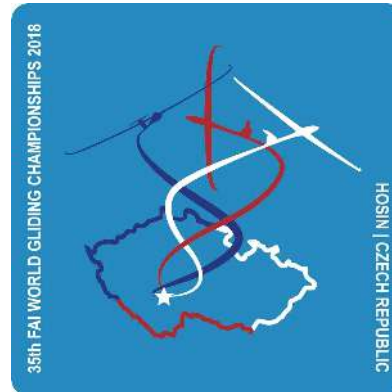


35th FAI WGC 2018

18m, 20m & Open Class

Hosin, Czech Republic

July 28th- August 12th



Report to the IGC Bureau by the Chief Steward

With assistance from Steward Enrique Lippi.

See also the report of the Jury President Rick Sheppe.

- **FAI/IGC staff**

Rick Sheppe (USA) was President of the Jury.

Jaroslav Vach (CZE) and Peter Ryder (GER) were jury members. Jaroslav was on site.

Robert Danewid (SWE) was Chief Steward and Enrique Lippi (ARG) was steward

- **Move to Hosin**

In late May we were informed that it was not possible to stage the WGC at Pribram due to work going to be done on the airfield. This was outside the influence of the WGC organization.

The WGC organization then proposed that the whole event should be moved to Hosin, close to Ceske Budejovice in Bohemia, close to the Austrian border.

This was accepted by the IGC Bureau.

- **Organization**

Official organizer was the Czech Aeroclub. The organization headed by CD Tomas Rendla staged an extremely well run championships.

Deputy Director was Matej Rendla and Jana Rendlova was in charge of administration (son and wife of Tomas). Ludek Kluger was Director of Operations/Scrutineering, Jan Horak Meteorologist and Jiri Cihlar Chief scorer.

Apart from these officials the organization consisted of ca 15 youngsters. They run all aspects of the operations and “fronted” the teams. And they did it in a most professional way. They were competent, friendly and spoke excellent English. The average age was 16. (The average age of the competing pilots were 51).

Matej Rendla, the deputy CD, aged 17, ran all briefings and presentations. And he did an excellent job.

Tomas supervised and supported all aspects of the competitions from “behind”.

The staff was, on all hands, friendly, competent, service minded and did a great job. They all worked very well together and they all seemed to enjoy their work and the friendship among them was great.

I have never been at such a well run championships. And then it should be remembered that the whole event had been moved from Pribram to Hosin in less than two months. Tomas Rendla shall be very proud of his team!



*CD Tomas Rendla and the young part of the team
(at the opening ceremony)*

- **Co operation with stewards**
We had an excellent co-operation with the organizing team. We took part in all activities and Tomas & co responded to all our enquiries. We also had good co-operation with the Team Captains.
- **Check in and acceptance check**
The technical checks were done in the main hangar under the supervision of Ludek Kluger. Weighing and paper checking was prepared in advance and the whole procedure went fast and efficient and in a very friendly atmosphere.

The “bail out exercise” was however not done, which I commented on. A suggestion is that this exercise should be explicitly required by the rules.



Checking MD, a JS 1

- **The weather**

The weather was extremely good during the whole period. In northern Europe the summer of 2018 is the warmest for 250 years. And the WGC was in the hottest period. The temperature was above 30 C on most days. On competition day 11 it was 36 C and very humid.

The cloud base was very high for central Europe. On several days it was above FL95 and consequently some pilots entered forbidden airspace.

There was one blue day and on many days there were local rain showers.

The forecaster Jan Horak is a professional forecaster and experienced glider pilot. His forecasts were very good and well presented. On most days Jan was also the snifter.



Sunset at Hosin on a day with afternoon overdevelopment

- **Task setting**

Task setter was the CD Tomas Rendla. All tasks were well set and 1/3 were Speed Tasks.

The longest task was in 18m on day 6 with 541 km. The fastest task was on day 2 in the Open class with a speed of 161 km/h.

