

# **SPORT AEROBATIC CLUB OF SOUTH AFRICA**

## **RULES AND REGULATIONS FOR THE CONDUCT OF AEROBATIC CONTESTS**

### **INTRODUCTION**

It is the intention of the Sport Acrobatic Club (SAC) to run all competitions in line with the latest CIVA Regulations as far as possible. However, some of the CIVA Regulations are simply not appropriate to local contests. In general terms the CIVA Regulations will apply, unless there is a specific local regulation contained in this document. In these instances, the local rule will automatically override the CIVA Regulation.

In the CIVA Regulations, reference is made frequently to the International Jury, for local purposes, such decisions which would be referred to an International Jury, will now be referred to the Chief Judge or Contest Director as appropriate.

All figures referred to in these regulations are as set out in the FAI Aerobatic Catalogue, as issued in 1988 and as amended to date.

It is up to each competitor to ensure that they have a copy of the latest CIVA Regulations and FAI Catalogue. SAC will publish changes to the regulations wherever possible, but cannot issue complete sets of International Regulations, which have been prepared locally.

### **1. GENERAL REGULATIONS**

#### **1.1 - Procedure & General Regulations**

1.1.1 - Competitions will consist of one or more of the following categories:

- Graduate
- Classic
- Sportsman
- Intermediate
- Advanced
- Unlimited

National Championship Awards will only be made to pilots permanently based in South Africa; additional awards will be given to visiting pilots who should be encouraged to compete.

Where there is only a single competitor in a category, a category champion cannot be established. In these circumstances a contest champion may be established by allowing all entrants to fly in their normal categories, with the contest champion being established on a best percentage of possible score basis. Champions may still be established in those individual classes with multiple entrants in addition to the contest champion. This provision does not apply to the National Championships, where awards will be strictly to categories with multiple entrants only.

An overall National Champion will be established at the Nationals from the Unlimited or Advanced class only, on the basis of the highest combined scores for the compulsory, free & unknown Programmes. A separate award will be given for the final free style programme.

National Champions for Intermediate, Sportsman & Classic will be established at the Nationals.

Pilots who are current in a category should not normally be allowed to enter a lower category, unless exceptional circumstances prevail, such as the availability of a suitable aircraft to fly in the advanced or unlimited category. Such entries should be considered prior to the acceptance of paperwork for the contest by both the Contest Director & Chief Judge, who will have the right to impose a percentage handicap to the maximum of 15% on such entries.

1.1.2 - All events will require the sanction of the Aero Club of South Africa.

1.1.3 - The Sport Aerobatic Club of South Africa will:

1. Approve the venue and date of a competition
2. Determine the entry fee
3. Notify the SACAA of the intended competition and request the issue of an airspace waiver and ATC service as applicable
4. Appoint the following officials and bodies:
  - o Convenor
  - o Contest Director
  - o Registrar
  - o Chief Judge
  - o Judges
  - o Line Judges
  - o Scorer
  - o Starter
  - o Technical Commission

## **1.2 - Convenor**

The Convenor shall be responsible for:

1. Drawing up supplementary rules for the competition.
2. Distribution of entry forms and supplementary rules.
3. Determine closing dates for entries & paperwork.

## **1.3 - Contest Director**

Safety will at all times be the primary consideration of the Contest Director. The Contest Director is the general manager of the event and has the following specific responsibilities:

1. Conduct of the contest in accordance to SAC regulations, the supplementary rules & CIVA regulations.

2. Appointment of contest officials not already appointed by SAC.
3. Co-ordination with sponsors, airfield & CAA officials.
4. Ensuring SACAA regulations are adhered to.
5. Crowd control.
6. Designation of landing and take off/ parking areas for competing aircraft.
7. Marking of performance zone.
8. Organising emergency services including paramedics/doctor.
9. Receiving protests.
10. Posting of scores.
11. Member of Technical Commission.
12. President of Protest Board
13. Withdrawing a contestant for safety reasons or failure to adhere to contest regulations.
14. General site logistics.
15. Arranging catering for officials, guests & competitors.
16. Arranging the judge's requirements (chairs, umbrellas etc).
17. Ensuring efficient radio communications between officials.

