

IAC Rules Proposals for 2020

Compiled by Doug Sowder, IAC 14590 , Rules Chair

Sept. 10, 2019

We received 16 rules proposals for the 2020 IAC Rule Book. There were several commentaries that did not actually propose a rule change. Also, there is work being done to “re-factor” the rule book to make it more concise and easier to navigate. The Rules Proposals presented here apply to the Rule Book as it stands in 2019; rule and paragraph numbering may change.

In many cases, I have condensed the rules proposals to make them easily readable, but in all cases, the real “meat” of the proposal has been maintained. In my opinion, all of the proposals are well thought out and deserve our members’ consideration.

There are a few notes marked “RC Note:” RC stands for Rules Chair; I inserted these notes where I thought they might be helpful.

Please review these proposals and pass your thoughts on to the Rules Committee.

Thanks you,

Doug Sowder

Rules Proposal 2020-01

Subject: Repeal Y to Y axis entry/exit requirements
Proposer: Dave Watson

Rationale

The recently adopted rule (RC Note: instituted in 2013 Rules) that mandates that Y axis to Y axis figures be flown as shown (same or opposite), greatly compromises the pilots ability to wind correct in certain windy circumstances – as aptly demonstrated by the scoring and flying debacle at the 2018 US Nationals during Advanced Known flights.

Proposed Change:

Make the Y axis totally non-directional as it was pre-adoption of this CIVA rule.

RC Notes: If this change is approved, internal line segments drawn on the X axis must still be flown as drawn with respect to direction of official wind. Affected Rules are 4.1.1, 6.13.5, 7.1.6, Fig. 7.1.1, 7.3.1.

Rules Proposal 2020-02

Subject: 45 degree lines-added clarity

Proposer: Dave Watson

Rationale:

I find many judges are so influenced by flight path that they also deduct for changes in 45° attitude during rolls on 45° lines. Although I hate the idea of making the rule book longer, I do see a need to emphasize this. When I teach judges' school I emphasize it with the slide included as an example. Please at least add the inserted Red words to 8.1.3.

Current Rule:

8.1.3 The 45° Attitude

This is the vertical attitude plus or minus 45 degrees. In view of the difficulty in judging 45 degree lines accurately, scoring deductions must 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 (Fig 8.1.4). 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).

Proposed Rule:

8.1.3 The 45° Attitude

45 degree lines are judged similarly to the vertical lines (plus or minus 45 degrees). The prescribed deduction is one (1) point per five (5) degrees of deviation from the correct geometry (0.5 points per 2.5 degrees) before and after any rolls. In view of the difficulty in judging 45 degree lines accurately, scoring deductions must be applied with care. When flown into the wind, the flight path of a perfectly flown 45 degree line will appear to be steep while the opposite is true when flown downwind (Fig 8.1.4). As with the vertical attitude, this wind effect to the flight path must be completely ignored by the Judge who must only evaluate the accuracy of the 45 degree attitude of the zero lift axis of the wing. During any rolls on 45 lines, the ZLA of the wing is not observable as a means to evaluate the quality of the 45 line, therefore the perceived flight path (which is explicitly not grading criteria for 45 lines) of the plane (especially during Snap rolls) may change significantly without deduction.

Rules Proposal 2020-03

Subject: Eliminate most Snap Rolls from Intermediate Knowns and Unknowns

Proposer: Dave Watson

Rationale:

Many Pilots are 'Stuck' in Sportsman for life because they refuse to subject themselves or their airplanes to Snap rolls

Proposed Change:

Please consider allowing only Figure 9.9.3.4, an inside snap roll at the apex of a looping figure from Family 7 or Family 8, in intermediate Knowns and Unknowns. This can be done by removing Fig. 9.9.2.2 from the Allowable Figures For Power Unknowns (Intermediate) and adding the following:

"Note: 9.9.3.4 can only be used on designated family 7 and 8 figures at the apex of the loop."