During the practice days two tasks of more than 600 km were flown.



The task area

- **Flight safety**

During the last practice day I gave a safety briefing. The briefing seemed to be very well received by the pilots and many thanked me for presenting the dull safety issue a little bit more exciting and with a glimpse in the eye.

With several midair incidents and one midair, the Pilot Safety Committee had a lot to do. After the midair on Aug 6th (comp day 8) I gave another safety presentation. On several occasions the Safety Committee spoke at the morning briefings and urging pilots to “look out” and “play it safe”.

The midair went well and both pilots could return safely to Hosin. The pilot responsible for the collision was disqualified for the day.

The Pilot Safety Committee (PSC), consisting of Andy Davis (UK), Arne Boye-Möller (DEN) and Antti Lehto (FIN) did an excellent job. They investigated all reported incidents and talked to all pilots who were involved in incidents and especially with those who were responsible for dangerous flying.

I am very thankful for their efforts. They have submitted several proposals for better safety. Se Appendix.

The attitude of some pilots are remarkable. In an ordinary gliding club they would have been grounded. A saying at Hosin was “*better dead than second*”. Though it must be stated that the majority of the competing pilots are safe pilots.

The intention of the CD, right from the start, supported by the stewards, was to give severe penalties for dangerous flying. But there are no specific guide lines in Annex A on how to penalize dangerous flying in thermals.

This is something the IGC must look into.

- **Glider damage**

Two glider were damaged during the championships. The JS 1 involved in the midair collision was slightly damaged. It was repaired during the night and flown next day.

The undercarriage of a JS 1 collapsed during landing at Hosin. It could not be repaired. The reason for the collapse is not known.



Damage to the ventilator on top of the JS 1 fuselage

- **Tracking**

It was mandatory to carry FLARM and to register it on OGN with the appropriate competition number. The tracking worked well.

Almost every team now seem to have an appointed “OGN operator” who spends his time following the tracking and giving information to his pilots what the other pilots are doing. This inevitably means that there are more gaggle flying than before. And we had only one blue day.

To prove this, every day the CD and stewards were overwhelmed with text messages and mails such as “XX FLARM is not working”, “there is a German ASG 32 flying in the area. Is he assisting the German team?”, “there are two YY in the area”, “VV is not using the correct comp no” etc etc.

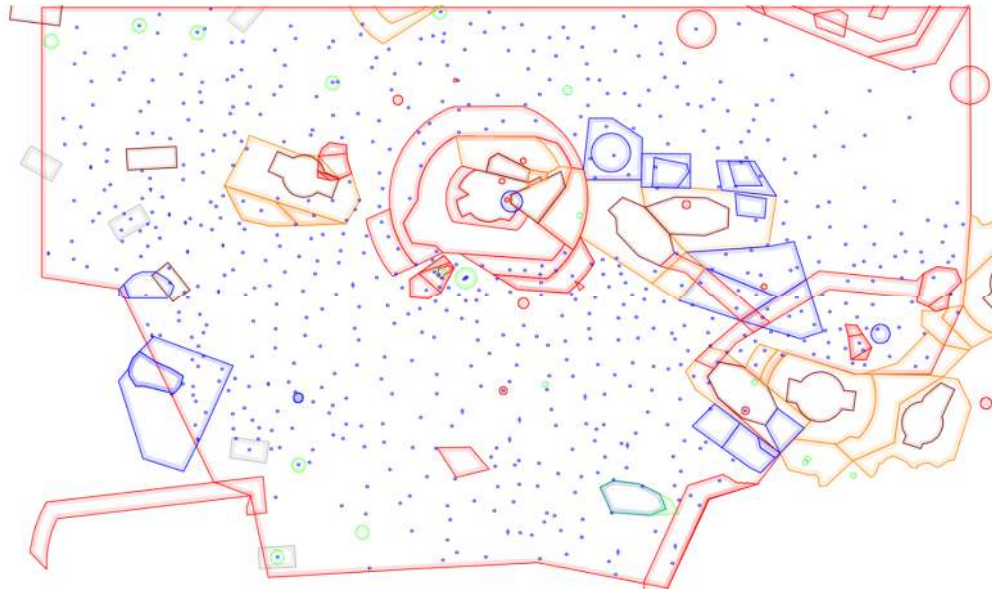
Tracking in real time is of course very nice for the public (but who is the public?). Personally it is my strong belief that tracking as it was at Hosin is very, very dangerous for the safety.

