the SA Power Flying Association or the address on the entry form.

4.2.2 All entry forms must reach the Competition Director 10 days before the event. If there are vacancies late entries MAY be accepted at the sole discretion of the Competition Director.

4.2.3 The Entrant is responsible for the accuracy and completeness of the entry form.

4.3.1 Entry fees are set out in the Supplementary Rules.

4.3.2 If entries are accepted after the closing date entrants will be required to pay a late entry fee as published in the entry forms. This is in addition to any other fees prescribed in the Supplementary Rules or entry forms. This late entry fee is not refundable under any circumstances.

4.4.1 The entry is regarded as accepted only when the prescribed form is received in its completed form together with the required entry fees.

4.4.2 Entry forms not fully completed and signed by the pilot will not be accepted and will be returned to the entrant. Delays due to this or any other circumstances will not be accepted as reason for entries to be accepted late or without a late entry fee.

4.5.1 Entry fees are not refundable but should a justified reason be given for withdrawal, the Competition Director may, at his discretion, refund up to 75% of the entry fee. Fees will not be refunded after the aircraft and pilot has checked in at the Registration Desk on the day prior to the start of the Event. Entry fees will not be refunded to any competitor who is disqualified for any reason.

4.5.2 In the case of complete cancellation of the event (NOT POSTPONEMENT) the Competition Director may direct a refund of up to 50% of the entry fee.

4.6.1 Check-in time will be published in the Supplementary Rules.

4.6.2 Aircraft and pilots not checked in by the published check-in time are accepted as withdrawn. Re-acceptance is at the discretion of the Competition Director.

## **5 TECHNICAL REQUIREMENTS**

5.1 Competitors aircraft will be parked in the designated open parking area with all the other competing aircraft from the time they are checked in until the final results are published. Aircraft may be moved with the permission of the Competition Director.

5.2.1 It is preferable that all aircraft mainwheel covers (spats) should be removed prior to the competition landings and that the competition management paint every wheel on each side for easy video identification. All landings are to be video recorded to assist the jury only. In the case of judges and or jury having difficulty in determining the penalty due to the wheels of the aircraft not being painted or spats not being removed then the higher penalty could be applied. In this case the original penalties as allocated by the judges are likely to stand.

5.2.2 Any modification, temporary or permanent, to the wheels, undercarriage, oleos or shock absorbers not approved by the manufacturer and certification authority is not permitted and may result in disqualification.

## **6 FORMAT AND PENALTIES**

6.1 The competition will comprise four landings in different configurations.

6.2 The object of this competition is to assess the pilot's skill in landings of different types. Circuits may be left or right hand. Circuits for landings 1 and 4 must be above 500 feet QFE. Circuits for landings 2 and 3 not less than 1,000 feet or more than 1,200 feet QFE. These will be defined by the competition management who has the right to vary the circuit direction. The event will comprise four landings as described below:

**6.2.1 LANDING 1: NORMAL LANDING**

A free style landing where the use of power, spoilers, flaps or sideslip is at the discretion of the pilot.

**6.2.2 LANDING 2: FORCED LANDING**

Abeam the zero line, at 1000 to 1200 ft AGL the engine is throttled back to idle power. Power shall not be used thereafter. Flaps, spoilers and sideslip may be used at the discretion of the pilot.

**6.2.3 LANDING 3: FORCED LANDING WITHOUT FLAPS**

Abeam the zero line, at 1000 to 1200 ft AGL flying with flaps or spoilers fully retracted, the engine is throttled back to idle power. Power, spoilers and flaps shall not be used thereafter. Sideslip may be used at the discretion of the pilot.

**6.2.4 LANDING 4: OBSTACLE LANDING**

The competitor will make a landing after passing a marked obstacle 2 meters high, placed 50 meters before the touchdown line. Use of power, spoilers, flaps or sideslip is at the discretion of the pilot. Approaches in connection with the obstacle landing, where the wheels are lower than the obstacle before passing over it, are not permitted (creeping).