#### **1.4 - Registrar**

The Registrar shall control the contest paperwork and more specifically:

1. Acceptance of entry forms and free sequence sheets from each competitor & ensuing sheets have been checked for errors.
2. Ensuring that each competitor has a pilot's licence, an aerobatic rating applicable to the class entered, is an SAC member and has paid the required entry fee.
3. Determining the flight order for each programme, by means of drawing lots at a briefing or by the approved CIVA random draw system. This order may be varied in order to facilitate the efficient running of the contest.
4. Providing flight order lists for competitors & officials.
5. Ensuring that all the judges (including box judges) is issued with score and sequence sheets.
6. Posting of scores, after certification by the Chief Judge and Contest Director.
7. Briefing and controlling the score computers.

#### **1.5 - Chief Judge**

Safety at all times will be the primary consideration of the Chief Judge, who controls the contest flying in general and more specifically:

1. Supervises the judging line and line judges.
2. Performs the duties of a regular judge as required.
3. Determines the direction of flight.
4. May withdraw a competitor for reasons of safety.
5. May terminate/interrupt a competition flight for reasons of safety.
6. May exclude any person from a contest for un-sporting behaviour.
7. Shall determine if suitable weather exists for the competition.
8. Will conduct the pilot briefing.

9. Will brief the judges.
10. Member of the Technical Commission.
11. Member of the Protest Board.
12. Determines the flight order of classes.
13. Interprets CIVA & SAC regulations as required.
14. May exclude a competitor who violates the traffic pattern, has executed unscheduled aerobatic manoeuvres, or operated an aircraft in an unsafe manner.

## **1.6 - Judge**

All Judges will be under the direct supervision of the Chief Judge. Judges will be responsible for all aspects of grading competition flights and for the performance of the assistant Judges assigned to them. All Judges are required to attend the judge's briefing at the beginning of a contest and a debriefing at the end of each flying session as determined by the Chief Judge. Judges must grade each flight on the basis of the CIVA regulations and FAI sporting code. Judges are responsible for checking the correct scores have been recorded on each competitors score sheet and must sign each score sheet, which will verify that this check has taken place.

## **1.7 - Assistant Judge**

The assistant Judge will be under the direct supervision of the Judge to whom they are assigned. Assistant judges are responsible for the correct arrangement of sequence and score sheets on the judge's clipboard. The assistant judge will record (not in pencil) all the judges' scores per figure. Assistant judges will assist the judge in all aspects of his work as directed by the Judge, but must ensure that the judge's name appears on the individual score sheets.

## **1.8 - Line Judges**

Line Judges when used must conform in all respects to the CIVA regulations. i.e. a judge at each corner must be used, utilising radios set on two separate frequencies to the Chief Judges position, the same frequency will be used on the diagonals in a manner than each box infringement is reported to the Chief Judge on a separate and independent frequency and can therefore be verified independently. It is also essential that the Contest Director prior to the commencement of each days flying check accurate sighting devices are utilised and these for accuracy.

## **1.9 - Runners**

Runners are under the control of the Registrar and are responsible for the collection of score sheets from the Judging line & line judges at appropriate intervals as advised by the Registrar. Only the Chief Judge and Registrar will have access to these score sheets prior to their handing over to the score room.

### **1.10 - Score Computers**

Score computers will be under the control of the Registrar and shall be responsible for the computation of all flights in the competition. All scores shall be held in strict confidence and can only be released by the Registrar. No competitors, officials or any other persons other than the Registrar, Contest Director & Chief Judge should be allowed access to the scores or score room during the contest.

