

<i>Subject:</i>	FORMATION SKYDIVING REPORT AND AGENDA 2022	<i>Annex #. -</i>	12
<i>Author:</i>	Mark Szulmayer, Chair, FS Committee		
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**INTERNATIONAL SKYDIVING COMMISSION
FORMATION SKYDIVING COMMITTEE REPORT AND AGENDA
MALMO, 2023**

Committee 2022

Chair:	Mark Szulmayer (AUS)
Deputy Chair:	David Grauwels (BEL)
Members:	Kirk Verner (USA)
	Randy Connell (USA)
	Matthew Fry (USA)
	Claire King (RSA)
	Trude Sviggum (NOR)
Advisors:	Jason Russell (USA)
	Jim Rees (USA)

As Kirk Verner has stepped back from ISC duties, I have asked Jim Rees to take his place on the committee, with Kirk remaining as an advisor. I have also asked Vana Parker (UK) to join the committee and I welcome both new members.

Competitions 2022

4th WORLD CUP of INDOOR SKYDIVING - Charleroi, Belgium 06-09 Apr 2022

The indoor meet was very well attended with a total of 51 teams which is the highest number for any ISC indoor meet so far. On the whole the meet was very well run, and my thanks go to the organizers for all their efforts, especially considering all the problems and scheduling changes caused by the covid pandemic.

There were some issues brought up at the competitor's meeting which will be helpful for subsequent meet consideration:

1. Ensure that an accurate indication of available wind speed be provided by organizers in their bids, not just maximum possible speed. Many of the VFS teams found the wind speed too slow and when they asked for a higher speed they were told this was not possible. It is unclear whether this was due to physical or cost considerations, but either way, the athletes need to know ahead of the

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competition what speed can actually be expected for a VFS team.

2. We need to ensure adequate provision of information to delegations, especially when there are scheduling changes. There was apparently a change to ceremony scheduling that many delegations were not made aware of, and subsequently missed. Simply using a Facebook group does not adequately do the job.
3. Provide better information of exactly who is in the tunnel at any time so spectators are better informed.

FCEAD annexe 2

2.14:...Wind Tunnel details: chamber diameter, wind speed settings [including maximum sustained wind speed available during competition](#), height, door measurements, cameras (position and screen image), music system. [Provision of information to spectators about competitors currently flying](#).

2.25: Details of on-site communications (radios, telephone, etc.) [and method\(s\) of information dissemination to competitors/delegations](#).

4. It may be advantageous to allow juniors to fly in the middle of the day rather than first thing in the morning, which may also permit VFS to fly early when things are cooler. This may help with wind speeds as mentioned in point 1 above.

6.4.4 Where possible, junior events are to be run at a separate time to open events ~~e.g. morning vs afternoon~~. [Preferred flying time for juniors is late morning or early afternoon](#).

5. Competitors would like scores before entering their next rounds. This will always be challenging with the high team turnaround possible in the tunnel, but some suggestions were:
 - I. Provide an initial preliminary score (without busts) to give teams some idea of the pace.
 - II. Run events concurrently to allow multiple judging panels to begin as soon as possible so no discipline falls behind in judging. This would also allow judging to catch up while other events are running before the next round.
 - III. Schedule pauses between rounds to allow judging to catch up.

25th WORLD FORMATION SKYDIVING CHAMPIONSHIPS - Eloy, USA 20-26 Oct 2022

Due to covid-19 we had a World Championships for the second year in a row. Overall, the competition was well attended with 22 nations participating. There were 21 4-way

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open teams which is the highest number since 2016, but the aftereffects of Covid are still being felt with numbers down in 8-way and VFS (5 teams in each) as well as Female 4-way (4 teams). Hopefully numbers will bounce back in the years to come.

The competition in Eloy went very well and my thanks go to The Hill family and Skydive Arizona for all their work. All events were finished with more than a day to spare even though a day and a half was lost to wind. We did have a short sharp deluge and tornado warning just prior to the start of competition though, so we are still to see a World Championships without rain. Perhaps the next one in Israel will finally give us a rain free meet.

