

Shortpack HG *by Erika Klein*

How to grow hang gliding? Design a small packing glider

■ **When students arrive** for their first hang gliding lesson at our Los Angeles beach site, their first question might be: “Is this dangerous?” (Or, “Where’s the bathroom?”) After a few runs down the hill, they may jump to another puzzling question: “How do you transport one of these?”

We explain they’ll need to mount a rack on their car

to carry their glider. Actually, they’ll probably have to build the rack first, or find a friend who can weld. And don’t forget they’ll need space to store a 17-foot-long glider. (Fingers crossed they have a car. And a garage.)

Navigating these hurdles is more than worth it for the experience of hang gliding, and it’s entirely possible to achieve or to find ways around each of them.



▲ Florian and author in front of TPHG holding its bag. Photo courtesy of Erika Klein

“HANG GLIDING MAY NEVER BE QUITE AS CONVENIENT AS PARAGLIDING, BUT WHAT IF WE HAD A GLIDER THAT PACKED TO 5 FEET OR LESS TO FIT EASILY IN A CAR OR PLANE; SET UP IN LESS THAN 15 MINUTES?”



▲▼ Author holding part of TPHG and helping with set up at Sylmar Flight Park in November 2024. Above photo courtesy of Erika Klein. Bottom photo by RJ McKeenan

Still, glider transport and storage are notable barriers to entry for new pilots. It can also continue to frustrate experienced pilots trying to figure out rental or transport logistics to fly in other states or countries.

This leads to my main idea for growing the sport: I believe we should create a convenient and effective small-packing hang glider. After 18 years as a hang glider pilot, including as an instructor, former USHPA employee, and content creator with over half a billion

social media views that have sparked conversations with pilots and non-pilots around the world, I'm increasingly confident that this would be the most achievable way to help hang gliding thrive.

Everyone has their own thoughts about growing the sport of hang gliding. Ask five hang glider pilots and you'll get 20 opinions on ways to reverse the sport's decline, often including reducing insurance and other costs, gaining or regaining site access, and increasing instructor numbers. Though these goals are worth pursuing, they're extremely difficult (and in some cases impossible) to achieve. They also largely ignore the low student retention rates in the sport.

Creating an efficient small-packing hang glider isn't easy, but one prominent hang glider designer has assured me that the technology now exists to do it. The main thing we need is a design.

The growth of paragliding has already highlighted the attractiveness of portability and convenience. Hang gliding may never be quite as convenient as paragliding, but what if we had a glider that packed to 5 feet or less to fit easily in a car or plane; set up in less than 15 minutes; had easy handling and similar performance to current recreational wings—and was still a hang glider so had no risk of deflations? Many pilots (both hang glider and paraglider) around the world have told me they'd be interested. I know all of our students would be, too.

Small-packing hang gliders already exist, but I don't



think they've become convenient enough to gain widespread popularity. Hang gliders from German manufacturer Finsterwalder come the closest. However, their 6-foot breakdown size is still relatively large, and many pilots report taking an inconvenient 40 minutes to set them up from the shortpack configuration (compared to around 10-15 minutes for standard hang gliders).

Major hang glider manufacturer Wills Wing also introduced shortpacking on its Falcon 3 beginner/recreational glider, which remains an option on the Falcon 4. I own a shortpack-capable Falcon 4 and love it, but the gliders' similarly large shortpack size and hour-plus shortpacking time make the feature primarily only useful for international travel, with regular/long-packing for everyday use.

In progress: New small-packing glider designs

Fortunately, some people share my belief that a convenient, smaller-packing glider is the future of hang gliding and are actively working to make it a reality.

Swiss pilot Florian Kohli began hang gliding in 2023. Living in an apartment and not owning a car at the time, he sought a smaller option than the gliders currently available on the market. After purchasing tubing from Finsterwalder, he created his first model, the TPHG 4.6, which measured just 4.6 feet long when packed. Kohli took the glider to California for its first test flights in November 2024, drawing a crowd of hang glider pilots as well as attracting emails from interested pilots around the world asking about buying the glider.