Originally FLARM is a tool to avoid collisions, and as such a very good tool. However we do not use it as such in competitions today, the main purpose seems to be tracking. I believe we have to rethink this. See also Appendix.

- **Airspace**

The airspace was quite good for a gliding competition. The upper limit was FL95 and there were just a few TMAs or other restricted airspaces, which did not present a problem for task

setting. Tasks were mostly set to the south of Prague TMA and to the west (meaning flying into Germany and Austria).



The competition area and airspace.

- **Protests/complaints.**
There were two complaints and no protests. The complaints were minor and they were resolved without the involvement of the Jury.
- **Scoring**
Scoring worked very well. It was fast and efficient and the results were continuously updated on Soaring Spot just a few minutes after pilots had delivered their files. Unofficial results were published ca one hour after the last files were submitted. Results were published both on Soaring Spot and on the official notice board in the briefing room.
- **Opening ceremony**
The opening ceremony was held at the town square in the old city of Ceske Budejovice. Speakers were the mayor of Ceske Budejovice and representatives of the Bohemia Region as well as the Secretary general of the Czech Aeroclub. Speeches were short and to the point. Finally the championships were declared open by Jury President Rick Sheppe.



The opening was in front of the old beautiful town hall



The WGC was declared open by the Jury President Rick Sheppe

- **Social events**
Four parties were held. The welcome party, a Czech evening and the farewell party were hosted (a 15 € fee for the farewell party) by the organization. All parties were enjoyed by everyone.

The International evening was on the Tuesday in the last week. It was truly international and boosted the international friendship among all participants, be it pilots, crews or families.



The International Evening was enjoyed by all

- **Medical assistance**
The Chief Scorer is a medical doctor who in case of accidents, big or small, could give first aid.
- **Briefing room**
Briefings were held in the main hangar. There were chairs and tables for all pilots, crews and TCs. The screen was OK and could be seen by all. The sound was not good, but it was improved during the competition. Briefings were short and to the point.



