Affected Rule(s): 8.2

Subject: Horizontal Flight For Gliders

INTERNATIONAL AEROBATIC CLUB

Background

Currently, horizontal flight for gliders in the IAC is defined as "any reasonable angle." That definition provides no guidance to the glider competitor as to what angle is acceptable to the judges and leaves it to the individual judge to determine his/her criteria for "reasonable." This fact makes the judging of horizontal flight for gliders highly subjective and variable from one judge to the next leading in turn to inconsistency in the judges' marks and a judging situation inherently unfair to the competitor.

Proposed Change

8.2 Horizontal Flight In Gliders

Gliders cannot maintain altitude without losing speed. In order to maintain airspeed, they must fly a descending flight path. The glide angle at constant airspeed is determined by the lift/drag ratio of the specific glider at that speed. So, depending on airspeed and glider type, glide angles may vary considerably.

For this reason, the flight path for horizontal lines in glider aerobatics may be inclined between zero (0) and ten (10) degrees below the horizon. Deviations above or below this bracket will be downgraded by one (1) point per five (5) degrees.

Because of differences in required entry speeds from one figure to the next, the lines marking the entry into and exit from a maneuver need not be the same. For example, if a pilot is about to fly a loop, which requires only a moderate velocity – followed by a Hammerhead with a quarter-roll on the up line, which requires a high velocity - you can expect to see a steeper flight path on the line marking the loop's exit than on the line marking the entry to the loop. Though the entry and exit lines may be at different angles, once established, the flight path of each line segment must remain constant. Any change of angle within the line segment will be downgraded by one (1) point per five (5) degrees.

Furthermore, figures which should be flown at a constant altitude in power aerobatics, such as horizontal rolls and turns, may be flown by the gliders at between zero (0) and ten (10) degrees below the horizon. If the angle changes during the figure, however, a deduction will be applied. For example, if a 360 degree rolling turn is entered and flown with a constant 5 degree descent, no deduction would be made. If the angle changed to 10 degrees during some portion of the turn, however, a one (1) point deduction would be applied.

Affected Rule(s): 2.3(q)

Subject: VHF Radio Requirements

INTERNATIONAL AEROBATIC CLUB

Background

Situations have arisen at contests held at airports with control towers where a glider competitor had a radio with the capability to communicate on the box frequency, but could not communicate with the tower.

Proposed Change

2.3(q) A radio capable of transmitting and receiving on the specified box frequency as well as any required ATC frequencies for contests at controlled airports.

Affected Rule(s): 2.6.3(e) Subject: Judge Currency



Background

Rule 2.6.3(e) currently reads, "A judge retains currency until the first issuance of the IAC Approved Judges List in the new year, as long as that judge's name was on the list of qualified judges as of December 31 of the previous year." This is out of step with how we manage the Approved Judges List today. When the new R&C exam is published, the judges' database is updated to mark all judges as non-current. Then, as the server receives R&C results and Judges School attendance records, judges are automatically marked as current.

Proposed Change

2.6.3(e) 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 list of qualified judges as of December 31 of the previous year.

Affected Rule(s): 6.14 and 1.5(m)(2) Subject: Free Program Certification



Background

In regards to certification of Free programs, rule 6.14 currently reads in part, "The judge's signature does not have to have been in the current contest year, if there were no rule changes which affected a previously certified Free Program's legality." Additionally, rule 1.5(m) requires the Chief Judge to ensure, "that each competitor's Free Program Forms A, B, and C, are signed and dated to certify legality."

It is not realistic to believe that either Registrars or Chief Judges will have complete knowledge of any rule changes affecting the Free Programs of every category. To fully comply with the current rules, any Free program not certified in the current year should be rechecked by a current judge on site.

To eliminate this problem, it is proposed that all Free programs be required to have a certification date in the current year. In that way, both the Registrar and Chief Judge would only have to check the certification date to ensure it is for the current contest year. At first glance, this would seem to create a huge amount of work for both pilots and judges alike to have the Free programs recertified every year. However, now that virtually all Free programs are in a computer file format, all that would need to be done is for the pilot to transmit their previously certified Free program to the same judge who certified it originally. That judge would simply have to verify that there were no rule changes affecting the originally certified sequence, re-date the certification, and transmit the Free back to the pilot.

