

Chapter 11: It's Cold in Bar Harbor

It is hard enough for anyone to map out a course of action and stick to it, particularly in the face of the desires of one's friends; but it is doubly hard for an aviator to stay on the ground waiting for just the right moment to go into the air.

— Glenn Curtiss, 1909.

Each season of the year contributes its own measure of wonderment to flying. My personal favorite is wintertime. Strange as that sounds, given the discomfort of ice, snow, and freezing temperatures, winter flying produces smoother, clearer, colder, and denser air. These conditions provide more lift to wings and more power to the engine. As one might expect, winter also brings more challenges. From a positive perspective, it elevates flying from a world of routine to a world excitement. It is a world where lake effect snowstorms can instantly obliterate forward vision, where airframe icing can add 300 pounds of weight to the airplane and instantly reshape its wings.

A dramatic example of wintertime flying occurred on a recent business flight from Buffalo to Bar Harbor, Maine. The mission was simple. I and an associate, Maria, flew up to Bar Harbor, then rented a car and drove an hour further north along U.S. Highway 1 to Harrington, Maine. There, we met with the superintendent and his staff from the local school district.

Checking the weather the night before the planned flight gave me the first indication that this was going to be another wintertime adventure. The weather forecast revealed a low pressure system with accompanying low ceilings, snow, and poor visibility. There was a 40 percent chance that this system would be moving offshore by the time of our scheduled arrival the next morning. I went to bed that night anticipating a typical wintertime flight in the morning.

I awoke at 4:30am as was my custom on workout days and checked the weather. Contrary to the forecast, the low pressure system remained stationary. This gave me my first hint of trouble to come that day. The weather in Buffalo was IFR, meaning instrument departure would be required, but there was no precipitation or threatening reports of icing.

I met Maria at Prior Aviation at 7:30am. I filled my thermos with hot water and

suggested to Maria that she ride up front with me instead of in the back. Of all Two Zero Yankee's positive attributes its poor cabin heating system reminded me of the 1958 Renault I had in high school. In frigid temperatures aloft, backseat passengers required several heavy blankets to stay warm. Generally, I like to keep the right front seat available to stretch out charts, approach plate books and, frankly, to give me more elbow room. There is another rather personal reason I like to keep the right front seat empty, particularly on long flights. Having several cups of hot tea on the ground and a full thermos en route creates a predictable biological response. This response is really quite easy for us males to address discretely, even with passengers in the back. This is impossible, however, with a right front seat passenger. So my choices were simple. I could either have Maria sit in the back under blankets so that I would have the more discretionary freedom up front, or I could risk some discomfort and have her stay warm with me. I chose the latter and limited my intake of tea.

Our planned flight time to Bar Harbor was several minutes short of three hours. The ceiling and visibility in Buffalo were worsening as we taxied to the active runway. The runway visual range (RVR) was 2,400 feet or one-half mile and the vertical visibility was 200 feet. I called departure control and asked for recent pilot reports of icing on the climb out. The reports were negative. The clouds were layered up to 20,000 feet. I filed for 17,000 feet and was expecting to go higher if we encountered any ice.

Realizing that weather at our destination as poor and that the low pressure area was covering most of the Northeast states, I opted to carry maximum fuel. With the auxiliary fuel tank in the aft cargo area full, we could carry 118 gallons or enough to remain aloft for nearly eight hours. Thus, if weather went below minimums at our destination, my back door plan enabled me to fly as far south as Georgia if necessary to find better weather.

Our departure and climb through the low, cold clouds overlaying Buffalo was routine. No ice was encountered. We picked up the glimmering sun rising from the east as we passed through 14,000 feet. Several broken cloud layers were all there were between us and our planned cruising altitude of 17,000 feet. Above that was the deep blue sky and unlimited visibility. The outside temperature was minus 26 Celsius. Winds aloft were remarkably calm. We would have to climb up 26,000 feet on this day before enjoying the effects of the overlying polar jet stream.

Two Zero Yankee can fly at 26,000 feet but that would put us right on the edge as far as safety and comfort is concerned. First, not being pressurized, all that stands between us and oxygen starvation is a length of plastic tubing. At the lower oxygen breathing altitudes, if the flow of oxygen is interrupted we could make an emergency descent quickly enough to survive. Above 22,000 feet, this becomes questionable. I do carry a small emergency backup oxygen bottle for such cases, but its enough to handle only one person's needs.