### **1.11 - Starter**

The starter is responsible to the Contest Director and will liaise closely with the Chief Judge; he specifically is responsible for the following:

1. The orderly and prompt release of competition flights.
2. Liaison with the Chief Judge for any change in flight order.
3. Ensuring pilots are correctly strapped in, with parachutes.

### **1.12 - Technical Commission & Safety Officer**

1. The Technical Commission will be responsible to the Contest Director and may consist of the following persons:
  - o SAC appointed Safety Officer
  - o Contest Director
  - o Doctor/Paramedic
  - o Chief Judge
  - o An aircraft maintenance engineer
  - o Any other person as designated by the Contest Director
2. The duties of the Technical Commission are specified in the CIVA Regulations.
3. Clause 4.2.7.6. 2009 version of the CIVA Regulations is modified to read one hour instead of five.
4. The Technical Commission can exclude a competing aircraft, which has performed any manoeuvre from which that aircraft is restricted.
5. The Safety Officer will specifically be responsible for the following:
  - o Inspection of competing aircraft & documentation.
  - o Inspection of parachute & packing slip.
6. Should a competitor fail to produce the necessary documentation or an aircraft is found to have a technical fault, entry must be refused to the contest, there can be no exceptions to this ruling.

### **1.13 - Protest Board**

1. The Protest Board shall consist of the Contest Director who shall preside over the board and the following officials, Chief Judge and other contest official as deemed appropriate by the Contest Director. The Protest Board is responsible for the prompt and orderly conduct of any bearing, rendering its decisions and notification of such to the parties concerned.
2. Protests must be submitted in writing to the Contest Director and set out in terms of the procedures laid down in CIVA regulations and Sporting Code, the protest should set out which regulations are involved and quote paragraph references.

3. A deposit of R100 is required, this will be returned in the event of the protest being upheld, but forfeited to SAC funds in the event of the protest being denied.

#### **1.14 - Pilot Qualifications**

1. Minimum pilot qualifications for competing shall be a Private Pilots Licence and an Aerobatic Rating appropriate to the class entered issued by the Aero Club of South Africa. Entries to each category will be considered taking into account the contestant's previous aerobatic experience and results in competitions to date. In the event of they're being no competition history to date only classic or sportsman class may be entered.
2. Competitors are required to have practised the compulsory and free sequences to be flown, within the last thirty days preceding the competition and be prepared to sign a declaration to that effect. The penalty for making a false declaration in this regard is withdrawal of the competitors FAI sporting license with automatic exclusion from the contest.
3. All competitors must be fully converted and cleared to fly solo the type of aircraft to be used for the competition, entries requiring a safety pilot will not be considered.

#### **1.15 - Judges Qualifications**

1. Each judge to be used for a contest must be approved by the Chief Judge for that contest. Judges may be changed for each class or each sequence within such classes.
2. In general terms the minimum qualification for a judge is as follows:
  - o Full understanding of the Aresti system and CIVA judging criteria.
  - o Attendance of a judging seminar and practical experience as an assistant judge.
  - o Capable of checking an unlimited free sequence.

#### **1.16 - Pilot Briefing**

This briefing is compulsory for all competitors and is generally not open to the public, the contest will be deemed to have commenced once this briefing has commenced. A briefing will be held at the beginning of each day's competition. The briefing will be conducted by the Chief Judge and shall include the following:

1. Introduction of Judges & Starter.
2. Weather forecast & winds aloft.
3. Official wind direction.
4. Description of performance zone & entry procedure.
5. Minimum altitudes.
6. Recall procedure & safety measures
7. General Questions from Competitors & officials

### **1.17 - Judges Briefing**

This briefing, which will be conducted by the Chief Judge, is compulsory for all judges & assistants and will cover topics relevant to the contest and CIVA regulations as deemed necessary by the Chief Judge.

### **1.18 - De-Briefing**

A de-briefing may be called for all competitors & officials, when such a de-briefing is called the contest will only be deemed to be over at the end of the de-briefing.

### **1.19 - Alcohol**

The use of alcoholic beverages during contest hours, by any official, competitor or flight line crewmember is strictly prohibited.