6.3 Depending on the situation, the competition director will decide which landings will be executed and could comprise either:

- Each landing followed by a full stop, or
- Two landings with a touch and go in between.

The sequence of landings will be briefed to the pilot at an official briefing.

6.3 All landings are to be made as close as possible to the zero area, within a strip 12 meters wide and 72 meters long. See Appendix 2. The strip will be marked and aircraft must keep within the strip.

6.4 Touchdown must be on both mainwheels with a maximum distance of five (5) meters between mainwheel 1 and mainwheel 2, except when the chief judge has decided that a crosswind condition exists. If the touchdown is in or after the zero area and the distance between the touchdowns of the mainwheels is 5 meters or less, the touchdown point for measurement is the touchdown of the first mainwheel.

6.5 If the distance is more than 5 meters, the touchdown point for measurement is the touchdown of the second mainwheel.

6.6 Nosewheels must be off the ground. Tailwheel aeroplanes must be landed in a configuration where the tail is lower than the horizontal attitude.

6.7 Touchdown on or after the zero area is measured when the aircraft is rolling on the ground after all bounces. In case of bounces before or after the line, the touchdown counted is that one which gives the highest penalty.

6.8 An aircraft is considered bouncing when both mainwheels (or a sole mainwheel) leave the ground after any touchdown, to a height of more than the diameter of the mainwheel, or for a distance more than 15 m. A jump into a 5 meter box must be calculated this way: Box meters minus 4 meters, minus the measured lift-off point before.

6.9 In the case of any part of the aircraft touching the ground before the zero area, the distance measured will be the distance from the touchdown point to the zero line. In the case of a tailwheel landing which is judged to be three-pointer landing (the tailwheel may roll on the ground for a maximum distance of five (5) meters before the mainwheels), the touchdown point of the mainwheels shall be measured.

6.10.1 A crosswind condition shall exist, when the crosswind component of the wind, that is the component at right angles to the runway in use, is 8 kts or more. Wind direction and speed shall be measured close to the zero-line by suitable anemometer and recorded for each landing. The maximum allowed tailwind component is 3 kts.

6.10.2 The chief judge will decide when a crosswind situation exists, and shall direct that a conspicuous flag signal is placed 30 meters before the zero line to advise competitors.

6.10.3 Touchdown on the upwind mainwheel only is allowed when a crosswind exists.

6.11 Power has to be completely retarded at touch down and only sufficient power is permitted after the aircraft has come to a complete stop, to continue the roll to the end of the landing strip. After leaving the landing strip, the runway shall be cleared. In the case of a touch and go power will only be used once the aircraft has exited the landing box.

6.11 Abnormal landings in all four types of landing are defined thus:

- a) Nosewheel not off the ground,
- b) A tailwheel aircraft not in a configuration with the tail below the horizontal,
- c) One mainwheel off the ground at the initial touchdown, without authorised crosswind conditions, to a height of more than the diameter of the mainwheel,
- d) Touchdown on downwind main wheel only and with upwind wheel off the ground in crosswind conditions, to a height of more than the diameter of the mainwheel,
- e) Any part of the aircraft other than the wheels touching the ground,
- f) Retraction of flaps inside landing strip before touchdown,
- g) Landing with locked wheels,
- h) Mainwheels leaves the ground, while nosewheel remains on it.
- i) The flight path should be overhead the runway for at least the last 200 meters. The landing aircraft may not arrive at an angle to the runway at zero line

6.12 In the event of a competing aircraft not touching the ground in any of the landing tests or landing outside the strip, he will be penalized.

6.13 All approaches and landings must be considered as being safe. If the chief judge, competition director or his appointed representative is of the opinion that an approach or landing is deemed as dangerous, flying will be stopped until the jury has made a decision.

