Safety, Expedited and Urgent Proposals

The following items have been extracted from comments made by Jury Presidents and Chief Judges from 2022 championships.

Measurement of Wind Speed and Direction

Submitted by Tamás Ábrányi, WIAC Jury President

For this purpose at WIAC the organiser used measurements from an aircraft flying in the box to provide data from which the wind speed and direction was calculated. This is however allowed only by Section 6 Part 2 para 3.7.1.11 and not Part 1.

Proposal: Section 6 Part 2 paragraph 3.7.1.1 should be added into Part 1 so that this method is also available for use if required at power championships. The content of this paragraph is as follows –

3.7.1.11 Procedure for Measurement of Wind Speed and Direction by Airborne GPS:

a) Wind velocity shall be measured at 700 m and 1200 m (over datum) using the procedure described below. If the wind cannot be measured at 1200 m due to clouds, measurement shall be made at the greatest height possible rounded to a multiple of 100 m.

b) Any GPS device either permanently fixed or hand held may be used, provided it is designed for speeds up to at least 150 km/h.

c) Flight Procedure:

i) Choose an airspeed appropriate for the aircraft and the weather conditions. The pilot must be able to maintain a horizontal flight path at this speed.

ii) Fly track true north and maintain the chosen airspeed as accurately as possible. Read and record the groundspeed indicated on the GPS device (Vn). Repeat this procedure for true tracks south, west and east. Record the ground speeds Vs, Vw and Ve for those directions. The easiest way to get these data is to fly a rectangle.

iii) Repeat this procedure for both required heights.

d) Calculation of wind speed and direction: (V = ground speed measured by GPS, W = wind speed)

i) Determination of the north-south wind component: If Wns = 0 then the wind direction is 090° or 270°. $$Wns = \frac{|Vn - Vs|}{2}$$

ii) Determination of the east-west wind component: If Wew = 0 then the wind direction is 360° or 180°. $$Wew = \frac{|Ve - Vw|}{2}$$

iii) Total wind speed: $$W = \sqrt{W^2ns + W^2ew}$$

iv) Wind Direction: If the wind direction is not one of the cardinal points from i) or ii) the table below should be used.

N/S component	E/W Component	Wind Direction WD
Vs > Vn	Ve > Vw	$WD = 270° + \arctan\left[\frac{Vns}{Vew}\right]$
Vs > Vn	Ve < Vw	$WD = \arctan\left[\frac{Vew}{Vns}\right]$
Vs < Vn	Ve > Vw	$WD = 180° + \arctan\left[\frac{Vew}{Vns}\right]$
Vs < Vn	Ve < Vw	$WD = 90° + \arctan\left[\frac{Vns}{Vew}\right]$

Official training flights

Submitted by Pierre Varloteaux, WAC Jury President

Bulletin 2 for WAC-22 issued on July 20th, ten days before the competition, stated –

> 1.4. The obligatory training flight during the Official training is free of charge. Any further training flights are charged €25 per flight.

With regard to this point, it should be noted that:

- The rules concerning fees are not precise and may be interpreted differently;
- Official training flights used to be free of charge.

The jury recommendation for all official training flights is –

- No additional fees should have been required for the Official training in WAC 2022;

In addition the Jury proposes:

- A clear statement on the subject should be written in Section 6; or -
- Future organisers should clearly take a position on this subject with their suggestions in the Plenary session.

Warm Up figures

A lot of questions were raised between pilots, judges, jury, about the warm-up figures allowed, for Free Known and Free Unknown programmes. It is clear that a careful reading of the rules can answer all the questions, but that the wording of the rules can be confusing, especially regarding the diversity of figures. And it's not useful for the sport.

Proposal: The Jury recommendations for Code 6.3.9 are -

- 3.9.1.4: remove "but may be flown only once", it's not an advantage to fly 2 or 3 times the same warm-up figures, it's only warming up.