Rules Proposal 2020-04

Subject: Hard Zeros Rule 7.3.1

Proposer: Dave Watson

The HZ score continues to give judge's difficulty as is apparent by the number of minority HZ's that are given when pilots clearly earned them, as evidenced by the work that Wes has done with his "did you see that series". I believe this can be corrected by simplifying the descriptions and eliminating the confusing criteria for HZ in favor of the 0.0 Score.

Rationale for the proposal.

1) The description for HZ criteria (7.3.1) is confusing as it is without structure. Re-writing it as proposed provides a common sense means to list, describe, and refer to the HZ criteria. 7.3.1.c is most confusing in that this single 'rule' includes two wholly different criteria for awarding HZ; A blatantly wrong FIGURE, and one that has some maneuver(s) within it that was very poorly flown. This needs to be simplified.

2) One of the HZ criteria is contrary to the definition of HZ as defined in the Glossary as: Zero, Hard: The mark used when a Judge perceives that the pilot has failed to meet a relevant criteria for a maneuver that is not simply a matter of point deductions due to poor execution (e.g., flying in the wrong direction on the X axis). Also used by the Chief Judge to indicate zero points as a result of failure to follow certain rules (e.g., starting a figure behind the judging line). When given by a grading judge, the Hard Zero is subject to the majority rule. The Hard Zero is indicated on the score sheet with the notation, HZ.

From this definition, it is clear that HZ is intended to cover 'matter of fact' circumstances and NOT "accumulations of points deductions". Therefore it follows, that the HZ criteria of '90 degrees or more of error' is TOTALLY CONTRARY TO THE DEFINITION and this criteria is the major contributor to confusion and lack of majority on the judge's line. An error of 50 degrees or more would have already qualified the judge to award a 0.0. Why then does the grading criteria change at 90 degrees to mandate a HZ? This is explicitly an example of a very poorly flown figure.

The following proposed changes eliminate these listed inconsistencies.

CURRENT RULE AS IS FOR COMPARISON (RC: See current 7.23.1)

AS PROPOSED

7.3.1 A Hard Zero (HZ) Will Be Given For:

(a) Omitted Figure. The Omitted figure in the program will be awarded HZ.

(b) Added Figure. Adding a figure to a program. In this case, a HZ will be given to the figure immediately following the added figure. See 4.16.3 for exceptions for implicit interruptions.

(c) Wrong Figure. Flying a figure which does not conform to the flimsie held by the judges for marking purposes (Form 'B' or 'C'). Example, flying a Pull-Pull-Pull Humpty instead of a Pull-Push-Pull Humpty.

(d) Wrong X Direction. Flying a figure drawn with an X axis entry, or exit, or both, in the wrong direction on the X axis. This rule also applies to any figure with internal line segments, either straight or looping, depicted on the X axis. Except for figures from Families 2, 5, and 6, any internal X axis line segments of a figure must be flown in the direction depicted on the Form B/C held by the judges. (See 4.11.2 and Fig 6.13.2).

(e) Wrong Y-Axis exit. Flying the exit line of a figure (which contains both a Y axis entry and Y axis exit) that was not in the proper direction (i.e. same or opposite to the entry line as depicted on the Form B/C held by the judges). See 4.11.2 and Fig 6.13.1 (RC Note: This paragraph would be eliminated if Proposal 2020-01 is accepted).

(f) Failed Criteria. If the Judge perceives that the pilot has failed to meet the relevant criteria for one of these specific maneuvers then a HZ will be given and the specific reason(s) must be stipulated. Note: these are the only five possibilities.

(f-1) Did not stall. The judge perceives that there was NO Stall prior to initiation of the Spin (see 8.5, family 9.11-12).

(f-2) Did not pitch for Snap. The judge perceives that there was NO initial Pitch prior to initiation of the Snap (see 8.5, family 9.9 or 9.10).

(f-3) No Auto Rotation in Snap. The judge perceives that there was NO auto rotation in the character of Snap for more than 50 degrees of rotation (see 8.5, family 9.9 or 9.10).

(f-4) Did not slide. The judge perceives that the plane did not slide 1/2 fuselage length in power categories or any perceivable amount in gliders (8.5, family 6).

