



# COAST TO COAST USA

In the first week of December last year Harley Milne flew his paramotor west-to-east 2,200 miles across the USA in a very quick eight days. Ed Ewing caught up with him and the meteorologist who helped make it happen

**W**hat you did is amazing, I tell Harley Milne when we eventually catch up over WhatsApp video at 8am his time in Walnut Creek, California. About 25 miles outside San Francisco it's a "small town that's grown quite a lot in the last few years," he says. Born in South Africa he has lived on the West Coast for the past 20 years, and now runs a drone survey and photography company. He is in the driver's seat of his pickup as we talk for an hour, ready to head off to work.

"We're in a clawback year," he says of business. The pandemic pretty much wrote off 2020 for him, and besides, he'd been flying. "I did the 50-state tour starting in November 2019," he explains, "and I completed all 50 states with Alaska in June last year."

Harley's 50 State Tour was a personal project he set himself, to paramotor in every state in the United States of America. "I would literally drive to a state, meet up with local pilots, go and fly and then check that off my list."

Towards the end, in Wisconsin, someone had asked him What Next? "And I joked, 'I don't know, maybe fly back across the country?'" The seed for the coast-to-coast attempt was sown.

## Record hunting

Only a handful of people have flown coast to coast across the USA by paramotor. Will Gadd was the first. He flew it in 2001 with Jim Grossman as wingman for 90% of the way. His route took him 2,700 miles from Ventura near Los Angeles to Kitty Hawk in the north east. It took him 48 days.

A decade later Jonathan Sepp and Matt Blank flew coast to coast, covering eight states and 3,200 miles in 18 days, 145 flight hours. Then in 2018 Jean François Chabaud did it in 20 days, as part of a much bigger project to fly 6,000 miles around the USA and Mexico.

To go coast-to-coast in just over a week then, a mere 48 hours 19 minutes flying time, looks seriously impressive. It takes it from expedition-style adventure to intense week-long challenge. It is even more impressive because of the meteorology involved, of which more later.

"This was very much a race for me," Harley says about his motivation. The plan was to go from Pacific coast to Atlantic coast by the shortest route in the quickest time. "Publicly I said I wanted to do it in 14 days, but internally the team knew I wanted 10 days."

That team was made up of a crew of seven people he met through paramotoring, including

**◀ AHEAD OF THE CURVE**  
Harley Milne in full combat kit for flying at 12,000ft in November and December for hours at a time. The headgear is a military helicopter helmet. The Californian pilot has set a new speed record for paramotoring across the USA  
Photo: Harley Milne



**▲ DESTINATION USA**  
 Before Harley's coast-to-coast attempt he spent several months last year flying every state in the USA. "I'd literally go to a state, hook up with pilots, fly, and then drive to the next one." The adventure gave him the idea to try to set a record for flying coast to coast. On his eight-day journey he would get ready before dawn, then launch as soon as legally allowed. A typical flight would last two to three hours, and he flew three times a day. Photos: Caleb Johnson / Harley Milne

ground crew chief Ray Pearce, Ray's brother Tom Pearce on logistics, meteorologist Dave Wert, medical officer Jeffrey Miller, public relations director Cynthia Lecompte, launch site liaison officer Anthony Dalton and team photographer Greg Anthony Harris.

The plan they put together was to fly west to east, following the roads, flying all day, and landing and launching from airfields and airports. Going in November was a strategic decision.

"We knew the window to fly this fast, based off historic weather data, was going to be very small. And the advice I got from Jean François who had flown a similar route, was to go in March." The second option was early November, late fall. In the end they went in late November and flew into early December.

That time of year obviously has much shorter daylight hours than spring, but the benefit is lots less thermic activity, meaning you can fly safely throughout the day. Launching, flying and landing in strong thermic conditions is not really an option in paramotoring. "The problem is not getting above the thermals and flying with speed," explains Harley, "the problem is coming down and landing and then getting off again in a safe way, without getting killed in the process. So you'd have more

daylight, yes, but you would also have much more difficult conditions to fly."

