



**Australian Aerobatic Club
2020 Rules & Regulations**

Introduction

The Australian Aerobatic Club (AAC) has several affiliated state-based chapters. It is responsible for the administration of the sport of aerobatics in Australia through the Australian Sport Aviation Confederation Incorporated (ASAC = our National Aero Club). ASAC is in turn responsible to the Federation Aeronautique Internationale (FAI). The FAI is the international organisation, which is responsible for the regulation of aviation sports worldwide. The sporting commission of the FAI which regulates aerobatics is called the Commission Internationale de Voltige Aerienne or CIVA. Australia has both a delegate and alternate, with full voting rights, who may attend the annual CIVA meeting.

In the interests of maintaining international standards in the sport of aerobatics, the AAC contest rules are based broadly on CIVA rules. These AAC Regulations provide all the relevant information for Entry, Graduate, Sportsman competitors. For the International Categories (Unlimited, Advanced and Yak52/Intermediate) competitors should also refer to the FAI Sporting Code Section 6, "Part 1 (Powered Aerobatics)". Copies of the full CIVA Regulations are available on the FAI website via the CIVA link.

AAC Regulations are amended annually to reflect changes in CIVA and FAI Regulations or local needs. These Regulations are to be used at AAC sanctioned competitions.

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President
Australian Aerobatic Club
March 2020

0.1 AMENDMENT SHEET

1. After making amendments to this Manual, a record is to be entered in the appropriate columns below showing amendment number, date, section / part amended, description of changes, signature and date.

NOTE:

All pages will be identified with an amendment status and date.

Amend. No.	Date	Amended Section	Amendment Description	Signature & Entry Date
2	MAR 20	App 1-6	Removed year reference from 3.4	
2	MAR 20	2.18.3	Entry category added	
2	MAR 20	2.52	Entry, Graduate, Sportsman and Intermediate upper limit increased to 3900'	
1	MAR 20	2.53	Entry and Graduate High Altitude penalty infringement changed to 0	
1	MAR 20	2.60.4	Removed	
1	MAR 20	2.63.11	Family 5 added to Sportsman Category Program 2 requirements	
1	MAR 20	2.67	Entry, Graduate and Sportsman Positioning Coefficients increased	
1	MAR 20	App 2-10	CASA Exemptions expired, replaced with CASA EX39/19 and CASA.LOFLY.0670.	
1	MAR 20	App 2-8	Updated for 2019 Australian Aerobic Championships Information Pack	

A0.3 LIST OF EFFECTIVE PAGES

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1.1 Australian Aerobatic Club ACN 001 052 688

- 1.1.1 The activities of the Club are defined and governed by the Memorandum and Articles of Association, which is attached in Appendix 1-1.
- 1.1.2 The Australian Aerobatic Club (AAC) is a registered Company Limited by Guarantee with an elected Committee who are also the Company Directors. The AAC has ASIC permission to not use 'Ltd' in its name, and is a Small Company Limited by Guarantee (SCLBG) due to its low turnover and nature of activities. An abbreviated Company Extract is provided at Appendix 1-2.
- 1.1.3 Being a SCLBG allows a relaxation of the normal Company rules. Specifically the AAC does not have to lodge audited accounts nor have an approved auditor audit the club's financial activities annually. Our auditor is Behrens Rowley and Partners of Sydney. At the 2012 AGM the membership voted to not get our accounts audited in future, but rather have them reviewed by an accountant prior to presentation at the AGM.

1.2 International Relationship

- 1.2.1 Though our Memorandum lists many activities which the AAC may undertake, the primary focus in recent decades has been the sport of competitive aerobatics. This sport is governed internationally by the Federation Aeronautique Internationale (FAI) through its Commission Internationale Voltige Aérienne (CIVA). In turn, the National Aero Club (NAC) of each country represents the FAI locally – in our case the Air Sport Australia Confederation (ASAC).
- 1.2.2 ASAC authorises the AAC to manage the sport domestically and issue FAI licences via a delegation, shown at Appendix 1-3. We pay an annual remittance, based on membership numbers, to ASAC and on to the FAI.
- 1.2.3 In return for being associated with the FAI we generally follow FAI competition procedure and make use of the Aresti aerobatic notation in our documentation. Our pilots and judges also have the opportunity to compete or judge, respectively, at FAI sanctioned events such as the World Aerobatic Championships (WAC), World Advanced Aerobatic Championships (WAAC), Yak 52 World Championships (YakWAC) and Intermediate Championships.

1.3 Relationship with Chapters

- 1.3.1 The State-based Chapters are affiliated with the AAC, but as independent statutory bodies incorporated under the law of their respective State. As such, they have their own Directors and management Committee, and the AAC can only recommend how they conduct their business.
- 1.3.2 It is in the best interest of the sport, however, if all Chapters and the AAC work together. Sharing of resources towards common objectives, agreed with the AAC, in order to foster greater membership numbers and promote greater participation.
- 1.3.3 The primary objectives of the AAC are:
- a) Maintain and expand the annual competition calendar,
 - b) Increase participation in the sport by both pilots and non-pilots,
 - c) Foster the development of young aerobatic pilots,
 - d) Facilitate the development of competitive world-level aerobatic pilots,
 - e) Develop competent domestic and international standard judges,
 - f) Increase membership numbers,
 - g) Maintain our excellent safety record.
- 1.3.4 Current active chapters are:
- a) Australian Aerobatic Club (New South Wales) Incorporated,
 - b) Australian Aerobatic Club (Queensland Chapter) Ltd.,
 - c) Australian Aerobatic Club Adelaide Chapter Inc.
 - d) Australian Aerobatic Club Victorian Chapter Inc., and
 - e) West Australian Chapter Australian Aerobatic Club Inc.
- 1.3.5 The National AAC Committee is comprised of three Executive and several ordinary Members, per the Memorandum and Articles of Association, as follows:
- a) President,
 - b) Treasurer,
 - c) Club Captain, and
 - d) Six ordinary members.
- 1.3.6 The number of ordinary members on Committee may be increased by resolution at a General Meeting.

- 1.3.7 A Club Secretary or Honorary Secretary may be appointed by the Committee and if appointed becomes, ex officio, a member of the Committee.
- 1.3.8 The AAC Memorandum and Articles of Association do not stipulate Chapter representation on the AAC Committee. However, for unity of purpose it is recommended that Chapter Presidents nominate for election to the AAC Committee, or are invited to attend committee meetings.
- 1.3.9 These AAC Regulations are also for the use of Chapters without restriction. Local Supplementary Rules may be issued by Chapters to tailor the document, where deemed necessary, to meet particular local needs. Any reference to the AAC should be extended to include the local Chapter where this is not specifically noted.

1.4 AGM and Election

- 1.4.1 The AAC financial year is 1st January – 31st December. Membership renewals are due 1st January each year (Articles of Association para. 10).
- 1.4.2 The AGM, if possible, should be held within one month of the finish of the financial year (December 31). The practical effect of this is that all financial members of the previous year are eligible to vote in the election of the Committee and on any business conducted at the AGM, without issues of current membership status.

1.5 Reporting Requirements

- 1.5.1 Being a Small Company Limited by Guarantee, as of 2012 the AAC is no longer required to lodge audited accounts and annual reports to ASIC.
- 1.5.2 Our current Auditor is Behrens Rowley Chartered Accountants, Sydney, NSW.

1.6 Patrons

- 1.6.1 The AAC has no patrons at present. IAW section 13, paragraph (a) of the Articles of Association the Club may have no more than six patrons. Nominations for Patrons should be sent in written form to the Committee for consideration. Pertinent information supporting the nomination should also be supplied.

1.7 Scholarships

- 1.7.1 Australian Women Pilots Association (AWPA) RAAF Aerobatic and Formation Scholarship. The AWPA awards an annual scholarship to a female pilot for the purpose of gaining an aerobatic or formation endorsement. Though not associated with this scholarship, our members' family or friends may wish to apply for it via the AWPA.

1.8 Annual Activity Programme

- 1.8.1 The Australian Aerobatic calendar is typically as follows:

Feb/March	-	Victorian State Championship
March/April	-	South Australian State Championship
Jun/Jul	-	Queensland State Championship
Sep/Oct	-	New South Wales State Championship
Sep/Oct	-	West Australian State Championship
Oct/Nov	-	Australian Aerobatic Championship & Annual Awards Dinner.

- 1.8.2 Individual Chapters usually schedule a series of training days or weekends throughout the year to enable further judge and pilot progression.
- 1.8.3 Throughout the year, Aerobatic Training Camps may be run by senior members of the Club to assist others to progress in the sport. Fees levied for these training camps go into the AAC WAC account.

1.9 AAC Financial Accounts

- 1.9.1 The AAC maintains three accounts: a working cheque account for daily usage, an investment savings account and a WAC account. The President and Treasurer are signatories to all accounts, while the Club Captain is also a signatory to the WAC Account.
- 1.9.2 All memberships, merchandise, and competition income and expenditure will flow through the working account. If the balance of this account significantly exceeds forecast requirements then money will be transferred to the investment accounts. Similarly, if large expenditures are expected from the working account money will be brought back from the investment account to cover them.
- 1.9.3 The WAC account is a stand-alone fund for supporting any Australian Team. Money raised through Team Sponsorship, Boot Camp fees, donations or in other ways to support an Australian Team should be deposited into this account. Use of this money should be for improving the team performance at International competitions, such

as employing a Team Coach. Normal individual flying and incidental expenses are not to be paid from this account.

- 1.9.4 Financial statements are to be prepared for tabling at each scheduled Committee meeting. The club financial accounts will be closed on 31 December each year and put in order for review by the auditor or qualified accountant ready for the following AGM.
- 1.9.5 Following the AGM, the incoming Committee should consider the accounts thoroughly and make a budget for that year.

1.10 Australian Teams

- 1.10.1 The AAC has not regularly sent Australian Teams, or individuals, to World Championship events, though activity has increased in the last few years.
- 1.10.2 The nature of our sport is such that without State support or major sponsorship, only a few individuals will be able to fund their expeditions to World level events regularly, or employ expert coaches. The monetary contribution the AAC has usually made is relatively minor. However, if we are to maintain contact with the world standard we need to get more exposure to it, both in flying and judging. Otherwise there is little point continuing our association with the FAI.
- 1.10.3 Thus, it is proposed that whenever possible the AAC should support members wishing, and able, to travel to compete at World Championship events. Support may be as simple as naming them as a member of the Australian Aerobatic Team so they may better approach sponsors, and paying some percentage of the entry fees.
- 1.10.4 By getting this experience at the earliest opportunity those pilots will improve and the knowledge will percolate through the Club. If members travel with the moral, if not financial, support of the Club, they are more likely to remain motivated in the sport. This goodwill will be repaid to the club over time. Furthermore, less experienced members will be motivated to keep progressing within the sport as they will see that it is possible to compete at world level in a reasonable period of time.
- 1.10.5 The Selection Criteria in Appendix 2-3 of Section 2 should be used as a guide, for pilots and AAC management to aspire to. Hopefully at some future time the AAC will have the numbers of competitive pilots at the highest levels such that the full Criteria will need to be applied. Until that time an expansive and inclusive sport development approach

should be applied, rather than a pure domestic results based approach.

- 1.10.6 Announcement of the Team should be made at the annual presentation dinner for the CIVA events to be held the following year. This will provide time for appointment of a Coach, Team training, trip planning, fundraising and general organisation required for such an endeavour.
- 1.10.7 The AAC will facilitate the sending of teams to international events by subsidising the entry fees and using available contacts to find aircraft and coaches etc. *However, it is primarily the responsibility of the Team Members to do what is required to organise, prepare and fund the venture, as a Team.*
- 1.10.8 Money raised by senior members running Training Camps may be used to import experienced coaches, or to engage a coach overseas for the lead up and period of international competitions.

1.11 International Judges

- 1.11.1 The AAC Captain of Flying will review the ACRO-derived Judge Performance Data (JPD) from State and National Championships for all Judges annually. If appropriate, recommendation to CIVA can be made for listing the best performing judges as International Judges.
- 1.11.2 CIVA has performance standards for judges and runs training courses to maintain and standardise judging.
- 1.11.3 To enable the AAC to assess judge performance, State Chapters will forward the raw ACRO competition file to the AAC Captain of Flying after each competition. These files will form part of the AAC historical archive and be referred to as required by committee.

1.12 Insurance

- 1.12.1 The AAC maintains a \$20M Air Display Liability insurance policy with QBE for use by the AAC and its Chapters. Management Liability insurance for Directors and Officials is also maintained with Chartis Insurance to assist in defending any claims against individuals acting in an Official capacity with the club.
- 1.12.2 The premiums are divided pro-rata between the Chapters and AAC (i.e. the AAC pays 50% and the remaining 50% is divided pro rata between the Chapters based on membership numbers).

- 1.12.3 It is beholden upon all AAC and Chapter officials to be professional and knowledgeable in all their activities on behalf of the Club. Negligence will preclude them from insurance cover.

1.13 Duty Statements

- 1.13.1 The AAC MoA give brief direction on the conduct of the Committee and meetings. Further guidance on the duties associated with the various Committee positions is provided at Appendix 1-5.
- 1.13.2 To assist the Treasurer and Committee in the timely completion of essential tasks, the AAC may engage a bookkeeper/Secretary on a mutually agreeable basis. A sample Job Description is provided at Appendix 1-6.

1.14 Membership

- 1.14.1 AAC Articles of Association paragraphs 6 to 10 describes the membership process. AAC Memberships available are: Member, Life or Honorary. The Chapters may also have Social or Associate membership options as well as normal (full) Chapter membership.
- 1.14.2 The convention is that AAC members must also be (full) members of a Chapter. The converse is not required. I.e. a person may join a Chapter as either a Social/Associate (if permitted by Chapter rules) or (Full) Chapter Member without joining the AAC also.
- 1.14.3 AAC Life Membership. Members of ten years or more are eligible for Life Membership. Life Memberships must be nominated and voted on at a General Meeting. People who have performed special services for the club may also be nominated. Paragraph 12 of the Articles of Association refers.
- 1.14.4 Honorary Membership. Patrons, Benefactors, Overseas Visitors or Competitors may be proposed as Honorary Members for the period of their visit. Para. 13 of the Articles refers.
- 1.14.5 AAC Member. This is the normal membership option and member must also be a (full) member of a Chapter. The Membership fee includes an FAI licence. Membership card is inscribed: 'Australian Aerobatic Club, (*insert Chapter name*) Chapter, (*insert year*), AAC (*insert AAC No.*)'. Member is listed on the AAC database.
- 1.14.5 Chapter Member. (Full) Chapter membership. No AAC number is issued. Card inscribed: 'AAC (*insert Chapter name*) Chapter Member (*insert year*)'. Member is listed on the AAC database.

- 1.14.6 Chapter Social/Associate Member. Social or Associate membership of the Chapter only. No AAC number is issued. Card inscribed: 'AAC (*insert Chapter name*) Chapter Social Member (*insert year*)'. Member listed on AAC database.
- 1.14.7 The AAC maintains a central membership database for both the AAC and the Chapters, and administers membership renewals for all. Memberships are for 12 months, commencing 1 January and finishing 31 December.
- 1.14.8 If a membership lapses the AAC number will be reserved and will be re-issued to that same member if they re-join at a later time. Membership and FAI numbers will not be recycled.
- 1.14.9 It is beholden upon all AAC and Chapter members to be professional and sportsmanlike in their conduct and to act in accordance with the AAC Code of Conduct (Refer Appendix 1-9). If a member's failure to adhere to the AAC Code of Conduct is reported to the AAC Committee, the matter will be investigated and disciplinary action may be taken.

Competition Operations and Procedures

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Competition Operations and Procedures

2.1 Competition Personnel

- 2.1.1 The key positions needed to run a successful competition are described in the following. These may be varied / shared depending on the size of the competition.
- 2.1.2 Most council airfields will require an Event Management Plan (EMP) as part of their approval process for an aerobatic competition. A sample EMP is provided in Appendix 2-8.

2.2 Contest Director (CD)

- 2.2.1 SAFETY will at all times be the primary consideration of the CD.
- 2.2.2 The committee shall appoint the CD and liaise with them to appoint the other contest officials and prepare the EMP.
- 2.2.3 The CD must:
 - a) be a current member of the AAC or Chapter,
 - b)
 - c) be a member of and assist in appointment of the Contest Jury, and
 - d) be a member of the Technical Committee.
- 2.2.4 The CD may:
 - a) withdraw any contestant for reasons of safety.
 - b) exclude any contestant for unsportsmanlike conduct.
- 2.2.5 The primary CD duties are to:
 - a) conduct the contest in accordance with AAC, FAI and CIVA Regulations.
 - b) appoint other contest officials in liaison with the committee.
 - c) liaise with the Club Captain to obtain CASA approvals, as required, and having a NOTAM issued to cover the event and practice days as per AAC 2.20.

- d) obtain weather forecasts.
- e) co-ordinating with airport and CASA officials.
- f) ensuring correct use of the AAC dedicated frequency, 125.05, by competing pilots during competition in accordance with CASA approvals as per AAC 2.69.
- g) supervision of the Radio Operator(s) in conjunction with the Chief Judge in accordance with CASA approvals as per AAC 2.69.
- h) designation and marking of the Aerobatic Zone.
- i) conducting the pilots' briefing.
- j) liaise with Chief Judge to ensure Unknown Figures & Sequence are prepared and checked as required.
- k) receive protests.
- l) post scores.
- m) present awards and / or prize money.

2.3 Chief Judge (CJ)

2.3.1 After SAFETY, the Chief Judge's primary concern should be the accurate and fair judging of the competition flights

2.3.2 The Chief Judge will be:

- a) An AAC approved Judge; however, in the absence of an approved judge the Contest Director shall appoint the most experienced AAC Judge as the Contest Chief Judge.
- b) A current member of the AAC or Chapter.
- c) A member of, and assist in the appointment of, the Contest Jury.
- d) A member of the Technical Committee.

2.3.3 The Chief Judge may:

- a) Withdraw any judge for reasons of incompetency.

- b) Withdraw any contestant for reasons of safety.
- c) Recommend exclusion of any person from the contest to the CD for unsportsmanlike conduct.

2.3.4 CJ duties include:

- a) The preparation of unknown figures or sequences in liaison with the CD, as required.
- b) Supervising judges, callers, pencillers, line judges, starter, Contest Secretary and deadline judges.
- c) Supervision of the Radio Operator(s) in conjunction with the Contest Director.
- d) Advising the competition pilot of possible traffic conflict/safety issue/recall by transmitting the words "Break, Break, Break" on the box frequency.
- e) Appointing substitutes, with the concurrence of the Contest Director, for any officials who are unable to perform their duties.
- f) Approving substitution of aircraft.
- g) Authorising changes in the order of competition flights.
- h) Conducting a briefing for all judges, assistants, line and deadline judges.
- i) Debriefing all judges and assistants if required.
- j) Confirming any zero scores and penalties for each flight.
- k) Acting as the judge, in deciding any zero scores, for manoeuvres started behind the Panel of Judges.
- l) Perform the duties of a regular judge, if it is deemed by the contest jury that the inclusion of the Chief Judge's scores would enhance the performance of the Judging Panel.
- m) Clearing competitors into the box by transmitting; 'competitor X the box is clear'.

- n) Timing of flights, and notifying a competitor when their time is up by transmitting; 'time, time, time'.
- o) At the completion of the competition, forward the ACRO file including the judges' Analysis Summaries to the Captain of Flying.
- p) Ensure that administrative staff in the scoring office are suitably briefed and trained in the use of scoring software and competition proceedings.

2.3.5 Refer to Appendix 2-2, 'Evaluation of Flights and Code of Practice for the Chief Judge and Board of Judges'.

2.4 Contest Secretary

2.4.1 The Contest Secretary (CS) will report directly to the CD. In advance of the competition the Contest Secretary is responsible for:

- a) Issuing of competition entry forms and competition information.
- b) Receiving entries and entry fees.
- c) Forwarding pilot details and free sequences to the CJ for entry into the scoring system.
- d) Preparing a list of all contestants by category.

2.5 Chief Scorer

2.5.1 At the competition the Chief Scorer is responsible for:

- a) Registering all pilot and aircraft details as listed in Annexe 2B and issuing unique pilot IDs to each competitor to match the order in which competitors will be registered in the ACRO scoring software.
- b) Preparing Order of Flight sheets.
- c) Ensuring clipboards and all related stationery are available at the contest site.

- d) Issuing sufficient numbers of judges forms A, B and C (or forms L & R) for each flying programme (sufficient for the CJ, judges, line judges, deadline judges, Radio Operator, Starter etc.), correctly marked with the applicable unique pilot ID, Order of Flight and judge number.
- e) Liaising with the Chief Judge regarding unknown sequences to ensure adequate copies of Judges Forms A, B & C (or Forms L & R).
- f) Entering scores promptly and accurately for all competition flights.
- g) Conducting the order of flight draw.

2.6 Safety Director (SD)

- 2.6.1 If not fulfilling other duties, the relevant Club Captain/Captain of Flying shall act as SD. If he/she is not available for the role, then the Jury should appoint another appropriate person.
- 2.6.2 The SD will report directly to the Contest Director and is responsible for:
 - a) Flight safety - assisted by the Chief Judge and Technical Committee.
 - b) Ensure all aircraft flown by competitors during contest are fitted with a serviceable radio.
 - c) Ground safety - assisted by the Starter.
 - d) Flight line control.
 - e) Crowd control.
 - f) Parking of competition and transient aircraft.
 - g) Incident response and coordination in accordance with the Event Management Plan.
 - h) Ensuring a first-response vehicle & accident kit is airside prior to competition flights.

- i) Securing of medical attention, i.e. doctor, ambulance, etc., if required.
- j) Facilitating access and exit of emergency vehicles.

2.7 Starter

- 2.7.1 SAFETY will at all times be the primary consideration of the Starter, who is responsible to the Chief Judge for the orderly release of all flights, reports of mechanical difficulties and for compliance with the safety regulations by each contestant.
- 2.7.2 The Starter will check the following items with each competitor prior to every flight:
 - a) Fuel & oil sufficient.
 - b) No loose articles.
 - c) Vacant seatbelt secure.
 - d) Locker doors fastened.
 - e) Holding area or direct to Box.
 - f) Altimeter setting.
 - g) Harness secure.
 - h) Official Wind.
 - i) Radio frequencies.
 - j) Pilot ID Number.
- 2.7.3 This checklist for the Starter is also provided at Annex 2A.

2.8 Radio Operator

- 2.8.1 Appropriately experienced personnel who hold a Flight Radiotelephone Operator Licence (Ref. CAR 83), will be rostered by the Contest Director to man the base radio and keep a listening watch on both CTAF and safety ('box' 125.05MHz) frequencies. The radio operator is to provide a

traffic advisory service for all aircraft and to advise the Chief Judge of any possible traffic conflicts as soon as they become apparent.

- 2.8.2 The Radio Operator is to maintain a radio log of significant events, with the time of their occurrence, for later reference if required.
- 2.8.3 The Radio Operator is advisory only and has NO operational authority. A suggested traffic flow procedure that has been proven to work well is provided in Appendix 2-9.

2.9 Contest Jury

- 2.9.1 The Contest Jury will consist of the Contest Director, Chief Judge and up to three additional members who are appointed by the Contest Director and Chief Judge.
- 2.9.2 The Contest Jury is the arbitration body of aerobatic events and decisions made by the Contest Jury are final and not subject to change or further protest.
- 2.9.3 The Contest Jury is responsible for:
 - a) Interpreting the general rules, the judging rules and the general regulations of the contest.
 - b) Adjudicating protests.
 - c) Approving unknown sequences and their modification if deemed required for safety.
 - d) Determining the Official Wind direction for all aerobatic programmes.
- 2.9.4 The Contest Director and Chief Judge will appoint alternate jurors when necessary to replace a juror involved in a protest or when a juror is unable to serve for whatever reason (including a conflict of interest).

2.10 Technical Committee

- 2.10.1 Each contest will have a Technical Committee which will consist of the Contest Director, the Chief Judge and other members appointed by the Contest Director. Whenever possible a LAME should be included in the Technical Committee.

- 2.10.2 In the event of an interruption of a flight due to an alleged mechanical problem, the Technical Committee will investigate the malfunction and determine whether or not it was a failure beyond the control of the competitor. The Technical Committee will report the findings to the Contest Jury.

2.11 Judges

- 2.11.1 Judges are responsible for grading contest flights and supervising the Assistant Judges and Recorders assigned to them.
- 2.11.2 All Judges are required to attend Judges' Briefings as scheduled by the Chief Judge. A contestant may be a Judge or other official only if the contestant can attend each and every briefing and debriefing session.
- 2.11.3 A list of Qualified Aerobatic Judges, as well as Judges undergoing training will be kept by the Captain of Flying. Judges should meet all the standards outlined below and be current members of the AAC. Appointments to this list will be made by the AAC Committee on the recommendation of the Captain of Flying.
- 2.11.4 In order to be included on the AAC list of Qualified Judges, the following qualifications and experience is required:
- 2.11.5 Judges must;
- a) have achieved no less than 80% in a current Judges' Exam set by the Committee,
 - b) have judged at least two contests within the previous 24 months or re-qualified by judging a practice flight under the supervision of the CJ prior to the competition,
 - c) be recommended by the Contest Chief Judge based on their performance as a judge at a recent state competition,
 - d) have a satisfactory Fairplay JPI of less than 15 after having judged a minimum of 50 flights at a competition or championships, and
 - e) be approved by the AAC Committee.

2.11.6 If insufficient Qualified Judges are available then Judges for a contest will be selected by the Contest Director and Chief Judge from the best qualified people available.

2.11.7 Judges who are guilty of considerable misjudgement, prejudice etc., will be reported to the AAC Committee by the Contest Chief Judge. Action IAW the AAC Code of Conduct will be taken by the Committee.

Refer to Appendix 2-2, Evaluation of Flights and 'Code of Practice for the Chief Judge and Board of Judges'.

2.11.8 The AAC Captain Of Flying shall maintain a Judge's record including JPI's for each competition.

2.12 Callers

2.12.1 Callers are not required to be chosen from the list of Qualified Aerobic Judges. However, they should have had previous competition aerobic experience.

Note: A Caller must be able to read and call Advanced or Unlimited sequences, as required – this usually means an experienced competitor of Intermediate standard or higher, or an experienced judge of these categories.

2.12.2 One Caller may be assigned to each Judge for Advanced and Unlimited flights. The Caller's task is to assist the Judge by advising the sequence of the figures, roll and spin directions, into-wind direction and any other duties as directed by the judge.

2.13 Pencillers

2.13.1 Pencillers will be allocated by the Chief Judge from the people available, in order of preference, and subject to availability, as follows:

- a) A qualified judge.
- b) Those who have previous competition aerobic experience.
- c) Those who have previous aerobic experience.
- d) Any other suitable person.

Note: Pencilling is an ideal introduction to aerobatics and judging and should be used to introduce people to the sport during the lower category flights at competitions.

- 2.13.2 One Penciller will be assigned to each Judge to record all grades, positioning marks, penalties and such comments as time permits on the competitor's Form A (or Form L or R). The Penciller maintains possession of the clipboard with Forms A, B and C (or Form L & R) in the proper order of flight.

2.14 Expenses

- 2.14.1 All contestants are responsible for paying invoices relating to their aircraft from the operators of contest airfields. The AAC or Chapter has no power to act as an intermediary in such matters. The AAC or Chapter cannot be held liable for any costs incurred by pilots flying at contests, even if a pilot has had to abort a flight on instruction by the CJ or CD. If a contestant has unpaid debts to either the AAC or Chapter or operators of contest airfields, the AAC or Chapter may suspend the pilot's membership until the debt has been paid.

- 2.14.2 The following contest officials, may be entitled to claim per diem expenses from the AAC or Chapter, to defray accommodation costs, at the rate of no more than \$100 per full flying day. Officials living within commuting distance of an event may claim reimbursement of motoring costs at \$0.20 per kilometre up to the \$100 per day limit.

- a) The CD,
- b) The CJ,
- c) The Contest Secretary,
- d) Other expenses, supported by receipts, related to AAC or Chapter activity may be refunded subject to approval by the Committee.

- 2.14.3 In the interest of attracting judges to the sport, it is recommended that chapters and the AAC assist with the expenses (transport, accommodation, meals, etc.) of the judges where possible. The expenses covered should be agreed upon prior to the commencement of the competition, and this should be confirmed in writing by the Contest Director.

2.15 Pilot Eligibility

- 2.15.1 Compliance with Commonwealth of Australia CAOs, CASRs and CARs is required for participation in AAC or Chapter events. Current aircraft and pilot documentation is required to be validated at registration prior to flying at an event.
- 2.15.2 Originals, photocopies, soft-copies or records held on-file by the AAC or Chapter of the required documents will be accepted. Failure to satisfy the CS of possession of these documents will prevent participation in an event. A list of the required documentation is at Annexe 2B.
- 2.15.3 Contestants will not be allowed to enter more than one category in any one contest. This does not mean that contestants cannot enter a different category at another contest.
- 2.15.4 Competitors must hold a minimum of a Recreational Pilots License with applicable Aerobatic and Spinning Flight Activity Endorsements. Competitors not holding the required design feature endorsements for the aircraft type may carry a Safety Pilot. Recreational Pilot Certificates will not be accepted by the AAC.

2.16 Safety Pilots – Aerobatic Flight Activity Endorsements

- 2.16.1 A Safety Pilot may be used by those pilots lacking a 1500ft Aerobatic Endorsement in Graduate and Sportsman categories only, otherwise they must fly the sequence not below 3000ft AGL.
- 2.16.2 In the case of Para 2.16.1, the competitor shall apply in writing to the Contest Jury before the use of a safety pilot shall be approved.
- 2.16.3 The Safety Pilot must hold a current and valid authorisation to act as pilot in command for such flights and must therefore be a current Flying Instructor or CASA Approved Person with the appropriate aerobatic and low level approvals and endorsed on the aircraft type.
- 2.16.4 Pilots competing with a safety pilot for the first time in Entry or Graduate category, at an Australian Aerobatic Championship, will not be classified as "Hors Concourse" (H/C).
- 2.16.5 Pilots flying with a safety pilot for the second or subsequent time in Entry or Graduate category, at an Australian Aerobatic Championship, will be classified as "Hors Concourse" (H/C).

- 2.16.6 Sportsman Pilots flying with a safety pilot in accordance with this section at an Australian Aerobatic Championship will be classified as "Hors Concourse" (H/C).
- 2.16.7 "Hors Concourse" (H/C) pilots will pay normal entry fees, subject to the normal entry deadlines for the contest, and be treated as other competitors. In the event of time constraints, however, they may be shifted in the order of flight or deleted from the flight programmes altogether at the discretion of the contest jury. H/C pilots will appear in the final results but will not be ranked or eligible for any awards or medals.

2.17 Safety Pilots – Extenuating Circumstances

- 2.17.1 Safety Pilots may be used when extenuating circumstances exist that requires a safety pilot to allow a competitor to compete. Such circumstances may be, but are not limited to:
- a) A change in aircraft means the competitor is not endorsed in the aircraft type.
 - b) The pilot suffers from a medical condition that requires the carriage of a safety pilot.
 - c) Weather conditions, and runway availability dictate that a safety pilot be carried because of pilot experience.
- 2.17.2 In the case of Para 2.17.1, the competitor shall apply in writing to the Contest Jury before the use of a safety pilot shall be approved.

2.18 Aerobatic Flight Activity Endorsements

- 2.18.1 Pilots must show, no later than registration, the Aerobatic Flight Activity Endorsement that they hold.
- 2.18.2 Each competitor shall hold the required Aerobatic Flight Activity Endorsement appropriate for the category being flown in accordance with table 2.18, unless an exception is made by the Contest Jury in accordance with Para 2.18.4.

Table 2.18

Category	Aerobatic Box Lower Limit	Aerobatic Flight Activity Endorsement Required
Entry	3000ftN/A	

Graduate	1500ft	A150 (1500ft)
Sportsman	1500ft	A150 (1500ft)
Intermediate	1000ft	A100 (1000ft)
Advanced	660ft	A050 (500ft)
Unlimited	330ft	AULT (Unlimited)

- 2.18.3 Competitors in Entry and Graduate category will receive automatic approval to compete with a 3000' aerobatic endorsement, rather than the required 1500' aerobatic endorsement.
- 2.18.4 Competitors who do not hold the correct Aerobatic Flight Activity Endorsement, can apply to the Contest Jury for an exception to be granted for a specific aerobatic contest. Competitors must make a written application to the Contest Secretary no later than the published closing date for entries for the specific contest. Competitors shall expect that exceptions to Para 2.18.2 will only be issued in extenuating circumstances.

2.19 CASA Approvals

- 2.19.1 It is not required to get a CASA display approval for a competition or training activity, as they are a club sporting event organized for members and not involving, or advertised to, the general public.
- 2.19.2 The Contest Director shall be responsible for ensuring that all CASA instruments or exemptions contained within Appendix 2-10 are complied with.
- 2.19.3 A NOTAM shall be requested highlighting the aerobatic activity and any other changed procedures for the period of practice and the competition (sample NOTAM at Annex 2C). The need, or otherwise, for CASA involvement should be ascertained well in advance of the contest date by the Contest Director or relevant committee, and the appropriate action taken.

2.20 Number of Judges

- 2.20.1 The use of five (5) judging teams is standard for all contests. However, a minimum of three (3) judges may be used when five (5) suitable judges are not available.

2.21 Supplementary Rules

- 2.21.1 The Contest Jury may issue supplementary rules to address any deficiencies of these regulations or any peculiarities of contest venue or circumstances.
- 2.21.2 The supplementary rules should be published with the contest entry paperwork in advance of the event. If this is not possible then the Jury must inform all participants of the supplementary rules at the formal competition briefings and post the supplementary rules for reference by the participants.
- 2.21.3 All supplementary rules for an event must be approved by the Committee prior to being posted. Once posted the supplementary rules are to be considered a part of the AAC Regulations for the period of the event.

2.22 Number of Pilots per Aircraft

- 2.22.1 The maximum number of pilots that may be entered in a contest per competition aircraft may be limited by the supplementary rules issued by the Contest Jury.

2.23 Entry and Other Forms

- 2.23.1 An entrant in an aerobatic contest will be required to complete the following forms and submit them to the Contest Secretary no later than during registration:
 - a) Application for entry and the entry fee.
 - b) "Hold Harmless" waiver and agreement.
 - c) Free or free known sequences as a ".seq" file from Open Aero on a USB Stick, or via email to the Chief Judge and Chief Scorer if not uploaded to the AAC website prior.
- 2.23.2 All entrants undertake, by signing the application for entry, to comply with the regulations and procedures in this manual.

2.24 Free/Free-Known Sequences

- 2.24.1 Competitor Free/Free-Known programme sequences must be submitted in ".seq" format and preferably uploaded to the Aerobatic Club website.

- 2.24.2 Should a competitor disagree with a decision of the contest officials concerning the correctness of their free programme, the matter may be referred to the Contest Jury under the procedures in this manual for protests.
- 2.24.3 The final responsibility for the correctness and compatibility of forms A, B C, L and R lies with the competitor.
- 2.24.4 A copy of all competitors' Free/Free-Known programmes (form B or R only) will be posted prior to the start of this programme if a competitor in that category requests it.
- 2.24.5 Once the flying of the programme has started, no protest of any kind will be accepted by the Contest Jury on any aspect of the composition of a contestant's programme.

2.25 Entry Fees

- 2.25.1 The amount of the entry fee will be determined by the National or State Committee (as applicable).

2.26 Refusal of Entry

- 2.26.1 Any contestant may be refused participation in a contest in which the contestant or their aircraft does not meet the standards required. The decision to refuse entry will be made by the Contest Jury.
- 2.26.2 Contestants arriving late regardless of reason will be refused entry unless they arrive in time to complete registration, be briefed and on the line ready to fly before the commencement of the first flight of their category.
- 2.26.3 Contestants may apply to the Contest Jury in writing for an exception to 2.26.2 prior to the start of the contest if circumstances prohibit them from being present at the start of the competition.

2.27 Withdrawal of Entry

- 2.27.1 Contestants may withdraw from a contest any time prior to the entry deadline date and time. In case of withdrawal, the entry fee will be returned to the contestant.

2.28 Trophies and Awards

- 2.28.1 There must be a minimum of two contestants in a category to declare a category champion and for the contest to rank as a State or Australian Championship in that category. This also applies to Programme 5, the Unlimited Freestyle Programme, which is a separate competition.
- 2.28.2 FAI members of other countries who are not financial AAC or chapter members nor Australian passport holders, may be invited to compete or judge, and be issued with a Honorary Membership in accordance with Para 1.14.4 of this manual, and Para 13 of the Articles of Association. They will pay normal entry fees, be subject to the normal entry deadlines for the contest, and be treated as other competitors.
- 2.28.3 In the event of an incomplete contest because of weather or for some other unforeseen reason, each category will be considered complete based on any flight programmes finished in their entirety.
- 2.28.4 At AAC National Contests the following trophies will be awarded:
- a) *Australian Champion Trophy.* The highest placing Australian Unlimited Competitor will be awarded the Philips Cup Australian Champion Trophy. The winner will retain the perpetual trophy for one year.
 - b) *Australian Aerobatic Club Highest Percentage Overall Trophy.* The competitor who achieves the highest percentage overall will be awarded the Australian Aerobatic Club Highest Percentage Overall Trophy. The winner will retain the perpetual trophy for one year.
 - c) *Highest Placing First Time National Sportsman Competitor.* A trophy will be awarded to the highest placing Sportsman Competitor who is competing in Sportsman category for the first time at an Australian Aerobatics Championship. The winner will retain the perpetual trophy for one year.
 - d) *Team Trophy.* Team points will be awarded for each category, apportioned as follows:
 - i) 1st place 4 pts
 - ii) 2nd place 2 pts
 - iii) 3rd place 1 pts

The State Chapter with the highest aggregate points will be awarded the team trophy. In the event of a tie, each Chapter's next highest placing contestant scores will be used to determine the order.

- e) *Tom Moon Four Minute Free Trophy.* The competitor who wins the Unlimited Four Minute Free will be awarded the Tom Moon Trophy. The winner will retain the perpetual trophy for one (1) year.
- f) *Australian Aerobatic Club (Year) Aerobatic Champion Trophy.* This perpetual trophy will be awarded in the years when no Unlimited competition is held. This trophy will be awarded to the highest placed Advanced Pilot.
- g) *Australian Aerobatic Club Highest Percentage Overall RV Trophy.* The competitor who achieves the highest percentage overall whilst competing in an RV aircraft will be awarded the Australian Aerobatic Club Highest Percentage Overall RV Trophy. The Contest Jury will confirm at each contest the aircraft which qualify for this trophy.
- h) *Australian Aerobatic Club Highest Percentage Overall Warbird Trophy.* The competitor who achieves the highest percentage overall whilst competing in a Warbird aircraft will be awarded the Australian Aerobatic Club Highest Percentage Overall Warbird Trophy. The Contest Jury will confirm at each contest the aircraft which qualify for this trophy.

2.29 Prize Money

- 2.29.1 Prize money may be awarded at the discretion of Contest Officials.

2.30 Cancellation or Postponement of the Contest

- 2.30.1 No contest will be cancelled or postponed unless:

- a) There is time to notify all contestants at least three (3) days in advance of the contest date.
- b) Weather conditions do not permit the safe conduct of the contest.
- c) Circumstances exist beyond the control of the Contest Director.

2.31 Pilot Identification Numbers

- 2.31.1 At Registration, the Chief Scorer shall issue each competitor a unique Pilot ID that is the number assigned in the ACRO scoring software for that competitor for the contest.
- 2.31.2 The Chief Scorer will record the competitor's unique Pilot ID on Forms A, B and C (or Forms L & R) for each of the competitor's programme flights.
- 2.31.3 The unique Pilot ID will be printed on results sheets.
- 2.31.4 The competitor must provide their unique Pilot ID to the Starter and Chief Judge when commencing each programme flight.
- 2.31.5 The order of pilot registration is unique to one contest and thus a pilot's unique Pilot ID can be expected to vary from contest to contest.

2.32 Score Sheet Processing

- 2.32.1 Immediately upon completion of a competition flight programme and when the judges have finished their marking, the score sheets will be collected for review by the Chief Judge. Once any required actions are taken (conference, penalties added, indexes checked, etc.) the score sheets will be forwarded by the CJ to the Chief Scorer for entry into the scoring system. The individual judges themselves must sign off any changes to their score sheets.
- 2.32.2 Should the completion of all flights in any programme be interrupted, all Judges' score sheets shall be collected and secured by the CJ until flying resumes.
- 2.32.3 Once the score sheets for a programme have been passed by the CJ to the Chief Scorer, the score sheets come under the supervision and jurisdiction of the Contest Jury.
- 2.32.4 The Chief Scorer is responsible for entering the scores promptly and within one hour of programme completion make available to competitors their raw-score assessment sheets attached to the judge score sheets for each pilot.
- 2.32.5 Where there is a minor question of the correct information for a competitor the Chief Scorer should use the CJ's score sheet as the

authoritative indicator of the Competitor's unique Pilot ID and/or name, and any Penalties awarded.

- 2.32.6 In the event that the Chief Scorer has a query about some aspect of a score sheet, which they are unable to resolve by reference to the CJ's score sheet, all of the score sheets in that set immediately return to the supervision and jurisdiction of the CJ for that programme for prompt resolution of the problem.

2.33 Protests

- 2.33.1 Individual pilots and judges are eligible to file protests. The following procedure will be used when lodging protests:
- a) Protests must be lodged not later than three (3) hours after the Chief Scorer issues the last of the pertinent raw-score results. Non-working hours will not be counted.
 - b) Protests must be submitted to the Contest Jury in writing and must refer to the rule or rules to which it relates.
 - c) Protests must be accompanied by a fee of \$100.00 per protest, which will be refunded if the protest is upheld.
- 2.33.2 The hearing will be conducted as soon as possible after the receipt of the protest. All protests will be dealt with by the Contest Jury, in cooperation with the Chief Judge if his assistance is required and his duties permit.
- 2.33.3 The protester can be present while the hearing is being conducted and may call witnesses but will be excluded when the Contest Jury is considering its verdict. The judges are advised to keep activities of the Contest Jury strictly confidential.
- 2.33.4 Decisions taken by the Contest Jury are final and must not be changed later.