(f-5) Snap during rolling turn. The judge perceived that a Snap roll occurred for more than 50 degrees of rotation during a Rolling Turn (see 8.5, family 2).

(g) Behind Judge's Line. Any figure started behind the Judges' line as determined by the Chief Judge.

(h) Behind Deadline. Any figure that is entirely or partially flown behind the deadline as determined by the Deadline Judge.

(i) Invalid Break. Any figure interrupted for a technical fault ruled to be invalid by the Contest Jury. (See 4.18.3)

(j) Illegal Figure. Any figure flown as part of a Free Program which is found by the Contest Jury to be illegal. (See 6.15)

* NOTE TO RULES COMMITTEE – please note that in several places in the current rule book, it refers to Hard Zeroing a Snap simply by the notation “Did not Snap”. This is confusing and improper in that section 8.5 clearly indicates that two things must happen in a snap, and omitting either is a reason to award HZ. I think for reasons of clarity and

to be concise, these sections need to be amended to specify precisely why the Snap was HZ'ed, was it lack of pitch or was there no autorotation. Furthermore, numerous changes throughout the Rule book will need to be made to eliminate inconsistencies. Thank you for your consideration.

Rule Proposal 2020-05

Subject: Achievement Awards at Contests.

Proposer: Dave Watson

Reference Appendix 5-Achievement Awards Program

Rule Change Proposal: Allow qualifying Smooth figures flown in a contest environment to be considered for Smooth Awards.

Rationale:

Current Rules for obtaining a Smooth award allow for a candidate pilot to fly the designated figures with a single judge at a 'critique day' where no control over observation issues like proximity or angle of view of the figure are specified. Also, for Primary through Intermediate, the Smooth figures can be graded from the plane by a Safety Pilot/CFI. Meanwhile, the Award Rules also mandate that the requisite Smooth figures CANNOT be flown at a contest. Considering the issues that many chapters have in organizing critique days, it seems warranted that if a candidate pilot was to have flown any or all the required Smooth figures in a contest environment (with controlled judge location etc) and received a 5.0 (or better) from all the Judges on those figures, those figure(s) should be considered 'flown to standards' as much or more than a figure flown on a critique day or as judged from the second seat of an aircraft.

Rule Change Proposal: Allow qualifying Smooth figures flown in a contest environment to be considered for Smooth Awards.

Specific Changes:

1. PURPOSE, GENERAL RULES, CATEGORY CLASSIFICATIONS, SMOOTH AWARDS, METHOD A (a thru (f): (no changes)

Add:

(g) Any individual specified figure(s) flown in a contest that received a 5.0 (or better) from all judges (i.e. according to Stars Rules below), may be considered for the Smooth Award. Applicants must specify during which flight and contest the figure was flown on the application

METHOD B & 5. STARS AWARDS(a) & (b): (no changes)

Make this change:

(c) Contest flights may not be used to qualify for the SMOOTH award.

(d) (no change)

6. CERTIFICATES AND PATCHES

(no changes)

7. CATEGORY AND FIGURE LISTS

(no changes, but obviously credit for only listed figures which occur in one of the contest flights flown by the pilot in the contest can be earned)

RC Note: The Achievement Awards appendix is complex and verbose. I did paraphrase the proposal and temporarily omit a significant amount of the verbiage in the original, just for clarity. The real meat of the proposal is in the change to 5. (c), which to paraphrase even further will allow the pilot to use figures flown during contest flights for credit toward a SMOOTH AWARD.

Rules Proposal 2020-06

Subject: Achievement Awards-Safety Pilots to Intermediate

Proposer: Dave Watson

Rationale:

Current Rules for obtaining a Smooth award allow for a candidate pilot to fly the designated figures with a safety pilot only to Sportsman, while contest rules allow for a Safety pilot through Intermediate. Meanwhile, the Rules for Smooth awards allow for the use of a Safety Pilot (i.e. MCFI-A) to be on board and judging up to Intermediate. This seems contradictory.

