

CALLBACK

From NASA's Aviation Safety Reporting System



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What Would You Have Done?

This “interactive” issue of *CALLBACK*, deals with two situations that involve General Aviation Pilots’ encounters with weather and one that involves an Air Carrier Flight Crew’s response to a strange noise on takeoff. In “The First Half of the Story” you will find report excerpts describing the situation up to the decision point. It is up to the reader to determine the possible courses of action and make a decision (preferably within the same time frame that was available to the reporter). The selected ASRS reports may not give all the information you want and you may not be experienced in the type of aircraft involved, but each incident should give you a chance to exercise your aviation decision-making skills. In “The Rest of the Story...” you will find the actions actually taken by reporters in response to each situation. Bear in mind that their decisions may not necessarily represent the best course of action. Our intent is to stimulate thought, discussion, and training related to the type of incidents that were reported.

The First Half of the Story

Situation #1: (PA-28 Pilot’s Report)

■ *I had planned to make a VFR flight with plenty of time to get to [my destination] before dark. I was told by the weather briefer that the entire route of flight was showing unrestricted visibility.*

I departed...with full fuel...and about 20 miles of visibility. [After I was airborne] I heard a transmission from the Tower to another aircraft cut out in mid-sentence. My radio (receiver) had just failed.

About 15 miles out, I attempted to contact Approach to see if I could get cleared through the Class C airspace instead of going around. I did not hear a response. I set my DME equipment to the VOR and kept an arc distance of 12 DME which would keep me out of their airspace and bring me right to [my destination].

Approximately two miles out, the visibility dropped to about six miles. I...set myself up for a right base to Runway 24. At 600 feet AGL, the lights of the city became hazy and then the airplane entered a dense bank of fog sweeping in from the ocean. I entered the fog because my line of sight and visibility on the approach looking down from 600 feet was steeper than my actual line of descent, and I could not see the fog against the background of the ocean.

Going right to the instruments and calling upon my recent instrument experience, I stopped my descent and climbed to 800 feet before starting a left 180-degree, standard-rate turn. I returned to visual conditions about 15 seconds after reversing course.... The visibility was deteriorating rapidly.... As I climbed above 1,000 feet, I set a course back to [departure airport]. I noticed that dense fog was obscuring the ground below me at an unimaginable rate. Within 10 minutes I was going to be trapped on top. Then, right on cue, my GPS quit.

I attempted to contact Approach again to see if they could provide me with the weather information at [departure airport], and at [alternate airport] because if conditions were deteriorating as rapidly as they were here, it would be soaked in IFR before I could get home. I did not hear the transmissions coming from Approach, so with a marginal safety window getting smaller and smaller, I told myself that...a diversion to [alternate airport] was the best option. It was the closest airport, had the longest runway around, and had a VOR with DME. Other than the occasional hole just large enough to glimpse a baseball field or parking lot through the intensifying clouds below me, I had no ground reference to navigate by. The conditions above 1,500 feet were VMC with about 10 miles of visibility.

What Would You Have Done?

Situation #2: (C172 Pilot’s Report)

■ *I departed VFR.... The Cessna 172 contained full fuel (40 gallons usable) and one passenger. One fuel stop was planned. The calculated time enroute was 2 hours 45 minutes. During climb out, a hand-off to Center was made and the initial climb was to 11,500 feet. The climb was continued to 13,500 feet to fly over the scattered clouds and maintain VFR. Approximately one hour into the flight, I realized that continuing on to my destination VFR was not possible as the cloud tops were building faster than expected and the clouds were broken to overcast. Initially a 180 degree turn to the west was considered, but the cloud tops looked to be building above my current altitude. The clouds below and to the north were now broken and a VFR descent might be possible.*

High clouds appeared to block the route to my alternate. I made the decision to descend below the clouds and possibly land at [another airport] to the west since visual

contact was made there earlier during the flight out. Upon descending below the cloud layer, continuing VFR was not possible. I requested landing at [the alternate airport] with an instrument approach and was advised that the ILS approach had greater than 25 knots of tail wind and sky conditions were 200 overcast.