We were making 182 knots over the ground, enough to put us into Bar Harbor right on schedule. Over Syracuse, I gave New York Flight Watch a call on 122.0.

Flight Watch, November four seven two zero Yankee, over the Syracuse VOR, over. Two Zero Yankee, this is the New York Flight Watch. Go ahead with your request. Flight Watch, could you give me current and forecast weather for Bangor, Maine, please?

Standby Two Zero Yankee (pause). Ah, Two Zero Yankee, Bangor is reporting winds out

of 040 at 12, gusts 19, ceiling 300 feet, visibility ½ mile in blowing snow and mist.

Do you have any report of icing along my route of flight?

Ah . . . (another pause). Yes, we have a report of severe mixed icing from 9,000 to 7,000 over southern New Hampshire by an Embrair.

I did not like that report one bit. Severe ice is a monster that can bring down an airliner in minutes. The only defense is to avoid it altogether. With the low weather conditions at our destination coupled with a pilot report for severe icing along our route of flight, I gave my first of several serious thoughts to cancelling the mission and returning to Buffalo.

By now, we had passed the halfway point and I was beginning to feel the call of nature. I also began rationalizing the difficulty of rescheduling the client meeting with the impending holidays. Motor on, I thought. My plan was to keep checking the weather as we got closer to our destination.

I marveled at the bright sun and clear skies at this altitude, especially considering the foreboding weather below. New York Center passed us off to the Boston Center. Checking in with Boston, I was again given the severe icing pirep. This prompted me to make another call to Flight Watch. The report back had not changed since my call 20 minutes earlier. I also checked nearby weather reporting stations including Portland, Boston, Augusta. All were reporting 300 foot ceilings, less than ½ mile visibilities, and snow. It began to appear that it did not matter where I was going. The weather was the same everywhere.

I began receiving the Bar Harbor AWOS about 80 miles out. They reported winds from the northeast at 13 with gusts to 21 knots, with visibility of one mile and a 300 foot ceiling. The preferred runway would be the ILS to runway two six, but that would mean a downwind landing on a snow covered runway. The second choice was a localizer back course to runway four. This would mean higher minimums and a poor visibility approach with no approach lighting system. The reported ceiling was too low to permit a circling landing from the ILS two six approach. I had no choice. It would have to be the localizer back course approach.

Bangor Approach took the handoff from Boston Center and relayed a just received NOTAM (Notice to Airman) that the Bar Harbor Airport was closed, except upon 20 minutes prior notice.

What was that all about, I wondered? That was the first I had heard of that. Perhaps it was due to snow removal in process.

All instrument pilots know that the two most important things in IFR flight are, "the next two things." My next two things were, first, to make a fast descent through icy clouds and, second, to land. This wasn't computing.

Bangor Approach, For Seven Two Zero here. What's the reason for the Bar Harbor Airport closing?

Just a minute, I'll check, Two Zero Yankee (pause). Ah, it's for snow removal operations.

I love it when I am right, I thought to myself. I called the Bar Harbor unicom on the second radio, advising them that I was 30 minutes out and requested permission to land. A lady responding to my landing request said that she would get right back to me after checking with the snow plow operator.

George, can you hear me? I've got one about 30 minutes out. He wants to land."

Yeah, I hear you, Martha (I'm not making these names up!). Let me know when he's 10 minutes out. I want to finish up this runway.

Martha relayed the message that I was hearing anyway. She also advised that the winds were out of the northeast at 13 with gusts to 21 in blowing snow, ceiling was 300 foot overcast with one mile visibility.

"Okay, I responded, I'll continue inbound."

Bangor Approach began giving me vectors to the final approach course to the Localizer Four Back Course approach. Anticipating descent instructions, I requested a quick descent to the lowest altitude he could give me. My plan was to transition the icy cloud layers below as rapidly as possible.

Roger, Two Zero Yankee, descend at pilot's discretion to 4,000," came the controller's reply.

The GPS confirmed that our position was approximately 22 miles off the coast. The only thing below us was the frigid waters of the North Atlantic. I put in 10 degrees of flaps, pulled off three inches of manifold pressure, and pushed the nose over. Within seconds, we were descending at over 2,000 feet per minute. I leveled off at 4,000, still in solid IMC. Looking down, we could see the horizontal sheets of snow racing by.