Proposed Change

6.14 Free Program Certification

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 in the current year by a Judge who must provide their IAC member number on the Form A. The judge's signature does not have to have been in the current contest year, if there were no rule changes which affected a previously certified Free Program's legality. Competitors arriving without Forms A, B, and C being certified in accordance with these rules may be refused entry. Such certification does not relieve the competitor of the final responsibility for the legality and legibility of the forms. A competitor who is also a judge may not sign off his or her own Free Program.

1.5(m)(2) Ensuring that each competitor's Free Program Forms A, B, and C, are signed and dated in the current year to certify legality. In the case of unsigned forms, or any other irregularity noted in a Free Program, the Chief Judge will check the "Illegal Free Program" box on the Chief Judge Penalty Form. The checked box indicates the Free Program must be reviewed by the Contest Jury, who will determine if any penalties apply. (See Rule 6.16)

Affected Rule(s): 1.13 Subject: Judge's Duties



Background

As part of becoming a Regional Judge for the first time, there is a very large syllabus of material to be covered, not all of which is pertinent to the duties a new Regional Judge will have to perform. By trimming the syllabus a little, a first time Regional Judge will be able to focus more on the areas that need their immediate attention as specified in 1.13(a), (b), and (c). More advanced tasks such as certifying Free programs (1.13(d)) and contest organizational matters related to being the Chief Judge would be left to National Judges. A Regional Judge can be a productive asset to a contest without knowing which K-factor is used for a particular knife-edge snap.

Proposed Change

1.13 Judges

All judges are responsible for:

- (a) Attending the Judge briefing at the beginning and debriefing at the end of each Program category.
- (b) All aspects of grading the figures and presentation of each contest flight.
- (c) The performance of their Assistant Judge and Recorder.

National Judges are additionally responsible for:

(d) Checking and certifying competitor Free programs in accordance with Chapter 6.

Affected Rule(s): 2.6.1(d)

Subject: Regional Judge Certification

INTERNATIONAL AEROBATIC CLUB

Background

Eliminate the requirement for a Regional Judge candidate to grade three flights under the supervision of a current judge. There are too few opportunities to meet these requirements and they are too expensive to meet. Hopefully a year of having this rule in place has shown that we are preventing people who otherwise would have become Regional Judges by this rule. Judge candidates may have to drive 3-4 hours to a practice site, find a judge who is not otherwise occupied, find three competitors who will fly a printed sequence instead of just what their coach asks them to fly and not to stop when their coach asks them to and then the quality of the mentoring they receive is questionable. There is no way to fulfil this need during a contest because every judge is either on the line or in line to fly.

We need to make it easier to become a Regional Judge. New Regional Judges are not judging upper categories and the even if they give bad scores there is no National title that regional contests count towards. No one is denied entry to Nationals because a Regional Judge gave him a low score he did not deserve. If we thin the ranks of the Regional Judge pool too far we will find it difficult to hold regional contests at all. Adding to the cost and difficulty of becoming a Regional Judge does not improve the quality of the regional contests we hold.

Proposed Change

DELETE rule 2.6.1(d)

Affected Rule(s): 2.1

Subject: Spin Training Endorsement

INTERNATIONAL AEROBATIC CLUB

Background

The wisdom of receiving inadvertent spin training prior to competition is unchallenged. The problem has been how exactly to ensure that happens. There is no official certification of instructor pilots who have demonstrated competency to instruct spins and the few who have achieved an outstanding reputation for that ability may require extensive travel, time, and expense for aerobatic students to reach. This proposal eases the burden and encourages at least rudimentary spin training by requiring only that all first-time, lower-level competitors self-certify that they have received inadvertent spin training from an aerobatic instructor (not necessarily a CFI) who has the ability to teach all the basic spin recoveries. The self-certification nature of this rule change presents the potential for "pencil whipping" this requirement, but in the end it is the pilot's own well-being at stake and it would be hoped that this requirement would not be viewed as a burden, but rather as an essential pilot skill necessary for competition. Additionally, it is hoped that highlighting the need for spin training in the pilot qualifications section of the rule book will increase awareness of this essential skill.

