



503.1 General

IAC, through its Letter of Agreement with the National Aeronautic Association, is responsible for the U.S. National Aerobatic Championships.

503.2. Policy

503.2.1. Supplemental Policies

503.2.1.1. As stated in IAC Policy and Procedures Manual Section 501, the IAC Board of Directors has the authority to approve the Contest Director, contest juries, and the budget for the U.S. National Aerobatic Championships.

503.2.1.2. The IAC Board of Directors also has the authority to establish supplemental rules **and regulations** to the *IAC Official Contest Rules* for all IAC Championship events including the U.S. National Aerobatic Championships.

503.2.2. Participation

503.2.2.1. Entry is open to all IAC members or members of other **national airsports controls (NAC's)**. The Primary category, although not a “National Championship” category, may be flown if there are at least two entrants.

503.2.2.2. Only those pilots who pre-register three months in advance of the Championship will receive advance publicity on their participation in the event. Pilots choosing not to pre-register will not participate in the promotional and media visibility. Pilots must pre-register before being assigned a practice slot. Refunds will be given if competitor is unable to attend.

503.2.3. National Titles and Awards

503.2.3.1. U.S. National titles, trophies, and special awards will only be awarded to pilots of U.S. citizenship. Individual Flight Medals are not restricted. This does not preclude the creation and awarding of special trophies specifically for non-U.S. citizen competitors at the U.S. Nationals.

503.2.3.2. Scores of non-U.S. citizens will not count toward the Chapter team trophy.



503.2.3.3. The following non-gender specific championship titles will be awarded:

- (a) U.S. Sportsman Aerobatic Champion
- (b) U.S. Intermediate Aerobatic Champion
- (c) U.S. Advanced Aerobatic Champion
- (d) U.S. National Aerobatic Champion (Unlimited category)
- (e) U.S. Sportsman Glider Aerobatic Champion
- (f) U.S. Intermediate Glider Aerobatic Champion
- (g) U.S. Advanced Glider Aerobatic Champion
- (h) U.S. National Glider Aerobatic Champion (Unlimited category)

503.2.3.4. In the event the U. S. National Glider Aerobatic Championships is flown at a location other than the U.S. National Aerobatic Championships, as determined by the IAC Board of Directors, the "U.S. National Glider Aerobatic Champion" title will be awarded at that competition.

503.2.3.5. The scores for a competitor at the U.S. Nationals who is participating in the Regional Championship series may be used as a "wildcard" in the Regional Championship Series. If the competitor is competing in more than one Region, the scores may be used in all of the regions in which a competitor is participating.

503.2.4. General Briefing, Flight Programs, and Order of Flight

503.2.4.1. The Contest Director will schedule a general briefing for all pilots and judges at the beginning of the Championship. This briefing will include:

- (a) General contest information and schedule
- (b) All information required in Chapter 4 of the *IAC Official Contest Rules* except for 'Flight Program specific' information which will be briefed at the individual Program briefings conducted by the Chief Judge of the category or their designee.
- (c) Drawing for order of flight for the Known or Free Known program for each category in accordance with subparagraph 503.2.4.4. The order of flight for all scheduled flight programs may also be drawn at this time.

503.2.4.2. All flight programs as defined in the *IAC Official Contest Rules* will be scheduled to be flown. If flight programs ~~are scheduled~~ in addition to those called for in the *IAC*



Official Contest Rules are **scheduled**, then these extra flight programs will be sacrificed first in the event of weather delays and cancellations. Generally, no category will be given preference. In the event of weather problems, the contest officials will make every effort to see that all categories are treated equally. However, the overall first priority of the U.S. Nationals is to select the U.S. National Champion (Unlimited category); second, the U.S. National Champion in all other categories; and third, to select the U. S. Aerobatic Team(s). The Contest Director, with input **out-of from** the Contest Jury, may change the order of contest categories, if required to meet these contest goals. Regardless, the first program scheduled will be the **Free Known** for the Team selection category. The order of flight programs for each category will be scheduled in the following order:

- (a) Known (**Free Known for team selection categories**)
- (b) Free (**deleted for team selection categories**)
- (c) Unknown (**Free Unknown I for Advanced and Unlimited categories**)
- (d) **Free Unknown II (team selection categories only)**
- (e) The Unlimited 4-Minute Freestyle Program will be the last program scheduled to fly at the Championship (i.e., only after all other category flight programs have been flown).

503.2.4.3. ~~As stated in the IAC Official Contest Rules~~, Warm-up flights may be scheduled for all programs in each category, if circumstances allow.

