



FAI Sporting Code

Section 6

*Fédération
Aéronautique
Internationale*

Regulations for the Conduct of International Aerobatic Events

Part 4

FAI Elite Aerobatic Contests

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¹ FAI Statutes, Chapter 1, para. 1.6.
² FAI Sporting Code, Gen. Section, Chapter 3, para. 3.1.3.
³ FAI Statutes, Chapter 1, para. 1.8.1.
⁴ FAI Statutes, Chapter 2, para. 2.1.1; 2.4.2; 2.5.2 and 2.7.2.
⁵ FAI 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 3, para. 3.1.7.
¹⁰ FAI Sporting Code, Gen. Section, Chapter 1, paras 1.2. and 1.4.
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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1. GENERAL RULES FOR FAI ELITE AEROBATIC CONTESTS

1.1. Aims Of FAI Elite Aerobatic Contests (FEAC).

- 1.1.1.1. To determine Elite Aerobatic Champions at each event and to establish the Overall World Elite Aerobatic Champion when a series of linked events is held.
- 1.1.1.2. To promote and popularise aerobatics and to develop and foster friendly relations between aerobatic pilots of different countries.

1.2. General Regulations

1.2.1. Scope

- 1.2.1.1. These General Rules for FAI Elite Aerobatic Contests are intended to provide a range of sporting options and to allow organisers scope for adjustment in administration of the events to suit local audiences and logistics.
- 1.2.1.2. Nevertheless, these regulations contain certain safety and sporting rules that must be adhered to at Elite Contests sanctioned by the FAI.

1.2.2. Contest Categories

- 1.2.2.1. FAI Elite Aerobatic Contests
 - a) Each year, CIVA may sanction a number of FEAC. The locations will be decided by CIVA following assessment of bids from potential organisers and host venues.
 - b) Some or all of these Elite events may be designated by CIVA as constituting a series of contests leading to the establishment of an Overall World Elite Aerobatic Champion.

1.2.3. Aircraft Categories

- 1.2.3.1. FEAC will be open to single piston engine aircraft.

1.2.4. Number of Competitors

- 1.2.4.1. The number of competitors at each event will normally be between 6 and 12. CIVA may exceptionally sanction events with fewer or more competitors. Allocation of places to National Airsports Controls (NACs) will be determined by CIVA, based on the results of preceding World Aerobatic Championships. Invitations to compete may also be issued based on performance in previous FEAC. Organisers and commercial sponsors may also nominate pilots to take part in Elite events, but their participation will be subject to approval by the Bureau of CIVA. Representation should include male and female pilots, but the scoring and the determining of champions will be gender blind.

1.2.5. Support Personnel

- a) Pilot competitors may be accompanied by the following support personnel, at their own expense unless otherwise agreed with the organiser (e.g. mechanic, trainer).

1.2.6. Entries

- 1.2.6.1. The CIVA Bureau will approve all pilot entries to be sure they meet the standards of the FEAC. After the selection procedure is complete, the organisers will liaise directly with



pilots. All pilots must comply with the International Civil Aviation Organisation (ICAO) requirement for proficiency in the English language.

1.2.7. Aircraft Documentation

- 1.2.7.1. All competing aircraft must meet the performance characteristics required for the kind of flight they will be undertaking. A valid aerobatic certificate of airworthiness or equivalent document issued by the competent aviation authority of the aircraft's country of registration must be produced to the organisers for every contest aircraft.
- 1.2.7.2. Aircraft will not be admitted to the contest unless the appropriate documentation has been submitted to the organisers.

1.2.8. Air Safety

- 1.2.8.1. All competitors must observe and adhere to the regulations currently in force in the host country for air safety as well as the special regulations in force at the contest venue. To facilitate this, the organiser must ensure that an English translation of applicable rules, issued by the Aviation or Customs Authorities of the host country, is available at least 3 months in advance, in a bulletin or on the competition website.
- 1.2.8.2. Any violation of the safety regulations in force may at any time render the offender liable to exclusion from the contest. No responsibility will be undertaken by the organisers for any such violation by competitors or others.
- 1.2.8.3. To enable the pilot to watch over his or her own safety, an accelerometer must be installed in each competing aircraft.
- 1.2.8.4. The Chief Judge may disqualify from the competition a pilot who is not flying safely or is clearly about to cause an unsafe situation.
- 1.2.8.5. Any competitor required to interrupt a competition flight due to danger of collision with conflicting air traffic or other hazard, should orbit in a safe place until the conflict is resolved. In this event, the Chief Judge will allow additional time if required. In the event that such a hazard becomes apparent to the Chief Judge, he shall call "Break, Break, Break" on the safety frequency and thereafter advise the pilot on a suitable course of action.

