



CIVA Safety, Expedited and Presidents proposals (SP, EP and UP)

The following proposals are submitted for plenary review. Their purpose is to ensure that improved safety standards and regulatory provisions prevail at CIVA championships, based upon recommendations given in reports from officials at 2023 championships and also from the newly constituted CIVA Safety Working Group.

Proposal #1

Density Altitude considerations

Part 1

Background

In 2009 CIVA introduced in Section 6 Part 1 under the heading **4.2.2. Meteorological Conditions** a paragraph at 4.2.2.2 Minima as follows –

- e) In “A” and “Y52” the maximum permitted density altitude for sequences to be flown without interruption is 3,000 feet.

At that time the Advanced power category was operating with aircraft of 260hp or over excluded, and it made good sense to enable these aircraft and also those in the Yak-52 category to benefit from flight restrictions when the meteorological conditions were unfavourable for aerobatics.

This limitation was subsequently revised to include Intermediate category a/c, then again in 2018 to exclude Advanced a/c as these were generally similar types to those at Unlimited, and once more in 2023 to remove the Yak-52 category as this had been discontinued.

At EAC-23 however with Pavullo nel Frignano airport at an altitude of 2,650ft and very hot conditions on some days the jury was requested to revisit this topic and a decision was made to avoid training and some competition flights when hot conditions prevailed. The question has again been raised by the International Jury President at WAAC-23 where Jean Airport is at 3,000ft elevation and high temperatures are also expected.

Although it is now generally accepted that the majority of aircraft at CIVA power championships will be high performance 300+ hp carbon wing monoplanes, it remains evident that where a competition site is at an elevated altitude and local air temperatures may be high the operation of a density altitude limitation may still be a wise precaution.

As a general safety measure therefore I propose that the original 3,000ft density altitude limitation should be included in Section 6 Part 1 for all categories, thus available to the jury at all power events should this be considered necessary. I see no reason why this should not also be included in Part 2 for glider events, subject to review by the GAC for verification.

The following revision to Section 6 Part 1 is proposed to achieve the above:

Replace the whole paragraph at 3.6.2.6 with the following:

3.6.2.6. In all categories, subject to review by the International Jury, the maximum permitted density altitude, measured at the surface, for sequences to be flown without a permitted break is 3,000 feet.

Proposal #2

Final Freestyle Safety Communications and Deadline

Part 1 only

Background

While programmes 1 to 4 have always entitled competitors to fly beyond the 'box' limits, even over and behind the judging panel with the possibility of penalties, the well-practiced nature of Aresti-based performance elements provides reassurance that loss of control is unlikely and, if necessary, safety messages from the Chief Judge can always be made to instruct the competitor. During the Unlimited Final Freestyle however the judging panel can be situated directly in front of, within or adjacent to public areas, in which case the need to maintain a high level of public safety overrides other considerations.

For programme-5 therefore, subject to assessment by the jury regarding the proximity of any public areas to the performance zone, it may be necessary to establish a 'deadline' no more 50m in front of the near edge of the performance zone in order that a clearly defined "no-fly" region is defined at least 100 to 150m clear of any public areas. For obvious reasons any penalties applied for flight within this area could be up to and/or including immediate disqualification. The deadline itself should be monitored by one or more specially assigned persons, with simple sighting equipment if possible, who must be able to make radio contact with the Chief Judge in case a safety message to the competitor or immediate stoppage of the flight is deemed necessary.

When a music track is used during the flight it is vital that the method of operation does not compromise the ability of the Chief Judge or any other officer to communicate with the competitor. The championship Safety Frequency must be considered a vhf channel dedicated solely for essential aviation-related matters and flight safety communications. In fact its use for the transmission of music is prohibited by most national aviation authorities, though surprisingly Section 6 Part 1 para 2.1.4.5.c) encourages this practice. If simultaneous ground (public) and in-cockpit audio operation is envisaged then this must be accomplished using a separate in-cockpit system that does not compromise communication between CIVA officials and the competitor.

The following revisions to Section 6 Part 1 are proposed to achieve the above:

2.4 Programme 5 - The Final Freestyle Programme (Unlimited only)

Existing paragraphs 2.4.1.1 to 2.4.1.4 remain unchanged.

New para 2.4.1.5:

- a) When the performance zone for programme 5 has been approved the jury will assess the location of the front or near boundary of this area and its proximity to locations where members of the public will be permitted. If the distance between this boundary and areas open to the public is greater than 150m then no further action is necessary.
- b) If however any public area is within 150m of the near edge of the performance zone the organiser must establish an official deadline no more than 50m in front of the near edge of

the performance zone to create a clearly defined “no-fly” region at least 150m distant from any public areas, to which the following applies:

- i. The deadline should be monitored by one or more specially assigned persons, if possible with sighting equipment to aid accuracy. If the competitor is observed to cross the deadline the Chief Judge must immediately be informed.
- ii. A competitor crossing the deadline should receive safety messages as follows:
 - o For minor infringements the Chief Judge should call “Deadline, Deadline, Deadline” to indicate to the competitor that they must immediately reposition their performance behind the deadline. For the first such instance no penalty shall be applied.
 - o If the Chief Judge considers the deadline infringement sufficiently serious, including repeated minor infringements or by personal assessment of the aircraft proximity to the judging panel and/or public areas, the competitors performance must be immediate stopped by issuing a “Land, Land, Land” instruction. In this case the pilot will be disqualified from the programme.

