

# World Record in Cross Country Soaring

By Joe Wurts

## Introduction

Since about the middle of 1987, I was considering an attempt on the XC distance record. There were several factors in feeding this desire:

I have been quite successful in XC contest through the years, winning at Thousand Oaks Soaring Societies' Western Great Race in '83, '84, '85, '86, '87, and '88; Santa Maria Soaring Society's Cross Country in '84, '85, '86, '87, and '88; and all other XC events that I have entered in that period of time. (current editorial note: I am still undefeated in XC, almost ten years after this article has been written.)

I've also had a very low incidence of landouts in XC flying during the period leading to my attempt on the world record. At the TOSS XC, I had not landed out except once in 1987, and at the SMSS XC, I had never landed out. This is with usually doing the course 2-4 times a day trying to better my course times. Usually we would do a conservative course early in the day when the lift was light, then progressively push harder to better our previous best flight time, even if nobody else had finished at all (we were there to fly!). In fact, in 1988 the SMSS XC had its first finisher other than me, while we typically did the course at least twice on Saturday and once on Sunday. This added up to as much as 70-80 miles flown in a single day, and upwards of 1000 miles flown without an outlanding through the years.

Anyhow, with all of the above, I was fairly confident of extending the record set by Jack Hiner. I met and talked with Mr. Hiner at the 1987 MARCS symposium and he was quite supportive of my attempting to better his record. I am indebted to him for his spurring me to action by sending me copies of his dossier, which, frankly, I plagiarized the content and form for my dossier.

## Preparations

It turned out that the hardest thing about establishing a record is not the actual flying, but doing the necessary preparation beforehand, and doing the documentation afterwards. Jan and I spent several evenings looking over maps of southern California looking for potential courses that were relatively straight, and would theoretically be in a down-wind direction.

Although one would think that in the deserts of So. Cal. it would be easy to find many courses, it turns out that after you eliminate unfavorable terrain, well-traveled roads, and restrict it to roads following the prevailing winds, the choices narrow down considerably. I found a potential course and talked a friend, Brian Quayle, who has a Piper Warrior, into overflying the course to check its validity. It brought home the magnitude of the task when it took upwards of 1 1/2 hours to fly the course at 100 mph. We even found a way to circumnavigate Barstow, a big worry that I had. More on this later.

Then I had to get a world record sanction from AMA. A good friend, and constant XC teammate, Don Vickers (LSF level V holder) volunteered to be the Contest Director for the attempt and took care of the necessary paperwork for this. As I had a couple of XC planes already, all that remained was to wait for good conditions, assemble a team, and make the attempt.

### **The Attempt on May 14**

As of 5-14, Don had not gotten his CD papers back from the AMA (filed early April), we recruited Gary Ittner to participate, because he was an AMA CD, and to oversee an attempt on the world record. If we were unsuccessful, we would establish a new world record, but not national records, as we hadn't contest sanctions from AMA yet, but we decided to give it a try anyhow.

As in all the XC flights we make, the driver was my wife, Jan. As we did the necessary preparations at the launch site, conditions seemed promising. With the first launch we found lift and started on our journey at about 10:45 AM.

The flying was uneventful until about 20 miles into the course we ran into a patch of dead air and got down to about 300 feet until finding a thermal. As the wind was primarily out of the north, I stayed on the upwind side of the road. We crested a 3800 ft pass before descending into the Helendale area, which is due north of the Cajon pass. As we descended, the airplane seemed to start flying funny, crabbing and drifting north. We soon realized that we were flying into a different airmass that was coming from the Cajon pass going due north. The more we progressed, the worse it got until the majority of the flying was just to keep the plane near the road. At one point, I just about lost the plane by thermalling downwind for a minute. We ended up giving up at Helendale and having lunch, after going 41 miles.

There were many lessons learned from this flight. Pay more attention to the air, get the earliest start possible, and we had to beat the normal daily shear line spilling into the desert from El Cajon.

### **Attempt on May 28**

For this attempt, Don Vickers had received his paper work from AMA and was the official Contest Director. We were a bit better prepared and had Jack and Joyce Patzold along as official observers, following along in their VW Rabbit.

On the drive out to the launch site, we noticed a stiff breeze out of the Southwest, a good sign. As we reached the pass to Palmdale, a gust of wind pulled one of the beanbags we used for pilot and spotter comfort out of our pick-up and deposited it on the side of the freeway. When we stopped to retrieve it, we measured the wind at 25 mph, with gusts over 35 mph, a good sign of tailwinds if we could beat the shear line that was sure to be blown in from Cajon Pass.

