

Bruno Gantenbrink: Safety Comes First

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My talk was advertised as a banquet speech. What does one expect of such a presentation? Something pleasing, something educational, in any case, something positive. Nothing which disturbs one's picture of gliding. In this sense, my talk is not a speech suitable to a celebration. What can one say that is celebratory of safety? This presentation may frighten you, provoke you, or make you think. All of these reactions are to be expected. It does not matter to me whether what I have to say will cause negative or positive headlines in the press. If somebody comes to me afterward and says, "Is it really necessary for you to air our dirty linen with press present and strangers listening?" It will not concern me in the least.

If one were to gather together everything about soaring that was worth knowing, in my opinion, it would be divided into four chapters.

The first chapter would concern itself with the freedom of soaring flight. We would describe the majesty and beauty of gliding here. We would also have to consider the factors which endanger our freedom of the skies. The increasing number of senseless rules caused by an ever-growing number of aircraft and pilots make things harder all the time and in themselves give us much to consider. We should also define our relationship with the environment in this chapter.

For the next chapter, the title could read: "The Opportunity to Glide." We would have in here all of the organizational

questions that have troubled us in recent times. Besides organizational problems, how do we create larger and smaller organizations? How should the training be organized? What should the licensing and examination regulations look like? In this chapter we should also look at the cost and financing of gliding because, after all, we have to be able to afford our sport.

A third chapter would handle the skills needed to fly gliders. One would then assemble all of the knowledge we need to pursue our sport, including aerodynamics, meteorology, soaring theory, flight techniques, and many other things.

The material in the first three chapters alone takes up 95% of our attention, not to mention our activity. At least that's what it looks like to me, when I think back on the talks given at this venue in recent years.

That doesn't leave much time and attention for the 4th chapter which deals with the question of how we survive our sport and is labeled "Safety." My feeling is that these four chapters should be about equal in size. But equal treatment of these subjects is not a given. The degree to which we neglect the subject of safety leads me to the hypothesis that we have a problem with it.

Some of you are probably thinking, "He exaggerates. He's painting a black picture and that's understandable because he wants to make a strong point. Therefore he is blowing it out of proportion to make it look

important. We all know that there is nothing in this world that doesn't have some degree of danger. Even gliding is not without it. But we all know that the most dangerous part of gliding is the drive to the glider field."

Everybody has said this or heard it said. I remember the first time I heard it. I was a 14 year old kid who had just been taken to the glider field by my father. Naturally, he asked whether there was any danger for his son in learning to fly and he received that same answer from an instructor in my presence.

If that answer were true, or even nearly true, then there would be no flight safety problems and there would be no use in pursuing this theme any further. We could stop the presentation here and go on to other things. It's worth the trouble, however, to take a closer look at this statement to see if it is really true.

That sentence,
"The most dangerous part of gliding is the trip to the glider field"
is the dumbest, most ignorant saying that has found a home in our sport.

I want to take up the question of the truth of this statement in a subtle, perhaps even macabre way. I will forego the usual comparative statistics stated in terms of accidents per 1000 take-offs or deaths per 1000 flight hours given out by the German equivalent of the FAA. These statistics don't tell us much. They don't express what is too much and what is too little. How many deaths per 100,000 take-offs are too many? What number would be acceptable? Such comparative numbers don't really get under your skin. I can't impress you with those numbers. I would like to weigh the sentence, "The most dangerous part of gliding is driving to the airport" against my personal statistics.

To do this, I have made up three lists. The first list is the names of comrades that I have lost in flying. The second list is the names of friends that I have lost through accidents on the way to the airport either in a car or on a bicycle. And finally, to make the picture complete, the third list contains the names of glider pilot friends that I have lost in any kind of traffic accident anywhere.

The first list, of friends lost flying, contains about 30 names. I will mention only the most prominent. Just during the last year in Germany there were: Helmut Reichmann, Ernst Peter, Hans Glöckl, Georg Eckle, Horst Kall and then tragically just a year later, his wife Marlis Kall. From Austria: Rudi Göbel and Alf Schubert. From Belgium: Prof. Sander. From France: Sidot and Daniel Quemere, chief flight instructors at St. Auban. From The Netherlands: Kees Musters. From South Africa: Heini Heiriss. As I said, these are just some of the more prominent names.

Now the second list: there is no one. I haven't lost any friends on the way to the airport. And I was somewhat surprised to find that for me, the third list of pilot friends whom I have lost in traffic accidents is also empty.

In the last 20 years we have lost 3 world champions including Harro Wödl, who is included even though I didn't know him personally, from the total of approximately 30 world champions. In the last ten years, we have lost three former German national champions out of the less than 30 we have ever had. It would appear that you have about a 10% chance of joining them. That should raise the hair on the back of your neck.

