

# Hang gliding Subcommittee

Oyvind Ellefsen

# Members 2010

- Dennis Pagen USA
- Niels J Askirk DEN
- Elsa Mai CT
- Koos de Keijzer NLD
- Klaus Tanzler DEU
- Raimund Kaiser AUT
- Gerolf Heinrichs AUT
- John Aldridge GBR
- Heather Mull AUS
- Flavio Tebaldi ITA
- Raymond Caux FRA
- Oyvind Ellefsen NOR

# Attendance HG Subcommittee

Siess	Herbert	Austria
Askirk	Niels J.	Denmark
Caux	Raymond	France
Toralla	Alejandro	Guatemala
Gutierrez	Juan	Guatemala
De Keijzer	Koos	Netherlands
Ellefsen	Oyvind	Norway
Aldridge	John	UK
Coad	Peter	UK
Pagen	Dennis	USA
Sheldon	Jamie	USA

# Report from 2010

- Started using online collaboration tools
- Established safety WG
- Ongoing work with pitch stability

# Safety WG

- Initiative from Raymond Caux and Scott Barret.
- Ongoing work, no conclusions for now, but excellent progress using online collaboration tools.
- Common factors in general flying as well as competitions.
- Focusing now to find concrete, easy to implement and high impact cases.

# Pitch stability

- Continuing measurements at Cat 1 comps 2011, including size of gliders.
- Working towards a common CIVL baseline for pitchtesting, and better communications with manufacturers and certification organizations.
- Ask for CIVL to fund a one day test to measure how our margins of 2 degrees are affecting the pitch, and gather real data to form a baseline for further work and discussions.

# Equipment safety

- The problem;  
S7 rules require steel backup-cable in carbon speedbars. The steel may corrode in some models due to the chemicals used in production. Also the steel cable does not handle shock loads as well as some other materials.
- Possible solution;  
Propose a minor rule change to allow manufacturers to use better materials while maintaining strength to handle the shock load.

## Today's rule

### 12.3.3 Control Bars (base tubes)

If a control bar is load bearing and made of materials other than metal, it must have an internal steel rigging cable that serves as a structural backup. If a non-metallic base tube (control bar) does not show clear evidence of an internal rigging cable (end pins or vibration when tapped) the pilot must supply a manufacturer's affidavit verifying the presence of a cable in the base tube.

## Proposed rule

### 12.3.3 Control Bars (base tubes)

If a control bar is load bearing and made of materials other than metal, it must have an internal rigging cable that serves as a structural backup. The internal rigging cable can be of **metallic or non-metallic material and must be strong enough to withstand the shock load from the lateral force of breaking an undamaged control bar in flight**. If a non-metallic control bar does not show clear evidence of an internal rigging cable (For example end pins or vibration when tapped) the pilot must supply a manufacturer's affidavit verifying the presence of a cable in the control bar tube.

# Incident report forms

- Supporting the work with incident report forms, it can provide good data for our safety workinggroup in the HG subco.

# Review of the LR for 2011 HG worlds

- Minor changes to the LR.
- One proposed change to S7 rules regarding uncertified gliders to increase safety and make it easier for pilots and manufacturers to enter new production model hanggliders in Cat 1 competitions.
- Prototypes are **not** allowed.

## **Existing rule;**

### 12.2.3.2 Uncertified Gliders

Uncertified gliders will be allowed to fly in Cat. 1 competitions only if the pilot or manufacturer can produce pitch test results for the individual glider and/or a description of the changes made to a certified glider is presented with confirmation from the manufacturer that the changes do not detract from the airworthiness of the glider.

Pitch test results must specify the sprog settings used during testing.

## **Proposed rule;**

### 12.2.3.2 Uncertified Gliders

Uncertified gliders will be allowed to fly in Cat. 1 competitions only if the pilot or manufacturer can produce pitch and load test results for the glider model and size.

All structurally relevant components in the flown configuration (For example crossbar, uprights, leading edges, keel, speedbar, rigging cables) on the glider must have been statically loadtested to positive 6G / negative 3G as part of the certification tests by one on the certification organizations.

Pitch test results must specify the sprog and VG settings used during testing.

# Local regulations - HG Worlds 2011

- The organizers of the 2011 HG world championships would like to request that they be allowed 2 pilots in addition to the 150 pilots already registered. The reason for this addition is that all but 2 countries have been allowed up to six pilots. If *all* countries are allowed 6 man teams, this will allow for all 6 pilots scoring for their country.

Although the rules allow for a maximum of 150 pilots, allowing for 152 is a very minor exception and in all likelihood there will not be more than 150 pilots anyway. Over the next 4 months it is highly likely that 2 or more pilots will cancel their registrations for various personal reasons and there will be room for the 2 additional pilots we would like to add. However, without this exception, the 2 pilots in question will not have sufficient time to arrange airline flights, glider transport and other logistics. Allowing for this exception is merely a formality. From a practical and safety standpoint, there is no real change.

*Even if* no pilots cancel their registration between now and the start of the event, having 2 extra pilots will not pose a problem. Monte Cucco has an exceptionally large take off area and there were absolutely no space issues (either on the ground or in the air) with 142 pilots at the Pre-worlds in 2010. In fact, at the Monte Cucco worlds in 1999, 196 pilots participated without any problems.

# Proposal

- Change the LR to increase the maximum number of pilots from 150 to 152.

# HG Cat 1 qualification rules (Denmark Proposal, Annex 22)

- Review of the old qualification rules, proposal from Denmark amended and approved in WG.
- Main change is to use WPRS points for qualification instead of the 2/3 rule.
- Making sure pilots have more experience, especially gaggle flying, before entering a Cat. 1 comp.
- Make it more attractive for smaller countries to arrange Cat 2 comps to gain WPRS points.

# Review of bids

- HG Worlds in January 2013, Forbes, Australia.
- Aerotowing competition
- Very experienced staff and excellent site statistics for weather and good tasks.
- Require clear safety procedures for aerotowing. (Local rules material)
- The bid has full support from the WG.

# Other action points

- Provide recommendations on how to select task advisory and safety committees for competitions.
- Establish WG to review class definitions in class 2 and 5

# Continuing work in 2011

- Started using online collaboration tools, anticipating FAI tools to be available.
- Will meet throughout the year online, using Skype.
- Supporting further work and testing of pitch stability.