Proposed Change

2.1 Competitor Qualifications

Add New paragraph

A first-time pilot competing in the Primary, Sportsman, or Intermediate categories must show an endorsement in their logbook (copies acceptable) signed either by an aerobatic instructor who need not be a CFI, or themselves, that they have received instruction in the full range of spin recoveries (upright, inverted, flat, and accelerated) and have demonstrated competency in the recovery from same.

Affected Rule(s): Appendix 5, 5.a

Subject: Star Awards

Background

INTERNATIONAL AEROBATIC CLUB

The current JaSPer programming to verify qualification for Stars awards cannot be adjusted so that Hard Zeros (HZ) are treated similar to an Average (A). The HZ is subject to the majority rule therefore if other judges give a score, the HZ doesn't stand and an average is calculated for the final score calculated by JaSPer.

It is proposed that rather than the current wording for Stars Achievement Awards, "A minimum raw grade of five (5.0) or higher must be awarded on each figure", that the award be based on a minimum grade of 5.0 of higher, based on the grades calculated by JaSPer for each figure.

Proposed Change

Appendix 5, 5.a

(a) A minimum grade of five (5.0) or higher, based on grades calculated by the current IAC approved scoring program, must be awarded on each figure and on Presentation for all flights completed in a contest with four or more Judges, except ONE grade on EACH figure and on Presentation may be less than 5.0. In a three judge contest, ALL grades must be 5.0 or higher. The Unlimited 4-Minute Freestyle is not to be included as a flight.

Affected Rule(s): 2.6.1, 2.6.2, and 2.6.3 Subject: Judge Candidate Training

INTERNATIONAL AEROBATIC CLUB

Background

IAC members have been asking for online training to replace classroom time for the "Introduction To Aerobatic Judging" training. The first version of online training covers the topics currently covered in the day 1 lecture. This training has been implemented. The training videos and associated knowledge quizzes are available today through the IAC web site. This rule change proposal updates the rulebook's section 2.6 to reflect the new training delivery and how candidates are credited with successfully accomplishing the online training. The Intro course will be broken into two parts that may be presented across two days as is currently done. Alternately, the first part may be accomplished online and the second part may be presented as a one day class.

Proposed Changes

- 1. Replace original text of 2.6.1 (a)
 - (a) Completing an approved IAC "Introduction to Aerobatic Judging" course (introductory and refresher portions) within the current or previous contest year. If the candidate completed an "Introduction to Aerobatic Judging" course prior to the previous contest year, then completion of either the recurrency portion (2nd day) of the "Introduction" course or the "Advanced Aerobatic Judging" course within the current or previous contest year may be used to satisfy this requirement.

With:

(a) Completing the sanctioned IAC "Introduction to Aerobatic Judging" training, described below, within the current or previous contest year. If a candidate completed the "Introduction" course prior to the previous contest year, then completion of either the "Practical" segment of that training, or attending the sanctioned "Advanced Aerobatic Judging" training within the current or previous contest year may be used to satisfy this requirement.

The "Intro" training is composed of two sessions: Session 1 is "Introduction to IAC and the Aresti Language". Session 2 is "Practical Aerobatic Judging". Session 1 may be accomplished as part of a 2-day classroom lecture-based "Introduction to Aerobatic Judging" class, or may be accomplished by completing the online "Introduction to IAC and the Aresti Language" and the associated Judge Knowledge Quizzes on the IAC web site. Credit for completion of the online training will be acknowledged by an official IAC communication. Candidates who opt for the online training must successfully complete that training before acceptance directly into "Practical Aerobatic Judging" session.

2. Change original text of 2.6.2(a)

(a) Completing an approved IAC "Advanced Aerobatic Judging" or "recurrency portion" (2nd day) of an approved IAC "Introduction to Aerobatic Judging" course within the current or previous contest year.