2.34 Certification of Final Scores

- 2.34.1 The CIVA Fair Play System is to be used for both Australian and CIVA categories.
- 2.34.2 The Chief Judge (or CJ for the programme in question) will check that all competitors have received their raw-score marking sheets and that the protest period has lapsed. Following this review, Chief Judge will certify

the FPS-processed scores as final by affixing their signatures to the FPS-processed score sheets.

2.35 Publishing of Results

- 2.35.1 The Chief Scorer will make the FPS-processed official & final scores for a programme available for public viewing on the contest noticeboard and on the AAC website as soon as practicable after the protest period has lapsed.
- 2.35.2 Results must not be held back from publication in order to create a surprise or other form of tension, including on completion of a contest and prior to any awards ceremony.

2.36 Practice/ Training Flights

- 2.36.1 Individual registration must be completed prior to undertaking any flying after the first Official Briefing.
- 2.36.2 No Official Practice flights will normally be allowed once the contest has commenced, unless permitted by the Contest Jury under special circumstances at their discretion.
- 2.36.3 All flying at the contest venue outside the auspices of competition programmes is deemed to be private and not the responsibility of the AAC, Chapter or Contest Officials.

Note: Members are to be cognisant, however, that their behaviour and airmanship will be associated with the Club and any shortcomings in these areas may be detrimental to the reputation of the Club.

2.37 Public Address System

- 2.37.1 A Public Address system (PA) may be permitted by the Contest Jury with the following restrictions:
 - a) The PA system should not be audible at the judging position.
 - b) No derogatory remarks about contestants, crews or officials are permitted.

2.38 Flight Line Crews

- 2.38.1 Each contestant will be responsible for the conduct of his or her flight line crew. Only those persons authorised by the Contest Director will be eligible to serve on the flight line crew. Any misconduct may result in their expulsion from the flight line.

2.39 Disqualification

- 2.39.1 All contestants must comply with the Civil Aviation Act, CAR, CASRs, CAOs, AIP and any personal CASA approvals or permissions at all times. Any violation of these statutory orders will render the offender liable to disqualification from the contest.
- 2.39.2 Serious infringements of the AAC Rules may also result in disqualification from the sporting event. A contestant *may* be disqualified if it is determined by the Contest Jury that the contestant has violated any of the following:
- a) No Briefing. Flying at the contest without a complete pilot briefing.
 - b) Technical Device. Using technical devices for the purpose of coaching during a competition flight.
 - c) Smoke System. Using a smoke system during a competition flight, except for the 4 Minute Free Style programme.
 - d) Mechanical Defect. Operating an aircraft with a known mechanical defect that renders the aircraft un-airworthy.
 - e) Aircraft Limitations. Performing a manoeuvre which is prohibited for that aircraft type or exceeding flight manual limits.
 - f) Reckless Flying. Violation of traffic patterns, unscheduled aerobatic manoeuvres, or operation of an aircraft in an unsafe manner or in such a manner that could create an unsafe situation or cast an image of recklessness on the AAC. The will not be allowed any subsequent flying except for the removal of their aircraft from the contest location.
 - g) Intoxication. All participants must abide by the Civil Aviation Safety Regulations 1998, subsection 99.010. No recreational drugs or alcohol may be consumed by any person associated with the contest in any capacity during the period of practice and competition flying.

- h) Scuba Diving. Contestants must not participate in scuba diving within a 24-hour period prior to participation in a contest.
- i) Medicinal Drugs. Contestants will not be permitted to compete if they are under treatment with any drugs which are not permitted to be taken in accordance with CARs.
- j) Judging Line Access. Contestants on the judging line without permission may be disqualified.
- k) Abusive Behaviour. Abuse, harassment or intimidation of any contest official or other contestant.
- l) Bribery. Bribery or attempted bribery of any contest official or other contestant or acceptance of a bribe.
- m) Sportsmanship. Cheating or unsporting behaviour, including deliberate attempts to deceive or mislead officials, wilful interference with other competitors or their aircraft, or the falsification of documents.
- n) Illegal Practice. Practicing of an unknown figure by a contestant during flight; however, this does not preclude the flying of the current programme competition sequence. Performing an aerobatic manoeuvre while holding or preparing to enter the box.
- o) Flying non-approved figures during a test flight.
- p) Entering the box without clearance.
- q) Failure of the contestant to observe proper starting procedures or to comply with the Starter's orders.
- r) Alteration of Free Programme. After the Judge's Certification of the Sequence a free sequence cannot be changed without obtaining re-certification.
- s) Medical. Sudden unpredictable deterioration in physical condition, which renders further aerobatic flight unsafe, will require immediate cessation of that flight. Preventable physical incapacitation will be grounds for disqualification for that flight.

- 2.39.3 In the event of temporary incapacitation before the start of a flight, the pilot will notify the Starter. A medical evaluation must be performed by an appropriate physician, which may be supplemented by consultation with a second physician of the Jury's choice. The Contest Jury will have final authority to decide upon a subsequent or make up flight.

2.40 Order of Flights

- 2.40.1 The order of competition flights for programme 1 and programme 5 (Unlimited Freestyle) will be determined by lot. Each competitor will draw his or her own lot. Subsequent programmes will use the official combined standings, in reverse order, to determine the order of flight.
- 2.40.2 The sequence of flights may be altered by the Contest Director, or Chief Judge if special circumstances require separation of pilots flying the same aircraft.

2.41 Pilot Briefing

- 2.41.1 This briefing is mandatory for all contest officials and contestants. Notification of time and place will be given in advance. The briefing will be conducted by the Contest Director and will include:
- a) Roll call and order of flight. (Pilots must answer roll call in person). Missing roll call will incur a penalty.
 - b) Introduction of Contest Officials.
 - c) Introduction of CASA Officials (if present).
 - d) Weather forecast and winds aloft.
 - e) Official wind direction.
 - f) Description of Aerobatic Zone, safety manoeuvres and deadlines.
 - g) Safety rules and minimum altitudes.
 - h) Starting procedure.
 - i) Holding area, technical area, and dead-prop zone.
 - j) Departure, holding and arrival tracks and procedures for the safe flow of traffic to and from the airfield, holding area and box.

k) Sufficient review of any manoeuvres deemed necessary to assure complete understanding by all contestants and judges.

l) Personnel permitted on the judging line.

2.41.2 Radio, circuit, holding and airfield procedures for all aspects of operations at the competition will be clearly outlined at each daily briefing by the contest director. These procedures may change from competition to competition, venue to venue, even day to day as circumstances require so it is extremely important that all those involved, contestants and officials, be vigilant in listening to and thoroughly understanding the procedures in effect.

2.41.3 It is the individual pilots responsibility to bring to the attention of the meeting any procedure or rule, in which they are unsure of the interpretation or instruction. Lack of understanding is not to be used as subsequent excuse.

2.41.4 It is recommended that, when possible, a "warm-up" flight for the judges be flown in all programmes by a non-competing pilot. The warm-up pilot should also fly the low altitude axes of the box. If no warm-up pilots are available, then the first competitor is to fly the low altitude lines.

2.42 Judges Briefing

2.42.1 This briefing is mandatory for the following personnel - Judges, Callers, Pencillers, Line and Deadline Judges. It will be conducted by the Chief Judge and shall refresh the following:

a) Key position duties.

b) Criteria for scoring positioning.

c) Operation of the deadline, if in use.

d) Line judging method.

e) 'Low', 'low-low', and disqualification criteria.

f) Clarification of the HZ, PZ and numerical zero process.

g) Any other key items deemed necessary.

- h) Location and time of debriefing following each competition programme or flight, if required.

Note: CJs are to limit discussion on the judging line between flights so as to minimise any subconscious drift in judge scoring methods over the course of a programme. A balance must be struck between the desire to train judges, and obtaining the most consistent scoring possible. Championship competitions, ideally, should be purely flying and judging, not training.

2.43 Starting

- 2.43.1 A competition pilot must be at their aircraft, at the nominated starting position ready for flight a minimum of two (2) competitors prior to their order of flight number. The Starter will check the items of Annexe C with the competitor. After receiving starting orders, the contestant will start, taxi, and depart to the aerobatic box or holding area as briefed.
- 2.43.2 Competitors who are not present at their aircraft at the correct time will not be chased by the Starter, and may be removed from the program.

2.44 Mechanical Defects

- 2.44.1 In the event of a competing aircraft becoming unserviceable before the start of a flight, the Contest Jury may, on the recommendation of the Technical Committee, permit the competitor to use another aircraft or the same aircraft following the rectification of the defect.
- 2.44.2 In the event that a test flight is required and the competitor does not allow a non-competing pilot to fly his/her aircraft for test purposes, a special authorisation will be given to the competitor to fly this test flight under the following conditions:
 - a) The flight will consist of a maximum of three aerobatic figures, as recommended by the Technical Committee and approved by the Contest Jury.
 - b) The flight will be conducted in the Aerobatic Zone and observed by a member of the Contest Jury.
- 2.44.3 If the competitor stops his/her competition flight due to technical damage or malfunction beyond the pilot's control, he/she may be allowed to repeat the flight provided that evidence of the damage can be furnished to the Technical Committee within two hours of landing.

- 2.44.4 When a competitor has a mechanical defect in flight and decides to land, he/she will be required to taxi (if able) to a designated technical area. This area will be off limits to everyone except the competitor, the Technical Committee and the Contest Jury. An engineer will be permitted to enter the area with the concurrence of the Contest Jury. The competitor will be required to remain in his/her aircraft until the arrival of a member of the Contest Jury who will release him/her and subsequently permit the aircraft to be worked on and inspected.
- 2.44.5 To verify the damage or malfunction, only the following persons will be permitted to work on the aircraft:
- a) The competitor,
 - b) a mechanic nominated by the competitor,
 - c) members of the Technical Committee, and
 - d) members of the Contest Jury.
- 2.44.6 When the damage or cause of the malfunction has been found, repairs may be made by the mechanic of the aircraft and other qualified personnel, as recommended by the Technical Committee.
- 2.44.7 Any damage will be counted as such provided it is a break or deformation found on the aircraft or engine or their component parts without use of any special device except a magnifying glass.
- 2.44.8 The competitor will not be permitted to repeat his/her flight if the cause of the malfunction or damage is due to the following;
- a) Incorrect adjustment or securing of a latch, panel, or buckle,
 - b) caused by dirt attributed to negligence of the competitor, or
 - c) insufficient or missing safety devices causing a change of settings during the flight.
- 2.44.9 If it can be ascertained by the Technical Committee that contaminated fuel or oil was supplied by the organisers, a repetition flight will be permitted.

- 2.44.10 The Contest Jury must, not later than five hours from the landing of the competitor concerned, decide whether or not a repetition flight will be approved. In case of doubt on the basis of the statement by the Technical Committee, the Contest Jury shall decide in favour of the competitor.
- 2.44.11 In order to avoid any delay in the progress of the contest, the repetition flight will be made at the first available opportunity closest to the original flight order, even if this is prior to the decision of the Jury.
- 2.44.12 The sequence of repetition flights will be determined by the sequence of interruptions of competition flights.
- 2.44.13 A competitor making a repetition flight must re-fly the entire sequence. Judging and scoring will be continued from the figure during which the technical problem occurred in the interrupted sequence.

2.45 Recall Signals

- 2.45.1 The discrete safety/box frequency will be used by the Chief Judge to recall a competitor if necessary during a flight. In the event that a break is required the Chief Judge will transmit "Break, break, break".

2.46 Daylight Hours

- 2.46.1 Flights shall only be carried out during Daylight Hours.
- 2.46.2 The AAC and CD must also abide by local regulations and curfews imposed by CASA, airfield operators, or local councils.

2.47 Meteorological Conditions

- 2.47.1 Aerobatic flights are to be flown only in Visual Meteorological Conditions (VMC). However, ideal weather will not necessarily prevail during the contest period.

Note: VMC Criteria for Class G airspace is 5km visibility, 1500m horizontal and 1000ft vertically clear of cloud. Below 3000ft AMSL or 1000ft AGL, whichever is the higher the VMC criteria are, 5km visibility, clear of cloud and in sight of ground or water. Ref. AIP ENR 1.2.

- 2.47.2 Competition flight will not take place in precipitation.

- 2.47.3 The minimum prevailing flight visibility, determined with reference to ground features from the midpoint of the box at the maximum height for the competition flight, must be 5 kilometres.
- 2.47.4 The maximum permissible average wind speed at the surface is 12 m/sec (~23kts). At 500m the maximum permissible average headwind component is 12 m/sec (~23kts). Maximum crosswind component, in relation to the main axis, is 6 m/sec (~12kts) at the surface and 8 m/sec (~16kts) at 500m. Maximum tail wind component at the surface and 500m is 3 m/sec (~6kts).
- 2.47.5 The Contest Jury may relax the wind limitations stated above by 25% without referral to the competitors in the interests of completing the competition in the time available. A further increase above 25% in wind limits must be agreed to by two-thirds of the competing pilots in each category. A pilot cannot be compelled to fly in conditions in which they are not confident they can operate safely. However, if a pilot chooses not to fly they forfeit that flight programme.
- 2.47.6 The minimum height of the cloud base must be 1000 ft. above the maximum height permitted for each category (Ref. Table 4.48). For Advanced and Unlimited CIVA Section 6 criteria should be used, however, VMC criteria must still be observed.

Note: The minimum height of the cloud base shall be sufficient to permit operations in VMC at the upper limit of the box for each category. If this is not the case then an optional weather break will be made available to competitors. It is the PIC's responsibility to ensure VMC is maintained during the flight.

- 2.47.7 In circumstances where intermittent low cloud is passing through the Performance Zone, followed by clear patches of weather, the Contest Director in conjunction with both the Jury and the Chief Judge, may waive the time limit for the completion of the programme, thus allowing a competitor to orbit if so desired, until the Zone is clear.
- 2.47.8 If the meteorological conditions do not meet the requirements or if the visibility decreases below 5km, the Chief Judge after consultation with the Contest Jury will discontinue competition flights. Such decision may be taken if;
- a) the information from the aerodrome weather service was obtained by balloon ascent,

- b) there is information available from competitors who have just finished or discontinued a flight owing to weather conditions which, in the opinion of the pilot, were outside the prescribed limits, or
- c) the visibility is judged independently by members of the Contest Jury, the Chief Judge or the competitors to be below the minima.

2.47.9 In such cases the members of the Contest Jury should immediately use an aircraft, to be made available for this specific purpose, and arrange for a weather reconnaissance flight in order to ascertain the horizontal visibility and cloud height.

2.47.10 A competitor may discontinue his or her sequence in level flight at the end of a figure if, in his or her opinion, the weather conditions do not comply with the competition rules, i.e.:

- a) If the horizontal visibility deteriorates to less than 5km, or if the cloud height in the performance zone is lower than the prescribed height or if precipitation becomes apparent, the competitor may discontinue his or her flight before the beginning of the sequence or during the sequence. In this case, members of the Contest Jury should immediately use their test aircraft in order to check the weather conditions in the performance zone and to reach a decision on the possible repetition of the competition flight.
- b) If the wind exceeds the specified limits during a flight and the competitor is not able to observe such changes and he/she completes the flight (i.e. if the competitor made his or her flight under conditions which were disadvantageous as compared with other competitors), this competitor is entitled to repeat the flight. A repeat flight will not be granted during any unknown programme .
- c) The marking of the repetition flight for a competitor will be continued from that figure immediately following the break.

2.47.11 If a competitor discontinues his or her flight without sufficient reason, no repetition flight will be allowed.

2.48 Weather Break

- 2.48.1 If the height of the cloud base is less than the minimum height specified for the particular category (table 4.52) plus 1000ft, the Contest Jury will allow one weather break to be made. The competitor is thus allowed to readjust height without penalty before re-commencing the sequence.

Note; The minimum height of the cloud base shall be sufficient to permit operations in VMC at the upper limit of the box for each category. It is the PIC's responsibility to ensure VMC is maintained during the flight.

- 2.48.2 Even though a weather break may be allowed without penalty by the Contest Jury, there is no obligation for a pilot to interrupt their flight.
- 2.48.3 If the cloud base subsequently rises to the minimum specified, the justification for a weather break is removed. Following advice from the Contest Jury, the CD or CJ will give pilots at least 10 minutes' notice that the optional weather break has been rescinded.

2.49 Official Wind Direction

- 2.49.1 The Official Wind direction will be decided by the Contest Director. The Official Wind shall be determined by the predominant direction of the actual wind, not those forecast.
- 2.49.2 The Official Wind will be declared at the start of each day and each flight programme.
- 2.49.3 For the free programmes the competitor may choose to design his/her sequence along either axis, in either direction, provided he/she shows this clearly with reference to the Official Wind on their Free sequence drawings.
- 2.49.4 Pilots will be given at least 30 minutes' notice before their flight if the Official Wind direction is changed.

2.50 Signalling the Start and End of Sequence

- 2.50.1 A competitor must signal the start and finish of each sequence, and any interruption, by distinctly dipping the wing three (3) times immediately one after the other by more than 45°. For the sake of clarity, "immediately" is defined as within 3 seconds of the previous wing dip.

- 2.50.2 The aircraft may start and/or finish dipping the wing either inside or outside the aerobatic zone. They may be in normal or inverted flight, or a horizontal, climbing or descending path.
- 2.50.3 If the first figure in a sequence begins in inverted flight, all wing dips must be performed in inverted flight. The competitor may change his flight attitude from upright to inverted only by a half roll prior to the first wing dip. Failure to comply will result in a penalty.
- 2.50.4 A horizontal flight path is required at the start of the first figure. This horizontal may be started inside the aerobatic zone or, provided that it is clearly seen to continue inside, it may be started outside the zone.

2.51 Time Limitations

- 2.51.1 A time limit of 15 minutes will apply for all Programmes, except for Known or Free Known flights which have a 10 minute time limit.
- 2.51.2 This time will deem to start when the competitor acknowledges that they have been cleared into the performance zone via the radio by the Chief Judge.
- 2.51.3 If the CJ clears a competitor into the box while they are still climbing on departure, then the CJ will make an extra time allowance for this.
- 2.51.4 If exceeded, the end of the time limit will be clearly announced to the pilot by "time, time, time" being called over the radio by the Chief Judge. There will be no penalty for exceeding the time limit, but figures flown after that time will not be scored.
- 2.51.5 For Unlimited, Advanced, and Intermediate refer to FAI Sporting Code, Section 6 4.2.6.1 Time Limits.
- 2.51.6 For those competitors who fly the lower axes of the box for the judges, their time commences at the last wing dip of marking the box. In the case of a low-performance aircraft an extra time allowance per AAC 2.47.3 will be made.
- 2.51.7 If a competitor is holding due to passing weather his/her time will be extended for an equivalent period.
- 2.51.8 The Chief Judge shall indicate by call or signal the time during which the judges must watch and mark a sequence.

2.52 Height Limitations

Table 2.53

Category	Upper Limit	Lower Limit
Entry	3900 feet	3000 feet
Graduate	3900 feet	1500 feet
Sportsman	3900 feet	1500 feet
Intermediate	3900 feet	1000 feet
Advanced	FAI Sporting Code Section 6	FAI Sporting Code Section 6
Unlimited	FAI Sporting Code Section 6	FAI Sporting Code Section 6

- 2.52.1 In uneven terrain the lower limit will be applied from the elevation of the highest point found under the performance zone. The elevation will be communicated at the first official briefing.
- 2.52.2 At all times, all club members and competing pilots shall remain above any height limitations imposed by CASA Instruments or Exemptions contained within Appendix 2-10 or issued specifically for the competition.

2.53 Infractions of Altitude Limits, Deadlines, Interruptions and Penalties

Table 2.53

Infringement, with <i>"Suggested text for ACRO"</i>	GRD & ENT	SPT	INT FAI Sporting Code 6	ADV FAI Sporting Code 6	UNL FAI Sporting Code 6
High Altitude Infringement <i>"Too High"</i>	0	10			
Low Altitude Infringement 1-200 feet <i>"Too Low"</i>	100	100			
Low Altitude Infringement More than 200 feet	0 entire program me	0 entire program me			
Line Infringement <i>"Out"</i>	Nil	5			
Deadline Infringement	Any manoeuvre or part thereof flown behind the contest deadline will be given a HZ.				
Behind CJ	A HZ will be given for any figure started behind the CJ.				
Programme Interruption or Insertion <i>"Interruption"</i> <i>"Insertion"</i>	10	20			
Incorrect wing dips or safety figures <i>"Faulty Wing Rocks"</i>	10	20			
Missed Roll Call <i>"Missed Roll Call"</i>	10	25	50	75	100
Missed Slot <i>"Miss Slot"</i>	0	0			

- 2.53.1 For every recognised infringement of the lower/upper height limit during the performance the competitor will be penalised. An additional low/high penalty will be given for each additional figure flown partly or completely below/above the lower/upper height limit. Any figure that

involves more than one infringement of the lower/upper limit will incur a penalty for each infringement.

- 2.53.2 Penalties for infringement of altitude limits, to be sustained, require that a simple majority of the judges indicate on the score sheet the individual figure on which the infringement occurred and the extent of any low infringements, i.e. 1-200ft or greater than 200ft ('low' or 'low, low', respectively). In case the required simple majority could not rise from a vote within the panel of judges, the Chief Judge shall have a second or casting vote.
- 2.53.3 An infringement of the lower disqualification level ('low,low') must be agreed by a two-thirds majority for the penalty of disqualification.

2.54 Line Infringements:

- 2.54.1 Boundary Judges will note each infringement of the performance zone by more than 50 metres.
- 2.54.2 A single infringement is considered to have occurred if the fuselage of the aircraft is seen by the Boundary Judges to have crossed the line being observed, even if this occurs more than once in a single figure.
- 2.54.3 When four boundary judging positions are being utilized, then both judges on the boundary must confirm that the aircraft has infringed the common boundary concerned for the penalty to be applied.
- 2.54.4 For each infringement of the performance zone by more than 50 metres the pilot will be given a line infringement. If any portion of the first manoeuvre is performed outside the aerobatic zone, the competitor will incur a line infringement.
- 2.54.5 The Graduate and Entry Categories are not subject to boundary infringements.
- 2.54.6 A mark of HZ will be given for any figure started behind the Chief Judge.

2.55 Programme Interruption

- 2.55.1 A competitor will be given penalty points if he or she interrupts his or her program. Interruptions will be signalled by the competitor by dipping the wing three (3) times immediately one after the other. Penalty points will be awarded unless:

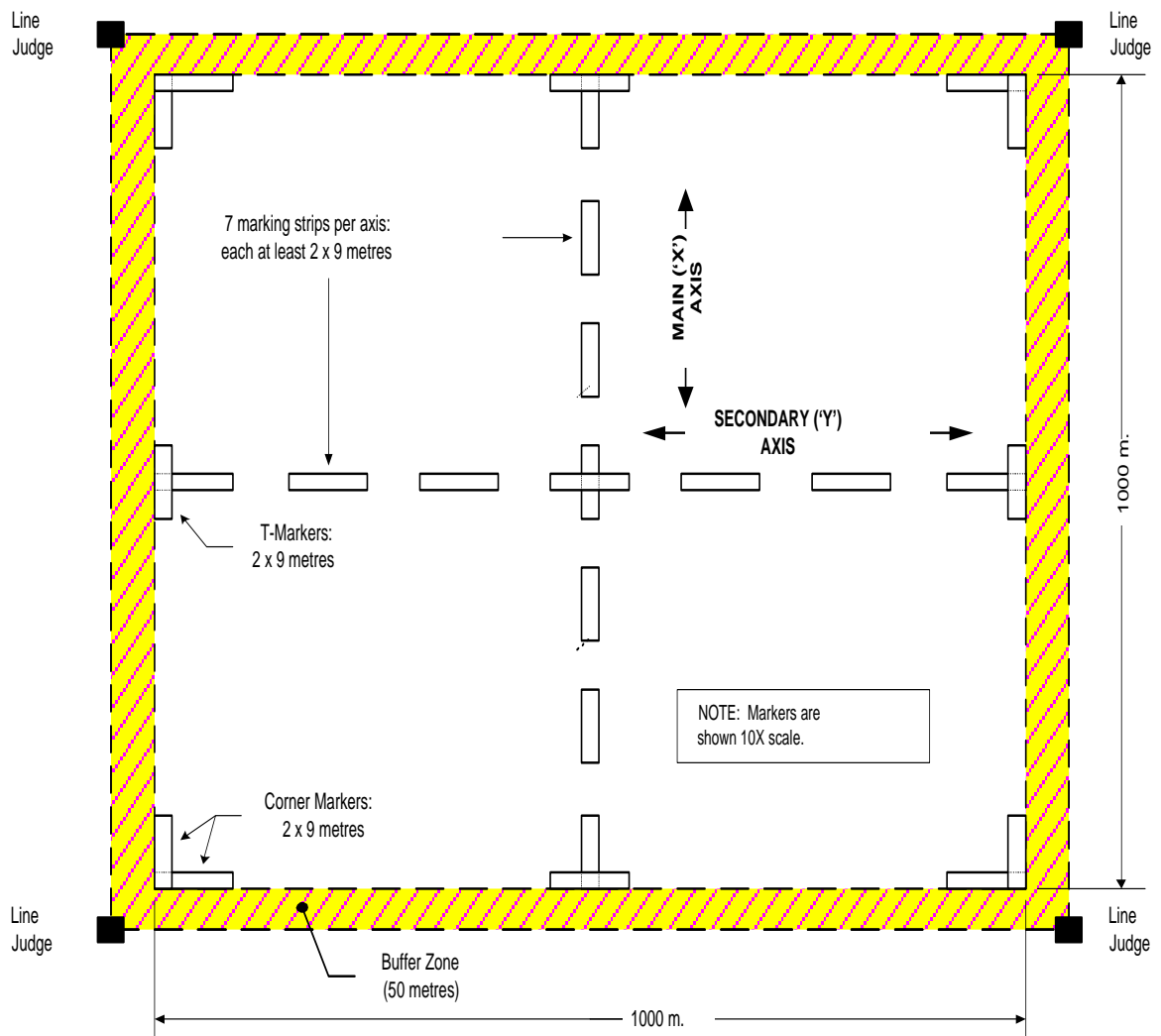
- a) The competitor was requested to break by the Chief Judge, or
 - b) The competitor was requested to break by the Radio Operator,
- or
- c) The competitor was permitted a weather break in accordance with section 2.48.
- 2.55.2 Following a programme interruption, the competitor must restart his or her programme with the figure;
- a) in which the interruption occurred,
 - b) immediately preceding the point of interruption, or
 - c) immediately following the point of interruption.
- 2.55.3 In no case shall a figure that has already received a score (even if zero) prior to a programme interruption be re-scored.
- 2.55.4 Should the competitor restart his or her programme at any point other than provided for, the competitor will incur an insertion penalty.
- 2.55.5 The addition of a figure to a sequence will also result in an insertion penalty, but all subsequent figures correctly flown will be marked. For example, if the additional figure flown is a repeat of the previous figure, the score for the original figure must be retained, even if zero.
- 2.55.6 Under no circumstances should a competitor be allowed to gain an advantage due to any additional figures.
- 2.55.7 A pilot who has taken a penalized interruption following an HZ figure ending in the wrong direction MUST recommence the sequence in the correct direction in order to regain sequence continuity.

2.56 The Aerobatic Performance Zone (Box)

- 2.56.1 The programme will be flown with reference to the longitudinal (X) and lateral (Y) directional axes. The Performance Zone will be a clearly and distinctly marked area of 1000 x 1000 metres whose central point will be the intersection of the axes.
- 2.56.2 The longitudinal (X=main) and the lateral (Y=secondary or 'cross-box') axes shall both be marked by 7 contrasting marking strips. The size of

these markers must be at least 2 x 9 metres, with the longer side aligned with the direction of the axis. The ends of the axes and the four corners of the box must be clearly marked.

- 2.56.3 The colour of the marking strips must be in distinct contrast to the ground and other airfield markings; the latter should be removed if possible.
- 2.56.4 The judges will be located approximately 750 metres from the X-Y intersection on the extended line of the Y axis. The Chief Judge and his/her assistant shall be located directly behind the panel of judges.
- 2.56.5 Boundary judges are so stationed that there is a 50 metre buffer zone before line infringement penalties are noted.
- 2.56.6 When a contest is held without an aerobatic box having been laid out no line judges will be used. In this case the X axis will correspond to a suitable ground feature, such as a runway or road of approximately 1000 metres length. The judges will sit on a line parallel to this feature as close to the midline as possible but at least 600 metres away.



2.57 Infringement of Contest Deadlines

- 2.57.1 A contest deadline may be designated by the Contest Director in co-ordination with the Chief Judge. This deadline will normally be 250 metres from the edge of the buffer zone of the Aerobatic Zone.
- 2.57.2 CASA may require a deadline between the aerobatic zone and possible public areas. This CASA deadline may not necessarily be the same as the contest deadline.
- 2.57.3 Any part of a manoeuvre flown behind the contest deadline will be given a HZ. Applicable boundary infringements will also be applied.

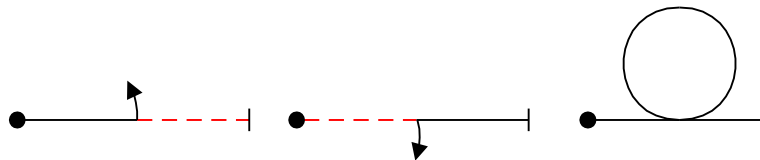
2.58 Personnel on the Judging Line

- 2.58.1 Only the following personnel are permitted on the judging line unless specifically permitted by the CJ: Judges, Callers, Pencillers, Line Judge Co-ordinator, Contest Director, Starter or their representative, score runners and no more than two runners to bring food and drink.

2.59 Safety Figures

- 2.59.1 Before signalling (wing rocks) the start of a competition flight in all programmes, it is recommended that pilots perform the following safety figures. These figures are optional but, if flown, may only be flown once, in any order, and continuously on the same axis. They must be flown inside the performance zone.

- 2.59.2 Entry, Graduate, Sportsman Categories:



- 2.59.3 Intermediate, Advanced and Unlimited Categories. Refer. FAI Sporting Code, Section 6.

2.60 Competition Flights

- 2.60.1 Each contestant will be required to perform the following competition flights, flown in the order shown.

Table 2.60.1		
Category	Programme	Flights
Entry	1 2 3	Known 1 Known 2 Known 3
Graduate	1 2 3	Known 1 Known 2 Known 3
Sportsman	1 2 3	Known 1 Free (or repetition of Known) Unknown

Intermediate	1 2 3	Free Known Unknown Free Unknown
Advanced	1 2 3 4	Free Known Free Unknown 1 Free Unknown 2 Free Unknown 3
Unlimited	1 2 3 4	Free Known Free Unknown 1 Free Unknown 2 Free Unknown 3

- 2.60.2 Programme 5 - Final Freestyle Programme. This programme is a separate competition and the score will not count toward the overall champion in any category. This program is open to all competing unlimited pilots. At the discretion and invitation of the Contest Jury select advanced pilots and other non-competing members of the AAC may be invited to compete. Refer FAI Sporting Code, Section 6.
- 2.60.3 For intermediate, advanced and unlimited, where an unintentional conflict exists between the AAC regulations, and CIVA Section 6, the latter shall take precedence.
- 2.60.4 At the Australian National Aerobatic Championships, entry category will not be flown.

2.61 Qualification Flights

- 2.61.1 The Known/Free-Known will also be a qualification flight. Contestants must be able to fly 75% or more of the figures. Contestants who cannot or do not complete 75% or more of the required figures may be disqualified from that category. This is not to be interpreted to mean that a contestant receiving HZ's for wrong direction of flight will be disqualified.

- 2.61.2 Additionally, if in the opinion of the Contest Jury and Board of Judges, a pilot demonstrates an inability to satisfactorily control their aircraft, he/she will be disqualified from that category.
- 2.61.3 Known sequences for Entry, Graduate and Sportsman categories are in Appendix 2-5.
- 2.61.4 Unlimited, Advanced and Intermediate. Refer to FAI Sporting Code Section 6.

2.62 Programme 1 – All Categories

Entry – Known 1
Graduate – Known 1
Sportsman – Known 1
Intermediate – Free Known
Advanced – Free Known
Unlimited – Free Known

- 2.62.1 The known compulsory programmes will be composed of figures in normal and inverted flight performed consecutively and continuously observing the prescribed sequence of figures.
- 2.62.2 The programme must be such as to enable competitors to fly all figures safely in the aircraft available to them, provided that the aircraft meet the requirements of normal technical standards. The figures will be selected from the Aresti System (Condensed), as amended.
- 2.62.3 Unlimited, Advanced, and Intermediate Programme 1 - Refer to FAI Sporting Code, Section 6, Programme 1.

2.63 Programme 2 – Australian Categories

Entry – Known 2
Graduate – Known 2
Sportsman – Known 1 repeat or Free
Intermediate – Unknown

- 2.63.1 Entry and Graduate competitors must fly the current known sequence for their category for Programme 2.

- 2.63.2 Sportsman competitors have the option of re-flying the known sequence in lieu of a free designed in accordance with table 2.63.1 and table 2.63.2 below for Programme 2.
- 2.63.3 Intermediate will fly an unknown sequence created by the Chief Judge in accordance with the design rules for FAI Sporting Code, Section 6, intermediate Free Unknown 1.

Table 2.63.1

Category	Maximum No. of Figures or Combination Figures	Maximum "K" Factor
Sportsman	12	Same as current compulsory
Intermediate	FAI Sporting Code, Section 6, Intermediate Unknown 1	Refer FAI Sporting Code, Section 6, Intermediate Unknown 1

- 2.63.4 Programme 2 may be composed using a maximum number of figures or combination of catalogue number and/or a maximum "K", depending on category. A combination will be taken as one figure. All figures must be taken from the Aresti System (Condensed).
- 2.63.5 Any figure or combination of figures, which is identified in the Aresti System (Condensed), may be selected to compose the Free Programme.
- 2.63.6 Any figure or combination catalogue numbers, which is selected, must bear the catalogue reference number(s) and the difficulty coefficient(s) (K) stated in the catalogue. The numbers and coefficients in the Aresti System (Condensed) will be taken as definitive.
- 2.63.7 The character and composition of basic figures must not be changed when combining other figures with them.
- 2.63.8 The direction of rotation of rolls is not prescribed, however:
- When rolls are in continuous rotation, the tips of the symbols are to be linked by a small line.
 - In un-linked rolls performed in the same direction, no line links the symbols but the tips must be drawn pointing in the same direction.

c) In opposite rolls the tips of the symbols must be drawn pointing in opposite directions.

2.63.9 Un-linked rolls in the same direction must be of different types. The two types of rolls are defined as follows:

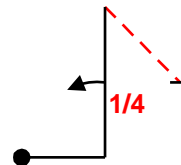
- a) Aileron rolls (slow rolls and hesitation rolls).
- b) Flick rolls (positive and negative).

2.63.10 Repetition of catalogue reference numbers is allowed from Families 1 and 9 for Entry, Graduate and Sportsman only, providing that there is no repetition of the combination figure used. For example this will allow the competitor to use both:

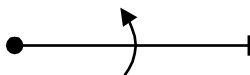


1.7.1.

and

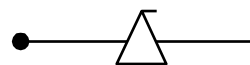


1.7.1. + 9.1.1.1



1.1.1. + 9.1.3.4.

and



1.1.1. + 9.9.3.4.

2.63.11 In order to achieve versatility in the free programme, it is mandatory that a Sportsman competitor includes the following:

Table 2.63.2

Sportsman Category Program 2 requirements	
Family 1	At least one figure
Family 2.1 - 2.2	At least one figure
Family 5	At least one figure
Family 7	At least one figure
Family 8	At least one figure
Family 9.1 - 9.4	At least one figure
Family 9.11 or 9.12	Only one figure

2.64 Programme 3 – Australian Categories

Entry – Known
Graduate – Known
Sportsman – Unknown
Intermediate – Free Unknown

- 2.64.1 Entry and Graduate competitors must fly the current Known sequence for their category for Programme 3.
- 2.64.2 The sequence for Sportsman programme 3 will be created by the Contest Chief Judge.
- 2.64.3 All figures for the Sportsman Unknown sequence will be selected from Appendix 2-3 of this manual. The sequence will contain a minimum of 6 and a maximum of 12 figures, with an aggregate K factor of up to 120.
- 2.64.4 The Intermediate free unknown figure selection and sequence creation will be conducted in accordance with FAI Sporting Code, Section 6 Intermediate Free Unknown 2. Refer 2.65 for exceptions to these rules.
- 2.64.5 Repetition of any manoeuvre with the same catalogue number is not allowed within any one programme for Sportsman unknown.
- 2.64.6 The approved Sportsman unknown sequences will be available to the contestants not less than 6 working hours before the time at which the programme is to commence.

2.65 Programme 2, 3 & 4 – CIVA Categories

Advanced – Free Unknown 1, 2 & 3
Unlimited – Free Unknown 1, 2 & 3

- 2.65.1 Advanced, and Unlimited Free Unknown Programs shall be conducted in accordance with FAI Sporting Code, Section 6, with the exception of the following changes.

- 2.65.2 Each competitor shall submit only one figure in accordance with FAI Sporting Code, Section 6 Para 4.3.4.3. The order of selection of figures shall be by a random draw.
- 2.65.3 In the event that there are less than 10 competitors in a category, the remaining figures shall be selected by the competitors from a bank of no less than 20 figures presented by the Chief Judge. The selection of figures shall be in the same order as the initial draw, with each competitor selecting a figure until a total of 10 figures (including competitor figures) are selected.
- 2.65.4 The selection of figures shall be in accordance with FAI Sporting Code, Section 6. In the even that a Chief Judges figure contains a repetition of a catalogue number from family 9 only, the competitor shall be permitted to change the element to meet the requirements of FAI Sporting Code, Section 6. The competitor is only allowed to substitute elements of the same rotational value as the original figure. For example, a 360° roll cannot be replaced with a 720° roll, but could be replaced with a 2 of 2.
- 2.65.5 Any other catalogue numbers shall not be repeated.
- 2.65.6 With the exception of linking figures, no repetition of figures between programs 2, 3 and 4 is permitted. (i.e. individual catalogue numbers may be repeated but not in the same combination).
- 2.65.7 Due to time constraints when holding a competition, the Contest Jury may elect to fly a Chief Judged designed Unknown sequence for one or more of the programs.

2.66 Programme 5 - Final Freestyle Programme

- 2.66.1 Refer FAI Sporting Code, Section 6.

2.67 Positioning Coefficients

- 2.67.1 The following coefficients (K factors) will apply to Positioning for all flights in each category:

Table 2.67.1

Entry	5K
Graduate	10k
Sportsman	15K
Intermediate, Advanced and Unlimited	Refer. FAI Sporting Code, Section 6.

2.68 Use of CASA Exemptions

- 2.68.1 The Club has been issued exemptions related to the use of the 'box frequency', and also approval to operate below 500ft (for unlimited competitors). These exemptions are issued to the club by CASA and contain important requirements which must be complied with.
- 2.68.2 As such, these exemptions are only permitted to be utilised by Club Members at an official club sanctioned event. However, these exemptions are available for use by members for the purposes of training days, in accordance with the requirements of section 2.68 and these regulations.
- 2.68.3 Notification shall be made to the President or Club Captain of the intent to hold the training day and shall include:
- a) The location of the training day(s);
 - b) The date(s) of the training day(s);
 - c) The person responsible for the conduct of the training day (Training Day Director); and
 - d) The club members involved in the training.
- 2.68.4 Should there be no person nominated as the Training Day Director, a person shall be nominated by the Club Captain to act as the Training Day Director and shall be responsible for the items listed in 2.2.5, and 2.6.2.
- 2.68.5 The Training Day Director shall take on all responsibilities of a "Contest Director" when referred to in this manual applicable to the Training Day, or any CASA Instruments or Exemptions applicable to the Training Day.
- 2.68.6 The person nominated by the club in 2.68.2 shall appoint a Starter in accordance with regulation 2.7, and a Radio Operator in accordance with regulation 2.8.
- 2.68.7 Official Training Days shall be conducted in accordance with any Instruments or Exemptions issued by CASA and contained in Appendix 2-10.
- 2.68.8 Notwithstanding the above, club members may hold unofficial training days without notifying the club. During these training activities all operations shall be conducted in accordance with applicable CASA

regulations, airfield and council requirements. The Instruments or Exemptions issued by CASA to the AAC, and contained in Appendix 2-10, are not applicable to these training days.

Note: To avoid doubt, the use of the 'box frequency' at any time other than in accordance with the above regulations (i.e. at a Club Sanctioned Event, or Club approved Training Day) would constitute a breach of the terms of the CASA exemption. Similarly, aerobatics below 500ft under the permission of the exemption issued by CASA, at any time other than a Club Sanctioned Event or Club approved Training Day would constitute a breach of the terms of the CASA exemption.