1.2.9. Insurance

- 1.2.9.1. The organisers will provide a promoter's liability insurance of an adequate sum against third party risks for the duration of the contest covering functional test flights, training and competition flights, in accordance with the legal requirements of the country in which the championships or competition is held.
- 1.2.9.2. All competitors must produce evidence of an aircraft insurance policy with adequate third party insurance valid for the duration of the contest and valid in the organiser's country. The organisers should specify in local regulations the amount of insurance cover regarded as adequate.

1.2.10. Competitors and Aircraft

- 1.2.10.1. All training and competition flights carried out by competitors at FEAC must be made solo. In view of the short time slots in the contest programme and the number of pilots, no aircraft shall be shared by more than two persons.



1.2.10.2. Replacements of competitors at FEAC will be left to the discretion of the Promoter but must have the approval of the International Referee. No such replacement will in any case be permitted less than 12 hours before the commencement of the first competition flight.

1.2.10.3. A contest aircraft may at any time be replaced by another contest aircraft.

1.3. Competition Flight Formats

1.3.1.1. A number of possible competition flight formats is described below. Organisers should choose two of these options for the competition programmes at their contests, and must notify CIVA of the chosen formats when seeking the sanction of the FAI for the event. The organiser must also select one of the chosen flight formats to be used for any selective element of practise or qualification programme.

1.3.1.2. In the outlines below, reference is made to "classic" and "freestyle" figures or sequences. These are differentiated as follows:

1.3.2. Classic Figures/Programmes

1.3.2.1. Aerobatic figures in a classic sequence have a defined geometry and may be judged individually, rather like dives or vaults in Olympic competition. The judges know what to expect and award marks according to what they see. Classic sequences may also be flown as a time trial, rather like Olympic Show Jumping with horses and riders.

1.3.3. Freestyle Programmes

1.3.3.1. In freestyle flying, the figures flown by the pilots are not geometrically defined and the judges do not know in advance what the pilots plans to perform. Sequences are judged on an overall basis, not figure by figure. Freestyle sequences have a specific time limit and may be flown in synchronisation with broadcast music.

1.3.4. Format 1, Speed Aerobatics Programme

1.3.4.1. Speed Aero4batics is a classic sequence against the clock. All pilots fly the same sequence of figures¹⁴ and the winner is the pilot who completes the sequence in the shortest time. Seconds may be added to the stopwatch time by the judges for figures incorrectly flown or for flight below the specified height minimum for the sequence (but above the disqualification height - see: 3.2.6). The pilots may use onboard smoke systems.

1.3.4.2. To win this event the pilot must plan to complete every figure accurately, but also as quickly as possible. Speed must be very precisely controlled at all times, as being too fast will waste time, while being too slow will lead to an inability to complete the required figure. The fastest aeroplane does not necessarily win the time trial; it will be the pilot with the best plan to suit his aircraft.

1.3.5. Format 2, Timed Voluntary Programme

1.3.5.1. In the Timed Voluntary format, pilots choose their own sequence of classic figures and try to fit as much complexity as they can into the specified time whilst retaining a high degree of style accuracy. Individual figures are judged and graded. This format is included in the FAI World Air Games aerobatic competitions. Pilots may choose not to use smoke systems as the detail of the figures being judged may be masked.

1.3.5.2. To win this event the pilot must have the most agile aircraft, and the most agile brain. It is primarily a supreme test of spatial awareness in a rapidly changing 3-dimensional puzzle.



1.3.6. Format 3, The Freestyle Programme

- 1.3.6.1. The Freestyle is a timed programme which normally lasts 4 minutes. Event organisers may set a shorter time, not less than 3 minutes, if local circumstances make this appropriate. Pilots fly a planned sequence of freestyle figures, use on-board smoke systems and may fly in synchronisation with musical accompaniment. The pilot does not have to notify his sequence in advance and flights are primarily judged on their technical merit and their artistic interpretation. Time penalties may be applied. This is also a World Air Games format.
- 1.3.6.2. To win the Freestyle, the pilot must not only be a master of his aeroplane but must be an artist able to carry the judges and the public along with him on an adventure of which they start off knowing nothing. This process of revelation will be planned by the pilot but a magical mystery tour for the audience.

