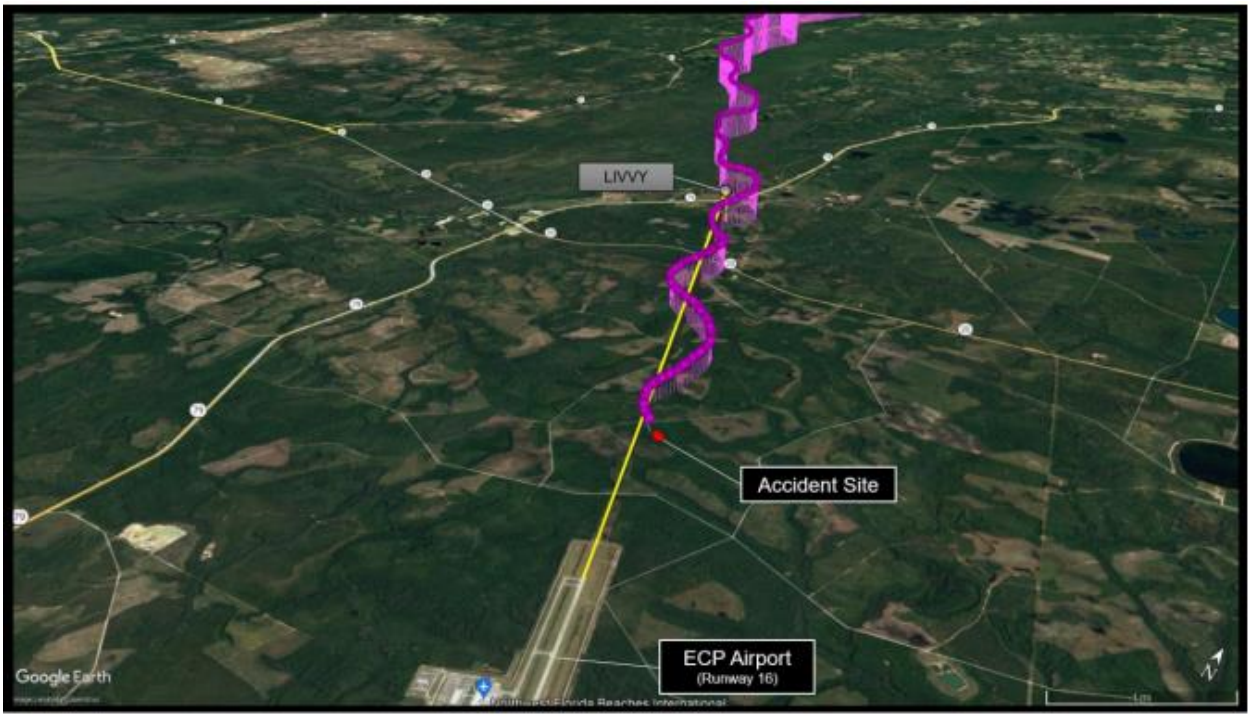
AASF Safety Spot – April 2022

Greetings,

Breakup is well underway in South Central. We have more daylight, and the wind doesn't bite as hard as it did a few weeks ago. We can look forward to logging more flight time and less snow shovel time.

How much can we handle? On March 8, 2022, a Cessna 182Q N182XT crashed on ILS 16 approach to Panama City, FL (KECP) killing the pilot and his wife. https://data.ntsb.gov/carol-repgen/api/Aviation/ReportMain/GenerateNewestReport/104744/pdf .



The board has a lot to unpack in this tragedy. The accident occurred at the end of a long day of flying that started in Michigan around noon and ended just after sunset. In total, it was about 7 hours in the air with one stop enroute to KECP. The weather at the time of the accident was 200 overcast with 2 statute miles visibility. RWY 16 had a 6-knot headwind, and lighting conditions were noted as Night-Dark. The private pilot had 569 hours in the accident plane and held an instrument rating. He and flown 11 instrument approaches in the previous 6 months but had recorded no nighttime in the previous 90 days. Preliminary examination of the wreckage suggests the plane was functioning normally. Radio transmissions between the pilot and controllers did not indicate any airplane or avionics problems existed. If you haven't already, I encourage you to follow the link above and read the full preliminary.

Putting myself in the mishap pilot's position causes me to ask myself a couple of questions. Would I have attempted this approach to minimums after having flown all day long and gone from daylight to dark knowing there was better landing weather close by? I sheepishly must answer, maybe. After all, I'm in my own plane, I have plenty of time in it, and I'm instrument current. It makes me a little uncomfortable to admit I might have tried.

The second question I ask myself, if I experienced the same course and altitude control problems as the mishap pilot, would I have gone missed approach or made a divert decision soon enough to avert tragedy? I feel more comfortable with my answer to this question. I'm reasonably sure I would have gone missed approach if I had found myself "essing" across final after passing the FAF. Among the good habits I learned in the USAF, was the need to cross the FAF properly configured (in fighters that was gear and flaps down), on-course (less than one dot deviation) on heading (+ - 5 degrees), on-speed (-0, +5 knots), on altitude (-0, + 100 feet). A pilot that meets those parameters before crossing the FAF needs only minor heading and power corrections to maintain on-course on-glide slope all the way to touchdown.

The information presented in the preliminary report suggests the pilot was "behind" the airplane. Although he reported "Established on the Approach," neither the heading bug on the HSI or the course on the CDI were set to the final approach course of 162°. Although the local altimeter was 29.92, his altimeter was set to 29.88. The last ADS-B airspeed-altitude readout was 144 knots ground speed at an altitude of 75 feet MSL. The crash occurred about 1.5 nm from the runway threshold.

There's room for a lot of "maybes" here. Maybe the cockpit lighting hadn't been adjusted for night flight. Maybe the CDI heading was set to 172° because the pilot had trouble reading it. Maybe the heading bug was set to 152 because he forgot to set it, however, it was also "just" 10 degrees from the final approach heading of 162. Chances are the pilot hadn't planned on landing in "dark" conditions. After all, he planned to arrive within a few minutes of sunset. The preliminary report doesn't tell us N182XT's airspeed crossing the FAF but the last ADS-B airspeed readout before impact was 144 knots. Maybe the pilot became preoccupied with course control and allowed his nose to drop—unnoticed. The cuts in the trees suggested an 18°-20° nose low flight path to impact. All the levers were full-forward at impact. The combination of fatigue, lighting conditions much darker than anticipated, and problems maintaining the approach course in light wind conditions, may have created enough confusion in the cockpit that the missed approach decision came too late.

Keep that cold weather gear on-board a little longer: On March 5, 2022, a Cessna U206F crashed on Lake Illiamna resulting in serious injuries to all aboard. https://data.ntsb.gov/carol-repgen/api/Aviation/ReportMain/GenerateNewestReport/104735/pdf , Kathryn's Report: Cessna U206F Stationair, N1853Q: Accident occurred March 05, 2022 in Newhalen, Alaska (kathrynsreport.com) Even though the 406ELT functioned properly, and the RCC had a fix on the crash site, it was 5 hours before Air Guard and Coast Guard rescue personnel could get to the scene to evacuate the injured. Always consider environmental conditions along your route as well as the endpoints when packing your gear.

Keep that cross check going!

Rocky