He adds, "From a meteorological perspective, I knew if we had failed in November we would have another shot in March and April. But as it turned out, Texas had a massive freeze in March and it would have been too cold and impossible with the weather patterns."

The "ideal" weather pattern Harley and his team wanted was to see the Jet Stream start to bend down from the northwest, "and then preferably a little bit of weather coming out of the Pacific right behind you. Not out of the Gulf of Mexico, but out of the Pacific right behind Guadalupe, so you get a push from behind."

He adds, "Really, we could make this whole interview only about how we studied the weather. How Dave figured out how to get in front of those waves of weather to keep pushing. In fact, that one day we lost to weather, if I'd been able to do another 40 to 60 miles the day before we would have got ahead of it. In fact, we could have done it in six days, knowing what we know now."

In the end Harley flew it in eight days, including the one day lost to weather. "We had four days where we covered more than 300 miles [480km]," he says. "We averaged seven hours of flying each day."

Those days all started well before dawn. "Every day we aimed to launch in civil twilight or at sunrise. We'd get up two hours before go time, the team each had their roles. The average day then lasted 18 hours."

As well as charging all the electronics and getting the kit ready, the engine was fine-tuned every morning. "We had a lot of altitude changes so it required minor adjustments. We gradually leaned out the fuel because it was running way too rich at the start and the engine was relatively new."

To make the most of conditions it was important to be able to climb to altitude quickly to get into the best airstream, either for direction or speed. Dave Wert's daily weather briefings were crucial for this. It was never simply a case of "Climb to 5,000ft and stay there till you run out of gas." Much like hot-air balloonists go up and down through the air column to find and ride the right winds, Harley's plan was to do the same thing. And it worked.

Over the flight Harley averaged 44.4mph (70km/h), reached a maximum cruise speed of 89.5mph (144km/h) on day three, and flew at a maximum altitude of 12,444 ft MSL.

It wasn't all fast downwind flying for 2,000 miles of course. "In fact the first three days we

## COAST TO COAST BY PARAMOTOR

Not many people have flown a paramotor across the USA. These are the ones we know about

### Will Gadd, 2001

Will Gadd flew 2,700 miles from Ventura near Los Angeles to the symbolic Kitty Hawk in the north east, home to the Wright Brothers' first gliding experiments, over 48 days in summer 2001. Jim Grossman flew "90%" of the route with Will. The film they made, *Paragliding Across America*, is available to watch on Amazon (US only).

### Jonathan Sepp, 2011

Jonathan spent 18 days, 145 flight hours, flying across eight states and 3,200 miles in an epic adventure. "Through thick and thin. Ranchers, guns, weather, broken bones, and a lot of help from my best friend Matt Blank, we made it coast to coast. Alive. This is the story, a true story, of two friends who set out on an adventure and found what they were looking for." They made a film, *Barnstormers*. Watch the clip at [vimeo.com/70916488](https://vimeo.com/70916488)

### Jean François Chabaud, 2018

This massively ambitious project saw long-distance adventure paramotorist veteran Jean François Chabaud circumnavigate Mexico and the Gulf of Mexico by paramotor, a trip of some 6,000 miles. He covered the USA coast-to-coast bit in 20 days. Watch his presentation, [youtu.be/Ot-8wjREdKc](https://youtu.be/Ot-8wjREdKc)



## Q&A: DAVE WERT, METEOROLOGIST

**Dave, you were the meteorologist for this trip. What's your background?**  
I retired in February last year after working as a meteorologist for the US National Weather Service for 36 years. And one of my bucketlist items was to learn to fly a paramotor, so I came down to Aviator PPG in Florida. We were down here for two weeks and fell in love with the place, so we actually ended up moving down here from Virginia. I live 15 minutes away from the airfield now.