1.3.7. Alternative Formats

- 1.3.7.1. Alternative, innovative competition flight formats may be proposed by event Organisers but may only be used subject to the following conditions:
- a) Flight and grading details must be submitted to the Bureau of CIVA for approval at least 9 months prior to the planned event.
 - b) Only 1 such 'probationary' format will be allowed per event.
 - c) New formats may subsequently be incorporated into these Regulations, following post-contest discussions between all stake-holders and consideration by the Bureau of CIVA.

1.4. Event Champions

- 1.4.1.1. The FAI Elite Aerobatic Champion in each event will be the competitor who gains the highest total of points from the aggregation of the results of the Programmes completed.
- 1.4.1.2. The winner, second and third placed pilots will receive Gold, Silver and Bronze medals, respectively.

1.5. FAI Elite World Aerobatic Champion

- 1.5.1.1. In a year when at least three FEAC are held, CIVA may specify that these events form a series leading to the establishment of a World Champion. The FAI World Elite Aerobatic Champion will be the competitor who gains the highest number of points aggregated from all the FEAC flown in a calendar year.
- 1.5.1.2. The winner, second and third placed pilots will receive Gold, Silver and Bronze medals, respectively. These medals will normally be awarded at the closing ceremony of the last FEAC of the year.

1.6. Contest Bodies and Officials

1.6.1. The International Referee

- 1.6.1.1. An International Referee will be appointed by CIVA for each FEAC. The International Referee is the supreme arbitrator at FEAC and shall be responsible for:
- a) Interpreting the general rules and the judging rules in the light of events at the contests;



- b) Ensuring that the local regulations, published for each event by its organiser, do not contradict the general regulations in this Sporting Code;
- c) Supervising the activities of the Chief Judge, the Board of Judges and the Scorer;
- d) Dealing with protests from competitors.
- e) Advising the organiser when this may improve the administration of the contest.

1.6.1.2. Any decision taken by the International Referee is final.

1.6.1.3. The International Referee may temporarily vary any rules approved by the International Aerobatics Commission (CIVA) during a contest under the following circumstances:

- a) There is at least a two thirds majority in agreement amongst the participating pilots, with no abstentions, when conducting a vote to introduce a temporary variation to the regulations.

1.6.1.4. In the event that the rules of the Sporting Code are not adhered to at an FEAC, or if the International Referee is not provided with sufficient information to perform his duties in accordance with the rules, the International Referee may stop the contest until matters are remedied. If remedial action is not taken, the International Referee has the power to declare that the requirements of an FEAC have not been fulfilled in accordance with the Sporting Code. If this latter action is taken, the International Referee shall prepare a full report for submission to the Bureau of CIVA, which shall either endorse or reverse his decision.

1.6.2. The Board of Judges

1.6.2.1. Details concerning the employment of the Chief Judge and the composition of the Board of Judges and the appointment and disqualification of its members are laid down in the FAI Sporting Code, Section 6, Part 1 for powered aircraft. These regulations shall apply also to FEAC.

1.6.2.2. In addition to his judging role, the Chief Judge shall be an advisor to the International Referee.

1.6.2.3. The number of judges will be in accordance with the agreement between each FEAC organiser and the FAI, but the number judging each programme shall not be less than the Chief Judge plus two additional scoring judges.

1.6.3. Contest Management

1.6.3.1. The contest management will be composed of:

- a) The Contest Director,
- b) The Flight Director,
- c) The Chief Judge,

1.6.3.2. The FEAC Organiser shall act as, or appoint, a Contest Director who shall be responsible to the International Referee for the regular and orderly management of the contest.

1.6.3.3. The Contest Director shall act as, or appoint, a Flight Director who shall be responsible for the ensuring that all contest flights are dispatched on time and in a safe manner.



