



# **International Aerobatic Club Rules Committee**

**2019**

**Rule Change Proposals**

*Submitted by:  
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## Foreword

Following this foreword are the 46(!) proposed rule changes submitted for evaluation by the Rules Committee. In cases where more than one person submitted a proposal for the same change, only the more complete version is included. For the most part, the “Background” section of each proposal is a direct quote of what was received from the original proposer. In some cases, those sections were edited for readability and clarity. Where appropriate, proposed changes from any currently existing rule(s) are printed in red.

It is the task of the Rules Committee to review these proposals and recommend to the IAC Board of Directors only those proposals which add value to the IAC *Official Contest Rules* book. While it is tempting to codify away all possible scenarios, consideration for each of these proposals is whether it is absolutely necessary to have a particular, and sometimes rare, issue covered by a specific rule(s), or does the issue lend itself to common sense resolution based on rules which already exist?

**PROPOSAL 2019-01**

Affected Rule(s): Appendix 5 – Unlimited Power  
Subject: Smooth Patch Requirements  
Proposer: Andrew Slatkin



**Background**

Certain legacy airplanes might be capable of performing the requisite aileron or snap roll on the vertical lines to achieve the Smooth Patch, but are most definitely unable to subsequently fly away level from the figure. By changing the base figure to a hammerhead and not a simple vertical line, the proof of being able to perform vertical rolls remains intact, but the overall figure can still be flown by the lower performing airplanes.

**Proposed Change**

7. Category Figure Lists – Power

Unlimited

- |     |  |                   |
|-----|--|-------------------|
| (3) | Hammerhead with $\frac{3}{4}$ roll on vertical up line | 5.2.1.4 + 9.1.1.3 |
| (6) | Hammerhead with full snap roll on vertical up line     | 5.2.1.4 + 9.9.1.4 |

## PROPOSAL 2019-02

Affected Rule(s): 2.3(k)  
Subject: Glider Seat Belt Requirements  
Proposer: Jason Stephens



### Background

2.3(k) states that all aircraft competing in Advanced and Unlimited must be equipped with a dual seatbelt system with two separate anchor points. In the case of gliders, many factory-built gliders (e.g. SZD 59) that are fully capable of flying Advanced glider aerobatics, come equipped with single anchor points for 1 set of lap belts. These gliders are therefore ineligible to compete at the Advanced level. To comply with 2.3(k) would require major modification to the aircraft bedding to add a second anchor point into the airframe and modifications to the seat pan.

### Proposed Change

2.3(k) Dual seat belts with separate attach points and a shoulder harness are mandatory for Advanced (**power**) and Unlimited (power and glider) categories. **Gliders flying in the Advanced category must have a backup seat belt that may share an attach point with the primary seat belt.** The same equipment is strongly recommended for Primary, Sportsman, and Intermediate power categories, but is not mandatory except when IAC Technical Monitors deem them necessary for the sequence being flown in these categories.

**PROPOSAL 2019-03**

Affected Rule(s): 4.16  
 Subject: Change Signaling to Radio Primary  
 Proposer: Bob Freeman

**Background**

By rule, all competitors are required to have 2 way radio communication. Wing dips are overly regulated with respect to penalties and deviations from "acceptable" wing dips, and represent a hold over method from the time prior to the requirement of 2 way radio communication. Voice communication with "announce and acknowledge" is simple and direct. The change as described below is written with specific phraseology and read back. The intent is to standardize the announcement and acknowledgement language with minimal dialogue, but to communicate clearly the start, interruption, restart and end of a sequence. The call and response here is an example only. Standard terminology the goal. Radio communication is mandatory per the rule. Wing dips could be left to pilot discretion, but would no longer be acceptable for start, interruption and end of the sequence nor would wing dip deviations be penalized so long as they do not represent the insertion of an aerobatic figure.

**Proposed Change****4.16 Signaling****4.16.1 Start and End of A Sequence**

a) Each competitor must communicate by radio on the Box Frequency, to the Chief Judge, the commencement of the sequence by transmitting the phrase "NAME STARTING" prior to initiating the 1st figure, where "NAME" is the competitors name. The Chief Judge will acknowledge by reading back "NAME STARTING". The Chief Judge will notify the judges line that the competitor is starting. If the communication to the Chief Judge to start a sequence is made, and the competitor subsequently does not initiate an aerobatic figure and flies through the box, no penalty shall be incurred. The competitor shall communicate to the Chief Judge "FLYING THROUGH". The Chief Judge shall notify the judges line. When initiating the restart, the competitor shall communicate "NAME STARTING" and the Chief Judge shall acknowledge "NAME STARTING" and notify the judges line.

(b) The pilot should communicate completion of the program and intent to leave the Aerobatic Box by once again transmitting to the Chief Judge, "NAME DONE". The Chief Judge will communicate "NAME DONE". If the program ends in inverted flight, the competitor may execute a half roll to upright prior to communicating to the Chief Judge.

**4.16.1.1 Failure to Communicate Start / End of a sequence**

The Chief Judge is responsible for assessing one communication penalty for each missing communication required (except in the case of a Chief Judge ordered interruption). In no case shall the Chief Judge assess more than two interruptions per Program Interruption event (one penalty for the actual interruption and not more than one additional penalty for improper communication).

**4.16.2 Explicit Program Interruption and Resumption**

An "explicit" Program Interruption is defined as any interruption to the unbroken flow of a sequence initiated directly by the pilot.

(a) An explicit Program Interruption must be communicated to the Chief Judge as described in 4.16, above using the phraseology "NAME BREAKING".

(b) The intent to resume the program and at which point in the Program, after an explicit Program Interruption must be communicated by radio as described above using the phraseology, "NAME RESTARTING AT FIGURE X" or "NAME RESTARTING WITH THE FIGURE NAME".

(1) The program must be resumed with the figure immediately preceding the point of interruption, the figure in progress at the time of interruption, or the figure immediately following the point of interruption.

(2) If the program is resumed at any other point, one additional Program Interruption penalty shall be assessed.

(c) Judges will resume grading with the first full figure following the original point of interruption.

(d) Should the Program be interrupted on the Y axis, the Program may be resumed in either direction on the Y axis.

(e) The Chief Judge, or the Assistant Chief Judge, will record each interruption and assess the proper penalty. In no case shall the Chief Judge assess more than two penalties per Program Interruption event (one penalty for the actual interruption and not more than one additional penalty for improper resumption of the program).

#### 4.16.3 Implicit Program Interruption and Resumption

An "implicit" Program Interruption is defined as:

(a) Using a turn of 90 degrees or more to correct a heading deviation between figures.

(b) Using a one-half slow roll to correct an improper attitude (upright to inverted or vice versa) between figures.