Annexe 2A – Starter’s Checklist

The Starter will check the following with each competitor immediately before engine start:

Starter’s Checklist	
1	FUEL & OIL SUFFICIENT
2	NO LOOSE ARTICLES
3	VACANT SEATBELT SECURE
4	LOCKER DOORS FASTENED
5	CLEARED TO THE HOLDING AREA or TO CONTACT CJ DIRECTLY AFTER TAKE-OFF
6	ALTIMETER
7	HARNESS SECURE
8	OFFICIAL WIND DIRECTION
9	RADIO FREQUENCIES
10	PILOT ID

Annexe 2B – Pilot and Aircraft Registration Checklist

Pilot Documentation Checklist	
1	Entry forms and waiver signed and entry fee paid.
2	Free sequence in “.seq” format
3	Current member of an AAC Chapter for State contests and also the AAC for National contests, in accordance with local chapter rules.
4	Current pilot licence.
5	Current aviation medical. A Class 1 Medical or Class 2 Medical is required.
6	Current aeroplane flight review.
7	Low level endorsement appropriate to the competition level being flown. Refer to paragraph 2.52 for the applicable height limitation for each category. Refer to paragraph 2.16 if a pilot does not hold the endorsement appropriate to the competition level being flown.
8	Aerobatic Flight Activity endorsement suitable for the intended category of competition.
9	Spinning flight activity endorsement.
10	Competitor’s next of kin recorded.
Aircraft Documentation Checklist	
1	Certificate of registration.
2	Certificate of airworthiness.
3	Current maintenance release.
4	Certificate of insurance showing public liability and property damage in the amount of \$5,000,000 single limit minimum and annotated for aerobatic competition.

Annexe 2C – Sample NOTAM

NOTAM NO.1

C0025/11 NOTAMN

Q) YMMM/QXXXX/IV/BO/A/000/999/3425S14731E

A) YTEM

B) 1110272000 C) 1110310800

D) HJ

E) RIGHT HAND CIRCUITS RQ FOR OPS RUNWAYS 23, 27 AND 36 DUE NEW SOUTH WALES AEROBATIC CHAMPIONSHIPS

NOTAM NO.2

C0024/11 NOTAMN

Q) YMMM/QWBLW/IV/BO/E/000/050/3425S14731E

A) YTEM

B) 1110272000 C) 1110310800

D) HJ

E) INCREASED AVIATION ACT ASSOCIATED WITH AEROBATICS WILL TAKE PLACE IN DISPLAY BOX DEFINED AS S RWY 09/27, W RWY 18/36, AND SE RWY 05/23 CLR OF ALL RWS. CAGRO AVBL ON CTAF FREQ

F) SFC G) 5000FT AMSL

Appendices

Appendix 2-1.....	Criteria for Judging Aerobatic Figures
Appendix 2-2.....	Evaluation of Flights and Code of Practice for Judges
Appendix 2-3.....	Sportsman Unknown Figures
Appendix 2-4.....	Reserved
Appendix 2-5.....	Known Sequences
Appendix 2-6.....	List of Qualified Judges
Appendix 2-7.....	Australian Team Selection Procedure
Appendix 2-8.....	Sample Event Management Plan
Appendix 2-9.....	Departure and Re-join Procedures
Appendix 2-10.....	CASA Permanent Exemptions

COMPANIES ACT 1961 COMPANY LIMITED BY SHARES

**MEMORANDUM
AND
ARTICLES OF ASSOCIATION
OF
AUSTRALIAN AEROBATIC CLUB**

**H. M. SYMONDS & BRITTEN
Solicitors Parramatta
Suite 2A 11 George Street**

**MEMORANDUM
AND
ARTICLES OF ASSOCIATION
OF
AUSTRALIAN AEROBATIC CLUB**

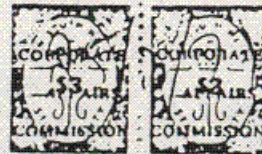
**WILLIAM PATTERSON & CO.
Solicitors
1338 Pittwater Road
Narrabeen**

NEW SOUTH WALES



CORPORATE AFFAIRS COMMISSION

No. of Company
151583-06



Companies Act, 1961
(Section 16 (3))

Certificate of Incorporation of Public Company

This is to Certify that

AUSTRALIAN AEROBATIC CLUB

s, on and from the twenty-fifth day of March
1977, incorporated under the Companies Act, 1961, and that the company
is a company limited by ~~shares~~ guarantee.

Given under the seal of the Corporate Affairs Commission at Sydney,
this twenty-fifth day of March, 1977.

Exd.

F. J. O. Ryan

Commissioner.

M

COMPANIES ACT 1961

COMPANY LIMITED BY GUARANTEE

**MEMORANDUM OF ASSOCIATION
OF
AUSTRALIAN AEPOBATIC CLUB**

1. The name of the Company is "Australian Aerobatic Club" (hereinafter called "The Club").
2. The objects for which the Club is established are:-
 - a) i) For the association of persons interested in the encouragement and development of Aerobatics, artistic flight, precision flight and aeronautics.
ii) To be an associate affiliate or member of the Royal Federation of Aero Clubs of Australia and to exercise the authority and powers delegated by that body whilst ever that body remains a member of Federation Aeronautique Internationale.
 - b) To promote the development of aviation.
 - c) To take over the funds and other assets and liabilities of an unincorporated club known as "Australian Aerobatic Club".
 - d) i) To promote and hold, either alone or jointly with any other association, club, company or person, aerobatics, artistic flight, precision flight and aeronautics meetings competitions matches, exhibitions and trials and to accept offers, give or contribute towards prizes, medals and awards in connection therewith and in furtherance of the objects of the Club to promote, give or support dinners, balls, lectures and other entertainments, provided that no member of the Club shall receive any such prizes, medals or awards except as a successful competitor at any aeronautical meeting, competition, match, exhibition or trial held or promoted by the Club or to the cost of establishing or holding of which the Club may have subscribed out of its income or property and which under the regulations affecting the said sports meeting or competition may be awarded to him.
ii) To establish, equip and carry on an aviation school to train or to arrange for the training of pilots in aerobatics, artistic flight, precision flight and aeronautics.
iii) To undertake and exercise control of competitions, sporting events and trials in connection with aerobatics, artistic flight, precision flight and aeronautics, either alone or in conjunction with any other Club association or body duly authorised in that behalf. Provided that no member of the Club shall receive any prize, award or distinction except as a successful competitor at any match, sporting event, trial or competition held or promoted by the Club or to the cost of the holding or promotion of which the Club may have subscribed out of its income or property and which under the regulations affecting the said match, sporting event, trial or competition may be awarded to him.
iv) To represent generally the views of persons connected with aeronautics particularly aerobatics, artistic flight, precision flight and aeronautics. To consider, originate, and promote reform and improvements in the law, to consider proposed alterations and oppose or support them, to effect improvements in the administration of the law and for the said purposes to petition Parliament or to take other proceedings as may be deemed expedient.
 - v) To grant, issue, authorise, modify, cancel or revoke certificates of the Club relating to aircraft, aerodromes, flying schools and to the skill and qualifications of pilots, navigators, drivers, mechanics and all persons managing, driving, constructing, repairing or otherwise connected with aircraft of every description and to do all things relating thereto as may be required, and to make reports and recommendations to other Clubs, authorities or persons concerning any of these matters.
 - e) To subscribe to, become a member of an co-operate with any other Club, association or organisation, whether incorporated or not, whose objects are altogether or in part similar to those of the Club, provided that the Club shall not subscribe to or support with its funds any Club, association or organisation which does not prohibit the distribution of its income and property among its members to an extent at least as great as that imposed on the Club under or by virtue of Clause 3 of this Memorandum.
 - f) In furtherance of the objects of the Club to buy, sell and deal in all kinds of apparatus and all kinds of provisions, liquid and solid, required by the members of the Club or persons associated therewith.
 - g) To purchase, take on lease or in exchange or otherwise acquire lands, easements or any other property real or personal, including machinery and plant, and to acquire or construct any building which may from time to time be required for the purpose of or may be conveniently used in connection with any of the objects of the Club, and to maintain from time to time alter and add to any buildings or plant acquired or constructed by the Club, subject to the Memorandum and Articles, and from time to time to sell, demise mortgage, give in exchange or otherwise dispose of any such lands, buildings or plant. In case the Club shall take or hold any property which may be subject to any trusts the Club shall only deal with the same in such manner as allowed by law having regard to such trusts.

- h) To enter into any arrangements with any government or local authority or any Club, company, or person which may seem to be conducive to the objects of the Club, and to acquire or obtain from any such government or authority, club company or person charters, decrees, rights, privileges and concessions which may be conducive to any such objects and accept, make payments under, carry out, exercise and comply with any such arrangements charters contracts, decrees, rights, privileges and concessions.
- i) To hire and employ secretaries, clerks, managers, flying and other instructors, servants and workmen, and to pay them and to other persons in return for services rendered to the Club salaries, wages, gratuities and pensions.
- j) To establish and support or aid in the Establishment and support of associations, institutions, funds, trusts and conveniences calculated to benefit employees or past employees of the Club or the dependants or connections of any such persons; and to grant pensions and allowances; and to make payments towards insurance; and to subscribe or guarantee money for charitable or benevolent objects, or for any public, general or useful object.
- k) To construct, improve, maintain, develop, work, manage, carry out, alter or control any houses, buildings, grounds, works or conveniences which may seem calculated directly or indirectly to advance the Club's Interests, and to contribute to, subsidise or otherwise assist and take part ^ in the construction improvement, maintenance, development, working, management, carrying out, alteration or control thereof.
- l) To invest the moneys of the Club, not immediately required, upon such securities as may be permitted by law for the investment of trust funds.
- m) To borrow or raise and give security for money in such manner as the Club shall think fit, and in particular by the issue of or upon bonds, debentures, bills of exchange, promissory notes or other obligations or securities of the Club, or by mortgage, bill of sale, or charge upon all or any part of the property, real and personal of the Club, both present and future.
- n) To make, draw, accept, endorse, discount, execute and issue promissory notes, bills of exchange, bills of lading and other negotiable or transferable instruments.
- o) In furtherance of the objects of the Club to sell, lease, improve, mortgage, dispose of or otherwise deal with all or any part of the property of the Club.
- p) To take or hold mortgages, liens and charges to secure payment of the purchase price or any unpaid balance of the purchase price, of any part of the Club's property of whatsoever kind sold by Club, or any money due to the Club from purchasers and others.
- q) Subject to Clause 2 (g) of this Memorandum of Association to take any gift of property whether subject to any special trust or not, for any one or more of the objects of the Club.
- r) To take such steps by personal or written appeals, public meetings, or otherwise as may from time to time be deemed expedient for the purpose of procuring contributions to the funds of the Club in the shape of donations, annual subscriptions or otherwise.
- s) To print and publish any newspapers, periodicals, books programmes or leaflets and to subscribe copy and advertisement to newspapers and periodicals that the Club may think desirable for the promotion of its objects.
- t) To establish, promote or assist in establishing or promoting interstate divisions or regional committees and to subscribe to and*amalgamate or affiliate with or become a member of any other company, association or Club whose objects are similar or in part similar to the objects of the Club, or the establishment or promotion of which may be beneficial to the Club; Provided that no subscription be paid to any such other company, association or Club out of funds of the Club, except bona fide in furtherance of the objects of the Club, and also provided that this Club shall not amalgamate or affiliate with any other Company, association or Club unless they or it shall prohibit the distribution of their or its income and property amongst their or its members to an extent at least as great as is imposed on the Club under or by virtue of Clause 3 of this Memorandum.
- u) In furtherance of the objects of the Club to amalgamate with any companies, institutions, societies or associations having objects altogether or in part similar to those of the Club and which shall prohibit the distribution of its or their income and property among its or their members to an extent at least as great as that imposed upon the Club under or by virtue of Clause 3 of this Memorandum.
- v) In furtherance of the objects of the Club to purchase or otherwise acquire and undertake all or any part of the property, assets, liabilities and engagements of any one or more of the companies, institutions societies or associations with which the Club is authorised to amalgamate.
- w) In furtherance of the objects of the Club to transfer all or any part of the property, assets, liabilities and engagements of the Club to any. one or more of the companies, institutions, societies or associations with which the Club is authorised to amalgamate.
- w) From time to time to subscribe or contribute to any patriotic or charitable or benevolent or philanthropic object or to any useful object of a public character.
- x) To transact any lawful business in aid of the Commonwealth of Australia in the prosecution of any war in which the Commonwealth of Australia is engaged.
- y) To do all such other things as are incidental or conducive to the attainment of the objects and the exercise of the powers of the Club.
- z) To make sure awards and presentations and to give certificates, medals and prizes for services rendered or contributions made to aviation the objects of the club or the promotion and encouragement of aerobatl c artistic or precision flight and aeronautics.

(aa) To provide a centre of information and advice on all matters pertaining to aerobatics, artistic flight, precision flight and aeronautics.

(bb) In furtherance of the objects of the Club to acquire by gift purchase hire or otherwise all kinds of aircraft vehicles, furniture, implements, * tools, machinery, utensils, plate glass linen, books, papers periodicals, stationery cards games, and all other things required or which may conveniently be used in connection with the flying grounds, club rooms, club houses and other premises of the Club by members of the Club or other persons frequenting them and to apply for and obtain and to renew all permits licenses or authorities necessary or required for any of the purposes of the Club. Provided that in case the Club shall take or hold any property which may be subject to any trusts the Club shall only deal with the same in such a manner as is allowed by law having regard to such trusts.

(cc) To undertake and execute any trust which is directly or indirectly conducive to any of the objects of the Club.

The Powers set forth in the Third Schedule to the Companies Act 1961 shall not apply to the Club except insofar as they are included in this Clause 2.

3. The income and property of the Club, whensoever derived, shall be applied solely towards the promotion of the objects of the Club as set forth in this memorandum of association; and no portion thereof shall be paid or transferred, directly or indirectly, by way of dividend, bonus or otherwise howsoever by way of profit, to the members of the Club. Provided that nothing herein shall prevent the payment, in good faith, of reasonable and proper remuneration to any officer or servant of the Club, or to any member of the Club, in return for any services actually rendered to the Club, nor prevent the payment of interest at a rate not exceeding interest at the rate for the time being charged by Bankers in Sydney for overdrawn accounts on money lent, or reasonable and proper rent for premises demised or let by any member to the Club; but so that no member of the council of management or governing body of the Club shall be appointed to any salaried office of the Club, or any office of the Club paid by fees, and that no remuneration or other benefit in money or money's worth shall be given by the Club to any member of such council or governing body except repayment of out-of-pocket expenses and interest at the rate aforesaid on money lent or reasonable and proper rent for premises demised or let to the Club. Provided that the provision last aforesaid shall not apply to any payment to any company of which a member of the council of management or governing body may be a member and in which such member shall not hold more than one-hundredth part of the capital, and such member shall not be bound to account for any share of profits he may receive in respect of such payment.
4. No addition, alteration or amendment shall be made to or in the memorandum or Articles of Association for the time being in force, unless the same shall have been previously submitted to and approved by the Minister of the Crown for the time being administering the Companies Act, 1961 (hereinafter called "the Minister").
5. The third and fourth Clauses of this Memorandum contain conditions on which a licence is granted by the Minister to the Club in pursuance of Section 24 of the Companies Act, 1961.
6. The liability of the members is limited.
7. Every member of the Club undertakes to contribute to the assets of the Club, in the event of the same being wound up while he is a member, or within one year after he ceases to be a member, for payment of the debts and liabilities of the Club contracted before he ceases to be a member, and of the costs, charges, and expenses of winding up and for the adjustment of the rights of the contributories among themselves, such amount themselves, such amount as may be required, not exceeding twenty dollars (\$20).
8. If upon the winding-up or dissolution of the Club there remains after satisfaction of all its debts' and liabilities, any property whatsoever, the same shall not be paid to or distributed among the members of the Club, but shall be given or transferred to some other institution or institutions having objects similar to the objects of the Club, and which shall prohibit the distribution of its or their income and property among its or their members to an extent at least as great as is imposed on the Club under or by virtue of Clause 3 hereof, such institution or institutions to be determined by the members of the Club at or before the time of dissolution, and if and so far as effect cannot be given to the aforesaid provision, then to some charitable object.
9. True accounts shall be kept of the sums of money received and expended by the Club, and the matter in respect of which such receipt and expenditure takes place, and of the property, credits, and liabilities of the Club; and, subject to any reasonable restrictions as to the time and manner of inspecting the same that may be imposed in accordance with the regulations of the Club for the time being in force, shall be open to the inspection of the members. Once at least in every year, the accounts of the Club shall be examined and the correctness of the balance-sheet ascertained by one or more properly qualified Auditor or Auditors.
10. The names, addresses and occupations of the subscribers are as follows:-

James Schofield SCOTT,
246 Rocky Point Road,
RAMSGATE, NSW.
Company Director

John William PATTERSON,
3 Kywong Road,
ELANORA, NSW.
Solicitor

Brendan Vincent JOINER,
19 Drina Street,
STRATHMORE, VIC.
Teacher Telecommunications

Edward Clement ACRES,
28 Alexander Street,
LARGS BAY, S.A.
Managing Director

Kenneth McKECHNIE,
10 Rennison Street,
BEAUMARIS, VIC.
Company Director

Christopher Peter SPEROU,
343 Greenhill Road,
TOORAK GARDENS, S.A.
Insurance Officer


John Frederick STANTON,
37 Hynes Road,
DALKEITH, W.A.
Company Director
Gordon LEE, 4 Finch Place,
LUGARNO, NSW.
Civil Engineer

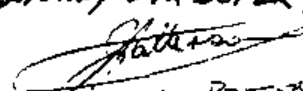
Gordon Alfred (Peter) LLOYD, O.B.E.,
Lloyd House, William Street,
SYDNEY, NSW.
Merchant & Company Director


11. We, the several persons whose names and addresses are subscribed hereunder are desirous of being formed into a Club in pursuance of this Memorandum of Association.

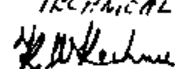
Names, Addresses and
Occupations of Subscribers

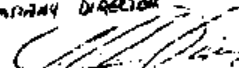
Witness to Signature



JAMES SCHOFIELD SCOTT
246 ROCKY POINT ROAD KINGSFORD N.S.W.
COMPANY DIRECTOR.



JOHN WILLIAM PATTERSON
3 KYNARD RD KILPATRICK NSW.
SOLICITOR.

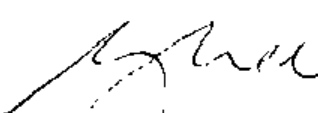

Brandon Vincent Joiner
19 Dring Cr Scrutmore Vic
TECHNICAL INSTRUCTOR



JO RENNISON ST
BRANDMANS 3193
COMPANY DIRECTOR

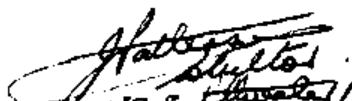

EDWARD CLEMENT ACRES
20 ALEXANDER ST
LARGES BAY SUE SA.
MANAGING DIRECTOR

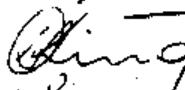

CHRISTOPHER PETER SPEAR
343 GREEN HILL RD
TUMBAH GNS. 5065 SA.


John Frederick STANTON
Company Director
37, Hynes Road, Dalkeith
Western Australia 6009.


GORDON LEE
4 FINCH PLACE
LAGRANGE
CIVIL ENGINEER


GORDON ALFRED LLOYD O.B.E.
LLOYD HOUSE, WILLIAMS ST
SYDNEY
EXHIBITOR AND COMPANY DIRECTOR

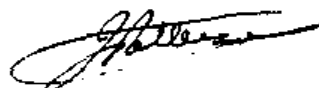

Walter
1538 Hawthorn Rd
Maresfield

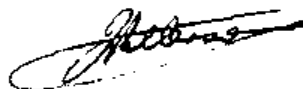

King
1 Kinross Ave
Ararat

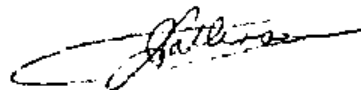

John

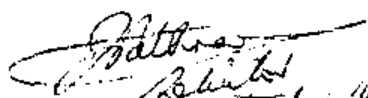

John


Walter


Walter


Walter


Walter


Walter
1338 Hawthorn Rd
Maresfield

DATED this

15th

day of

July

1974

COMPANIES ACT 1961

COMPANY LIMITED BY GUARANTEE

ARTICLES OF ASSOCIATION

OF

AUSTRALIAN AEROBATIC CLUB

INTERPRETATION

1. In these regulations :-

"the Act" means the Companies Act, 1961;

"the Club" means the Australia Acrobatic Club;

"the unincorporated Club" means the unincorporated body known as the "Australian Aerobatic Club" whose funds and other assets and liabilities the Club is authorised to take over by Clause 2 (c) of the Memorandum of Association:

"the seal" means the common seal of the Club;

"Secretary" means any person appointed to perform the duties of a secretary of the Club and includes an honorary secretary;

"State" means the State of New South Wales;

Expressions referring to writing shall, unless the contrary intention appears, be construed as including references to printing, lithography, photography and other modes of representing or reproducing words in a visible form;

Words or expressions contained in these regulations shall be interpreted in accordance with the provisions of the Interpretation Act of 1897 and of the Act as in force at the date at which these regulations become binding on the Company.

2. The Club is established for the purposes set out in the Memorandum of Association.
3. The number of members with which the Club proposes to be registered is 1,000 but the Committee may from time to time register an increase of members.
4. The subscribers to the memorandum of association and such other persons as the Committee shall admit to membership in accordance with these regulations shall be members of the Club.
5. If the whole of the funds and other assets of the unincorporated Club become the absolute property of the Club forthwith after its incorporation then every person who at the date of incorporation of the Club is a member of the unincorporated Club and who on or before the 30th day of June 1972 agrees in writing to become a member of the Club shall be admitted by the Committee to membership of the Club. Every member of the Club who previously to his agreeing to become a member of the Club has paid his subscription due on the 1st day of January 1972 as a member of the unincorporated Club shall not be liable to pay any further sum by way of annual subscription to the Club for the period prior to the 1st day of January 1973.
6. Every applicant for membership of the Club (other than the subscribers to the Memorandum of Association and members of the unincorporated Club referred to in Article 5) shall be proposed by one member and seconded by another member of the Club. The application for membership shall be made in writing signed by the applicant and his proposer and seconder and shall be in such form as the Committee from time to time prescribes and shall be accompanied by the applicant's entrance fee and first annual subscription. The name address and occupation of the applicant shall be displayed in a conspicuous place at the registered office or other duly appointed place for at least a week before his election and an interval of not less than two weeks shall elapse between nomination and election.
7. Subject to the proceeding regulation at the next meeting of the Committee after receipt of any application for membership such application shall be considered by the Committee who shall thereupon determine upon the

admission or rejection of the applicant. In no case shall the Committee be required to give any reason for the rejection of an applicant. A record shall be kept by the Secretary of the names of the Committee members present and voting at such meeting. When applications for membership come before the Committee negative votes at the rate of 1 in 3 shall exclude the applicant from election and thereupon the fees accompanying his application shall be refunded.

8. When an applicant has been accepted for membership the secretary shall forthwith send to the applicant written notice of his acceptance.
9. The entrance fee and annual subscription payable by members of the Club shall be such as the Club in General meeting shall from time to time prescribe, provided that until the Club shall otherwise resolve the entrance fee shall be \$2 and the annual subscription shall be \$5 and provided further that the Club shall not at any time prescribe an entrance fee which exceeds \$50.
10. All annual subscription shall become due and payable in advance on the 1st day of January in every year.

MEMBERSHIP CARDS

11. Each member shall be provided with a membership ticket or badge and shall produce same whenever called upon to do so by a member of the Committee or such other person or persons as may be appointed by the Committee. Such ticket or badge shall remain the property of the Club and shall be surrendered to the Club by the member if so requested by any member of the Committee or such other person or persons as may be appointed by the Committee or his ceasing to be a member.

LIFE MEMBERSHIP

12. Any member who pays not less than ten years annual subscriptions or such other sum as may be decided by the Committee may be elected a Life Member and any person or member who has performed special services for the Club may be elected a Life Member or Honorary Life Member by a resolution carried by secret ballot at the General Meeting of the Club by the votes of not less than four-fifths of those present and entitled to vote. No person shall be elected a Life Member or Honorary Life Member unless a nomination form in writing signed by not less than five members of the Club shall be delivered to the Honorary Secretary at least 21 days prior to the General Meeting at which such election shall be held.

HONORARY MEMBERS

13. The following persons may at the discretion of the Committee be admitted as honorary members of the Club:-
 - a) The patron or patrons for the time being of the Club provided that this number shall not exceed six.
 - b) Any benefactor of the Club.
 - c) Any prominent citizen visiting the Club for a special occasion or a special function.
 - d) Overseas country or interstate visitors for the duration of such visit or one month whichever should first expire.
 - f) Members of other Clubs visiting the Club for the purpose of taking part in competitions of aerobatics, artistic flight, precision flight and aeronautics or other competitions for the day of such competitions only.
14. No honorary member shall be entitled to hold any office in the Club or participate in any form of business or exercise any vote.
15. Any honorary member failing to pay his debts or obligations shall ipso facto forfeit all his privileges as an honorary member unless he shall forthwith explain the omission to the satisfaction of the Committee. Proposers of honorary members shall be held liable for all non-payments of such members.

CESSATION OF MEMBERSHIP

16. If the subscription of a member shall remain unpaid for a period of one calendar month after it becomes due then the member may after notice of the default shall have been sent to him by the Secretary or Honorary Treasurer be debarred by resolution of the Committee from all privileges of membership and his name may be removed by the Committee from the Register of Members provided that the Committee may reinstate the member and restore his name to the Register on payment of all arrears if the Committee thinks fit to do so.
17. A member may at any time by giving notice in writing to the Secretary resign his membership of the Club but shall continue liable for any annual subscription and all arrears due and unpaid at the date of his resignation and for all other moneys due by him to the Club and in addition for any sum not exceeding Twenty Dollars which he is liable as a member of the Club under Clause 7 of the memorandum of association of the Club.
18. If any member shall willfully refuse or neglect to comply with the provisions of the memorandum or articles of association of the Club or shall be guilty of any conduct which in the opinion of the Committee is unbecoming

of a member or prejudicial to the interest of the Club the Committee shall have power to expel the member from the Club and erase his name from the Register of Members provided that at least one week before the meeting of the Committee at which a resolution for his expulsion is passed the member shall have had notice of such meeting and of what is alleged against him and of the intended resolution for his expulsion and that he shall at such meeting and before the passing of such resolution have had an opportunity of giving orally or in writing any explanation or defence he may think fit and provided further that any such member may by notice in writing lodged with the Secretary at least twenty-four hours before the time for holding the meeting at which the resolution for his expulsion is to be considered by the Committee, elect to have the question of his expulsion dealt with by the Club in general meeting and in that event an extraordinary general meeting of the Club shall be called for the purpose and if at the meeting a resolution for the expulsion of the member be passed by a majority of two-thirds of those present and voting (such vote to be taken by ballot) the member shall be expelled and his name removed from the Register of Members.

GENERAL MEETINGS

19. The first general meeting shall be held at such time, not being less than one month nor more than three months after the incorporation of the Club and at such place as the Committee may determine.
20. An annual general meeting of the Club shall be held in accordance with the provisions of the Act. All general meetings, other than the Annual General Meetings, shall be called extraordinary general meetings.
21. Any member of the Committee may whenever he thinks fit convene an extraordinary general meeting and extraordinary general meetings shall be convened on such requisition or in default may be convened by such requisitions as provided by the Act.
22. Subject to the provisions of the Act relating to special resolutions and agreements for shorter notice, fourteen days notice at the least (exclusive of the day on which the notice is served or deemed to be served, but inclusive of the day for which notice is given) specifying the place the day and the hour of meeting and in case of special business the general nature of that business shall be given to such persons as are entitled to receive such notices from the Club.
23. All business shall be special that is transacted at an extraordinary general meeting, and also all that is transacted at an annual general meeting, with the exception of the consideration of the accounts, balance sheets, and the report of the Committee and Auditors, the election of officers and other members of the Committee in the place of those retiring, and the appointment and fixing of the remuneration of the Auditors.

PROCEEDINGS AT GENERAL MEETINGS

24. No business shall be transacted at any general meeting unless a quorum of members is present at the time when the meeting proceeds to business. Save as herein otherwise provided, two members present in person shall be quorum. For the purposes of this article "member" includes a person attending as a proxy for a member which is a member.
25. If within half an hour from the time appointed for the meeting a quorum is not present, the meeting, if convened upon the requisition of members, shall be dissolved; in any other case it shall stand adjourned to the same day in the next week at the same time and place, or to such other day and at such other time and place as the Committee may determine, and if at the adjourned meeting a quorum is not present within half an hour from the time appointed for the meeting, the members present (being not less than two) shall be a quorum.
26. The President shall preside as Chairman at every general meeting of the Club, or if there is no President, or if he is not present within fifteen minutes after the time appointed for the holding of the meeting or is unwilling to act, the Vice-President shall be the Chairman or if the Vice-President is not present or is unwilling to act then the members present shall elect one of their number to be Chairman of the meeting.
27. The Chairman may, with the consent of any meeting at which a quorum is present (and shall if so directed by the meeting), adjourn the meeting from time to time and from place to place, but no business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place. When a meeting is adjourned for thirty days or more, notice of the adjourned meeting shall be given as in the case of an original meeting. Save as aforesaid it shall not be necessary to give any notice of an adjournment or of the business to be transacted at an adjourned meeting.
28. At any general meeting a resolution put to the vote of the meeting shall be decided on a show of hands unless a poll is (before or on the declaration of the result of the show of hands) demanded:-
 - a) by the Chairman; or
 - b) by at least three members present in person or by proxy.

Unless a poll is so demanded a declaration by the Chairman that a resolution has on a show of hands been carried or carried unanimously, or by a particular majority, or lost, and an entry to that effect in the book containing the minutes of the proceedings of the Club shall be conclusive evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against the resolution. The demand for a poll may be withdrawn.

29. If a poll is duly demanded it shall be taken in such manner and either at once or after an interval or adjournment or otherwise as the Chairman directs, and the result of the poll shall be the resolution of the meeting at which the poll was demanded but a poll demanded on the election of a Chairman or on a question of adjournment shall be taken forthwith.
30. In the case of an equality of votes, whether on a show of hands or on a poll, the Chairman of the meeting at which the show of hands takes place or at which the poll is demanded shall be entitled to a second or casting vote.
31. A member may vote in person or by proxy or by attorney and a show of hands every person present who is a member or a representative of a member shall have one vote and on a poll every member present in person or by proxy or by attorney or other duly authorised representative shall have one vote.
32. A member who is of unsound mind or whose person or estate is liable to be dealt with in any way under the law relating to mental health may vote, whether on a show of hands or on a poll, by his Committee or by his trustee or by such other person as properly has the management of his estate, and any such Committee, trustee or other person may vote by proxy or attorney.
33. No member shall be entitled to vote at any general meeting if his annual subscription shall be more than one month in arrear at the date of the meeting.
34. The instrument appointing a proxy shall be in writing (in the common or usual form) under the hand of the appointor or of his attorney duly authorised in writing or, if the appointor is a corporation, either under seal or under the hand of an officer or attorney duly authorised. The instrument appointing a proxy shall be deemed to confer authority to demand or join in demanding a poll.
35. Where it is desired to afford members an opportunity of voting for or against a resolution the instrument appointing a proxy shall be in the following form or a form as near thereto as circumstances admit: -

AUSTRALIAN AEROBATIC CLUB

I, of
 being failing him of
 as my proxy to vote for me on my behalf at the (annual or extraordinary, as the case may be) general meeting of
 the Club,
 to be held on the day of 19
 and at any adjournment thereof.

Signed this day of 19

This form is to be used in favour of / against the resolution.
 Strike out whichever is not desired. (Unless otherwise instructed; the proxy may vote as he thinks fit).

36. The instrument appointing a proxy and the power of attorney or other authority, if any, under which it is signed or a ^notarially certified copy of that power or authority shall be deposited at the registered office of the Club, or at such other place within the State as is specified for the purpose in the notice convening the meeting, not less than forty-eight hours before the time for holding the meeting or adjourned meeting at which the person named in the instrument proposes to vote, or in the case of a poll, not less than twenty-four hours before the time appointed for the taking of the poll, and in default the instrument of proxy shall not be treated as valid.
37. A vote given in accordance with the terms of an instrument of proxy or attorney shall be valid notwithstanding the previous death or unsoundness of mind of the principal or revocation of the instrument or of the authority under which the instrument was executed, if no intimation in writing or such death, unsoundness of mind or revocation as aforesaid has been received by the Club at the registered office before the commencement of the meeting or adjourned meeting at which the instrument is used.

COMMITTEE AND OFFICERS

38. The officers of the Club shall consist of a President, an Honorary Treasurer and Club Captain all of whom shall be members of the Club.
39. The following subscribers to the Memorandum of Association shall constitute the First Committee and the "first officers as set out below:-

President: George Alfred (Peter) Lloyd

Club Captain: Jim Scott

Honorary Treasurer: Gordon Lee

Committee Members:

John William Patterson

Edward Egan

Stuart John Foye

Robert Anderson

Alan Smith

The aforesaid persons shall also constitute the first Directors of the Club. They shall all retire at the first General Meeting but shall be eligible of re-election.

40. Thereafter the Committee shall consist of the officers and six other members of the Club elected as herein provided.
41. At the first general meeting of the Club and at the annual general meeting of the Club* in each year thereafter the officers and other members of the Committee shall be elected from among the members and such officers and other members of the Committee shall hold office until the next annual general meeting when they shall retire but they shall be eligible for re-election.
42. The election of officers and other members of the Committee shall take place in the following manner: -
- a) Any two members of the Club shall be at liberty to nominate any other member to serve as an officer or other member of the Committee.
 - b) The nomination, which shall be in writing and signed by the member and his proposer and seconder shall be lodged with the Secretary at least twenty-eight days before the Annual General Meeting at which the election is to take place.
 - c) A list of the Candidates need not be posted in the registered office of the Club.
 - d) The Committee shall appoint a returning officer who is neither a candidate or a relative of a candidate, to take charge of the ballot for the election of the Club Committee and officers. The returning officer, or his appointee, shall supervise the issue of the ballot papers. The returning officer shall be responsible for the safe custody of the ballot papers returned and will count the votes after the ballot has closed. The decision of the returning officer as to the informality of any vote shall be final.
- The result of the ballot shall be given to the Chairman of the Annual General Meeting, who shall declare the Club Committee and officers to be those persons so elected, together with the vote tally count.
- e) At least twenty-one days before the date of the Annual General Meeting a ballot paper bearing the candidates, the proposers and seconders names shall be handed or posted to every member entitled to vote. The ballot shall close 24 hours before the Annual General Meeting. Postal votes must be in the hands of the Returning Officer not later than 72 hours before the Annual General Meeting.
 - f) The Committee may prescribe the manner in which votes are to be marked on the ballot paper or such other matter as it may deem necessary to secure the secrecy or propriety of the ballot and there shall be placed an asterisk beside the name of any candidate on the ballot paper who is a member of the Committee offering himself for re-election.
 - g) In case there shall not be a sufficient number of candidates nominated the Committee shall fill up the remaining vacancy or vacancies or may direct the incoming Committee to do so.
43. The Club may from time to time by ordinary resolution passed at a general meeting increase or reduce the number of officers or other members of the Committee.
44. The Committee shall have power at any time, and from time to time, to appoint any person to the Committee, either to fill a casual vacancy or as an addition to the existing officers or other members of the Committee but so that the total number of officers or other members of the Committee shall not at any time exceed the number fixed in accordance with these regulations. Any officer or other member of the Committee so appointed shall hold office only until the next following Annual General Meeting.

45. The Club may by ordinary resolution remove any officer or other member of the Committee before the expiration of his period of office, and may by an ordinary resolution appoint another person in his stead; the person so appointed shall hold office only until the next following Annual General Meeting.
46. The Office of a member of the Committee shall become vacant if the member:-
- a) Ceases to be a member of the Committee by virtue of the Act;
 - b) Becomes bankrupt or makes any arrangement or composition with his creditors generally;
 - c) Becomes prohibited from being a Director of a Company by reason of any order made under the Act;
 - d) Becomes of unsound mind or a person whose person or estate is liable to be dealt with in any way under the law relating to mental health;
 - e) Resigns his office by notice in writing to the Club;
 - f) For more than six months is absent without permission of the Committee from meetings of the Committee held during that period;
 - g) Holds any office of profit under the Club; h) Ceases to be a member of the Club; or
 - i) Is directly or indirectly interested in any contract or proposed contract with the Club provided, however, that a member shall not vacate his office by reason of his being a member of any corporation society or association which has entered or proposes to enter into a contract with the Club if such corporation society or association is among the class of companies referred to in the proviso to Clause 3 of the memorandum of association of the Club and if he shall have declared the nature of his Interest in manner required by the Act.

Provided always that nothing in this article shall affect the Operation of Clause 3 of the Memorandum of Association of the Club.

POWERS AND DUTIES OF THE COMMITTEE

47. The business of the Club shall be managed by the Committee who may pay all expenses incurred in promoting and registering the Club, and may exercise all such powers of the Club as are not, by the Act or by these regulations, required to be exercised by the Club in general meeting, subject, nevertheless, to any of the regulations, to the provisions of the Act, and to such regulations or provisions, as may be prescribed by the Club in general meeting; but no regulation made by the Club in general meeting shall invalidate any prior Act of the Committee which would have been valid if that regulation had not been made.
48. The Committee may exercise all the powers of the Club to borrow money and to mortgage or charge its property, or any part thereof, and to issue debentures and other securities whether outright or as security for any debt, liability, or obligation of the Club.
49. All cheques, promissory notes, drafts, bills of exchange and other negotiable instruments, and all receipts for money paid to the Club shall be signed drawn accepted endorsed or otherwise executed, as the case may be by any two members of the Committee or in such other manner as the Committee from time to time determine.
50. The Committee shall cause minutes to be made:-
- a) Of all appointments of officers and servants;
 - b) Of names of members of the Committee present at all meetings of the Club and of the Committee; and
 - c) Of all proceedings at all meetings of the Club and of the Committee.
- Such minutes shall be signed by the Chairman of the meeting at which the proceedings were held or by the Chairman of the next succeeding meeting.

PROCEEDINGS OF THE COMMITTEE

51. The Committee may meet together for the despatch of business, adjourn and otherwise regulate its meetings as it thinks fit. A member of the Committee may at any time and the Secretary shall on the requisition of a member of the Committee summon a meeting of the Committee.
52. Subject to these regulations questions arising at any meeting of the Committee shall be decided by a majority of votes and a determination by a majority of the members of the Committee shall for all purposes be deemed a determination of the Committee. In case of an equality of votes the Chairman of the meeting shall have a second or casting vote.
53. A member of the Committee shall not vote in respect of any contract or proposed contract with the Club in which he is interested, or any matter arising thereout, and if he does so vote his vote shall not be counted.
54. The quorum necessary for the transaction of the business of the Committee shall be three or such greater number as may be fixed by the Committee.

55. The continuing members of the Committee may act notwithstanding any vacancy in the Committee but if and so long as their number is reduced below the number fixed by or pursuant to these regulations as the necessary quorum of the Committee, the continuing member or members may act for the purpose of increasing the number of members of the Committee to that number or of summoning a general meeting of the Club, but for no other purpose.
56. The President shall preside as Chairman at every meeting of the Committee or if there is no President or if at any meeting he is not present within ten minutes after the time appointed for holding the meeting the Vice-President shall be Chairman or if the Vice-President is not present at the meeting then the members may choose one of their number to be Chairman of the Meeting.
57. The Committee may delegate any of its powers to sub-committees consisting of such member or members of the Committee as they think fit; any sub-committee so formed shall in the exercise of the powers so delegated conform to any regulations that may be imposed on it by the Committee.
58. A sub-committee may elect a Chairman of its meetings; if no such Chairman is elected, or if at any meeting the Chairman is not present within ten minutes after the time appointed for holding the meeting, the members present may choose one of their number to be Chairman of the meeting.
59. A sub-committee may meet and adjourn as it thinks proper. Questions arising at any meeting shall be determined by a majority of votes of the members present, and in the case of an equality of votes the Chairman shall have a second or casting vote.
60. All Acts done by any meeting of the Committee or of a sub-committee or by any person acting as a member of the Committee shall, notwithstanding that it is afterwards discovered that there was some defect in the appointment of any such member of the Committee or person acting as aforesaid, or that the members of the Committee or any of them were disqualified, be as valid as if every such person had been duly appointed and was qualified to be a member of the Committee.
61. A resolution in writing signed by all the members of the Committee for the time being entitled to receive notice of a meeting of* the Committee, shall be as valid and effectual as if it had been passed at a meeting of the Committee duly convened and held. Any such resolution may consist of several documents in like form, each signed by one or more members of the Committee.

SECRETARY

62. The Secretary shall in accordance with the Act be appointed by the Committee for such term at such remuneration and upon such conditions as it thinks fit; and any Secretary so appointed may be removed by it. Nothing herein shall prevent the Committee from appointing a member of the Club as Honorary Secretary and any member so appointed shall forthwith become an officer of the Club and if not already a member of the Committee ex officio a member of the Committee and he shall be subject to the provisions of Clause 3 of the memorandum of association.

SEAL

63. The Committee shall provide for the safe custody of the seal which shall only be used by the authority of the Committee or of a sub-committee of members of the Committee authorised by the Committee in that behalf and every instrument to which the seal is affixed shall be signed by a member of the Committee and shall be countersigned by the Secretary or by a second member of the Committee or by some other person appointed by the Committee for the purpose.

ACCOUNTS

64. The Committee shall cause proper accounting and other records to be kept and shall distribute copies of every profit and loss account and balance sheet (including every document required by law to be attached thereto) accompanied by a copy of the Auditors report thereon as required by the Act provided, however, that the Committee shall cause to be made out and laid before each annual general meeting a balance sheet and profit and loss account made up to a date not more than three months before the date of the meeting.
65. The Committee shall from time to time determine in accordance with Clause 9 of the memorandum of association at what times and places and under what conditions or regulations the accounting and other records of the Club shall be open to the inspection of members not being members of the Committee, and no member (not being a member of the Committee) shall have any right of inspecting any account or book or paper of the Club except as conferred by statute or by Clause 9 of the memorandum of association or authorised by the Committee or by the Club in general meeting.

AUDIT

66. A properly qualified Auditor or Auditors shall be appointed and his or their remuneration fixed and duties regulated in accordance with Sections 9, 165, 166 and 167 of the Act and Clause 9 of the Memorandum of association.