1.7. Protests and Their Handling

- 1.7.1.1. Protests will be accepted from individual competitors only. They will be dealt with in compliance with the FAI General Section of the Sporting Code, Chapter 5. All protests must be submitted to the International Referee in writing, with the specified deposit, not later than two hours after the occurrence, decision or publication of results which causes the protest to be made. "Non-working" hours, as defined in local regulations for the FEAC will not be counted. Every protest must refer to the rule or rules to which it relates. The amount of the deposit shall be stated in the local regulations. It should not exceed €100.
- 1.7.1.2. The deposit will be returned if the protest is upheld. The International Referee may request the attendance of the protesting competitor if it considers this desirable. The decision of the International Referee is final.
- 1.7.1.3. In pursuance of these aims and in case of dispute over the interpretation and application of these rules, and any other regulations for the conduct of aerobatic championships and competitions, a competitor shall be entitled to the benefit of reasonable doubt.

1.8. Final Regulations

1.8.1. Interpretation

- 1.8.1.1. International aerobatic events will be carried out in compliance with FAI Sporting Code and local regulations of the organisers.
- 1.8.1.2. Any differences arising during an event will be dealt with by reference to the above rules. For the interpretation of the text at championships, a standard version written in English shall be taken as the authority.

1.8.2. Competitors' Pledge

All competitors undertake, by reason of their participation, to comply with the General Section of the Sporting Code of the FAI, the Regulations of CIVA and any local regulations made under rule 1.2.8

1.8.3. Supplementary Rules

- 1.8.3.1. The organiser will, within the scope of the Sporting Code and the approval by CIVA, prepare such local regulations or specialized details as are relevant and necessary for clarification of operational and organisational matters and duly distribute them to all participants and officials (see 1.2.8, 1.2.9).
- 1.8.3.2. The technical and organisational preparations of FEAC will be checked by the International Referee regarding their compliance with the general rules before the beginning of the event. The organisers shall publish details in English and send to the participating pilots and officials, not less than 3 months prior to the FEAC:
 - a) the local regulations containing only local operating procedures and administrative details including details of the venue at which the Championships will be held.
 - b) an English translation of applicable rules, issued by the Aviation or Customs Authorities of the host country.



2. JUDGING RULES FOR FAI ELITE AEROBATIC CHAMPIONSHIPS

2.1. Board of Judges

The numbers and selection of the Chief Judge and the Board of Judges will be as described in the relevant paragraphs of Sporting Code, Section 6, Part 1, with the following exceptions.

2.1.1. Composition of the Board of Judges

2.1.1.1. At FEAC the Board of Judges will be composed of:

- a) The Chief Judge (scoring);
- b) At least two, preferably three, International Judges, with assistants, for marking the quality of aerobatic manoeuvres.
- c) A Timekeeper, responsible to the Chief Judge.
- d) A Deadline Judge.

2.1.1.2. For a Speed Aerobatics Programme (1.3.4) the Judges shall form a single judging team with separate responsibilities for assessing time, accuracy and compliance with height minima. This will enable rapid calculation of elapsed time plus any applicable time penalties.

2.1.2. Monitoring of Aircraft Position

2.1.2.1. An electronic tracking instrument may be used for monitoring aircraft position. However, positioning will be graded solely by the Board of Judges. Line Judges will not be used.

3. THE ORGANISATION OF FAI ELITE AEROBATIC CONTESTS

3.1. Administrative Arrangements

3.1.1. Entry Fees

3.1.1.1. There are no entry fees for FEAC.

3.1.2. Accommodation, Food, Medical Services

3.1.2.1. At FEAC, the organisers will provide adequate accommodation and food for the duration of the event to all competitors and FAI/CIVA officials.

3.1.2.2. The organisers will be responsible for adequate medical services being available to all official participants.

3.1.3. Fuel and Oil

3.1.3.1. At FEAC, aircraft fuel and oil will be provided by the organisers for functional test flights and contest flights without imposing extra charge.

3.1.4. Briefings

3.1.4.1. Prior to the start of a contest there will be a briefing by the organisers for participants, the International Referee and the Board of Judges, on flight conditions, the contest programmes.



3.1.4.2. There shall also be a pre-contest briefing at which the Chief Judge shall brief the Board of Judges on their responsibilities at the event. This Judges' briefing may also be attended by competing pilots or their representatives. Throughout the duration of the contest the Chief Judge will hold routine evaluation meetings with the other scoring Judges.

3.1.4.3. Before the beginning of competition flying, on each competition day, a briefing will be held for competitors, officials, judges and the International Jury on organisational matters concerning the competition day and on meteorological conditions.