Briefing

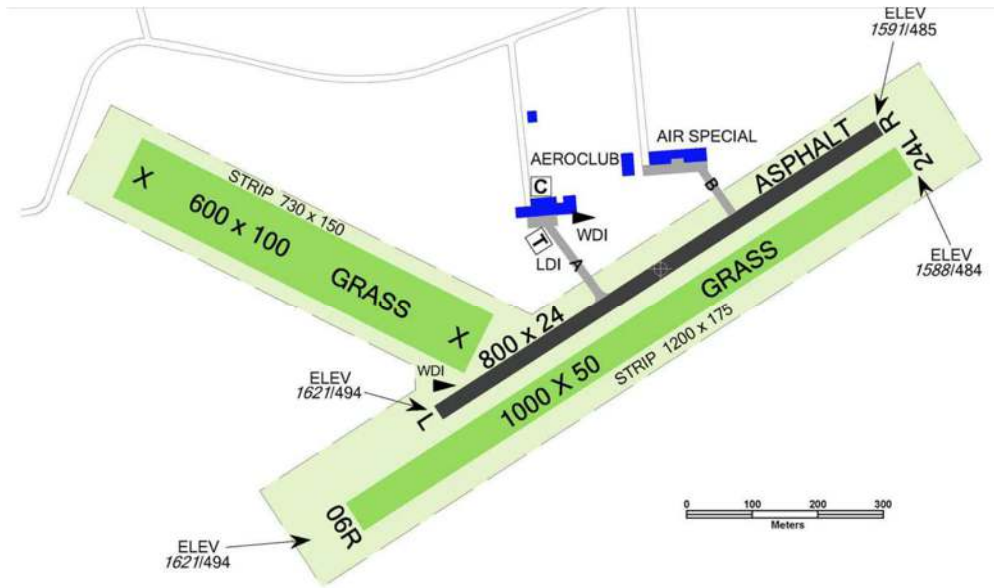


The briefing room/main hangar

- **Media**
I do not know how much public media coverage there was. On social networks there was much to read. The organizer made a daily small video of the day which was presented at the briefings and they can be found on https://www.youtube.com/channel/UCqfyzSvNuLUY7yAc-rGXl1A/videos?view_as=subscriber.

some other nations also made daily videos, like the UK, and they can be found on YouTube.
- **Airfield**
The airfield of Hosin is the home of the Aeroclub of Ceske Budejovice. I was told that it is a former Soviet Army airfield. Today there are some aviation workshops and the Aeroclub of Ceske Budejovice operates from the airfield. The main runway is about 1000 m long and the grass strip ca 1200 m, see drawing below. There is ample of space to run competitions.

All operations were performed on RWY 06/24. Glider parking was on the secondary runway.



*Hosin airfield, photographed before launching on the last competition day.
RWY in use is 24.*

- **Gridding and weighing**
Was performed in an efficient and friendly way.



Weighing station (there were three)

Free gridding was used, which is not according to the rules. This was an early proposal by the CD and encouraged by me. It was accepted by the Team Captains . Free gridding means that gliders are gridded per class on a first to come first gridded basis. This means that gliders can be gridded more closely together and thereby we gained ca 100 m longer runway. In the hot conditions this was an advantage for take offs.

- **Towing**
Towing was performed by seven tugs (four Turbo Cmelak and three Cmelak). Launching took ca 1 hour 20 minutes. Release altitude was 600 m.

The Turbo Cmelak is an extremely powerful tug (700 hp turbo engine) while the ordinary Cmelak with a radial engine (380 – 450 hp) is quite a mediocre tug. Many pilots did not want to tow behind the radial Cmelaks.

13 of the 31 glider in the Open class were SLG, in the 20m class it was 11 out of 18 and in the 18m 2 out of 45. Quite a few of them took aerotows because of the high ground temperatures.



Cmelak and Turbo Cmelak

It can be noted that 31 of the JS gliders were equipped with jet engines, meaning that jet was the most popular “turbo”. 3 gliders were equipped with the FES system, one Antares with electrical engine and the rest with Solo/Wankel engines. There were only a few pure gliders.

- **Designated Start**

Designated Start was not used during the championships. It was not considered appropriate to use it. The opinion among most pilots is also that it does not give any advantages, like prevent gaggle flying.

- **Finish Ring**

The Finish Ring with a diameter of 5 km and min altitude of 692 m MSL worked well. Landings, some days more than 50 gliders in 30 minutes, were made in an orderly way and professionally handled by the pilots, assisted by Hosin TWR.

- **Prize giving**

The prize giving ceremony was held in the main hangar. The ceremony was held according to the FAI procedures. The championships was officially closed by the Jury President Rick Sheppe.



Prize giving in the Open Class

- **Statistics**

Taken from the WGC web site:

- we did more than 1200 flights
- we flew more than the distance from Earth to Moon (during contest 415.000 km + plus something in the training period)
- we spent 37% of the year in the air (during contest we flew almost 3,300 hours + plus training flights)
- we filled up the gliders with app. 110 tons (110.000 litres) of water
- we used more than 16.000 litres of JET A1 for Beasts (Turbos)
- we flew over 4 countries - CZ, DE, AT, PL

Comment: Considering that it was the hottest summer in 250 years, which meant a draught, and we were every day reminded to save water, one can reflect about how environmental friendly gliding is when we pour 110 000 litres of fresh water over the country side during a

WGC.....