NOTICES

67. A notice may be given by the Club to any member either personally or by sending it by post to him at his registered address or (if he has no registered address within the State) to the address, if any, within the 'State supplied by him to the Club for the giving of notices to him. Where a notice is sent by post, service of the notice shall be deemed to be effected by properly addressing prepaying and posting a letter containing the notice and to have been effected in the case of a notice of a meeting on the day after the date of its posting, and in any other case at the time at which the letter would be delivered in the ordinary course of post.

68.

- 1) Notice of every general meeting shall be given in any manner hereinbefore authorised to:-
 - a) Every member except those members who (having no registered address within the State) have not supplied to the Club an address within the State for the giving of notices to them; and
 - b) The Auditor or Auditors for the time being of the Club.
- 2) No other person shall be entitled to receive notices of general meetings.

WINDING UP

69. The provisions of Clause 8 of the memorandum of association "relating to the winding up or dissolution of the Club shall have effect and be observed as if the same were repeated in these regulations.

INDEMNITY

70. Every member of the Committee, Auditor, Secretary and other officers for the time being of the Club shall be indemnified out of the assets of the Club against any liability arising out of the execution of the duties of his office which is incurred by him in defending any proceedings, whether civil or criminal, in which judgement is given in his favour or in which he is acquitted or in connection with any application under the Act in which relief is granted to him by the Court in respect of any negligence default breach of duty or breach of trust.

WE, the several persons whose names are subscribed being subscribers to the Memorandum of Association hereby agree to the foregoing Articles of Association.

Signature of Subscribers

Witness to Signature
and Address of Witness

George Andrew Lloyd D. 1928
1405D 14052 William St., Sydney
1974-1975: 1975-1976: Company Director

John William Patterson
3 Kynong Rd., Elanora
N.S.W. Solicitor

TAMES SCHOFIELD SCOTT
246 Rocky Point Road RASSAU N.S.W.
Company Director
Gordon Vincent Joiner
9 Dring St Strathmore Victoria
Teacher Telecommunications
Co Joiner

WARD CLAYTON PERKS
28 ALEXANDER ST
LAURENCE PARK 1516
MANAGING DIRECTOR

WILLIAM ARTHUR DIXON
43 YARDWICK RD
TUGGERAH 2255

1338 Pittwater Rd
Narrabeen
1338 Pittwater Rd. Narrabeen

1338 Pittwater Rd
Narrabeen

Kenneth William McKelvie
10 Renneron St
Broomfield 3193
K. McKelvie

19 Dring St Strathmore Victoria

1913 Esplanade
Henley Beach SA 5022

1913 Esplanade

1338 Pittwater Rd
Narrabeen

1338 Pittwater Rd
Narrabeen

DATED this

15th

day of

July

1974.

HISTORICAL COMPANY EXTRACT
-----001052688 AUSTRALIAN AEROBATIC CLUB

Australian Company Number : 001052688
Registered In : NSW
Previous State Number : 15158306
Registration Date : 25/03/1977
Governance Type : CONSTITUTION
Review Date : 25/03/2012
Current Organisation Details from 01/07/1992

Name : AUSTRALIAN AEROBATIC CLUB 002908252
Name Start : Unknown
Status : REGISTERED
Type : AUSTRALIAN PUBLIC COMPANY
Class : LIMITED BY GUARANTEE
Subclass : COMPANY LICENSED TO OMIT "LIMITED" FROM NAME
Organisation Details from 12/06/1992 to 16/07/1992

Name : AUSTRALIAN AEROBATIC CLUB
Name Start : Unknown
Status : STRIKE-OFF ACTION IN PROGRESS
Type : AUSTRALIAN PUBLIC COMPANY
Class : LIMITED BY GUARANTEE
Subclass : COMPANY LICENSED TO OMIT "LIMITED" FROM NAME
Organisation Details from 25/03/1977 to 11/06/1992

Name : AUSTRALIAN AEROBATIC CLUB
Name Start : Unknown
Status : REGISTERED
Type : AUSTRALIAN PUBLIC COMPANY
Class : LIMITED BY GUARANTEE
Subclass : COMPANY LICENSED TO OMIT "LIMITED" FROM NAME
Registered Office DOCUMENT NO

Address : 'PERIDOT'
TONGY LANE
COOLAH, NSW, 2843
Start Date : 28/03/2011 1E7258857
Previous Registered Office DOCUMENT NO

Address : 6 TOORONGA TERRACE
BEVERLY HILLS, NSW, 2209
Start Date : 10/07/1995 010422071
Cease Date : 27/03/2011
Address : SUITE 2 LEVEL 2
10 CROSS STREET

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HURSTVILLE, NSW, 2220
Start Date : 20/07/1992 003060200
Cease Date : 09/07/1995
Address : SUITE 2A
11 GEORGE STREET
PARRAMATTA, NSW, 2150
Start Date : Unknown
Cease Date : 19/07/1992
Principal Place of Business DOCUMENT NO

Address : 'PERIDOT'
TONGY LANE
COOLAH, NSW, 2843
Start Date : 21/03/2011 1E7258857
Previous Principal Place of Business DOCUMENT NO

Address : 6 TOORONGA TERRACE
BEVERLY HILLS, NSW, 2209
Start Date : 05/04/1996 009022489
Cease Date : 20/03/2011
Address : 23 TASKER AVENUE
CLEMTON PARK, NSW, 2206
Start Date : 29/06/1992 002908252
Cease Date : 04/04/1996
Apointed Auditor DOCUMENT NO

Company Name : BEHRENS ROWLEY PARTNERS 024705500
Number : 089503391
Start Date : 06/04/1993
Address : SUITE 2 LEVEL 4
460 CHURCH STREET
NORTH PARRAMATTA NSW 2151
Previous Apointed Auditor DOCUMENT NO

Officer Name : CHARLES AUBREY BEHRENS 00105268C
Start Date : 06/04/1993
Cease Date : 14/04/1995
Address : SUITE 2 LEVEL 6
161-169 MACQUARIE STREET
PARRAMATTA NSW 2150
Officer Name : THOMAS WILLIAM MOON 002908252
Cease Date : 06/04/1993
Address : SUITE 2 LEVEL 2
10 CROSS STREET
HURSTVILLE NSW 2220
Director DOCUMENT NO
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Fédération Aéronautique Internationale
MSI - Avenue de Rhodanie 54
CH – 1007 Lausanne
Suisse

E-mail : members@fai.org

Fax: + 41 21 345 10 77

DELEGATION OF SPORTING POWERS - 2014

Name of the NAC	Australian Sport Aviation Confederation
-----------------	---

We have delegated no sporting powers to other organisations	
--	--

We have delegated sporting powers as follows:
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NAME AND ADDRESS OF ORGANISATION	TEL / FAX /EMAIL NUMBERS	POWERS DELEGATED (Write "All" or give the numbers of the delegated powers – see cover letter)	VALIDITY OF THE DELEGATION Indefinitely* or until end of 2014
Australian Aerobatic Club c/- Grant Piper 'Peridot' Tongy Lane COOLAH NSW 2843 Australia	Tel +61 2 6377 4556 Email: grant.piper@skymesh.com.au	All	Indefinitely
Australian Ballooning Federation PO Box 402 EMERALD VIC 3782 Australia	Tel +61 3 5968 6533 Fax +61 3 5968 6599 Email: AusBallooningFed@bigpond.com	All	Indefinitely
Australian Parachute Federation PO Box 1440 SPRINGWOOD QLD 4127 Australia	Tel +61 7 3457 0100 Fax +61 7 3457 0150 Email: brad.turner@apf.asn.au	All	Indefinitely

Gliding Federation of Australia Level 1/34 Somerton Road SOMERTON VIC 3062 Australia	Tel +61 3 9303 7805 Fax +61 3 9303 7960 Email: eo@glidingaustralia.org	All	Indefinitely
Hang Gliding Federation of Australia 4A/60 Keilor Park Drive KEILOR PARK VIC 3042 Australia	Tel +61 3 9336 7155 Fax +61 3 9336 7177 Email: office@hgfa.asn.au	All	Indefinitely
Model Aeronautical Association of Australia 16 Illidge Road VICTORIA POINT QLD 4165 Australia	Tel +61 7 3207 9067 Fax +61 7 3207 8175 Email: secretary@maaa.asn.au		Indefinitely

Date: __19th January 2014__


Raymond Pearson, Executive Officer

Signature, name and position

* If Sporting Powers are delegated indefinitely, the delegation can be cancelled in writing by the NAC at any time.

President

- Oversee running of club, act as Chairman at all committee meetings and the AGM.
- Conduct themselves in an appropriate manner as a representative of the club and sport.
- Represent the club at ASAC and other industry gatherings as appropriate. Make formal representation to any organisation to further the sport in this country.
- Chair Team Selection panel.
- Liaise with CASA and Government at all levels.

Treasurer

- Maintain club accounts.
- Maintain register of financial members of the AAC and Chapters.
- Prepare accounts for audit/review and tabling at AGM.
- Report finances to the committee.
- Manage club accounts to maximise interest, without great risk, while maintaining adequate available funds for day to day activities.
- Oversee bookkeeper activities.
- Prepare annual budget.

Club Captain

- Oversee flying procedures, rules, standards and flying safety within the club.
- Participate on the Team Selection panel.
- Chair rules sub-committee.
- Hold perpetual trophies and maintain AAC archive.
- Hold contest result files and judge performance data.
- Act as team coach/manager if not themselves a flying member of the team or if a dedicated coach is not engaged.
- Recommend international judge candidates and judge upgrades.
- Administer and review judge study courses and judge training.
- Work with Chief Judge and judges at AAC state championships.
- Review judging performance at competitions.
- Maintain an up-to-date record of current judges.
- Maintain an up-to-date record of judges' performance analysis and provide feedback to judges where necessary.
- Act as liaison between AAC, CIVA, and other aerobatic clubs with respect to judging practices and techniques.
- Act as Chief Judge at AAC national championships if not flying themselves.

Ordinary Members

- Communicate between committee and Chapters.
- Fulfil duties on sub-committees, as appointed.
- Hold and manage club merchandise.
- Manage AAC webpage.
- Assist in competition organisation.
- Other duties as directed.

1.0 Secretary/Bookkeeper

1.1 Secretary is an ex-officio position, to be appointed from within committee or seconded from without.

1.2 If a member of the AAC is appointed, as Honorary Secretary they become a member of the committee ex officio. Total permitted committee numbers are not to be exceeded.

1.3 If a non-member is appointed and compensated, they do not have member rights on committee.

2.0 Duties

2.1 Maintain membership database in liaison with Treasurer.

2.2 Hold and file correspondence.

2.3 Take and issue minutes and agenda of meetings.

2.4 Process membership renewals.

2.5 Prepare AGM paperwork and notifications.

2.6 Prepare competition entry forms.

2.7 Accept competition entries, act as Competition Secretary when in attendance.

1.0 Planning Responsibility

- 1.1 A planning timeline is provided in Table 1-7A for reference.
- 1.2 The Contest Director is responsible for coordinating the planning for the competition. Individual tasks should be delegated to relevant chapter committee members / organising committee to ensure a fair and equal workload.

2.0 Competition Program

- 2.1 Table 1-7B is a proposed competition schedule for use in planning. Some variation will be required dependent upon pilot numbers and other factors, but it should provide enough flexibility to cater for typical unplanned events including poor weather. The golden rule of *fly hard early regardless of the weather forecast*, is a good one. Pilots, judges and officials need to be kept informed of all timings and actively herded to reduce wasted time during flyable weather.
- 2.2 The ACRO contest programme, if used correctly, can reduce the scheduling and task allocation workload on officials. Pre-load as much data as possible and do some 'dry runs' beforehand to become familiar with the process.
- 2.3 Though difficult, officials should avoid keeping pilots and themselves back late due to administrative needs. Reduced sleep and missed meals is not conducive to good humor (officials) or peak performance (pilots), and can only be detrimental to flying safety.

3.0 Unknown Sequence Process

- 3.1 A recurring problem with competitions is the time required to select legal figures, draw flyable sequences, check, select, learn and then fly them in our limited comp timeframe. The Free Unknown is a great thing as it allows a smart pilot with a lower performance aircraft to design a sequence that can nullify the performance advantage of others. But the process needs to go smoothly or you will run out of time or end up doing it late at night when the priority should be rest.
- 3.2 Many methods have been tried over the years to ease the Unknown process. 2014 rules delete free practice during the Known. This provides the opportunity to do the Free Unknown figure selection the night before competition flying starts, and gives an extra day for pilots to draw sequences and the jury to check and issue them. See Table 1-7B for a suggested schedule. This should allow time for the process, provided both the pilots and Jury come prepared.

- 3.3 While this isn't ideal, as it breaks from the CIVA process to some degree, it appears a fair compromise. Other methods such as pre-submitting a selection of figures with your entry or leaving the sequence wholly to the organisers or a non-competing pilot, have too many downside risks to pilots (some obvious, some not so). Additionally, the art of designing a 'good' Free Unknown sequence is one worth learning through experience and observation.
- 3.4 For Unknown 1 sequence for Intermediate and below will be provided by the jury and given to pilots with adequate lead time (nominally 6 hours). That said, lower category pilots should observe the Intermediate, Advanced and Unlimited Free Unknown figure selection and development process so they are at least aware of how it all happens.

Table 1-7A – Planning Timeline

Comp date	Activity/Task
-8 weeks	AAC National Committee/AAC State Committee finalise venue selection, obtain airfield owners approval (Event Management Plan), Box survey and local Aeroclub support.
-8 weeks	AAC Committee/Chapter Committee appoint CD and CJ. Order trophies, gather perpetual trophies.
-7 weeks	CD liaise with CASA re Competition, Approved Persons and Notam, as required.
-4 weeks	CD, CJ and Committee appoint Contest Secretary and Scorer
-4 weeks	CD, CJ and Committee finalize entry form info, email and post links to website. Entries Open.
-4 weeks	Committee book bus hire, follow up local Aero club – catering, hangarage, fuel stocks.
-4 weeks	CD or Committee to notify the local CASA field office of the intention to conduct an Aerobatic Contest.
-2 weeks	CD stock take Box Markers x 20 Tent pegs x 160 Mallets x 4 Chairs x 15 Umbrellas and straps x 5 Star Pickets x 5 VHF radio x 4 + batteries/chargers UHF radio x 4 Radio Operator shade/table/radio log Computer/ACRO/ARESTI x 2 Printer x 2 4WD Airside vehicle with first response kit
-2 weeks	CD CASA/NOTAM follow up.
-1 week	Entries Closed. CD and CJ finalise Unknown sequences

AAC Regulations - Appendix 1-6 – Contest Organisation Checklist & Timeline

03/20 AMD 1

Table 1-7B – Competition Timetable

Event	Time	Description
NOTAM Current	0800 dd-mm-yyyy – 1800 dd-mm-yyyy	Aerobatics within 2nm of YXXX, SFC – A040, RH CCTS RWYXX, XX and XX. 'YXXX Advisory' radio operating IAW CASA EX35/13, aircraft may not be on CTAF frequency.
Private Practice	Dd-mm-yyyy – dd-mm-yyyy	Not part of competition. Listening watch on CTAF to be maintained by pilots.
Registration	From 1300 dd-mm-yyyy	Process entries.
First Official Briefing	1800 – 1845 dd-mm-yyyy	CD/CJ
<i>Unlimited F. Unk1 Figures</i>	<i>1845 – 1945</i>	<i>Submission of Unk1& Unk2 Figures</i>
<i>Advanced F. Unk1 Figures</i>	<i>1945 - 2045</i>	<i>Submission of Unk1& Unk2 figures.</i>

dd-mm-yyyy

Briefing	0800 – 0830	All participants and officials
	0830 – 1000	Registrations Continue
Advanced Known	0900 – 1030	9 x 10min slots
Graduate Known	1030 – 1130	6 x 10 min slots
Unlimited Known	1130 – 1230	6 x 10min slots
Sportsman Known	1230 – 1430	12 x 10 min slots
Intermediate Known	1430 – 1550	8x 10min slots
Entry Official Practice	1550 - 1630	4 x 10min slots

dd-mm-yyyy

Briefing	0800 – 0830	All participants and officials
<i>Unlimited/Advanced F.Unk1</i>	<i>0830</i>	<i>Pilots post F.Unk1 sequence proposals.</i>
Unlimited Free	0900 - 1000	6 x 10min slots
Graduate Known 2	1000 – 1100	6 x 10min slots
Advanced Free	1100 – 1330	9 x 10min slots
<i>Graduate, Sportsman, Intermediate Unknown</i>	<i>1330</i>	<i>Unknown given to pilots.</i>
Sportsman Free	1330 – 1530	12 x 10min slots.
IntermediateFree	1530 – 1650	8 x 15min slots
Entry Known 1	1650 – 1730	4 x 10min slots
<i>UNL/ADV F.Unk1</i>	<i>1800</i>	<i>Pilots nominate F.Unk1 sequence to be flown.</i>

Friday 8 November 2013

Briefing	0800 – 0830	All participants and officials
<i>Unlimited/Advanced F.Unk2</i>	<i>0830</i>	<i>Pilots post F.Unk2 sequence proposals.</i>
Advanced F.Unk1	0900 -1030	9 x 10min slots
Graduate Unknown	1030 – 1130	6 x 10min slots
Unlimited F.Unk1	1130 – 1230	6 x 10min slots
Sportsman Free	1230 – 1430	12 x 10 min slots
Intermediate Unknown	1430 – 1550	8 x 10min slots
Entry Known 2	1550 -1630	4 x 10min slots
<i>UNL/ADV F.Unk2</i>	<i>1800</i>	<i>Pilots nominate F.Unk2 sequence to be flown.</i>

dd-mm-yyy

Briefing	0800 – 0830	All participants and officials
Unlimited F.Unk2	0900 -1000	6 x 10min slots
Advanced F.Unk2	1100 – 1230	9 x 10min slots
4 Min Free	1400 - 1500	6 x 10min slots

AAC Regulations - Appendix 1-6 – Contest Organisation Checklist & Timeline

03/20 AMD 1

Presentation Dinner	1900	Venue TBA
dd-mm-yyyy		
Briefing/Hot-washup	1000	All participants and officials
Any unfinished categories		
Pack up box		
Clean up		
Pay Bills		
Depart		

AUSTRALIAN AEROBATIC CLUB

AGM NOMINATION FORM

We the undersigned, being financial members of the Australian

Aerobic Club nominate

**for the position of _____ on the Committee of the
Australian Aerobic Club.**

Proposer: Name _____

Address _____

Signature _____

Seconder: Name _____

Address _____

Signature _____

Signature of Nominee _____

Nomination Forms must be lodged with the Secretary no later than midnight dd-mmm-yyyy.

Mail to: AAC , (insert address).

or fax: _____ or email: (insert position)@aerobicsaustralia.com.au

AUSTRALIAN AEROBATIC CLUB

(yyyy) AGM PROXY FORM

I,
(full name)

of.....
(address)

Being a member of the Australian Aerobatic Club

hereby appoint.....
(full name of proxy)

of.....
(address)

as my proxy to vote for me on my behalf at the (annual or extraordinary, as the case may be) general meeting of the Club to be held on the dd-mmm-yyyy and at any adjournment thereof.

My proxy is authorised to vote in favour of/against *(delete as appropriate)* the resolution *(insert details)*. *(Unless otherwise instructed, the proxy may vote as he thinks fit)*.

.....
Signature of member appointing proxy

.....
Date

Note: Notice of Proxy must be in possession of the Secretary no later than 48 hours prior to the AGM. i.e. (time) (day) (month) (yyyy).

This document has kindly been reproduced with the permission of the British Aerobatic Association. All people acting in an official capacity at competitions are to be conversant with these procedures. It is a good idea for the CD or AAC/Chapter President (or his delegate) to cover the key items in a pre-comp briefing to officials.

1.0 Overview of Procedures

- 1.1 In the event of a serious accident or casualty at an Australian Aerobatic Club (AAC) contest or event, the host airfield's emergency response plan will be activated.
- 1.2 AAC officials will support the host airfield staff to provide an appropriate response to the incident.
- 1.3 The procedures invoked to deal with such aviation related incidents are based on the principles described in the FAI Guidelines and Sporting Codes found at <http://www.fai.org/fai-documents>.

2.0 Planning Meeting with Host Airfield

- 2.1 The CD must liaise with the host airfield management team (Airfield Manager, CFI or other appropriate person) before the event to discuss arrangements for the competition, to include:
 - a) Flight operating procedures.
 - b) Emergency response procedures (including Major Incident Plans).
 - c) Location and procedures for use of the aerobatic box. The CD and airfield management team should work together to agree an appropriate location for the aerobatic box, giving consideration to keeping aerobatic contest flights clear of occupied buildings, significant public areas or facilities, local villages and noise sensitive areas.
- 2.2 Designation of an Incident Control Centre. A room or office should be designated for use as the Incident Control Centre. The CD and the airfield management would use this room as the central point from which to co-ordinate the response to the incident. Ideally, this should be close to ATC so that use can be made of air band radio facilities.

3.0 AAC Incident Response Team

- 3.1 A response to a serious accident or casualty will be coordinated by the CD and the Airfield Manager or other appropriate person.

- 3.2 The CD may appoint other AAC volunteers to help with the management of the incident response as he feels appropriate. These roles may include:
- a) Deputy CD assigned to be the CD's representative at the incident site and elsewhere on the airfield as and when required.
 - b) Public relations officer assigned to deal with press and media enquiries.

4.0 Immediate Response to an Incident

- 4.1 Participants should report the occurrence of an incident to a contest official, to the member of any local staff responsible for managing air traffic, or to another member of the airfield staff, whichever is quicker, who must immediately contact the local air traffic management personnel to inform them of the incident.
- 4.2 The local air traffic management personnel will call 000 to alert the emergency services (fire, ambulance, and police) and activate the airfield's emergency response and major incident plan as appropriate.
- 4.3 Further management of the situation will be coordinated by the airfield staff, supported by the AAC CD.

5.0 Role of Participants

- 5.1 Once the alarm has been raised, if a victim involved in the incident needs help and the rescue team has not arrived on scene, participants must consider the danger they and other participants may be exposed to if a rescue is attempted. The professional incident response teams will have the training and equipment needed to respond to the incident appropriately and in most cases it is best to let the professional team handle the situation.
- 5.2 A participant must not attempt to move a victim unless asked to do so by the rescue team, under their supervision, except if the victim is in imminent danger and the rescue team has not arrived on scene. However, participants must be aware that any intervention in these circumstances could place both the victim and the participant in grave danger.
- 5.3 In circumstances where it has been established that no further assistance can be given to the pilot (or any other people involved in the incident) and that a fatal incident has occurred, the accident site must be secured and measures implemented to ensure that the area remains undisturbed

until the Police and Air Accident Investigators arrive on scene. An effort should be made to shield the accident site from view if possible.

- 5.4 Witnesses to the accident should be requested by the CD or his deputy to remain on-site until the police have said they can leave.
- 5.5 Participants should not watch video footage of the incident until given permission to do so by the police or ATSB, but should hand any photographs or video footage of the incident to the CD.
- 5.6 When the contest participants next meet (morning briefing, or a special briefing), the CD should provide basic facts about the incident, including action taken and decisions made regarding the future continuation of the contest.
- 5.7 There will almost certainly be media and public enquiries or presence at the event site and/or the site of any major accident (which may be off the event site). Opinions, assumptions, and the names of individuals involved should not be passed to the media. A properly constructed announcement will be released to the public and media by the AAC President on behalf of the AAC.

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1. AAC CODE OF CONDUCT

The AAC seeks to provide a safe, fair and inclusive environment for everyone involved in our organisation and in our sport.

To achieve this, we require certain standards of behaviour of pilots, judges, coaches, officials, administrators, volunteers, parents/guardians (of child participants) and spectators.

Our codes of behaviour are underpinned by the following core values.

- To act within the rules and spirit of our sport.
- To display respect and courtesy towards everyone involved in our sport and prevent discrimination and harassment.
- To prioritise the safety and well-being of children and young people involved in our sport.
- To encourage and support opportunities for participation in all aspects of our sport.

2. AAC'S GENERAL CODE OF BEHAVIOUR

As a member of the AAC or an AAC Chapter, or a person required to comply with the AAC's Member Protection Policy, you must meet the following requirements in regard to your conduct during any activity held or sanctioned by the AAC or AAC Chapter and in any role you hold within the AAC or Chapter.

1. Respect the rights, dignity and worth of others.
2. Be fair, considerate and honest in all dealing with others.
3. Be professional in, and accept responsibility for, your actions.
4. Make a commitment to providing quality service.
5. Be aware of, and maintain an uncompromising adherence to the AAC Regulations, CASA Regulations, standards and policies.

6. Operate within the rules of the sport including national and international guidelines which govern our operations.
7. Do not use your involvement with the AAC or Chapter to promote your own beliefs, behaviours or practices where these are inconsistent with those of the AAC or Chapter.
8. Demonstrate a high degree of individual responsibility especially when dealing with persons less than 18 years of age, as your words and actions are an example.
9. Avoid unaccompanied and unobserved activities with persons less than 18 years of age, wherever possible.
10. Refrain from any form of harassment of others.
11. Refrain from any behaviour that may bring the AAC or Chapter into disrepute.
12. Provide a safe environment for the conduct of the activity.
13. Show concern and caution towards others who may be sick, handicapped or injured in accordance with the AAC Member Protection Policy.
14. Be a positive role model.
15. Understand the repercussions if you breach, or are aware of any breaches of, this code of behaviour.

3. CODE OF CONDUCT FOR PILOTS

In addition to the AAC's General Code of Behaviour, you must meet the following requirements in regard to your conduct during any activity held or sanctioned by the AAC, AAC Chapter, CIVA or other international aerobatic body, and in your role as a pilot/participant in any activity held by or under the auspices of the AAC or Chapter:

1. Respect the rights, dignity and worth of fellow pilots, judges, coaches, and officials.
2. Do not tolerate acts of aggression.
3. Respect the talent, potential and development of fellow pilots, judges and Officials.
4. Care for and respect the equipment provided to you by your club.
5. Be frank and honest with contest officials concerning illness and injury and your ability to fly safely within the program requirements.
6. Do not attempt to gain favour or benefit by engaging in inappropriate intimate relationships with judges or officials.
7. Conduct yourself in a professional manner relating to language, temper and punctuality.

8. Maintain acceptable personal behaviour standards at all times.
9. Abide by the rules and respect the decisions of officials, making all appeals through the formal process and respecting the final decision.
10. Be honest in your attitude and preparation to training. Work equally hard for yourself and your team or club.
11. Cooperate with judges and officials in development of programs to enhance your flying or other skills.

4. CODE OF CONDUCT FOR JUDGES

In addition to the AAC General Code of Behaviour, you must meet the following requirements in regard to your conduct during any activity held or sanctioned by the AAC or Chapter and in your role as a Chief Judge, Judge, Penciller or Caller appointed by the AAC or Chapter:

1. Do not tolerate acts of aggression.
2. Provide feedback to pilots and other participants in a manner sensitive to their needs.
3. Avoid unnecessary negative feedback.
4. Recognise pilots' rights to consult with other instructors, coaches and advisers.
5. Cooperate fully with the Chief Judge and fellow Judges.
6. Treat all pilots fairly within the context of their sporting activities, regardless of gender, race, place of origin, athletic potential, colour, sexual orientation, religion, political beliefs, socio-economic status and other conditions.
7. Encourage and facilitate pilots' independence and responsibility for their own behaviour, performance, decisions and actions.
8. Appropriately involve the pilots in decisions that affect them.
9. Encourage pilots to respect one another and to expect respect for their worth as individuals regardless of their level of experience.
10. Ensure that the sequences and training tasks set are suitable for the experience, ability, and physical and psychological conditions of the pilots.
11. Be acutely aware of the power that you as a judge develop with pilots in the contest environment and avoid any sexual intimacy with pilots that could develop as a result.
12. Avoid situations with pilots that could be construed as compromising.
13. Actively discourage the use of performance enhancing drugs and illegal substances.
14. Discourage abuse of alcohol and tobacco.

15. Do not exploit any judging relationship to further personal, political or business interests at the expense of the best interest of all pilots.
16. Accept and respect the role of officials in ensuring that competitions are conducted fairly and according to established rules.
17. Know the aerobatic Judging Criteria and abide by rules, regulations and standards, and encourage pilots to do likewise.
18. Accept both the letter and the spirit of the rules.

5. CODE OF CONDUCT FOR AAC CONTEST OFFICIALS

In addition to the AAC's General Code of Behaviour, you must meet the following requirements in regard to your conduct as a Contest Official (including but not limited to the Contest Director, Chief Judge, Judges, Starter, Pencillers, Callers, Contest Secretary, Jury and Technical Committee Members) during any activity held by or under the auspices of the AAC or Chapter:

1. Resolve conflicts fairly and promptly through established procedures.
2. Maintain strict impartiality.
3. Be aware of your legal responsibilities.

6. CODE OF CONDUCT FOR AAC CHAPTER COMMITTEE

In addition to the AAC's General Code of Behaviour, you must meet the following requirements in regard to your conduct while filling any AAC Chapter position of responsibility:

1. Resolve conflicts fairly and promptly through established procedures.
2. Maintain strict impartiality.
3. Be aware of your legal responsibilities.

7. CODE OF CONDUCT FOR AAC COMMITTEE

In addition to the AAC's General Code of Behaviour, you must meet the following requirements in regard to your conduct while filling any AAC position of responsibility:

1. Resolve conflicts fairly and promptly through established procedures.
2. Maintain strict impartiality.
3. Be aware of your legal responsibilities.

8. CODE OF CONDUCT FOR VOLUNTEERS, SUPPORT PERSONNEL AND FAMILIES

In addition to the AAC's General Code of Behaviour, you must meet the following requirements in regard to your conduct during any activity held or sanctioned by the AAC or Chapter:

1. Place the safety and welfare of the pilots/participants above all else.
2. Accept responsibility for all actions taken.
3. Be impartial.
4. Avoid any situation which may lead to a conflict of interest.
5. Be courteous, respectful and open to discussion and interaction.
6. Value the individual in sport.

AAC REGULATIONS – Appendix 2-1 - Criteria for Judging Aerobatic Figures

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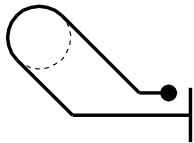
1.0 Criteria for Judging Aerobatic Figures

1.1 The AAC uses the international judging criteria as published in the CIVA Sporting Code Section 6, sub-section 6. These criteria are reproduced below in toto.

2.0 Additional Judging Criteria for Entry Figures

2.1 Additional judging criteria are included below for use in judging the Barrel Roll and Wingover used in the Entry Known sequence.

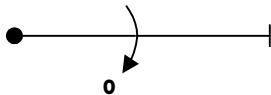
2.2 Family 10 - The Wingover.



The wingover requires a 180° turn placed at the apex of 45° climbing and descending sections. The bank angle at the apex should be 90° with the fuselage axis horizontal. The normal one (1) point off per five (5) degree of error applies. Variations and stops of the turn rate are penalized by 1 and 2 points off respectively. The K factor for a wingover is 8.

2.3 Family 11 – The Barrel Roll

The Barrel Roll is performed around an imaginary point on the horizon 20 degrees off the axis. The manoeuvre is flown with positive 'G' throughout so the nose of the aircraft will describe a perfect circle around this point on the horizon. When viewed from the ground, the aircraft appears to describe a corkscrew effect in the horizontal plane.



The Judges will be looking for:

- Rate of roll should blend evenly with the circle described by the nose.
- Initially, the nose should rise simultaneously with the change of heading and beginning of the roll.
- At 90 degrees roll point the fuselage angle should be 20 degrees above the horizon, a 20 degree left or right of the original heading depending on direction of roll.
- The highest altitude should occur at the 180 degree roll point, at which time the heading should be 40 degrees off original heading.
- At 270 degrees roll point, the fuselage angle should be 20 degrees below the horizon and heading should have reduced back to 20 degrees from the heading prior to the start.
- The manoeuvre is ended when original heading, altitude and zero bank is attained. At that point the aircraft will have displaced horizontally from the geographic starting point by approximately 100 to 200 metres in the direction of roll.

The K factor for the barrel roll is 15.

6. CRITERIA FOR JUDGING AEROBATIC FIGURES

6.1. Preface

6.1.1.1. The following is an expansion and clarification of the general principles for grading aerobatic figures stated in Regulation 5.1.2. The final grade awarded to a figure has many facets, but the first and most important component in any grade is the geometry of the figure as compared to the true horizon and Aerobatic Box axes. Geometry is derived from two distinctly different entities: flight path and attitude.

6.2. Definitions

There are some words and phrases which are used consistently throughout the text in a very precise sense, and it is as well to define at the start the sense in which each is used:

6.2.1. Angle of attack

6.2.1.1. The angle at which the wings of an aeroplane meet the relative airflow.

6.2.2. Angle of incidence

6.2.2.1. The angle at which the wing is attached to the aeroplane.

6.2.3. Figure

6.2.3.1. Each individual component of a sequence, which may comprise one or more manoeuvres in combination; it starts and ends with a horizontal line.

6.2.4. Maneuver

6.2.4.1. Any one of the basic aerobatic movements, which may be combined to make a figure (e.g. an avalanche is one figure consisting of two manoeuvres -- loop and flick roll).

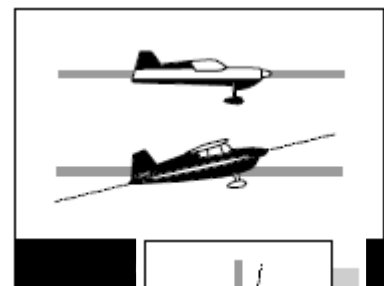
6.2.5. Score/Mark/Point

6.2.5.1. Marks are assigned (from 0 to 10) by judges, and may be devalued by various point values. The score is calculated by multiplying the judges' marks by the coefficients (K factors) and adding the products.

6.3. Flight Path And Attitude

6.3.1. Flight Path

6.3.1.1. Think of the airplane condensed into a single dot and watch the path this dot takes through the sky. This is the flight path, or track, of the aircraft's centre of gravity. Judging the flight path consists of comparing the observed path with fixed references such as the horizon or the X and Y axes of the Aerobatic Box. (Figure 1)



6.3.2. Vertical Attitude

6.3.2.1. Judging vertical lines is based on the attitude of the aircraft and not its flight path. When an aircraft's flight path, in a zero wind condition, is exactly 90 degrees to the horizon, the wings are being held at the correct angle to

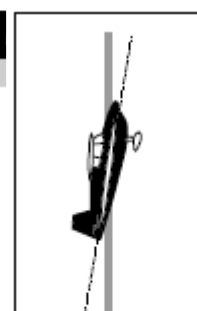


Figure 2

AAC REGULATIONS – Appendix 2-1 - Criteria for Judging Aerobic Figures

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produce no lift. The aircraft's attitude while in this condition (zero lift) defines the proper judging criterion for vertical attitude. This is called the zero-lift axis.

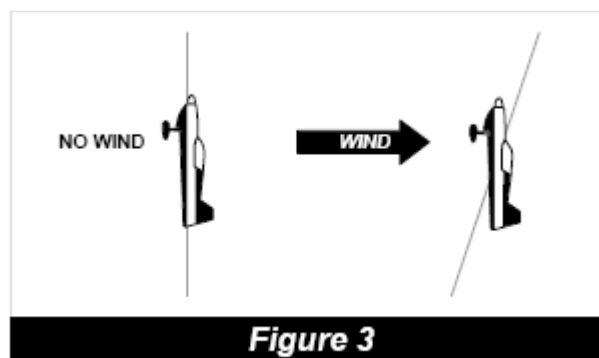
a) When this zero-lift axis is vertical, the longitudinal axis of some aircraft may not appear to be vertical. (Figure2)

The Judge must determine the proper vertical attitude for each aircraft type according to its zero-lift axis. The best opportunity to make this determination is to observe practice flights and note the different aircrafts' vertical attitudes, both up and down.

b) An aid for judging the perfect vertical (zero-lift) attitude is to observe vertical rolls. During a truly vertical roll, the aircraft's wings will constantly be parallel to the horizon, something which is especially noticeable after 90 degrees of roll.

c) Be aware that aircraft types whose zero-lift axis does not pass through the tail will make a spiral with the tail during a perfect vertical roll. From the Judges' perspective, this spiral will look as if the tail is shifting off-axis from the zero-lift axis flight path.

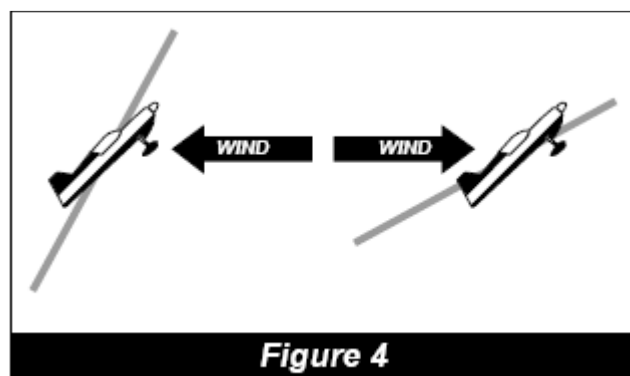
6.3.2.2. When there is a wind of any kind, the observed flight path will be offset from perpendicular to the horizon by some degree. This wind effect must be completely ignored by the Judge, who must only evaluate the accuracy of the vertical attitude. (Figure 3)



6.3.3. The 45 Degree Attitude

6.3.3.1. This is the vertical attitude plus or minus 45 degrees. In view of the difficulty in judging 45 degree lines accurately, scoring deductions should be applied with care. When flown into the wind, a perfect 45 degree line will appear to be steep while the opposite is true when flown downwind. (Figure 4)

6.3.3.2. As with the vertical attitude, this wind effect must be completely ignored by the Judge who must only evaluate the accuracy of the 45 degree attitude. The prescribed deduction is one (1) point per five (5) degrees of deviation from the correct geometry (0.5 points per 2.5 degrees).



6.4. Grading

6.4.1.1. All transitions from one plane of flight to another should have a reasonable and constant radius. The size of that radius is not a grading criterion and higher grades are not to be given to "square, high-G" corners.

6.4.1.2. It should be assumed that a competitor is going to fly a perfect figure, so a Judge starts with a grade of 10. As the figure is performed, the Judge then begins to find faults (if any) with what he or she sees, and starts downgrading as the figure progresses. This system of grading is required by the rules as opposed to waiting until the figure is finished and assigning a grade based on overall impression. The latter causes the judging to be erratic and inconsistent.

6.4.1.3. Should a competitor fly a figure at a location, inside or outside the performance zone, such that the accuracy of the flight path or attitude cannot reasonably be determined, a downgrade of 2 points should be applied for each element of the figure that cannot be properly assessed.

6.5. Summary

6.5.1.1. Remember, it is the Judge's job to find fault: be a nit-picker. On the other hand, give a grade of 10 if you see a perfect figure - but if you are really being critical you won't see too many. Don't get in a rut. Guard against confining your grades in too narrow a range. If you watch carefully and grade consistently, you will find yourself giving an occasional 2, 3, or 4 on some sloppy figures that are not quite bad enough for a zero. You will also be giving an occasional 9 or 10 for the superlative figure with which you can find little or no fault. Take care not to grade on an overall impression of a flight. Be ready to award a low grade for a poor figure even if you have been grading other figures flown by that competitor with 8's and 9's.

6.5.1.2. On the other hand, when you see a competitor barely getting through the figures and you have been giving 4's and 5's, don't be afraid to award a 9 or 10 for the almost perfect 90 degree turn that you just saw.

6.5.1.3. Finally, and most importantly, only grade what you see. If you can't see anything wrong with a figure, don't deduct any points, even if you think there must be something wrong. Always give the competitor the benefit of the doubt.

6.6. Box Axes

6.6.1.1. Except in the Final Freestyle Programme, at the entry and exit of every figure the aircraft longitudinal axis must be exactly aligned with either the X- or Y-axis of the Aerobatic Box. Any angular deviations visible to the judge must be downgraded by one point per five degrees.

6.6.1.2. X-axis directionality:

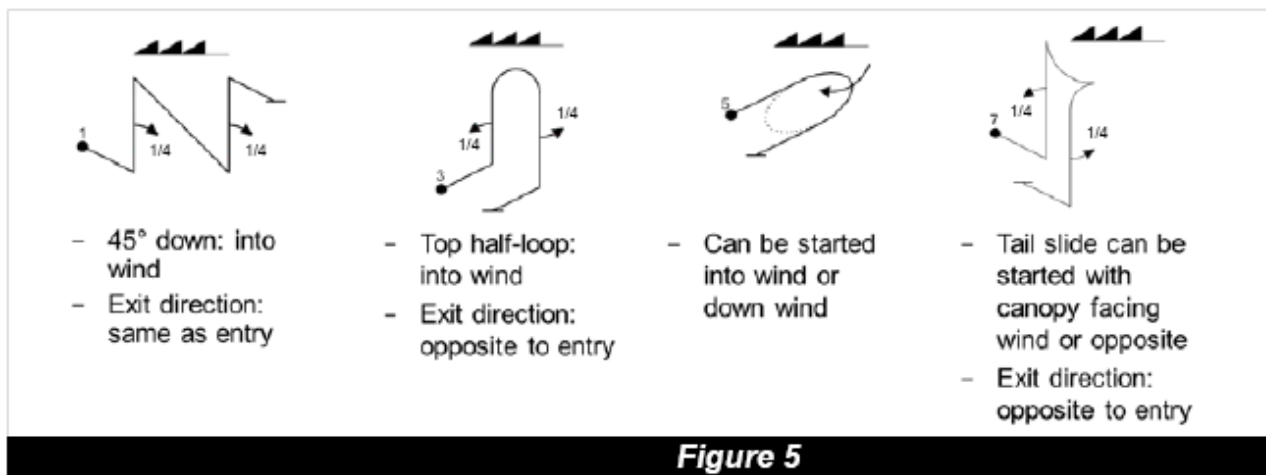
a) The X-axis (or main axis) is parallel to the official wind. Any figure with entry and/or exit lines aligned on the X-axis must be flown with such entry and/or exit lines as drawn on sequence Forms B or C, into or away from the official wind, otherwise the figure will be marked HZ.

b) Except for figures from Families 2, 5 and 6: Any line segment within a figure, either straight or looping, drawn on the X-axis, must be flown in the direction drawn on sequence Forms B or C, into or away from the official wind, otherwise the figure will be marked HZ (Figure 5).

