# Finally…It happened to me …

By Craig Payne

The words of the CeCe Peniston pop song sounded in my head as I slowly pulled the prop through, front plugs out, and felt with my left hand for piston movement in the air compressor. No movement; bummer. I have never had a sheared coupling in 20 years, this was a first and it sheared due to no fault of my own….No wait, the FAA says the pilot is \*always\* to blame. I should have anticipated those wake vortices.

Yes, a wake from one of them big smokers I never saw as I passed just East of Springfield , Illinois, repositioning for the Air Venture Cup race.

This was to be my second AirVenture Cup race in the CJ, hoping to better my speed which did not look good on paper because everyone had a headwind for 400 NM. This year’s start was supposed to be at Mt. Vernon, IL where I had been prepping for a day and ½ in a hanger, putting in fresh spark plugs, applying race tape to seams, installing my nose wheel fairing, ram air box and flow fences aft on the cowl.

Sunday morning before AirVenture 2015; NEXRAD showed a line of weather between the start and the first turn, some 212NM north. A couple of guys flew up through it just to see what was there and it didn’t seem that bad but race organizers were reluctant to launch 75 airplanes through weather in a race. So, the plan was to reposition on our own to Northwest Illinois at KSQI, Rock Falls. We were to refuel there and then launch for Wausau with a turn at Waupaca.

Economy cruising along at 150 knots in smooth air between layers at about 3300 MSL and around the occasional cell seemed easy enough. Just as I passed east of Springfield, the Illinois Capital, hands off the stick folding maps; suddenly, the CJ pitched up sharply to about 70 degrees, danced around a bit in a wing rock and then I was slammed straight down. The maps flew up and I grabbed the stick recovering before speed built up in the dive. Then it was over just as sudden as it started.

Encountering wake turbulence from warbirds is common in formation and airshow flying. I had my share of lock-to-lock control inputs while trying to remain upright and in position. Memorable moments include flying Stinger in my CJ with six T-6’s, another time trailing an A-26 in the strafe pattern. Those counter-rotating R-2800’s demand considerable respect. But this encounter was different. A whole new “finally, it happened to me”.

Even though I was one of the first to depart Mt. Vernon, when I tuned to my destination CTAF I could hear inbound traffic from the real speedsters, About 60 airplanes decided to reposition and there is only one self-serve fuel pump at SQI.

Up came the power and speed with my head on a swivel. Somehow I was only about 25 airplanes back in the conga line at the pump. During shutdown I noticed low air pressure but elected to address it when fueled. When it came to start, I flipped switches on…nada, no juice. A quick check with my meter on the battery showed a full charge so I suspected a bad master solenoid.

Lucky for me, one of the chase planes had an empty seat so I got on board for trip north and then to OSH. The FBO promised to hanger my airplane for the week and so I left. After catching another ride back to an airport 70 miles east, my wife, Debbie, collected me. She “summers” nearby in a condo we own. She also transported me back and forth for a 60 mile one-way commute to SQI the following week for 4 days.

Starting with the missing power, I pulled off the rubber boot covering the positive terminal on the 24V battery. What I found was that the G-force of hitting the wake snapped the battery lug. About 8 inches of battery wire was unsupported from the terminal. Problem solved. That’s when looked in to the low pressure issue and discovered the broken shear pins. My theory is that the sudden reversal of air through the prop sheared the pins; there are two of them on the coupler.

It was bad getting the compressor back on. It is a miserable design and worse job to repair. Thanks to Paul Kirik, over in Moline, I was able to borrow his scuba tank of air and special wrench for getting the nuts off/on. That was the tool I did not bring on the trip. ***See Figure 1***. However, the tool does not get at all of the nuts. I had to modify two other another wrenches for the aft-most nuts. ***See Figure 2***. My actual “fix” was a pair of 10 penny nails, trimmed to length and peened down like rivets and then ground smooth. The local maintenance shop let me use what equipment they had, including punches for making new gaskets.

Placement of flat washers and lock washers was facilitated by using heavy grease on them and my fingertip to place on each stud. I used the same method with the nuts. Eventually, holding the hidden nuts in place with a slim strip of metal in one hand and then rotating the nut with the other hand for that critical 1st ½ turn was really tricky. ***See Figures 3,4 and 5***. That part took hours and hours. I bought extra nuts from the local Aircraft Certified Equipment store, (ACE) as I was dropping them all over the hanger.

Once buttoned up and charged with air: the engine fired up like nothing had happened. So much for this year’s OSH trip. I did get to view Oshkosh from another perspective, flying the Ripon Arrival in a Mooney Ovation, clearly marked by vectors on the PFD and MFD, with entry turn. We saw lots of scary traffic close by, with several pilots working real hard to ignore the controller’s instructions. Makes you appreciate the Warbird Arrival.