We made it to the launch site at 10 AM greeted by 5-10 mph breezes out of the west and the perennial Lancaster fliers, Howard Short, and Bud Tolleson. They had a winch set up for us to use. As we wanted to start as soon as possible, we quickly assembled the plane, got the truck and crew ready, and launched. We quickly got into what Howard calls the Mojave Wave, which in reality was a giant smooth thermal, and climbed to about 2000 ft, not nearly XC contest starting altitude, but enough to get us on our way at 10:16 AM.

The start of the flight was kind of weak in that the lift was soft, but we wished to get moving as soon as possible. I had to work hard to find any identifiable lift initially, as the air was stable and we were passing irrigated farmland (nothing grows there unless it is constantly watered!).

We were helped by a nice tailwind, but 10 miles into the course was my first real challenge. We started to climb out of the Antelope Valley gradually, but could not find any good lift. So, as we went forward, the ground came up and the glider came down. Finally, at about 100 ft, at the side of the road, I hit some light air, about zero sink. I had to try and work it, as my options were to land otherwise. I ended up shifting cores

three times as we drifted downwind, each time losing some precious altitude, before I finally connected with some air which I could climb on. By this point, I had gotten down to the height of the telephone poles bordering the road. As I thermalled, we drifted straight down the course at about 15 mph, a sign of a very helpful tailwind. The thermals were still topping out quite low, especially noticeable as we were gaining altitude.

During the next 15 miles, we concentrated on gaining and keeping altitude, rather than making good time down the road. We were still going rather well in groundspeed, as the tailwind was adding 15 mph to our average airspeed. By the end of our first hour aloft, we had covered 30 miles, a respectable speed with the weak air we had encountered so far.

As we descended into the next valley and approached the crossing of highway 395, the lift started showing a good improvement in strength and maximum altitude. By the time we reached Helendale, the thermals were numerous, very strong, and also showed no signs of topping out up to the limits of visibility.

We flew well to the south of the course after our last experience with the winds from the El Cajon pass, but this time there were no signs of a southerly wind. The lift continued to get better as we left Helendale heading towards Barstow, which was quite good as the 27 miles between the two was a well-traveled stretch of road (National Trails Highway).

We did notice that the tailwind was decreasing, but the lift was so good that our groundspeed average still was at or above 30 mph (translating to 45-50 mph between thermals). In the stretch between Helendale and Barstow, we ended up making only 3-4 complete stops for thermals because the air overall was so good that I just cruised in good lift.

During one thermalling stop, Jan noticed that I was turning a good shade of pink and asked if I had used any sunscreen. In the rush to get started, I had forgotten to use any. I'm fair skinned and burn quite easily. She applied some spray-on sunscreen to my legs, but I declined any for my face as Moby was at the limits of vision, and I did not wish to risk getting sunscreen in my eyes. This turned out later to have serious consequences.

By the time we got to Barstow, our tailwind had just about disappeared, but the lift was still quite good, although the normal desert sinkholes were beginning to appear. We hadn't driven this section of the course before, but I had flown over it. I had some kind of wimpy directions written down, like "turn right at the Fosters Freeze, turn left at the water tower," etc., as from the air, one cannot read road signs.

Jan did very well following these directions until the last turn on the Barstow bypass. About a mile down one road, I figured out that something was wrong, as the course was supposed to be going east, and we were heading south. We turned around to get back to the turnoff, and I took my eyes off of Moby to get some bearings as to where we were, as I was the only one that knew the right course.

Of course, I lost track of where the plane was. Don couldn't spot Moby either, so I put the stick into the corner and looked for flashes. In about 30 seconds (30 minutes relative time!), Don spotted the plane, and got me to spot it. Meanwhile, we still had to find the right turnoff. It took about 3 cycles of losing the plane and navigating, until we found the right road to take and started back on course.

The road that we got onto was really not a standard road, but only a pipeline access road. It looked like a graded gravel road from the air, but we quickly found out that the "gravel" was actually 2-inch to 8-inch rocks, very difficult going. Jan was going at the

upper limits for our pick-up (25-30) mph, in order to try and keep up with Moby, which left Jack and Joyce well behind in their little VW Rabbit.

Jan followed the road religiously through some very steep hills. Jan told me later that she had to just trust that the road didn't stop or turn as she crested some hills and went back down, as all she could see was the hood.

