

CALLBACK

From NASA's Aviation Safety Reporting System

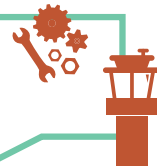


Issue 436

May 2016



NEVER AGAIN!



While mistakes are a part of the learning process, after a certain level of proficiency is acquired, the constructive value of mistakes diminishes. In fact, much time and effort has been devoted to the study of human factors, training, system design, procedures, etc. in order to minimize the occurrence of errors among more experienced individuals.

This issue of *CALLBACK* looks at some errors encountered by people in various aviation professions who were at a level of proficiency where they “never again” wanted to repeat a particular error. But, to err is human. To continue learning from our own mistakes is a good thing and learning from the mistakes of others is even better. As Eleanor Roosevelt is reported to have said, “Learn from the mistakes of others. You can’t live long enough to make them all yourself.”

A MISSED OPPORTUNITY

When the classic human factors elements of fatigue, get-home-itis, and expectation bias teamed up with improper approach procedures, this PA-28 Pilot narrowly escaped becoming a statistic rather than a wiser pilot with a valuable lesson to share.

■ *I have many hours and many approaches to minimums as a single-pilot operator, mostly in Part 91 flying. I have flown very few missed approaches in that time. Based upon the Terminal Area Forecast (TAF) and current weather at the time of the approach, I expected to break out well above minimums. The aircraft did not have an autopilot and my hand-flown ILS approach was rock solid.... I looked up fully expecting to see the runway in sight for continuation and landing on Runway 31.*

I saw nothing of the runway environment.... I had made no mental accommodation to do a missed approach as I just knew that my skills would allow me to land as they had so many times in past years.

The only conscious control input that I can recall is leveling at the MDA [Rather than continuing to the DA? –Ed.] while continuing to focus outside the cockpit for the runway environment. It just had to be there! I do not consciously remember looking at the flight instruments as I began...an uncontrolled, unconscious 90-degree turn to the left, still looking for the runway environment.

Through a break in the clouds and fog (I don't know how low I was), I saw a clear picture of the runway lights showing [a runway] intersection.... I just happened to be on a very

low right base to the intersecting runway and reacted by chopping power, setting full flaps, and executing a steep right-hand turn at low altitude to land. I consider it a blessing to be able to write this report.

I was tired when I departed for my return flight, having avoided convective activity with Center help on the way in earlier that day. I did file an alternate based on the TAF, but really just wanted to get home and really never seriously considered that I would have to make a missed approach. I was flabbergasted when I looked up and could not see the runway and my behavior was all downhill from there. My perceptions, judgments, and decisions from that point were automatic, faulty, and flawed. The discipline to call a missed approach had totally evaded me as I wandered in the fog trying to see the runway.

Never again will I launch on an approach to low minimums without fully considering the real necessity of having to call a go-around and being much more aware of the implications of making that decision. The TAF was for better conditions than I encountered. At the time of approach, the ASOS (Automated Surface Observing Systems) was also reporting visibility and ceilings better than I experienced.

Even though I have always enjoyed making approaches to low minimums, I will bring a different mindset to the procedure in the future. I'm still refining my personal minimum rule; something along the line of doubling the [published minimum]. If the TAF is lower than that number then there must be a total expectation and commitment to either not take the flight or be totally committed to a missed approach and alternate airport landing when necessary. I was not, but lived to relate this story to you. I would also treat the TAF visibility in a similar fashion.

EARLY DESCENT

A familiar series of events led this pilot toward potential Controlled Flight Into Terrain (CFIT) before situational awareness was regained. The pilot offers some good insight into the value of single-pilot Crew Resource Management (CRM).

■ *While diverting to an alternate, I received the ATIS and was being vectored for the ILS. After receiving a clearance for the approach, the Controller explained that he had just come on duty and was not aware that the glideslope was out of service. He apologized and amended my clearance*

to the LOC approach. I don't remember the specific ceiling being reported, but I asked if anyone had made it in on the Localizer since I was thinking that the weather was too low. He checked with the Tower and replied, "Yes." I accepted the clearance for the LOC, but with all the radio transmissions and cockpit distractions, I never gave myself time to "brief the approach."