Rule Change Proposal: Allow Safety pilots according to Contest rules for Smooth figures.

Specific Changes:

Method A - FLYING THE DESIGNATED FIGURES IN FRONT OF A CURRENT IAC JUDGE In addition to items (a) through (e) immediately above, a SMOOTH award being sought under Method A shall adhere to these additional requirements:

(a), (b), & (c): (no changes)

Make these changes:

(d) Safety Pilots may be used according to Rule 2.2. The award applicant must be the sole occupant of the aircraft during SMOOTH award flights, except that a "safety pilot" for insurance purposes may be carried during Power Primary, Sportsman, and Intermediate flights. Gliders may carry a 'safety pilot" in all categories. The applicant must be the sole operator of the controls when performing the aerobatic figures and the safety pilot must not be providing any comment(s) during the figure flown.

(e) & (f): (no changes).

RC Note: The net result of this is that a safety pilot qualified in accordance with Rule 2.2 may be on board for Intermediate, in addition to Power Primary and Sportsman flights.

Rules Proposal 2020-07

Subject: Achievement Awards Method B Grading Pilots need not be CFI.

Proposer: Dave Watson

Rule Change Proposal Achievement Awards

Rationale:

1. Current Rules for obtaining a Smooth award allow for a candidate pilot to fly with a CFI (as Grading and/or Safety pilot) who can assess if the figures flown would have passed the 5.0 or better standard if they had been viewed from the ground.
2. FAA standards to achieve a CFI provide no training to score aerobatic figures in flight.
3. Current Rules pertaining to flying with a Safety Pilot during contests do not require the Safety to hold CFI credentials. From item 2, it can be assumed that the holder of a CFI is no better qualified to score IAC figures than a non-CFI counterpart. In fact, there are many pilots acting as safety pilots/coaches that do not have CFI credentials. By Allowing ANY pilot (who possesses the suitable IAC Achievement Awards) to Score for Primary to INT Smooth Awards, would in my opinion greatly open up the ability for many pilots to fly for and achieve these awards.

Rule Change Proposal:

(RC: Substitute "Grading Pilot" for CFI and amend accordingly:)

Method B - FLYING THE DESIGNATED FIGURES WITH A GRADING CFI PILOT IN THE AIRCRAFT

Method B allows for an applicant to fly with a Grading Pilot (who is a current IAC member and who has also earned an Achievement Award (SMOOTH or STARS) that is at least one category higher than the SMOOTH award being sought). This Grading Pilot could also be performing the duties of a Safety Pilot and qualified per Rule 2.2.

SMOOTH awards being sought under Method B shall adhere to these additional requirements:

(a). The Grading Pilot must:

(1) Be a current IAC Judge.

(2) Possess an IAC Achievement Award (SMOOTH or STARS) that is at least one category higher than the SMOOTH award being sought.

(b). The Grading Pilot shall not assign a numeric grade to each figure flown, but rather note a grade of "Q" (Qualifying) on the award application for each figure which the Grading Pilot believes would have received a grade of 5.0 or better from a ground-based judge observing the figure.

(c). Each figure in the appropriate Category Figure List must receive a grade of "Q" to earn the Achievement Award.

RC Notes: The net result of this proposed change is that the Grading Safety Pilot need not be a CFI.

Rules Proposal 2020-8

Proposer: Wes Liu

Subject: Revise text and figure for Judges Currency Requirements to improve readability.

Rationale:

The more I look at the current text, the more I am convinced that it needs to be re-organized to make it logical and understandable. It's a mess.