6.14 Penalties will be allocated in terms of Appendix 1 and 2

## **7 COMPLAINTS & PROTESTS**

7.1 The Entry Holder (Pilot-in-Command) is the only person who has the right to make a complaint or protest.

7.2 In conformity with the FAI Sporting Code complaints will conform to the following procedures:

a) COMPLAINT is a written request made by a competitor to the Competition Director, or one of his representatives when a controversy has arisen over an operative evaluation. It must be presented within one 30 minutes from the time that the provisional result is published.

b) PROTEST must be presented in writing together with a caution fee of R100, 00. The protest must be forwarded to the JURY within one (1) hour from the time a competitor has been advised that his complaint has been rejected. Only in the case where a protest refers to the validity of an entry application must it be presented at least six (6) hours before the starting time.

7.3 The deposited fee will be returned if the protest is upheld.

7.4 All protests will be decided by the appointed Jury whose decision is final and not subject to appeal.

7.5 No other form of complaint or protest will be accepted.

7.6 A competitor may not lodge a complaint or protest against another competitor.

## **8 INTERNATIONAL LANGUAGE**

8.1 English is the official language of the competition.

## **9 RESULTS**

9.1.1 Any misconduct or bad behaviour on the ground or in the air including unsporting behaviour or protests against other competitors could result in the jury disqualifying the competitor concerned.

9.1.2 Any unauthorised alterations to aircraft landing gear during the landing tests as may result in disqualification.

9.1.3 A list of penalties and/or disqualifications will be published and posted where all participants will have access to it. This will be done as soon as possible after the last aircraft has landed on each day. The participants will be briefed at the official briefing on the place of posting this list and it is the sole responsibility of the participants to make sure that they read this.

9.2 No complaints or protests will be accepted after the final result has been announced.

9.3 Should the basic setup of the Event be changed due to weather or other circumstances a Schedule of Procedure will be published by the Organizers.

9.9.1 Trophies and prizes will be as laid out in the Supplementary Rules.

9.10 In the event of two or more competitors having the same number of penalties the following will apply:

9.10.1 The competitor with the lowest number of penalties in the forced landings without flaps will be declared the winner. If there is still a tie then the competitor with the lowest number of penalties in the forced landing will be declared the winner. If there is still a tie

then the competitor with the lowest number of penalties in the obstacle landing will be the winner. If there is a continuing tie multiple winners will be declared.

## **10 ACCEPTANCE OF RULES AND REGULATIONS**

10.1 The competition requirements will be written in English.

10.2 For the purposes of interpretation of the FAI Statutes and Sporting Code the official language shall be English.

10.3 The entrant (Pilot-in-Command) will sign the entry form and thereby acknowledge that he is aware of the Rules, Regulations, Conditions and Format of the event and that he agrees to abide by all Rules, Regulations, Conditions and Format as laid down.

10.3.2 All participants agree to comply, in all respects with any instructions or requests regarding the Event, or safety thereof, which may be given to them by any of the Officials appointed by the Aero Club of South Africa.

10.3.3 All participants acknowledge that they are bound by the Rules as administered and interpreted by the Aero Club of South Africa and agree to accept any decisions made by them or their Officials as final and binding.

10.4 The briefings which will take place will be detailed in the Supplementary Regulations or be posted at the airfield.

10.4.1 It is a condition of entry and of participation in the event that all competitors will be present at all briefings.

10.5 No competitor is permitted to take any alcohol less than 12 hours prior to the start of daily competition.

## **11 INDEMNITY**

11.1 The participants, by the signing of the entry form,

- a) Entirely indemnify and agree to hold free from any harm the Aero Club of South Africa, the Organizers, Officials, assistants, agents, servants, members and representatives of all concerned in The organization running and control of the Event against any claim whatsoever arising which may have or which may arise as a result of the Organizer's act of omission whilst participating in the said Event.
- b) The participants acknowledge that they are fully aware of the risks, danger: and perils attendant on participation in the Event.
- c) The participants also assume and furthermore agree also to indemnify any fellow competitor, Sponsor or the donors of any prizes or any other person against all claims and damages arising out of the participation in the Event whether caused by ascent, flight, descent or ground movement by the participant or whether caused by the participant's actions or the acts, actions omissions or proceedings of any persons assembling or assembled to witness or be present at such ascent, flight, descent. or ground movement.

