

SKATING ON THICK



by 1stLt. Cory Shackelton

As everyone knows, one of the best things about flight school is the cross-countries. You get out of the local area, talk to different controlling agencies, and learn lessons you can't possibly learn close to home. I had no idea how much I would learn on my recent cross-country from South Whiting Field to Little Rock AFB.

The first three legs of our cross-country went fine. At McKellar Sipes Regional in Jackson, Tenn., we called flight service to get the weather and file for our next leg, an airnav to Little Rock. Weather in Jackson was reported as overcast at 1,500 feet; winds were 350 at 10, gusting to 15; visibility was 5 miles. Little Rock was reporting overcast at 3,500; winds 360 at 14, gusting to 20; and visibility unrestricted. The FSS briefer also told me there was icing from 6,000 to 14,000 feet. I didn't think it would be a problem, since we were filing for 4,000 feet. I filed our flight plan with the briefer, found my instructor, and updated him. I gave him all the weather data and made sure I told him about the icing levels.

We launched out of Jackson, contacted FSS, activated our flight plan, and leveled off

at 4,000 feet. At this point, I passed the controls to my instructor so I could complete the level-off checklist. I broke out the PCL. The first step is "Check OAT and engage anti-ice and pitot heat as required." I checked but did not report the OAT and made sure the anti-ice and pitot heat were on.

I took back the controls and flew for approximately 15 minutes before I heard my instructor say, "Tell approach we're in rime icing and would like to descend to our minimum altitude." For the first time in several minutes, I looked up from the instruments and saw rime ice on our windscreen. I contacted approach, got cleared to 3,000 feet, and started to descend. My instructor looked up approaches and evaluated our options. We flew at 3,000 feet for several minutes but couldn't clear the ice. We contacted approach and requested to divert to Millington, with vectors for the ILS. Memphis approach quickly approved our request and started vectoring us for the approach.

I gave the controls to the instructor so I could get out my approach plate and brief the approach. I then took the controls and shot the

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ILS into Millington. Once we reached decision height, my instructor took the controls and taxied to the ramp. As I watched sheets of ice being thrown off our rotor blades, I realized how serious the icing had been. Watching my instructor, I noticed that, in order to hover, he had to put in more control inputs than I had seen since I tried to hover during Fam 1.

Once we shut down, we got out and walked around the helo, staring at the large amount of ice that had built up in such a short time. We only had flown in icing for approximately 15 minutes, yet one-quarter to half-an-inch had built up on the mast, pitch-change links, and skid-cross tubes. Ice the size of a golfball also had built up on our static drains. My knees got a little weak as I realized just how lucky we had been. We called back to our squadron and told them we were safe on deck, then called for the weather again. We decided to finish the flight as an o-nav and fly under the weather. We made it to Little Rock, and the rest of our cross-country turned out fine.

The biggest lesson I learned was that when doing a checklist, consider all of NATOPS, not just what the checklist says. I didn't recall the NATOPS warning that states, "Intentional flight in any known icing condition (less than four degrees Celsius in visible moisture) is prohibited." We had been flying in the clouds with an OAT of two degrees.

I also learned a lot about crew coordination. If nothing else, I should have communicated to my instructor exactly what the OAT was. This might have prevented us from flying



into icing conditions. Looking back, it probably was not a good idea to hand over the controls to get out my approach plate. I had established a good instrument scan, and my instructor had been looking out at the ice building up. I should have had him talk me through the approach so I could maintain my instrument scan, instead of putting him in a situation that could cause vertigo.

I also learned you should not blindly believe what the weather-guessers tell you, because they could be wrong. The final lesson I learned was that I should have gone to Key West. 

1stLt. Shackelton was a student in HT-18 when he submitted this article.