FLYING LESSONS for March 22, 2012

suggested by this week's aircraft mishap reports

FLYING LESSONS uses the past week's mishap reports to consider what might have contributed to accidents, so you can make better decisions if you face similar circumstances. In almost all cases design characteristics of a specific make and model airplane have little direct bearing on the possible causes of aircraft accidents, so apply these FLYING LESSONS to any airplane you fly. Verify all technical information before applying it to your aircraft or operation, with manufacturers' data and recommendations taking precedence. You are pilot in command, and are ultimately responsible for the decisions you make.

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This week's lessons:

From the NTSB:

Numerous witnesses observed the airplane on the first takeoff attempt and on the subsequent accident flight. A majority of them stated the airplane initially climbed to about 5 to 10 feet above ground level (AGL) before touching back down on the runway. The pilot taxied back toward the west end of the airport. Shortly thereafter, the airplane departed again and began the initial climb to about 100 to 200 feet AGL. It then made a steep bank to the left and began to roll while rapidly losing altitude. The airplane completed about one revolution and impacted terrain in a nose-low attitude.

Air Traffic Control provided the recorded radio communications between the pilot and controllers. The pilot was initially cleared and departed from runway 10R about 0846. He transmitted to the controller that "we're going to land here and stop... we've got a problem," followed by "I am going to taxi back and see if I can figure it out." About seven minutes later he told the controller that he would like to depart and stay in the traffic pattern. About 0855 he made his last transmission when he requested that he would "like to turn back in and... um... land... coming back in."

We don't know yet what might have contributed to this fatal crash. But we do know that the pilot detected a problem, landed to check it out, and after a fairly extended period of apparent troubleshooting, decided to try a closed-traffic pattern, presumably to check the airplane's operation before heading out on his trip. The troubleshooting strategy clearly did not work.

There's only so much we can do to investigate engine or systems operations from the pilot's seat. Sometimes I think we put too much store in our ability to find—and fix—a known problem from an engine run-up or even a quick trip around the pattern.

Sometimes you just have to pull the cowling to inspect, adjust or repair an engine. A run-up and instrumentation check might provide clues to what's wrong when you know a problem exists, but it cannot rule out a potentially catastrophic condition just because the gauges all "look right" at moderate power on the ground.

Any engine abnormality is grounds for a thorough checkout by a trained mechanic or technician. One you know there's a problem, you're past the point of checking it out with an engine run-up or a circuit of the airfield. Listen to what your airplane is telling you—if it's saying, "I don't want to fly," don't try to force it into the air. Instead, find qualified help to positively identify and correct the failure.

From the NTSB:

A lineman spoke to the pilot prior to departure and the pilot informed him that his destination was Florida. The lineman said that he mentioned the weather to the pilot, and the pilot responded that he was going to stay below 1,900 feet and that he should be "okay." The lineman watched the airplane liftoff approximately 2,000 feet down the runway and climb out normally.

"The weather at the time was visual flight rules (VFR) with very light drops of rain." The lineman recalled looking at the AWOS monitor and it was reporting 1800-foot ceilings and 10 miles visibility. There were no distress calls made by the pilot or calls that the airplane was returning.

According to preliminary information the pilot departed VFR and climbed to approximately 2000 feet. The pilot was not in radio contact with air traffic control at the time of departure and no radio transmissions were recorded. The airplane was observed on radar for approximately two minutes, before descending to 1800 feet. According to witnesses, they heard the airplane flying overhead but did not see it due to heavy fog. The witnesses reported that shortly thereafter, they heard a loud splash in [a] lake and as they turned towards the direction of the lake, they saw a large spray of water. They believed that it was the airplane that they had just heard [impacting the water]....

It's sad when line service appears to be better informed about the weather than the pilot of a high-performance, glass-cockpit aircraft. This is *not* meant to denigrate line service workers; it's just to state it's very telling when the ground crew knows more about the weather than the pilot.

Once in the air the pilot must have flown toward lowering clouds, evidenced by his decreased altitude as recorded by radar. Approaching a large lake the clouds turned to fog—a not-unusual phenomenon in the moister air over a body of water. The pilot then either descended into the lake, probing for clearer air "just a little but lower," or became disoriented and spiraled or spun into the water.

A highly capable airplane, a wintertime trip to Florida and a passenger along for the ride all conspire to tempt a pilot to "go" when he might otherwise not. On this day the flight only made it about seven miles before its tragic end. Could the deaths have been avoided by waiting for conditions to improve? Was it worth the risk of departing on a long cross-country in Instrument Meteorological Conditions with no apparent intention of flying IFR? Was it really so important to take off, *right now*?

Private flight operations don't have the quality control of a flight dispatcher who is *not* going on the trip and is out nothing if the flight is delayed or canceled. **Personal aviation requires we be our own flight dispatchers**, evaluating the airplane, the environment and ourselves as fit for flight—or not—then making a go/no-go decision based on objective fact, not subjective desire.

The ability to be your own flight dispatcher may be the single most important-yet-virtually-untaught skill presented in flight instruction at all levels from LSA to VLJ (Light Sport Aircraft to Very Light Jets). Conscious attention to flight dispatching skills should be the focus of efforts to reduce the fatal general aviation accident rate.

Questions? Comments? Let us know, at mastery.flight.training@cox.net



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Debrief: Readers write about recent FLYING LESSONS:

Firing up the Wayback machine to <u>June 2010</u> via *FLYING LESSONS* on www.faasafety.gov, a reader writes:

I had browsed to the [a June 2010 issue of FLYING LESSONS] and found it Very Interesting. I wanted to

respond with a story of my on a long time ago while starting my Private flying lessons. I hope you find THIS interesting.