- **Proposals for the future**

Safety must be considered by the IGC in depth. See Appendix.

In Annex A para 8.7 penalties for dangerous flying in gaggles, entering and leaving a thermal should be added.

Free gridding should be added as an alternative.

Reconsider the designated start.

- **Summary**

The 35th WGC at Hosin was an extremely well run competition. Good organization, excellent weather and task setting. The age of the team and their professionalism and kindness stands out and I think this is what we will remember for a long time to come. International gliding competitions has a future!

However, which is mostly out of the organizers control, for the future IGC must look closely into flight safety, especially how to prevent gaggle flying. See also Appendix.

2018-09-23



Robert Danewid
Chief Steward

Appendix

Flight Safety issues

The Pilot Safety Committee consisted of Andy Davis (UK), Arne Boye-Möller (DEN) and Antti Lehto (FIN). They did an excellent job but unfortunately they had too much to do.

After the WGC I have got the comments below from them and recommend the iGC to closely look into their proposals.

OGN

The whole concept of OGN for competition purposes must be reconsidered.

Every team now seem to have an appointed "OGN operator" who spends his time following the tracking and giving information to his pilots what the other pilots are doing. This inevitably means that there are more gaggle flying than before.

Every day the CD and stewards were overwhelmed with text messages etc such as "XX FLARM is not working", "there is a German ASG 32 flying in the area. Is he assisting the German team?", "there are two YY in the area", "VV is not using the correct comp no" etc etc.

Tracking in real time is of course very nice for the public (but who is the public?).

Originally FLARM is a tool to avoid collisions, and as such a very good tool. However we do not use it as such in competitions today, the main purpose seems to be tracking. I believe we have to rethink this. See also the comments from Andy Davies.

The Safety Committee investigated all reported incidents by using SeeYou. This was a big job and we shall consider to appoint a special person to do this. Maybe as a remote officer.

We must make our competitions safer!

Comments by Andy Davis

Clearly FLARM has gone far beyond it's original purpose of collision warning and the use of FLARM for tactical purposes almost certainly increases the chance of collision in competition rather than reduces it (easy to follow, bunching, heads down time). There should be an attempt to return the use of FLARM to collision warning only.

Perhaps tracking for the public should be an independent system (with time delay). Another way to reduce the collision risk might be for the IGC to consider changing some of the other rules to encourage early starts and pushing on ahead of the pack. Some ideas suggested to me by the other pilots were:

- start on release from tow
- multiple start points
- press the event button within 30s of starting to validate the start
- bonus points for starting early
- bonus points for reaching the TPs first]
- bonus points for every minute spent leading the pack and/or gaggle as in para/hanggliding.

There is little support amongst the pilots for "designated start" as the feeling is it simply leads to a series of gaggles starting every 10 minutes.

Comments by Arne Boye-Möller

I was often thinking how to spread the starts a more that our tasks could either be:

1. longer tasks
2. limit the start window to 1 hour
3. a proposed new start method based on pilot selected start window which will bring totally individual and secret choices as to when to start - while preventing others to leach
4. a limit on start height and ground speed when crossing start line (well below cloud base for the given day)

Pilot Selected Start Window (PSSW)

The PSSW consists of 3 parameters:

- 1) Block Window: a period when the pilot can not start
- 2) Start Window: a period when the pilot can start
- 3) Grace Window: a period where the pilot may start but will be considered started at the end of the Start window

If the pilot does not start within Start- or the Grace window it is not a valid start.

The task setter sets the PSSW parameters for the competition or day like for example: Block Window 5 minutes, Start Window 3 minutes and Grace Window 3 minutes.