6.6.1.3. The Y-Axis (or secondary axis) is non-directional, i.e. the pilot is free to choose direction on the Y-axis when transiting from the X- to the Y-axis.

6.6.1.4. Any figure with both entry and exit lines aligned on the Y-axis must be drawn with parallel entry and exit lines.

6.6.1.5. Any figure with both entry and exit lines aligned on the Y-axis must be flown with the exit direction relative to the entry direction as drawn on sequence Forms B or C, i.e. in the same or the opposite direction, otherwise the figure will be marked HZ (Figure 5).



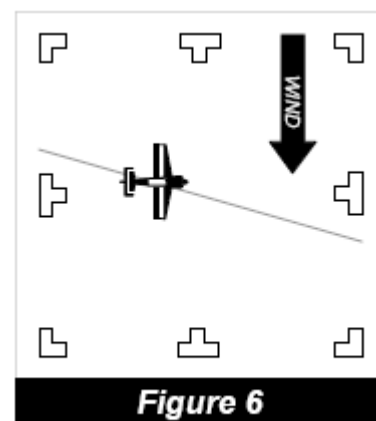
6.7. Wind Correction

6.7.1.1. There are two kinds of wind correction: correction for figure geometry (shape) and correction for Aerobic Box positioning.

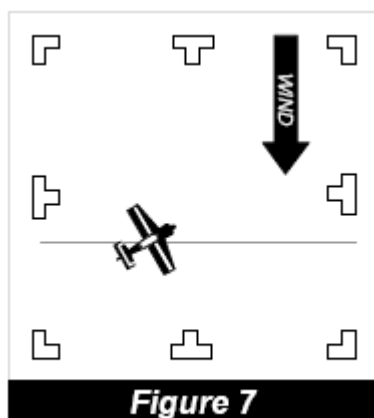
6.7.1.2. The competitor is required to make the shape of all loops and part-loops within a figure perfectly round as seen by the judge on the ground. Wind correction is required for loops and part-loops within figures so that the aircraft's flight path describes a constant radius circle or part circle. Remember, the Judge grades for the roundness of the flight path. Any deviation from perfect roundness must result in a reduction of the score for that figure.

6.7.1.3. The competitor is also required to keep the aircraft within the Aerobic Box. This becomes more of a problem when a wind is blowing at an angle to the X axis. (Figure 6)

The primary method of dealing with cross-box drift is to include a "wind corrector" figure in the sequence. A wind corrector is a figure which places the aircraft onto the Y axis. Because the Y axis is non-directional, the competitor can turn onto the Y axis in the direction which will allow an upwind position change before flying a subsequent figure which returns the aircraft to the X axis.



6.7.1.4. A well designed Free Program will always include at least one, and preferably more, wind corrector figures. Not every Known Compulsory or Unknown Program contains sufficient (or any) wind corrector figures, however, in this case, it is up to the competitor to keep the aircraft within the Aerobic Box without benefit of a specific Y axis figure to accomplish it.



6.7.1.5. A common approach is to crab into the wind as done in navigational flight. (see Figure 7). Crabbing means that the aircraft's heading is at an angle to the competition axis (X or Y). The downside to this approach is that if this heading angle can be detected by the Judge, a deduction of one (1) point per five (5) degrees will be given.

6.7.1.6. It is possible for the competitor to correct for wind in such a manner that the attitude remains absolutely true to the correct geometry of the figure but the flight path has a sideways component. It goes beyond the scope of this document to provide a tutorial on how this may be accomplished, but what is clear is that if any yaw (heading) deviation or bank angle is visible to the Judge, the score

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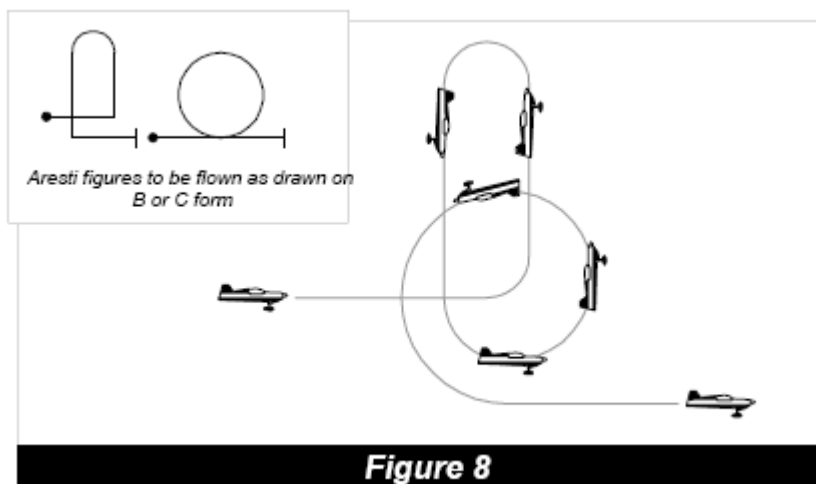
must be reduced at the rate of one (1) point for every five (5) degrees of deviation detected.

6.7.1.7. Please note, however: even if it is plainly evident that the aircraft has moved laterally within the Aerobic Box, if the method of that movement cannot be detected by the Judge, no deduction for such correction must be made.

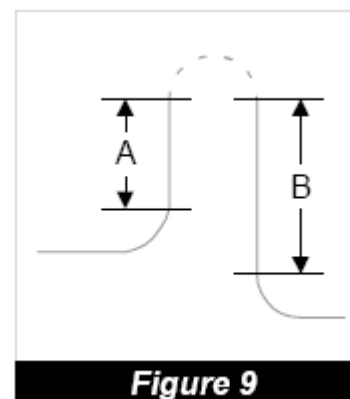
6.8. The Two Basic Components Of Aerobic Construction: Lines And Loops

6.8.1. Lines

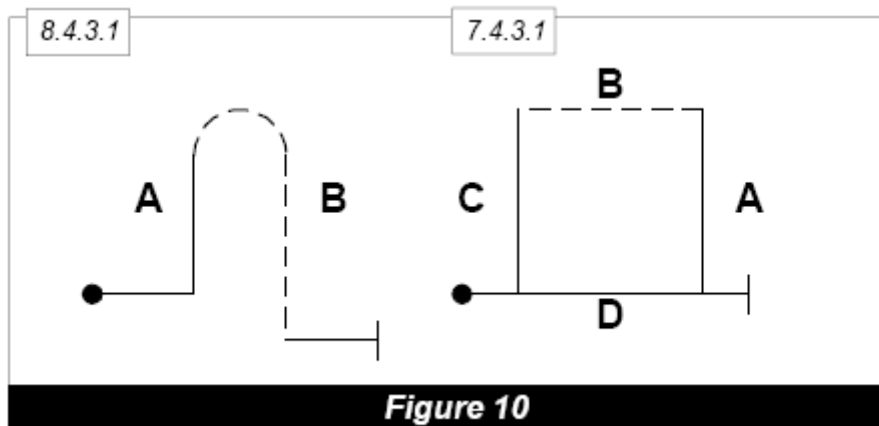
6.8.1.1. All lines are judged in relation to the true horizon and the Aerobic Box's axes. Horizontal lines are judged on flight path, not attitude. Different aircraft at different airspeeds will employ different attitudes to maintain a horizontal flight path. (Figure 1) While maintaining a horizontal flight path, the aircraft's heading must remain parallel to the X or Y axis. The deduction for deviation in either axis is one (1) point per five (5) degrees from the correct geometry.



6.8.1.2. All figures begin and end on definite horizontal lines, and both must be present in order to earn a good grade. A competitor who rushes from one figure to another without showing this horizontal and well-recognizable line will be downgraded by one (1) point for each missing line in each figure affected. Therefore, leaving out the line between two figures will downgrade the preceding figure by one (1) point and the following figure by one (1) point. (Figure 8)



6.8.1.3. All lines that occur inside a figure have a beginning and an end which define their length. They are preceded and followed by part-loops. (Figure 9)



of equal length. (Figure 10)

6.8.1.4. With the exception of Family 3 figures and some figures in Family 7, the criterion for the length of lines within a figure states that they do not have to be of equal length. Therefore, it is imperative that the judges become familiar with the specific criterion for the length of lines for each figure. For example, the lines in a "Humpty-bump" do not need to be of equal length, but all four lines in a "Square loop" must be

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6.8.1.5. Whenever any kind of roll is placed on an interior line (except when any type of roll follows a spin), the lengths of the two parts of the line before and after the roll must be equal. Judges should take care to judge the symmetry of the length of lines in a figure using only the length of the lines and not by elapsed time taken to fly each segment. This difference in length versus elapsed time is most noticeable in figures where rolls are placed on up-lines. As the aircraft loses airspeed, the time it takes to fly a line after the roll will be greater than the time required to fly the line of the same length before the roll.

6.8.1.6. If within a figure two or more lines must be of the same length, an observed variation is penalised by reducing the grade in the following manner: (Figures 11 & 12)

- a) a visible variation - 1 point deduction;
- b) if the lengths vary by 1:2 - 2 point deduction
- c) and so forth up to a 3 point deduction.
- d) No line before or after roll, 4 point deduction.

6.8.1.7. The basis for judging line length is the first line flown. The absence of one of these lines before OR after a roll has to be penalised by 1 additional point. If there are no lines before AND after the roll, the total penalty is two (2) points only.

Example: The competitor is to fly a 45 degree up-line with a full roll on the line. However, the airplane is returned to level flight immediately after the roll. The deduction is 4 points: 3 points are deducted because the lines are of vastly different length and another 1 point is deducted because of the absence of one of the lines.

6.8.1.8. All 90 degree and 45 degree lines are preceded by the execution of a part-loop. Since we have in this part-loop a significant angle-of-attack, the aircraft's attitude in the part-loop will differ from its flight path. Therefore, when the aircraft's attitude reaches the desired line after transitioning from the part-loop, this difference between attitude and flight path will be carried on and will be the same as the angle-of-attack. For this reason, the only criterion for judging in that moment of reaching the desired line is to be the attitude of the aircraft and not its flight path. It would then be very illogical suddenly to change the criterion of judgement from the visible and straight line of attitude to the unrecognizable and curved line of flight path. Therefore, the judging of 90 degree and 45 degree lines can only be based on attitude, not flight path.

6.8.2. Loops and Part Loops

6.8.2.1. The loop is a figure from Family 7, but part-loops are integral to every other family so it is necessary to define some key elements before considering the other families.

- a) A loop must have, by definition, a constant radius. It starts and ends in a well-defined line which, for a complete loop, will be horizontal. For a part-loop, however, such lines may be in any other plane of flight and will be defined by the aircraft's attitude. As the speed changes during execution of a loop or part-loop, the angular velocity around the aircraft's lateral axis also has to change in order to keep the radius constant. Thus, the angular velocity can be an

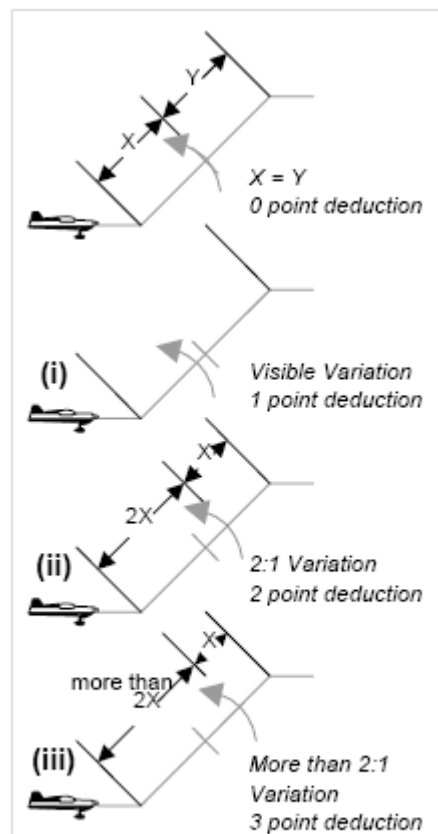


Figure 11

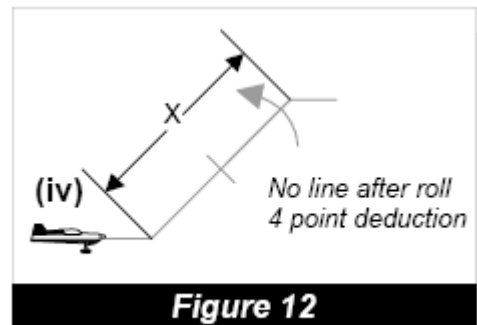


Figure 12

aid for the Judge to gauge the radius -- especially when the angular velocity in the higher part-loop is seen to be faster, as this is a clear indication that the radius is smaller. This aid becomes more important when two part-loops are separated by a line between.

b) Part-loops are depicted either as round elements or as 'corner' angles. It should be noted that any 'corner' angle drawn in the pictograms, such as in Figure 12, is always to be flown as a part-loop and must have a smooth, distinct and constant radius.

c) For any one figure having several internal part-loops depicted as round elements, all such part-loops shall have the same radius – with exception for all of Family 8.8 figures (double humpty bumps) for which the radius of the second part loop is not required to match the radius of the first one.

d) The radius of any part-loop depicted as a corner angle is not required to match the radius of any other part-loop in the same figure – with exception for all of Family 3 (combinations of lines) and Family 7.4 (whole loops) figures, which must keep a regular geometrical shape and therefore require all part-loops to have the same radius.

6.9. Aresti System (Condensed) Families

6.1.1. 6.9.1. Family 1 - Lines and Angles

6.9.1.1. Family 1.1 has been fully covered in the preceding section. Note that the figures in Family 1.2 and 1.3 are NOT performed as drawn in the Catalogue. (Figure 13)

6.9.1.2. In each of these figures there are three (four in Family 1.3) looping components: e.g. a one-eighth loop, a three-eighths loop and a quarter loop. Rolls may be performed on the 45 degree line and/or the 90 degree line, with the part-lines before and after the roll being of equal length. The initial horizontal line and the line at the end of the figure may be flown at different altitudes.

6.9.1.3. Figure 14 shows Family 1.2.1 to 1.2.8 as flown. Radii a, b, and c may all be different and entrance altitude "A" can be different from exit altitude "B".

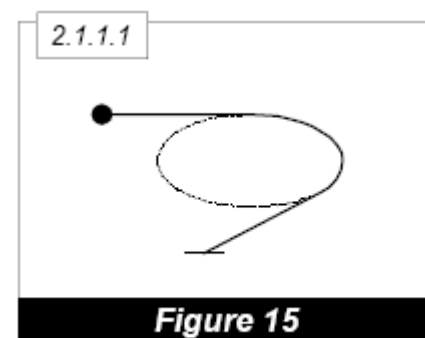
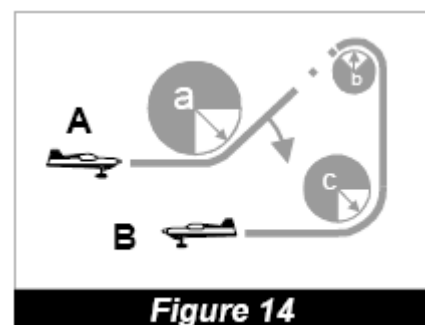
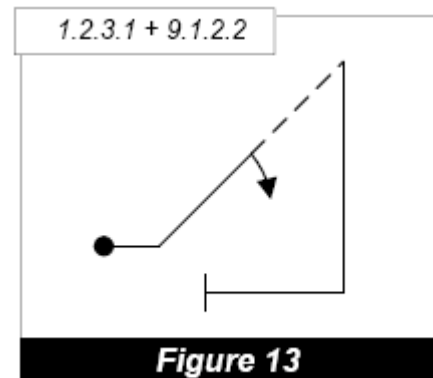
6.9.2. Family 2.1.1, 2.2.1, 2.3.1, 2.4.1 – Turns

6.9.2.1. Competition turns (Figure 15) are not to be confused with standard coordinated turns. In aerobatic competition, a turn is divided into three parts:

- establishing the bank using a roll on heading;
- the turn itself; and
- a roll back to straight and level flight on heading.

6.9.2.2. First, the roll to establish the bank. This must be a roll of between 60 and 90 degrees, it must be performed on the entry heading, and the aircraft must maintain a constant horizontal line.

6.9.2.3. Once the roll is completed and the angle of bank is established, the competitor immediately performs the turn. The turn must maintain the established angle of bank throughout. The aircraft



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must also maintain horizontal flight. The rate of turn is constant throughout and is NOT wind corrected. Therefore, in wind, a 360 degree turn will not appear as a perfect circle.

6.9.2.4. As soon as the aircraft is on the exit heading, the competitor performs another roll at a rate equal to the entry roll. Again the aircraft must maintain a constant horizontal line.

6.9.2.5. Downgrades:

a) The angle of bank established by the initial rolling manoeuvre must be at least 60 degrees. Anything less is a one (1) point deduction for every five (5) degrees.

b) The angle of bank, once established, must remain constant. Any deviation is a one (1) point deduction for every five (5) degrees of deviation.

c) The rate of roll must be the same for the entry and exit rolls of this figure. Any deviation is a one (1) point deduction.

d) The aircraft must maintain a constant altitude throughout the figure. Any variation would be either one (1) point for every five (5) degrees of change or 1 point for every 100 feet.

e) The rate of turn must remain constant. Any change would be not more than a one (1) point deduction for each change. Note that the rate of turn may appear to change in a strong wind, when it really isn't changing. The Judge must always keep the wind in mind and give the pilot the benefit of the doubt if there is any question.

f) The aircraft must begin and end on the prescribed heading. Any deviation is a one (1) point deduction for every five (5) degrees of deviation.

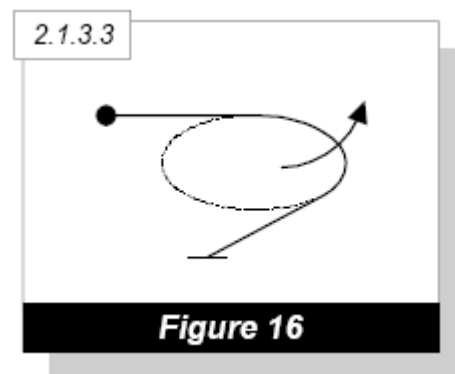
6.9.3. Family 2 Other Figures - Rolling Turns

6.9.3.1. The rolling turn (Figure 16) is a figure that combines a turn of a prescribed amount with a roll or rolls integrated throughout the turn.

6.9.3.2. These rolls may be in the same direction as the turn and are called "rolls in" or "rolls to the inside". They can be rolls in the opposite direction of the turn and are called "rolls out" or "rolls to the outside". Or there can be rolls alternating in and out.

6.9.3.3. When we say that the rolls are integrated, we are saying that in addition to there being constant rate of turn throughout the figure, there is also a constant rate of roll throughout. Naturally, the one exception to this constant roll rate is the pause when reversing roll directions.

6.9.3.4. To help visualize the execution of this figure and facilitate a way for the Judge to determine a constant roll rate, let's look at an aircraft performing a 360 degree rolling turn with 4 rolls to the inside from upright (Figure 2.4.7.1). First, on the prescribed entry heading, the pilot executes a turn and simultaneously initiates a roll in the same direction as the turn. The judge will expect the aircraft to be inverted at 45, 135, 225, and 315 degrees and to be upright at 90, 180, 270 and 360 degrees. At these interim headings, the Judge will NOT downgrade using the one (1) point for five (5) degrees rule but will judge changes in the rate of roll, changes in rate of turn and changes in altitude (see downgrades below). At the end of the figure the aircraft must be wings level and on the prescribed heading.



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6.9.3.5. When a rolling turn is performed with rolls alternating directions, the aircraft must change direction of roll at a wings level attitude. The position of the aircraft in the turn is still only used as an aid to determine if the pilot is varying the rate of roll or turn.

6.9.3.6. Downgrades: a) Performing more or fewer rolls than the catalogue description calls for results in the figure being graded HZ.

b) All rolls in a rolling turn are slow rolls. If a flick roll is performed, the figure is graded PZ.

c) Each stoppage of the rate of roll is a deduction of no more than two (2) points.

d) Each variation in the rate of roll is no more than a one (1) point deduction.

e) Each stoppage in the rate of turn is a deduction of no more than two (2) points.

f) Each variation in the rate of turn is no more than a one (1) point deduction.

g) Variations in altitude are deducted using either one (1) point for every five (5) degrees or 100 feet of altitude.

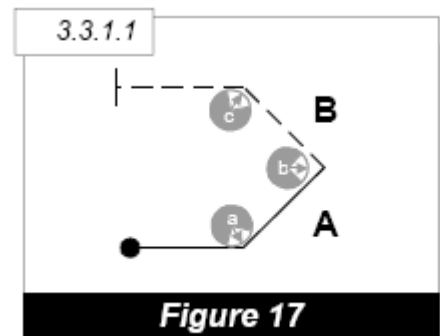
h) One (1) point for every five (5) degrees that the aircraft is not in level flight when reversing roll direction.

i) One (1) point for every five (5) degrees of roll remaining when the aircraft has reached its exit heading.

j) One (1) point for every five (5) degrees of turn remaining when the aircraft has completed its last roll.

6.9.4. Family 3 - Combinations of Lines

6.9.4.1. The transition from level flight to 45 degree lines should be at a constant and reasonable 1/8 looping radius. All lines within the figure should be equal in length. All part-loops in Family 3 shall have the same radius (in Figure 17, radii $a = b = c$).



6.9.5. Family 5 - Stall Turns

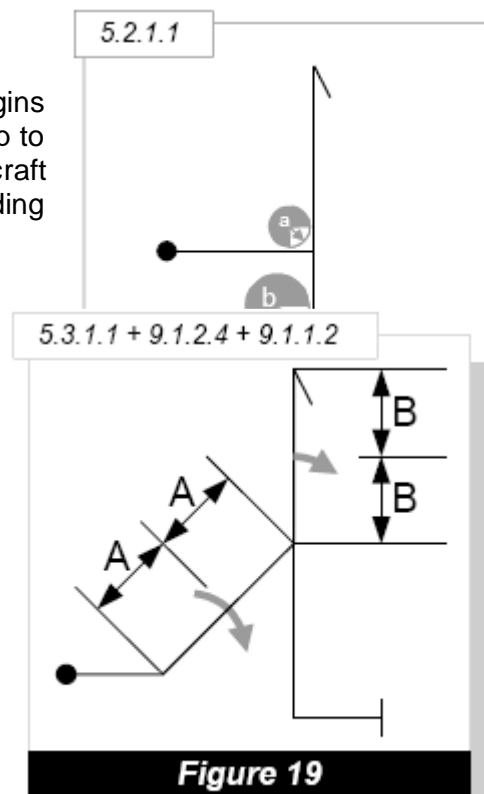
6.9.5.1. In its most basic form (Figure 18), the stall turn begins when the aircraft leaves horizontal flight and flies a quarter loop to establish a vertical climb. At the top of the vertical line, the aircraft pivots and establishes a vertical descent, with the figure ending as the aircraft is returned to horizontal flight.

6.9.5.2. The judging criteria are:

a) Vertical and 45° attitudes must comply with Section 6.3. Any deviation will result in a deduction of one (1) point per (5) degrees of error.

b) Any rolls must be centred on their underlying lines (Figure 19). For deductions see 6.8.1.6.

c) The lines may all be of different lengths.



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d) During the vertical climb or vertical descent, the wings must remain parallel to the horizon. There will be a one (1) point deduction per five (5) degrees of deviation of the vertical (yaw) axis from horizontal. This deviation is often referred to as "dragging a wing".

e) As the aircraft nears the point where it would stop climbing, it must pivot in a plane parallel to vertical. Ideally, the aircraft pivots around its centre of gravity. To avoid a deduction, the aircraft must pivot around an axis point which cannot not be farther away from its centre of gravity than its wingtips (1/2 wingspan, Pivot Point Range from A to B, Figure 20). The downgrade for this deviation (often referred to as "flying over the top") is one (1) point per half wingspan that the point of rotation exceeds the maximum allowed (Pivot Point B, Figure 20).

f) The rate at which the aircraft pivots around its vertical axis is not a judging criterion.

g) The wings must remain in the vertical geometric plane throughout the turnaround, and the aircraft's attitude before and after the turnaround must be absolutely vertical, with no pitch or roll. If there is movement around the roll axis, often referred to as "torqueing" (Figure 21), there is a deduction of one (1) point for each five (5) degrees off axis.

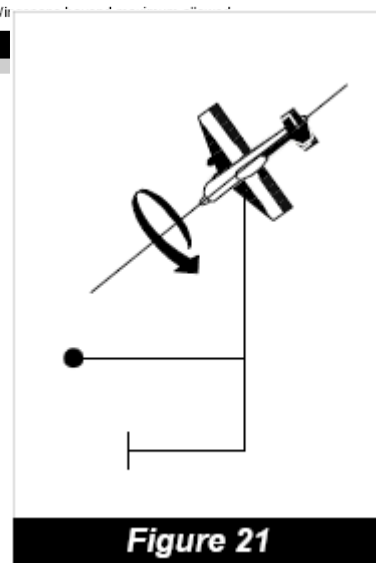
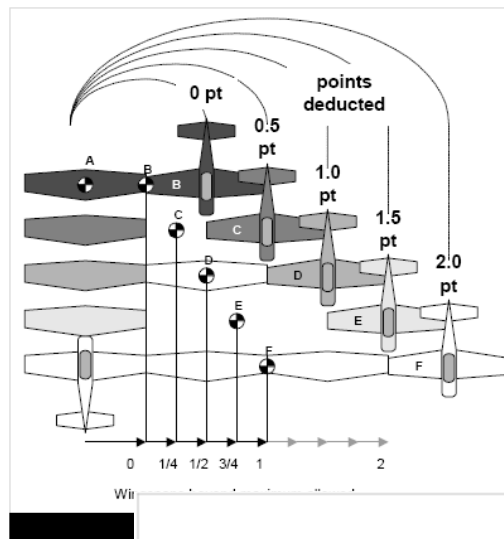


Figure 21

6.9.6. Family 6 – Tailslides

6.9.6.1. All the criteria of the Hammerhead apply to this figure except, of course, for the manoeuvre at the top of the vertical climb. At the point when the aircraft stops, it must slide backwards by at least a half fuselage length. If there is no slide of at least this length, the grade is PZ. The aircraft must slide in the vertical plane and not with the nose inclined towards the horizon. A slide of this type must be downgraded by the formula of one (1) point for every five (5) degrees of inclination.

6.9.6.2. Following the slide backwards, the aircraft must then tip over and fall through to a diving position. Often the nose will swing back or "pendulum" past the vertical after falling through. The figure is not to be downgraded for this, nor downgraded if it does not happen. It is a function of the length of the slide and the type of aircraft, and is not to be considered in grading the figure.

6.9.6.3. There are two types of tailslides: wheels-down (also called "canopy-up") and wheels up (also called "canopy-down"). The wheels-down tailslide is depicted in the Aresti diagram with a curved solid line at the top of the tailslide symbol. (Figure 22) The wheels-up tailslide is depicted in the Aresti diagram with a curved dashed line at the top of the tailslide symbol. (Figure 23)

6.9.6.4. This figure must be watched carefully, as the aircraft can fall the wrong way, which is graded a hard zero (HZ), with the correct direction of flight and the proper aircraft attitude still maintained. Wings should stay level with the horizon throughout and not drop during the slide or the fall through. Watch for the aircraft torqueing off the correct

6.2.1.1

6.2.2.1

Figure 23

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plane of flight, which must be downgraded. Also watch for "cheating" on the vertical line up in the direction of the slide just prior to sliding (Figure 24). Any "cheating" on the up-line will most likely carry over into the backwards slide as well. Because the slide backwards must also be perfectly vertical, a second deduction would be taken if this deviation from vertical is visible. The altitude of the entry and exit horizontal lines need not be the same and the figure must not be downgraded if they are different.

6.9.6.5. When rolls are combined with Family 6 figures, there must be an equal length of line before and after the roll(s). In the vertical down line, the aircraft must attain a vertical attitude and establish a down line before starting the roll(s).

6.9.6.6. In summary, the aircraft should make a smooth and steady transition up to vertical flight, the wings should stay level in relation to the horizon, and the aircraft should come to a complete stop in this attitude. After sliding backward at least one half fuselage length, it should fall through in the appropriate direction without dropping a wing or the nose moving off axis, and recover on the same plane as that of entry. After completion of this, it should again project the 90 degree down line before transitioning into horizontal flight with a quarter loop of reasonable and constant radius.

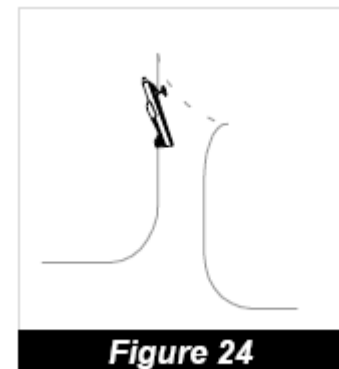


Figure 24

6.9.7. Family 7 - Loops, S's, and Eights

6.9.7.1. The size of a loop is not a grading criterion. It will vary according to the flight characteristics of the aircraft. A large loop is not graded any higher or lower than a small loop. But any variation to the radius will downgrade these figures.

6.9.8. Family 7.2 - Half-Loops With Rolls

6.9.8.1. The half-loops in this sub-family must be of a constant radius and wind-corrected to appear as a perfect half circle (see full loops discussion below).

6.9.8.2. When a half-loop is preceded by a roll or rolls, the half-loop follows immediately after the rolls without any visible line. Drawing a line requires a downgrade of at least two (2) points depending on the length of the line drawn. Should the half-loop begin before the roll is completed, the Judge must downgrade the figure one (1) point for every five (5) degrees of half-loop flown on which the roll was performed.

6.9.8.3. The half-loop followed by a roll is also flown with no line between the half-loop and roll. Again, drawing a line requires a downgrade of at least two points depending on the length of the line drawn. Should the roll begin before the half-loop is completed, the Judge must downgrade the figure one (1) point for every five (5) degrees of half-loop on which the roll was performed. (Figure 25)

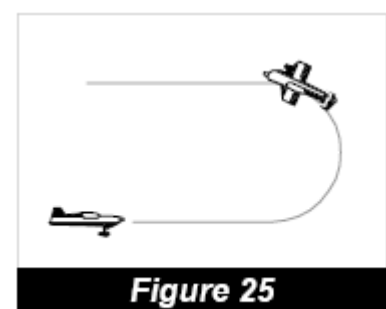


Figure 25

6.9.9. Family 7.3 - Three Quarter Loops

6.9.9.1. Sometimes referred to as "Goldfish", none of the part-loops in these figures are required to be of the same size. Entry and exit lines are judged with reference to the 45 degree attitude, not flight path. Any rolls on the 45 degree lines must be centred on that line. The lengths of the two 45 degree lines may be different, and the entry and exit altitudes need not correspond to the altitude limits of the loop. (Figure 26)

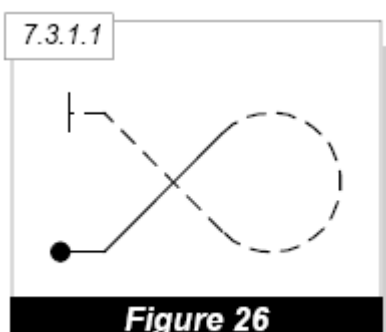
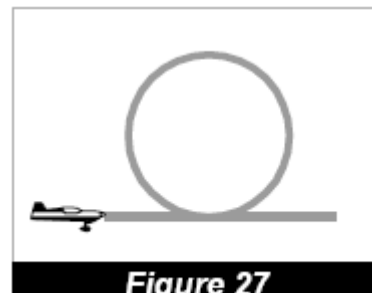


Figure 26

6.9.10. Family 7.4.1 - 7.4.2 - Full Loops

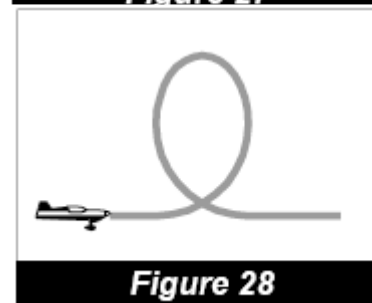
6.9.10.1. All full loops must appear perfectly round to the Judge. This means that they must be wind corrected to have a constant radius. This wind correction is only with regards to the roundness of the loop and not for the effect of any crosswind on the figure. Therefore, no deduction is given if the finish point is displaced relative to the start point in a direction perpendicular to the plane of the loop. Full loops must also begin and end at the same altitude or they will be downgraded. (Figure 27)



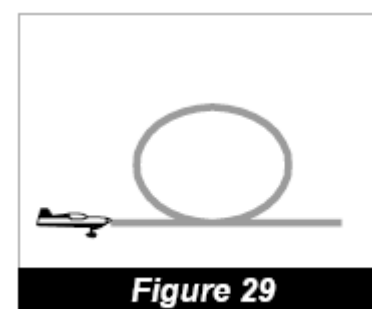
6.9.10.2. Loops must be flown with no visible crabbing and wings must be level at all times. The one (1) point for every five (5) degrees rule holds for both these cases.

6.9.10.3. If there is a roll or rolls at the apex of the loop, it must be centred in the loop and flown on the arc of the loop itself. Flying the roll on a line at the apex of the loop is at least a two (2) point downgrade. If the roll is not centred, it must be downgraded one (1) point for every five (5) degrees of the arc that it is off centred.

6.9.10.4. To better quantify deductions for irregularity of the radius of looping figures, the Judge divides the loop into quadrants. Any variation in the radius from one quadrant to the next can be downgraded a fixed number of points depending on the magnitude of the variation. The goal of each Judge is to develop a reproducible method to judge all loops with the same criteria.



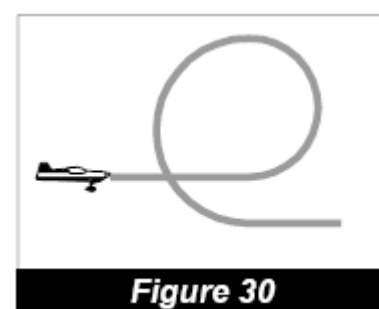
6.9.10.5. In judging loops, a common error is for the vertical diameter of the loop to be larger than the horizontal diameter. This is often called an "L" shaped loop. (Figure 28) Less common are loops with a horizontal diameter greater than the vertical. This is called an egg-shaped or pumpkin-shaped loop. (Figure 29) Another common error is in varying the radius of the final quadrant performing an "e" shaped loop. (Figure 30)



6.9.10.6. Whatever method is used, standard downgrades should be applied for each of these errors. Additional downgrades should be applied based on the magnitude of variation.

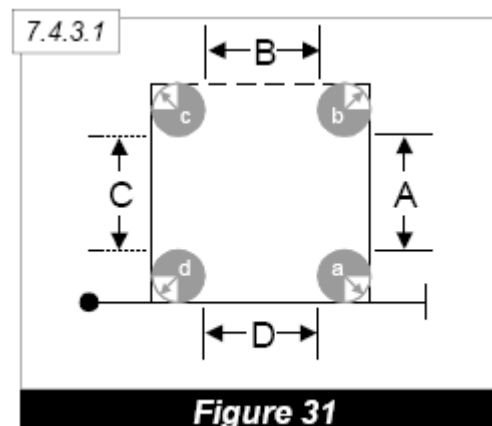
6.9.11. Family 7.4.3 - 7.4.6 - Square, Diamond and Octagonal Loops

6.9.11.1. Square, Diamond and Octagon loops are flown as hesitation loops with lines of equal length and partial loops with equal radii. All horizontal lines are judged on flight path and vertical and diagonal lines are judged based on aircraft attitude. As such, except in a windless condition, the judge should never expect to see these figures closed. They will always be driven by the wind. Square and Octagon loops are not considered complete until the last horizontal line is drawn equal to the length of the first line of the figure.



6.9.11.2. In Figure 31:

- a) Radii $a = b = c = d$
- b) Line Length $A = B = C = D$
- c) Figure is not complete until $D = A$



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6.9.11.3. Where rolls are flown on the Square or Diamond loops, they must be centred on the line.

6.9.11.4. Aids for judging all hesitation loops are that a good performance will contain changes of angular velocity in all the partial loops, and variations of time taken to draw the length of each interior line, which also varies according to the aircraft's speed. The rhythm of all these partial loops is a help for judging. A frequently seen error in hesitation loops is for the aircraft to overshoot the partial loop and then have to bring the nose back to correct the attitude. This must be downgraded by one (1) point for every five (5) degrees.

6.9.12. Family 7.4.7 - 7.4.14 - Reversing Whole Loops

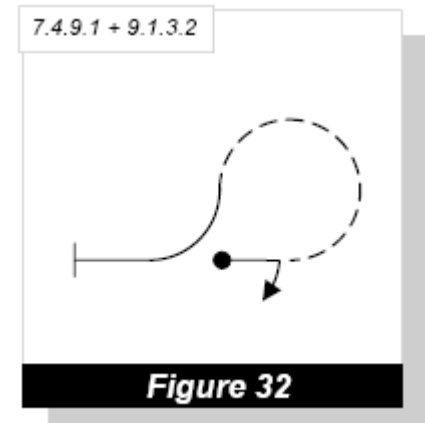
6.9.12.1. A reversing whole loop is a loop in which one quarter changes direction. As in half loops, rolling elements may be added on entry and exit lines (Figure 32).

6.9.12.2. Judging criteria for roundness are the same as for round loops (see 6.9.10): the reversing loop must be wind corrected with all partial loops having the same radii; the figure must begin and end at the same altitude.

6.9.12.3. The reversing loop must be a continuous looping figure with no line at the point where the pitch direction changes. Adding a line between the two partial loops is at least a two (2) point deduction depending on the length of the line.

6.9.12.4. Criteria for rolls on entry line and exit line are the same as for half loops (see 6.9.8).

6.9.12.5. Criteria for rolls at the apex of the loop are the same as for round loops (see 6.9.10).

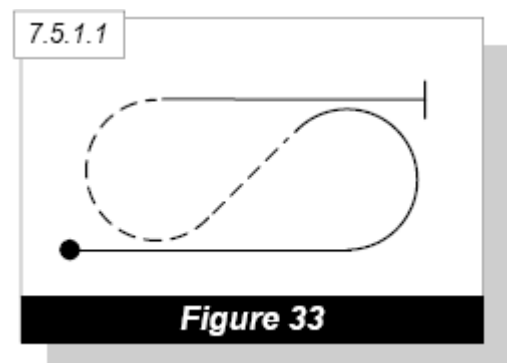


6.9.13. Family 7.5.1 - 7.5.8 - Horizontal S

6.9.13.1. Both 5/8 loops must be of the same size and the line between them flown at exactly 45 degrees attitude. Extremities of the looping segments must be at the same altitude as the entry and exit lines (Figure 33).

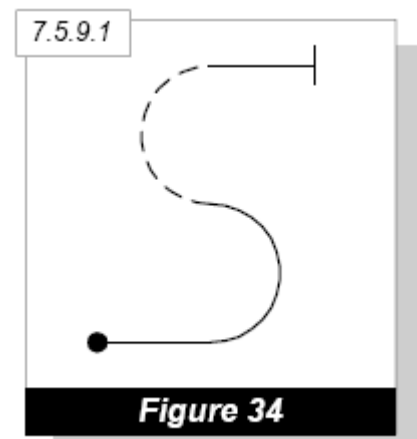
6.9.13.2. Criteria for rolls on entry line and exit line are the same as for half loops (see 6.9.8).

6.9.13.3. Rolls may be performed on the 45 degree line, with the part-lines before and after the roll being of equal length.



6.9.14. Family 7.5.9 - 7.5.10 - Vertical S's

6.9.14.1. These figures are accomplished with two joined half-loops flown in opposite directions. (Figure 34) Look for both half-loops to be the same size and perfectly round. The half-loops should be a continuous looping figure when there is no roll between the half-loops. When a roll is performed between the half-loops, there is no line before or after the roll. However, the roll is flown on a horizontal line which begins as soon as the first half-loop is finished. As soon as the roll is finished, the next half-loop



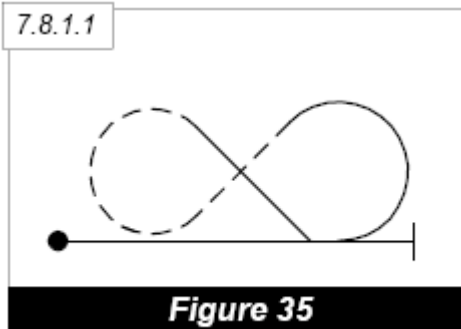
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must begin immediately. Adding a line at either of these points is at least a two (2) point deduction depending on the length of the line.

6.9.15. Family 7.8.1 - 7.8.8 - Horizontal 8's

6.9.15.1. The 5/8 and 3/4 loops must have the same radius, but the radius of the 1/8 loop between 45 degree and horizontal lines is not required to equal the radii of the loops of the Horizontal 8 itself. A common fault is to fly these part-loops with sharp corners as drawn in the catalogue symbol. This must be downgraded (Figure 35). The lines between the loops shall be flown at exactly 45 degrees attitude. This means that only if there is no wind will they intersect at the exact midpoint of the 8. Criteria for rolls on the relevant entry or exit line are the same as for half loops (see 6.9.8). Rolls may be performed on the 45 degree lines, with the part-lines before and after the roll being of equal length (for deductions see 6.8.1.6).