My personal statistics lead me to believe that glider flying is at least 30 times more dangerous than driving a car. And since every glider pilot has a driver's license, gliding is 1000 times more dangerous than the drive to the glider port. I admit that there are different statistics in different types of flying. To my mind, training is the least dangerous and cross country is more so. The most dangerous is probably competition flying. But even at that, the safest activity among these is only relative, since training for everybody is only a temporary period on the way to cross country and competition.

With all that I know and understand about gliding, I believe that the sentence, "The most dangerous thing about gliding is driving to the airport." is the dumbest, most ignorant thing that has been said about our sport.

"In the stronger language used by my kids,
Gliding is bloody dangerous!"

Some who use this saying are simply ill-informed. Those who know better, but use it to pacify the public or to put things in a positive light for the press, are reckless. Actually the opposite is true. It is more dangerous than anything else that I do or know about in my life. Why don't I quit? A good question. One reason I don't quit is because it affords me more fun and pure joy than anything else I could imagine.

There is a second reason which is more decisive and that's why I'm giving this talk. I believe that gliding is not intrinsically dangerous. It is the way it is practiced that makes it so. It could be much less dangerous if we were more aware of its dangers and behaved accordingly. Sadly, we don't do this.

I am very aware of how dangerous gliding is and take care to act on this awareness. Because of this, I hope to beat the odds. If I didn't have this hope, if gliding were as dangerous as the odds make it appear, then I would quit immediately.

Almost all the soaring friends I have lost, have been killed due to "pilot error". Some of these errors have been silly little things, the simplest kinds of carelessness with fatal consequences. They died because at the critical moment, something else was more important than flight safety.

If soaring is to become less dangerous than it is today, simply taking different precautions won't do any good. The basic attitude must change. And the attitude can only change when we realistically evaluate the danger every time we fly. That is why I have fought against the thoughtless use of the saying that "the most dangerous part of gliding is driving to the airport."

Anyone who begins gliding with this philosophy does not appreciate the danger into which he enters. When the pilot believes this saying, he doesn't have to think any more. Neglect kills safety consciousness.

The prevalent attitude is one of lulling comfort with the danger suppressed. Unconsciously, you know something is there, but you don't want to talk about how dangerous it is. Why is the realistic consciousness of the risks so important? Because our strategy depends on how we evaluate the danger.

There is no activity without risk. Even if we don't get out of bed in the morning, we could think of a scenario in which something bad could happen. But we don't worry about such things. There are two very different kinds of danger. First are the ordinary everyday risks and second are the really dangerous things. People behave quite differently depending on which of these types of dangers they perceive are present.

There are the ordinary dangers at home, in sports, and games. For example, everyone knows that every year a certain number of people are hit by falling trees. In spite of this, people walk through the woods every day without fear of being hit by a falling tree.

It is unnecessary to work hard at avoiding the everyday dangers. You trust to luck because these dangers are so rare. It is extremely rare to be hit by a falling tree. On the other hand, there are the really dangerous and more probable things. There are ways to avoid these. The strategy for avoiding these real dangers cannot be to assume that "they won't happen to me, but they may happen to someone else." The strategy must be to avoid those dangers right from the beginning or, because that is not 100% possible, to minimize them to an acceptable level.

It is necessary to realize that these dangers are not rare but are actually rather likely. The dangers in gliding are relatively high as I have illustrated by my macabre statistics. Special care must be taken to survive our sport.

I often have the impression that gliding is put in the same category as everyday traveling. The idiotic saying that "gliding is not as dangerous as the trip to the airport" makes this clear. Our consciousness of danger is under-developed. We don't think that something might actually happen to us; others maybe, but not us. We

have flight safety inspectors to insure safety and relieve of us of thinking about the subject. We can think about other aspects of gliding.

What the safety inspectors tell us is, at best, secondary knowledge or advice. We have to change this. We must concern ourselves much more with the safety issue. It is not simply a rumor that our safety consciousness is under-developed. Let me illustrate this by some examples.

I remember the German Nationals at Bückeberg in 1990. We had a variety of starting methods. The open class used a start photo and unlimited start gate height. The others used a start gate with a 1000 meter upper limit.

One hot day, we went to over 2000 meters on the nearby Wiehen Mountains. This was the beginning point for the open class who wanted to start as high as possible. That was already dangerous enough. There were 35 open class ships circling in one thermal. Anyone who knows what happens in the top part of the lift when the thermal hits its limit will understand me. When there is just barely lift on one side of the circle, you can hit a little sink on the other side and the air is very turbulent in this situation. This last part is particularly uncomfortable because the aircraft change altitude with respect to each other quite often.

The reason for 35 open class ships waiting there to start is obvious. But what were the 80 other standard and 15 meter ships doing up there? That remains a mystery to me. The only thing they were doing up there was waiting for the start gate to open 1000 meters lower. And when it did open, they all dove down with air brakes open at 110 knots.