### How did you get involved in the Coast to Coast challenge?

Harley called me. He saw me on a clip I'd done on YouTube on meteorology and paramotoring. Harley saw that and reached out. I was thrilled to be able to help. For me, being a new pilot, it was the first time I'd done anything like this. I've forecast for big airlines and small aircraft but never paramotor pilots. So to be a new pilot and to know that a 2mph wind change can make all the difference in the world, it really brought home the importance of what I was doing.

### What were you looking for in the weather before Harley started?

We were looking for the "highways in the sky" to align, and for a high degree of probability, so that we could get Harley to the east coast as quickly as possible. That analogy of highways in the sky works – so the pilot can go up and down to get into the right airflow. Your highways change by the minute, literally, and to have to work that, well he did super well. A lot of time I told him, "If you want the wind you'll need to get up to 12,000ft and the temperature is going to be literally freezing level," but he'd get up there and stay there for two hours.

**The most important decision must have been when to say Go. How did you choose the weather window?**

There were three major waves in the atmosphere. He needed to catch all three of those perfectly, and in a lot of instances that meant surfing ahead of them, so they didn't overtake him. The first significant threat was getting him over the Intermountain Southwest region. The next was timing a big front – actually it was an Arctic front that broke all types of records – and we knew the wind component of that would shut him down for at least a day. So the job was to get him to a place where it wouldn't shut him down for a week. And then the last one was a storm that formed on the back side of this cold air that was then going to chase him to the east coast. So he had to kind of thread the needle.

When we were trying to figure out the best time for him to launch on the west coast, we had to look ahead for the whole trip and work out how to minimise downtime due to weather, and maximise the direction and speed component to get him east. And that window opened up. As a matter of fact he was thinking of going a few days earlier, but I said, hmm, I think you'll get shut down. A few days later we looked and said, "That's it, that's your sweet spot right now. If you miss it you'll have to re-set four to six weeks." And it was that sweet spot that gave us all a good degree of confidence that if he could just keep ahead of these waves, then he'd make it in under 10 days. And he did.

Watch Dave's weather presentation about the Coast to Coast on YouTube at [tinyurl.com/davewert](https://tinyurl.com/davewert)

### ▲ LOG BOOK

**Pilot:** Harley Milne  
**Flight:** Coast to coast USA,  
**Dates:** 29 Nov to 7 Dec 2020  
**Time:** 8 days, 2 hours, 8 minutes  
**Number of flights:** 22  
**Distance flown:** 2,144.9 miles  
(3,451km)  
**Straight-line distance:** 2,053.2 miles  
(3,304km)  
**Highest altitude:** 12,444ft AMSL  
(3,792m)  
**Average ground speed:** 44.39mph  
(70km/h)  
**Top speed:** 89.5mph (144km/h)  
**Wing:** Dudek Hadron 3 and  
Dudek Snake 1.2  
**Motor:** Corsair Motors Black Devil 172  
and Blackhawk Paramotors Elite Frame  
**Prop:** Helix 3 Blade 130cm Props  
**Repairs:** One broken prop, three  
chopped lines and one bent frame  
section

[50xchallenge.info](https://50xchallenge.info)

The photos above show Harley during his 50 State tour

actually had a slight headwind coming out of the northeast, so I was crabbing along until I crossed the continental divide. But after that it's a whole different set of weather. So when I got into Texas I bumped it up to 12,000ft and was doing 90mph."

### Racing the clock

Unlike some record and race attempts, Harley wanted to fly a regular set-up. He didn't want to have to fly with extra fuel tanks, bags full of ballast or a fuel bladder sitting on his lap.

"There's no way I could have done any of that with all the gear that I already had, particularly in the first three days when you're flying over some very rugged terrain. I had my Garmin InReach, radios, spare batteries, some survival kit, water. I carried equipment so I could sustain myself if I needed to. At the start where it was more dangerous terrain I had a much bigger safety net, there was no room for carrying more fuel, no way."