503.2.4.4. A random order of flight will be generated by computer or by competitor-drawn lottery for each flight program, except if otherwise provided herein.

503.2.4.5. For the Advanced and Unlimited (Power and Glider) categories, a “Free Unknown I Program Figure Submission” meeting will be scheduled to occur after the conclusion of all contest flying on the day the Known (**or Free Known as applicable**) Program for that category has been completed. Additionally, a “Free Unknown II Program Figure Submission” meeting for U.S. Team selection categories will be scheduled to occur after the conclusion of all contest flying on the day the **Free Unknown I** program in that category has been completed. **Free Unknown Programs** for the Advanced and Unlimited (Power and Glider) categories will be drawn using the procedures defined in ~~subparagraph 2-e~~ 503.2.5. Unknown Programs for all other categories will be supplied to the Contest Director by IAC Headquarters. Each figure submission meeting will be attended by a quorum of the Contest Jury.



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- 503.2.4.6. In order to be named the “U.S. National Aerobatic Champion” (Unlimited category), Unlimited competitors will be required to fly all compulsory flights flown at the Championship, except the 4-Minute Freestyle Program.
- 503.2.4.7. The 4-Minute Freestyle Program:
- (a) The 4-Minute Freestyle Program will be conducted as a separate trophy event, as outlined in the *IAC Official Contest Rules*.
 - (b) Competitors eligible to participate in the 4-Minute Freestyle Program are, in order of preference:
 - (1) Unlimited Power and Glider Category competitors, in rank percentile order of standing after all compulsory competition flights; then
 - (2) Advanced Power and Glider Category competitors who meet the requirements of IAC rule 5.6.1, in rank percentile order of standing after all compulsory competition flights
 - (c) The top 10 eligible competitors will be invited to participate in the 4-Minute Freestyle flight. Should any of those competitors decline to participate, the next highest ranked eligible pilots will be invited, until there are 10 competitors or all eligible pilots have been invited.
 - (d) If sufficient time allows, and with the concurrence of the Contest Director, the Contest Jury may allow up to five additional competitors to fly the 4-Minute Freestyle Program.
 - (e) The order of flight for the 4-Minute Freestyle Program will be a random order generated by computer or, with the agreement of the competitors, the order of flight will be the same as that for the previously completed program.
 - (f) The IAC Board of Directors has the authority to require competitors participating in the 4-Minute Freestyle flight to:
 - (1) Be accessible for media interviews, public introductions and public autographs.



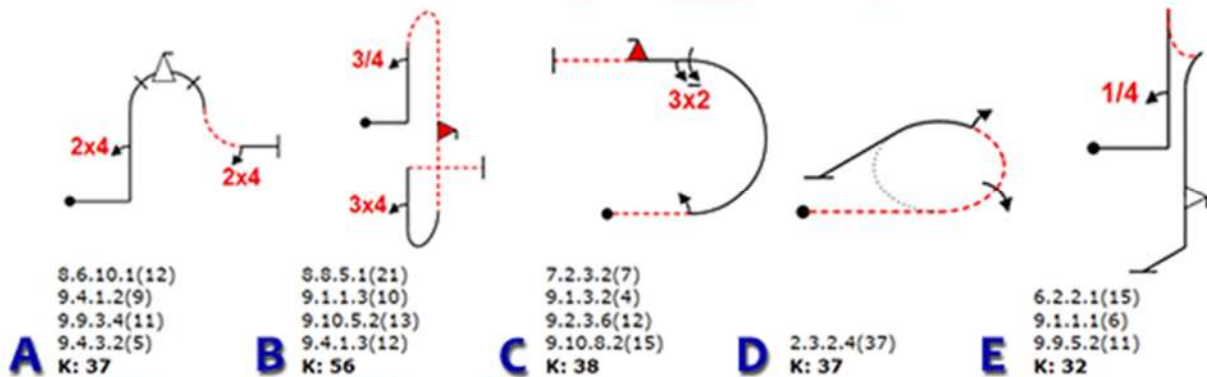
- (2) Allow the installation of cameras inside and outside the competitor’s aircraft.
- (3) Wear flight suits at all times when in front of a public audience.

503.2.5 Free Known Program Sequences for Team Selection Categories

Team Selection categories (Advanced or Unlimited – Power and Glider) will fly a Free Known in lieu of both the Known and Free Programs.

503.2.5.1 For each power and glider team selection category, five 'Known' figures are selected by CIVA each year. Each pilot must add five figures of their choice to design their personal ten-figure Free Known sequence. Excluding the figure and K-factor limits, the Free Known must conform to IAC Free Program rules found in Chapter 6 of the *IAC Official Contest Rules*.