## **12 COMPETITION DIRECTOR**

12.1 The Competition Director will be appointed by the Aero Club of South Africa or The South African Power Flying Association before the Event.

12.2 The Event Control is responsible for the organizing of the event and selection of Working Groups, a Treasurer, Secretary, Chief Marshal, Chief Ground Marshal, Chief Judge, Safety Officer, Technical Officer, PRO Officer and Liaison Officer (for ground arrangements).

12.3 The Competition Director will control the entire event and have final say over all matters pertaining to the running of the event.

12.4 The Competition Director will not be responsible for the selection or operation of the Jury. (See Chapter 13).

## **13 JURY**

13.1 The Jury, which will consist of three members, will be appointed by The Aero Club of South Africa or the SA Power Flying Association.

13.2 The duty of the Jury is determined by the FAI Sporting Code and these Regulations.

13.3 The Jury will have the power to:

- a) Make partial or total changes in the competitions due to sporting, safety or security circumstances upon request and proposal from the Competition Director.
- b) Verify and/or change technical requirements and penalties.
- c) Receive the competitors for protests.
- d) Adjudicate all protests.
- e) Call for any papers, officials or entrants which might be needed for a decision in d) above.
- f) Exclude any participant who endangers the competition or other entrants and/or who breaks the rules which apply to the event or who breaks the Air Navigation Regulations and their amendments that is in force at the time.

## **14 SCORING COMMITTEE**

14.1 The Chief Scorer will be selected by the Aero Club of South Africa or SA Power Flying Association.

14.2 The Race Control will select a committee to assist him with the Tabulating and Computing.

14.3 The Chief Scorer will make him/herself available with the necessary information to the Competition Director and/or the Jury to discuss any COMPLAINT or PROTEST. The Jury's decision is final.

## **15 PENALTIES**

15.1 Competitors are to ensure that they are available and ready for take-off at least 2 minutes before take-off. If longer time is required by the Organizers at a specific event you will be notified at the briefing. A longer time given at a briefing will supersede this time and the new time given will be accepted as part of these Rules.

15.2 Aircraft may not be moved or taxied in the designated open parking area without the permission of the Competition Director.

15.3 In the event of a failure to start, the competitor must not leave the aircraft. He will make a radio call to competition management to explain the situation and then follow given instructions.

15.4 Penalties will applied in accordance with Appendix 1 and 2

## **16 SUPPLEMENTARY RULES**

16.1 The Supplementary Rules will be promulgated for each specific event and will be read as part of these standard format Rules and Regulations.

16.1.2 A Supplementary Rule published supersedes any other contradicting Rule for the term of that specific event.

## **17 TERMS**

### **FAI SPORTING CODE**

The basic code of operations for all Aviation sporting events held worldwide. All events or competitions held by FAI member countries will conform broadly to this code.

### **SOUTH AFRICAN LANDING CHAMPIONSHIPS - OFFICIAL RULES AND REGULATIONS**

The blanket Rules and Regulations promulgated to cover all the normal running and operating procedures of the Event held on an annual basis.

