



# Tech Toys

A high-tech gadget causes a low-tech problem

BY JOHN RIPPINGER

**IN MARCH OF 2013**, the Lima Lima Flight Team was down in Lake City, Florida, doing our final spring practice before our trip to Louisville, Kentucky, for our first major air show of the season. All went well as we were on a cross-country to KLOU. We had to make one fuel stop in McMinnville, Tennessee (KRNC). The team leader called for a pop top break called by number five. I was number five and the last to break for landing on Runway 23 with a fairly stiff crosswind from the right. Everything was going fine with my left-hand turns in the initial break and base turn, but then something happened on final. The gear and flaps were down, and I realized that I couldn't put in any right rudder to correct for the crosswind component. My left rudder was fine, but the right rudder stopped in the neutral position, which gave me no ability to adjust, and the rudder trim did very little to alleviate the problem.

Not knowing what the issue was or the potential for it to get worse, I decided I would land since I was last and had no one behind me, rather than trying to go around again. So I got the aircraft on the ground, taxied in, and parked away from the gas pump to take a look at what the issue was.

I could find no obvious mechanical flaws on the outside of the aircraft. I did a superficial inspection inside both front and rear cockpits and rudder controls but saw nothing. I then called my mechanic down in Florida because the plane had just gotten out of annual, which included a new

IO-550 Continental engine (nothing to do with the rudder issue—I'm just bragging about the new horsepower). He walked me through taking the inspection plates off the tail section, and I tried to examine everything in the rudder cabling system, including sending him pictures on my iPhone. He assured me there was nothing wrong in the tail section and that there had to be something jammed in the cockpit. I looked again in the front cockpit and then did the stand on my head trick on the back cockpit, looking up into the rear cockpit rudder systems. There, to my astonishment, on the right hand side was my iPad firmly wedged between the rudder and the rudder 1/4-inch stop adjustment bolt. The bolt had gone completely through the iPad, shattering the glass display.

Now let me tell you how this happened. In addition to a Garmin 430 I have had a Garmin 195, which was then replaced by a Garmin 496 and finally a

Garmin 696. All of these units were permanently mounted using a RAM bracket bolted to the canopy bow. I thought that I was set for life until Apple came out with the iPad in 2010, and shortly thereafter a company called ForeFlight came out with a wonderful pilot application that it seems like at least 90 percent of all pilots use. I immediately purchased the program and carried my full-size iPad everywhere I went, having a secondary backup for regular and approach charts as well as weather backup. The problem was that I would usually just lay it on my lap. I did not have a kneeboard with it, and when I was done with it, in other words when I was going to land, I would stow the iPad along with other loose equipment. In this particular case, when I put it in what I thought was my helmet bag on my right side, it actually slid down into the rear rudder assembly. I've learned several lessons from this:

1. If you're going to carry loose equipment or baggage, make sure it's secure in some way, shape, or form (especially for aerobatics). I now use a suction cup mounted iPad Mini on the left hand side of the aircraft.

2. Don't get wrapped up in technology and forget about flying the airplane.

3. Think things through when something goes wrong with control inputs. I'm not sure if landing was the proper thing to do. Maybe I should have gone around, reassessed the situation, and may have found the problem if I looked hard enough.

4. Make sure to put a protective (anti-reflective) plastic adhesive covering on both your iPhones and iPads to prevent glass shards in case you smash your unit like I did.

So to wrap it up, I realize that after flying the T-34 for more than 24 years, the only thing that you can expect is the unexpected. **EAA**



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