

From time to time this "speedwings are more solid / resistant against collapses and therefore can be flown in very high winds etc." "urban myth" seems to resurface.

I guess its most likely originating from early (or even recent ?) irresponsible manufacturer marketing that tried to sell Paragliding Pilots speedwings with the promise to dramatically "widen" the possible conditions for safe flying.

As we (*experienced speedwing pilots*) all know that is simply not true for most places on this planet.

Maybe at this point some explanations are necessary:

- Flying a modern PG on half or full bar in 45 to 50 kph is not much fun, its usually boring or scary as you KNOW that with a slight increase in windspeed you are in real trouble.

- Flying a speedwing in 45 to 50 kph is great fun as you can speed the wing up via a few turns and can "play" in the wind as you would with a normal modern PG in 20 to 30 kph of wind.

BUT the upper limit of safe flying is more or less the same, so if you can't fly your modern PG (*speedrange up to 45 or even 55 kph on many wings*) then you cant fly your speedwing either - and the reason is not trim speed, its (boundary layer and / or ground) induced turbulence.

A speedwing simply can't be flown safely in winds above 50 kph (*in most places*), get over it, go get a sailplane - either radiocontrolled or the real thing ;-)

Also any normal PG (*lets generalise and say anything up to EN-C*) is more docile regarding collapses..even the biggest collapses of a normal, full sized pg are usually relatively slow and pilot- manageable compared to a speedwing. When a speedwing collapses most of the time you are a passenger that can't do much as things happen way too fast to react (*sub second timeframe*)

Remark: Speedwing in my definition is anything with a wingload over 6 kg / sqm flat, the bigger "Mini Wings" (essentially smaller low perf PG's) dont count here as they are essentially just

small paragliders with pg characteristics that have not much to do with how a "real" speedwing flies / reacts

The main reason why speedwing pilots are tricked into thinking that speedwings are incollapsible is the difference in wingload / flying speed and profile / suspension geometry which makes speedwings penetrate ("withstand") a turbulence (=external change in angle of attack / direction of airflow over the profile)

deeper / longer then most PG's, but at the cost that the collapse happens later and faster

(comparable to the dilemma current highest performance competition gliders are facing but on a "lower" "performance" (= glide) level)

You dont believe me ? You think that speedwings are supersolid and uncollapsible ? Try it, go fly high over ground, fly into a strongmidday thermal with 50 to 70 kph trimspeed and your 11-15 sqm wing is GONE from the thermals outer downwash ring / area. BANG. so fast you even cant react.

True it may open again in half a second but if not you are truly F%&%\$ed as you hit terminal velocity in no time and might not have the time to open your reserve before you are so fast that it will *(in the worst imaginable case)* disintegrate on throw or rip your flimsy (compared to e.g a skydiving harness) harness.

Conclusion ?

If you plan to fly speedwings to get a much higher (45kp ++ winds) windrange over a PG then you fly speedwings for the wrong reason.

If you fly a speedwing because its fun, reactive, challenging and *(also in soaring applications)* divebombs with minimal input then you are in there for the right reasons.

Speedwings are extremely fun to fly wings, they nicely extend the "fun" range of a Paraglider into the +10 to +15 kph "more" wind area, but there is no built in magic that makes turbulences and the inherent risks of turbulences for any aircraft disappear

As a simplified point of reference here are some easy to remember "cornerstones" that have established themselves over the years:

Remark: valid for a theoretical "average" soarable speedwing with a 80 kg pilot, 90 to 95 clip in wheight

- PG's start to get "parked" on the ridge in trim = ~35 to 40 kph = time to get a soarable speedwing out of the bag
- Modern, fast PG's start having trouble to advance against the wind with 50% or even full bar = upper limit in terms of boundary layer turbulence
- strong thermals are present = dont get the speedwing out of the bag, wait until the sun goes down and/or your soaring hill is in the shade
- no wind, no thermals = fly low, fast and tight with relative safety (*as the risks are limited to your own steering inputs / chosen flying path*)

my general remark is:

Pls be careful with high winds as your are most likely playing a high stake game with natures forces AND statistics.

Its not nature that will get you but its the statistics part of the game that really plays against you... that mixed in rotor / thermal etc. is waiting for you, its just a matter of time..... all speedflying and "Speedsoaring" pioneers have experimented with high and highest winds, most of us have survived it, but i dont know any "veteran" (i know sounds quite funny after just 6-7 yrs) that flies in superstrong (*strong wind mixed with rotor / thermals*) conditions today.

45 to 50 kph in the compression zone seems to be the current safety limit on dry ground for almost everybody who is highly experienced (*at least in our surrounding*), on snow limits are a bit higher (into the 60kph range) as the snowcover considerably smoothens the boundary layer (*which is ALWAYS turbulent on any dry ground apart from fine sand which has the great disadvantage compared to snow that it can trigger immense thermals....*)

All the best, don't mess with nature, you can't win.

Paul