Photo-Composite image.

Shoot the Approach

WEATHER

By Lt. Gene Trelles

The weather forecast had been good for both my events. Flying conditions started out great and promised to remain so through the second flight. I debriefed my first student, got a drink of Gatorade, and went to the ODO desk to recheck the brief time for my second event, an early instrument flight. We were assigned the same aircraft I had just flown. I also had been asked to complete a back-in-the-saddle flight for another instructor, which I agreed to do. I didn't think the one approach and three landings needed for the other instructor would affect my later event.

The second student event only required three approaches and holding, and a point-to-point. I briefed my student, told him about the hotseat, covered the NATOPS brief, and looked at weather. Fog was forecast to roll in but not for two hours after my land time. My plan was to complete the back-in-the-saddle flight, then hotseat the student for his flight. We would start with a point-to-point, enter holding, and then do the PARs (precision approach radar) at Kingsville, and end with a full stop at NAS Corpus Christi. The PARs were down at NAS Corpus Christi.

The back-in-the-saddle flight was uneventful, and I landed with more than 350 pounds of gas per side for the instrument flight. We took off with a little more than 325 pounds a side. The point-to-point and holding went well, with few or no errors from the student. The original plan still was feasible for flying to Kingsville, about 40 miles to the southwest. As it began to get dark, the student did the first PAR to a missed approach for training. We began to turn on the base leg on our second PAR when tower said they could not accept a

second approach. A small change in the plan was not a problem. We would adapt by adding another approach at NAS Corpus Christi. It was dark, but the weather still was good: no mist or fog in the area.

We flew back to NAS Corpus Christi and were on the final approach course when I saw the mist forming; however, visibility was good, and I let the student fly to the missed-approach point. I then took controls for a touch-and-go. One more approach to a full stop and the flight would be complete. The last approach was a VOR-procedure-turn approach with the MDA (minimum-descent altitude) at 760 feet. While on the approach, I saw the mist thicken, but because we planned for a full stop, I figured we would finish the flight before the mist got worse. We were final-approach course inbound when we were told by tower, "The field is below minimums for the VOR approach; would you like the localizer?" I took the radio from the student and replied that the localizer to the same runway was fine.

I began to change the approach plate when we were instructed to execute a missed approach. I took the controls and radios from the student and asked for clarification. I assumed I was going to sidestep to the localizer, which would have been a small right turn and a descent to get on profile. I was told to wave off and execute missed-approach instructions. I waved off and was given radar vectors to final-approach course for the localizer. As I waved off, I could see the field, but the mist quickly was turning into fog. At the end of my downwind leg, my left fuel-low light began to flicker with about 100 pounds of fuel, and the right side only had slightly more. I turned final, got to my MDA of 300 feet, and was surfing the plane over the fog.

At this point, all the mist had become fog. I could not see any of the lights below me, including the runway-approach lights or the runway lighting. When I reached the missed-approach point, I executed the missed approach. I then made my missed-approach call to tower and gave a quick PIREP (pilot "weather" report) that the fog tops were at 300 feet. I was unable to make out the field and declared min fuel. My left fuel-low light still blinked.

I asked for the weather at Corpus Christi International Airport, which is our local weather divert, about 15 to 20 miles away. They had a broken fog layer at 1,000 feet, so I got permission to divert. I knew declaring minimum fuel would not get us priority handling. I stared at my fuel gauges and tried to do mental math while listening to the radios. I figured I was third in line for the approach. I still was getting vectors away from the field when the right fuel-low light started to blink. I declared an emergency for low fuel, got vectors toward the field, and saw the runway. The broken layer at 1,000 feet was about 10 miles from the field, so I landed, using a straight-in VFR approach.

In the T-34, we are supposed to land with no less than 90 pounds of fuel a side. When I shut down, I was at 70 pounds on the left side and 80 pounds on the right. On the first approach into NAS Corpus Christi, when I saw the mist building earlier than forecast, I should have done a full stop, instead of a touch-and-go. I should have incompleted the flight for weather. In the training command, nothing meets the operational-necessity criteria. On the second approach, I should have continued with the approach, instead of trying to switch to the localizer. FAA dictates once an approach is commenced, you can finish it, even if weather drops below minimums for that approach. The problem was I thought I was offered a sidestep, when I actually was being offered to discontinue the approach and start another approach with a lower MDA. Next time, I will communicate more clearly and solicit better feedback.

Our mission plan was good until things rapidly started to change. Incompleting the second PAR hurt, because we were more than halfway through the approach before we had to break it off. This action burned off about 25 pounds of gas, which I could have used on subsequent approaches. Once I saw the mist thicken on the first approach into NAS Corpus Christi, I should have picked an approach with a lower MDA that the student could have completed (such as the TACAN or VOR/DME 13) with an MDA of 340 feet. I know plans change, and this incident shows that you have to be flexible.

Lt. Trelles flies with VT-28.