3.1.5. Sequence of Flights

3.1.5.1. The sequence of flights for all Programmes will be determined by the Contest Director or his Assistant, in the presence of the International Referee.

3.1.5.2. The sequence of flights may be altered by the International Referee if special circumstances require, e.g. when two closely-drawn pilots are to fly the same aircraft.

3.2. Operating Regulations

3.2.1. Video/Audio Devices

3.2.1.1. Video cameras may be mounted in/on competition aircraft.

3.2.1.2. A "Safety Frequency" will be selected by the organisers and given to the competitor together with the competition papers. The "Safety Frequency" will be monitored during all competition flights, and possibly recorded on tape. It shall be separate from any Air Traffic Control frequency in order that radio conversation is kept to a minimum.

3.2.1.3. The use of technical devices to convey audible information to the pilot is not permitted during FEAC except for a radio set tuned to the designated contest "Safety Frequency". Receiving any kind of audible information from any unauthorised technical device will make the competitor liable to disqualification from the contest.

3.2.1.4. Radios, set to the "Safety Frequency", are only for communication between the Chief Judge and the competing pilot, for box control purposes and to serve urgent flight safety matters.

3.2.1.5. Once airborne, and before entering the Performance Zone, each pilot will receive a call on the safety frequency from the Chief Judge, saying: "Number x, radio check". The pilot must respond to this call if. If two-way communication is not established between the pilot and Chief Judge, the pilot shall land as in the case of any other technical defect. The Contest Director may authorise a re-flight subject to contest time constraints.

3.2.1.6. The standard phraseology in the event that the time limit is exceeded will be the Chief Judge saying "Time, time, time" and no other. The standard phraseology in the event that a break is required for safety reasons will be the Chief Judge saying "Break, break, break" and no other.

3.2.2. Ground Communications

3.2.2.1. The organiser of FEAC must establish an efficient radio or mobile phone communication system between the contest officials (Contest Director, Chief Judge, Flight Director, and International Referee).



3.2.3. Meteorological Conditions

3.2.3.1. Minima

- a) The minimum height of the significant cloud base must be 700 metres. In this context, small amounts of local cloud less than 3 octas, which do not obscure the performing aircraft, are not considered significant.
- b) The minimum prevailing flight visibility, determined with reference to ground features from the midpoint of the contest area at the maximum height for the competition flight, must be 4 kilometres.
- c) Competition flight shall not take place in precipitation, nor if the wind velocity at the runway in use is such that safe landings cannot be made.

3.2.3.2. Weather Information

- a) The Contest Director must provide the competitors, the Chief Judge and the International Referee with information based on weather observations made no more than 30 minutes before aerobatic flying is due to commence. Further observations during the flight period are not required unless there is a drastic deterioration in the weather conditions.
- b) Visibility and cloud base should be determined by local airborne observation.

3.2.3.3. Adverse Weather

- a) If the meteorological conditions do not meet the requirements of 3.2.3.1, the Chief Judge after consultation with the International Jury will discontinue competition flights.
- b) If in his or her opinion the weather conditions do not allow safe completion of his or her sequence, a competitor may discontinue his or her flight before starting the sequence.

3.2.3.4. Permitted Breaks

- a) All flights must be made continuously. Un-penalized breaks will not be permitted, unless the pilot is required to interrupt a competition flight due to danger of collision as described in 1.2.8.5, or unless otherwise specified by the International Referee.

3.2.4. Demonstration Flights

- 3.2.4.1. In the event that the cloud base is below competition minima, pilots may be asked to undertake demonstration flights and may choose to do so at their discretion. These flights will be outside of the jurisdiction of these Regulations but must comply with local safety regulations.

3.2.5. Conduct of Competition Flights

- 3.2.5.1. Flights will be carried out at the times, between sunrise and sunset, directed by the FEAC organiser.
- 3.2.5.2. Competition flights will be made separately in the sequence determined in 3.1.5.
- 3.2.5.3. The International Referee shall determine the direction of the official contest wind for classic programmes flown. Each competitor may choose to start his or her freestyle programme along the main axis in either direction.



- a) The decision with regard to the contest wind direction of flight shall take into account the direction of the actual wind.