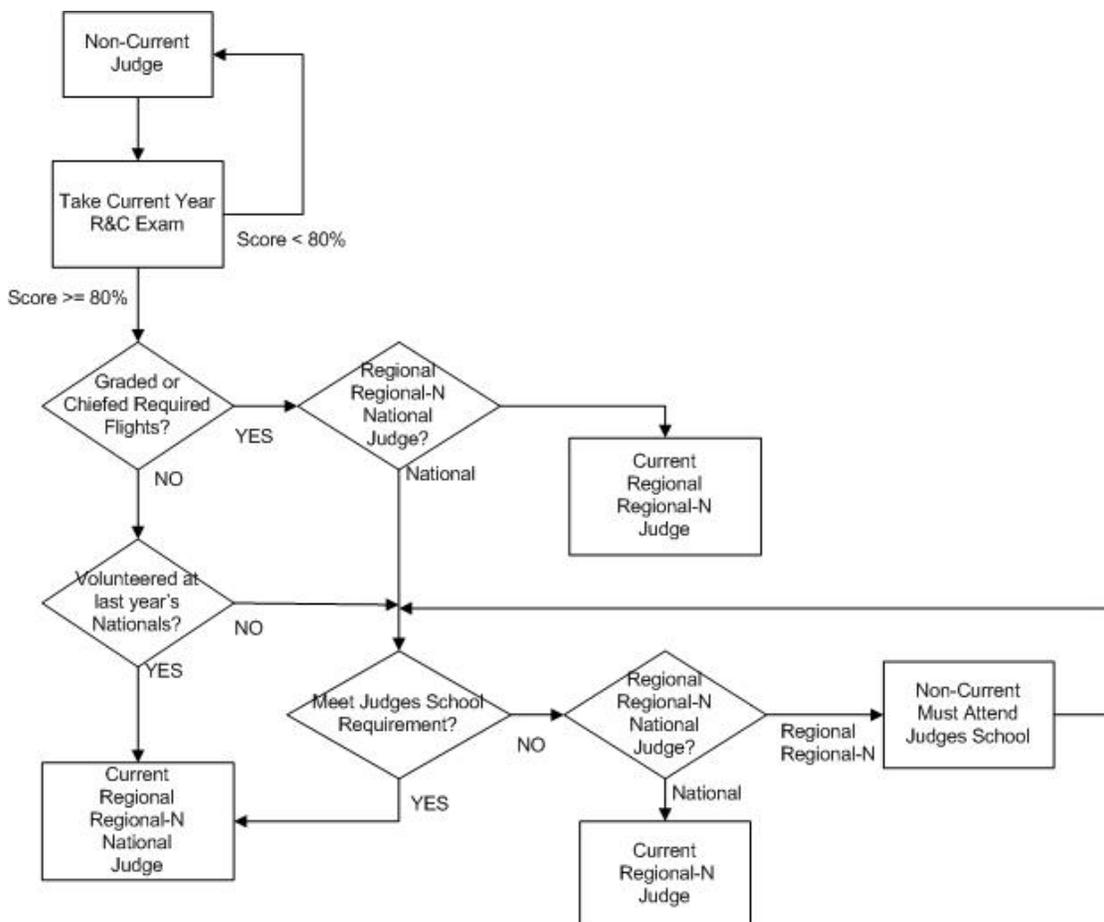
In place of proposals that I submitted to clarify some of the text, I offer the new text below. I will note that I still desire to have the "at a chapter practice day" method of obtaining currency deleted.

Change: Replace Rule 2.6.3 and Fig. 2.6.1 with the following:

2.6.3 CURRENCY REQUIREMENTS FOR IAC JUDGES

The IAC website's *Current Judges List* identifies all IAC Judges who the IAC Judges Program Chair has verified meet the currency requirements detailed in the paragraphs below. The methods for retaining or obtaining currency are illustrated in the following figure 2.6.1.

Figure 2.6.1



To retain currency each IAC Judge must:

- (a) Pass the current year IAC Judge Revalidation & Currency Exam with a score of 80% or higher.
- (b) Have either
 - (1) served as a Grading or Chief Judge for either
 - i) twenty-five (25) total flights within the previous calendar year in IAC sanctioned contests.
 - ii) Twenty (20) total flights of which five (5) or more flights were Advanced or Unlimited Free Programs.
 - (2) Has attended a sanctioned Practical Aerobatic Judging seminar within the previous 2 calendar years for Regional Judges or previous 3 calendar years for National Judges. Note: The Practical Aerobatic Judging seminar is presented as day two (2) of the traditional 2-day Introduction To Aerobatic Judging school in addition to being presented as a stand-alone one day seminar.
 - (3) Volunteered as a Chief or Grading Judge at the previous year's U.S. National Aerobatic Championships.