(c) Deliberately climbing or diving between figures or flying any figure in a way such that the obvious intent is to gain or lose altitude or energy. The competitor shall be given the benefit of the doubt when applying this penalty.

(d) Any combination of paragraphs (a), (b), or (c), above.

Meeting one or more of the conditions described in subparagraphs (a) through (c) above, will be interpreted as an implicit interruption and result in an "automatic" interruption penalty from the Chief Judge, whether communicated or not.

Example sequence communication for competitor Smith

Clearing into the box:

Chief to Smith: Smith, the box is yours  
Smith to Chief: Smith has the box

Starting the sequence:

Smith to Chief: Smith starting  
Chief to Smith: Smith starting  
Chief to Judges: Heads Up!

Competitor fly's through the box:

Smith to Chief: Smith flying through  
Chief to line: Smith flying through

Restarting after a fly through:

Smith to Chief: Smith starting  
Chief to Smith: Smith starting  
Chief to Judges: Heads up!

Explicit interruption:

Smith to Chief: Smith breaking  
Chief to Judges: Smith breaking  
Smith to Chief: Smith restarting figure "N"  
Chief to Judges: Smith restarting with figure "N"

Ending the Sequence:

Smith to Chief: Smith is done  
Chief to Judges: Smith is done

## PROPOSAL 2019-04

Affected Rule(s): 2.6(e)  
Subject: Judge Qualification for Nationals  
Proposer: Peggy Riedinger



### Background

The *IAC Policy & Procedure Manual*, Section 501 was edited this year to change the judge selection criteria for U.S. Nationals. In addition to the change to bring the rule book into compliance with the P&P, .

### Proposed Change

(e) The qualification and selection of judges for IAC Championship events is governed by the procedures outlined in the *IAC Policy & Procedures Manual*, Section 501.4. In addition to the IAC judges meeting the criteria of 501.4, IAC members *on the official CIVA List of Judges* meeting the currency requirements of 2.6(c) and 2.6.3 may also be appointed to judge non-Team Selection flights at IAC Championship events. (See Appendix 6)



## PROPOSAL 2019-05

Affected Rule(s): Appendix 5  
Subject: Glider Smooth Patch Figures  
Proposer: Terry Pitts



### Background

Many aerobatic capable, but not purpose-built, gliders are not certified to spin, or must be specifically modified to spin, which then negates other aerobatic figures. Users of these gliders are therefore unable to obtain a Smooth Patch, even if they never intend to compete.

### Proposed Change

#### 7. Category Figure Lists – Glider

##### Primary and Sportsman

(1) Spin (one turn) or 8.4.1.1 (humpty)

##### Intermediate

(1) Spin (1 ¼) or 8.4.3.1 (humpty)

(2)

## PROPOSAL 2019-06

Affected Rule(s): 7.6.6

Subject: Distribution of Judging performance Data at Nationals

Proposer: Rules Committee



### Background

There is no logical reason to prevent judges at the U.S. Nationals from seeing their judging analysis data until after the contest is complete. In fact, making this data available to interested judges after each category completion will allow those judges to analyse their performance and make improvements for subsequent judging providing even a higher quality of judging for the competitors.

### Proposed Change

7.6.6 **[DELETE]**

**PROPOSAL 2019-07**

Affected Rule(s): Appendix 3

Subject: Allowable Intermediate Unknown Figures

Proposer: Weston Liu

**Background**

The referenced figures each have two  $\frac{3}{4}$  loops and three 45 lines and the lowest K figure that can be composed on one of these base figures is 26K. If rolls are placed on two of the 45 lines, a complex figure built on one of the 7.8.11 figures will be at least 31K. Reviewing the Intermediate Unknown Programs in the IAC website archive from 2012 through 2017, we observe that when one of these figures is used in an Unknown Program, the total figure K is generally 38K – 43K. This results in an Intermediate Unknown Program that is unbalanced, i.e., the one figure has very high K and all other figures are low K. A competitor's program score is highly dependent on the execution of one very high K figure, a program design that does not accomplish the goal of mentally challenging the competitors and can be viewed as unfair to competitors flying the reference airplane for the category. Deleting these figures from Appendix 3's Power Intermediate section will promote better program design..

**Proposed Change**

Delete figures 7.8.11.3 through 7.8.16.4

**PROPOSAL 2019-08**

Affected Rule(s): 6.2

Subject: Maximum Number of Figures in Free Program

Proposer: Robert Armstrong

**Background**

The design of free programs has been adjusted several times over the years following the CIVA rules for the Free program. The original concept was to create a shorter program in regard to time in an effort to be able to conduct a World/Continental event in less time. With the recent rewrite of the IAC P&P regarding Known programs and base aircraft stating S-2B for Advanced and "legacy aircraft" such as S-1S and other planes that populate the members fleet, it follows that the Free must also allow for these same aircraft. Reverting to the Free design criteria required before the CIVA adjustment is required as well.

**Proposed Change**

<b>POWER FIGURE AND K LIMITS</b>				
<b>Table 6.2.1</b>				
<b>FREE CATEGORY</b>	<b>MAX # OF FIGURES</b>	<b>MAXIMUM SEQUENCE K</b>	<b>PRESENTATION K-FACTOR</b>	<b>MAXIMUM PROGRAM K</b>
<b>Sportsman</b>	<b>12</b>	<i>Same as current Known</i>	<b>6</b>	<i>Same as current Known</i>
<b>Intermediate</b>	<b>15</b>	<b>190</b>	<b>8</b>	<b>198</b>
<b>Advanced</b>	<b>15</b>	<b>300</b>	<b>12</b>	<b>312</b>
<b>Unlimited</b>	<b>15</b>	<b>420</b>	<b>26</b>	<b>446</b>

**PROPOSAL 2019-09**

Affected Rule(s): 8.6 Presentation, Section 8.6.1 Grading  
Subject: Presentation Criteria  
Proposer: Weston Liu

**Background**

The current rulebook text essentially provides no guidance for how a Judge is to evaluate a competitor's presentation of a flight program. The text states "The exact method used to determine the Presentation grade is left to the individual judge." Field observation indicates that no two Judges use the same criteria. Some Judges use the "tick" method that was officially sanctioned some years ago. Some Judges pick a grade value based on whether a competitor "looked" better than the first competitor of the category flying. This situation is unfair to both competitors and Judges. The current Presentation grade adds no value to ranking the competitors.

Providing specific guidance on criteria for identifying competitor performance that earns score downgrades will make the Presentation grade a more effective component of ranking the competitors.