3.2.6. Height Limitations

- 3.2.6.1. The minimum height for aerobatic flying shall be 50m or a higher figure if required by local regulations. Aerobatic flight below this height shall be penalised. Aerobatic flight below half this height (or below 30m, whichever is greater) will result in disqualification. Height penalties for flying below the aerobatic minimum but above the disqualification height will be determined by a simple majority of the Judges or electronically if a precision height measuring device is available.
- 3.2.6.2. Disqualification (from the current programme) for infringements of the minimum height limit (3.2.6.1), shall be decided by the Chief Judge or electronically if a precision height measuring device is available. If the Chief Judge decides to disqualify a competitor for low flying, he/she shall immediately make a radio call of "Land, Land, Land", whereupon the pilot must break off and land without further competitive flight manoeuvring.

3.2.7. Performance Zone

- 3.2.7.1. The programmes will be flown within a Performance Zone that shall have minimum dimensions of 1,000m x 500m, with one long side facing the judges and audience. The zone must be clear of occupied buildings and be inaccessible for the public. It must contain an open area at least 500m long and 50m wide, free from obstacles, on which an emergency landing might be attempted. The front edge of the zone will be designated the Display Line.
- 3.2.7.2. The judging position and crowd line shall be at least 150m from the Display Line, further if required by local regulations. The Display Line should be marked in such a way as to be readily identifiable by competing pilots. Such markings must be approved by the International Referee, and must be complete prior to the first competition briefing. Aerial pictures of the box should be distributed to the International Referee and competing pilots to facilitate familiarization with the physical references.
- 3.2.7.3. Any marking of positioning will be carried out by the Board of Judges. The Display Line shall be monitored by a suitably qualified Deadline Judge in possession of an air-band radio. Pilots may be warned of impending infringements of the Display Line, by the Deadline Judge calling "Line, Line, Line" on the safety frequency. Infringement of the Display Line will lead to disqualification of the pilot by the Chief Judge, using a "Land, Land, Land" radio call.

3.2.8. Timing and Duration of Flights

- 3.2.8.1. Limits for timed programmes are given in the paragraphs describing those programmes. For all Programmes, the FEAC organiser will allocate time slots to individual competitors, which must be adhered to. Failure to meet this slot by more than 2 minutes will result in disqualification from the Programme.

3.2.9. Recording/Signalling Start and Finish

- 3.2.9.1. FEAC organisers may specify that the timing of a contest sequence shall be taken from the point of crossing a particular line or gate visible to the pilots. In this case, signalling by the pilot is not required.



- 3.2.9.2. If no timing line or gate is used, a competitor must signal the start and finish of each programme, and any interruption, by distinctly dipping the wing three (3) times immediately one after the other by more than 45 degrees. In this case, and for timing purposes, the programme is deemed to start on the return of the wings to level after the third wing dip; and is deemed to finish on their return to level after the third of the final wing dips.
- 3.2.9.3. The wing dips may be in normal or inverted flight or a horizontal, climbing or descending path. If the first figure in a programme begins in inverted flight, the third wing dip may be replaced by a half roll from upright to inverted.

3.2.10. Measures in Case of Mechanical Defects

- 3.2.10.1. In the event of a competing aircraft becoming unserviceable before the start of a flight, the International Referee may permit the competitor to use another aircraft.
- 3.2.10.2. In the event of a technical problem while airborne, a competitor may break off his or her flight. The Contest Director may authorise a re-flight subject to contest time constraints.

4. PROGRAMMES OF FAI ELITE AEROBATIC CONTESTS

4.1. Competition Flights

- 4.1.1.1. Each competitor will make at least two competition flights, as designated by the organiser (see 1.3.1.1). Smoke may be used on all flights at the option of each individual pilot.
- 4.1.1.2. The FEAC organisers shall designate an airborne holding area for aircraft awaiting their turn to enter the Performance Zone. While in the holding area, it is recommended that all powered pilots perform safety manoeuvres to ensure the functionality of aircraft systems for inverted flight. Allowed safety manoeuvres shall be specified in local regulations. Safety manoeuvres shall not be permitted inside the Performance Zone. Entry to the Performance Zone, from the holding area, shall be given by the Chief Judge using a radio tuned to the contest safety frequency.