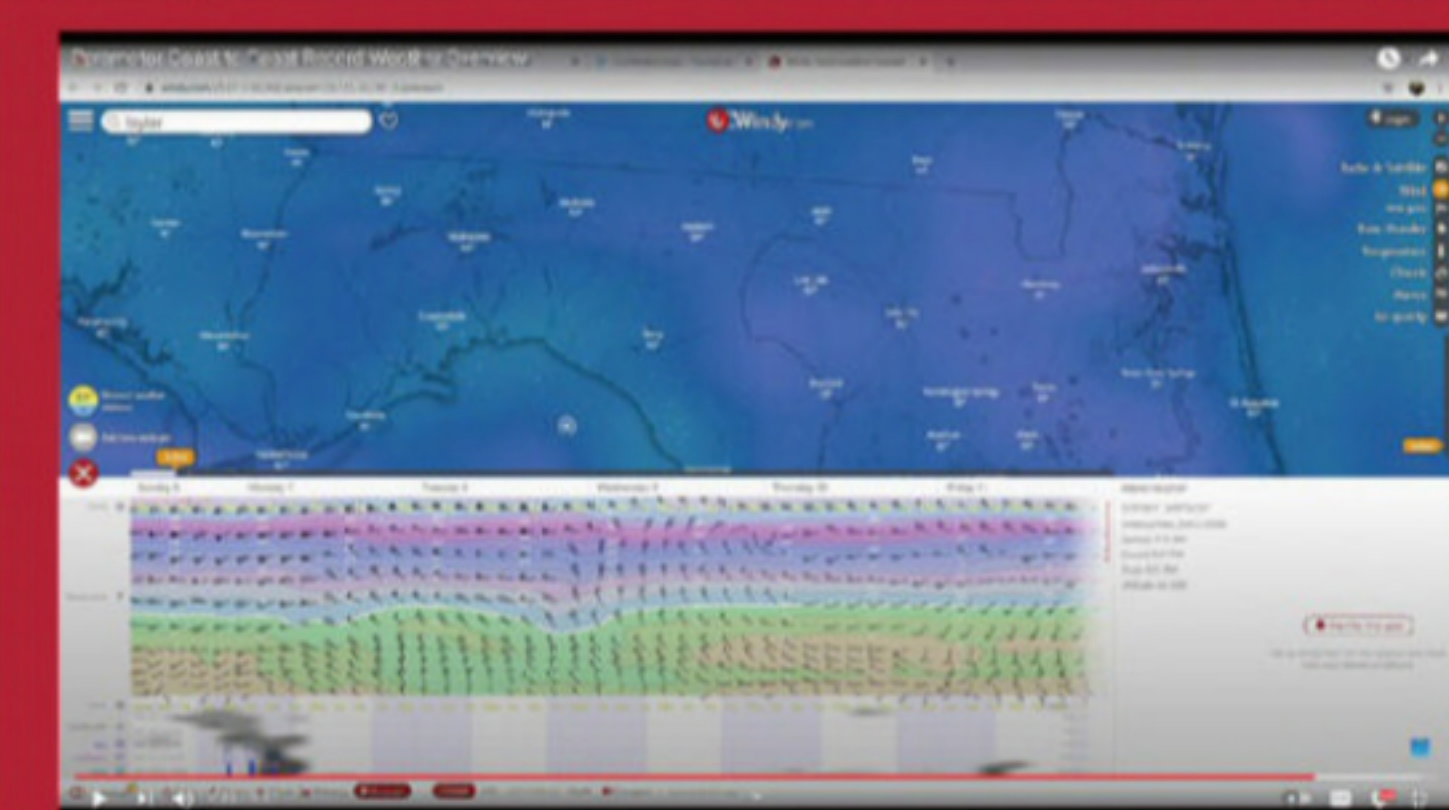
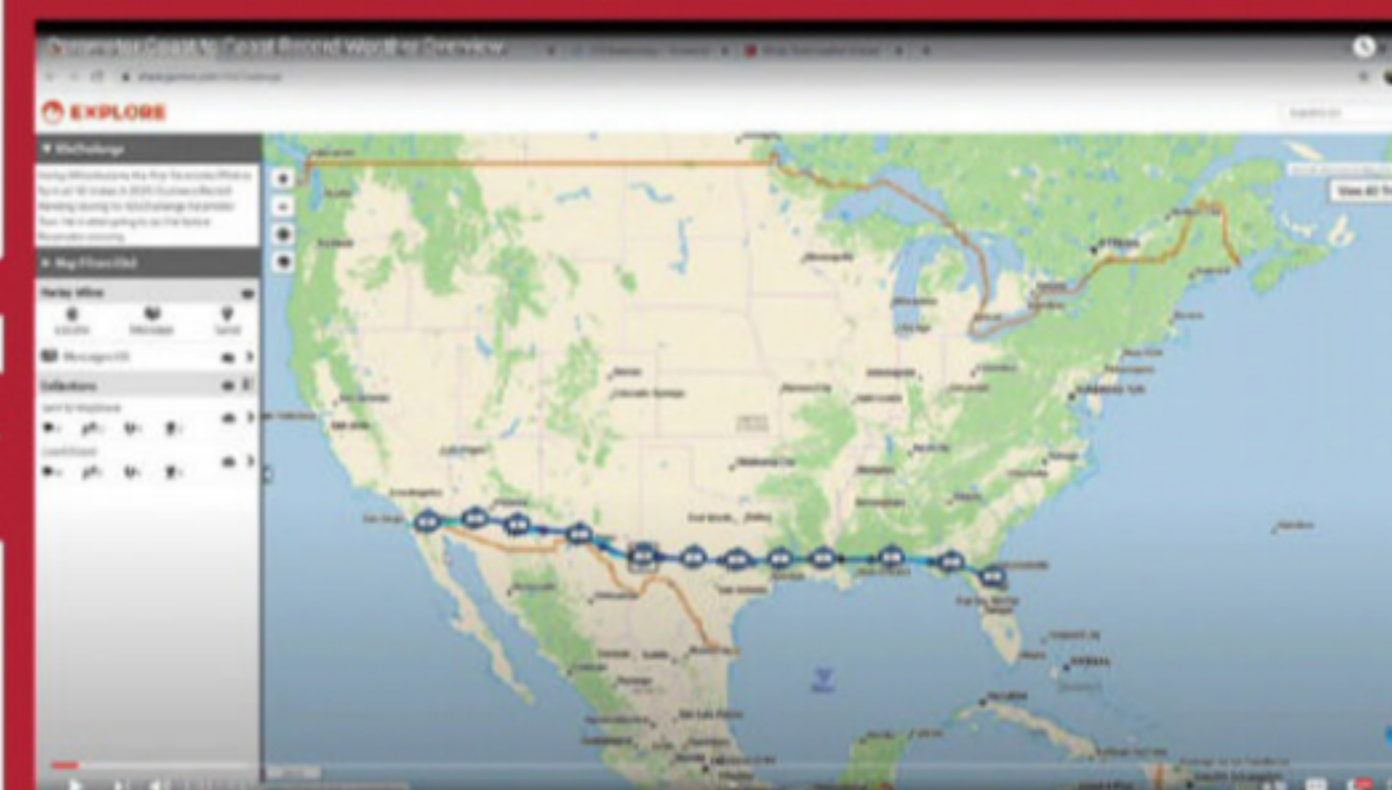
Instead the team focused on doing quick turnarounds from landing to launching again. We got it down to about 30 minutes from 45 minutes to an hour. That included refuelling both paramotor and pilot, weather and team briefing and decision making on the route ahead. From there it was launch, into the air and back into the

