

# Stuck Stick Strikes Again

by Lt. Patrick Greene

It was a beautiful day for flying around NAS Oceana. I launched as the lead of a two-plane Close Air Support (CAS) strike. We were supporting squadronmates who were finishing up Tactical Air Control Party (TACP) class in preparation for their Forward Air Controller (A) syllabus.

We proceeded south to Camp Lejeune and began the CAS with medium-altitude, roll-in deliveries. After a few passes, we transitioned to low-altitude pop attacks. Completing our runs, we left 500 feet and began to climb out for the transit back to Oceana. Climbing through 3,000 feet, I tried to bring the jet right to head toward home. The stick appeared to be stuck in the neutral position, and the jet was unwilling to turn. Another attempt to turn the jet with a little more stick pressure yielded the same result. We were wings level and climbing away from the ground. I put both hands on the stick and tried to arm wrestle

with it. The stick definitely did not want to go right, even when I used both arms, so I decided to try to go to the left.

At first, the result was the same, but as I added more and more force, the stick budged a little, and the aircraft began to roll to the left. The binding force to the right did not subside, and my attempts to counter the roll to the left were futile. The aircraft's stick was now stuck in a commanded left-hand roll. As we continued to roll, my subconscious danger meter began to rise rapidly. We were at 4,000 feet, continuing the slow, left-hand roll, and approaching 60 degrees of bank.

Like most aviators, I've received some outstanding aircrew-coordination training, which stressed the importance of inter-cockpit communication. I applied my hours of training and let my RIO know about our problem by uttering a choice

I applied my hours of training and let my RIO know about our problem by uttering a choice four-letter word.



Photo modification by Allan Amen

four-letter word. He asked what was wrong. My hands were busy choking the black out of the stick grip, and I didn't want to take them off to key the ICS. I knew if we continued to roll until we were inverted, our situation would become dire. A slow roll meant the nose would have plenty of time to track through the horizon, and we would lose precious altitude. I didn't like our chances of surviving an inverted ejection at low altitudes.

I threw in a boot full of right rudder to stop the nose from falling below the horizon. This ploy seemed to stop the left roll but didn't bring the aircraft back to the right. Finally, with a last two-handed struggle, the stick popped free, and the aircraft returned to normal flight. We flew an uneventful straight-in back to Oceana. A thorough post-flight inspection by the mechs revealed that a small patch of metal had freed itself from the inside of the port horizontal stabilizer and was touching the fuselage. A check of the rest of the airplane revealed nothing. The jet was put back into flying status 24 hours later; I was taking it on a bombing hop.

We briefed some low-altitude pops for the fun factor and proceeded down to the range. During preflight checks, I looked for abnormalities in the controls, and after we launched, I stirred the pot occasionally just to be sure. As we began our turn-in for the attack run, the jet began to ratchet, and the stick began to offer resistance. I leveled the wings and began climbing away from the ground. Once this airplane began to demonstrate the slightest hint of controllability problems, I knew I was done for the day and headed home. During post-flight checks, we spread the wings and did a wipeout. The stick would only deflect to one-quarter throw to the left, but after a couple of cycles, the binding-force broke free and the stick returned to normal.

Another thorough post-flight inspection revealed the source of the binding flight controls. A few years ago, F-14 A's and B's received an improved radar display for the back seat known as a Programmable Tactical Information Display (PTID), primarily to display LANTIRN footage. Until sufficient numbers of PTIDs became available, jets had to be able to use both the newer display and the older Tactical Information Display (TID). When the TID was in use, the PTID

cannon plug was wrapped in plastic and secured beneath the RIO's foot pedal. In our case, the cannon plug had vibrated until it was free. Scratched and abraded, it then lodged in the control rods that run through the right side of the airplane. Talking to aircrew from other squadrons, I found that my case was at least the third incident of binding flight controls attributed to this cannon plug.

Had this situation reared its ugly head a minute earlier in my flight, when we were at 500 feet or pointed at the ground, we would have had one option: a very low-altitude, high-air-speed ejection. I scrutinized my actions and determined that there were things I could have done better. First, remember when the initial indication presented itself? It was at 3,000 feet, when we were wings level and climbing away from the ground. Instead of experimenting with a marginally controllable aircraft at that altitude, I should have been patient and allowed time to gain more altitude. We always brief controllability checks to be done above 10,000 feet, and we were in a position to make this happen.

Even though the roll to the left was commanded, once we couldn't counter it, we should have treated this problem in accordance with uncommanded-roll boldface. (For you Tomcat guys, using the rudder earlier and possibly some asymmetric thrust might have stopped the roll). A more experienced aircrew would also tell you that since we could roll left, if the situation dictated, we could have rolled 360 degrees to get the aircraft upright. My only thought at the time was to fight the roll, but that may not be the only or best option.

My ACT or lack thereof was also an issue. My RIO had an idea that something was wrong with the airplane but was unaware of the exact nature of the problem. It wasn't until after we recovered that I told him about our problem. The next word he might have heard was "Eject!", and he would not have even known why.

Lastly, although I felt I was the right person to fly the jet the next day in order to spot any problems with the controls, bombing runs weren't the ideal regime to test them. A better choice would have been a high-altitude confidence hop, where I could put it through its paces with plenty of altitude, in case I had to recover. 🦅

Lt. Greene flies with VF-14.