### **1.20 - Starting**

A competitor may only start up and take-off once the starter clears him to do so.

### **1.21 - Recall Procedure**

The recall will be by means of radio from the Chief Judge. The radio frequency for the recall will be established at the pilot briefing. No other communications are allowed on this frequency and the competitor is not allowed to deviate from the frequency once ready to enter the performance zone. Any detected interference on this frequency or an alternate frequency for the purposes of advising the pilot on any aspect of the flight other than an emergency call by the Chief Judge, will automatically disqualify the competitor concerned and invalidate the competitors aerobatic rating.

### **1 .22 - Parachutes**

The wearing of parachutes is mandatory for all aerobatic flights during a contest. Failure to comply with this requirement will lead to automatic exclusion from the contest. The parachute must have a current packing certificate.

### **1.23 - Safety Pilots**

Safety Pilots will only be allowed under exceptional circumstances, such as when a competitor's aircraft becomes unserviceable during the contest and then changes to an unfamiliar aircraft on which the competitor is not rated or insured to fly. Permission will then be required from the Chief Judge, Contest Director & Safety officer. These officials will reserve the right to exclude a competitor from the results should they deem this necessary, in this instance no protests will be allowed on these grounds.

## **2. PROGRAMMES FOR CONTESTS & CHAMPIONSHIPS**

The minimum amount of programmes, which can be flown in any one class to declare a National Champion of that class, is two. National Championships should normally consist of the compulsory & free for Sportsman, plus an additional unknown sequence for the Intermediate, Advanced & Unlimited classes.

Entries will only be allowed to a class in The National Championships in which a competitor has completed at least two SAC approved contests in the same class since the previous National Championships.

If time permits at the National Championships an additional flight for each class should be allowed, this will be a repeat of the free sequences for Sportsman and an additional unknown for Intermediate, Advanced & Unlimited. The scores for this additional flight will count towards the championship.

### **2.1 - Compulsory Programme - Unlimited & Advanced**

The compulsory programme as currently established by CIVA as the sequence for the Q Programme will be used in local competitions. The only difference will be that unlike International Competitions, the scores for the compulsory (Q) programme will count towards the contest or championship results.

### **2.2 - Compulsory Programme – Intermediate, Sportsman & Classic**

The SAC Committee, at the start of each calendar year, will establish these programmes. This programme will then be the only compulsory programme allowed in any contest.

### **2.3 - Free Programme - All Classes**

1. The programme for both unlimited & advanced will be exactly as per the CIVA regulations as far as the content of the programme.
2. For Intermediate & Sportsman the sequences must conform to the regulations as set out in the summary pages 12 & 15 of these regulations.

### **2.4 - Unknown Programme - Unlimited & Advanced**

This programme will be established to CIVA regulations with regards to the figures, which may be flown, however the choice of figures will be established as follows.

If more than twelve competitors are entered in unlimited class, the competitors will draw lots to decide who will select a figure and in what order. If there are less competitors than twelve competitors, they will select figures in the order as drawn by the lots, until twelve figures are chosen. One competitor may choose more than one figure but only after the other competitors have selected their first figure, this procedure will be repeated until twelve figures are drawn.

e.g. If four unlimited competitors are entered they will select three figures each in rotation depending on the drawing of lots. If there are five competitors all five would select two figures and two would select three figures, again this would be determined by the drawing of lots, the drawing order will be carried out once only and the sequence repeated.

Once the required amount of figures has been established, each competitor in that class will have the opportunity to submit a sequence at special briefing to be held for this purpose within four hours of the original briefing. The competitors will then select the sequence to be flown either by consensus or a simple open vote. If this process cannot produce agreement as to which sequence will be flown, i.e. no consensus or a tied vote, a lot will be drawn to determine the sequence.

The same procedure will be used for the advanced class but utilising the appropriate CIVA regulations with regards to the figures allowed.