stream. His flights typically lasted two to three hours, but ranged from 55 minutes to 3hrs 47mins on flight one, day one. The longest flight distance-wise was 173 miles (278km) on day four.

Each flight also had a planned landing point. "One of the goals I had was to show that paramotors could operate the same way that general aviation does, in that we can fly with a limited amount of fuel and go from point A to point B. We weren't just going to fly until we ran out of fuel, land wherever we wanted and try to take off again.

"Out of 22 flights I think there were two exceptions where I didn't land at an airport. So fuel management was a very big part of this. We knew I could do 120 miles with no headwind or tailwind, so depending on what the wind was I could project where I would land. I did eyeball it a couple of times and say 'I think I can go another 50 miles' and I would change my destination in flight, but not many."

As part of the planning he and his team had identified airports every 25 miles, most of which did not need communication with ATC. "I landed at a lot of municipal airports and the reception was always awesome. I'd go in, meet the local pilots, and they'd all be interested. I'd





**▲ MISSION ACCOMPLISHED**


Left to right: Greg Anthony Harris, Cynthia Lecompte, Harley Milne (pilot), Ray Pearce, Tom Pearce and Dave Wert. On the beach in Florida at journey's end

get a small crowd standing round watching me get ready to take off."

In the air too he attracted some interest, in particular from a couple of F-35s as he flew into Arizona from California. "It's amazing how slow those damn things can fly!" he jokes. "I was 8,000ft and they came in low but below me and real slow. I mean they were probably still doing 150 to 200 knots, but they were basically looking up at me, a thousand feet above them. It was cool."

An early enforced landing close to an Air Force base on the first day also saw him meet some military personnel. "Very quickly I was surrounded by four or five vehicles with a bunch of guys jumping out. 'Who are you? Do you have ID? Are you armed?' I mean, I was calm about it and I hadn't done anything significantly wrong, it's an airport that people fly over all the time. But they have F-35s fly through there and they were providing security. Yeah, it was cool stuff!"

Harley is hopeful that his flight will earn its way into the Guinness Book of World Records, although they don't yet have a category for 'Paramotoring across the USA'. He is also hoping it can be ratified or recognised as a speed record by the FAI, something he is working on.

But perhaps more interestingly, he is looking forward to someone trying to beat it. "I'd be very honoured if anyone tried. I would be ecstatic if it could be done as a race! If it is, I will gladly be there. I mean if I think I can win I'm going to try and win, but there are some much better pilots, way better equipped pilots than me. Flying against those guys, now that would be a race!" 

**PLANES, TRAINS...**

There is no official coast-to-coast route, but these people have all made it into the record books

**Plane, Ed Yeilding and Joseph Vida, 1hr 7mins 53.69secs**

Two US Air Force pilots flew a SR-71A Blackbird from Ventura, California to Salisbury, Maryland, on 6 March 1990 in just over an hour. They covered 2,404 miles at an average speed of 2,124mph.

**Car, Anonymous, 26hrs 38 mins**

An unidentified group of three took advantage of traffic-light roads during lockdown on 4 April 2020 to set a new coast-to-coast, NYC to LA, 'Cannonball Run' record by car.

**Motorbike, Carl Reese, 38hrs 49mins**

Carl Reese, 47, took advantage of a full moon and rode LA to NYC on 28/29 August 2015 in just under 39 hours to set a new record for a motorbike. Notably, he did it without a support team.

**Bike, Christoph Strasser, 7 days, 15hrs 56mins**

Austrian cyclist Christoph Strasser cycled from Oceanside California to Annapolis, Maryland from 10-18 June 2014. It was the second time he'd done it – the first time was in 2011.

**On foot, Pete Kostelnick, 42 days, 6hrs 30mins**

Ultrarunner Pete Kostelnick, 29, averaged 72 miles a day for six weeks on his 3,067 mile run from San Francisco to NYC in Sept/Oct 2016. He beat the long-held previous record, set in 1980, by four days.



**SIROCCO 3**

The new Sirocco 3 is a light weight, fully reflexed paramotor wing that offers high levels of performance, agility and speed in a lightweight, compact package. Designed primarily for long distance PPG XC flights for intermediate to advanced level pilots, it is a fun, dynamic and versatile wing that is also perfect for low level slalom-style fun flying.