4.1.2. Speed Aerobatics Programmes

- 4.1.2.1. A Speed Aerobatics Programme will be composed of 7, 8 or 9 figures in normal and inverted flight performed consecutively and continuously, observing the prescribed sequence of the figures. The basic figures will be selected from the Aresti System (Condensed), although rolling elements may be reasonably extended to increase the spectacle of aerobatic flight. The total figure difficulty should be within the range 480K-500K. The contest organiser shall specify any additional detail requirements of the Speed Aerobatics programme in local regulations for the contest.
- 4.1.2.2. The sequence of figures shall be designed by the an independent party and approved by the International Referee in consultation with the Organiser. The sequence should be released to pilots at a time decided by the Organiser, but not later than the day before the first day of contest flights.
- 4.1.2.3. The Speed Aerobatics Programme will be timed and the winner will be the pilot completing the sequence in the shortest time. Should a pilot make a significant geometrical error in any figure, omit any element of any figure, or fly an incorrect element of any figure, or miss any figure out completely, then time penalties shall be added to the recorded time. The schedule of time penalties shall be determined in local regulations by the contest organiser. If the organiser chooses, he may instead use the default penalties described below.



- a) Geometrical Error > 30° but less than 90° 5 seconds per error
- b) Geometrical error = 90°+, incorrect element or element missed out..... 10 sec per error
- c) Figure omitted entirely 25 sec
- d) Each excursion during aerobatic flight below the minimum height (3.2.6.1) 25 sec

4.1.3. Timed Voluntary Programmes

4.1.3.1. A Timed Voluntary Programme shall have a duration of four (4) minutes (see 3.2.9). Only figures completed by this time limit will be graded. A combination will be taken as one figure. There will be no limit to the number of figures flown nor to their aggregate total difficulty, but no single figure shall, by the sum of its elements, exceed 80K.

4.1.3.2. The start and finish of the Programme must be in normal or inverted level flight. Any figure or combination of figures which is identified in the Aresti System (Condensed) as currently amended by CIVA may be selected to compose the Voluntary Programme

- a) Any figure or combination of figures which is selected must bear the catalogue reference number(s) and the difficulty coefficient(s) (K) stated in the Aresti System (Condensed) as currently amended by CIVA. The numbers and coefficients in the Aresti System (Condensed) will be taken as definitive.
- b) A catalogue reference number may be used only once.

4.1.3.3. Versatility

- a) Each sequence must contain at least one Tail Slide (Family 6) and one complete 360° Rolling Turn (Family 2). If either of these figures is not flown during the times period, a penalty of 500 points, per figure, will be deducted from the final score.

4.1.3.4. Sequence Submission

- a) Not later than 48 hours before the start of the Programme, each competitor must submit a computer file for the programme on a CD, a memory card or by email, in an accepted software format, to the Contest Director. The file must contain completed pages for the three Forms described below. Currently acceptable file formats are Microsoft Visio using Aresti software and Olan.
- b) Form 'A' will show all symbols, catalogue reference numbers and coefficients.
- c) Form 'B' will show the continuous sequence of the programme as it would be flown with the wind blowing from right to left, plus a table listing the Figure Numbers, their Catalogue Numbers and coefficients.
- d) Form 'C' will show the continuous sequence of the programme as it would be flown with the wind blowing from left to right.
- e) Forms 'B' and 'C' must carry the correct symbol for the wind direction.
- f) The forms will include the conventional symbols, catalogue numbers and coefficients only. No account will be taken of any other writing or notation.



4.1.3.5. Checking

- a) It shall be the duty of the International Referee to check the catalogue reference numbers on Form 'A' of each competitor with the symbols on Forms 'B' and 'C', taking the reference numbers in the Aresti System (Condensed) as the basic criteria for deciding compliance with the Rules of this section.
- b) The final responsibility for the correctness and compatibility of Forms 'A', 'B', and 'C' lies with the competitor. Any inaccuracies in the drawing of symbols or in the quoting of coefficients, or the discovery of any cases of repetition of figures, will be referred to the competitor so that the forms may be corrected and resubmitted.
- c) In order to avoid possible alteration and resubmission of forms during the contest, competitors may, if they wish, submit their computer files to the International Referee for checking not more than one month before the beginning of the contest.

4.1.3.6. The organiser will be responsible for reproducing a sufficient number of copies of competitors' programmes to meet the requirements of the contest. One set of copies of each Programme (Form B only) is to be provided to each competitor and to each Judge prior to the start of this programme.