Control of ground movements

At this championship two aircraft were seriously damaged through collision on the ground. The WAC Jury recommends for ground procedures at power championships –

Proposal: The Jury recommends that two frequencies should be systematically used during a contest:

1. Ground to ground (apron, taxiing);
2. Ground to Air (Safety during a flight, the Chief Judge, etc.)

Judge paperwork, scores entry, publication of Results and website management

All the duties were performed efficiently however, from time to time, the published results were available more than 4 hours after a Pilot's flight.

The WAC Jury recommends that to improve the speed publication of the results -

- Based on the experience gathered during other contests, the above mentioned problem might be easily solved by relocating the "Note-entry Station" to the Judge Position, with a 4G connection and 2 people working on the scoring: One person on site, the other one at the Scoring Office.

Video recordings

Submitted by Nick Buckenham, WAC-22 Chief Judge

Despite considerable previous experience at major championships the standard of video system provided for this top-class event was barely adequate.

The importance of rapidly available, good quality, visually stable recordings of flights cannot be over-emphasised. They are ultimately the only way to resolve whether Confirmed HZs should or should not be awarded when there is initial HZ disagreement for a figure between the judges. At this championship there were occasions when confirmation / denial of some HZs by video review were difficult to resolve. Organisers must employ appropriate recording equipment, otherwise there is a real chance that the final results at a major championship may be calculated using wrong marks because adequate video standards have not been provided to resolve tricky HZ assessments.

It should be noted that similar comments were made by the EAAC Chief Judge, though in that case some replacement equipment resolved the noted issues.

Proposal: Paragraph 13.7 "Video Recording Operations" in the CIVA Guide to Championship Organisation clearly describe the requirements for the video equipment and its operation. The Jury should be empowered to check and review the equipment and operational arrangements for this duty prior to the start of the championship, and instruct the organiser regarding shortcomings observed to rectify problems before the system is required during the event.

The HMD glider altitude monitoring system

Submitted by Philippe Küchler, Chief Judge and Madelyne Delcroix, WGAC Jury President

The most important thing after this years' competition is the need for action regarding the HMD system. As already mentioned, the system provided by Vladimir Machula with his own personal funds and a lot of energy and goodwill has served the glider aerobatics community for many years. Now the system has more than 7 years on its back and the electronic components are slowly but surely getting old and not operating within their tolerances anymore. Another problem that showed this year was the antenna connectors of which Vladimir and Cerv have replaced quite a bunch this year and nearly every day. So CIVA really needs to invest some money now to keep either this system going, if Vladimir is ready to do so or to find a replacement system ASAP already for next years' championships.

Proposal:

The CIVA ICTC in conjunction with the Glider Aerobatic Committee must work to determine an acceptable way forward with this matter. Primary targets should be the Polish 'Red Van' system created by Wojciech Krupa if it can be resurrected and put into service for future WGAC/WAGAC events, alternatively the existing system from the Czech Republic should be refurbished and rendered fit for purpose.

Note from the President:

Plenary is also requested to consider the possibility that neither of these options may be feasible, at least in the timeframe of 2023. In this case, unless a suitable alternative can be resourced, it may be necessary to proceed with upcoming WGAC and WAGAC championships without an HMD system. The GAC would therefore need the freedom to instruct competitors that alternative arrangements have officially been adopted, for example altitude reporting from the tow aircraft at release and then low altitude assessments by the judging panel.

Jury President and Chief Judge nationality

Submitted by Madelyne Delcroix, WGAC Jury President

It was suggested by the WGAC Contest Director that both the Jury President and the Chief Judge should preferably be selected from countries different to that of the organisers, as this could potentially lead to conflicts of interest that would then be unusually difficult to resolve due to pressure resulting from the same nations in each case. Plenary is requested to debate this matter in order to reach an acceptable viewpoint, and propose viable solutions if necessary.

Nick Buckenham
CIVA President