**Proposed Change**

FROM:

"The Presentation grade is based on the judge's overall impression of the sequence and has a possible range from 10.0 to 0.0 in 0.5 increments. The exact method used to determine the Presentation grade is left to the individual judge using the guidance provided in the paragraphs below. More important than the particular methodology chosen is the consistent application of that methodology to every pilot flying the program."

TO:

"The Presentation grade is based on the judge's overall impression of the sequence and has a possible range from 10.0 to 0.0 in 0.5 increments. Each competitor is expected to demonstrate mastery of the elements of the flight program, the structure of the flight program, energy available for each figure, the wind in the box, and weather factors such as clouds, to the greatest extent practical. Individual Judges should note each occurrence of a competitor mis-placing a figure, mis-managing energy, mis-managing the tempo of a flight program, and not generally placing the flight program in the best orientation to the Judges. When a Judge observes a figure flown with one of these issues, a downgrade should be made to the Presentation grade for the flight.

## PROPOSAL 2019-10

Affected Rule(s): 2.6.3(a)  
Subject: Judge Currency  
Proposer: Doug Jenkins



### Background

Given the number of pilots attending any given regional contest it is becoming more difficult for Judges to meet the currency requirements of paragraph 2.6.3 (a) (also contained in Figure 2.6.1).

Participation at the twelve regional contests held so far in 2018 (as of 25 June 2018) has varied from a low of 12 pilots to a high of 37 pilots. The average number of participating pilots has been 25.

If one is both a pilot and a Judge seeking to maintain the required currency then you cannot Judge some number of those 25 pilots because you are flying in your category. Advanced and Unlimited flights are difficult to find with the average number of competitors in those two categories combined being seven.

In effect the current rule requires you to attend two contests each season and spend the entire contest either flying or judging. Many of our judges and pilots only attend one event per year due to geographic, fiscal or scheduling constraints. Those who attend multiple contests still find themselves “on the line” constantly to get the required number of flights. At some of our Texas contests we rotate Judge and Assistant duties to “spread the wealth” and still find ourselves not having enough to keep everyone current. This creates an additional burden for the Contest Director (CD) and Volunteer Coordinator (VC) as they attempt to balance the need to get credits for the Judges while still finding Assistants and Recorders. At multiple contests in the past two years I have been without an Assistant due to the need to scrape together enough credits to be current the next year.

Reducing the number of required flights by five will not cause a precipitous drop in judging quality and should enable us to keep more judges current and involved in our volunteer-dependent sport while simultaneously easing the workload for CDs and VCs.

To give a fighting chance to stay a current judge I recommend that paragraph 2.6.3 (a) and Figure 2.6.1 be amended as follows:

### Proposed Change

2.6.3 (a)...have been a grading or Chief Judge for **twenty-five (25)** flights within the previous calendar year in IAC sanctioned contests. Equally acceptable will be judging **twenty (20)** flights provided at least 5 flights were Advanced or Unlimited Free Programs.

**PROPOSAL 2019-11**

Affected Rule(s): 2.6.3(c)  
 Subject: Judge Recurrency  
 Proposer: Doug Jenkins

**Background**

Under the current rule book, if Judge currency is lost the following must take place in order to regain currency...

2.6.3(c) *If a judge did not serve as a grading or Chief judge for the number of flights prescribed in 2.6.3(a), and has not either:*

*(1) Attended a sanctioned IAC “Advanced Aerobatic Judging” seminar or,*

*(2) Attended the “Practical Aerobatic Judging” session of the “Introduction to Aerobatic Judging” training within the previous two (2) calendar years,*

*Then currency may be retained by either:*

*(1) Attending a sanctioned IAC “Advanced Aerobatic Judging” seminar or,*

*(2) Attending the “Practical Aerobatic Judging” session of the “Introduction to Aerobatic Judging” training, and passing the current year IAC Revalidation and Currency (R&C) Exam.*

All of these options require attendance at a Judge’s School. This can be difficult to accomplish depending upon where one lives in relation to where and when a school is scheduled. Attendance at a Judge’s School involves sacrifice by the Judge who is attempting to regain currency. There are scheduling, travel and expenses to consider. As a non-current Judge you must find a school near you, on days when you are available and be able to afford the expenses of travelling to/from that school and lodging. This may be a lot to ask of a volunteer and may cost us quality Judges who decide the hassle outweighs the fun. It may even be impossible given the constraints most people work under.

If this training is good enough to turn a non-judge into a judge it should certainly be more than adequate to turn a judge with lapsed currency back into a current judge. By definition the non-current Judge was at one time qualified, perhaps even last year. It seems to be overkill to require them to attend a Judge’s School when what they really need is practical experience (provided by (3)) and a current/new rules refresher (provided by (4)) to get them back up to speed.

For those who have been non-current for longer and/or may prefer to attend a school options (1) and (2) are still offered.

Making these few changes would make it much easier for Judges to regain currency if it is lost and continue to effectively participate in our volunteer dependent sport while not detracting from the quality of Judging provided.

In order to make it easier for a lapsed Judge to regain currency and continue to stay active in the sport I propose the following rule change...

**Proposed Change**

For clarity, since currency has already lapsed, change second the sub-paragraph under 2.6.3(c) to read:

“Then currency may be regained by:”

Change second sub-paragraph 2.6.3(c)(2) to read:

(2) Attending the “Practical Aerobatic Judging” session of the “Introduction to Aerobatic Judging” training or,

Then add the following option as 2.6.3(c) (3):

(3) At a chapter practice day, a contest practice day, or as a non-contest activity behind the Judges Line during contest flying, the non-current Judge must award grades for a minimum of three flights, each flight composed of a minimum of nine figures, under the supervision and coaching of a current Judge. The supervising Judge shall report the satisfactory accomplishment of this requirement to IAC.

Then, for clarity, separate the following as 2.6.3(c)(4):

(4) The non-current judge must also pass the current year IAC Revalidation and Currency (R&C) Exam in order to be considered current. This may be accomplished before or after the other training outlined in 2.6.3 (c).

The added text in paragraph (3) above is basically a copy and paste from paragraph 2.6.1(f) regarding qualification of new Judges. I have simply re-worded it in two places to make it more applicable to the situation (i.e., replaced “Judge Candidate” with “non-current Judge” and replaced “training” with “requirement”).



## PROPOSAL 2019-12

Affected Rule(s): 4.14.3 and 4.6.1(i)  
Subject: Remove requirement for smoke bombs  
Proposer: Peggy Riedinger



### **Background**

4.13.3 states that "Radio shall be the sole means of controlling entry into the Aerobatic Box" and identifies procedures for radio failure. Radios should be the only method for recall. The requirement for smoke bombs is dated, and after discussing with several pilots, they agree that they would be more likely to respond to a radio call, as they are focused on things inside the cockpit, and are not looking at the judges line for possible smoke signals.