While the TPHG 4.6 received some criticism online for its not-yet-airworthy design, many praised Kohli's efforts and willingness to innovate and refine his design. Despite having no formal engineering training, Kohli was excited to apply his inventor's mind to the process. "Every single thing you think is difficult, someone will find the answer," he said. "Why won't you

▼ ***Windsports school owner Andy Beem test flying TPHG at Dockweiler in November 2024. Photo courtesy of Erika Klein***



do the same?"

Ultimately, Kohli's goal is to develop a DHV-certified version of the TPHG that measures less than 5.7 feet when packed, weighs less than 44 pounds, packs down to a narrow width, and can be set up in under 20 minutes. On his way toward that objective, Kohli hopes to complete the second version of his glider and return to Los Angeles to test it this November (you can find updates on his website: hangglifter.com).

"I would just love to hear people say, 'I would like to try hang gliding,'" Kohli said.

Australian instructor, top pilot, and hang glider developer Rohan Holtkamp is also working on a new glider design, the Dynamic Soarer, based on the ATOS C rigid wing glider. He has several even more ambitious goals, including: a packing time of under three minutes, a pack length of 5 feet 3 inches, a weight of 36 pounds, L/D of 16:1 or better, stall speed at maximum load less than 20 knots, and instant roll response.

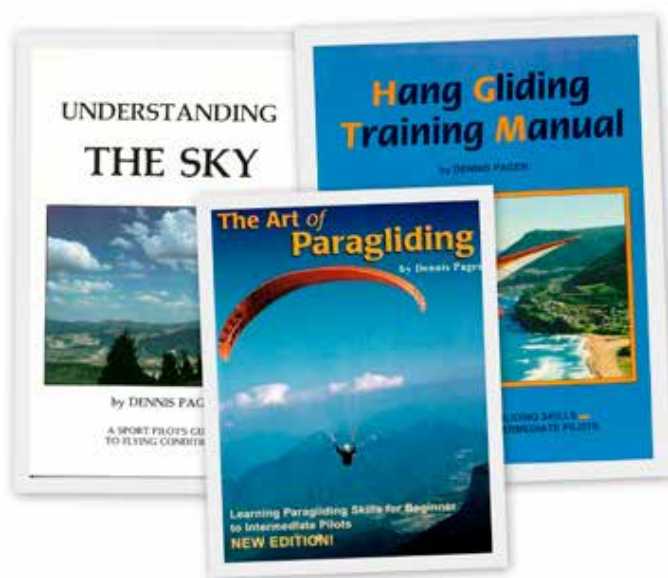
"If you can't offer compelling sink rate, L/D, stall speed, top speed, landing, handling, glide slope control, or safety improvements over the competition, then the market will not be swayed by a heavier and slower to rig option to a paraglider," he said.

Holtkamp, who retired from instructing in 2023 to focus on designing the hang glider (as well as manu-

facturing a folding kayak), plans to load test the glider this year. "Hang gliding could blossom with uptake of a wing like the Dynamic Soarer," he said, "as it addresses most previous barriers and will be very easy for paraglider pilots to adapt to."

I'm thrilled to see pilots working on designs (if I had any engineering background, I'd join them) and hope more people recognize the potential and continue to drive innovation. So far, most hang glider manufacturers I've spoken to remain focused mainly on performance increases. They're hesitant to commit resources to a new small-packing design because, they say, the market is too small to guarantee a return on their investment. However, this is a self-fulfilling prophecy.

I encourage you to follow and support the development of new small-packing hang gliders, push for the changes you want to see, and vote with your wallet by contributing to development efforts when available and, ultimately, buying the finished product. Yes, some new designs will be lower-performance recreational gliders, but remember that they can pave the way for higher-performance gliders if they're successful. Rather than lamenting insurance costs and other issues we likely can't change, it's critical to focus on areas we can for the best chance of growing the sport. 🇺🇸



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