



grampaw pettibone

Good to the Last Drop!

Two pilots were scheduled for a cross-country training flight in a T-39 *Sabreliner*. The flight was to originate at one overseas facility, proceed to another, refuel and return.

ICAO flight plans were filed at home station for both legs with a planned ground time at destination of 3½ hours. The weather forecast for ETA at the original base was 1,500 scattered, 10,000 broken, 3 miles visibility with fog. There were no significant Notams.

The flight to the first destination was routine and departure from there was on schedule. Between the time of departure from home field and from the first destination, a Notam was issued indicating that all nav aids were inoperative at the alternate field listed for the final destination. Notams and destination weather—current and forecast—were not checked at the first destination. However, on the return flight, weather updates obtained from metro stations indicated no significant changes from the original forecast.

Checking in with approach control, the T-39 was assigned an expected clearance time. The *Sabreliner* entered holding at 6,000 feet with 2,000 pounds of fuel remaining. Weather was reported by approach control as ceiling 60 feet, with 500 meters visibility and calm winds.

The pilots called home field metro (a USN facility) on arrival and were advised that the forecaster was outside taking an observation. However, visibility was reported as three miles in fog and decreasing, based on the last observation. Three minutes after entering holding, the T-39 was cleared to 4,000 feet and switched to GCA for an ASR (airport surveillance radar) approach.

The pilot requested a short, minimum fuel approach but normal GCA pattern procedures were followed.



While receiving vectors to final course, the aircraft was directed to break off and return to holding at 4,000 feet because of conflicting traffic.

A civilian DC-9, which had executed a missed approach at a nearby civilian airport, had priority and was directed to the VOR at 3,000 feet to attempt a second approach to the civilian field. One aircraft at a time is allowed below 4,000 feet due to the nonradar environment. (ASR is not approved for use in providing aircraft separation.)

While in holding, the T-39 pilots again contacted metro and were advised the visibility was one mile and decreasing. Twenty minutes after entering holding, the T-39 was cleared for a second approach. Simultaneously, the T-39 reached bingo fuel state for the alternate airport.

Since the civil aircraft had just landed, the pilot in command of the T-39 elected to continue the approach to the nearby civilian airport as a backup in the event of a missed approach. During the approach, visibil-

ity was reported as 100 meters. The pilot requested a short pattern and was vectored onto a slightly shortened final. A missed approach due to weather was executed with approximately 1,100 pounds of fuel left.

At this time, due to rapidly deteriorating local weather conditions, the pilot elected not to attempt an approach to the nearby civilian airport. Without declaring an emergency, he requested radar vectors to his alternate at FL 200. Fuel was approximately 600 pounds below squadron requirements, but was within the Natops fuel planning figures for the distance involved.

The aircraft was cleared direct and told to level at 12,000 feet due to conflicting inbound traffic. The pilot requested that his alternate be notified he was coming and asked if the field was open. Approach verified that the field had been notified and that the field was operating normally.

The aircraft commander, in the right seat, was unable to receive any of the alternate airport nav aids and declared an emergency. The emergency was acknowledged and the flight was switched to a published approach frequency. Failing contact on this and other published frequencies, the pilot returned to the previous frequency. He was given an unpublished frequency on which radio contact was established and radar vectors given to the airport. The copilot, who had less than 500 hours total flight time, did not maintain the optimum climb and cruise profile. His errors were not noticed by the aircraft commander who was preoccupied with the radios.

As a result, an extra 300-400 pounds of fuel were consumed over published bingo fuel requirements. The fuel warning lights were now on and in the absence of ground nav aids, the aircraft commander directed the copilot to fly off airways to the coast in order that a ditching vice a forced landing in mountainous terrain could be made if necessary.

The alternate airport was sighted at 13 miles and a precautionary flame-out approach to it was initiated.

Both engines flamed out due to fuel starvation as the aircraft rolled wings level on final. A successful landing was accomplished, resulting in no damage or injuries. Total time from arrival over the home field VOR to landing at the alternate was approximately 66 minutes.



Grampaw Pettibone says:

Holy Hannah! I'm not sure where to start!?! It is very easy to second guess a lot of aviator activities. However, in this case, the pilot was led down the primrose path by "above minimum weather at home field" given by Navy metro, and the fact that the civilian DC-9 had just landed at a nearby civilian airport.

There are, however, some things the pilot could have and should have done — like checking Notams at his en route stop, declaring an emergency sooner and diverting earlier. The copilot didn't help things much, but added to the problem by wastin' fuel in the climb. We were lucky this time!

Ride the Wild Side

A pilot was scheduled for a round-robin instrument training flight in the T-28. He was an experienced aviator with over 4,000 flight hours.

Departure, climb and level-off at 7,000 were normal. The pilot was in and out of clouds, so he turned on pitot heat and adjusted the carburetor air temperature.

He noted ice forming on the wings and canopy. After passing the next checkpoint, he requested a lower altitude from the center. The *Trojan* was cleared to 5,000 feet. Power was reduced and the descent begun. At this time, the ailerons became "heavy" and ice could be seen on their surfaces.

The engine started to vibrate, so the pilot increased rpm. Still in a descent, the aircraft then passed through rain. At this point, the pilot felt a shudder. The aircraft felt as if it were stalling. The flyer pushed the nose over and noted his airspeed at about 130 knots. As soon as forward pressure was applied to the stick, the aircraft rolled and entered a right-hand spin. Opposite rudder and forward stick were

applied and the rotation stopped. As the nose was being pulled up, the T-28 again rolled right, out of control. The pilot became completely disoriented.

The aircraft broke out of the overcast in a 60 to 70-degree inverted dive at about 3,000 feet. The pilot rolled upright, reduced power to idle, and extended the speed brake. He commenced a pullout but blacked out due to the high G forces.

He next recalls being in the clouds in a rapid climb. He thought he had a malfunctioning attitude gyro. He began partial panel procedures and a gradual descent to VFR conditions below 3,000 feet. The center then cleared the pilot VFR direct to destination. He did not observe ice on the airframe after leveling below the overcast.

The aircraft accelerometers indicated 8 positive G in the front cockpit and 8.5 positive G in the rear cockpit. The apparent cause was ice accumulation on the airframe resulting in stall/spin. The aircraft sustained overstress damage.



Grampaw Pettibone says:

Holy smokes! This was one wild ride. The interesting thing is that this driver got a weather forecast which did not include ice or turbulence. This is one of the stories which makes interestin' readin' and goes to show you how easy you can get into trouble. Even when you're following the rules! All in all, I would have to say that in view of the circumstances, this gent stayed pretty cool.