About 10 minutes later, Bangor lowered us 2,000 and cleared us for the approach. I called the Bar Harbor unicom and advised then that we were about 15 minutes out. The lady gave us our long awaited permission to land. She repeated the current weather conditions, the added the runway braking condition. *Poor to nil*, she said.

Localizer back course approaches are not very common. Unlike the standard front course approach, the pilot, unless he has an HSI (Horizontal Situation Indicator) as I do, has to interpret the instruments in reverse. Rather than flying toward the localizer needle on the VOR, he flies away from it to keep it centered. All I have to do when flying a back course approach, however, is put the head of the HSI needle on the front course heading. When doing this, the tail of the needle points in the direction I want to go.

This is precisely what I did as began the descent down to 2,000 feet. Having been cleared for the approach, I simply had to wait for the HSI needed to center, then I could descend down to the published minimum descent altitude of 400 feet.

We were still about three miles out over the ocean as I leveled off at 400 feet. By now, we could see the foaming whitecaps of the angry sea below. Our forward vision was obscured by heavy falling snow. Its at times like this that little beads of sweat appear on my forehead. Whatever backdoors I had at higher altitudes are now gone at just 400 feet above the icy Atlantic below. An engine loss here would leave no other alternative than to ditch in the water below. We would have one small measure of hope in the form of the emergency life raft sitting on the floor behind us. But would there be time to scramble out of the aircraft, inflate the raft and climb aboard before we succumbed to the bitterly cold water, freezing sea mist, snow? Then, once aboard the raft, how long could we survive before search and rescue found us? Oh well, enough of this doom and gloom.

Flying the Localizer back course at Bar Harbor offered us the benefit of an upwind landing, but it lacked the customary runway approach lighting systems of typical instrument approaches. With just one mile visibility and a snow covered runway, finding the runway end was going to be as challenging as it gets.

It was not long before I could begin to make out the approaching coastline seemingly rising out of the sea. I wondered if this is what Lindbergh felt like upon reaching the French coast after his famous 1927 solo crossing of the Atlantic. We were safe, I thought to myself.

We continued to motor along, still at 400 feet above sea level as I peered out the windshield for something that looked like a runway. Since the localizer needle was dead-on centered and the GPS moving map, scaled down to the maximum, showed us centered on the final approach course, all I had to do was pull the power to idle once I identified the runway. I lowered the landing gear and set the flaps at 20 degrees.

"There it is," I said out loud. I could make out the red and white VASI (visual approach slope indicator) lights. With the reported braking action to be poor to nil, I wanted to land as soon and as slow as possible, preserving as much runway as possible to roll to a stop. We touched down just above stall speed at 55 knots using standard short field technique. The visibility on the ground was worse than it was on the approach. Heavy snow obscured the airport terminal building. I made a radio call, then back taxied along the runway, following the unicom lady's progressive taxi instructions to two waiting ramp servicemen who positioned us in a protected area between two hangars.

Having arrived safely, my concern turned immediately to protecting the airplane from the blowing snow so that we could get out later in the afternoon. Unfortunately, they had no room in their hangars. All we could do is hope that the snow would soon stop falling. I stretched out a 100 foot extension cord to a nearby outlet. This would provide supplemental heat to Two Zero Yankee's engine thereby preventing the need for pre-heat prior to our departure.

As is often the case in winter flying, the road trip an hour north to our client's office made the inbound flight seem like a summer VFR flight. The roads had not been plowed for several hours despite the heavy falling snow. Since our journey followed U.S Highway one along Maine's rocky coast, we encountered lots of ice from the freezing sea midst blowing in from off shore. All in all, it was a nasty trip.

We finished our business several hours later and made our way back to the Bar Harbor Airport. The snow had subsided and the later afternoon sun began to peak through the parting clouds to the west. My only concern was the condition of the airplane. Would it require de-icing? Could I put it into a heated hangar for an hour or so to melt off any accumulated ice or snow? The questions would have to wait until I reached the airport.

As luck would have it, the airplane was covered with about six inches of snow, but it was light and fluffy. I brushed off what I could reach, knowing that wind and prop wash during the taxi would blow off any remaining snow prior to takeoff. The forecast weather was good for the route back to Buffalo that evening. This gave me a sense of strange joy, knowing that the last leg of this day's long journey would be easy to fly.