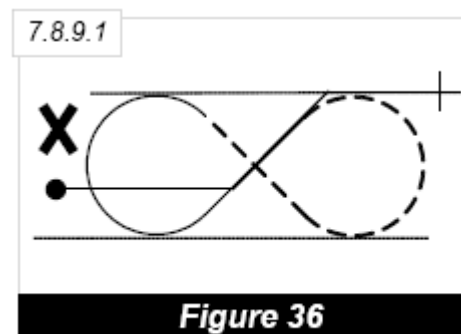


6.9.15.2. The start and finish of the figure and the bottoms (or tops if the figure is reversed) of the two loops must be at the same altitude. However, if there are multiple rolls flown on the last 45 degree line, that line may project above or below the looping portions and exit at a different altitude than the entry altitude of the figure.

6.9.16. Family 7.8.9 - 7.8.16 - Horizontal Super 8's

6.9.16.1. Besides possessing the unique characteristic of containing three 45 degree lines on which rolls may potentially be placed, these sub-families should be judged as 7.8.1 to 7.8.8 but with the addition of an extra 45° line.

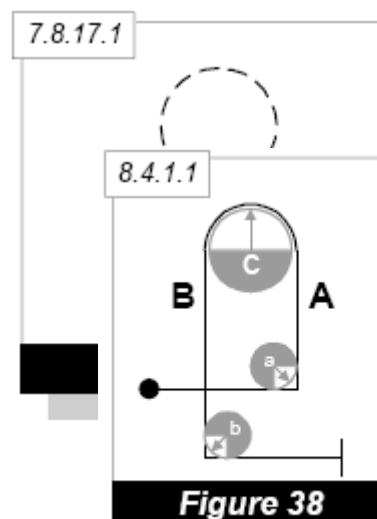
6.9.16.2. The two 3/4 loops must have the same radius and occur at the same altitude. The entry and exit 1/8 loops must have a reasonable and constant radius, but are not required to be the same size as either the 3/4 loops or each other. Any rolls placed on any 45 degree line must be centred. The horizontal entry/exit lines must coincide with the top and bottom of the loops, except when the first or last 45 degree lines contain multiple linked, unlinked or opposite rolls, when they may be extended (not shortened) above or below the extreme of the 3/4 looping segments. Shortening of a line, as in Figure 36, should be penalised by up to 2 points.



6.9.17. Family 7.8.17 - 7.8.22 - Vertical 8's

6.9.17.1. These figures are performed by flying two loops, one above the other. Sub-family 7.8.17-7.8.20 is composed of two loops, both above or both below the entry altitude. Sub-family 7.8.21 - 7.8.22 is composed of one loop above and one loop below the entry altitude. In either case the entry and exit altitudes must be the same.

6.9.17.2. These figures may be combined with various types of half rolls. When a roll is performed between the loops, there is no line before or after the roll. However the roll is flown on a horizontal line which begins as soon as the first loop is finished. As soon as the roll is finished, the next loop must begin immediately. Adding a line at either of these points is at least a two (2) points deduction depending on the length of the line. These figures are to be graded using the



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same criteria as full loops. Additionally, both loops must be of the same size. Unless there is a roll between the loops, they must be directly above one another. (Figure 37)

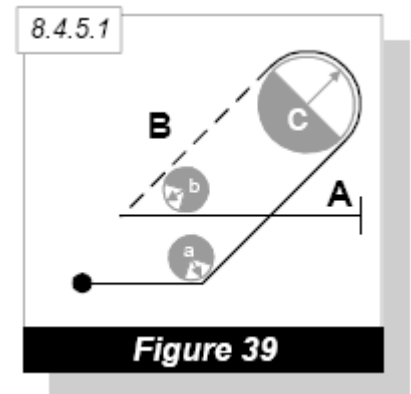
6.9.18. Family 8 - Combinations of Lines, Loops and Rolls

6.9.18.1. Although some of the figures in this Family appear to be exotic, there are no new judging criteria for these figures. These figures are combinations of horizontal, vertical and 45 degree lines as well as partial loops of varying degrees. The judging criteria for these lines and loops are unchanged. What is left to discuss are the judging criteria for the combinations of these lines and loops.

6.9.19. Family 8.4 - Humpty Bumps

6.9.19.1. These figures, whether vertical or performed with 45 degree lines, are judged as combination of lines and loops (Figures 38 and 39). In these figures, none of the part-loops are required to have the same radii. These part-loops must still have a constant radius from start to finish. This requires a change in angular velocity during the part-loop.

6.9.19.2. The lines in these figures may be of different lengths, and therefore the entry and exit altitudes of these figures can be different. Rolls on any of these lines must be centred.

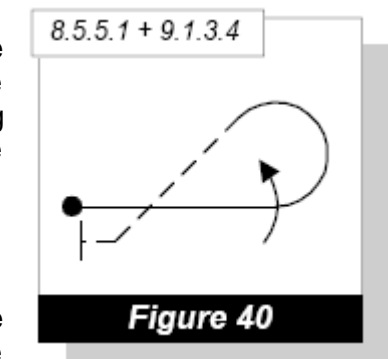


6.9.20. Family 8.5.1 - 8.5.8, 8.6.1 - 8.6.8, 8.7 - Half Cubans, P Loops, Q Loops

6.9.20.1. In these figures, none of the part-loops are required to have the same radii. The rolls on vertical and 45 degree lines must be centred. Horizontal rolls immediately preceding or following looping segments have the same criteria as in Family 7.2. Angles drawn in the pictograms, such as in Figure 40, are to be flown as part-loops.

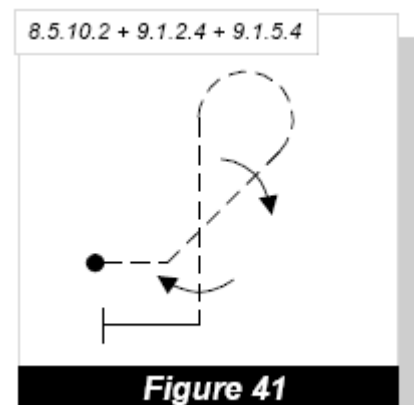
6.9.21. Family 8.5.9 - 8.5.24 – Teardrops

6.9.21.1. In these figures, none of the part-loops are required to have the same radii. The rolls on vertical and 45 degree lines must be centred. Angles are to be flown as part-loops (Figure 41).



6.9.22. Family 8.6.9 - 8.6.16, 8.10 - Reversing P Loops, Reversing 1 1/4 Loops

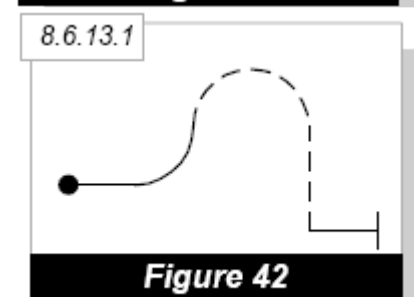
6.9.22.1. When 1/4, 1/2 or 3/4 loops depicted as round elements join each other in these sub-families, their radii must be equal and there is no line between the loops (Figure 42). A line drawn would be a minimum two (2) point deduction depending on the length of the line. The part-loop depicted as a corner angle shall have a reasonable and constant radius, but is not required to have the same radius as the other part-loops.



6.9.23. Family 8.8 - Double Humpty Bumps

6.9.23.1. These comprise of three vertical lines and two 180° looping segments (Figure 43).

6.9.23.2. In view of the markedly different speeds possible during the looping segments, none of the radii (a, b, c, d) have to be equal



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(but each must be internally constant). There is no requirement either for any relation between the vertical lines length. All other criteria for humpty bumps apply (see 6.9.19.2).

6.9.24. Family 9 - Rolls and Spins

6.9.24.1. Rolls may be performed on horizontal, 45 degree or 90 degree lines; on complete loops; between part-loops; between part-loops and lines; and following spin elements.

6.9.24.2. They may be 1/4, 1/2, 3/4 or a full 360 degrees in their rotation, up to two consecutive full rolls. Additionally, slow rolls may be flown in combination with turns as prescribed in Family 2 (Rolling Turns).

6.9.24.3. In all cases, the same criteria apply: the rate of roll must be constant throughout the roll(s). The aircraft should continue to project, during the rolling portion, the prescribed plane and direction of flight.

6.9.24.4. Multiple rolls may be linked, unlinked, or opposite:

a) When rolls are in continuous rotation, the tips of the symbols are linked by a small line. When flying linked rolls there is no pause between them. (Figure 44)

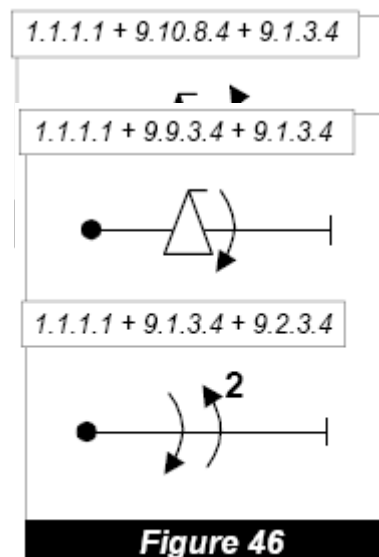
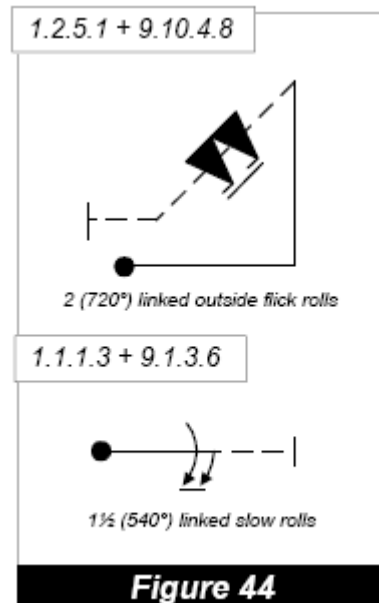
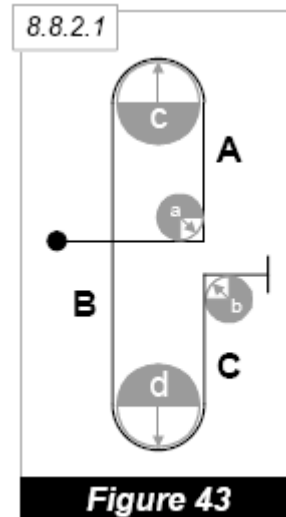
b) Unlinked rolls must be of different types, the two types being defined as follows:

- i) Aileron rolls (slow rolls and hesitation rolls)
- ii) Flick rolls (positive and negative)

c) With unlinked rolls, no line links the symbols, though their tips are drawn pointing in the same direction (i.e., on the same side of the line). They must have a brief but perceptible pause between them and they are to be flown in the same direction of rotation. (Figure 45).

d) Opposite rolls may be either of the same or different type. In opposite rolls, the tips of the symbols are drawn on opposite sides of the line, indicating they are to be flown in opposite directions of rotation. The pilot may elect to fly the first roll in either direction, but the second roll must be opposite direction to the first. Opposite rolls, including those in rolling turns, should be flown as one continuous manoeuvre - the brief check between opposite rotations should be minimal. (Figure 46) If the two rolls are of the same type, they must be flown in opposite directions if they are not linked.

e) Either aileron or flick rolls may follow spin elements (Family 9.11 or 9.12). When a spin and a roll are combined on the same vertical down line they will always be unlinked; may be flown in either the same or opposite direction, as shown by the position of the tips of the symbols on the Form B or C; and the combination may not exceed two rotational elements. (For example, it would be illegal to combine two opposite direction aileron rolls with a spin element.)



6.9.25. Family 9.1 - Slow Rolls

6.9.25.1. The penalty for varying the rate of roll is one (1) point per variation. Any stoppage in the slow roll that could result in its being considered a hesitation roll, would hard zero (HZ) the figure.

6.9.25.2. The finish of the roll must be as crisp and precise as possible. Coming to a slow finish in fact represents a change in the rate of roll and should be penalized accordingly.

6.9.25.3. The wings must stop precisely after the desired degree of rotation and not go past the stop point and then return. This is referred to as "bumping the point". A deduction of 0.5 point to one (1) point is given depending on the severity of the "bump".

6.9.26. Family 9.2 - 9.8 - Hesitation Rolls

6.9.26.1. For hesitation rolls, the second digit in the catalogue number indicates the number of points: Family 9.2 is 2-point rolls; Family 9.4 is 4-point rolls; and Family 9.8 is 8-point rolls.

6.9.26.2. These rolls are judged on the same criteria as the slow roll, only the aircraft stops rotation during the roll for a pre-stated number of times, i.e., 2, 4 or 8. The rate of the roll and the rhythm of the hesitations must be constant throughout with the aircraft projecting the pre-stated plane and direction of flight.

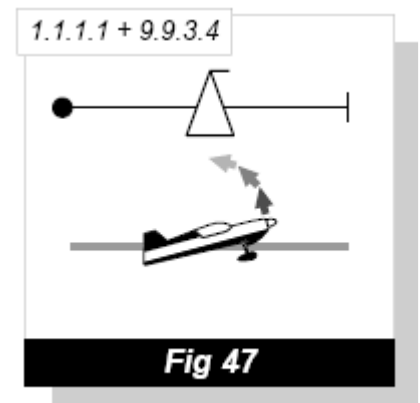
6.9.26.3. The pauses will be of identical duration and the degree of rotation correct between each pause: 180 degrees, 90 degrees, or 45 degrees. Each pause of a hesitation roll must be clearly recognizable in every case, but it is especially important that in poor visibility or at high height, the competitor pauses long enough to make them recognizable to the Judges. If a pause is not recognizable to a judge, the figure is graded a hard zero (HZ).

6.9.27. Family 9.9 - Positive Flick Rolls

6.9.27.1. Flick rolls represent one of the greatest challenges to judges, due to two factors: a) the "flicking" characteristics of different types of aircraft can vary considerably; and b), in properly executed flick rolls changes of pitch, yaw and roll rate occur very quickly. Judges must watch particularly carefully to determine the exact order in which events occur, especially at the initiation of the flick.

6.9.27.2. The judge must see two things to determine that a flick roll has been correctly initiated: a) the aircraft must display a rapid and clearly visible change of pitch attitude to put the wing close to the stall, and b) autorotation must be initiated by use of the rudder. Note that when a flick roll is initiated the angle-of-attack may be at or close to zero (e.g. in vertical and 45 degree lines) or significantly positive or negative if a looping figure is being flown; the pitch change to achieve critical angle-of-attack may thus be less in some circumstances and cannot be fixed. However, if both the required pitch change and actual autorotation are not clearly seen, the figure must be given a perception zero (PZ).

6.9.27.3. At the start of a positive flick roll, the aircraft must clearly and unambiguously pitch in the nose up / tail down sense, from the pilot's perspective, to put the wings near the critical angle-of-attack (Figure 47). If the aircraft pitches in the wrong direction, a hard zero (HZ) is given. Either shortly after or simultaneously with the pitch change the aircraft must yaw, initiating a stall of one wing and the rapid onset of autorotation. If the judge considers that a proper flick has not been initiated, then he must give a PZ. Provided the flick initiation criteria are satisfied, any roll that is observed before the autorotation starts must be downgraded by one (1) point per five (5) degrees of roll.

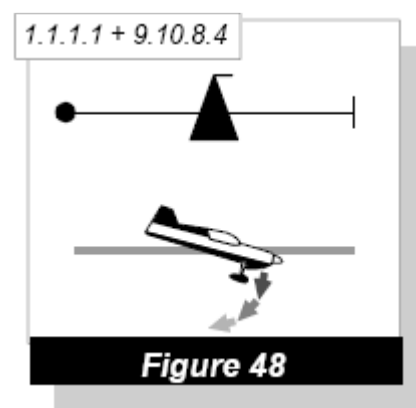


6.9.27.4. Throughout the flick the roll must be driven primarily by the rudder, and autorotation must be seen to continue. This can best be confirmed by the observed conical motion of the fuselage longitudinal axis, the largest displacement being at the tail which is furthest from the CoG. This should not be confused with the spiral motion of a tight barrel roll, wherein the centre of gravity of the aeroplane more noticeably follows a spiral flight path. However, the rate of rotation and the angle, relative to the flight path, of the conical fuselage rotation may vary between aircraft types, much as each type of aircraft has different spin characteristics. For all aircraft types, the criteria for stopping the flick roll are the same: autorotation must stop at the desired extent of roll, followed immediately by adoption of the attitude or flight path that conforms to the requirements of the underlying figure. A non-looping flight path that is displaced parallel to that prior to the flick is normal, and should not be downgraded. Downgrades for errors in the extent of rotation or the following flight path or attitude are penalised at the normal rate of one (1) point per five (5) degrees of error.

6.9.27.5. Flick rolls must be observed very carefully to ensure that the rotation is driven throughout by asymmetry in air flow induced by continued rudder application and that the competitor is not "aileroning" the aircraft around its longitudinal axis and thus without the conical fuselage motion. The movement of the aircraft's nose or tail departing the flight path prior to autorotation is a good clue to proper initiation of a flick roll, and conical motion of the tail is indicative that autorotation is continuing. A common error is for the aircraft initially to autorotate but to not stay in autorotation until the end of the figure, the roll becoming driven substantially by application of aileron; in this case a deduction of one (1) point for each five (5) degrees of rotation remaining when the autorotation ceases must be made. If autorotation ends with more than 45 degrees of rotation remaining, even if the roll is completed with aileron, the flick roll is awarded a numerical zero (0.0).

6.9.28. Family 9.10 - Negative Flick Rolls

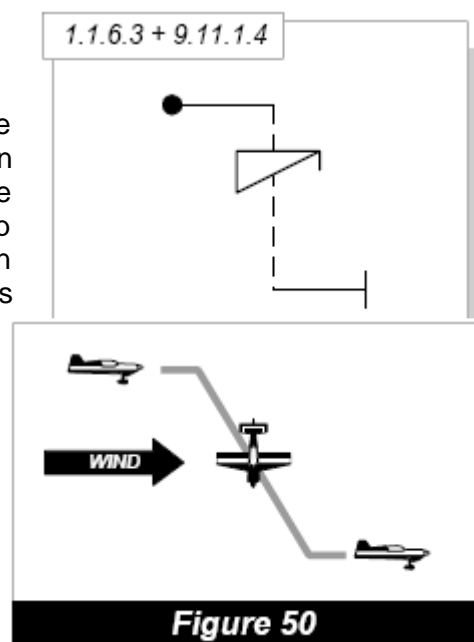
6.9.28.1. For negative flick rolls, all criteria stated for positive flick rolls apply except that the aircraft is in a negative rather than positive angle-of-attack during autorotation. Therefore, in a negative flick roll the nose and tail of the aircraft must initially move in the nose down / tail up sense, from the pilot's perspective, as the angle-of-attack is changed (Figure 48). This direction of motion must be observed very carefully, since it is the defining characteristic that differentiates a negative flick roll from a positive flick roll. As with positive flick rolls, if the nose moves in the wrong direction, it is not a negative flick roll and the figure must be given a hard zero (HZ). In all other respects relating to the characteristics of the rotation and errors to be observed, the criteria are the same as for positive flick rolls.



6.9.29. Family 9.11 and 9.12 – Spins

6.9.29.1. All spins begin and end with horizontal flight (Figure 49). In order to spin, the aircraft must be completely stalled in horizontal, level flight from a clearly visible horizontal line before the stall. When the aircraft stalls, the centre of gravity will drop from wings-level horizontal flight. It should be noted that an aircraft has forward momentum as the aircraft decelerates through stall speed.

6.9.29.2. This appearance is more pronounced when the figure is performed downwind, and is enhanced when performed into the wind. This change in appearance is not a grading criterion. (Figure 50).



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6.9.29.3. When the aircraft stalls, the nose will fall and at the same time the wing tip will drop in the direction of the spin. Failure to achieve this should be considered a "forced entry" and downgraded one (1) point per five (5) degrees of deviation.

6.9.29.4. After completion of the prescribed number of turns, the aircraft must stop rotating precisely on the pre-stated heading, then a 90 degree down, wings-level attitude must be seen. Grading criteria for the basic figure being flown then resumes. If a roll follows a spin, there should be a brief, but perceptible pause (similar to unlinked rolls) between the spin and the roll. Because there is no vertical line before the spin, there is no criterion to centre either a spin element alone or a spin-roll combination on the vertical down line. Be alert for early stopping of the stalled autorotation followed by "aileroning" to the pre-stated heading. In this case, a deduction of one (1) point for every five (5) degrees of "aileroning" must be applied. For example, in a one-turn spin the autorotation is observed to stop after 345 degrees of rotation and the ailerons are used to complete the rotation. The highest score this spin could receive is a 7.0.

6.9.29.5. No account is to be taken of the pitch attitude of the aircraft during autorotation, as some aircraft spin in a nearly vertical pitch attitude while others spin quite flat in conventional spins. Speed of rotation is also not a judging criterion.

6.9.29.6. If the aircraft never stalls, it is apparent that it cannot spin, and a PZ must be given. You will see "simulated" spins where barrel rolls or flick rolls are offered as spin entries. In both cases, the flight path will not be downward. In all of these cases, the figure will be given a PZ.

6.9.29.7. In all spins the grading criteria are:

- a) A clean breaking stall in horizontal flight.
- b) Fully-stalled autorotation.
- c) Stopping on pre-stated heading.
- d) Vertical down, wings-level attitude after stopping on heading.
- e) A constant, reasonable quarter-loop radius back the horizontal flight.
- f) The direction of a spin shall be determined from the roll component.

6.10. Positioning : Optimal Placement of Figures

6.10.1.1. Even though figures are flown within the performance zone, judges must still consider their positioning in relation to an optimum position where clarity of execution and geometry are at their greatest. This optimum position will vary depending on the aircraft's height and the nature of the figure.

6.10.1.2. Consistently accurate flying is best assessed when the elevation of the judge's sight line from the horizontal is reasonably constant. This means that when an aircraft is at the greatest height, it should be also at its furthest distance away from the judging position along the secondary axis. Consequently, when an aircraft is low, then it should be closer to the judges to give the same viewing perspective.

6.10.1.3. In even the best positioned sequence, however, some variations in the judges' sight line elevation are inevitable. These different viewing angles also affect the optimum position for figures of different kinds. For example, looping shapes and 45-degree climbing or descending lines are much easier to judge accurately if the sight angle in relation to the horizon is small. Conversely, such figures are difficult to assess if flown high up and close to the front of the performance zone.

6.10.1.4. Further, such fine points as the accuracy of hesitations in an 8-point roll are much easier to judge when the figure is close to the judges and fairly low, rather than over a kilometre away at the rear of the performance zone – let alone outside it.

6.10.1.5. Consideration of all the parameters in the few short paragraphs of this section will enable a judge to make a clear decision about any figure that is clearly flown in other than its optimum position. Judging of the particular figure will be difficult, and such bad presentation should be reflected in the positioning grade for the sequence. It would be appropriate to deduct between 0.5 and 1 mark for any such misplaced figure, depending on the severity of the difficulty incurred.

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The following is taken directly from CIVA Section 6, sub-sections 5 and 7, with minor local amendments (deletions only). Reference should also be made to AAC Regulations, Appendix 2-1.

5. EVALUATION OF COMPETITION FLIGHTS

5.1. Evaluation Of The Performance

5.1.1. Judges

5.1.1.1. Each flight program will be marked by the Judges using a standardised system as described in Appendix 2-1 and the following.

1

5.1.1.3. Where the majority decision of the Panel of Judges is required, in a case of disagreement about the penalisation of the flight of a competitor, the Chief Judge shall have a casting vote in the event of a tie.

5.1.2. Marks for Figures

5.1.2.1. The Judges will independently assess the quality of each figure and its components as performed in the sequence, marking with numbers from 0 to 10, in intervals of 0.5; for Programme 5 the assessment will be in accordance with 5.1.5.1 of CIVA Section 6. A hard zero (HZ) mark will be awarded if the figure is incorrect or missing, in accordance with Section 5.3 .

2

5.1.2.2. The scores will be calculated by multiplying the coefficient (K) for each figure by the mark given to each.

3

5.1.2.3. When marking the quality of the performance of individual figures, the Judges have to consider the following general principles:

a) the geometry of the figures (including shape, radii, angles, plane of flight, direction of flight), which must be in compliance with the prescribed characteristics;

b) the precision of the performance, for which there are Marking Criteria set out in Appendix 2-1;

c) the distinctly recognizable start and finish of each figure with a horizontal line;

d) note also that the figure flown must be in accordance with the pre-stated figure in the original sequence;

e) that in judging a figure which comprises a combination of manoeuvres, the marking criteria of its various components continue to apply, but the combined manoeuvres are to be taken as a unit;

f) that the length of lines and the size of radii caused by the flying characteristics of an aircraft are not to be taken into account in the marking;

g) that inverted figures are judged by the same criteria as upright figures.

5.1.2.4. Once horizontal flight path is established at the end of a figure in a sequence, the beginning of the next figure is considered to have occurred. This rule is not to be interpreted to mean that a competitor will incur penalty points for performance zone infringements (see 5.2.3) if the next figure is actually performed inside the 50 m boundary of the performance zone

5.1.2.5. If a judge misses seeing a figure, or any part of a figure such that a grade cannot be given with full confidence, the Judge will give a mark of "Average" or "A" to that figure.

1

5.1.3. Calculation of Scores

The calculation of scores for a competitor's programme will be as follows:

1

5.1.3.1. The marks given by a Judge are processed according to Sporting Code, Section 8, with the final scores being determined for a programme as a whole. A CIVA-approved software programme must be used.

2

5.1.3.2. It shall be a duty of the organiser to arrange for the publication of the competition results in accordance with Rule 5.1.3.1. The marking sheets must be made available to the competitors and Contest Officials for information and/or checking before the start of the subsequent programme.

3

5.1.3.3. A copy of the files generated by the CIVA-approved Computer Scoring System must be available to any official or pilot upon request. The media used for that copy will be supplied by the requester and has to be compatible with the computer being used by the contest organisers. A complete copy of all the files must be sent to the AAC Club Captain after the contest is finished.

4

5.1.4. Marking of flight Positioning and Symmetry

5.1.4.1. If an electronic, radar or radio-controlled tracking instrument is operated, the observance of the performance zone and the positions of the individual figures are recorded.

5

5.1.4.2. Positioning refers to the 3D placement of each figure relative to the judges.

6

5.1.4.3. The positioning mark will be given by the Board of Judges.

7

5.1.4.4. Depending on the aircraft's height and on the nature of the figure being flown, there is an optimum range from the judges for the placement of each figure. At this range, the geometrical errors in the figure, and the precise nature of the figure, are both clear and easy to assess.

8

5.1.4.5. The highest marks will be given if the central point of a competition flight is above the secondary axis, and if each figure is optimally placed inside the performance zone. The judge's final decision on a grade for positioning must take into account deductions for asymmetry of the sequence, and non-optimal placement of individual figures.

9

5.1.4.6. The K factor accorded to positioning marks will be as follows

10 a) Unlimited – Programmes 1, 2, 3 and 4: 40K

b) Advanced & Intermediate CIVA – Programmes 1, 2, 3 and 4: 30K

5.1.4.7. A column headed "Pos" on the Form A marks sheet shall be used to record by exception the positions of figures that are not ideally placed, as they are flown.

5.1.4.8. When dictating the mark for each figure to the scribe, the judge shall where appropriate add a comment in the "Pos" column regarding the placement of the figure if this is considered to have been not ideal. In arriving at this comment the shape and size of the basic figure and the location of any manoeuvres within it shall be assessed against the 'ideal' placement of the whole figure in the context of the positional scope of the sequence. Where the judge assesses that figure placement is sufficiently sub-optimal to be recorded then the following annotations shall be used:

<i>Figure placement:</i>	<i>'Pos' annotation:</i>
Somewhat:	
<u>left</u> of the ideal position:	"L"
<u>right</u> of the ideal position:	"R"
too <u>near</u> to the judge:	"N"
too <u>far</u> from the judge:	"F"
Considerably:	
<u>left</u> of the ideal position:	"LL"
<u>right</u> of the ideal position:	"RR"
too <u>near</u> to the judge:	"NN"
too <u>far</u> from the judge:	"FF"

5.1.4.9. At the end of the sequence the annotations in the "Pos" column shall be used by each judge to determine a sequence positioning downgrade based on these recorded observations. Each single letter is taken as equivalent to a halfmark and each double letter equivalent to a full mark downgrade. For example, the figure "Pos" annotations L, R, N, FF, LL and R would combine as a downgrade of 4.0 marks.

1

5.1.6. Official Video Recording

5.1.6.1. An official video recording from the Judges' position should be made of every individual competition flight in an Australian Aerobatic Championship. The official recording must be available to the Jury to assist their decision on any

protests regarding the evaluation of a competition flight. The recording shall not be available to competitors except in conjunction with the Jury's decisions on protests and with their agreement. After the completion of the championships, the recording may be released by the organisers for use in training.

2

5.1.6.2. The official recording shall also be available to the Chief Judge and the Board of Judges to assist their discussions on matters of fact.

3

5.1.6.3. Organisers must provide quality equipment with qualified operators to insure useful information is provided to the judges and International Jury for their decisions.

5.2. Penalty Points Deductible From Total (Averaged) Scores

5.2.1. Time Limits for the Programmes

5.2.1.1. Figures of Programmes 1, 2, 3 and 4 finished beyond the prescribed time for climbing and flying the programme (see Rule 4.2.6.1) will not be marked by the Judges. The end of the time allowed will be signalled by the Chief Judge.

1

5.2.2. Infringement of Height Limits

5.2.2.1. Unlimited: For every obvious and visually recognised infringement of the lower height limit during the performance of Programmes 1, 2, 3, 4 and 5, the competitor will be given 250 penalty points; an additional 250 penalty points will be given for each figure flown completely below the lower height limit; for an infringement of the upper height limit 50 penalty points are given. A competitor flying lower than 50 metres (150 feet) will be disqualified (from the current programme) for causing a dangerous situation.

5.2.2.2. Advanced and Intermediate: For every obvious and visually recognised infringement of the lower height limit during the performance of any programme, the competitor will be given 200 penalty points; an additional 200 penalty points will be given for each figure flown completely below the lower height limit. For an infringement of the upper height limit, 30 penalty points will be given. A competitor flying lower than 100 metres will be disqualified (from the current programme) for causing a dangerous situation.

5.2.2.3. If a precision height measuring device is not available, infringements of the lower height limits will be estimated by the Judges and will be penalised only if a simple majority has recognised the violation and duly recorded this on their marking sheets. In case the required simple majority could not rise from a vote within the Board of Judges, the Chief Judge shall have a casting vote. An

infringement of the disqualification level (see 4.2.4.1) must be agreed by at least a two-thirds majority of the Judges, whether the precision height measuring device is available or not.

5.2.3. Infringements of the Performance Zone

5.2.3.1. Definitions

a) When Boundary Judges are used, an infringement is considered to have occurred if the fuselage of the aircraft is seen by the Boundary Judges to have crossed the line being observed (as per rule 5.2.3.2), even if this occurs more than once in a single figure.

b) When an electronic tracking system is operated, an infringement is considered to have occurred if the position of the aircraft is indicated by the system as crossing the limits defined in rule 5.2.3.2 , even if this occurs more than once in a single figure.

5.2.3.2. For each infringement of the performance zone in Programmes 1, 2, 3 and 4 by more than 50 metres in the direction of the x-axis and/or the y-axis a pilot will be given penalty points in accordance with the table below; this applies to the operation of either Boundary Judges or an electronic tracking system.

Zone Infringement	Unlimited	Advanced or Intermediate CIVA
Penalty point tariff	30	20

5.2.3.3. Thereafter, for every figure started beyond 50 metres outside the performance zone, further penalty points will be given, in accordance with the same table.

5.3.1. Downgrades

5.3.1.1. The absence of a distinct horizontal start or finish to a figure will reduce the mark by 1 point in each case for each figure affected.

1

5.3.1.2. At the initiation or completion of every figure, each deviation from a wings level, horizontal flight path and from a heading parallel to the relevant box axis, in accordance with paragraph 6.6.1.1 , will attract a reduction of 0.5 point per 2.5° of deviation, 1 point per 5° of deviation.

2

5.3.1.3. As there is no "free" space between figures (5.1.2.4) any reduction applied in accordance with 5.3.1.2 must also apply as an error at the start of the subsequent figure.

3

5.3.1.4. All deviations from the correct geometry (plane of flight, direction of flight, angle of bank), and for deviations from the proper flight path or the proper attitude (as appropriate), the mark will be reduced by 1 point per 5° deviation.

4

5.3.1.5. Over-rotating a roll and rolling the wings back again must be penalised by 1 point per 5° of over-rotation, even if the correct geometry is resumed afterwards, and no matter how quickly the correction is made. The same provisions apply when, at the end of a loop or part-loop, the aircraft's nose is pitched beyond the desired line and then brought back again.

5

5.3.1.6. If within a figure two or more lines have to be of the same length, the basis for judging is the first line flown. Any observed variation must be penalised by reducing the marks in accordance with Appendix 2-1.

6

5.3.1.7. Slow rolls flown in combination with a turn (family 2) or loop (family 7.4.1 – 7.4.2) must be smoothly continuous: i.e. there must not be any change in the rate of roll from beginning to end.

7

5.3.1.8. Marking criteria for combinations of rolls with turns and loops will include the even integration of the rolls within the figure. Specific downgrades for rolling turns are noted in paragraph 6.9.3 .

8

5.3.1.9. If the total of downgrades in this section leads to a value lower than the score of 0.5, a valid mark of 0.0 will be given to the figure.

5.3.2. Perception Zero

5.3.2.1. A grade of "perception zero" (PZ) should be given if the Judge considers that the figure is incorrectly flown in respect of a criterion that is a matter of subjective perception, rather than clearly demonstrable fact. For example, if the Judge considers that a flick roll or spin never started proper auto-rotation, that a tail slide did not move backwards by the required amount or that a rolling turn included a flick roll.

9

5.3.2.2. The Chief Judge should check that PZ's are applied only to manoeuvres where a perception error has been seen, and that a plausible reason has been given. The CJ has no other input regarding the presence of PZ's; they are subjective decisions made by individual judges and there is no requirement to review or "Confirm" them.

5.3.3. Hard Zero

5.3.3.1. A grade of "hard zero" (HZ) should be given if the Judge considers that the figure is incorrectly flown in respect of a geometrical error, as listed below, that is clearly verifiable as a matter of fact. A grade of "HZ" will be given to a figure if:

- a) any figure is flown which does not conform to the drawing held by the judges for marking purposes (Form 'B' or 'C'). Note - when a figure is added to a sequence Rule 5.2.5.2 applies;
- b) when rolls are superimposed on a turn or loop (Rule 5.3.1.8), the roll is finished but 90° or more of the turn or loop still remains to be flown, or the turn or loop is finished but 90° or more of the roll remains to be flown;
- c) any deviation from the prescribed direction (Rules 5.3.1.2 and 5.3.1.3) reaches 90°;
- d) any other single deviation in geometry/flight path/attitude/rotation (Rule 5.3.1) reaches 90°;
- e) the pre-stated figure or any part of it is omitted;
- f) any part of the figure was not visible as it was flown in or behind cloud. If the figure was visible to a majority of judges, then the Chief Judge should instruct unsighted judges to revise their mark from "HZ" to "A".

However, if figures subsequent to the hard zero mark are correct and are flown in the correct direction, they shall be marked in the normal way.

1

5.3.3.2. During a repetition flight (paragraphs 4.2.2.5.e) or 4.2.7.9) the figures before the break must all be flown correctly. If a competitor omits or flies such a figure incorrectly, so as to gain an unfair advantage, the grade awarded for that figure during the first flight will be reduced to a "HZ".

2

5.3.3.3. When all Form A's have been submitted to the Chief Judge for a flight and difficulties occur in interpreting the correct application of the "HZ" mark:

- a) the Chief Judge shall call for a discussion in the judging area by the Judges;
- b) such discussions shall not interfere with the subsequent flights;
- c) the official video may be used in these discussions to help determine matters of fact, but not of perception;

3

4

5

d) a judge may request a viewing of the video during a discussion if he/she deems it necessary. This request will always be honoured;

6

e) all Form A's shall be retained by the Chief Judge until the final decision is made.

5.3.4. Mix of Zeros

5.3.4.1. The Fair Play System computer software programme will handle a mix of hard zeros, perception zeros or "A" grades in accordance with paragraph 5.3.4.4 . In order for this to function correctly, the Chief Judge, if necessary after a conference as described in paragraph 5.3.3.3 , must fill the Confirmed hard zero (CHZ) field on the judging sheets if a hard zero was in fact flown. If review shows the figure to have been correct, the "CHZ" box must be left open.

7

5.3.4.2. If during this process the Chief Judge establishes that there is a mix of Hard and Numerical Zeros for the same error, i.e. it is only the extent of the error above 45 degrees that cannot be established, and these combined Zeros are in the majority for this error, the Chief Judge shall instruct those judges with the Numerical Zeros to change their score sheets to hard zeros and sign the sheets accordingly. The Chief Judge will then fill the CHZ field. Consequently, no judge will in this instance have a point added to his hard zero Anomaly count (8.8.4.2).

8

5.3.4.3. Should a judge consider that a figure started behind the judges, the judge shall grade the figure regardless, but add the comment, "Behind" in the Remarks section of the Form A. At the end of each flight, the Chief Judge shall determine by a simple majority (with the Chief Judge casting a vote as required), if the figure in question was started behind the judges. If the majority holds that the figure was started behind the judges, each judge shall change his/her mark to 'HZ' and all Form A's shall be countersigned by the Chief Judge. If the figure is deemed by the majority to have been flown in front of the Judges, the original marks shall be handled as with any other figure.

9

5.3.4.4. When a mix of hard and perception zeros, numerical and/or "A" grades exists, the following resolution will take place in the computer scoring programme:

10

a) "A" grades will first be set to "Missing".

11

b) If the "CHZ" box has been filled, then all other grades will be changed to "HZ".

- c) If the "CHZ" box is open then "HZ" grades and any "PZ" grades shown to be anomalous will be set to "Missing".

After normalisation, the "Missing" grades will be replaced with Fitted Values determined by the computer.

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

7.1. Chief Judge

7.1.1.1. The Chief Judge's primary concern should be the accurate and fair judging of the competition flights, including the monitoring of flights for hard zero marks and penalties. He should place his expertise at the disposal of the Board of Judges, and coordinate and guide their work.

1

7.1.1.2. The Chief Judge oversees administrative matters (correctness of paperwork, recording of penalties, etc.) but must be provided with a competent assistant under his/her supervision who will perform at least the following tasks along with other duties as requested:

- a) calling the manoeuvres and recording the notes of the Chief Judge, to whatever extent he requires;
- b) processing and expediting the flow of paperwork;
- c) receiving and recording the calls of the Boundary Judges;
- d) handling all other radio communications. One of his assistants should assist in monitoring the zero marks and penalties awarded by the Judges after each flight.

7.1.1.3. In addition the Chief Judge shall brief and direct the first pilot to fly the lower box axes prior to the commencement of each programme, after any substantial break and at the beginning of contest flying each day. This demonstration will normally comprise flight along the two main axes, dipping the wing above the 'T's and the centre marker.

The Chief Judge should draw attention to the appearance of the demonstrating aeroplane with particular reference to:

1

- a) its proximity to the ground, to assist later assessments of low flying, and

b) indications of the box boundary with respect to notable local / surrounding features, to provide a sound basis for assessment of the positioning mark.

2

7.1.1.4. It is essential that the Chief Judge follows each flight, with emphasis on recording hard zeros, interruptions, insertions and height penalties. Such infringements and comments should be recorded, as an *aide-memoire*, on a score sheet which should be retained for reference prior to the judges' scoresheets being submitted to the workstation. The official recording of penalties will be on the appropriate section of the score sheet reserved for the use of the Chief Judge and entered prior to submission to the scoring system.

3

7.1.1.5. The Chief Judge must hold seminars with the Judges, at least one of which will be with Team Managers or other team representatives present (CIVA 4.1.7.1). He should give guidance to the Judges as to the current Judging Criteria and rules for judging, on which he should conduct 'question and answer' sessions.

7.1.1.6. The Chief Judge will hold other routine evaluation meetings with the Judges during the contest (CIVA 4.1.7.2). He should ensure that the Code of Practice is understood and operates smoothly, and establish a good working relationship between teams of Judges and Assistants, Timekeepers, and other helpers.

1

7.1.1.7. The Chief Judge is responsible for ensuring that there is enough time between flights for the judging to be unhurried: he should control (by radio) the flow from one contestant to the next.

2

7.1.1.8. At the end of each flight, the Chief Judge should ascertain whether any of the Judges has recorded a hard zero (HZ) mark, height penalty, interruption penalty or insertion penalty. This will be done by perusal of the score sheets collected from the judges, prior to entry into the scoring system.

3

7.1.1.9. In the case of a difference of opinion with regards to a hard zero (HZ) mark, insertion penalty or interruption penalty, a judging conference will always be held to resolve differences. The official video shall be available to assist in such discussions when it concerns a matter of fact. A judge may request a viewing of the video during such a conference. Such a request will be honoured by the Chief Judge.

4

7.2. Hard Zeros

7.2.1.1. The awarding of Confirmed hard zero marks is determined by the Chief Judge, if necessary after a judging conference. When a Judge's vote is over-ruled,

upward correction of a hard zero will be to a Fitted Value determined by the scoring software. When awarding a hard zero, judges are to write down the nature of the error and are not to give a 'reserve' mark.

1

7.2.1.2. A Judge has the right to ask for a video review, if it is determined at a Judging conference that his written score is incorrect and he is not in agreement with this ruling.

2

7.2.1.3. The procedure for handling hard zeros and penalties on the judging line can be broken down as follows:

3

7.2.2. Hard Zeros Given By The Majority Of Judges

The score sheets go to the scorer unchanged, the Chief Judge having checked the Confirmed hard zero (CHZ) box on the score sheet, unless a conference to confirm the facts is demanded by any judge(s). The computer system changes the minority scores to HZ and determines the judges' HZI points for Section 8.8.4 .

