PPZAD - A Remarkable Story

Those of you who attended OSH 94, no doubt, saw an O-235 powered Long-EZ parked on the end of a row displaying a different registration number, PPZAD. This airplane and very capable pilot are no newcomers to long trips.

Andre Deberdt and PPZAD of Sau Paulo, Brazil have now returned home after 97 hours in the air covering 13,000 nm and 5 new countries.

Many Long-EZ drivers have dreamed of making long distance flights but not many have actually done it. Just last year, Andre and PPZAD traveled from Sao Paula to ..... OOPS! That is Andre's story.

PPZAD, A long way from home

To Chile in a Long-EZ

Andre Deberdt (Brazil) - PPZAD is flying again after a two year reconstruction due to a take off accident. The following modifications were introduced in order to increase it's already fantastic usefulness: Klaus's ignition, spinner and wheel pants, bigger fuel tanks, an extra back seat tank, a larger air filter, spin-on oil filter, direct exhausts, NACAs for cylinders 3 & 4, storm scope, GPS, HF transceiver, oxygen system, a cabin heating system and a 60 A alternator.

Since I had made these mods to go far, fast, and efficiently I decided to go to Chile where I was to act as international judge for the "8th Rally Championship" with the Brazilian team and to fly the Long-EZ.

I wanted to try to establish a record of "speed over a recognized course" for our category with the FAI. The route was Rio de Janeiro to Santiago, non-stop, some 1600 nm in 13 hours.

Take off with 90 gallons of fuel and a max gross weight of 1,700 pounds from SBGL, a 13,000' long runway in Rio at 00:10 UTC on October 19, 1993 was emotion filled. It was a little difficult as, even with no wind, I had to constantly ride the left brake. After 3,000' the plane jumped into the air.

I suspected the wheel drag was caused by broken brake pads and not the true cause, another main gear softening after the long 5 mile taxi distance. I have the fiberfrax, aluminum foil, and steel plate installed but that didn't prevent the event.

En route, I had to go around a very strong cold front and endure an almost constant 30 kt head wind. I finally arrived at Mendoza, Argentina after 14 hours of flight, with a 4 hour delay. As it was too late to attempt the crossing of the cordillera, I landed there and, as you can imagine, it was a very exciting landing. Expecting problems, I made the landing very cautiously on the left wheel but, when finally the right one made contact, the tire exploded as well as the entire assembly of pants, brakes, etc.

Sure enough, I soon had the entire airport circus around. Help was quick to free the runway and push the wounded bird to a hangar.

In one hour the only specialist in composites in town, me, was working on PPZAD and had the gear fixed in less than 12 hours. Composites are so easy, just glue it! Next day I made a short test flight before weather grounded us (another Brazilian in an Arrow Turbo 2), for 4 days.

Now a few words about mountains, you North Americans can be prod for having Mt. Ranier and Alaska's Mt. McKinley but think about Chile with it's 25,200' Mt. Aconcagua. Having a MEA of FL 260 gives you appreciation of the crossing. It has to be essentially visual in order to see the road through the pass at 12,000'. Theoretically the crossing could be made at 13,000'. The crossing has to be made before noon and preferably early in the morning. The pressure difference between Mandoza and Santiago must be no more than 1 millibar. Up to 3 millibars difference and it is turbulent, but manageable. If the difference is more than 3 millibars the turbulence will destroy any airplane.

On the second day I tried to cross but the road was overcast so I flew 2 hours south where the MEA was FL 180 and attempted the crossing IFR. The OAT was -22 degrees C. After 2 hours I had my feet frozen until above my knees. The worst, however, happened only about 10 minutes before crossing. **The engine quit completely !!** I lost a thousand feet almost immediately. . . Quick and automatic actions such as nose down, carb heat, mixture rich,switching tanks, and pumping the throttle brought no results. A quick 180 and emergency transmission were effected. I went back over a VOR at the city of Mallargue, where

the controllers told me I would have no problem at all to go down and land if I wanted to. It was completely IFR, overcast from 4 to 12 thousand feet but good visibility in rain.

I went down to 8,000' before the engine gave life signals again, coughing a lot, but in a few more minutes regaining full power.

I decided I had enough and returned to Mendoza, 2 hours away. I flew over the top at 12,000' without any more problems. I had cold feet and was quite shaken by the happening.