For 2016, the five Known figures for the Unlimited Power Team Selection are:

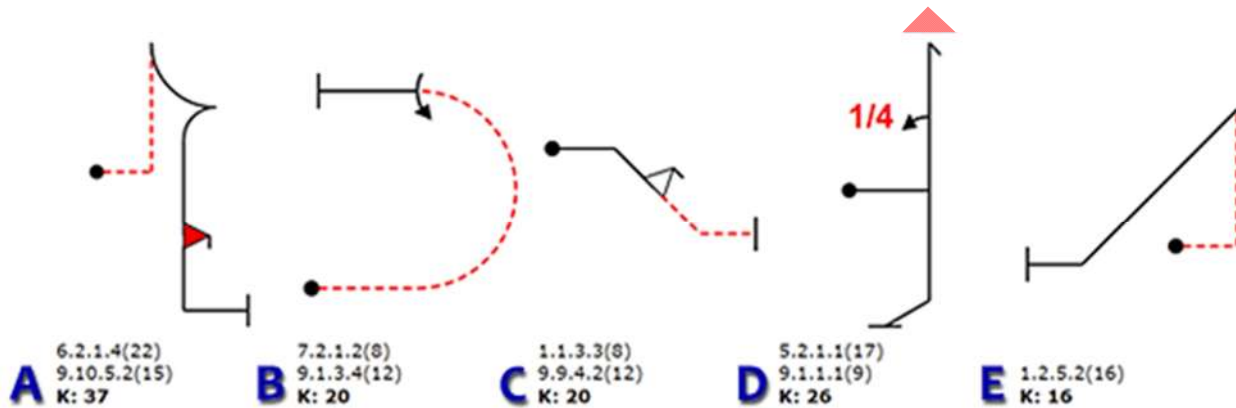




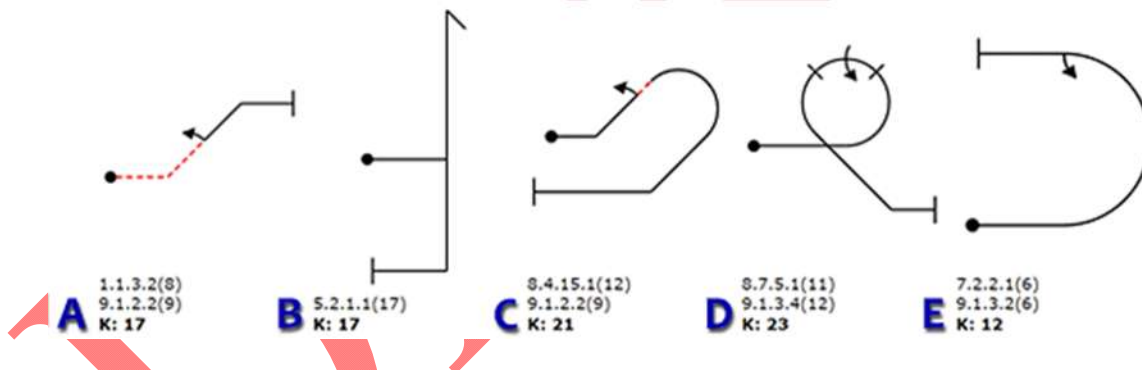
Policy and Procedures
Number: 503
Subject: U. S. National Aerobatic Championships

Date: 20 March 2016
Revision: 30

For 2016, the five Known figures for the Unlimited Glider Team Selection are:



For 2016, the five Known figures for the Advanced Glider Team Selection are:



503.2.5.2. The Unlimited Power Category shall design the Free Known to have a total of 10 figures with a maximum K of 450. The Advanced Power Category shall design the Free Known to have a total of 10 figures and a maximum K of 320.

The Free Known for the Unlimited Glider Category shall not exceed a maximum sequence K of 230 and the Advanced Glider Category shall not exceed 175K. Up to three (3) figures in these glider sequences may be reduced by 1K each in order to meet



the max sequence K allowances. If this “floating point” is used, the original figure coefficient will be shown on the Form A as well as the reduced value.

- 503.2.5.3. Both the Visio Aresti and OpenAero sequence design software have built-in routines to assist with designing the Free Known. The Free Known must be submitted to the U.S. Nationals Registrar as either an OpenAero or Visio Aresti file. Pilots should ensure that the five Known figures, A-E, are clearly identified to facilitate direct entry into the scoring system. The Free Known must be submitted to the Registrar not later than at registration. Practice slots will not be allocated until the Free Known has been received.