To:

(a) Completing a sanctioned IAC "Advanced Aerobatic Judging" seminar or the "Practical Aerobatic Judging" session of the "Introduction to Aerobatic Judging" course within the current or previous contest year.

3. Replace original text of 2.6.3 (c)

(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 attended an approved IAC "Advanced Aerobatic Judging" seminar or the "recurrency portion" (2nd day) of an approved IAC "Introduction to Aerobatic Judging" seminar within the previous two (2) calendar years, currency may be retained by attending an approved IAC "Advanced Aerobatic Judging" seminar or the "recurrency portion" (2nd day) of an approved IAC "Introduction to Aerobatic Judging" seminar and passing the current year IAC Revalidation and Currency (R&C) Exam.

With:

- (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:
 - a. Attended a sanctioned IAC "Advanced Aerobatic Judging" seminar or
 - b. 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, <u>and</u> passing the current year IAC Revalidation and Currency (R&C) Exam.
- 4. Update Figure 2.6.1 to change "Judges Recurrency Seminar" to "Practical Aerobatic Judging training"
- 5. In 2.6.3(e) change "IAC Approved Judges List" to "IAC Current Judges List" to reflect the actual title on the IAC web site.

Affected Rule(s): 4.19.5

Subject: Optional Break for Density Altitude

INTERNATIONAL AEROBATIC CLUB

Background

Sequences are typically designed for and tested at airports that are relatively close to sea level. Engine power is substantially reduced at 5000 ft MSL and above, while the gap between indicated airspeed and true airspeed increases. Therefore competitors at high-altitude events must fly shorter uplines and longer downlines, resulting in much greater loss of altitude. This in turn compromises safety and/or penalizes competitors for taking breaks to regain altitude.

At 80°F and 29.92", the density altitude at Apple Valley, CA, is 5200ft. Field elevation at Sterling, CO, is 6400ft MSL; and the Air Force Academy is 9400ft MSL. Add another 1000, 2000, or 3000 feet to reflect the actual conditions in the box.

When sanctioning events, IAC Chapter 12 routinely requests a supplemental rule authorizing one free break per flight, which has always been granted with little or no discussion. Therefore there is ample precedent for this practice. Chapter 12's experience has shown that a free break does not delay the contest because most competitors take interruptions when they need them, not for convenience.

Proposed Changes

4.19.5 Optional Break

If the conditions of 4.19.2 do not exist, or if the field density altitude is expected to exceed 5,000 feet, the Contest Jury may, after calling for such advice as required, authorize programs to be flown with an optional break (an interruption where no interruption penalty is assessed). Such breaks allow competitors to adjust altitude and reposition, thereby enabling the contest to continue.

Affected Rule(s): 6.16(a)

Subject: Free Program Penalties

INTERNATIONAL AEROBATIC CLUB

Background

When this section was edited in a prior year, the penalty for using the incorrect sequence forms was inadvertently left out. It makes no sense to have a "must do" rule without an associated penalty for failure to comply. This change corrects that oversight with a penalty which is consistent with the penalty already in place for similar infractions.

Proposed Changes

6.16(a) Sequence is drawn on current IAC forms as depicted in Appendix 7 of this rule book.

<u>Penalty</u>: Should a competitor's Free Program become final (See 6.15) with the improper forms, that competitor will be assessed penalty points according to the schedule given in 4.6.1(a)(2).

Affected Rule(s): 1.5

Subject: Chief Judge Actions

INTERNATIONAL AEROBATIC CLUB

Background

This change is proposed because of my experience as a grading judge. Some Chief Judges audibly express their opinions of an ongoing flight by calling out comments like, "Well, that's a low!" or "That looks like a Hard Zero!" Chief Judges must remain neutral throughout all flights within a program to prevent creating bias and inconsistencies with the judging competitor-to-competitor. This proposal does not preclude a Chief Judge from noting exceptions to the grading judges' actions during the judges' debrief, but reinforces the point that it is more important for judges to be consistent in their grading within a flight program, than necessarily judging in a manner with which the Chief Judge agrees.