A National Judge becomes a Regional-N Judge if they have not either

- (a) Attended a sanctioned Advanced Aerobatic Judging seminar or a Practical Aerobatic Judging seminar within the previous three (3) calendar years
- (b) Volunteered as a Chief or Grading Judge at the previous year's U.S. National Aerobatic Championships

A Judge retains currency until the publication of the current year IAC *Revalidation and Currency (R&C) Exam*, as long as that judge's name was on the IAC website's Current Judges List as of December 31 of the previous year.

Rules Proposal 2020-09

Subject: Qualify Student Pilots to fly contests; Rule 2.1

Proposer: Barry Hancock

Rationale:

Our school has several Student Pilots at any given time that we can introduce to competition aerobatics and this would seem a way to create excitement to the sport, increase participation, and be a great recruiting tool all the way around. Of course there would have to be qualifications developed to make this a prudent venture. Thus, here is my proposal for your consideration:

Current Rule:

Rule 2.1 Paragraph 2:

In order to be registered in a contest, each competitor must possess a minimum of a Sport Pilot certificate if flying a qualifying Light-Sport aircraft (LSA), or at least a Recreational Pilot certificate with rating appropriate for the class of aircraft to be flown (power or glider) if flying an aircraft other than a LSA. However, a pilot with a Sport Pilot certificate may fly a non-LSA aircraft in Primary or Sportsman, if accompanied by a Safety Pilot (See 2.2) who holds the appropriate certificates and endorsements for the aircraft in question.

Proposed Rule Add: . A pilot with a Student Pilot certificate may fly in Primary or Sportsman if accompanied by a Safety Pilot who holds the appropriate certificates, including a current Certified Flight Instructor certificate, appropriate endorsements, and has a minimum of 20 hours of logged aerobatic instruction in the last 12 months.

Rules Proposal 2020-10

Subject: Unlimited 4 Minute Free Floor

Proposer: Tom Myers, IAC 16830

Rationale:

I am seeing too many low level tumbles that are a screwed up recovery away from hitting the deck. I have seen too many low level tumbles that were a miracle away from being 911 calls.

Rulebook Changes:

Section 4.11.3, Power Height Limitations:

Current rule:

Unlimited Lower Limits - 328' (100m) AGL.

Proposed rule:

Unlimited Known, Free, Unknown Lower Limits - 328' (100m) AGL.

Unlimited 4 Minute Free Lower Limits - 656' (200m) AGL.

Rules Proposal 2020-11

Subject: Rolling Turn Automatic HZ Elimination
Proposer: Tom Myers, IAC 16830

Rationale:

Automatic all-or-nothing HZ for autorotation during a rolling turn is not necessary when we have an established judgeable criteria of minus 1 point per 5 degrees of error in place.

Rulebook Changes:
Judge's Quick Reference:

Hard Zero (HZ) section:
Delete "Snap roll in rolling turn 8.5 Family 2".

Turns/Rolling Turns section:
Snapped Roll:
Change "HZ" to "1 point per 5 degrees of autorotation".

Section 7.3.1 Hard Zero (HZ):
Subsection (f):
Delete "Snap during rolling turn (HZ)".

Chapter 8:
Family 2 Rolling Turns:
Downgrades:
(3): Change the second sentence to "If autorotation is observed, the figure must be downgraded by 1 point for every 5 degrees of autorotation"

Rules Proposal 2020-12

Subject: Family 9.1 Rule Change Proposal

Proposer: Tom Myers, IAC 16830

Rationale:

By the current rules, if a pilot ends a Family 9.1 slow roll 5 degrees early, and then immediately corrects the error, then the figure must be hard zeroed because a point was inserted. The problem is that the current rule does not differentiate between a gradable correction and an incorrect figure. This rule proposal explicitly extends the minus 1 point per 5 degree error deduction methodology to Family 9.1 slow rolls for remaining roll stoppage errors that are less than 90 degrees.