7.2.3. Hard Zeros Given By 50% Or Less Of The Judges

The Chief Judge first determines by means of conferencing whether the hard zero is correct or not. If correct, the Chief Judge will check the "CHZ" box on the score sheet; if not he will leave it blank. The judges must not change their score sheets as a result of the discussion. The score sheets will then go to the scanner and the computer system will then change the incorrect grades and determine judges' HZI points for Section 8.8.4 .

7.4. Judges' Performance Evaluation

7.4.1.1. Judges evaluation by flight programme will be conducted by the International Jury using the software programme approved by CIVA (see Section 8.8). The Chief Judge will receive a complete analysis of all Judges from the International Jury after each programme is completed.

1

7.5. The Judges

7.5.1.1. It is required that all Judges use an experienced Judge's Assistant. Judges who do not provide such an Assistant will be excluded.

1

7.5.1.2. All Judges should study copies of all contestants' Free Programmes, provided by the organisers, before flying of the programme is started.

2

7.5.1.3. A Judge may only reconsider his marks so long as his score sheet is still in his possession or if asked to do so at the request of the Chief Judge. Once entered into the scoring system, the scoring sheet comes under the jurisdiction of the International Jury. The judge himself must sign off any changes on the score sheet.

3

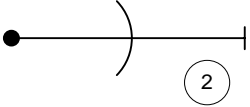
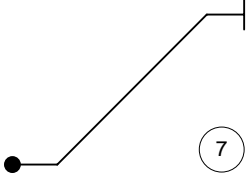
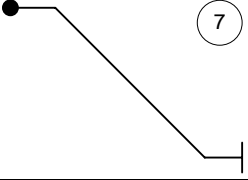
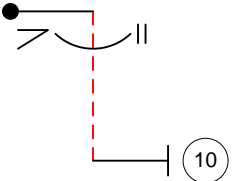
7.5.1.5. It is strongly recommended that the Judges record remarks on the score sheets.

4

7.5.1.6. Judges shall not keep or make reference to a flight order sheet, or communicate to third parties by means of cell phone, radio, etc whilst on the judging line or during breaks/lunches. Failure to adhere to this instruction may lead to expulsion from the judging line.

AAC REGULATIONS - Appendix 2-3 – Sportsman Unknown Figures

04/16 AMD 0

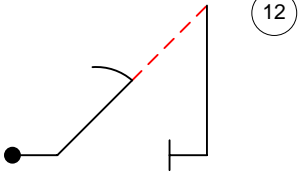
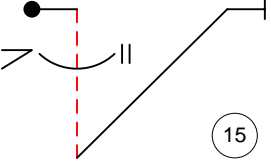
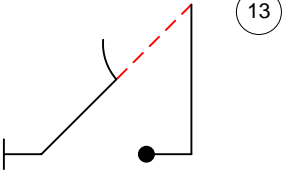
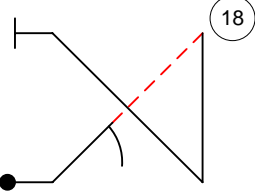
Family 1.1. Single Lines				
1.1.1				
1.1.2				
1.1.6				
	1	2	3	4

Notes:

1. No rolling element permitted on Family 1.1.2 figures.
2. Figure 1.1.6.3 - Maximum of 9.11.1.6 permitted.

AAC REGULATIONS - Appendix 2-3 – Sportsman Unknown Figures

04/16 AMD 0

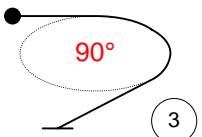
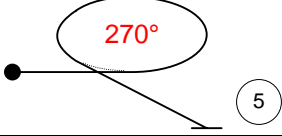
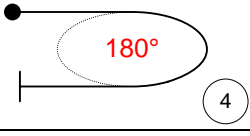
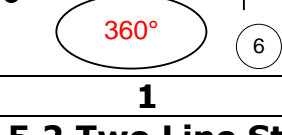
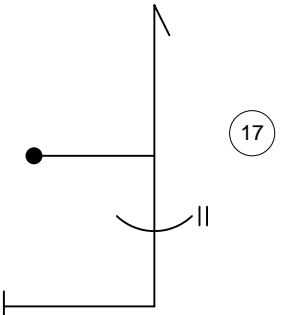
Family 1.2 Two Lines				
1.2.3				
1.2.6				
1.2.7				
Family 1.3 Three Lines				
1.3.2				
	1	2	3	4

Notes:

1. No rolling element permitted on vertical lines Family 1.2 – 1.3 figures.
2. Figure 1.2.6.3 - Optional spin only on entry. No roll on 45 deg upline.

AAC REGULATIONS - Appendix 2-3 – Sportsman Unknown Figures

04/16 AMD 0

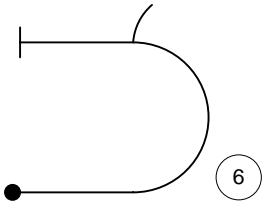
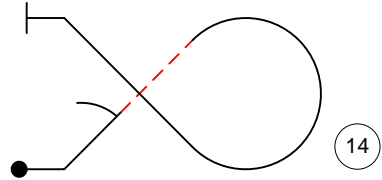
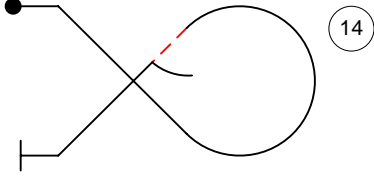
Family 2.1 – 2.4 Turns				
2.1.1				
2.2.1				
2.3.1				
2.4.1				
	1	2	3	4
Family 5.2 Two Line Stall Turns				
5.2.1				
	1	2	3	4

Notes:

1. No vertical upline roll Figure 5.2.1.1.

AAC REGULATIONS - Appendix 2-3 – Sportsman Unknown Figures

04/16 AMD 0

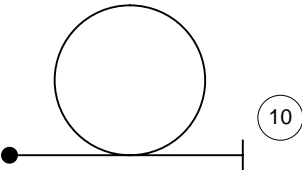
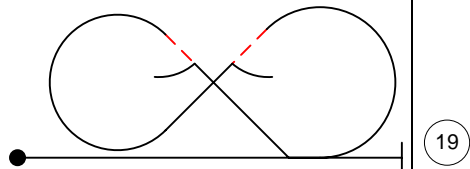
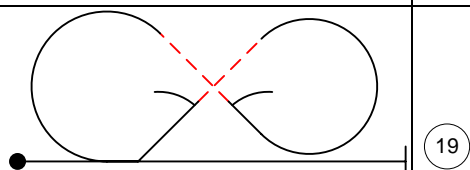
Family 7.2 Half Loops				
7.2.2				
	1	2	3	4
Family 7.3 Three-Quarter Loops				
7.3.2				
7.3.3				
	1	2	3	4

Notes:

1. Figure 7.2.2.1 – no roll on entry. Maximum of 9.1.3.2 on exit.
2. Figure 7.3.2.1 – no roll on second 45 deg upline.
3. Figure 7.3.3.3 – no roll on first 45 deg downline, maximum of 9.1.4.2 on second 45 deg downline.

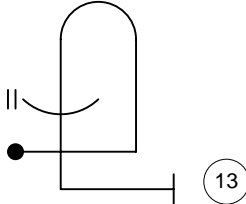
AAC REGULATIONS - Appendix 2-3 – Sportsman Unknown Figures

04/16 AMD 0

Family 7.4 Whole Loops				
7.4.1				
Family 7.8 Horizontal "8"s				
7.8.4				
7.8.8				
	1	2	3	4

Notes:

1. No rolling element permitted Figure 7.4.1.1.
2. Max of 9.1.x.2 permitted on Family 7.8 figures.

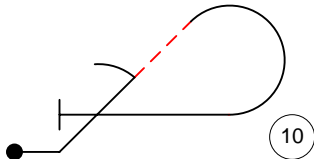
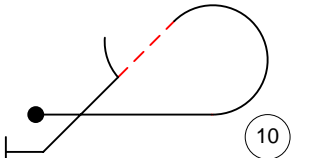
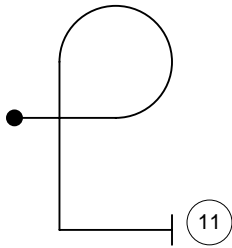
Family 8.4 Humpty Bumps				
8.4.1				
	1	2	3	4

Note:

1. Figure 8.4.1.1 – No vertical upline roll.

AAC REGULATIONS - Appendix 2-3 – Sportsman Unknown Figures

04/16 AMD 0


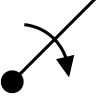

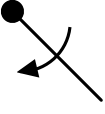

Family 8.5 Half Cubans				
8.5.2				
8.5.6				
	1	2	3	4
Family 8.6 'P' Loops				
8.6.5				
	1	2	3	4

Notes:

1. Figure 8.5.2.1 – no roll on exit.
2. Figure 8.5.6.1 – no roll on entry. Maximum of 9.1.4.2 permitted on 45 deg downline.
3. Figure 8.6.5.1 – no roll elements permitted.

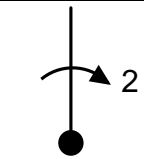
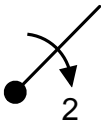
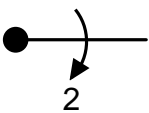
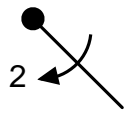
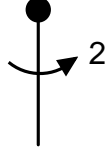
AAC REGULATIONS - Appendix 2-3 – Sportsman Unknown Figures

04/16 AMD 0

Family 9.1 Aileron Rolls									
		1/4	1/2	3/4	1	1 1/4	1 1/2	1 3/4	2
1									
2			6						
3			4		8				
4			4						
5		2							
		1	2	3	4	5	6	7	8

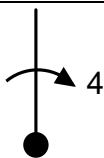
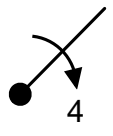
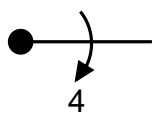
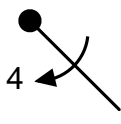
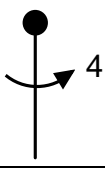
AAC REGULATIONS - Appendix 2-3 – Sportsman Unknown Figures

04/16 AMD 0

Family 9.2 2-Point Aileron Rolls									
		1/4	1/2	3/4	1	1 1/4	1 1/2	1 3/4	2
1									
2									
3					9				
4									
5									
		1	2	3	4	5	6	7	8






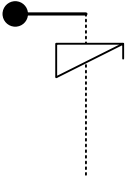
AAC REGULATIONS - Appendix 2-3 – Sportsman Unknown Figures

04/16 AMD 0

Family 9.4 4-Point Aileron Rolls									
		1/4	1/2	3/4	1	1 1/4	1 1/2	1 3/4	2
1									
2									
3			5						
4			5						
5									
		1	2	3	4	5	6	7	8

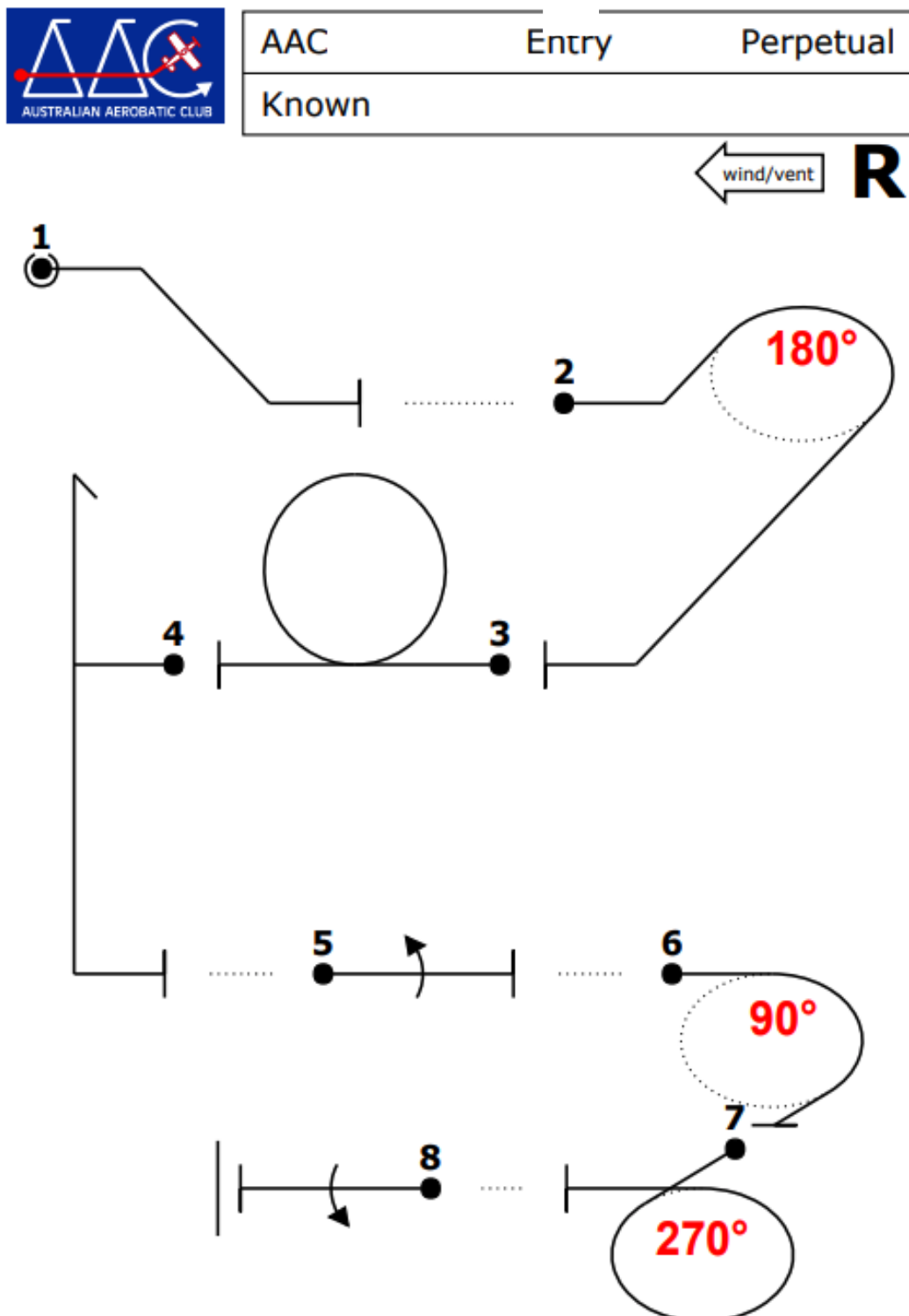
AAC REGULATIONS - Appendix 2-3 – Sportsman Unknown Figures

04/16 AMD 0

Family 9.11 Positive Spins									
									
					1	1 1/4	1 1/2	1 3/4	2
1		Upright Entry Line			5	4	3		
					4	5	6	7	8

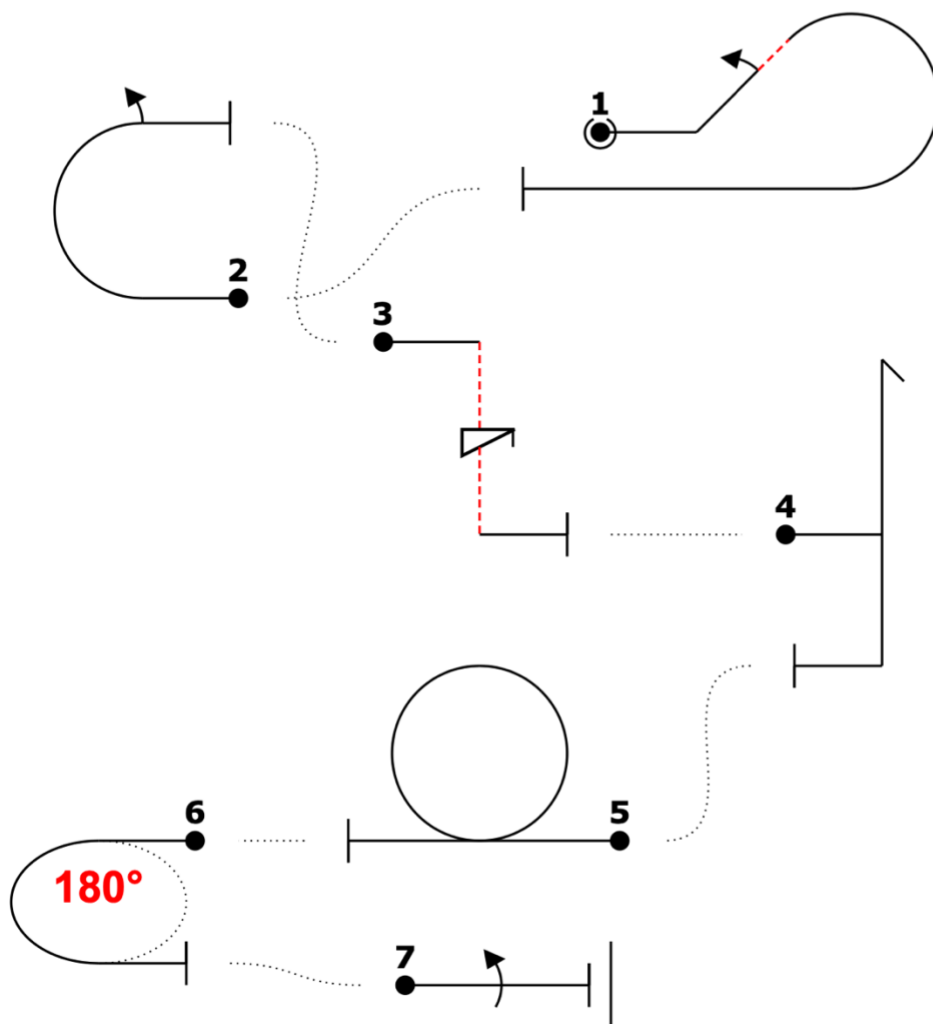
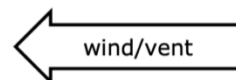
Reserved

Form's A, B, C, L & R are available on the AAC website
www.australianaerobicclub.com.au





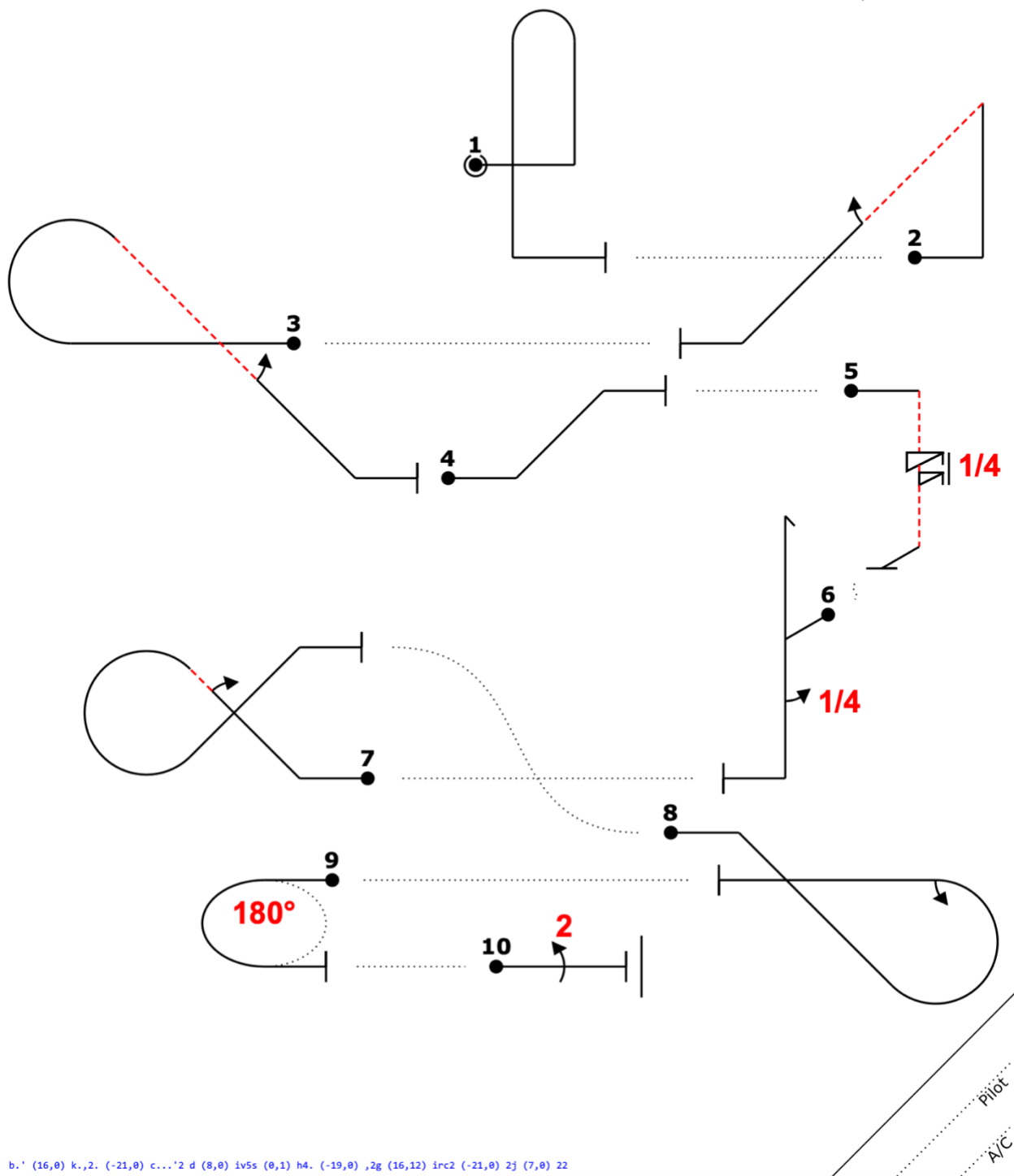
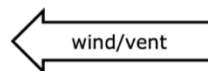
2020		Form B
Pilot ID	AAC Graduate Known	
		Flight #



Power			
Fig	Aresti	K	
1	8.5.2.1 9.1.2.2	10 6	16
2	7.2.2.1 9.1.3.2	6 4	10
3	1.1.6.3 9.11.1.4	10 5	15
4	5.2.1.1	17	17
5	7.4.1.1	10	10
6	2.2.1.1	4	4
7	1.1.1.1 9.1.3.4	2 8	10
Total K = 82			



Australia 2020		Form B
Pilot ID	AAC Sportsman Known	Flight #



b. ' (16,0) k.,2. (-21,0) c... '2 d (8,0) iv5s (0,1) h4. (-19,0) ,2g (16,12) irc2 (-21,0) 2j (7,0) 22

AAC REGULATIONS - Appendix 2-6 – List of Qualified Judges

09/17 AMD 1

Jeremy Miller
Grant Piper
Richard Wiltshire
Paul Andronicou
Alan Kilpatrick
Simon Stone
Peter Pendergast
David Clemence
Mal Beard
Brendan Scilini
Jesse Jury
Cassandra Moeller
Peter Townshend
Trent Stewart
David Pilkington
Brad Mulcahy
Krishna Parik
Kingsley Just
Stewart Graham
Lyndon Trethewey

.....

To be Updated

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2. Nominated Contests.....	1
3. Selection Panel	2
4. Pilots.....	2
5. Other Team Positions	3
6. No-Contest Procedures.....	4
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1. Procedure for Australian Team Selections

- 1.1 With the small numbers competing at the higher levels in Australia, it is unlikely that the competitive selection procedure in this Appendix need be rigorously applied. Greater international competition experience will improve the individual pilots concerned as well as the standard within the sport in Australia. Perhaps in the future there will be a need to competitively select pilots.

Note: Unlimited Team maximum of 12, 8 of one gender. Advanced / Y52 / Intermediate Teams max. 8 (no gender restriction).

- 1.2 The Committee, and the Selection Panel if convened, should be generally supportive of those pilots willing and able to travel to international contests. Members participating as part of an Australian Team have an increased chance of securing sponsorship. AAC naming of a Team is usually warranted. The AAC National Committee may, at its discretion, approve the payment of a proportion of a pilot's entry fee or a proportion of an official's expenses. If so approved then the payment will be in advance of participation in the competition. The pilot or official must conduct themselves in a professional and sportsmanlike manner in accordance with the AAC code of conduct. The AAC has an expectation that Pilots and officials receiving financial support will contribute to the club by volunteering in an official capacity at AAC and Chapter contests.

- 1.3 If required, these procedures are to be used to select pilots and officials, up to the maximum allowed, for the World Championships in Unlimited, Advanced and Intermediate/Y52 classes.

2. Nominated Contests

- 2.1 The AAC and Chapters schedule a number of Championship competitions in each calendar year. The results of these contests will

be used for quantitative consideration as part of the team selection process.

- 2.2 Percentage scores (after Statistical Analysis) achieved by pilots at Championship contests in all sequences, including Programme 1, will be combined to achieve a ranking system. Each pilot's best three contests will be aggregated.

3. Selection Panel

- 3.1 The AAC Committee shall appoint a Selection Panel. The Panel shall consist of no less than 2 and no more than 5 persons. These persons may be Committee Members or co-opted individuals who have first-hand knowledge of the demands of international championships.

- 3.2** The Selection Panel for the Team should include (when the positions are filled) the President of the AAC, Team Manager, Team Trainer and other members as thought appropriate by the AAC Committee.

4. Pilots

- 4.1 The Panel shall select Team pilots based primarily on the results of the competitions described above. Pilots wishing to be considered for a place in the Australian Teams should attend these events. The Panel may also select pilots on the basis of other results, for example Unlimited results may be used for Advanced Team pilots subject to the pilots eligibility in accordance with CIVA regulations. Results from International contests may also be considered.

- 4.2 A pilot is not normally eligible to be considered for selection unless he/she exceeds the guideline minimum figure given to the Panel (presently 60% of possible points calculated over all the sequences considered).

- 4.3 When selecting the Teams, pilots will be graded in rank descending order starting with the first qualifying position.

- 4.4 When selecting the Unlimited Team the selection panel will select pilots based on performance at nominated contests, previous results from International contests and potential as assessed by the Team Trainer. The aim of the selection process will be to identify pilots who have most potential to excel at international contests, build a stable squad and support the continued development of individual pilots and the team as a whole.

- 4.5 The foregoing criteria also apply to the selection of a reserve pilot who may be offered a team place in the event of the withdrawal of a higher-placed pilot.

- 4.6 In the event that a selected pilot relinquishes his/her place, only the nominated reserve will automatically be eligible to take that place and the Panel may select a new reserve pilot. If the place remains unfilled, the Panel will establish an alternative selection and offer the place accordingly.
- 4.7 To become a Team member a pilot must confirm his/her acceptance of the place offered in writing and deposit with the AAC Treasurer the sum of \$100, all within one month of the date of selection. Persons selected agree to act as an integral part of the Team and to participate fully as Team members before and during the relevant championship, including participation at training camps and media events. If after the end of two calendar months following selection the deposit has not been received, and oral and written requests have been ignored, the pilot will automatically forfeit his/her place. In such circumstances the place will be offered to the next qualified pilot in accordance with Section 4.3. A Team member who is subsequently unable to comply with his/her commitment to the Team will forfeit his/her deposit unless the AAC Committee, in exceptional circumstances, agrees to refund it.

5. Other Team Positions

- 5.1 The Panel will also consider nominations for other official Team positions. Persons selected should write to confirm their acceptance of the position, and their agreement to act as an integral part of the Team and to participate fully as Team members before and during the relevant championship. A deposit will also be required from officials, which will normally be forfeit if the candidate is subsequently unable to comply with his/her commitment to the Team by the final entry date or withdraws following the above agreement.

6. No-Contest Procedures

- 6.1 In the event that no data is available for selection to be made on the basis of domestic competition results, and there is a requirement to select a team, the Panel shall select pilots and other members of the Team. They will take into account availability and that the pilot is in current practice and has a record of achieving the required percentage. They shall select pilots principally on the probability that they will survive the first unknown cut. To this end the results of overseas contests may be taken into account.
- 6.2 In the event that the selection panel decides to select pilots who have not recently achieved the required percentage they should only do so

subject to a qualification flight in front of at least two members of the Panel.

- 6.3** Other team members should be selected on the basis of competence and suitability to fit in to the overall team.

7. Recommendations

- 7.1 The Panel shall make their selection recommendations to the AAC Committee, who will normally accept them without change.



Australian Aerobatic Championships

29th October – 3rd November 2019

Tocumwal Airport

New South Wales

Australia

Bulletin No. 3

Amendments Shown in Red Text

15/10/2019

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2) General

- a. The Australian Aerobatic Club invites all AAC members, their family and friends to the 2019 Australian Aerobatic Championships to be held at Tocumwal Airfield, NSW, from Tuesday 29th October to Sunday 3rd November 2019.
- b. Tocumwal is a small country town on the Murray River. Commercial flights are available in Albury, an 1.5 hour drive to the East. Tocumwal's elevation is 372ft AMSL, with average maximum temperatures in the mid-twenties during November.

Contest Officials

- a. Contest Director – TBA
- b. Contest Secretary – TBA
- c. Chief Judge - TBA
- d. Radio Operator – TBA
- e. Starter - TBA
- f. Scorer – TBA
- g. Driver and Safety Officer – TBA

Board of Judges

- a. UNL
 - a. TBA
 - b. TBA
 - c. TBA
 - d. TBA
- b. ADV
 - a. TBA
 - b. TBA
 - c. TBA
 - d. TBA
- c. INT
 - a. TBA
 - b. TBA
 - c. TBA
 - d. TBA

d. SPO/GRD/ENT

- a. TBA
- b. TBA
- c. TBA
- d. TBA

Contest Jury

- a. TBA
- b. TBA
- c. TBA
- d. TBA

Technical Committee

- a. TBA
- b. TBA
- c. TBA
- d. TBA



3) Schedule

Tuesday 29th October 2019

0900 – 1800	Arrivals, Unofficial Practice.
1500 – 1800	Registration Opens
1600 – 1830	Murray Border Flying Club BBQ
1830 – 1900	INT/ADV/UNL Briefing
1900 – 2100	Selection of Unknown Figures Programme 3 (UNL, ADV), Programme 3 (INT).

Wednesday 30th October 2019

0800 – 0830	Daily Briefing
0900 – 1200	UNL/ADV/INT Free Known, Programme 1
1200 – 1830	Timed Box Practice (SPT/GRA)
1830 – 1930	Selection of Unknown Figures Programme 2-4 (UNL/ADV)

Thursday 31st October 2019

0800 – 0830	Daily Briefing
0900 – 1200	UNL/ADV/INT Free Unknown 1, Programme 2
1200 – 1300	Judge's Lunch Break
1300 – 1800	SPT/GRA/ENT Known 1, Programme 1

Friday 1st November 2019

0800 – 0830	Daily Briefing
0900 - 1200	UNL/ADV/INT Free Unknown 2, Programme 3
1200 – 1300	Judge's Lunch Break
1300 – 1800	SPT Known 2/Free, GRA Known 2, ENT Known 1, Programme 2

Saturday 2nd November 2019

0800 – 0830	Daily Briefing
0900 - 1100	UNL/ADV Free Unknown 3, Programme 4
1100 – 1300	SPT Unknown 1, Programme 3
1300 – 1400	Judge's Lunch Break
1400 – 1600	GRA Known 3, ENT Known 1, Programme 3
1630 – 1800	Unlimited Freestyle, Programme 5
1930 – 0000	Presentation Dinner

Sunday 3rd November 2019

0800 - 2000	Weather Day or Pack up/Departure
-------------	----------------------------------

4) Training and Practice

All practice flying at Tocumwal prior to briefing at 1830hrs Tuesday 29th October 2019 is a private operation. However, any poor airmanship displayed by members of the AAC will reflect badly on the Club. Please be thoughtful and considerate to other airfield users, and the local population generally, at all times.

The Radio Shack will be in operation from Saturday 26th October 2019.

To comply with the Berrigan Shire Noise Management requirements, there will be no aerobatic practice prior to Friday the 25th of October, unless prior permission is obtained from the Berrigan Shire. See www.berriganshire.nsw.gov.au

5) Regulations

The 2019 Australian Aerobatic Championships will be conducted in accordance with the following:

- a. AAC Regulation 2017
- b. FAI Sporting Code – Section 6, version 2018
- c. Aresti Catalogue (condensed) for Power Aerobatics
- d. Australian CAR/CASR
- e. CASA EX39/19 — Broadcast and Listening Watch (Australian Aerobatic Club Ltd) Instrument 2019
- f. CASA.LOFLY.0670 - Permission to fly lower than the prescribed height and temporary suspension of rules in the vicinity of a non-controlled aerodrome

Supplementary Rules

- a. The following are variations to the AAC Regulations 2017 that will be in force throughout the competition.
 - a. 2.11.3 DELETE
 - b. 2.11.4 DELETE
 - c. 2.11.5 Judges will be selected by the Chief Judge.
 - d. 2.13 There will be no boundary judges.
 - e. 2.14.2 The AAC committee will determine any appropriate expenses to be reimbursed to contest officials.
 - f. 2.14.3 The AAC committee will determine any appropriate expenses to be reimbursed to judges.
 - g. 2.19.2 CASA EX35/13 has expired refer to new CASA EX39/19 and CASA.LOFLY.0670.
 - h. 2.21.3 DELETE
 - i. 2.61.3 2019 known sequences for Graduate and Sportsman categories are published on the AAC website.
http://www.aerobaticsaustralia.com.au/ACC_WP/competitions/sequences/.
Entry will fly the 2018 Sequence published on the AAC website.
- a. No line judges will be used.
- b. Any further Supplementary Rules will be advised at Official Briefings.

Bad Weather

All Options will be considered by the Contest Jury to complete the competition. Sunday 3rd November 2019 will be a flying day for any categories that have not yet completed two competition flights.

6) Fuel, Oil, Hangarage

- a. The AVGAS bowser operated by Aero Refuellers accepts carnet cards issued by Aero Refuellers www.aerorefuellers.com.au and credit card (V, MC).
- b. Competitors should bring adequate quantities of oil. It may be possible to be purchased oil from the Murray Border Flying Club (MBFC). Contact numbers are available at www.mbftoc.com.au/ourclub.php
- c. Hangarage will be available for competitors in Lee Gordon-Brown's hanger located at the south western edge of the 09/27 runway (thanks Lee). Please contact Lee on 0429 333 312 to book a space.
- d. If Lee's hanger is full, he will put you in contact with other hangar owners at Tocumwal.
- e. A LAME is based at Tocumwal and at Yarrawonga (50km away).

7) Accommodation

- a. Accommodation is available in town about 1.5 km to the west. It is each participant's responsibility to book their own accommodation.
- b. The Vic club members frequent the Greenway Holiday Units at Tocumwal. Nice and clean, 3½ stars with a swimming pool and only 1.5 Km from Tocumwal Aerodrome. Close enough to walk to the airport if you miss the bus but enough time to work out an excuse for being late to the briefing. Now is the time to make your booking so you don't miss out. First in best dressed!
- c. Greenway Holiday Units 22-28 Cobram St, Tocumwal NSW 2714 Phone (03) 5874 2882
- d. The Bakery Park Motel is also recommended. Call 03 5874 2490
- e. Big4 Tocumwal Tourist/Holiday Park (03) 5874 2768
- f. There are a number of other accommodation options available in town. Please call the Tocumwal Tourist Information centre on 03 5874 2517 or visit <http://www.murrayriver.com.au/tocumwal/visitor-information-centre/>

8) Lost Children

- a. Bring them to the Aero Club radio operator who will have communications with all officials and should be able to locate the relevant people.

9) Lost Property

- a. Hand it to the Contest Director, Radio Operator or Contest Secretary. The CD will announce any lost property at morning brief.

10) Meals

- a. Lunches will be available from the Murray Border Flying Club from Wednesday until Saturday. The MBFC will also cater for an evening BBQ on Tuesday night. Drinks will be available at the MBFC's bar, once the day's competition is complete.
- b. The Presentation Dinner will be held at the Tocumwal Golf and Bowls Club (Barooga Rd, Tocumwal NSW 2714) on Saturday 2nd November 2019 at 1830. Tickets will be sold prior, price TBA.
- c. Evening dinners in town at the various venues in town.
- d. The Victoria Tourism Regions information URL for the Murray River Region is at <http://www.visitvictoria.com/Regions/The-Murray.aspx>

11) Registration – Pilots and Aircraft

- a. All members of the AAC are eligible to compete. Foreign entries from FAI member countries will be accepted as "Hors Concours" (H/C). H/C entries must provide evidence of appropriate and current aerobatic experience.
- b. All contestants must register on-site at the Registration Desk prior to 1800 hours Tuesday 29th October 2019, and prior to flight in the aerobatic box after the first official Briefing. Registrations will open from 1600hrs 29th October 2019.
- c. Those Unlimited pilots intending to fly Programme 5, the 4 minute Freestyle, should advise the Contest Secretary at Registration.
- d. The competitor must produce the current Maintenance Release for the Aircraft in which they are to compete at registration.
- e. Uploading Your Competition Documents. This is critical to enable the competition secretary to begin your registration prior to the competition. Please ensure your document folder on the Club website contains only the documents relevant to the upcoming competition and that all 12 required documents are present and those that are time sensitive have not expired.
- f. (http://www.aerobaticsaustralia.com.au/ACC_WP/competitions/competition-documents/)
- g. Documents must be in the correct format on the AAC Website. Preferred file formats are PDF and JPG and SEQ for sequences. If any of the documents are missing, incorrect or time expired, then the competitor will not be registered.
- h. When uploading documents please use the correct name format as follows:

No.	Document	Name Format
1	Certificate of Registration	COR_FYI (where FYI = your aircraft registration)
2	Certificate of Airworthiness	COA_FYI
3	Certificate of Currency (Insurance) including \$5M Third Party cover and Competition Aerobatic endorsement	COI_FYI
4	A current Pilot's Licence	Pilot_Licence_firstname_surname

AAC REGULATIONS – Appendix 2-8 – Sample Event Management Plan

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5	A current Medical Certificate	Medical__firstname_surname_expiry date
6	A BFR or equivalent	AFR__firstname_surname_expiry date
7	Log Book, Aerobatic endorsement and spin endorsement	Aero__firstname_surname
8	Low Level FAE appropriate to category	LL__firstname_surname_expiry date
9	Free/Free Known Sequence as PDF	Unlimited_Free-_PDF_firstname_surname_2019
10	Free/Free Known Sequence as SEQ	Unlimited_Free_SEQ_firstname_surname_2019
11	Bank Transfer Details of Full AAC membership payment OR Membership Certificate/FAI Licence	AAC_Membership_firstname_surname_2019
12	Bank Transfer Details of competition entry payment	Oz Champs Fee_firstname_surname_2019

Entry Fees

Category	Fee	Fee after 19th October 2019
Entry	\$245.00	\$275.00
Graduate	\$245.00	\$275.00
Sportsman	\$245.00	\$275.00
Intermediate	\$245.00	\$275.00
Advanced	\$310.00	\$330.00
Unlimited	\$310.00	\$330.00
4 Min Freestyle	\$50.00	\$75.00

All Fees are payable to the Australian Aerobatic Club:

Account Name: Australian Aerobatic Club
BSB: 084 402
Account Number: 54237 1674
Reference: Surname_AUS2019

12) Emergency Management

Risks

- a. Numerous incidents could occur, both on the ground and in the air. The consequences of these may cause death or severe injury. All AAC members attending must remain vigilant and be proactive to reduce opportunities for accidents. In recent years we have not had any serious incidents which proves our existing operating rules and procedures are mostly adequate. This should not induce complacency. The most serious occurrence would be an aircraft crash, for which the following provides guidance.
- b. In the case of a serious accident or incident requiring outside assistance, the radio operator is to contact civil emergency services using '000'. He shall also provide communication support to the response team and others using the available communication networks (mobile phone, UHF).
- c. The vehicle driver shall ferry the first responders and any additional manpower to the incident location. The response team shall rescue any injured from immediate danger and contain the spread of fire, or similarly reduce the risk of further injury or damage to people or property, respectively.
- d. Once the situation has stabilised, further decisions can be made by the Contest Director (CD) and his team as to the best course of action.
- e. The First Responders SHOULD NOT put themselves or any others in unacceptable danger and should only assist to the degree in which they feel capable. Primary rescue and medical responsibility rests with the local emergency services.

Emergency Service Contacts

- f. Note: When calling '000' be prepared with the street address and nearest cross street, as well as your contact number.

Police '000'

- a. Tocumwal Police Station is not manned 24hrs, but should be active during our flying hours.

Ambulance

- a. '000' is the primary number. Local station will be manned, but if the local crew is out on a job there may be a wait for an ambulance from a nearby town.

Fire Brigade

- a. '000'. Tocumwal is a volunteer station and not manned full-time. The fire crew must be called-in if required.

Incident Reports

- a. Report all incidents or potentially dangerous events to an AAC member or Official immediately, who will report it to the CD for action IAW the AAC Serious Incident Response Procedures (Appendix 1-12 of AAC Regulations) and the guidance below.
- b. It is the responsibility of all attendees to be vigilant and proactive in preventing dangerous events occurring. The officials will have a hot-washup at the conclusion of the event to assist in future planning.

Emergency Response Kit

- b. An Emergency Response Kit will be carried in the Chief Judge (CJ) vehicle airside during the competition flying. It shall contain a crash axe, fire extinguishers, bolt cutters and gloves.