4.1.3.7. Notwithstanding paragraph 4.1.3.5.b), the judges shall only take into account what is actually shown on the relevant Form B or Form C, depending on the prevailing wind direction. The figures drawn on this Form, their orientation with reference to wind and box axes, shall be definitive. Corrections may be made to Forms B & C, via the Contest Organisation, and presented to the Chief Judge no later than 1 hour prior to the flight commencing.

4.1.3.8. Grading of figures in the Timed Voluntary Programme, and the application of penalties, shall be as described in Sporting Code, Section 6, Part 1, except that there shall be no grading of Positioning. The winner of the Programme will be the pilot achieving the highest score after aggregation of figure scores and deduction of penalty points.

4.1.4. Freestyle Programmes

4.1.4.1. The target time of the Freestyle Programme, specified in local regulations, shall be between 3 and 4 minutes.

- a) The selection of figures or figure combinations for this programme need not be made with reference to the Aresti System (Condensed); there need be no numerical limitation on the number of manoeuvres.
- b) The start and finish of a Freestyle Programme may be in normal or inverted flight on a horizontal, ascending or descending path, which must not deviate from the horizontal by more than 45 degrees. Competitors may begin or finish their programme at any height greater than the minimum specified in 3.2.6.1. Procedures for signalling or timing the start of the programme may vary between locations, but will be specified by the Organiser in local regulations.
- c) There will be no submission of forms containing the sequence of figures to the International Referee.

4.1.4.2. The organiser shall publish a list of time bonuses and penalties which will be applied to the actual timed flight in order to establish the ranking order of the pilots. The time bonuses and penalties will be such as to enable the Judges to make comparative evaluations and to



penalise low flying. Alternatively, the organiser may adopt the default bonus and penalty system described below:

- a) Artistic Impression Bonus 0.0 to 10.0 seconds deducted per Judge
- b) Technical Merit Bonus 0.0 to 10.0 seconds deducted per Judge
- c) Time Penalty 1 sec addition per second either side of specified elapsed time
- d) Low Penalty 25 sec added for each descent below minimum (3.2.6.1) in aerobatic flight

4.2. Violation of Flight Regulations and Dangerous Flying

Competitors found guilty of violating flight regulations and/or causing a dangerous situation will, on the recommendation of the International Referee, be disqualified by the Contest Director. The Chief Judge may, with the agreement of two-thirds of the Board of Judges, exclude a pilot who is not flying safely or causes an unsafe situation.

5. EVALUATION OF FLIGHTS AND DETERMINING OF RANKINGS

5.1. Programme and Event Winners

5.1.1.1. Normally, at least two programmes of different formats shall be required to determine an event winner. In the case that bad weather prevents to completion of two programmes, a winner may be determined on the results of a single programme.

5.1.1.2. Normally, the ranking order of pilots determined for each programme will reward pilots with event points according to the adjacent table.

5.1.1.3. The event winner will normally be the pilot whose gaining the highest aggregate of event points from all the programmes flown.

5.1.1.4. When all the programmes flown are determined on a time basis (no Timed Voluntary Programme) then the event winner may be determined by the aggregation of the times for the programmes flown, the winner being the pilot with the lowest aggregate time taking into account all penalties awarded.

Placing	Points
1st	12
2nd	10
3rd	8
4th	6
5th	5
6th	4
7th	3
8th	2
9th	1
10th	0

5.2. Series Winners

5.2.1.1. In the case that a series of events is determined by CIVA to comprise a World Series, then pilots shall be awarded series points based on their performance at individual events. In this case, the series points awarded will be as shown in the adjacent table.

6. CODE OF PRACTICE FOR THE CHIEF JUDGE AND BOARD OF JUDGES

These shall be as described in the relevant paragraphs of Sporting Code Section 6, Part 1.



7. STATISTICAL METHOD FOR PROCESSING SCORES

7.1. Use of CIVA Fair Play System

Traditional grading of figures is employed in the scoring of Timed Voluntary Programmes only. In view of the need for rapid score publication and the small number of judges there will be no statistical processing of results. Raw Marks will therefore be used as the sole basis for determining pilot rankings.

7.2. Judge Performance Evaluation

The performance of judges at FEAC will not be assessed using the FPS Judge Performance processes.