### **2.5 - Unknown Programme – Intermediate**

This will be established by the SAC Committee and issued at the first briefing, no pilot participation will be allowed in the selection of figures or drawing up of the sequence.

### **2.6 – Unknown Programme – Classic & Sportsman**

No unknown programme will be flown in the Classic or Sportsman Class.

### **2.6 - Final Free Style Programme (Four minute Free) – Unlimited**

This programme will strictly be limited to those competitors who have competed in the unlimited class at the contest concerned, any competitor who in the opinion of the Chief Judge has flown in an unsafe manner, i.e. multiple low penalties or a significantly lower score than the other competitors, e.g. 25% guideline, will not be allowed to fly this programme.

This programme does not count towards the championship or contest results. A separate award will be made.

## **3. LOCAL OPERATION REGULATIONS**

### **3.1 - Height Limitations**

1. For the Intermediate Class the lower limit shall be 700' and disqualification 500'. The penalty for infringing the lower limit is 170 points off the averaged score.
2. For the Sportsman Class the lower limit shall be 1000' and disqualification 700'. The penalty for infringing the lower limit is 100 points off the averaged score.

### **3.2 - Duration of flights**

For both the Intermediate, Sportsman & Classic classes the duration of the flight shall be fifteen minutes, counted from take-off or when a holding area is in use from the time the previous competitor ends their sequence.

Figures flown after this time will not be scored.

### **3.3 - Competitions at Altitude**

When a contest is to be flown at an altitude of 3,500' or above, The Chief Judge may introduce a free break if so requested by a competing pilot.

Such requests can only be made prior to the commencement of the contest or at the first briefing; a period of ten minutes must be allowed after the announcement of such a break if so requested by a competing pilot.

### **3.4 - Scoring System**

The CIVA approved "ACRO" scoring system will be used when available. Should this programme be unavailable, the averaged scores of all the Judges without dropping the highest & lowest scores will be used. The Chief Judge with the approval of the Contest Director may eliminate a Judge or Judges entire scores from a programme or class if severe inconsistency or bias is detected following a simple statistical analysis of the scores.

### **3.5 - Performance Zone Infringements**

Should the procedure outlined in [section 1.8](#) for the use of line judges not be able to be followed, the K factor for the marking of positioning by the conventional method shall be increased by 50% for Classic, Sportsman & Intermediate. Advanced and Unlimited will follow the CIVA Regulations. This however must be accompanied by a mandatory briefing by the Chief Judge to all judges and assistants on the criteria set out in the CIVA Regulations for arriving at the positioning score. Assistants will be required to record the position of each individual figure with reference to the cross axis, i.e. laterally left of centre, centre, right of centre, and depth, far side of box, centre box, close to judges, prior to calculating the positioning score as directed at the briefing.

### **3.6 - Weather Breaks**

The CIVA minimum of 800 metres cloud base will also apply to the Intermediate, Sportsman & Classic classes for the purposes of introducing a free break, but strict adherence of the lower limits applicable to the class must still apply.

### **3.7 - Video Recording**

Whilst the video recording of flights is not mandatory locally, it is extremely desirable especially for the Advanced & Unlimited classes, should such a video recording have taken place it may be used to resolve differences on the judging line as well as in an official protest as per CIVA Regulations.

### **3.8 - Variation of the Regulations**

Notwithstanding anything that is contained herewith in these Regulations, the SAC Committee may always consider a temporary variation to the Regulations prior to the commencement of a contest.

Such variations must be fully motivated in writing, setting out the circumstances for which the variation is being sought. The SAC Committee will in turn give its recommendation also in writing for consideration by the competitors at the first briefing of the contest where the variation is to apply. A simple majority vote will suffice in order to accept the variation, a secret ballot will be utilised in order to establish whether such a majority exists. The variation if carried will automatically be cancelled at the completion of the contest.

An item must be placed on the agenda at the SAC annual general meeting for comment and approval of the Regulations.

