2013 CIVL PLENARY – ANNEX 18A
REPORT ON CIVL SPROG PROGRAMM

Dennis Pagen

This report will cover the background information, present practices and future of sprog measuring in Cat. 1 competitions. Those familiar with sprog setting matters may wish to skip the first section.

THE CIVL SPROG PROGRAM

Sprogs are the struts on a hang glider that help provide pitch stability. They are easy for the pilot to alter within a few minutes. Unfortunately the general attitude some years ago was that lowering the sprogs provided better high speed glide performance. The trend of lowering sprogs went so far that pilots were rendering their gliders dangerous. Some tumbles with severe consequences induced the CIVL to start a program of regulating sprogs at Cat. 1 competitions. We began by simply measuring and publishing each pilot's settings. Later we required a certain minimum setting with a built in measuring tolerance. Gradually we tightened up the required settings and tolerances until we now require the certified settings with a one degree tolerance.

This whole process has been one of education for ourselves, the pilots and the manufacturers. It appears that we are all quite close on our opinions on how to regulate, set and measure sprogs for the present and near future.

MEASURING AT THE 2013 WORLD MEET

This year we set a policy of teaching the pilots and team leaders how to measure their own sprogs. The idea is that they would adjust to the proper settings and we (the CIVL) would measure some pilots at goal as a control. We held two five hour sessions at Forbes, Australia, site of the World Meet. There we taught several classes each day and most pilots used the facilities to set their own sprogs. It became clear that some of them had them lower for other competitions, so at least we are making things safer for the meets we control. Other pilots were adjusting their sprogs since they had new gliders and wanted to know their settings. In general, all pilots were very cooperative with the process we were administrating, perhaps because they have come to understand how important sprogs are to safety and also most have come to realize that the proper settings really doesn't hurt performance. I believe, this present situation indicates our whole education process has been successful.

At these sessions, I delivered 20 sprog measuring devices to 20 teams for their permanent use, according to our policy. Hopefully they will keep them for their long-time use. At any rate they will have no excuse for not having their sprogs set in the future. I will provide a record of what teams received the devices. We will discuss whether we want to buy more and give them to the few teams without them in the future.

At Forbes, Australia I went to goal whenever it seemed feasible to measure sprogs. Usually the determining factor was the facilities and the wind velocity. If buildings or other shelters existed, I would go to goal no matter what the wind. I typically measured the first few to goal and an additional three to five on a random basis. Actually several times pilots asked me to

measure them because they had a turning or bar pressure issue. Again this attitude indicates our education and non-adversarial approach has paid off in pilot cooperation and good will.

I tried to measure up to ten pilots each day. Originally the plan was to measure the first three daily winners, but it was impossible to tell because of multiple start gates. So, I simply measured a few of the early crossers and then a random selection of other pilots. It seems clear that as long as the pilots think they can be measured that they will be in compliance. It is actually quite effective to walk around at goal with the measuring support stick and digital level! I was able to measure in 10 km/h wind or more with accuracy according to the pilots who reported that they got similar numbers when they measured inside. On the tenth day the task was at least five hours long, so I didn't measure since the pilots were exhausted. What I did do is sight the gliders by eye, since by now I can tell when a glider has very low sprogs.

In the end, I had measured the top three finishers as well as several others in the top ten (along with others scattered through the standings). I also measured various pilots on the teams of the top three finishing teams.

Finally, all the teams were supposed to measure their sprogs and give them to me for our data collection. I hope to have these in a spread sheet in order to compare what pilots are now satisfied with setting (I have heard no complaints) to what we had in the past (I still have the data from the first time we measured extensively in Griefenburg. The meet director did not strongly support our efforts, so there was nothing compelling the teams to give me their settings. Despite this, only one or two failed to provide them. I was sure to measure these pilots at goal, which is a good incentive for them to comply in the future.

THE FUTURE OF SPROG SETTING

The following are my opinions on how we should continue the sprog measuring process. As a point of information, the Hang Gliding Competition chairman, Oyvind Eleffsen called a meeting of all the manufacturer's representatives at this competition. The topics were sprog measuring and prototypes. It was quite productive with the general outcome being that the manufacturers will take the DHV measured certified numbers and measuring methods and translate them to the numbers and methods we can readily use in the field. The reason for the manufacturer's input is that the DHV uses two stands to support the glider at the leading edges when measuring. Transporting such stands and using them outside is nearly a practical impossibility for us at the Cat. 1 competitions. In reality, our methods, if carefully applied are quite adequate (I will update the method for our website when appropriate). Several pilots I measured noted that we got the same measurements in the field that they got in the gym where we first set them.

Further, I believe that the way we should proceed is to continue to have the team leaders deliver the team's settings to the CIVL official at the start of the competition. Then the official can check gliders randomly at goal during the meet. Checking a few at goal each day is not a problem, as long as the goal is not too far.

Finally, in consideration of the upcoming Women's World Meet in Annecy, I believe both Claudia Meija and Francoise Deuzede will be competing, so we need to find someone to do the job. The suggestions are Tomas Pellicci or Raymond Caux. I could also do it, but the cost to the organizer would be more (they are worried about finances). If Mexico gets the bid for the next worlds, I will volunteer to be steward and do the measuring there.