Rulebook Changes:

Judge's Quick Reference:

Hard Zero (HZ)

Add "Slow roll stoppage 90 degrees or more from roll end 8.5 Family 9.1".

Roll Rate Changes in Family 9 section

Change "Roll Stoppage HZ" to "Roll stoppage 90 degrees or more from roll end HZ".

Add "Roll stoppage less than 90 degrees from roll end 1 point per 5 degrees".

Section 8.5:

Family 9.1 Slow Rolls:

Change the second sentence of the first paragraph to "Any stoppage of a slow roll before the correct conclusion of the roll must result in a downgrade of 1 point for every 5 degrees of remaining rotation error for errors of less than 90 degrees, and a grade of HZ for errors of 90 degrees or greater."

Rules Proposal 2020-13

Subject: Comparing Part-Loop Radii

Proposer: Tom Myers, IAC 16830

Rationale:

The current rule complexity makes it unnecessarily difficult to implement in real time on the judge's line. The simpler the rules, i.e. the fewer the special cases, the more consistently those rules will be applied by real judges at real contests in real time.

Rulebook Changes:

Section 8.4.3, Comparing Part-Loop Radii

Proposed rule:

Delete entire current section. Replace current section with: "Radii need to match in hesitation loops and in horizontal eights with looping segments greater than 180 degrees."

Rules Proposal 2020-14

Subject: Boundary Judges Optional
Proposer: Tom Myers, IAC 16830

Rationale:

Having pilots bake and dehydrate in the sun and then climb in an airplane to perform a physically and mentally demanding activity is not safe. The number of airports that are willing to host our sport has dwindled. We no longer have the luxury of choosing airports that meet 100% of our desires. Contests can be held without corner judges. Thus, they are no longer a high priority at contest sites that are otherwise viable. As contest participation has shrunk, the volunteer pool has shrunk. There are often not enough volunteers available to fully staff all desired positions. Contests can be held without corner judges. Contests cannot be held without line judges, callers, and recorders.

Rulebook Changes:

Section 1.16, second paragraph:

Current rule:

These Judges are required at each IAC contest unless IAC Headquarters waives their use under a Supplementary Rule request approval (See 3.5). In such cases, protests regarding boundary or deadline penalties will not be accepted. Boundary and deadline judges may be called upon to verify their records of infringement in the event a protest is filed.

Proposed rule:

These judges are optional at each IAC contest. For cases in which these judges are not utilized, protests regarding boundary or deadline penalties will not be accepted. Boundary and deadline judges may be called upon to verify their records of infringement in the event a protest is filed.

Rules Proposal 2020-15

Subject: Advanced Floor

Proposer: Tom Myers, IAC 16830

Rationale:

Advanced floor low-low is now 456'. This is unnecessarily low. Advanced floor low-low used to be 600', so there is precedence for it being higher.

Rulebook Changes:

Section 4.11.3, Power Height Limitations:

Current rule:

Advanced Lower Limits - 656' (200m) AGL.

Proposed rule:

Advanced Lower Limits - 820' (250m) AGL.

Rules Proposal 2020-16

Subject: "All Averages" scores
Proposer: Peggy Riedinger

Subject: Rule 4.20.5

Rationale:

Current wording of the rule requires that "If the Chief Judge determines that none of the judges were able to judge the figure, the Chief Judge will then immediately notify the pilot by radio and request that a break occur. The pilot will re-enter the box, as conditions permit, and resume the flight..."

Since a ChiefJudge-directed break usually implies danger, this puts undue stress on the pilot. Waiting until the end of the sequence to call for a re-fly of any figure or figures that were averaged by all judges will be a safer option.

Proposed re-wording:

"If the Chief Judge determines that none of the judges were able to judge the figure, the Chief Judge will notify the pilot by radio at the end of their sequence, to re-fly the figure(s) that all judges averaged."