Proposed competition rule changes 2023

VFS Sun interference:

Issues are still being found with sun angle for VFS especially on exit. It is suggested that provision be made for the meet director be able to modify aircraft run in heading to ensure that the sun is not directly in front of the VFS videographer on exit. If the sun is directly in the line of sight then this could also be deemed a pertinent reason for a second run in or aborting the jump per GS5 5.2.8(4). It is thought solar flaring due to sun angle should be considered a NV, not a penalty. This can also be an issue in FS for run in directly into the sun early or late in the day.

3.1.5 Where possible the Meet Director will attempt to schedule VFS rounds at times when the sun is not within 20 degrees of the zenith to allow the team videographer to clearly video their team. [Consideration should also be given to aircraft run in for all events to minimise sun interference on exit.](#)

Allow partial viewing of video on the second viewing:

Competitor discussion constantly returns to how to speed up judging and try to ensure that all teams, especially those in a close race all get their scores prior to the next round being jumped. One suggestion is that partial viewing be allowed on second viewing:

5.4 ... The Judges will watch the video evidence of each jump (1) one time at normal speed to determine points in time. The moment of freeze frame at the end of working time will be determined at the first viewing. If a judgement call occurs, a second viewing of the jump [or part\(s\) of the jump](#) will be conducted at normal or reduced speed between 50-90 percent of normal speed. At the request of the Event Judge a (3rd) third view of part(s) of the jump can be conducted at normal or reduced speed. The speed of the second- and third viewings (normal or reduced) will be determined by the Event Judge. The Chief Judge will decide prior to the start of each round the percentage of reduced speed to be used for the round. The freeze frame from the first viewing will be applied on each viewing.

Additionally, it was suggested that the Event Judge be given the option of selecting the order in which rounds are judged if this can help get scores to teams in a close race quicker. It should be noted that if teams want their scores out quicker, it is also incumbent upon the videographers to submit their jumps as soon as possible after landing.

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5.2 Order of Judging

The judging will, as far as practical circumstances allow (landings out, re-jumps etc), be judged in the reverse order of placing. [The Event Judge may vary this to attempt to ensure that teams receive their scores prior to performing their next rounds.](#)

Update video requirements (both indoor and outdoor):

The old frame rate of 25fps was specified long before we went to half speed judging and with improvements of video equipment it is time to update the requirements to 50fps. It also seems superfluous to specify the card class these days.

Outdoor:

4.5.2 ... All video equipment must deliver a High Definition 1080 type digital signal with a minimum frame rate of ~~25~~ 50 frames per second, through a memory card (~~minimum-class-10~~). The videographer is responsible for ensuring the compatibility of the freefall video equipment with the scoring system.

Indoor:

4.5.5 The recording (camera), playback, and all auxiliary equipment must be full High Definition input and full High Definition output [with a minimum frame rate of 50 frames per second](#) and must provide viewing for the judges.

Clarify the definition of a grip:

Following some judge's discussions at Eloy about the validity or not of stationary contact from the *back* of the hand, tips of fingers, or portion of the hand as grip ("handhold"), suggestions have been made for clearer wording and discussions are ongoing with both the FS and Judges committee.

Current wording:

2.2 Grip: consists of a handhold on an arm leg or foot of another jumper as shown in 7.2. As a minimum, a grip requires stationary contact.

Suggested wording:

2.2 Grip: consists of [a handhold stationary contact between any part of the palm side of the hand and/or fingers, and](#) an arm leg or foot of another jumper as shown in 7.2.
~~As a minimum, a grip requires stationary contact.~~

Status of Videographer:

Questions have been raised about whether the videographer should always be considered part of the team.

The purpose of the existing rules is to allow a team to continue to compete due to a problem with the videographer such as illness or injury during the competition. In some teams the camera is definitely an integral part but in others they are just a hired gun.

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For a large nation it is not much of a problem as they can use a videographer from one of their other teams, but for a small nation with only one team attending, it can be an issue and the aim is to do everything possible to allow these smaller nations to continue competing.

The question is whether these rules should stay in place or whether the videographer should always be part of the NAC and always be considered part of the team and 6.3.4 B removed.

