

CALLBACK

From NASA's Aviation Safety Reporting System



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Fly the Airplane!



A review of recent ASRS reports indicates that failure to follow one of the most basic tenets of flight continues to be a concern when pilots are faced with distractions or abnormal situations. Since the consequences associated with not flying the airplane can be serious, this month's *CALLBACK* revisits the problem and re-emphasizes a lesson as old as powered flight: *Fly the airplane; everything else is secondary.*

Note that the phrase, "FLY THE AIRPLANE" appears in all-caps in each of the following reports. The emphasis is not an editorial addition, but rather reflects the importance each reporter placed on that admonition.

A Flying Lesson

Two Cessna 205 pilots flying in IMC and experiencing communication problems were fortunate that one of them recognized the importance of actually *flying* the aircraft.

■ *We were in a well-equipped C205 with a thorough annual completed a few weeks earlier.... The ceilings were lowering quickly as lines of widely spread thunderstorms moved through the area. We had satellite weather and weather radar on board so we had updated information even though I did a thorough weather brief. We figured we'd be in front of the line of weather as long as we were airborne early.*

Our release time was 20 minutes later than hoped for. Satellite weather still showed, "Waiting for data." We launched and within a minute were in IMC. The left seat pilot wasn't doing a very good job of keeping wings level. I pointed to the attitude indicator...and decided that I'd only interfere if bank angle exceeded 15 degrees or so.

I tried calling Center— nothing. We were at 3,500 feet (and cleared to 5,000). We should have had contact by now. I tried Approach—nothing; Tower— nothing. [There was] lots of activity on the [weather radar]; we needed to deviate soon.... I saw that we were in a 30-degree bank and said, "Let's turn on the autopilot while I figure out this communication problem."

I fiddled with the radios, tried different frequencies— still nothing. I looked at the attitude indicator and saw a steep descending turn. I switched off the autopilot, grabbed the yoke and tried to figure out why the autopilot didn't correct the bank angle. Then I heard a voice in my head, "FLY THE AIRPLANE!" I leveled the wings and arrested the descent.

.... Lessons learned? Make sure you can hear some transmissions before taking off into IMC. The autopilot cannot be relied on to reduce pilot load when there are system problems. A handheld GPS device with independent battery and approaches is a lifesaver. Practice for emergencies. They don't happen when you are expecting them. And, most importantly, FLY THE AIRPLANE.

Attention Deficit

When autoflight systems are involved, "flying" the airplane may shift to a role of closely monitoring the flight path. This MD80 Captain's report confirms how easy it is to miss an important step in setting up the autoflight system and emphasizes how important it is to continue *flying* the airplane.

■ *We were cleared to cross an intersection at 12,000 feet and then descend via the [Arrival]. VNAV was selected with an assigned 250 knot speed in the descent. 8,000 feet was the selected altitude in the window for the VNAV descent. Center then issued a clearance to fly normal speed until the intersection. I wanted to pick up speed, but knew that I would have to get below the depicted descent path in order to slow for the 250 knot restriction. So, without saying anything to the First Officer, I de-selected VNAV and selected Vertical Descent on the Mode Control Panel (MCP) while de-selecting the autothrottle. I descended below the descent path and accelerated to about 275 knots and held that speed as we continued the descent towards the intersection. I did not remember to place 12,000 feet in the altitude window.*

We noticed ice on the wings so I turned on the wing anti-ice and watched as the ice melted off the wings. As I turned off

the wing anti-ice, the First Officer pointed out that I was not leveling off at 12,000 feet per the intersection restriction. I was surprised that I missed seeing us descending through our altitude and climbed the aircraft back to 12,000 feet.

I made several mistakes. The first was that I made an MCP change and did not mention it to the First Officer. Second, I did not remember to place the Altitude Alerter to the next restriction altitude as required when de-selecting VNAV. Third, I allowed myself to be distracted at a critical time when I should have had my attention on flying the aircraft. I need to remember that anytime VNAV is deselected (or any other change), I should announce what action is being taken and immediately reselect the next altitude restriction in the window and... **FLY THE AIRPLANE.**

“It is possible to fly without motors, but not without knowledge and skill.”

— Wilbur Wright

In the following two reports, the pilots of a Cessna 210 and an Experimental Homebuilt both had a loss of oil pressure and were facing imminent engine failure. They had to make some quick assessments to determine the best course of action, but in the process they wisely maintained flying the airplane as their first priority.

■ We were flying [a Cessna 210] on an IFR departure...and were vectored to 080 degrees then southeast. As I rolled level [there was] a loud bang and heavy shudder of the engine. I turned the boost pump on and manipulated the throttle with no effect. RPM stayed about 1,000-1,200. Oil pressure was zero. We declared an emergency and turned direct to [the airport] and were cleared to land, but we were unable to make it to the airport. We considered the highway, but there was heavy traffic. We located an open field and committed with a good approach and landing. [There was] no damage. The event confirmed the wisdom of **FLYING THE AIRPLANE!**

■ We flew our [Experimental Homebuilt] aircraft at about 2,500 feet and under the Class C airspace. About one hour into the trip, I heard a pop and there was smoke in the cabin. I had to assume that the smoke would only get thicker (though it did not). The EFIS (Electronic Flight Instrument System) was flashing Zero Oil Pressure. I immediately looked for a good spot to put the airplane down. I knew from the GPS that we were not close enough to an airport. So much raced through my mind that I am not sure how to explain it as anything but almost instantaneous. All of the hours training for this came back with multiple instructors' voices in my head repeating the procedures. I do not think I can emphasize this enough. It really was rote. I did not have to think about it.

An airfield was out; the fields looked small and hilly; there was a road that was about to turn to a straight section directly in front of us. I pulled off the power and lined up on the road.... I started trying to tune the radio to 121.5, but then I heard, “**FLY THE AIRPLANE**” in my mind as I gave up on the radio. I did not exactly establish best glide as I needed to lose too much altitude. I was in a slight dive.... As we got closer to the road, I saw how close the trees were to my wingtips and how many power lines there seemed to be. We were flying right behind a truck and coming to a set of power lines.... I had put it in my head that I needed to fly as if I would lose the engine at any second, but I thought, “Well, I’ll go over that line and under the next!” I added power and I felt as though I were threading a needle. My foot slipped on the rudder pedal and I glanced down to see a river of shiny black oil on the floor. No time to think about that; **FLY THE AIRPLANE!** We sailed over the truck and...touched down and started the rollout.

There is an old aviation adage that sums up the lessons in all of this month’s reports and it is just as valid today as when it was first expressed: Aviate; navigate; communicate. In other words, fly the airplane first.

| ASRS Alerts Issued in September 2011 | |
|--------------------------------------|---------------|
| Subject of Alert | No. of Alerts |
| Aircraft or aircraft equipment | 3 |
| Airport facility or procedure | 4 |
| TOTAL | 7 |

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| September 2011 Report Intake | |
|------------------------------|-------------|
| Air Carrier/Air Taxi Pilots | 2908 |
| General Aviation Pilots | 878 |
| Controllers | 615 |
| Cabin | 329 |
| Mechanics | 171 |
| Dispatcher | 61 |
| Military/Other | 14 |
| TOTAL | 4976 |