### 3.9 - Summary of Requirements per Class

#### 3.9.1 Unlimited

1. *Programmes:*

- The Known Compulsory - as per CIVA Q Programme
- The Free Programme - as per CIVA Regulations
- The Unknown - as per Local Regulation 2.4
- Final Free Style (4 Minute Free) - as per local Regulation 2.6

2. *Height Limitations*

- 300' lower / 3 000' upper

3. *Disqualification*

- Below 150'

4. *Penalties*

- all off total averaged score
- Figures flown after 15 minutes will not be scored
- Infringement of lower height limit = 250 points
- Infringement of upper height limit = 50 points
- Box infringement = 30 points per out & each figure commenced out
- Programme Interruption = 150 points per interruption
- Training figure violations = 30 points per illegal figure

<b>Positioning K Factor</b>	<b>Electronic Device</b>	<b>With line Judges</b>	<b>Without line Judges</b>
Known (Q)	20	10	15
Free	30	20	30
Unknown	20	10	15

### 3.9.2 Advanced

1. *Programmes:*

- The Known Compulsory - as per CIVA Q Programme
- The Free Programme - as per CIVA Regulations
- The Unknown - as per Local Regulation 2.4
- Final Free Style (4 Minute Free) - as per local Regulation 2.6

2. *Height Limitations*

- 600' lower / 3 300' upper

3. *Disqualification*

- Below 300'

4. *Penalties*

- all off total averaged score
- Figures flown after 12 minutes will not be scored
- Infringement of lower height limit = 200 points
- Infringement of upper height limit = 50 points
- Box infringement = 20 points per out & each figure commenced out
- Programme Interruption = 150 points per interruption
- Training figure violations = 30 points per illegal figure

<b>Positioning K Factor</b>	<b>Electronic Device</b>	<b>With line Judges</b>	<b>Without line Judges</b>
All Programmes	20	10	15

### 3.9.3 Intermediate

1. *Programmes:*

- The Known Compulsory - as per SAC issued sequence
- The Free Programme - maximum 200K

2. *No repetition of a catalogue reference number:*

- At least one figure from - family 1
- At least one figure from - family 5
- At least one figure from - family 7
- At least one figure from - family 8
- At least one figure from - families 9.1, 9.4, & 9.9
- No negative figures from - families 4 & 9
- Only one spin - family 9.1
- No individual figure to be less than 10K

3. *Height Limitations*

- 700' lower / 3 700' upper

4. *Disqualification*

- Below 500'

5. *Penalties*

- all off total averaged score
- Infringement of lower height limit = 170 points
- Box infringement = 20 points per out & each figure commenced out
- Programme Interruption = 100 points per interruption
- Training figure violations = 30 points per illegal figure

<b>Positioning K Factor</b>	<b>Electronic Device</b>	<b>With line Judges</b>	<b>Without line Judges</b>
All Programmes	20	10	15

### 3.9.4 Sportsman & Classic

1. *Programmes:*

- The Known Compulsory - as per SAC issued sequence
- The Free Programme - maximum 110K

2. *No repetition of a catalogue reference number:*

- At least one figure from - family 1
- At least one figure from - family 4
- At least one figure from - family 5 (Not applicable to Classic)
- At least one figure from - family 7
- At least one figure from - family 9.1
- No negative figures from - families 4 & 9

3. *Height Limitations*

- 1000' lower / 4 000' upper

4. *Disqualification*

- Below 700'

5. *Penalties*

- all off total averaged score
- Infringement of lower height limit = 100 points
- Box infringement = 15 points per out & each figure commenced out
- Programme Interruption = 50 points per interruption
- Training figure violations = 30 points per illegal figure

<b>Positioning K Factor</b>	<b>Electronic Device</b>	<b>With line Judges</b>	<b>Without line Judges</b>
All Programmes	20	10	15

These Regulations have been prepared with the approval of the SAC Committee.  
Any queries, corrections or recommended changes should be directed to:

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