### **Proposed Change**

DELETE 4.14.3

Remove reference to smoke from 4.6.1(i)

**PROPOSAL 2019-13**

Affected Rule(s): 2.8? 4.8.2? Chapter 7?  
Subject: Require scores to be written in ink  
Proposer: Peggy Riedinger

**Background**

Scores written in pencil can be erased and changed. I have seen scoresheets where an attempt to change a score in pencil (with an inadequate eraser) rendered the scoresheet unreadable. Recorders who make an error on the scoresheet with pencil are more likely to take time to try to erase and re-write, which wastes valuable time during a competition flight, and could cause them to miss recording other scores and comments from the judge. We are taught in Judges School to have the recorders make a line through any mis-written scores and have the judge initial the changes. I don't see this requirement anywhere in the rule book.

**Proposed Change**

New Rule Text (Location TBD): Scores must be written legibly in ink on the official scoresheet (form A). Any errors should be lined through, with the corrected score initialed by the grading judge.

## **PROPOSAL 2019-14**

Affected Rule(s): 4.11.3 and 4.17  
Subject: Advanced Power Low Altitude Limits  
Proposer: Doug Bartlett



### **Background**

At the current time a LOW-LOW (disqualification) call for Intermediate is set at <1,000' and a LOW-LOW call for Advanced is set at <328'. This is too great of a step from Intermediate to Advanced for pilots moving up to the Advanced level.

The current bottom of the box for Advanced was lowered from 800' to 656' to match CIVA rules for international competitions. Although Advanced pilots who qualify to compete at the international level may be skilled enough to have a lower limit of 656', first time or newer Advanced pilots may not have attained this skill set as they move to the Advanced level.

The increased risk is not offset by any significant rewards for the pilots or the IAC in general.

### **Proposed Change**

Change 4.11.3, "Power Height Limitations" lower limits in Advanced from 656' to 800' AGL.

Change Table 4.17.1, "Penalties – Power" as follows:

LOW ALTITUDE INFRINGEMENT

1 – 200' Low (P-S-I-A)

LOW LOW ALTITUDE INFRINGEMENT

>200' (P-S-I-A)

## PROPOSAL 2019-15

Affected Rule(s): Appendix 3 - Intermediate  
Subject: Remove Certain Family 8 Figures  
Proposer: Robert Armstrong



### **Background**

These figures, while possible, are very restrictive to the base aircraft in this category.

### **Proposed Change**

Remove 8.6.5.1 and 8.6.7.2 and 8.7.5.1 from allowable figures.

## PROPOSAL 2019-16

Affected Rule(s): 4.6.1(f), 4.6.1(m), 4.8.2, and 8.6.3  
Subject: Penalties for Unguarded Box Boundaries  
Proposer: Doug Bartlett



### Background

The experience of this author has been that most contests leave one or more boundaries unguarded at a contest. Over the years there have been discussions as to increasing the K-factor on Presentation to take this into account. This series of rule changes allow for scoring judges to penalize pilots for figures they believe to be flown outside of boundaries unguarded by boundary judges.

Low lines will be flown for each boundary not guarded by a Boundary Judge. Each Scoring Judge will make deductions to the Presentation mark of 1 point for each figure they determined to be flown outside of unguarded boundaries.

### Proposed Change

4.6.1(f) Description of the Aerobatic Box, judges location relative to the box, **identification of any Aerobatic Box boundaries not being guarded by Boundary Judges**, and Deadline, if applicable.”

4.6.1(m) Scheduling flying of low altitude **and unguarded boundary** lines, and warm up figures, if any.

4.8.2(h) **Identification of boundaries not guarded by Boundary Judges.**

Add new 8.6.3 **“Downgrades for Unguarded Boundary Excursions”**

**“After an initial Presentation score has been determined by a Scoring Judge, downgrades for excursions of unguarded boundaries (as identified by the Chief Judge and demonstrated by the low lines pilot) shall be deducted as follows: A Scoring Judge shall identify each excursion in the remarks section of the figure and deduct one (1.0) point from the final Presentation mark for each such figure.**

**PROPOSAL 2019-17**

Affected Rule(s): 5.8.1

Subject: Presentation K for boxes with unguarded boundaries

Proposer: Robert Armstrong

**Background**

The number of contests that have been waived for boundaries has created the need to have some adjustments in Presentation K. The waivers fall into two levels, not guarding the back boundary, and not guarding any boundary. The first and second numbers represent roughly 20 and 30% factors to be applied with partial or no boundaries guarded. When either of these situations is in play, the procedure is recommended that the judges be briefed to give their normal Presentation score and then adjust if they felt the pilot may have exceeded what would normally be the boundaries called from the ground. To add in the ability to determine this it would be recommended that the "low lines" be flown along the edges of the box to orient the judges to the visual location of the box edge.

**Proposed Change****5.8.1 Power Programs**

Primary	3K
Sportsman	6K/ <del>7K</del> /8K
Intermediate	8K/ <del>10K</del> / <del>11K</del>
Advanced	12K/ <del>14K</del> / <del>16K</del>
Unlimited	20K/ <del>24K</del> / <del>26K</del> (Known and Unknown) 26K/ <del>30K</del> / <del>34K</del> (Free)

## PROPOSAL 2019-18

Affected Rule(s): Appendix 3 - Unlimited  
Subject: Removal of Family 8.8  
Proposer: Robert Armstrong



### **Background**

The development of the complex figures found in this family were to facilitate the design of Unlimited Free Programs with only 6-9 figures. Their use in an Unknown produces a very high K and they are very performance robbing for the legacy aircraft that we want to fly this category.

### **Proposed Change**

Delete Family 8.8 figures

## PROPOSAL 2019-19

Affected Rule(s): 1.16

Subject: Make Box Boundaries Optional

Proposer: Doug Bartlett



### **Background**

This rule change submission makes the guarding of all boundary lines and Boundary Judges optional at the determination of the Contest Director.

### **Proposed Change**

Change 1.16 (2<sup>nd</sup> paragraph) to:

Boundary Judges should be used at each IAC contest and are strongly encouraged to do so when the situation and resources allow. The Contest Director will make this determination. Protest regarding unguarded boundaries or deadline penalties will not be accepted.



## PROPOSAL 2019-20

Affected Rule(s): Appendix 3 -Unlimited  
Subject: Family 8.6 Restrictions  
Proposer: Robert Armstrong



### **Background**

The Unlimited category has felt the hard effect of category creep. The P loop figures with rolls up are quite performance limiting for legacy aircraft we desire to be able to fly Unlimited

### **Proposed Change**

Remove the wording: "...when preceded by a vertical roll exceeding 3 stops or more than 360 deg of rotation." From the Note (2) on page A3-47, Family 8.6.