First Aid

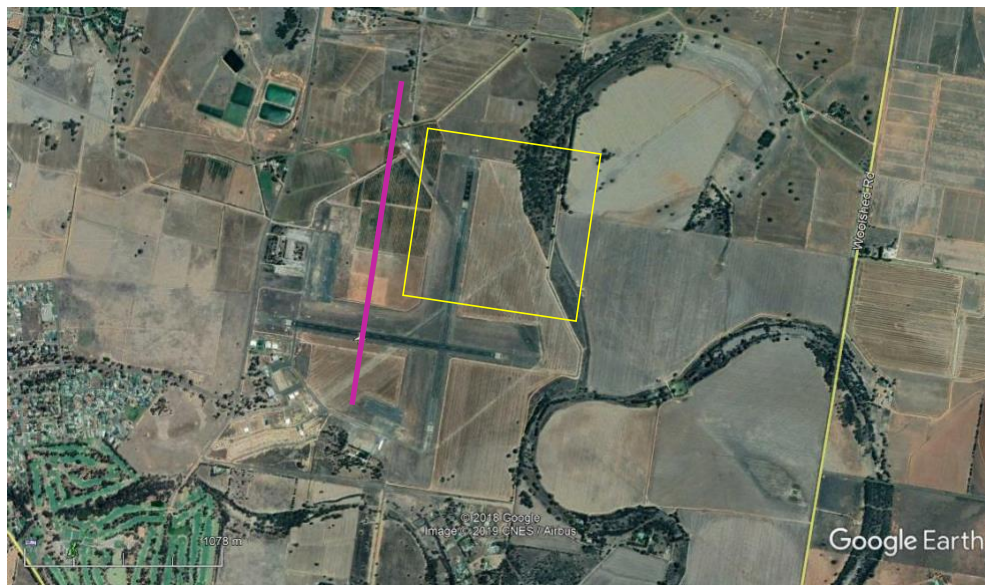
- a. A First Aid kit will be kept at the office and also in the Chief Judge's vehicle. Transport

13) Special procedures

AAC Fly Neighbourly Policy TOCUMWAL AERODROME

Tocumwal Fly Neighbourly notes:

IMPORTANT: Conduct all aircraft operations in accordance with ERSA



1. Yellow square marks the approximate Aerobatic Box location
2. Nearest noise sensitive residence is 650m south of box edge outside the airport (Blue Area)
3. The town of Tocumwal, to the west of the aerobatic box, is noise sensitive
4. Purple line is the crowd deadline – to the west of the radio tent and threshold of RWY 09
5. Orange fill area indicates buffer zone where high power aerobatic ops should be limited
6. Red fill area (south and west of RWY 09/27) is noise sensitive area – use low power/RPM settings

7. Blue fill area indicates very noise sensitive area: operate at low power/RPM and above 1000' AGL
8. Conduct circuits in accordance with ERSA and maintain 1000' AGL until landing assured
9. On take-off from RWY18 use most northerly release point – reduce power and RPM ASAP – maintain straight out climb to 1000' AGL and gentle crosswind turn when 1nm or more south.
10. Always refer to the ESRA for the aerodrome information.



1.0 Introduction

- 1.1 The traffic environment around an airfield holding an aerobatic competition can be hectic and daunting to new competitors. It is also potentially hazardous if pilots are not familiar with the procedures in place. It is a dynamic environment with highly manoeuvrable aircraft that can change the traffic situation rapidly. This is in contrast to the normal staid pace of a rural or training airfield traffic pattern.
- 1.2 Though a Traffic Advisory Service is usually provided during club competition and training activities, the pilot is responsible for safety and complying with the usual airfield traffic procedures.
- 1.3 The pilot is the Aircraft Captain and this responsibility is not reduced by the presence of an advisory service.

2.0 Key Regulations and NOTAM

- 2.1 Normal circuit procedures dictate no turning on departure below 500ft and turning in the approved circuit direction (AIP ENR 1.1 para 7). Joining the circuit in a standard manner is also a requirement. Radio and circuit procedures in the vicinity of a non-controlled aerodrome are stipulated in CAR 166.
- 2.2 At some competition venues there may be a NOTAM in place altering circuit direction on some runways for the duration of the competition, but all the other regulations remain in effect and must be complied with. The traffic advisory procedures are overlaid on this and do not replace them.

3.0 Aircraft Flow

- 3.1 The AAC has developed a standardized traffic flow for competitions over the years which works well and has proven itself by the history of safe operation. These procedures are detailed in the following.

4.0 Low Performance Aircraft - Departure

- 4.1 Lower performance aircraft in the lower categories (typically Sportsman and below) use a holding area short way (<1nm downwind) from the box. They are briefed by the Starter to go to the hold and told when to start their engine. They then warm-up, taxi, take-off and depart below any traffic in the box above (1500ft box lower level). They remain on CTAF while climbing and holding, making the usual departure calls on CTAF frequency

Note: Planned holding altitude should be such that the pilot can return to the box expeditiously with sufficient energy to start the sequence or perform the safety figures without having to re-climb to altitude.

- 4.2** When the CJ is ready they will ask Traffic Advisory to contact the holding pilot to switch to box frequency and call the CJ. The pilot will call the CJ: '*Chief Judge Competitor XX*', the CJ will then usually clear the competitor into the box '*Competitor XX the box is clear*' or pass any other necessary instruction. The pilot will then track for the box without delay, or do as directed if otherwise.

Note: An elongated figure-eight holding pattern, aligned perpendicular to the official wind direction works well. All turns should be 'hot' or toward the box. Don't get blown downwind and too far away from the box. In this way the pilot can keep the box and the previous competitor visual at all times. When cleared in to the box you will be able to turn directly for the box from any position in the hold and descend/accelerate as required.

5.0 Higher Performance Aircraft – Departure

- 5.1** Higher performance aircraft (typically Intermediate and up) are capable of entering the box immediately after take-off without needing time to climb in the hold.
- 5.2** Typically the Starter will advise when to start and that you are cleared to '*contact the CJ after take-off*', or '*cleared direct to the box*'. Again, this does NOT authorize you to ignore normal circuit departure procedures.
- 5.3** Once after take-off checks are complete contact the CJ: '*CJ competitor XX*', the CJ should reply '*competitor XX the box is clear*' or '*competitor XX remain clear of the box*' or '*competitor XX fly the lower axes*'.

Note: The Starter must use their judgement as to when to start the next competitor to keep an efficient flow going. Sometimes the CJ will direct this via radio, if the judges need time for a de-brief etc. The pilot also, if experienced, will be aware of when they need to start to taxi, warm-up, back-track etc. to fit into the flow smoothly given the rhythm of the flying. The starter should heed their advice.

*Normally the departing pilot needs to roll for take-off once the preceding pilot has waggled out and broadcast on CTAF. The departing pilot can then reply with their '*rolling runway XX*' call and departure intentions knowing the preceding pilot's re-join plan. They can then arrange their own separation without Traffic Advisory having to repeat their broadcasts.*

- 5.4** To re-iterate, the pilot must still climb straight ahead to 500ft prior to turning, in the correct circuit direction, for the box. This can normally be planned in such a manner that it is not an inconvenience, particularly if the box axes must be flown. Regardless, the time can be spent productively in checking the wind on different legs during climbing prior to diving in for the safety figures, for example.

- 5.5** Unlike at an International event where the airfield is usually closed to other aircraft and the airspace belongs to the competition, we must operate without confusing or conflicting with normal traffic. Thus we must adhere to the statutory procedures for practical reasons as well as legal.

Note: Nothing upsets local airfield users and transiting traffic, not to mention CASA, like seeing aerobatic show-offs in high-performance aircraft making split-arise climbing turns at zero feet after take-off, and apparently ignoring all the rules. We may be able to do this with safety, but self-discipline must prevail. Being good citizens is important to maintain and enhance the integrity and professional respect of the sport in the aviation community.

6.0 Flying the Box Axes

- 6.1** The departure procedure is varied for the first flight of a category or after a significant delay when the box lower level must be flown for the judges to calibrate their eyes.
- 6.2** For this case the Starter will advise the pilot that they are to fly the lower axes and to contact the CJ once their after take-off checks are complete. Sometimes the phrase '*you are cleared direct to the box*' is used – this does not authorize you to ignore the usual CTAF radio calls and circuit departure procedures. You still must climb straight ahead to 500ft and initially turn in the approved circuit direction.
- 6.3** You should not enter the box until in contact with the CJ and have been advised '*competitor XX fly the lower axes*' or '*competitor XX the box is clear*'.

7.0 Circuit Re-Join Procedure – All Aircraft

- 7.1** Once your sequence is completed remain, or turn back towards, the box, while switching to CTAF frequency. Make your CTAF call and usually a plan to depart from the box to join an upwind or crosswind leg of the circuit works well.
- 7.2** Unless you are confident you have good traffic awareness, remain in the box area until other traffic, or traffic advisory, can reply. Use this time to descend/climb to circuit altitude, get your head together, and cool down.
- 7.3** Listen for the next pilot's '*rolling runway XX...*' call or Advisory's advice, so you know where traffic is in the flow. The next pilot will be keyed up and tense, just like you were ten minutes ago, so be considerate and don't cause them unnecessary delays.

8.0 Conclusion

- 8.1** The aerobatic box is our safety zone. Several sets of eyes are always on you (CJ and judges, radio operator, other pilots). If you lose orientation or situational

AAC REGULATIONS - Appendix 2-9 - Departure and Re-join Procedures

09/17 AMD 1

awareness these eyes will probably see any hazards that may exist, and be able to provide pertinent traffic information to you. If you are confused or unsure of potentially conflicting traffic, keep your eyes out, stay in the box, and others will separate the traffic from you.



Australian Government

Civil Aviation Safety Authority

Instrument number CASA EX39/19

I, WARREN CRAIG MARTIN, Acting Executive Manager, Regulatory Services & Surveillance, a delegate of CASA, make this instrument under regulations 11.160, 11.205 and 11.245 of the *Civil Aviation Safety Regulations 1998*.

A handwritten signature in black ink, appearing to read 'CM'.

Craig Martin
Acting Executive Manager, Regulatory Services & Surveillance

22 May 2019

CASA EX39/19 — Broadcast and Listening Watch (Australian Aerobatic Club Ltd) Instrument 2019**1 Name**

This instrument is *CASA EX39/19 — Broadcast and Listening Watch (Australian Aerobatic Club Ltd) Instrument 2019*.

2 Duration

This instrument:

- (a) commences on the day after it is registered; and
- (b) is repealed at the end of 30 April 2022.

Note For regulation 11.250 of CASR, the directions in section 6 and Schedule 2 cease to be in force on the day that the instrument is repealed.

3 Definitions

Note In this instrument, certain terms and expressions have the same meaning as they have in the Act and the Regulations. These include: *aerobatic manoeuvres*, *aerodrome reference point*, *ARN*, *non-controlled aerodrome*, *NOTAM* and *regular public transport operations*.

In this instrument:

aerobatic activity means:

- (a) participation in a competition involving the conduct of aerobatic manoeuvres; or
- (b) practice for a competition involving the conduct of aerobatic manoeuvres; or
- (c) training in aerobatic manoeuvres.

aerobatic box means the volume of airspace that may be used by the pilot in command of an aircraft while conducting an aerobatic activity.

arrival, of an aircraft at an aerodrome, means entry of the aircraft into the airspace in the vicinity of the aerodrome for the purpose of landing at the aerodrome.

Club, in relation to an aerobatic activity, means Australian Aerobatic Club Ltd, ARN 802745, and each of the following persons that organises the aerobatic activity:

- (a) Australian Aerobatic Club (Queensland Chapter) Limited, ACN 010 322 353;
- (b) Australian Aerobatic Club Adelaide Chapter Incorporated, registration number SA A5798;
- (c) Australian Aerobatic Club – Victorian Chapter (INC)., registration number VIC A0042562P;
- (d) Australian Aerobatic Club (New South Wales Chapter) Incorporated, registration number NSW INC9889911;
- (e) Aerobatics Association of WA Incorporated, registration number A1011312P.

in the vicinity of has the meaning as defined in regulation 166 of CAR.

RPT aircraft means an aircraft employed in a regular public transport operation.

RPT operation means a regular public transport operation.

4 Application

This instrument applies to:

- (a) the Club in relation to an aerobatic activity that is organised by the Club in the vicinity of a non-controlled aerodrome; and
- (b) the pilot in command of an aircraft participating in an aerobatic activity mentioned in paragraph (a).

5 Exemption

- (1) The pilot in command of an aircraft participating in an aerobatic activity organised by the Club is exempt from compliance with the following provisions when flying the aircraft in an aerobatic box nominated by the Club:
 - (a) regulation 166C and subregulation 243 (1) of CAR;
 - (b) from the commencement of regulations 91.630 and 91.640 of CASR — regulations 91.630 and 91.640 of CASR.

Note Regulations 91.630 and 91.640 of CASR are scheduled to commence on 25 March 2021.

- (2) The exemption is subject to the conditions mentioned in Schedule 1.

6 Directions

For regulation 11.245 of CASR, the Club must comply with the directions mentioned in Schedule 2.

Schedule 1 Conditions — pilot in command

- 1 The pilot in command must comply with the procedures published in any internal documents or operating procedure published by the Club, as they exist from time to time.
- 2 If the pilot in command believes that the Club is failing to comply with any of the requirements imposed on the Club by this instrument, the pilot must comply with the following provisions:
 - (a) regulation 166C and subregulation 243 (1) of CAR;

- (b) from the commencement of regulations 91.630 and 91.640 of CASR — regulations 91.630 and 91.640 of CASR.

Note 1 The requirements imposed on the Club by this instrument are set out in Schedule 2.

Note 2 The pilot is not required to comply with regulations 91.630 and 91.640 of CASR until those provisions commence. They are scheduled to commence on 25 March 2021.

Schedule 2 Directions — the Club

- 1 The Club must appoint, in writing, a Competition Coordinator for all aerobatic activities.
- 2 The Club, acting through its Competition Coordinator, must ensure that a ground communications station (the *station*) is established at the non-controlled aerodrome.
- 3 The Club, acting through its Competition Coordinator, must ensure that the station:
 - (a) operates on each day that an aerobatic activity takes place in order to advise other aircraft that are operating in the vicinity of the aerodrome of the activities, location and direction of the participants in the aerobatic activity; and
 - (b) has a radio operator, to conduct any radio communications, who is authorised under Part 61 or 64 of CASR to transmit on a radio frequency of a kind used for the purpose of ensuring the safety of air navigation; and
 - (c) is active on the VHF frequency nominated by the Club and on the common traffic advisory frequency (*CTAF*); and
 - (d) commences operations at least 10 minutes before aerobatic activity begins and continues throughout the duration of the aerobatic activity.
- 4 The Club, acting through its Competition Coordinator, must ensure that only aircraft carrying serviceable VHF radio transceivers are allowed to participate in the aerobatic activity.
- 5 The Club, acting through its Competition Coordinator, must ensure that aerobatic activities stop 10 minutes before the expected arrival time at the aerodrome of any RPT aircraft.
- 6 The Club, acting through its Competition Coordinator, must ensure that aerobatic activities are not started or resumed until:
 - (a) a period of 10 minutes has elapsed after the departure of any RPT operation; or
 - (b) the RPT aircraft is more than 10 nautical miles away from the aerodrome reference point of the aerodrome.
- 7 The Club, acting through its Competition Coordinator, must ensure that radio operations on the VHF frequency nominated by the Club:
 - (a) cease before the arrival at the aerodrome of any RPT operation; and
 - (b) do not resume until:
 - (i) a period of 10 minutes has elapsed after the departure of any RPT operation; or
 - (ii) the RPT aircraft is more than 10 nautical miles away from the aerodrome reference point of the aerodrome.

- 8 The Club, acting through its Competition Coordinator, must ensure that radio operations are returned to the CTAF while radio operations on the VHF frequency nominated by the Club have ceased.
 - 9 The Club, acting through its Competition Coordinator, must ensure that the pilot in command of any aircraft taking part in an aerobatic activity:
 - (a) monitors the CTAF at times other than when flying in the aerobatic box; and
 - (b) returns to the CTAF if so advised by the radio operator at the station.
 - 10 The Club, acting through its Competition Coordinator, must ensure that participants in an aerobatic activity are briefed on each day that the aerobatic activity takes place on the following:
 - (a) the location and dimensions of the aerobatic box for the activity;
 - (b) when a frequency change is permitted to a frequency other than the CTAF;
 - (c) information on procedures to comply with this instrument;
 - (d) any requirements for operating in the aerobatic box;
 - (e) procedures if a radio communication with the station fails.
 - 11 Not later than 5 working days before the commencement of an aerobatic activity under this instrument, the Club must give CASA notice of its intention to organise the activity, including:
 - (a) the name, ARN and mobile telephone number of the person appointed by the Club as the Competition Coordinator for the aerobatic activity; and
 - (b) the location of the non-controlled aerodrome and any operating procedures, including the CTAF, to be used; and
 - (c) details to be published in a NOTAM, including the operating times of the activity and the location and boundaries of the aerobatic box.
 - 12 The Club must:
 - (a) include details of this instrument in the internal documents published by the Club; and
 - (b) give CASA a copy of an internal document published by the Club when a change is made to that document.
-

Explanatory Statement

Civil Aviation Safety Regulations 1998

CASA EX39/19 — Broadcast and Listening Watch (Australian Aerobatic Club Ltd) Instrument 2019

Purpose

The purpose of this instrument is to allow pilots in command of aircraft conducting certain aerobatic activities to fly without maintaining a listening watch and making broadcasts on the very high frequency (*VHF*) in use for a non-controlled aerodrome, subject to compliance with specified safety conditions. It also issues directions to Australian Aerobatic Club Ltd and its specified affiliated chapters (the *Club*) in relation to those aerobatic activities, in the interests of the safety of air navigation.

Legislation

Section 98 of the *Civil Aviation Act 1988* (the *Act*) empowers the Governor-General to make regulations for the Act and in the interests of the safety of air navigation. Relevantly, the Governor-General has made the *Civil Aviation Safety Regulations 1998* (*CASR*) and *Civil Aviation Regulations 1988* (*CAR*).

Subsection 98 (5A) of the Act provides that the regulations may empower the Civil Aviation Safety Authority (*CASA*) to issue instruments in relation to the following:

- (a) matters affecting the safe navigation and operation, or the maintenance, of aircraft;
- (b) the airworthiness of, or design standards for, aircraft.

Subsection 98 (5D) of the Act provides that a legislative instrument made under the Act or the regulations may apply, adopt or incorporate any matter contained in any instrument or other writing as in force or existing from time to time, even if the other instrument or writing does not yet exist when the legislative instrument is made.

Making broadcasts and maintaining listening watch

Regulation 166C of CAR provides that if an aircraft is operating on the manoeuvring area of, or in the vicinity of, a non-controlled aerodrome and the aircraft is carrying a serviceable aircraft VHF radio and the pilot in command of the aircraft holds a radiotelephone qualification, the pilot is responsible for making a broadcast on the VHF in use for the aerodrome. The pilot must make a broadcast that includes the following information whenever it is reasonably necessary to do so to avoid a collision, or the risk of a collision, with another aircraft:

- (a) the name of the aerodrome;
- (b) the aircraft's type and call sign;
- (c) the position of the aircraft and the pilot's intentions.

Subregulation 243 (1) of CAR provides that when an aircraft is equipped with radio apparatus for use during flight, the pilot in command must maintain a listening watch, or must ensure that a listening watch is maintained, at all times commencing immediately before the time at which the aircraft commences to move on the manoeuvring area before flight and lasting until the aircraft is brought to a stop at the apron or other point of termination of the flight.

The *Civil Aviation Safety Amendment (Part 91) Regulations 2018* will commence on 25 March 2021. It will add regulations 91.630 and 91.640 to CASR, which will deal with the same subjects as regulation 166C and subregulation 243 (1) of CAR, respectively.

Under new regulation 91.630 of CASR, it will be an offence if, during a flight of an aircraft that is fitted with or carries a radio, the pilot in command does not make a broadcast or a report relating to the flight that is prescribed by the Part 91 Manual of Standards.

Regulation 91.640 of CASR will require the pilot in command of certain aircraft, or another pilot occupying a pilot seat of the aircraft, to continuously monitor radio transmissions when outside controlled airspace.

Exemptions

Subpart 11.F of CASR provides for the granting of exemptions from particular provisions of the regulations. Subregulation 11.160 (1) of CASR provides that, for subsection 98 (5A) of the Act, CASA may grant an exemption from a provision of the regulations.

Under subregulation 11.160 (2) of CASR, an exemption may be granted to a person or a class of persons and may specify the class by reference to membership of a specified body or any other characteristic.

Under subregulation 11.160 (3) of CASR, an exemption may be granted on application by a person or on CASA's own initiative.

Under subregulation 11.175 (4) of CASR, in deciding whether to renew an exemption on application, CASA must regard as paramount the preservation of at least an acceptable level of aviation safety.

Regulation 11.205 provides that CASA may impose conditions on an exemption if necessary in the interests of the safety of air navigation. Under regulation 11.210, it is a strict liability offence not to comply with the obligations imposed by a condition.

Regulation 11.225 of CASR requires an exemption to be published on the Internet. Under subregulation 11.230 (1), the maximum duration of an exemption is 3 years.

Directions

Subpart 11.G of CASR provides for CASA to issue directions in relation to matters affecting the safety of air navigation. Under paragraph 11.245 (1) (a) of CASR, CASA may, by instrument, issue a direction about any matter affecting the safe navigation and operation of aircraft. Subregulation 11.245 (2) of CASR provides that CASA may issue such a direction if CASA is satisfied that it is necessary to do so in the interests of the safety of air navigation, if the direction is not inconsistent with the Act, and for the purposes of CASA's functions.

Under paragraph 11.250 (a) of CASR, a direction under regulation 11.245 ceases to be in force on the day specified in the direction. Under regulation 11.255, it is an offence of strict liability to contravene a direction under regulation 11.245.

Background

The Club has been organising aerobatic championships for many years. The requirements in regulations 166C and 243 of CAR for the pilot in command to maintain a listening watch and broadcast on the common traffic advisory frequency (*CTAF*) when operating in the vicinity of a non-controlled aerodrome have affected its ability to conduct various activities during competitions.

The Club applied for an exemption for its pilots from these requirements while competing in competitions and undertaking training. In response to that application, CASA granted the exemptions in CASA EX60/16, which expired at the end of March 2019. The Club has

requested renewal of the exemptions in CASA EX60/16 and for the exemptions to also apply to practice flights for competitions.

Overview of instrument

CASA has approved the request for renewal of the exemptions in CASA EX60/16, subject to conditions and directions which are necessary in the interest of safety. CASA has assessed the Club's submission for the inclusion of practice flights for competitions and is satisfied this has no impact on the safety of the operations.

Content of instrument

Section 1 of the instrument specifies the name by which the instrument may be cited.

Section 2 of the instrument provides that the instrument commences on the day after it is registered of the Federal Register of Legislation. It also provides that the instrument is repealed at the end of 30 April 2022. A note under section 2 confirms that the directions in the instrument that are made under regulation 11.245 of CASR cease to be in force on the day that the instrument is repealed, that is, at the end of 30 April 2022.

Section 3 includes definitions of terms used in the instrument. An **aerobatic activity** is limited to training in aerobatic manoeuvres or participation in, or practice for, a competition involving the conduct of aerobatic manoeuvres. An **aerobatic box** is the airspace that has been nominated for use for performance of an aerobatic activity. The time of the **arrival** of an aircraft at an aerodrome is when it enters the airspace in the vicinity of the aerodrome for the purpose of landing at the aerodrome.

Australian Aerobatic Club Ltd is responsible for the administration of the sport of aerobatics in Australia. It has affiliated chapters, which are separate legal entities, in Western Australia, Queensland, South Australia, Victoria and New South Wales. In relation to a particular aerobatic activity, the term **Club** is defined to mean Australian Aerobatic Club Ltd and whichever of its affiliated chapters organises the aerobatic activity.

The definition of **in the vicinity of** refers to the definition of that term in regulation 166 of CAR. An **RPT aircraft** is an aircraft employed in a regular public transport operation and an **RPT operation** is an abbreviation for a regular public transport operation.

Section 3 also includes a note to alert readers that certain terms and expressions used in the instrument have the same meaning as they have in the Act and the Regulations. For example, paragraph 2 (7) (c) of CAR defines when an aircraft is employed in a **regular public transport operation**. The terms **aerodrome reference point** and **non-controlled aerodrome** are defined in subregulation 2 (1) of CAR. The terms **aerobatic manoeuvres**, **ARN** and **NOTAM** are defined in the CASR Dictionary.

Section 4 provides that the instrument applies to the Club in relation to an aerobatic activity that is organised by the Club in the vicinity of a non-controlled aerodrome. It also applies to the pilot in command of an aircraft participating in such an aerobatic activity.

Section 5 grants an exemption to the pilot in command of an aircraft participating in an aerobatic activity organised by the Club when flying the aircraft in an aerobatic box nominated by the Club. It exempts the pilot from compliance with regulation 166C and subregulation 243 (1) of CAR. It will also exempt the pilot from compliance with regulations 91.630 and 91.640 of CASR when those provisions commence. The exemptions are subject to the conditions in Schedule 1 of the instrument.

Section 6, made under regulation 11.245 of CASR, requires the Club to comply with the directions in Schedule 2 of the instrument.

Schedule 1 imposes 2 conditions, in the interests of the safety of air navigation, on the pilot in command of an aircraft participating in an aerobatic activity organised by the Club.

First, the pilot must comply with the procedures published in any internal documents or operating procedure published by the Club. Those documents and procedures set out requirements and procedures to be followed by pilots when undertaking aerobatic activities. In accordance with paragraph 15J (2) (c) of the *Legislation Act 2003* (the *LA*) and subsection 98 (5D) of the Act, the instrument applies, adopts or incorporates matters contained in those documents and procedures, as they exist from time to time. The Club is required by clause 10 of Schedule 2 of the instrument to brief pilots on the procedures to comply with the instrument. A copy of the Club's internal documents and operating procedures can be obtained by emailing a request to the Secretary of the Club at: secretary@aerobaticsaustralia.com.au.

Second, if the pilot believes that the Club is failing to comply with any of the requirements imposed on the Club by this instrument, the pilot must comply with regulation 166C and subregulation 243 (1) of CAR and, when they commence, regulations 91.630 and 91.640 of CASR. In effect, this means that the exemption in subsection 5 (1) does not apply to the pilot if the pilot believes that the Club has not complied with its obligations under the instrument. In those circumstances, the pilot is required to comply with the normal requirements relating to making broadcasts and maintaining a listening watch.

Schedule 2 sets out directions issued by CASA to the Club, in the interests of the safety of air navigation, about matters affecting the safe navigation and operation of aircraft.

Clause 1 of Schedule 2 requires the Club to appoint a Competition Coordinator for all aerobatic activities.

Clauses 2 and 3 of Schedule 2 require the Club to establish a ground communications station at the non-controlled aerodrome and contain requirements for operation of the station. For example, the station must be operated by an appropriately authorised radio operator and be active on both the CTAF and the VHF frequency nominated by the Club. The purpose of these requirements is to provide an alternative way for pilots of aircraft conducting aerobatic activities and other aircraft in the area to be aware of, and communicate with, each other.

Clause 4 of Schedule 2 requires the Club to ensure that aircraft participating in the aerobatic activities carry a serviceable VHF radio transceiver. This will ensure that the pilot of the aircraft is able to communicate with the ground communications station and, as required, other aircraft in the vicinity of the aerodrome.

The purposes of clauses 5 and 6 of Schedule 2 are to avoid conflict between aircraft engaged in aerobatic activities and aircraft engaged in a regular public transport (*RPT*) operations at the aerodrome, and to give priority to RPT operations. Clause 5 requires the Club to stop aerobatic activities at least 10 minutes before the expected arrival time of an RPT aircraft. The expected arrival time is the time that the RPT aircraft is expected to enter the airspace in the vicinity of the aerodrome, based on the RPT operator's published schedule and any other information that the Club has received, including broadcasts made by the pilot of the RPT aircraft. Clause 6 requires the Club to ensure that aerobatic activities do not start or resume until either 10 minutes has elapsed since any RPT aircraft has departed or any RPT aircraft is further than 10 nautical miles from the aerodrome reference point.

Similarly, clause 7 of Schedule 2 contains requirements for cessation and resumption of radio operations for the aerobatic activities before and after RPT operations at the aerodrome.

Clauses 8 and 9 of Schedule 2 require the Club to ensure that the pilots use the CTAF: while radio operations on the frequency used for the aerobatic activities have ceased; when flying outside the aerobatic box; and if advised to do so by the radio operator of the ground communications station.

Clause 10 of Schedule 2 requires the Club to brief participants in the aerobatic activity on specified requirements and procedures for the activity.

Clause 11 of Schedule 2 requires the Club to give CASA information about proposed aerobatic activities. That information includes details of the Competition Coordinator appointed for the activity, the location of the aerodrome and aerobatic box, operating procedures and the CTAF to be used. The purpose of this requirement is to alert CASA and other airspace users to the proposed aerobatic activities. The notice period of 5 working days is required to allow time for CASA to complete various administrative processes, including arranging for the publication by Airservices Australia (AA) of a Notice to Airmen (**NOTAM**). NOTAM are published by AA as an Aeronautical Information Service provider, under the *Air Services Regulations 1995*, to disseminate information relevant to aviation participants on matters essential to safe air navigation, for example, to alert aircraft pilots to potential hazards along a flight route or at a location that could affect the safety of the flight. It is expected that the mobile telephone number of the Competition Coordinator will be included in the NOTAM so that operators of other aircraft are able to contact the appropriate representative of the Club for information about the proposed aerobatic activities.

Clause 12 of Schedule 2 requires the Club to include details of this instrument in the internal documents that it publishes. This provision is intended to raise the awareness of pilots participating in the aerobatic activities about the requirements of the instrument. Clause 12 also requires the Club to give a copy of any amended internal document to CASA when the change is made. For example, the Club will be required to provide CASA with a copy of its internal document when details of this instrument are included in those documents.

Legislation Act 2003

Paragraph 98 (5A) (a) of the Act provides that CASA may issue instruments in relation to matters affecting the safe navigation and operation, or the maintenance, of aircraft. Additionally, paragraph 98 (5AA) (a) of the Act provides that an instrument issued under paragraph 98 (5A) (a) is a legislative instrument if the instrument is expressed to apply in relation to a class of persons.

The instrument applies to a class of persons, being the pilots in command of the aircraft participating in the aerobatic activities organised by the Club. The instrument is, therefore, a legislative instrument, and is subject to tabling and disallowance in the Parliament under sections 38 and 42 of the LA.

Consultation

The exemption allows aerobatic activities to be conducted subject to conditions and directions that safeguard the interests of other users of the airspace. In essence, this instrument renews CASA EX60/16 which expired at the end of March 2019.

The Club has applied for renewal of the exemption in CASA EX60/16 and has requested that the exemption be extended to practice flights for competitions. CASA has provided a draft of the instrument to the Club, which advised that it is satisfied with the instrument.

CASA considers that events organised by the Club have been satisfactorily administered under the previous exemption and there is no reason why it should not be renewed and extended to practice flights for competitions. CASA has not received any adverse comments about the operation of the previous exemption. Therefore, it is expected that the instrument will not have a negative impact on aviation safety.

In these circumstances, it is CASA's view that it is not necessary or appropriate to undertake any further consultation under section 17 of the LA.

Office of Best Practice Regulation (OBPR)

A Regulation Impact Statement (*RIS*) is not required because the instrument is covered by a standing agreement between CASA and OBPR under which a RIS is not required for subordinate instruments of this kind (OBPR id: 14507).

Statement of Compatibility with Human Rights

A Statement of Compatibility with Human Rights is at Attachment 1.

Making and commencement

The instrument has been made by a delegate of CASA relying on the power of delegation under subregulation 11.260 (1) of CASR.

The instrument commences on the day after it is registered and is repealed at the end of 30 April 2022.

Attachment 1

Statement of Compatibility with Human Rights

*Prepared in accordance with Part 3 of the
Human Rights (Parliamentary Scrutiny) Act 2011*

**CASA EX39/19 — Broadcast and Listening Watch (Australian Aerobatic Club Ltd)
Instrument 2019**

This legislative instrument is compatible with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the
Human Rights (Parliamentary Scrutiny) Act 2011.

Overview of the legislative instrument

Australian Aerobatic Club Ltd, and its specified affiliated chapters (the **Club**), have been organising aerobatic championships for many years. Regulations 166C and 243 of the *Civil Aviation Regulations 1988* require the pilot in command of an aircraft to maintain a listening watch and broadcast on the common traffic advisory frequency when operating in the vicinity of a non-controlled aerodrome. These requirements have affected the Club's ability to conduct various activities during competitions.

This legislative instrument exempts pilots from these requirements (and corresponding requirements in regulations that commence on 25 March 2021) while undertaking aerobatic training or participating in, or practicing for, an aerobatic competition. The exemption is subject to conditions imposed in the interests of the safety of air navigation. It also issues directions to the Club relating to the establishment and operation of a ground communications station and briefing of participants in aerobatic activities.

Human rights implications

This legislative instrument engages with the right to protection against arbitrary and unlawful interferences with privacy in Article 17 of the International Covenant on Civil and Political Rights, which provides that no one shall be subjected to arbitrary or unlawful interference with their privacy.

The right to privacy is engaged by paragraph 11 (a) of Schedule 2, which requires the Club to provide CASA with the name and mobile telephone number of the Competition Coordinator appointed by the Club for an aerobatic activity for the purpose of publishing this information.

The requirement of the legislative instrument is necessary in order to ensure proper administration and enforcement of Australia's aviation safety system as it allows CASA and other airspace users to communicate at short notice with the appropriate representative of the Club in relation to the aerobatic activities. Any potential limitation on the right to privacy is necessary, reasonable and proportionate in promoting the objective of improving aviation safety.

The protections provided by the *Privacy Act 1988* continue to apply to personal information collected.

Apart from the impact on the right to privacy, the exemption in the legislative instrument is beneficial in purpose and content and does not adversely affect the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*.

Conclusion

The legislative instrument is compatible with human rights. To the extent that it may also limit human rights, those limitations are reasonable, necessary and proportionate in order to ensure the safety of aviation operations and to promote the integrity of the aviation safety system.

Civil Aviation Safety Authority



Australian Government
Civil Aviation Safety Authority

Instrument Number: CASA.LOFLY.0670

File No: EF11/2825-14

I, KAREN PATRICIA BLAIR, a delegate of CASA, make this instrument under the following provisions of the Civil Aviation Regulations 1988 (**CAR 1988**):

- (a) paragraph 157 (4)(b) (*low flying*); and
- (b) regulation 165 (*temporary suspension of rules*)

Karen Blair
Certificate Team Manager
Regulatory Services & Surveillance
Sydney Region

19 July 2019

Permission to fly lower than the prescribed height and temporary suspension of rules in the vicinity of a non-controlled aerodrome

1. Application

This instrument applies to:

- (a) the Australian Aerobatic Club Ltd, ARN 802745 in relation to an aerobatic activity organised by the Club, and conducted at a non-controlled aerodrome; and
- (b) the pilot in command of an aircraft participating in an aerobatic activity mentioned in paragraph (a).

2. Expiry

This instrument remains in effect until 25 March 2021 and expires on that date as though it had been revoked by another instrument.

3. Definitions

In this instrument, certain terms and expressions have the same meaning as they have in the Act and the Regulations. These include **in the vicinity of, aerobatic manoeuvres, ARN, non-controlled aerodrome**, and **NOTAM**.

Club, in relation to an aerobatic activity, means the Australian Aerobatic Club Ltd, ARN 802745, and each of the following chapters and associations of the Club:

- (a) Australian Aerobatic Club (Queensland Chapter) Limited, ACN 010 322 353;
- (b) Australian Aerobatic Club Adelaide Chapter Incorporated, registration number SA A5798;
- (c) Australian Aerobatic Club – Victorian Chapter (INC)., registration number VIC A0042562P;
- (d) Australian Aerobatic Club (New South Wales Chapter) Incorporated, registration number NSW INC9889911;
- (e) Aerobatic Association of WA Incorporated, registration number A1011312P.

authorised pilot in relation to an aerobatic activity means a pilot-in-command authorised by the Competition Coordinator in accordance with Condition 3 of Schedule 1.

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Instrument Number: CASA.LOFLY.0670

aerobatic activity means:

- (f) participation in a competition involving the conduct of aerobatic manoeuvres; or
- (g) practice for a competition involving the conduct of aerobatic manoeuvres; or
- (h) training or coaching in aerobatic manoeuvres.

aerobatic box means a volume of airspace to be used by the pilot-in-command of an aircraft while conducting an aerobatic activity.

Competition Coordinator means the person appointed by the Club to oversee the conduct of aerobatic activities at a nominated non-controlled aerodrome.

Nominated non-controlled aerodrome means an aerodrome nominated by the Club for the purposes of conducting an aerobatic activity.

4. Permission

I permit aerobatic activities under this instrument to be conducted at heights not lower than 150 feet above ground level [**AGL**] within an aerobatic box located within 3 nautical miles of a nominated non-controlled aerodrome by pilots-in-command specifically authorised by the Club.

5. Temporary suspension of rules in the vicinity of a non-controlled aerodrome

Provided all conditions of this instrument are complied with, a temporary suspension of the requirements of paragraphs 166A (2)(c) of CAR 1988 relating to operations at a nominated non-controlled aerodrome applies for the duration of an aerobatic activity.

6. Conditions

This permission is subject to the conditions mentioned in the Schedule.

Note 1: This instrument relates only to activities under Australian civil aviation legislation. It does not give the Club or authorised pilots any rights over the land or water over which the aerobatic activities are conducted, or affect any rights that any person may have in relation to injury to persons or damage to property caused directly or indirectly by the aerobatic activities.

Note 2: This instrument does not constitute an approval under section 29.4 of the Civil Aviation Orders [**CAO**] to conduct an air display, or permission under CAR 156 of CAR 1988 to conduct flight over a public gathering.

Initials of delegate: 

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Instrument Number: CASA.LOFLY.0670

Schedule 1 – Conditions**1. General conditions**

- (a) The Club and authorised pilots must ensure that aerobatic activities under this instrument are conducted in a manner that does not endanger persons or property on the ground or in the air.
- (b) Aerobatic activities must be conducted only during daylight hours and in visual meteorological conditions.
- (c) Passengers must not be carried in an aircraft conducting an aerobatic activity.
- (d) The Club must include details of this instrument in any internal documentation published by the Club and must provide CASA with a copy of this documentation when amendments are made.

2. Briefing of participants

- (a) A pre-flight briefing must be conducted by the Competition Coordinator or a person nominated by the Competition Coordinator for all participants in an aerobatic activity.
- (b) This briefing must include:
 - (i) the location and dimensions of the aerobatic 'box';
 - (ii) the procedures for entering and operating in the aerobatic 'box';
 - (iii) the procedures for re-joining the circuit of the aerodrome when leaving the aerobatic 'box';
 - (iv) any other procedures required to comply with this instrument.

3. Pilot in command

- (a) The pilot-in-command of an aircraft conducting an aerobatic activity must be specifically authorised by the Competition Coordinator and must not conduct an aerobatic activity without this specific authority.
- (b) The Competition Coordinator must not authorise a pilot to conduct an aerobatic activity unless he or she is satisfied that the pilot meets the relevant requirements of Part 61 of the Civil Aviation Safety Regulations 1998 [**CASR 1998**]. See Note 3.
- (c) The pilot in command must comply with any internal documentation or operating procedures published by the Club from time to time.

Note 3: a pilot authorised to conduct an aerobatic activity under this instrument must hold:

- (i) an Australian flight crew licence with a single-engine aeroplane class rating, a Class 1 or class 2 medical certificate, appropriate flight activity endorsements, and design feature endorsements applicable to the aircraft being flown; or
- (ii) a Certificate of Validation based on an overseas qualification that is equivalent to an Australian flight crew licence with the appropriate flight activity and design feature endorsements.

4. Nominated non-controlled aerodrome

- (a) Operations under this instrument are permitted only while the Club holds a current letter of authorisation or agreement from the operator of the nominated non-controlled aerodrome that authorises the Club to conduct aerobatic activities at that aerodrome.
- (b) Provided all conditions of the instrument are complied with, the authorised pilot is not required to comply with the paragraph 166A (2)(c) of CAR 1988 in relation to avoiding the circuit pattern when operating in the vicinity of the nominated non-controlled aerodrome.

Initials of delegate: 

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Instrument Number: CASA.LOFLY.0670

5. Notification to CASA for NOTAM issue

- (a) The Competition Coordinator must ensure that CASA is notified, by e-mail to the local regional office, of the following information:
 - (i) the nominated non-controlled aerodrome to be used for the aerobatic activity, including any operating procedures and radio frequencies to be used;
 - (ii) the date, times and planned duration of the aerobatic activity;
 - (iii) the location, dimensions and boundaries of the aerobatic 'box';
 - (iv) the name, ARN and mobile telephone number of the person appointed by the Club as the Competition coordinator for the aerobatic activity;
 - (v) any special circumstances associated with the aerobatic activity.
- (b) The information mentioned in paragraph (a) must be provided to CASA not less than 5 working days before the planned activity so that a NOTAM can be issued.
- (c) The Competition Coordinator must ensure that an aerobatic activity does not take place at the nominated non-controlled aerodrome unless an appropriate NOTAM, valid for the duration of the aerobatic activity, has been published.

6. Radio communications

- (a) An aircraft used for an aerobatic activity must be fitted with a serviceable VHF transceiver, the serviceability of which must be verified by the pilot before conducting activities under this instrument.
- (b) Unless the provisions of CASA EX39/19 (broadcast and listening watch exemption) apply, the pilot must:
 - (i) broadcast position and intentions on the aerodrome CTAF and must monitor that frequency during all operations under this instrument;
 - (ii) suspend or cancel aerobatic activities until the airspace is clear of any conflicting traffic;
 - (iii) broadcast on the CTAF on completion of the aerobatic activity.

7. Aeroplane airworthiness considerations

- (a) This instrument applies only to operations in single-engine aeroplanes that are contained in the single-engine aeroplane class.
- (b) An aircraft used for an aerobatic activity must be operated in accordance with any conditions or limitations imposed by its Certificate of Airworthiness.
- (c) All operations shall be conducted in an appropriate aircraft configuration to provide a safe flight regime that will not endanger persons or property on the ground.
- (d) This instrument does not override any directions, conditions or limitations contained in any Permit to Fly or other certificate or permit issued in respect of any aircraft used for an aerobatic activity under this instrument.

Initials of delegate: *KA*

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