Paragraph 2.4.1.5 is renumbered to 2.4.1.6 and the following text replaces para 2.4.1.6.c):

The competitor must ensure that any music track played in the aircraft is operated via an independent system that does not compromise the ability to receive safety messages from the Chief Judge.

Proposal #3

Management of in-flight safety issues

Part 1 only

Background

During recent years a number of well-recorded situations have arisen where an urgent in-flight safety issue has occurred and the competitor was obliged to make an instant decision either to land or risk continuation of the flight. These have included for example inadvertent partial release of the competitors safety harness; realisation that part of a safety ejection system has been wrongly set; a loose item or a potentially harmful insect is noted within the cockpit; a fuel filler cap is observed to be not properly sealed etc. For obvious safety reasons the competitor should immediately land, though the possibility of jury decision to disallow a re-flight is unavoidable.

To motivate pilots to land immediately rather than accept the risk and continue their flight, the CIVA Safety Working Group has recommended that, subject in every case to jury assessment, the normal consequence of such a mid-performance break and landing should be revised to application of a penalty equivalent to a Low penalty, with a re-flight permitted.

The following revision to Section 6 Part 1 is proposed to achieve the above:

3.12.2. Defects in Flight

Paragraph 3.12.2.5 should be revised from –

“... the competitor will not be permitted to repeat his or her flight”

To:

“... subject to jury assessment, the competitor will receive a penalty equal to the Low penalty for the category (I, A, U) and will be permitted to re-fly the programme in accordance with paragraph 3.12.2.9.”

Proposal #4: RWY direction change.

At EAC-23 a dangerous situation developed when the RWY direction was reversed and the competitor flying his sequence suffered an emergency requiring that he immediately land. In the heat of the moment the competitor did not revert to the ground frequency and consequently could not be prevented from landing in the “wrong” direction, compromising the safety of the next pilot to fly who had already been authorised to take off in the revised direction.

The following revision to Section 6 Part 1 is proposed to achieve the above:

Insert new article 3.7.1.3. and change current 3.7.1.3. to 3.7.1.4.

3.7.1.3. In the event that the Contest Director, in consultation with the International Jury, determines that the Runway direction (QFU) should be changed although the official wind remains unchanged, the Chief Judge, the International Jury, Starter, Radio Operator and the concerned next competing pilots will be informed immediately. The next competitor will be instructed to hold position behind the holding point and to not enter the RWY under any circumstances. Once all airborne championship aircraft have landed and have vacated the RWY, and the Chief Judge has given his approval, the next competitor may be instructed to take off.

Renumber current paragraph 3.7.1.3. as paragraph 3.7.1.4.

Proposal #5

Define the minimum Safety, Warm-up and Practice Manoeuvres to be flown

Part 1 only

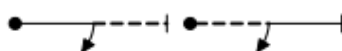
Background

Despite the broader set of **3.9 Safety, Warm-up and Practice Manoeuvres** now available to competitors to check that the aircraft’s inverted fuel and oil systems are operable, that there are no loose articles in the aircraft and to ensure that the pilot’s harness is properly secured, competitors remain entitled to start their performance without executing any of these manoeuvres. This presents an obvious safety issue that we can easily avoid by requiring pilots to fly at least two half-rolls per 3.9.1.1 plus one of the figures specified in 3.9.1.4.

The following revision to Section 6 Part 1 is proposed to achieve the above:

New para 3.9.1.1:

Before the wing-rocking at the start of each competition flight it is mandatory that pilots perform at least two half-rolls with a stop at the inverted position plus at least one of the practice figures specified in 3.9.1.4. These figures are flown to check the aircraft’s inverted fuel and oil systems are operable, that there are no loose articles in the aircraft and to ensure that the pilot’s safety harness is properly secured.



- a. The pilot may perform any number of these figures (1.1.1.3. & 9.1.3.2; 1.1.1.4 & 9.1.3.2), separately or continuously, before the wing rocking signalling the start of the competition sequence.

It is also recommended that all pilots perform as a minimum the Safety and Practice figures as follows.

Paragraphs 3.9.1.2 to 3.9.1.8 remain unchanged.

Proposal #6: Flick Roll and Spin criteria review and proposal

During EAC-23 and WAAC-23 it has become apparent that the revisions approved to Section 6 Part 1 paragraphs 4.4.2.1 at the 2022 CIVA plenary conference have caused many unsatisfactory situations, and urgent consideration should be given to address the problems that have been experienced during 2023 championships. The same considerations may also apply to Part 2.

In the normal course of events such rule changes would have been subject to development and subsequent presentation through the usual RC, JC and GAC committee stages. However the lateness of the final 2023 power championship that has concluded during November in Nevada, USA has led to these conclusions necessarily being assembled for submission to plenary using the Safety, Expedited and Presidents proposals system.

Delegates and all other CIVA officers are therefore strongly requested to read the separate paper published as Agenda item 8.3a with the above title, and prepare to discuss their own views at the 2023 plenary conference in Krakow. It is intended that following initial review and debate a vote should be taken to determine whether it is acceptable to consider this item as a formal proposal. If this is approved by delegates then the subject itself can be debated in the usual way so that final conclusions can be voted upon for potential inclusion in CIVA 2024 Section 6 regulations.

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