Contest officials will be responsible for certifying the Free Known to be in compliance with current rules. Should a problem be found, the pilot will be contacted and allowed to fix the problem prior to the Free Known flight.

503.2.6. Free Unknown Program Sequences for Advanced and Unlimited Categories

- 503.2.6.1. Each competitor flying in the program in rank order of the provisional accumulated results, will be invited to submit one Unknown Program figure, ~~in rank order of the provisional accumulated overall results,~~ until 10 figures are submitted. Only competitors attending the program’s figure submission meeting are eligible to submit a figure.

- 503.2.6.2. If fewer than 10 figures have been submitted after each eligible competitor has been invited to submit one, additional figures will be selected by the Jury until a total of 10 figures have been submitted or selected.

- 503.2.6.3. Unknown Program figures must be chosen from the *IAC Official Contest Rules*, Appendix 3 (Power) or Appendix 4 (Glider), with the intent of composing Power Unknown Programs in identical fashion as in CIVA regulations (Note: The *IAC Official Contest Rules* Appendices 3 and 4 figures are identical to those for Unknown programs for CIVA regulations.) ~~Therefore,~~ there is no maximum total program K-factor limit for Power Free Unknown programs. Unlimited Glider Free Unknown programs will have a minimum total of 175K and a maximum total of 190K, except this limit may be exceeded by 3K as needed to compose a suitable program. Submitted figures for both Power and Glider will be subject to the figure K-factor limits listed in Table 1 below. Additionally, Power Free Unknown programs will be subject to the family limitations listed in Table 2 below. Repetition of any catalog number, except rolls in Glider Free Unknowns, is not allowed within a flight program. A catalog



number used in **Free** Unknown I may be used in **Free** Unknown II, but repetition of a complete figure from **Free** Unknown I is not allowed in **Free** Unknown II. A submitted figure will only be accepted after the Contest Jury has determined that the figure is legal for Unknowns in the category.

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Table 1: Unknown Figure K-factor Limits

Category	Program	Minimum K	Maximum K
Advanced	Free Unknown I	15	35
	Free Unknown II (1)	15	40
Unlimited Power	Free Unknown I & II (1)	22	No limit
Unlimited Glider	Free Unknown I & II (1)	No Limit	35

Notes: (1) Free Unknown II is only flown by Team Selection Categories

Table 2: Power Unknown Figure Family Limitations (1)

Family	Advanced	Unlimited
1.1.6 to 1.1.11		Maximum of two from columns 3 and 4
1.2.3, 1.2.4	Maximum of one only from columns 3 and 4	
7.8.1 to 7.8.8	Maximum of one figure only	
8.4.1 to 8.4.4 8.4.15 to 8.4.18 8.5.1, 8.5.2, 8.6.1, 8.6.2		Maximum of two from columns 3 and 4
9.9	Minimum of two and maximum of four (2)	Maximum of four (2), (3)
9.10	None allowed	Maximum of four (2), (3)
9.11 to 9.12	Maximum of one figure	

Notes: (1) There are no Unlimited Glider family limitations
 (2) No more than one snap roll (Family 9.9 or 9.10) per figure
 (3) Total number of figures from 9.9 to 9.10 not to exceed six, at least one of which must be vertically climbing.



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- 503.2.6.4. The Contest Director shall provide copies of the list of 10 figures to all competitors in the category as soon as possible after the close of the Unknown figure selection meeting.
- 503.2.6.5. Any pilot or group of pilots flying this Flight Program may submit to the Contest Jury not more than one **Free** Unknown Program composed of those 10 figures. Each figure may begin on either axis, regardless of how it was drawn by the submitter.
- 503.2.6.6. At least one linking figure, up to a maximum of four, must be included in each sequence. These linking figures may contain repetitions despite the provisions of section 503.2.5.3. The K factors of the linking figure(s) shall be modified so that they share equally an aggregate of 24K. Sequences will consist of no more than 14 figures.
- 503.2.6.7. Sequence proposals must be submitted ~~in writing or~~ via Visio or OpenAero computer file. At a minimum, a Form B or C must be submitted along with the catalog numbers and K-factors for each linking figure. The Contest Director shall determine the deadline for submitting proposed sequences.
- 503.2.6.8. All proposed sequences must be checked by the Contest Jury for legality only and, if necessary, corrected by the submitter and re-checked by the Jury at least 14 hours before the start of the Flight Program. Any proposed sequence that the Jury determines is illegal after the submitter has been afforded an opportunity to correct it shall not be flown.
- 503.2.6.9. The Contest Jury shall publish an official **list of figures selected by the pilots which will be definitive. After sequence submission, the Contest Jury shall identify each sequence with a unique letter (e.g., A, B, C, etc.) and publish the Form B with a list of figures.**
- 503.2.6.10. At least 12 hours before the start of the Flight Program, each competitor will notify the Contest Director of which of the proposed sequences he/she will fly.
- 503.2.6.11. At least one (1) hour before the start of the Flight Program, the Contest Director shall post a list of the Free Unknown Programs chosen by each competing pilot.
- 503.2.6.12. **The Chief Judge will verify by radio with the competitor the sequence to be flown. This should be part of the clearance into the box, e.g., from Chief Judge -- "Competitor 5 you are cleared into the box and confirm sequence B", Competitor -- "Chief Judge, cleared into the box and confirm sequence B."**

