

CALLBACK

From NASA's Aviation Safety Reporting System



Number 285

June 2003

What Would You Have Done?

In this "interactive" issue of Callback, several recent ASRS Reports are presented in a format which allows the reader to consider an appropriate course of action for a given situation. The reporters' actions, which may or may not represent the best solution to the problem, are found on the reverse of this Callback issue.

Situation #1:

Main Cargo Fire Warning

FIRE

On a flight from Japan to the United States, a B767-300 was taking off on a dry 12,000 foot runway in day VFR conditions.

■ *At 80 knots on the takeoff roll we received a momentary Main Cargo Fire Warning. This included an Engine Indication and Crew Alerting System (EICAS) message, Fire Bell, and Fire Lights....*

What would you have done?

Situation #2:

A Passenger Began Yelling



A B767 Flight Attendant was seated for the takeoff and climb when a frantic call was heard.

■ *Approximately five to ten seconds after takeoff, a passenger in my area began yelling, "Baby, baby!" I released from my jump seat, crossed over to the right aisle, and proceeded to where the passenger was yelling. A female passenger was holding her 20 month-old infant boy, who was limp, blue, and not breathing....*

What would you have done?

Situation #3:

Complete Electrical Failure



The pilot of a C182 obtained two weather briefings and an IFR clearance prior to departing on a cross-country flight of approximately 130 nautical miles.

■ *I climbed without incident to 6,000 feet where I was in and out of the cloud tops. About fifteen minutes into the flight, I noticed that the ammeter was discharging. I could not reestablish operation of the alternator. I contacted Center and declared an emergency. I was given vectors to [an airport], cleared to descend to 2,100 feet, and cleared for a GPS approach. While making the procedure turn inbound, I began to experience icing, abandoned the approach, and climbed back to 6,000 feet. I requested to fly*

to [my destination], where, hopefully, I would be able to do an ILS or surveillance approach. I informed Center that I would shut off all my electrical equipment to maintain as much battery power as possible. I continued to fly in the general direction of [my destination].... I turned the radio on and found that I had experienced a complete electrical failure....

What would you have done?

Situation #4:

Controlling an Emergency



A Sector Controller was confronted with adverse weather and conflicting traffic when one of the aircraft approaching his sector declared an emergency.

■ *Aircraft X was Eastbound at FL390...deviating South of course for a thunderstorm.... As the Sector 35 Controller, I had approved FL390 WAFDOF (Wrong Altitude For Direction Of Flight) due to weather, but new information on a Westbound flight, also at FL390, deviating around the same storm, prompted me to call Sector 32 to request Aircraft X at FL370 for the traffic. Sector 32 advised that Aircraft X wanted to climb to FL410 with a 20-degree right turn for traffic. I approved the request. Later, Sector 32 called to advise that Aircraft X had declared an emergency due to engine failure and was descending to FL370, requesting FL240...*

What would you have done?

Situation #5:

Under a Time Constraint



A Maintenance Technician was assigned to fix an engine problem on a B737-800 scheduled for a short turnaround.

■ *The aircraft called in with a #1 engine thermal anti-ice failure. I responded to the call and began to work the problem.... With departure time approaching, I decided to defer the nose cowl anti-ice system. The Minimum Equipment List (MEL) Section 30 was used. Dispatch approval was required and received.... A second maintenance technician brought the MEL paperwork. He read the MEL requirements. We were under a time constraint, but as the releasing Maintenance Technician, it was my responsibility to insure that the MEL was complied with. Rechecking each step would take some time....*

What would you have done?

ASRS Recently Issued Alerts On...	A Monthly Safety Bulletin from	May 2003 Report Intake
MD80 battery charger warning light	The Office of the NASA Aviation Safety Reporting System, P.O. Box 189, Moffett Field, CA 94035-0189 http://asrs.arc.nasa.gov/	Air Carrier / Air Taxi Pilots 1736
AVRO 146 full nose up elevator jam		General Aviation Pilots 719
Conflicting TCAS and ATC instructions		Controllers 32
B737-400 jackscrew maintenance procedure		Cabin/Mechanics/Military/Other 109
Missing DME mileage depiction on a published arrival		TOTAL 2596

The Rest of the Story - the Reporters' Actions

FIRE

Situation #1:

Main Cargo Fire Warning

Once airborne in cruise flight, we coordinated with our dispatcher via the Aircraft Communications Addressing and Reporting System (ACARS) and the decision was made to divert to ZZZ1. We declared an emergency, dumped as much fuel as possible, and then made an overweight landing. After landing, the Main Cargo Fire warning illuminated again and remained on until the aircraft was shutdown and secured. There was no sign of smoke or fire. ▲



Situation #2:

A Passenger Began Yelling

I took him from her, put him face down on my left arm and performed the Heimlich maneuver. He was still not breathing so I placed him on the floor face up, tilted his head and administered two breaths. [There was] no chest rise. I did the Heimlich on his diaphragm; still no breathing. I tilted his head and did two more breaths. The child coughed and began crying. A doctor onboard verified that the child was OK. ▲



Situation #3:

Complete Electrical Failure

Using my cellular telephone, I first contacted Flight Service and then was given a direct number to contact Approach Control. The controller informed me that I was twenty miles east of [an alternate airport] and suggested...that he could permit me to descend to 1,800 feet MSL. [The airport] was reporting a 1,800 foot overcast at that time. He gave me a vector to [the airport] and cleared me to descend to 1,800 feet. I broke out into the clear, and with the vector assistance, was able to land without incident.... ▲



Situation #4:

Controlling an Emergency

When Aircraft X checked in on my frequency, I cleared him to FL350 and called the traffic at Seven O'clock, three miles, Eastbound. Additional traffic was Westbound at FL310 and virtually all aircraft were deviating from their filed routes due to the weather. I told Aircraft Y, at FL330, to turn 30-degrees left to clear the emergency aircraft's descent path. The pilot hesitated due to the proximity of the storm off his left wing, but said that he would turn as far North as possible. I turned the FL310 traffic to a heading of 200-degrees to clear the projected descent path. Aircraft X again requested FL240 and I advised unable due to traffic at Six O'clock, four miles. Aircraft X answered with [a request to move the traffic]. I advised that turns had been issued. When Aircraft Y was five miles and diverging, I cleared Aircraft X to FL240. The pilot acknowledged, said that he would try a restart out of FL260, and requested direct ZZZ. I re-cleared Aircraft X to ZZZ direct, coordinated with the ZMP Sector 35 Controller, and transferred [control of] the aircraft.

...Air Traffic Control (ATC) cannot issue clearances that would provide less than standard separation, but will provide all information necessary (e.g. traffic and terrain advisories) for a pilot to exercise his authority as Pilot In Command of an aircraft in an emergency and to fly his aircraft in the safest possible manner for a given situation. ▲



Situation #5:

Under a Time Constraint

I relied on a verbal inquiry of, "Did we get everything?" and released the aircraft. The aircraft departed, but had to return shortly after takeoff.... I reviewed the MEL requirements and realized my mistake. The MEL called for six maintenance steps to be accomplished. Step number four was missed. The electrical connector on the pressure switch remained on when it should have been removed and stowed. When the aircraft arrived, I informed a very understanding Captain of my error. With the help of a Lead Maintenance Technician, the remainder of the MEL was complied with and the flight departed with no further incident. ▲