## PROPOSAL 2019-21

Affected Rule(s): 3.8

Subject: Eligibility of H/C competitors for awards

Proposer: Krysta Paradis



### Background

H/C pilot scores should count for overall awards and regional series. If a primary competitor flying a Decathlon gets the highest percentage then they should win the grassroots award regardless if there were others in the category because that award is against every grassroots eligible plane, so therefore that competitor wasn't the only one competing for that award. The judges get judging credit for judging the flights of a single competitor in a category, so it is assumed the judging is fair for the flight judged. It makes sense, therefore, that those scores should count for awards that are awarded by percentage and not ranking. This includes grassroots, collegiate, chapter team awards, and regional series.

### Proposed Change

Change 3.8 (2<sup>nd</sup> paragraph) to:

Should a category have only a single competitor, that pilot may be allowed to compete "Hors Concours (H/C)" Judging and processing of the grades for the H/C pilot will be conducted normally, but that pilot will not be eligible for any medals or trophies. **The results will, however, be counted toward eligibility for special awards at the contest (e.g., Grassroots) and point totals for regional or collegiate awards.**

## PROPOSAL 2019-22

Affected Rule(s): 4.19.5  
Subject: Optional Break  
Proposer: Rules Committee



### Background

As written, 4.19.5(c) gives a free first interruption, regardless of the reason, when the optional break is in effect. This is clearly not the intent of the optional break and unfairly penalizes other competitors who happen to make the same mistake later in the sequence after the optional break has been used. The fairest procedure is to award a Free break only if the break is clearly voluntary and not the result of a major error that forces a break to cope with a post-HZ problem.

### Proposed Change

4.19.5(c) The Chief Judge will record all interruptions during a pilot's sequence on the *Chief Judge's Penalty Form*. The first interruption observed will be considered the optional break and not penalized if clearly voluntary and not the result of major error (e.g., wrong figure, wrong direction, wrong attitude), in which case the normal interruption penalty will apply.

**PROPOSAL 2019-23**

Affected Rule(s): 2.6, 2.6.1, 2.6.2, 2.6.3

Subject: Replace the R&C Exam with focused on-line training

Proposer: John Housley

**Background**

Instead of having the IAC spend time creating and grading exams which have proven to be frustrating and time consuming for judges to complete (and often retake), it would be more helpful to judging quality to review key items in a Powerpoint format, similar to the judge's school training material. The 2017 R&C exam was a prime example of the time that can be wasted when trying to achieve an 80% score on questions that are subjective in nature rather than based on direct references to the rules. Unlimited competitors/judges and judge school instructors did not pass the 2017 exam on the first attempt. This is not because they are uneducated or inexperienced, it because the R&C exam was flawed. Furthermore, there is no closure or learning with the R&C exam; when you miss a question, you don't know why or what the correct answer was. Replacing the exam with a summary of the judge school material with emphasis on any rule changes will improve judge knowledge and retention.

**Proposed Change**

Replace "passed the R&C Exam" with "completed the on-line R&C training".

**PROPOSAL 2019-24**

Affected Rule(s): 2.6.3

Subject: Eliminate the prerequisites to take the R&C exam

Proposer: John Housley

**Background**

Due to the declining participation in IAC contests and uncertainties in contest weather/need for judges, it is unreasonable to expect all regional judges to attain the current prerequisite experience. For example, I have attended 2 contests this year as an Advanced competitor and served as a judge at both events. Due to low attendance and weather, I judged 10 flights at the first contest and 6 at the second. Had I judged 30 Primary or Sportsman flights, I would be technically qualified to take the R&C exam; however, with the current rules I will have to retake the second day of judge school (unless I attended a judging seminar within the previous 2 calendar years). This is an unnecessary obstacle to retain regional judges whose help is needed to conduct contests and support the Smooth awards for IAC members who do not compete.

**Proposed Change**

2.6.3: Delete “Graded or Chiefed 30 flights in the previous calendar year?”, “Graded 25 flights, at least 5 of which were Advanced or Unlimited Free programs in the previous calendar year?”, and “Attended and “Advanced Judging” seminar or a “Practical Judging” session in the current or previous two (2) calendar years?”

## PROPOSAL 2019-25

Affected Rule(s): 3.14

Subject: Non-Competition Flying During Contests

Proposer: Randy King



### Background

I believe allowing non-competition flying for Primary and Sportsman category competitors will encourage greater participation in these categories. Primary and Sportsman participants who live nearby would be allowed to fly to and from the contest avoiding hotel bills and nights away from family. Additionally, these more recreationally oriented pilots could enjoy sightseeing flights in the local area (which they may have traveled quite a distance to reach), would be able to fly with each other or with non-competitor passengers, and otherwise enjoy having the use of their airplanes over the course of the Contest period.

The intent of this rule appears to be preventing competitors getting additional practice. What harm comes from allowing Primary and Sportsman competitors to gain additional practice time outside of the Contest airspace if they choose? If the intent of the existing rule is primarily to prevent competitors in Intermediate and above from practicing the Unknown sequence, there is obviously no reason to apply it to Primary and Sportsman competitors as they do not fly Unknowns.

### Proposed Change

All flying not directly related to the contest is prohibited after a time designated by the Contest Director. If not otherwise designated, the prohibition begins immediately following the initial contest briefing. **This rule does not apply to Primary and Sportsman Category competitors.**

## PROPOSAL 2019-26

Affected Rule(s): 6.13.1

Subject: Allow B and C forms to be printed back-to-back

Proposer: Barrett Hines



### Background

We go through a lot of paper during each contest and this is one very simple measure that can be taken to reduce this waste. Further, fewer loose sheets on the judges line would be a welcome help toward managing who has what (especially in windy conditions). The concern of "seeing through" a sheet of paper while holding it up against a bright sky can be easily mitigated by holding another sheet behind it. As a judge, I regularly use multiple sheets anyway, just to better block sunlight on my eyes, and in several instances have used back-to-back B/C forms without any problem. We should actually promote back-to-back Form B/C printing for all flights, but allowing for separate sheets is reasonable to avoid registration issues with competitor free form submittals.

### Proposed Change

#### 6.13.1

Each figure will be drawn on standard IAC Forms B and C (flimsies) showing the sequences of figures to be flown. **The forms may be on separate sheets or printed back-to-back.**

## PROPOSAL 2019-27

Affected Rule(s): 2.6.2(c)  
Subject: National Judges Candidate Significant Experience  
Proposer: Weston Liu



### **Background**

The requirement for flights graded has the purpose of setting a minimum level of demonstrated competency for observing and calculating competitor errors at Advanced and Unlimited competition speed. We can assert that competitors in the Advanced and Unlimited categories have their powers of observation operating at the desired level of competency.