Proposed Changes

1.5 Chief Judges

Safety will be the primary consideration of the Chief Judge at all times. Chief Judges must not attempt to influence the actions of the grading judges through either intentional or unintentional comments during the flights. This does not preclude Chief Judges from providing instruction or comments during the judges' briefing or debriefing.

There will be a Chief Judge for each category. A Chief Judge may serve in that capacity in more than one category. The Chief Judge will be responsible for the following:

Affected Rule(s): 4.19.3 Subject: Wind Limits

INTERNATIONAL AEROBATIC CLUB

Background

The current rule on wind limits does not specify whether the stated wind speeds are for steady state or gusts. This has led to confusion by CDs about whether to stop a contest or not. To prevent a single gust from stopping a contest, it is proposed that 4.19.3 reference averaged winds without gusts.

Proposed Changes

4.19.3 Wind

Contest flight will not be conducted if the average (gusts not included) cross wind component for the active runway exceeds 20 knots or the average total wind velocity at the surface exceeds 25 knots from any direction.

Affected Rule(s): 3.14 and 4.2.2

Subject: DQ for Practice

INTERNATIONAL AEROBATIC CLUB

Background

The change to 3.14 comes after an experience on the jury where a competitor wanted to fly home to spend the night, but a jury member felt strongly that this was against the rules. The proposed change still leaves the final decision up to the jury because it will mean that competitors won't do this as a matter of habit, but the rule makes it clear that it can happen under special circumstances.

The change to 4.2.2 is simply to reduce the word. Items (c) and (q) can be easily condensed into a single rule.

Proposed Changes

3.14 Practice Flying

Practice flights are prohibited after a time designated by the Contest Director. If not otherwise designated, the prohibition begins immediately following the initial contest briefing. In no case will practice flights be flown by a pilot in a given category, once that category has begun competition. Any such flight will result in disqualification of the competitor from the contest. This rule may be waived by the Contest Jury under special circumstances, such as test flights following repairs made during the contest, or nonaerobatic flights to and from the contest location.

[DELETE 4.2.2(q)]

4.2.2(q) Practicing of any Unknown figure by any participant; however, this does not preclude the flying of any normal competition sequence prior to the Unknown.

Affected Rule(s): 3.8

Subject: Minimum Number of Competitors

INTERNATIONAL AEROBATIC CLUB

Background

Current rules do not allow categories to be flown unless they have more than one contestant. This has the potential to reduce attendance. Implementing this change will result in more pilots attending contests. Many contests do not have enough pilots to field all the categories forcing pilots to move up or down a category. The way the rules are now, pilots check in with each other to make sure they won't be the only one in their category, and may choose not to come if it seems unlikely that another will show up. This change would most affect the upper category pilots at the contests which is also good because the pilots in the upper categories are more likely to be judges.

Proposed Changes

3.8 Competitors Per Category

The minimum number of competitors to comprise a category for official scoring and trophies is two. Competitors will not be allowed to enter more than one category in a contest. However, competitors may also enter a lower category for record only in order to secure an Achievement Award with "Stars", but not in competition for trophies. This does not preclude a competitor from entering a different category at another contest or from entering both a power and a glider category at the same contest.

Should a category have a single competitor, that pilot may be allowed to compete "Hors Concours (H/C)". In that case, the competitor will be added to the order of flight in the highest level category which has two or more competitors. Judging and processing of the scores for the H/C pilot will be conducted normally, but that pilot will not be eligible for any medals or trophies.

Affected Rule(s): Numerous

Subject: Rename Sportsman Category

INTERNATIONAL AEROBATIC CLUB

Background

There are a few pilots who avoid using the term "Sportsman" in favor of "Sportsperson". "Sportsperson" is a mouthful so a better gender neutral suggestion would be simply "Sports".

Proposed Changes

Rename the Sportsman category the "Sports" category.