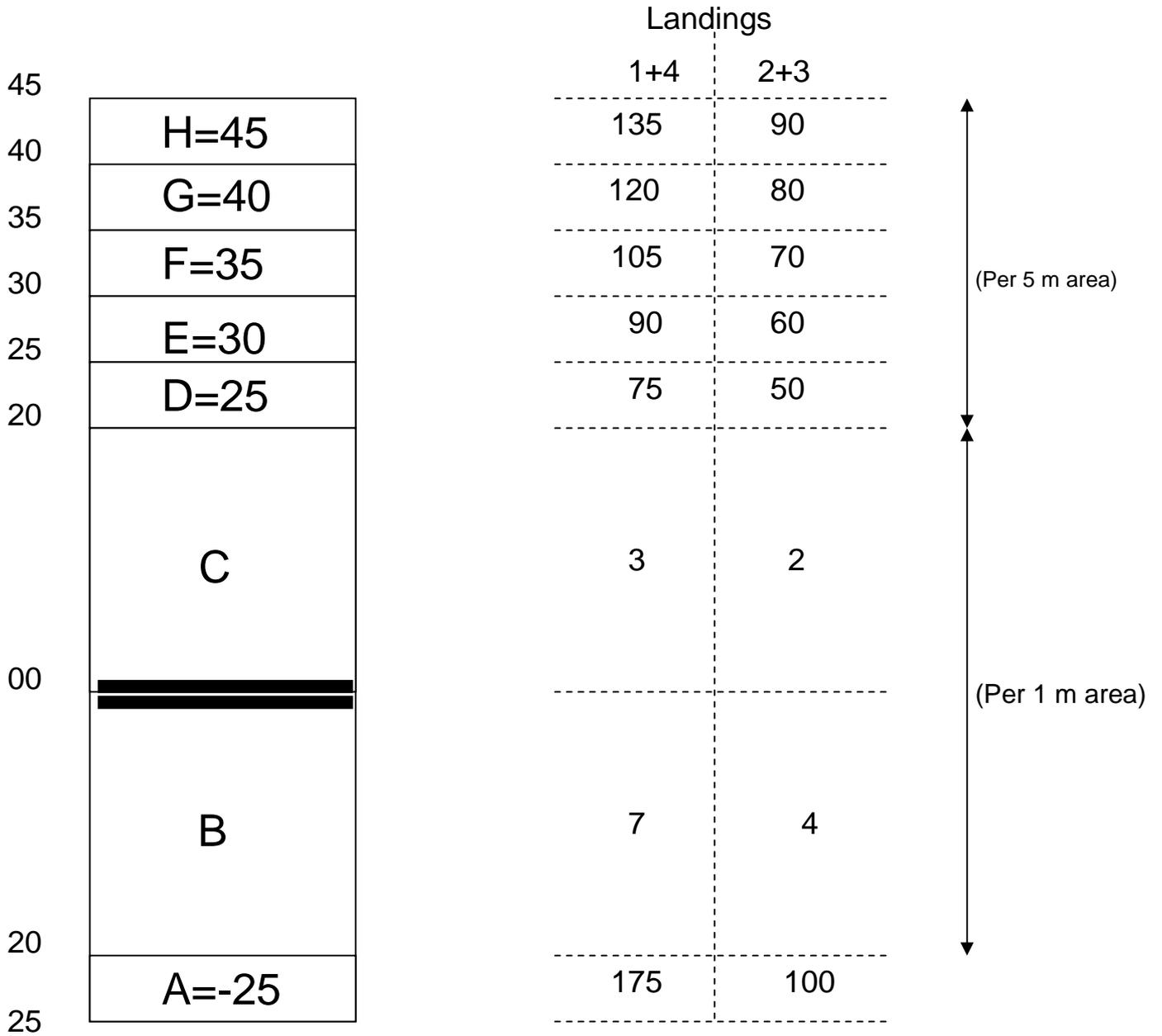
### **SUPPLEMENTARY RULES AND REGULATIONS**

These are supplementary Rules and Regulations put out by the Competition Director of one specific year's event. They are in effect for the year of promulgation. The Supplementary Rules will be in addition to and not instead of the Official Rules except that, should there be any contradiction between the Official Rules and the Supplementary Rules, the Supplementary Rules will supersede the Official Rules.