What Would You Have Done?

Situation #3: (A319 Captain's Report)

■ During the initial part of the takeoff roll, at approximately 40 knots, three or four faint beeps were heard. The source of the beeps was unknown. There were no ECAM messages and no lights illuminated anywhere in the cockpit that would indicate an abnormality.

What Would You Have Done?

The Rest of the Story: The Reporter's Actions

Situation #1: (PA-28 Pilot's Report)

The Reporter's Action:

■ At 10 miles I started to give advisory position reports in case they had other operations going on at the time. My next position report was at 7.2 miles and again I did not hear a response. At this time, I thought that the error might be on my end and, in such close proximity to a large airport, I decided the best course of action was to try them on 121.50. I stated my position and heading again and that my intentions were to overfly the field and see if I could locate the runway through one of the last remaining holes in the solidifying layer while I circled. I also could not hear the controller's attempts to communicate with me on that frequency. In a final attempt to communicate with the approach controllers and advise them of the urgency of the situation, I selected 7700 on my transponder. At about one mile DME, I asked them to turn the lights up as high as they would go so I would have a better chance of seeing them through the cloud deck. As I watched the DME come within .2 miles and my VOR indicator switch from TO to FROM, I knew I was right over the field. I told my passenger to look out the window for runway lights.... She spotted the runway...and I made a turn to the left.

I entered a left base and...my once clear view of the runway lights began to disappear right in front of me. At 400 feet AGL there was nothing more than a dim glow surrounding each light. Finally, passing through 300 feet, I broke out... and had about 3,000 feet of runway remaining. We had an

uneventful landing. When we got out of the plane, all the holes in the sky were gone.

Since I could not communicate, I erred on the side of caution and decided the best thing to do was to get the airplane on the ground considering the rapidly deteriorating conditions. The only thing going through my mind was I've been to quite a few aviation safety FAAST (FAA Safety Team) seminars and have heard of so many fatal accidents in which pilots had multiple opportunities to get the airplane on the ground and chose to continue on or try the same approach that didn't work the last three times because they didn't want to cause a commotion or get in trouble.

Had the handheld radio in my flight bag been charged, Approach could have warned me as to the strong possibility of [destination airport] being IFR by the time I got there. A GPS can do many things, but a controller will always be there to provide vectors, frequencies, weather information, ceilings, and terrain clearance altitudes. Your radio can be your only lifeline in some situations.

Situation #2: (C172 Pilot's Report)

The Reporter's Action:

■ I declared an emergency upon climbing to the IFR MSA of 9,000 feet since I expected severe icing, and requested vectors for the ILS approach into [the alternate airport]. At 8,000 feet MSL and entering IMC, the ice accumulation was rapid. The Localizer Approach was flown and a missed approach was made. Upon climb out, the missed approach procedure could not be flown due to degraded aircraft performance. I saw the ground visually and turned back to the airport while staying clear of clouds. The airport was sighted and I landed without further incident.

Looking back, I should have never made the decision to descend since I was in VMC, maintaining VFR. Instead I should have consulted with ATC/FSS and made a more informed decision with updated weather. Once I realized that continuing on VFR was not possible due to weather building faster than I had expected, I could have also opened an IFR flight plan to continue onto my destination or diverted south where weather was predicted to be better. I did not want to fly into IMC since I suspected icing in the clouds.

Situation #3: (A319 Captain's Report)

The Reporter's Action:

■ The takeoff was rejected at about 50 KTS. Upon clearing the runway, I realized that the beeps were from my phone. It was in the Airplane Mode, however, when the low battery warning sounds it makes a beeping noise. The battery charge was low.

ASRS Alerts Issued in May 2012	
Subject of Alert	No. of Alerts
Aircraft or Aircraft Equipment	4
Airport Facility or Procedure	8
ATC Equipment or Procedure	3
Maintenance Procedure	2
TOTAL	17

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May 2012 Report Intake	
Air Carrier/Air Taxi Pilots	3396
General Aviation Pilots	1128
Controllers	789
Cabin	313
Mechanics	195
Dispatcher	82
Military/Other	29
TOTAL	5932