Affected Rule(s): 7.3.5

Subject: Combination of Hard and Numeric Zeros

INTERNATIONAL AEROBATIC CLUB

Background

Rule 7.3.5 was adopted for use in 2016 with the stated purpose of providing judges guidance on how to handle their mark when both a numeric (0.0) and hard zero (HZ) were observed during the execution of a single figure. Having now lived with this rule for the current contest season, it has become clear that the rule is not only based on flawed logic, it also has had unintended consequences among a small minority judges resulting in the incorrect and erroneous marking of certain figures. Misinterpretation of this rule may have increased the punitive effect of marks received and affected the final standing for some pilots who lost the protections of the majority rule (7.3.3).

The original proposal for rule 7.3.5 gave the rationale that judges who observed figures demonstrating both poor execution (numeric zero) and failing to meet relevant criteria (hard zero) needed guidance on which "flavor" of zero to mark. For example, a pilot flying a hammerhead accrues total downgrades during the execution of the rolls and pivot greater than 9.5 points, but then exits the figure upright instead of inverted. Now the judge has observed both a 0.0 (execution) and an HZ (wrong figure). Rather than allow for possible inconsistencies between judges in choosing which of the two zero marks to give, the stated purpose of rule 7.3.5 was to eliminate any chance of inconsistency.

What was missed in the original proposal and subsequent approval of 7.3.5 is that when an HZ condition (as defined within rule 7.3.1) is observed at any point within the figure, whether it's in the base figure or any element comprising that figure, the entire figure must be marked as an HZ. Giving such a figure a numeric zero is mathematically the same as giving it a very low nonzero mark. There is no logic in giving a numeric grade (0.0 to 10) to a figure which isn't part of the drawn sequence (i.e., it's the 'wrong' figure). Recall from 7.3(b) that the numeric zero "is included in the final score calculations as any nonzero mark would be."

A clear example of the flawed logic in 7.3.5 is the example of a judge expecting to see the aforementioned hammerhead as the next figure. The judge observes the pilot pull to vertical and overrotate the first roll by 60 degrees. As far as the judge knows at this point, it's still a hammerhead with a mark of 0.0 because of the poorly executed roll. But following the roll, the pilot pulls over the top (humpty) rather than pivoting to the down line. Now, it's clearly the wrong figure (HZ), but according to 7.3.5 the mark recorded must be 0.0 because the numeric zero was observed first! One would hope there is not a single judge who believes that a humpty flown in place of a hammerhead does not require the mark of Hard Zero. Yet, this is not what 7.3.5 currently requires a judge to do.

But, either way the figure got zero points, so what's the problem? Besides the fact that marking an incorrect figure as anything other than an HZ is in clear violation of 7.3.1(c), it must be remembered that the respective definitions of a numeric (0.0) zero and hard zeros represent entirely different ideas. One is a score for a correct figure badly flown while the other is an indicator that a critical criteria defining the figure was not met. The problem for the competitor is that 0.0's stand as any nonzero score would, whereas the HZ is subject to majority rule. The majority rule provides a layer of protection to the pilot by ensuring that a majority of the judges saw the error fitting one of the conditions of 7.3.1. To be sure, observing a humpty where a hammerhead should have been is a scenario that no judge should miss, but there are certainly more subtle examples like not autorotating a spin or

snap roll for which subjecting the mark to the majority rule is critical to the fair judging of the competitor.

If it is understood by all judges, as it should be, that marking a figure meeting any of the conditions of 7.3.1 with anything other than HZ is clearly against the rules, the possibility of inconsistency between judges is nonexistent.

Simply restated, if a criteria requiring an HZ (rule 7.3.1 and it's subparagraphs) exists at any point from the time the competitor exits the previous figure to exiting the current figure, the mark recorded on the Form A must be 'HZ' regardless of how well or how poorly the figure was executed either before or after the HZ was observed. This action is not only dictated by the existing rules under 7.3, it ensures competitors always received the benefits of the Majority Hard Zero rule.

It is never ideal to adopt, then rescind, a new rule within the span of a year, but sometimes new rules include unintended consequences or flaws in their logic which were not detected during the approval cycle. Better to admit the mistake and fix it than to continue with confusing and contradictory grading criteria rules.

Proposed Changes

[DELETE Rule 7.3.5 Combinations of Hard and Numeric Zeros]