This can in essence be handled by pressing the event button on the IGC logger. The pilot must keep track of time. All three time windows must complete fully before a new PSSW can be initiated.

LXNAV and other software base UIs can support this further by adding a new record to the IGC logging and also show the count-down for each window.

Comments by Antti Lehto

I really think that something needs to be done in the safety issue. I feel that during the years that I have been flying the big international competitions there has been a lot of talking, but not many actions. The glider certification requirements have changed, the gliders are stronger and thus safer. At the same time wing loadings have increased, we fly faster and there is much more energy involved in every midair or bad landing than before. Pilots are not getting younger, the reaction times have increased and so on...

I don't have any statistics, but my own feeling is that there are more midair collisions today that there used to be in the early 90's.

When I was a kid cars did not have seatbelts in the backseat, i never wore a helmet when riding a bike or when ski jumping. Many things have been regulated bringing more safety in everyday life. 1972 was the worst year ever in Finnish car traffic: 1072 deaths, 2017 we had 230 deaths. A lot has improved in four decades

I saw a documentary film about F1 driver Niki Lauda, mostly about safety and his bad crash 1976. In this film they said that during the worst summer during 70's there was a driver killed once a week in car racing. They changed many rules, improved safety in cars etc. Today's car racing is much safer that it used to be. And F1 cars are still going very fast...

I wish that we were able to do the same kind of improvements in our sport. Our rules do not support safe flying, or at least they have not been going into this direction - this is my opinion. Leeching and poor safety go hand in hand. Pilots follow recent champions and want to fly close to other gliders.

They are afraid of doing their own flights and making own decisions, well not everyone, but many anyway.

The rules should be changed so that they support individual flying. And to enhance safety. To achieve this goal I have a suggestion: a new start system. We developed this in Benalla within our team. I wrote the rule and you can find it as an attachment. We even managed to have an article about this idea in the Sailplane&Gliding magazine written by Timo Nurminen. That is the other pdf attachment. Since that nothing has happened. Our gliding committee for some reason did not want to proceed with the idea to IGC. Please have a look at the files and give it a thought. And share with other pilots to get more opinions if you think that it is with it.

Next change needed is to determine "dangerous flying". A code of conduct needs to be written as a rule. Now there is a safety briefing in every big competition and we go through certain issues. I am sure that the majority of the competitors agrees and is familiar with all these aspects. But still people do not fly correctly. My cure for this problem is automated control of all the IGC files.

All IGC files that have been uploaded in Soaringspot need to be checked by a software to detect dangerous flying. The software is to be designed to spot violations of the 'code of conduct' automatically. Circling in opposite direction, flying too close to preceding glider in cruise, cutting inside in thermals etc. I can't think of any other sport, where the actual performance is so well documented and can be replayed. (without tv or similar documentation.) Today's problem is that we try to manually do this work based on other pilots' reports. It is very time consuming and the consequences of "bad behavior" are not in line with the seriousness of the decreased safety and threat to human lives. The penalties of dangerous flying should be much bigger than they are now. When the system is based on computer checking, it is also the same rule for every pilot.

I am not an IT specialist. I don't know how to write this kind of software, but I am sure that it is possible. As an airline pilot I get a report once a year from our Flight Data Monitoring system. It shows threshold IAS, touchdown distance, rotation rate, stabilization height during approach etc. There are all kinds of monitoring systems nowadays based on automated computer checking.

When we have this kind of software, it can be used to support individual flying. xx points for the pilot who finds a thermal for a gaggle and xx points for the pilot who leaves the thermal first etc...

(CS note: there are such s/w today. One is SafeFlight, developed by Norwegian glider pilot Övind Moe)

These are my thoughts - something needs to be done.

A proposal from the CD Tomas Rendla:

My easy proposal is that if pilot is penalised for breach of safety than he will be stopped for following 2 years from hi-level contests. PSC will decide about penalty to be objective.