We have a National Judge shortage in multiple IAC regions. We also have been wrestling for some time with the issue of the Advanced and Unlimited competitors who are Regional Judges having no opportunities to satisfy the current requirement that they grade 25 Advanced or Unlimited flights. IAC is asking that they attend one or more contests as a non-flying Judge. Our Judge-competitors are not doing this. Currently, if a Judge-competitor does not move to National Judge status before they move to Advanced or Unlimited competition, they remain a Regional Judge forever. We can assert that our most experienced members will not become National Judges. This is detrimental to IAC.

The proposed rules change will have a positive impact on IAC contests, and maintain the high level of competency expected of National Judges.

### **Proposed Change**

Change the text of 2.6.2, "New Candidates For National Judge", paragraph (c) under Practical Training, to:

- (c) Achieving the practical experience described below:
- 1) Performing as a Regional Judge in at least three (3) contests for no less than 80 flights, within the current or previous two contest years. Twenty five (25) of the flights graded shall be Advanced or Unlimited. This requirement shall be waived if the Regional Judge has competed in the Unlimited or Advanced categories in the current or previous contest year. All of the requirements of this paragraph shall be waived if the Regional Judge has graded 250 flights or more since their certification, as reported by the IAC database.
  - 2) Serving as the Assistant to a Chief Judge for a minimum of ten (10) flights, within the current or previous two contest years.



**PROPOSAL 2019-28**

Affected Rule(s):

Subject: Chief Judges must be trained in standard radio phraseology

Proposer: Jim Bourke

**Background**

Twice I've seen situations where a transient passed through an active contest box and the Chief Judge (being a non-pilot) struggled to communicate. In one case an argument ensued and this required follow through with the FAA by the Contest Director. While it's important that we support non-pilot volunteers, particularly as judges, it's equally important that the Chief Judge know how to work the radios. The rule book does not mention this as a duty.

**Proposed Change**

Add an item to Rule 1.5 "Chief Judge":

(v) Operating contest radios according to standard radio phraseology. If the Chief Judge is untrained in standard radio phraseology, the judge must appoint someone else to operate the radios. Note that Chief Judges do not have authority over transient aircraft and should focus their attention on competitor aircraft during a box incursion.

## PROPOSAL 2019-29

Affected Rule(s): 5.8.1

Subject: Increase Presentation K across the board

Proposer: Jim Bourke



### **Background**

Presentation K values are too low. The entire Presentation score for the program is generally less than a single figure. Curiously, the glider programs have much higher K values than the Power categories. It would be best if these were standardized. We should also review the K values for Presentation in use by CIVA. It could be best if they matched. The numbers I gave are simply suggestions.

### **Proposed Change**

Rule 5.8.1: Change Presentation K in each category to be roughly the same as the average figure K.

Primary: 5K

Sportsman: 10K

Intermediate: 15K

Advanced: 25K

Unlimited: 40K.

Follow up elsewhere as needed, such as section 6.2.

**PROPOSAL 2019-30**

Affected Rule(s):

Subject: Increase Presentation K For No Boundary Judges

Proposer: Tom Myers

**Background**

It has been 5 years since the boundary judge / presentation K proposal was considered. It's time to open the discussion again.

**Proposed Change**

Add text under 5.8 to read:

“Presentation coefficients are dependent on whether all Aerobatic Box Boundaries are guarded by Boundary Judges. If all box boundaries are not guarded, then the Presentation Coefficients will be increased as defined in Tables 5.8.1 (Power) and 5.8.2 (Glider), respectively.”

<u>Category</u>	<u>Judges</u>	<u>No Judges</u>
Sportsman	6	15
Intermediate	8	20
Advanced	12	30
Unlimited Known/Unknown	20	50
Unlimited Free	26	56
Glider Intermediate	15	30
Glider Unlimited Known/Unknown	20	40
Glider Unlimited Free	35	45

Also amend tables 6.2.1 and 6.2.2 to reference tables 5.8.1 and 5.8.2 for the appropriate presentation K factors.

## PROPOSAL 2019-31

Affected Rule(s): 6.2, Table 6.2.1

Subject: Reduce allowed number of figures in Sportsman Free to 10

Proposer: Jim Bourke



### **Background**

Sportsman Free programs are too advantageous. Competitors easily earn 5 or 6% with a free program. A major reason for this is that Free programs are allowed 12 figures while Known programs generally have only 10. Reducing the number of figures puts the Free program on par with the Known.

### **Proposed Change**

In 6.2, Table 6.2.1, change “12” to “10” in “Max # of Figures” column for “Sportsman” category.

**PROPOSAL 2019-32**

Affected Rule(s):

Subject: Allow signaling in upright level flight

Proposer: Jim Bourke

**Background**

If a competitor takes a break before an inverted figure that requires high energy it is a challenge to wag back in on a descending inverted line, push level, and pick up the sequence where it was left off. As an Unlimited pilot I can do this, but I see Intermediate and Advanced pilots struggle when the situation comes up. I don't think wing wags should be a skill test.

**Proposed Change**

In 4.16(b), delete "If the first figure following the wing dips begins in inverted flight, the wing dips must be performed in inverted flight and the competitor must change the flight attitude from upright to inverted only by a half roll prior to the first wing dip."

Replace with "If the first figure following the wing dips begins in inverted flight, the wing dips may be performed in either inverted or upright flight. If performed in upright flight the competitor may change from upright to inverted by a half roll following the wing wags."

## PROPOSAL 2019-33

Affected Rule(s): Appendix 5

Subject: Remove effect of minority HZ in Star Award calculation

Proposer: Jim Bourke



### **Background**

A competitor deserves a Star award when all the scores are 5.0 or better, but currently if one of the scores is an HZ the program does not allow for the Star. Minority HZs can happen for reasons that have nothing to do with the competitor's flight, such as the case when the assistant calls the wrong figure. There is no value in denying the Star Award in this case.

### **Proposed Change**

Appendix 5 section 5 item (a). Change "ALL grades must be 5.0 or higher" to "All grades must be 5.0 or higher, disregarding any averages including minority HZs".

## **PROPOSAL 2019-34**

Affected Rule(s): 4.8.2

Subject: Recommend that Chief Judges review sequences with line judges

Proposer: Jim Bourke



### **Background**

There are certain figures that are hard to judge. Judges should be reminded of how to handle problem figures during the briefing, which should take place before each flight. Problem areas include at least:

- Roller direction
- Tailslide direction
- Directionality of entry/exit when mandated for cross box figures

### **Proposed Change**

4.8.2, add item (n) to say “A review of all sequences to be flown covering any figures that are challenging to judges, to include at least: roller, tailslide and other directionality issues.”