6.3.4 Videographers must be entered for each team as part of the delegation and must be a member of the Delegation's NAC. A Videographer may be replaced at any time during the competition, (with the agreement of the FAI Controller). The evaluation process for the video evidence will be the same for any Videographer. Videographers may be one of the following:

A. One person in addition to the team composition in 6.3.2. This competitor is to be considered as a team member for the purposes of awards and medals.

B. Any other person (ref 6.3.5). This Videographer is not eligible to receive awards and medals. This Videographer may jump only as a Videographer and is subject to the same regulations as other competitors on the team.

Pool changes:

VFS pool changes:

Block12 "pinwheel" - change the accordion piece move from 180° to 540° to ensure the original intent of forcing a slot switch.

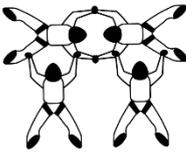
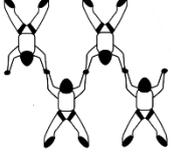
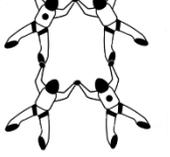
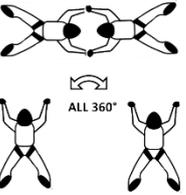
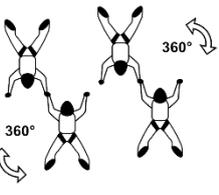
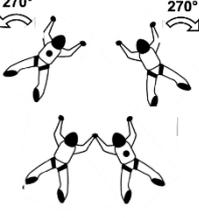
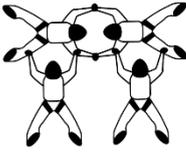
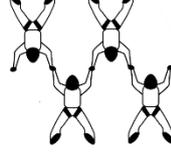
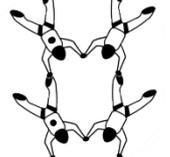
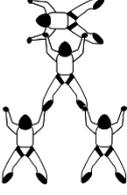
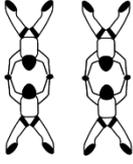
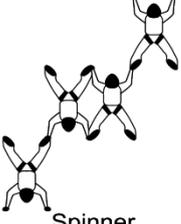
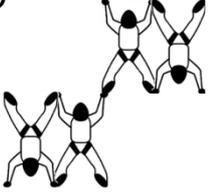
Random B "Gulley" requirement for foot grips to be removed and just be leg grips as the current requirement is difficult to both perform and judge.

FS pool changes:

8-way flyers would like to ensure that we have the same pool for both indoor and outdoor competitions. Although there has only been one ISC 8-way competition to date, the pool is used by all other 8-way competitions and consistency between indoor and outdoor is to be preferred. A gathering of coaches in France for their annual "Hell week" provided suggestions below for both the 4 and 8-way pools. These are listed below and are under consideration by the committee.

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4-way FS pool suggestions

<p>6</p>  <p>Satellite</p>	<p>13</p>  <p>Open Accordion</p>	<p>16</p>  <p>Zipper</p>
 <p>ALL 360°</p> <p>Inter</p>	 <p>360°</p> <p>Inter</p>	 <p>270°</p> <p>Inter</p>
 <p>Satellite</p>	 <p>Open Accordion</p>	 <p>Zipper</p>
<p>A</p>  <p>Eiffel</p>	<p>B</p>  <p>Twins</p>	<p>F</p>  <p>Spinner</p>
		<p>O</p>  <p>Zoo</p>

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8-way FS Pool suggestions

14

Zippered Opals

Inter

Zippered Opals

15

Zippers

Inter

Double Yuans

17

Buzzard

Inter

Buzzard

20

Donut Cross

Inter

Donut Cross

21

Lego

Inter

Eye

K

Double Meekers

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Future competitions:

4th WORLD INDOOR SKYDIVING CHAMPIONSHIPS
- Liptovsky Mikulas, Slovakia 21-23 Apr 2023

23rd WORLD CUP OF FORMATION SKYDIVING
- Voss, Norway 28 Aug - 02 Sep 2023

5th WORLD CUP OF INDOOR SKYDIVING
- Macau, March-April 2024

26th WORLD FORMATION SKYDIVING CHAMPIONSHIPS
- Dead Sea, Israel 29 Oct – 6 Nov 2024

Mark Szulmayer

ISC FS Chair
29 November 2022