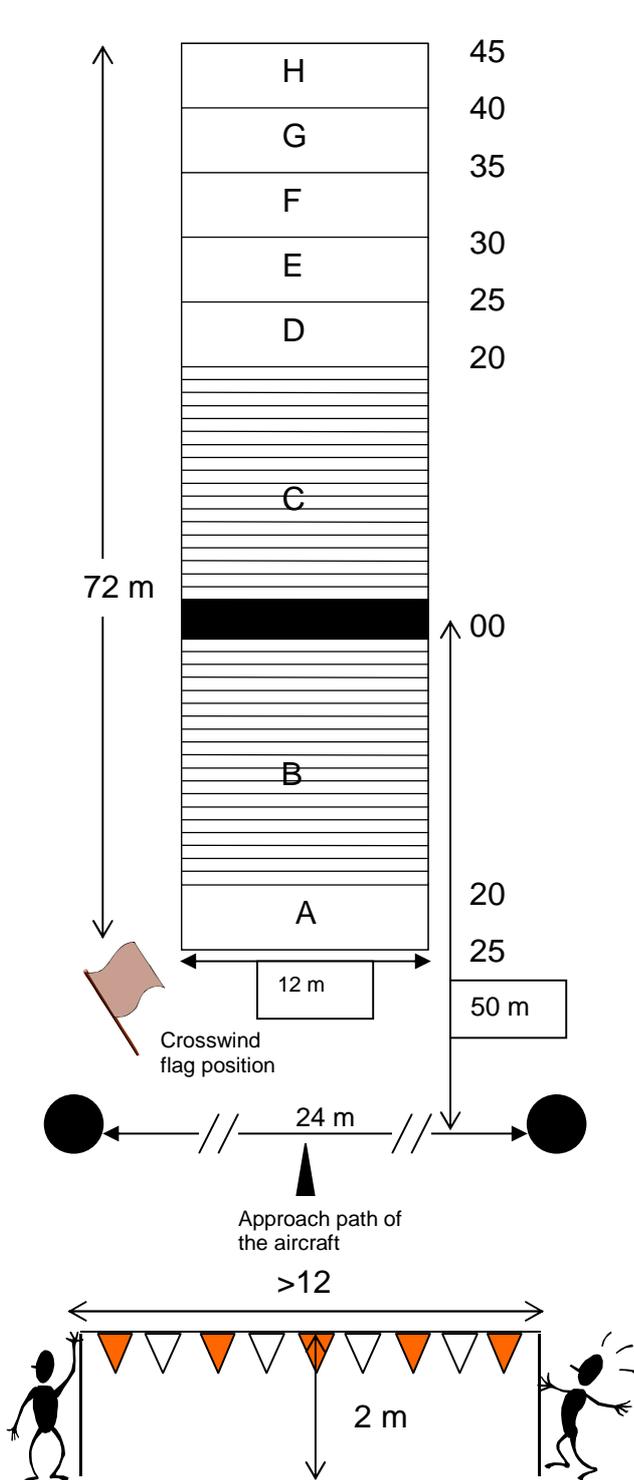
**TABLE OF PENALTIES**

	1 Normal	2 Forced	3 Forced no flaps	4 Obstacle
Maximum penalties per landing	400	200	200	400
Outside the strip or no landing	200	150	150	200
Abnormal landing (6.11 a to 6.11i)	150	150	150	150
Rolling out of the landing strip to the side	200	150	150	200
Power on the ground in the strip	50	50	50	50
Non permitted use of power (in the air)	-	200	200	-
Non permitted use of flaps or spoilers (in the air)	-	-	200	-
Touching, destroying the obstacle or "creeping" over obstacle	-	-	-	400

Penalty information for distance:



**RUNWAY MARKING**



**Obstacle specification**

Position 50 meters in front of the middle of zero area.

Thin cotton or nylon line with cloth flags in color

**Do not tie the line to poles!**

It should slip off easily.

The height ( 2 meters ) should be checked at the runway center line.

30 cm

20 cm



**Markers.**

On both sides of the runway, to assist judges and video crew, there shall be runway markers at each 5-meter area till +20 area opposite the correct meter area.