The fact that the standard and 15 meter pilots squeezed the last 50 meters of height out of the thermal can only mean that something was wrong with their thinking. I say this because there was no advantage in their being so high and putting themselves in such danger. Circling in such a crowded gaggle is something to avoid as much as possible. Before the beginning of the task, the general rule is not to put yourself at a disadvantage. One is supposed to "keep your powder dry" until it is time to begin in earnest. The standard and 15 meter classes that gained every possible bit of altitude had not only no use for it, but gave themselves a severe disadvantage since it took a relatively long and extreme dive to get down to start gate altitude. It would have been smarter to stay close to the start gate where the competitors could be watched and a quick start could be made. 1300 meters agl would have been a much better position. The standard and 15 meter pilots had done something which was not to their advantage and unsafe at the same time.

I call that inadequate safety consciousness; they simply didn't think. It would have been more sensible to circle at 1400 to 1500 meters in the lift and spread themselves out a bit. In any case, going to the top was neither smart nor safe.

A second example is something which happens over and over at contests. The tasks are chosen such that there is opposing traffic or all classes are sent on practically the same course. During the first two or three days they seem to avoid this but after a while it creeps back in. Something isn't right here and it should be easy to fix. Since the conditions for all classes are the same, even taking into account the weather forecast, there is nothing to prevent separating the classes so that they wouldn't even see each other during the day. The task setters seem completely unaware of the dangers involved in having large groups of gliders flying together.

The third thing I want to mention is a positive example. Last summer, at the US Nationals, I saw something that impressed me very deeply. Every morning at the beginning of the pilot's meeting there was a Safety Talk. Each day someone was picked to give a 10 minute safety session the next morning. Sometimes they were rather unpolished - not everyone is a born public speaker. But they were all plain speaking people who were

pilots entered in the contest. They had all been around and they all had something worthwhile to say. I was very impressed by the good thoughts that were presented. The audience listened attentively and seemed interested in the topic of safety.

Why doesn't this happen at our contests? During the briefings at our contests, we talk about the points in the hand-outs that people are too lazy to read beforehand. I can't remember ever having spent any time talking about safety at one of our contest briefings.

I am definitely not a person who preaches safety all the time. Nor did I invent the topic of safety. I know my own limitations, but I also know what I'm talking about. I have just barely lived through the past 20 years with much luck. Normally, about 80% of the people who have the kind of accident I did die. More than half of the rest are so badly injured that life is not much fun anymore.

You only have so much luck during a lifetime. Since the accident, I try to be careful. I believe that I am considerably better, certainly not perfect, but better. If I didn't believe that, then I would quit gliding immediately out of consideration for my family, my business, and myself.

Those who have flown with me in competition know that there are certain things that I will not do. I remember a situation during the 1985 world comps in Italy when I was flying with Klaus Holighaus. He was a little higher than I and we were having a problem. He flew out of the light rain in the valley over a pass with a turbulent crosswind. We really didn't know which way the wind was blowing and we could have been flying into a lee wind off the pass. Our height over the pass was at best 60 to 70 meters and we had about one to two kilometers to fly to get to the pass. Even though the passage appeared to be possible and Holighaus was practically through, I turned back into the bad weather. At that moment, I said good-bye to the ranks of pilots who seriously considered themselves in contention for the world championship title. I was never sorry for the decision I made.

There was a 99% chance that I could have made it through the pass. Klaus was a little higher and made it. I would have made it if nothing unforeseen had happened. However, only the smallest thing needed to have gone wrong such as flying a little to the right or to the left of Klaus' path. That can make a big difference in a pass. Then I would have been stuck up there over the unlandable pass.

I'm quite prepared to take risks in normal gliding and even higher risks in competition flying. At first glance, this statement is confusing. But if you don't allow yourself some risk in competition, then you might as well quit gliding altogether because gliding is more dangerous than not gliding. If I'm willing to take the risks of gliding in the first place, why not the additional risks of competition?

What is important is something quite different. Namely, whether what I choose to do is worth the risks involved. What is the degree of risk? What can I do to minimize these risks? The short and simple conclusion is that one can question exposing oneself to the danger of all soaring, including the drive to the airport. All of it is more or less dangerous. In fact everything is more or less dangerous including all other sports. So what's to be done?

Everybody has to develop a safety strategy for himself. The simplest is to eliminate the risks that are completely unnecessary. For example, circling in gaggles unless absolutely necessary. In addition, we should be aware of the risks we do take and try to reduce them as much as possible. We should set risk limits for ourselves and not go beyond these limits. We should be permanently watchful. He who pays attention and watches out for the simplest things can avoid catastrophe.

In any case, if you have a risk conscious safety strategy, that is a much more successful method of surviving this sport than to simply hope that you have more luck than your friend who takes a hit.