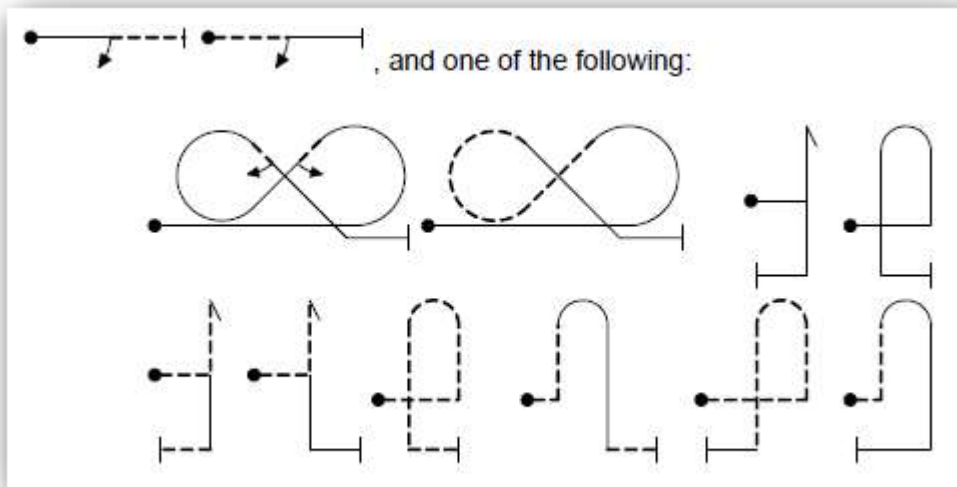


503.2.7. Optional Safety Maneuvers

At each flight program briefing, the Chief Judge of each team selection category shall inform competitors whether Optional Safety Maneuvers may be flown. Optional Safety Maneuvers shall be permitted except if the Contest Director elects otherwise because time is of the essence. The option to fly such maneuvers shall never be added or withdrawn once a flight program is underway.

If Optional Safety Maneuvers are permitted and a pilot chooses to fly them, he or she must do so before signaling (“wing-dipping”) at the start of the competition flight.

If flown, these figures may only be flown once, in any order unless a figure starting inverted is used (see below), and continuously on the same axis. They must be flown inside the aerobatic box. If these Optional Safety Maneuvers are flown but not in the prescribed manner, the competitor will receive a penalty of 30 points. **Should any of the safety maneuvers be flown below the minimum altitude for the category flying, as determined by a simple majority of the judges, the competitor will receive a LOW penalty in accordance with IAC rules.**



When flown, a figure from Family 5 or 8 that starts inverted shall be inserted after the first half roll. In that case, if the figure is one that finishes positive, the second half roll is not flown.

503.2.8. Selection of Judges

Judges will be selected using IAC P&P 501 ~~section 2.h~~.



503.2.9. U. S. Team Selection

IAC policy regarding the selection of pilot members of the U. S. Aerobatic Team can be found in IAC Policy and Procedures Manual 504, "Selection of U. S. Aerobatic Team". This policy should be studied by Contest Directors when setting up the competition schedule of events.

503.2.10. Contest Director's Handbook

The "Contest Director's Handbook" will be updated by the Contest Director every year. All Contest Directors are expected to keep this book, which includes extensive checklists, updated and to return it to IAC Headquarters.

503.2.11. Post-Contest Reports

The following officials are requested to submit reports covering their areas of responsibility to the IAC Board of Directors at the board meeting that immediately follows the conclusion of the U.S. National Aerobatic Championships:

- (a) Contest Director
- (b) Jury Chairman
- (c) Chief Judge of each Category