**PROPOSAL 2019-35**

Affected Rule(s): 2.6.1

Subject: Eliminate Practical Training Requirement

Proposer: Jim Bourke



**Background**

We are short on judges and these items have not been fruitful.

**Proposed Change**

Remove items (e) and (f) from 2.6.1



**PROPOSAL 2019-36**

Affected Rule(s):

Subject: Eliminate directionality requirements within a figure

Proposer: Jim Bourke



**Background**

The training burden for this rule is too high to justify the value of this rule.

**Proposed Change**

Remove 7.1.6

**PROPOSAL 2019-37**

Affected Rule(s): 7.3, 7.3.3, 7.3.4

Subject: Clarify rationale for majority/minority HZ

Proposer: Dave Watson

**Background**

I believe that rule 7.3 (various sections) need minor amending to clarify the intent of a HZ score as it applies to specific errors in MANEUVERS, while applying the Majority rule for such a HZ to be awarded to a FIGURE. There is an inconsistency in various paragraphs that leads to confusion on the intent of HZ as it applies to a Figure score.

Background. At the 2018 Coalinga contest an Advanced pilot was awarded a HZ for this figure (Double humpty, Inverted spin on 1st downline, 1/2 roll up on 2nd line, 3/4 span on 2nd downline) when the four grading judges each specified the following scores for the following figure:

Judge 1 – HZ, no ½ roll on up line

Judge 2 – HZ, no Snap

Judge 3 - 7.0

Judge 4 – A (this judge later said he Averaged because his assistant miss called the figure and he got lost, so could not perceive the figure correctly)

Clearly Judges 1 and 2 saw different errors in different maneuvers that would qualify for a HZ. However, neither perceived any mistake that holds as a majority to qualify the FIGURE for a HZ.

I do not think there is any rational way to justify the pilot being awarded a HZ for the entire Figure when it is clear the intent of a HZ is to ensure that a majority of the judges saw the SAME error in the Maneuver (see definitions and 7.3 below).

However, 7.3.3 later stipulates that HZ will be awarded if the majority of the judges award a HZ for the FIGURE (I believe this is not the intent of the rule but is the result of non-concise language), and 7.3.4 is worded in a way that is ambiguous in this regard.

From the DEFINITIONS it is clear the intent of the Majority need of HZ is to ensure the majority of the Judges see the SAME mistake in a MANEUVER.

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).

Maneuver: Any one of the basic aerobatic movements which may be combined to make a figure (e.g., a half-loop plus a half slow roll are two maneuvers combined to make the Immelmann figure).

This pilot protested and won his protest, but to avoid further confusion and lost contest administration time, I believe the following sections need minor amending to clarify that Figures will receive a HZ if the majority of the grading judges perceive the same error in any of the individual maneuver(s) of that figure. Judge's are already mandated to specify the reason(s) for the HZ. These clarifications simply reiterate that the Grading Judge's specify ALL reasons for any HZ given (if multiple reasons), and the Chief Judge not only to look at the grades but also at the reasons for any HZ's and will need to call a conference to clarify grades in events such as described above.

## Proposed Change

### 7.3 Zeros

(a) Hard Zero. Hard zeros (See 7.3.1) are given when a Judge perceives that the pilot has failed to meet a relevant criteria for a maneuver within a Figure that is not simply an instance of point deductions due to poor execution (Examples: not autorotating a snap roll, or flying any portion of a figure in the wrong direction on the X axis (with some exceptions)). The Hard Zero is annotated on the Form A with the mark "HZ" and, when given by a grading judge, the Hard Zero is subject to the majority rule (See 7.3.3)\*\* . The judge must state any and ALL reason(s) for applying the HZ to any and all maneuvers within a Figure in the Remarks column.

\*\*This portion of 7.3 is wholly redundant to 7.3.3 and can add to confusion and should be removed.

#### 7.3.3 Majority Hard Zero

If a majority, defined as more than 50%, of the grading judges, give a mark of HZ for the same error in a maneuver within a figure, the minority mark(s) will be changed to HZ by the scoring program. If there is a question about matters-of-fact, the Chief Judge may call a conference prior to surrendering the scoresheets to the Scoring Director. (See 7.3.6) .

Example:

Five judges mark: 8.5 – HZ (no slide) – HZ (no slide) – HZ (no slide) – 8.0  
The HZs are in the majority and all five marks will be computed as zero

#### 7.3.4 Minority Hard Zero

A mark of HZ will not stand against a Figure if any maneuvers within it are given HZ by a minority, defined as equal to or less than 50%, of the grading judges. Any minority HZ(s) will be changed by the scoring program to the average mark given by the majority judges. If there is a question about matters-of-fact, the Chief Judge may call a conference prior to surrendering the scoresheets to the Scoring Director. (See 7.3.6)

## PROPOSAL 2019-38

Affected Rule(s): 6.14  
Subject: Free Program Certification  
Proposer: Peter Gelinis



### **Background**

The competitor is responsible for legality already. A second opinion is not necessary or more accurate with the available software solutions.

Removing a judges sign off also encourages innovation in freestyle design with out burdening the volunteers of the organization.

### **Proposed Change**

6.14 Prior to a contest, it is the competitor's responsibility to have his or her three (3) Free Program Forms checked for compliance with these rules, signed, and dated by the competitor or a current judge.

**PROPOSAL 2019-39**

Affected Rule(s): 8.5  
Subject: Family 9.1  
Proposer: Tom Myers

**Background**

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.

**Proposed Change**

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."

**PROPOSAL 2019-40**

Affected Rule(s): 5.5 and 6.2  
 Subject: Category Uncreep  
 Proposer: Tom Myers

**Background**

We have reached the point at many regional contests where there is barely enough participation for viability. This rule proposal turns back the clock to when there was more than double the participation in the sport. It returns category sequence requirements to those that allowed more affordable aircraft to be competitive at the middle and upper levels of competition.

**Proposed Change**Section 5.5.6 Unlimited Unknowns, Unlimited Power

Change the second sentence to, "The total K-factor shall not exceed 336."

[NOTE: was 400K; 336K is 80% of the Unlimited free 420K.]

Change (a) to: Maximum of 4 snap rolls, only 3 of which may be from the same family (9.9 or 9.10).

[NOTE: was ...maximum of 6 snap rolls, only 4...]

Section 5.5.7 Advanced Unknowns, Advanced Power

Change the second sentence to, "The total K-factor shall not exceed 240."

[NOTE: was 275K; 240K is 80% of the advanced free 300K.]

Change the third sentence to, "A minimum of 2 and a maximum of 3, snap rolls are allowed from Family 9.9.

[NOTE: was ...maximum of 4...]