I have always been interested in aviation – any facet – having built and flown models, 1700 hours as an electronics operator P2Vs [the Navy's Lockheed Neptune patrol plane], and wanted a private license.

I began my private lessons in May of 1968 while traveling for a computer company installing data collection equipment across the country. While in St. Louis I took my first lesson and whatever city I was in, I would go out to the local Cessna flight school for more training. I was flying a C150 out of Kansas City and the instructor had me go over to the Johnson County airport for touch and go practice. While in a downwind leg, another aircraft entered the pattern right in front of us – so close I could see the pilot and the surprised looks on the faces of the two small kids in the plane. My instructor took the controls, added power, dove under the other plane and pulled up right in front of it. He then gave me back the controls and I made the touch and go. On the climb out I said that I had had enough for the day and we headed back to Kansas City.

My only thought was "And I am paying this idiot good money to teach me to fly like that?"

I did finally get my ticket after what I call myself as the "world's oldest living student pilot" in May of 1988 – twenty years later. I DID, one time, not seeing or looking properly, enter a downwind leg cutting an Ercoupe off and when challenged, I profusely apologized.

We all make mistakes but to intentionally challenge another pilot's mistake by endangering both aircraft is foolhardy and has no place at any time, especially with a student in the plane.

Wuzzy J. Houtkooper

Indeed I do find that very interesting. Thanks for writing.

The almost unanimous conclusion of the numerous recent conferences both on reducing the rate of fatal accidents and increasing the number of student pilots who complete their first pilot certificate, is that **the only way to make any significant improvement is to raise the level of professionalism among instructor pilots.** Instructors set expectations, model behavior, and act as the quality control system for all general aviation pilots. I'm gratified that you learned to be a courteous and safety-conscious pilot in spite of your Johnson County experience.

See https://www.faasafety.gov/files/gslac/library/documents/2010/Jun/43935/FLYING%20LESSONS%20100603.pdf

Readers, your inputs are always welcome. mftsurvey@cox.net.

Due to my job duties at the Sun n' Fun fly-in next week, the next *FLYING LESSONS* will be published on April 4th. If you're at Lakeland, perhaps I'll see you there in the American Bonanza Society tent near the Hawker Beechcraft display. (For orientation only. Neither ABS nor HBC has any direct involvement with Mastery Flight Training, Inc.)

There will be a test

Aviation Consumer and AvWeb editor/columnist Paul Bertorelli blogged this week about "General Aviation: The European Perspective." Paul writes about general aviation's bright future…but one that will look very different from general aviation of the 1950s through today. Read Paul's report, because there will be a test.

See http://www.avweb.com/blogs/insider/AVWebInsider GAFuture 206329-1.html

John and Martha King of King Schools have emerged as leading figures for challenging assumptions that prevent us from significantly improving the fatal GA accident record. John and Martha have unabashedly been the bad examples we're warned not to be...yet somehow they learned the positive *LESSONS* and took on the mission of teaching them to others. Read "Pilots Who Should Scare Us...and What To Do About Them." And yes, prepare for the test.

See http://johnandmartha.kingschools.com/2012/03/13/pilots-who-should-scare-us-and-what-to-do-about-them/

The United States Senate's Aviation Subcommittee held hearings today on the use of cockpit automation in commercial airline operations. Although minutes of the Subcommittee meeting are not available at press time, earlier news reports indicate the thrust of the meeting is to investigate

whether the FAA has made sufficient progress in the wake of 2010 hearings on the February 2009 Colgan Airways crash in Buffalo, New York. Pre-meeting press releases state:

Concerns run deep in the airline industry that during flight situations that could quickly escalate into full-blown emergencies, pilots would tend to rely too heavily on interacting with computerized flight systems instead of looking out the windshield to point the nose in the right direction, listening to the hum of the engines and flying the plane.

"Automation can dull the discovery of a problem if a crew relies on it too much," said Tom Peterson, manager of the advanced simulation program at Embry-Riddle Aeronautical University in Daytona Beach, Fla.

See http://www.bnd.com/2012/03/18/2105761/senate-panel-to-examine-automation.html

If full-time professional pilots depend too heavily on automation, what does that mean for those of us flying autopilot-equipped and/or Technologically Advanced Aircraft (TAA) less than a couple hundred hours a year? Read this quick report...to prepare for the...

Question of the Week

Okay, here's the test I warned you about. It's really more of an opinion poll. This week we ask:

Choose one (or more) of the three items above. In your response:

- Indentify which item you're discussing:
 - o Bertorelli's blog,
 - o the Kings' column, or
 - the Senate's subcommittee, and
- · List any specific issues in
 - o risk management, and
 - flight instruction, either as instructor or Pilot Receiving Instruction (PRI)

that are suggested by the topic.

If you have a solution (or even an idea about a possible solution), great! Include it too. But the main goal of this Question of the Week is to brainstorm the subject areas that these trends and topics suggest as needed thrusts to improve the rate of general aviation accidents as our industry evolves. We're looking for a bullet-point list of things we need to address.

Let us hear from you...at mftsurvey@cox.net.

Share safer skies. Forward FLYING LESSONS to a friend.

Flying has risks. Choose wisely.

Thomas P. Turner, M.S. Aviation Safety, MCFI 2010 National FAA Safety Team Representative of the Year 2008 FAA Central Region CFI of the Year



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