Now what happened? What froze? WIth no visible moisture, tops were at 12,000' and I was at 18,000'. The OAT was much too low to form carb ice and too high to freeze gasoline -- -- until today it is still a mystery.

During descent the engine was occasionally giving bursts of power. Many things were tried and observed: mixture and throttle were moved to different positions, the electronic ignition was not faulty as the mag gave the same behavior. All temperatures went to almost nothing. My only concern was to not let the prop stop turning. On the ground at Mendoza a full inspection and testing of all systems were effected but nothing abnormal could be detected, but for the prop very dirty because of the mixture too rich at the altitudes I flew. Coming back at the top of the clouds was a deliberate attempt to have some carb icing formation, but it didn't.

On the 5th day we (the Arrow pilot and I) were finally able to cross the mountains, a little late, at 12:00 due to the complex paperwork for customs in Argentina (lots of tipping) It was terribly turbulent and the poor guy in the Arrow in front of me was reporting horrible things such as 40" MP and descending 1100' fpm. This was at 14,000'--scarey thing. Knowing what was ahead, I climbed up to 16,000' and suddenly encountered an updraft that put me at 17,000' where I went my way. I dared not to put a hand on any control, leaving "George" do the work. After 30 minutes that appeared hours and in headwinds of more than 50 kts the Long-EZ was put in acrobatic attitudes. Finally, the Pacific was in sight and we landed at Santiago International.

The return trip, 10 days later, was anticlimactic and made easy by crossing at 8 AM at 17,000'. It was an incredibly beautiful sight being beside the majestic Aconcagua in all its splendorous snowy 25,200'. Again "George" was doing the flying and I was doing the filming.

I will be able to claim the record Rio to Mendoza with FAI but I intend to try the Rio/Santiago trip again next year in better conditions. It's just too beautiful!

Vari-Eze Canard Flutter

Many people witnessed high speed canard flutter at Rough River this weekend. The pilot indicated his Vari-Eze made a high speed pass down the runway at 180 kts IAS when the canard began rapid up and down 18" oscillations. Power was reduced from the 3,100 RPM setting and back pressure on the stick was applied. The **flutter stopped before the canard failed,** thank God! The rough air apparently excited the canard in its near red line speed.

Charlie Airesman reported the pilot removed the canard after seeing post flight glass fractures along both sides of the canard's top fairing. Inspection revealed the CN-2 canard alignment pin bushings had slipped out of the alignment pin tabs, thus allowing the aft portion of the canard to move. Someone had added a considerable piece of lead to the CS-11 weight in attempt to balance the elevators. No weight was added to the CS-10 outboard station. An old CP calls for only **MINOR** weight addition and then it must be split between CS-10 and CS-11.

Todd Bettenhausen, Velocity builder from Indianapolis, caught the whole event on video. It was a terrifying piece of documentation. If your elevators have been repainted or repaired be sure to recheck balance and test fly at high altitude before returning the airplane to normal service. The consequences are life threatening. Let's **stop doing things which endanger the experimental certification privilege** we have.

Prop Wanted

Need: cruise propeller, SAE #1, for Lycoming O-235 Long-EZ, Great American 62 x 64 or comparable preferred.

904-461-6912
Rick Lavole
26 Marshview Drive
St. Augustine, FL 32084-5873

Bead Buster Sales

Bill Oertel (CA) - EZE-LIFT is now taking orders for the TC BEAD BUSTER, a light weight portable device to break down aircraft tires/wheels. In a handy carrying bag just in time for Christmas - $75

EZE-LIFT
3216 Bronco Lane
Norco, CA 91760-1817
(909) 734-7569

Ellison TBI Bulletin

Terry Yake (KS) - If you use an Ellison throttle body injector you should have received bulletin 94-01 dated June 7, 1994. Call them at 206-271-3220 for a copy. An inspection, and possible repair, of the throttle attach linkage must be performed before further flight. It seems a couple airplanes (one of Ellison's and a Jungmeister) had a disconnect of the throttle cable and the TBI.

Lamb-Chen Shin Tires

Walter Renko (MI) - I called Lancaster, PA for the 11 x 4.00 x 5 tires as listed in the July newletter. I found they will now be sold only through the California branch. The price is seven dollars and change. They are 8 ply rib tread. Call 213-636-2364.

Editor note: They're getting greedy!! I just paid $45.01 tor two tires delivered to my house. 9-22-94.