Section 5.5.8 Intermediate Unknowns, Intermediate Power

Add a second sentence, "The total K-factor shall not exceed 152."

[NOTE: was 175K; 152K is 80% of the intermediate free 190K.]

Add a third sentence, "Figures requiring outside pushes beyond -2g are not allowed."

Section 6.2 (Free Program) Figures and K-Factor Limits

## Table 6.2.1 Power Figures and K Limits

## Advanced Max # of Figures

Change to: "15"[NOTE: was 12; changes from 25K to 20K per figure.]

## Unlimited Max # of Figures

Change to: "14"[NOTE: was 9; changes from 47K to 30K per figure.]

## PROPOSAL 2019-41

Affected Rule(s): Multiple  
Subject: Eliminate HZ's  
Proposer: Tom Myers



### **Background**

Simplification of the judging process.

Simplification of the rulebook.

Eliminates biasing of the scoring range caused by the data being skewed towards zero.

All existing HZ criteria can be met or are already met with 0.0 criteria.

### **Proposed Change**

Eliminate all references to HZs and replace with 0.0.

## PROPOSAL 2019-42

Affected Rule(s): Appendix 3, Advanced and Unlimited Power  
Subject: Limits to crossover Snap intensity  
Proposer: Dave Watson



### **Background**

Snap rolls subject the pilot and plane to abrupt changes in G loading, especially when the Snap loading direction is opposite the wing loading when initiated. This proposal introduces a new term “crossover snap” and reduces the potentially hurtful impact of these maneuvers by ensuring that crossover snaps are not immediately initiated after sustained G in the opposite sense or by mandating some aileron roll between the sustained G and the crossover Snap. Either feature is designed to limit excessive abrupt G swings on the pilot. This is achieved by amending the Allowed Figures tables for Advanced and Unlimited and by implementing the same policies in Known Sequences. Glancing through the tables of allowable figures for Unknowns, it is evident that some attempt has been made to reduce the impact of snaps by limiting or excluding snaps from certain figures. This proposal takes a closer look at those possibilities and adds additional limits with considerations for the added G swings of crossover snaps. It also would hopefully apply the same criteria to the Sequence Committee but admittedly the author of this proposal does not know how to propose that in a written manner.

### **Proposed Change**

Add to Glossary

Snap Roll, Crossover: A Snap roll (either positive or negative sense) that is initiated with wing loading that is opposite the snap loading sense.

The proposer submitted numerous restrictive notes to the Family 9.9 and 9.10 tables for allowable snap rolls in Advanced and Unlimited Unknowns. The tables and notes are too space hungry to include in this proposal summary.



**PROPOSAL 2019-43**

Affected Rule(s): 7.3.1

Subject: Amend HZ Rule To Exclude Big Errors

Proposer: Dave Watson

**Background**

The description for HZ criteria (7.3.1) is confusing and is without structure. Re-writing it as shown provides a common sense means to describe, remember and refer to the HZ criteria.

7.3.1.c is most confusing in that it includes two 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. Example - When a judge perceives a snap over-rotated by 40 degrees (and no other errors in that Figure) he must award a 2.0 and that score will hold. If he perceives that the pilot over-rotated by 80 degrees then he must award a 0.0 and that score will hold. If he perceives that the pilot over rotated by 90 degrees or more, he MUST by 7.3.1.c award a HZ and that score will only hold if HZ'ed by a majority by the judges. Why must such an egregious mistake need majority rule to hold when lesser ones do not? It is not rational to think that a mistake of 80 degrees was involuntary (i.e. just over rotated), while one of 90 degrees was deliberate (i.e. the pilot is ASSUMED to have flown wrong figure). This is confusing, deplorable, and causing many poorly flown figures to get much higher scores than they deserve. This can easily be corrected by simply eliminating this criteria from HZ rules and allowing all judges to award 0.0 to all figures with maneuver errors over 50 degrees (whether from a singular event or cumulative errors).

Furthermore, as described above, this criteria (...including any deviation from the prescribed entry/exit direction of 90 degrees or more, or any other single deviation in geometry / flight path / attitude /rotation of 90 degrees or more) is in DIRECT CONTRADICTION to the definition of HZ: 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 scoresheet with the notation, HZ.

**Proposed Change**

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

- (a) Omitted Figure. Omitting a figure in the program.
- (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 drawing 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 with both a Y axis entry and exit not in the direction, same or opposite, of the entry as depicted on the Form B/C held by the judges. (See 4.11.2 and Fig 6.13.1)

(f) Failed Maneuver. 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 these specific reason(s) stipulated. 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  $\frac{1}{2}$  fuselage length in power categories or a 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)

**PROPOSAL 2019-44**

Affected Rule(s): Appendix 3, Intermediate Power  
Subject: Eliminate all but snap at apex of loop from INT  
Proposer: Dave Watson

**Background**

Many Pilots are 'Stuck' in Sportsman for life because they refuse to subject their airplanes to Snap rolls. Many are rightfully concerned about the potential for detrimental structural effects that IAC Snaps impose on their aircraft. In order to maintain a constant horizontal or 45 up line throughout and after a snap mandates that significant energy be maintained during and after the snap. Eliminating all Snaps except at the apex of the loop would open Intermediate to a wider variety of planes and pilots without compromising the integrity of the category. Intermediate still introduces the pilot to some limited negative maneuvers, rolling turns and the UNKNOWN. This proposal amends the tables in the list of Power Unknowns to limit a full snap to the apex of loops only and would impose the same criteria on the Sequence committee for creating Knowns. This proposal would greatly simplify many other pages of the Unknown tables by removing many references to where and where not snaps can be placed.

**Proposed Change**

Add note to Appendix 3, Intermediate :

9.9.3.4 can only be used on 7.4.1.1, 8.6.5.1, 8.6.7.1 or 8.7.5.1 at the apex of the loop.

## PROPOSAL 2019-45

Affected Rule(s): 8.1.3.3

Subject: Regarding 45 lines – added clarity

Proposer: Dave Watson



### Background

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.

### Proposed Change

8.1.3.3 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 **of the zero lift axis of the wing. During any rolls on 45 lines, the perceived flight path of the plane may change significantly without deduction.** 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.**

## PROPOSAL 2019-46

Affected Rule(s): N/A

Subject: Basic Rule for "Rule Change"

Proposer: Francesco Pallozzi



### **Background**

Changing rules every year requires judge qualification and competitor knowledge of the new rule book. Giving a 4 years time frame with the same rules helps in judge currency and in competitors not having the need to study the new rules. It a more appropriate system for a non professional sport.

### **Proposed Change**

A new rule book has to be issue every 4 years. A 3 year time frame is used to collect ideas for rule changes. One year is used to prepare the new rule book.