As soon as I was established, I started down to my first step down fix. Problem was, I was still outside the Final Approach Fix. I never received a TAWS (Terrain Awareness and Warning System) Alert, but realized my mistake when I received a "Terrain Alert" from my Number 2 NavCom. I arrested my descent and in doing so, the Alert went away. I had a "holy [cow]" moment, realizing what I had done and my potentially fatal CFIT situation. At that point I continued on the approach and, being in shock over the mistake I had just made, missed my next and final step down fix to the MDA. As I continued to the Missed Approach Point there was a small break in the overcast, but being high and in no place to make a stabilized approach to landing, I executed and reported "missed approach" to the Tower. They handed me back to TRACON and I was vectored to the ILS for another runway which concluded in a normal approach and landing. While I found no unusual hazards in my "Preflight Risk Assessment," it is apparent that my lack of familiarity with my destination airport combined with the lack of time for an approach briefing led to a lack of situational awareness in the approach procedure. In hindsight, better CRM may have included asking for vectors to come around again to intercept the final approach course, which would have allowed time for an appropriate approach briefing. **Never again!**

UNDER PRESSURE

When operational pressure and complacency influenced a routine tire change, this CRJ Maintenance Technician cut corners that could have cut short a career.

■ While I worked on a CRJ200 aircraft, two events stemmed from a #1 Main Landing Gear (MLG) tire change that I performed. I received a call from Maintenance Control to inspect damage of a #1 MLG tire. After receiving the limits via fax, I inspected the tire and found it to be beyond limits. Maintenance Control advised a new wheel assembly was going to be sent from another station along with the paperwork.

When the wheel arrived, I skimmed through the paperwork and proceeded with the tire change. This is when multiple factors played into the mistakes I made. First: I did not deflate the old tire fully and it was later shipped out by a co-worker.

Second: I failed to install a spacer on the new wheel which was not removed from the unserviceable assembly.

I clearly rushed through the Maintenance Manual due to complacency and to get the plane out on time after Maintenance Control stated that the pilots had an hour before they timed out. At the time I thought a tire is a tire, they're all the same. I looked for the key points like torques and safety wiring which ultimately led to my mistakes. It was dark, which added to my missing the spacer and I did not have the proper tool on hand to deflate the tire, which led me to only partially deflating it. I know what I did was wrong and I definitely learned from it. I will **never again** jeopardize my licenses and career like this.

FROM COMPLACENCY TO CRISIS

A low stress environment can lead to complacency and increase one's susceptibility to committing errors. For this Air Traffic Controller, a routine departure vector culminated in a traffic alert in which technology likely prevented a midair.

■ An M20 was enroute at 9,000 feet, west to east. A CRJ200 was a departure off Runway 11. Traffic was slow and I was only controlling four planes. I established radar contact with the CRJ200 on departure and put him on course. The CRJ200 was climbing out of about 4,000 feet when I switched him to Center. At the time, the conflict with the 9,000 foot overflight M20 was about 15 to 20 miles away and I did not see it. I saw the conflict when the aircraft were about six to seven miles apart and opposite direction to each other. I called to the aircraft I was talking to (the M20) and told him to turn right heading 180 immediately and then gave him the traffic call. I did not wait for the response and called Center and said to turn the CRJ200 north. Both aircraft were on east/west lines opposite direction to each other. The CRJ200 was heading 270; the M20 heading 090. I again called the M20 to turn right heading 180 immediately with no response. I made the call again, no response. Then the M20 called and said, "Are you calling me?" and I realized I had been using the wrong callsign. The callsign had a "W" and I had been calling "M." The aircraft passed clear thanks to TCAS and a RA alert.

This near midair was completely my fault. I was complacent and focused on the departure aircraft. I gave him the same thing we always give them. The slowness of the position and routine of the departure lulled me into a false sense of awareness. I have [many] years of ATC experience and this goes to show you can never let your guard down. If TCAS had not been on the aircraft, the outcome could have been catastrophic. I have learned from this error and will be forever diligent. **Never again!**

ASRS Alerts Issued in January / February / March	
Subject of Alert	No. of Alerts
Aircraft or Aircraft Equipment	2
Hazard to Flight	2
Company Policy	1
TOTAL	5

436

A Monthly Safety
Newsletter from

The NASA
Aviation Safety
Reporting System

P.O. Box 189
Moffett Field, CA
94035-0189

<http://asrs.arc.nasa.gov>

February / March 2016 Report Intake	
Air Carrier/Air Taxi Pilots	10,082
General Aviation Pilots	2,132
Controllers	1,170
Flight Attendants	1,161
Military/Other	670
Dispatchers	410
Mechanics	376
TOTAL	16,001