After about a mile of this, we reached the spot where it connected to the highway frontage road, and we waited for Jack and Joyce. They showed up in a couple of minutes with a tale of woe. A rock had punctured their fuel tank and now they had a steady, albeit slow, leak.

After Barstow, the wind gradually grew into a headwind, which was making progress slow, especially because we were not yet at the halfway point. We were still doing okay, as the lift was quite good, although the sink was also getting stronger.

We did pull into a gas station so that Jan could take a moments well deserved rest, and so that the Rabbit could take on a full load of fuel, which was being slowly distributed along the road. I did get down to about 400-500 ft once and was treated to listening to truckers on the 27 MHz sniffer frequency discussing that "plane circling over the highway," as I was climbing back up.

One of the interesting things was driving under freeway overpasses. We would drive under at speed, and hope that we could reacquire the plane on the other side. It was amazing how long it seemed to take to see sky again.

We passed Ludlow, and the headwind had been gradually increasing, making the flying a very difficult chore. Every time I stopped to thermal, I would lose ground as the plane drifted back. On some of the thermals, I would have Jan back-up down the course to have better visibility on the plane, which was very difficult to accept.

We did have one amusing moment during this segment. About a half-hour earlier, a CHP had passed us, and looked over our vehicle very carefully, as Don and I were sprawled in the back of the pick-up looking up for who knows what reason. Then a CHP patrol plane came overhead when I was stopped and thermalling. He was actually quite a bit lower than the glider and most likely had no idea of what was actually going on; all he saw was two vehicles on the side of the road in a deserted area when it was about 95 degrees.

He used his loudspeaker to ask to wave if we needed help. Of course, I was listening to the sniffer with headphones and had no clue. Then, he asked to wave if we did not need help. I finally left the thermal so as demonstrate that we were capable of travel. I had set up my transmitter with two external batteries in anticipation of needing a lot of time. But I had expected to finish in only about 5-6 hours. The headwind really ate into our rate of travel, as we lost a lot of time in every thermal, drifting backwards. At about 50 miles to go, I started using the last Tx battery. The sun was doing its job on my face, and I was really feeling sunburnt and tired. With all this, and the slow progress, I was having doubts of finishing the task.

We got to Amboy by trading altitude for distance. We were helped somewhat in that it was downhill to Amboy. Don was doing an excellent job in trying to keep my morale up, and reading any signs of air upwind, but we were struggling. My last Tx battery was in the red, and in the last hour, I had only done 11 miles. It was not looking good. I was pushing hard and taking some chances. We traded the last battery pack for the first one, thinking that NiCad batteries have some "spring-back," and it worked. I got another 15 minutes on the starting pack. Leaving Amboy, I got really low with only six miles to go. I mentally was resigned to finishing just short of the goal and set up to land on the road.

On final, with only about 30 feet of altitude, I found a small thermal, rolled into it. We backed up about a 1/4 mile as I worked it up. I ended up using several thermals in the same area to get to about 3000 feet, also switching battery packs on the Tx, as each pack would yield less and less time. We finally set off for the finish, and found lift for almost the entire six miles to the finish, and finished with about 2500 ft of altitude!

We drove into the town of Chambliss (really just an intersection between National Trails Hwy. and Cadiz Rd with a few houses) with horns honking, lights flashing, and a lot of hooping and hollering! I spent a few minutes using up the altitude doing aerobatics and settled into a landing pattern.

We were parked on the intersection of the two roads (my designated goal), and I tried to land there. What a joke! Evidently, I was a bit whipped from the flight, especially the last few hours, and ended up landing about 90 meters away with a ground loop when I hit a bush. I got out of the truck for the first time in eight hours, and almost fell over. All of us did a bit of celebrating and then looked around. The town of Chambliss is a place that time forgot. Not much there, and it looked like it hadn't been changed since 1950.

After taking the plane apart, we started heading back. It took us 2 1/2 hours of driving just to get back to the starting point! We finally made it home by 11 PM.

I'd like to give my heartfelt thanks to Don Vickers for his constant encouragement during all phases of this attempt. Without his pushing, I would have never set this record.

Also, I'd like to say thanks to Jack and Joyce Patzold for their support, for their witnessing this attempt, and for their calm acceptance of the tank puncture!

Finally, thanks to my wife Jan, who puts up with it all, and for driving.

The sunburn I alluded to in the article was really quite serious. I never before really understood why there was "burn" in sunburn. By the time we got home, my entire face was blistering, and the next day it started caking up. I ate through a straw for a few days and did not talk. My legs fared better, because Jan had sprayed them, but they came out striped!