Markers shall be placed per 5-metre area beyond the -20 and +20 meters area in the middle of the correct area

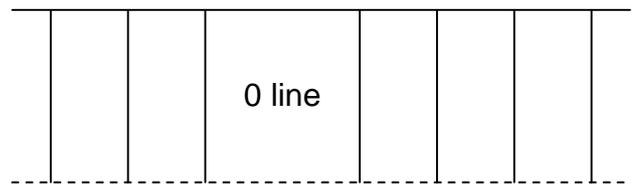
**The landing strip.**

Each meter must be marked by paint or chalk (on grass) from -20 to +20 meter area, and outside that zone every 5 meters area (see picture). The zero area must be clearly marked.

**Approach markers.**

Two markers will be clearly positioned 24 meters apart at the 50 meters in front of the middle of the zero area. Aircraft have to approach in between these markers on their final approach path. Approaching from outside may be considered as dangerous

-3 -2 -1 0 +1 +2 +3 +4



**Zero area specification**

There is an imaginary zero line. The zero area is per full meter on each side of this line.

Outside the zero area scoring will be done per one meter area till the -20 and +20 meter area and beyond this per 5 meters till the limit of the landing strip



**ORGANISATION RULES**

1.1 In locating the position of the landing strip on the runway, consideration should be given to the position of the Judges, video camera operators and spectators. Neither judges nor video camera operators should be looking into the sun. In the latter case, spectators, conditions permitting, should not be allowed nearer than 30 metres to the landing strip.

1.2 Wherever possible, this should be fenced off for safety reasons.

2 Aircraft ground movements and traffic patterns must be carefully planned and briefed to the pilots. Useful aids are maps or sketches with detailed information.

3 Suitable marshals and ground controllers should be located in prominent positions, the ground controller being in direct communication with the competition director.

4 The competition director determines the starting order for the landing competition. His decision is based on reasons such as flight safety.

5 Circumstances and capability permitting, the competition director is allowed to change this order for promotional purposes.

6 With good management, it is possible to have 3 - 4 competitive aircraft active in the circuit at any one time.

7 To provide a steady flow it will be necessary to judge approximately 30 landings per hour. A 10-minute break session for the judges in each hour and a 15-minute break session between each type of landing are advised.

8 Consideration should be given to a system of lights or ground signals on the final stages of approach to signify by either red or green lights that the competitor is cleared to land or he must go around again.

9 It is important that the zero area is clearly marked. The jury will check the visibility of all markers prior to the landing competition.

10 There should be clear distance markers along the runway. Landing officials should be placed about 5 metres outside the distance markers, and be prepared to run along these markers to define the touchdown point. One landing official should be permanently stationed opposite the zero line.

11 Only the chief judge will be responsible for communicating the results of the competitor's landing to the Secretary for entering into the competitor's record sheet in English, being the competition language.

12 Video recording of landings shall be arranged as they are vital to enable the Jury to come to a decision on a protest based on factual evidence. The video crew should comprise at least two hand-held video cameras located about 10 metres from the runway and positioned about 20 metres before and after the "0" line. Video crews must be trained before the competition to provide the best camera location and viewing angle. A continuous following of the wheels, before, during and after the touchdown, is essential and runway markings must be visible on the videotape to enable final judgement on touchdown point and landing techniques.

13 It is preferable that all wheels, on all participating aircraft, shall be painted with white tyre marks on both sides. It is also preferable that spats be removed from all mainwheels prior to the beginning of the competition. This is at the discretion of the competitor.

14 The Chief Judge will be provided with a small, portable anemometer, which has to be placed a minimum height of 2 meters above ground, and the Secretary will note the wind conditions at the moment of touchdown. This will provide factual evidence in the case of one-wheel landings, which are allowed only when the international chief judge has declared a crosswind.

15 The video playback must be displayed on a TV set with a minimum 21" screen. The equipment must include the facility both of "freezing" and advancing frame-by-frame without picture interference.

16 An electronic recording system previously approved by the FAI must be used in conjunction with visual judging. In the event of failure only, visual judging will be used for that group.