

# CALLBACK

From NASA's Aviation Safety Reporting System



Number 201

March 1996



## Significant Others

Most ASRS reporters describe incidents or mistakes that came about as a result of their own actions or inactions. Although pilots take final responsibility for the safe operation of the aircraft, they can sometimes trace a key link in the error chain back to some "significant other."

In our first report, a corporate helicopter experienced a mechanical malfunction due to foreign object damage.

■ *While enroute from XYZ, the #1 engine oil temp began to rise. I started to return to XYZ; however, it became obvious that the oil temp was climbing too quickly to continue. The engine was shut down when the oil temp exceeded limits, [and the flight diverted to nearby ABC].*

*I had completed a thorough preflight, as had a company mechanic. [On postflight], a white diaper used by the cleaning personnel was found in the oil cooler blower. The aircraft is white and the diaper could be easily missed. Cleaning crews are not aviation personnel and do not understand the importance of keeping track of rags.*

Management, pilots, mechanics—all need to communicate to non-aviation personnel how essential it is that no foreign objects are left in or near an aircraft.

### A Real Tail-Dragger

Weight and balance determination is often the result of input from a number of people, including the pilot, the baggage handler, the gate agent, and even the passengers. In the following report from a commuter airline First Officer, all the people involved—and the aircraft—were ultimately at the mercy of an airline operational policy.

■ *On the flight from ABC to XYZ [and continuing to JFK International Airport], I planned (per company policy) to use normal baggage weight, which is 23.5 lb. per bag. But almost all the passengers were on their way to JFK. When you fly to JFK, you are supposed to use international baggage weights of 35 lb. So from ABC to XYZ, we're supposed to use 23.5 lb., then on the leg to JFK, the bags automatically go up to 35 lb. I think this is a terrible policy.*

*Upon landing at XYZ, we touched down, and unexpectedly, the nose came abruptly off the ground. We added power as well as pushing forward on the yoke, [and] proceeded normally to the gate. Upon visual inspection of the tail, I saw scratches on the tail section. At that point, we requested all the bags to be weighed. The average weight was 44.5 lb. At that weight, we were so far aft center of gravity that we should not have even been able to leave ABC.*

The only way to ensure proper weight and balance is to weigh each bag before loading it onto the aircraft. However, this may not always be a realistic option. Some pilots have brought this problem to the attention of company management. They report that, in some cases, company policies on baggage weight estimates have been changed to reflect more realistic figures.

### Back Seat Interference

A General Aviation pilot navigating by normally reliable VOR receivers wandered off-course, and discovered that an unexpected culprit was the cause of the navigation discrepancy.

■ *After departing VFR, I picked up an IFR flight plan, and was given a clearance. Abeam one intersection, Approach advised that I was 7 miles south of course and provided a heading to reintercept. I began course correction and configured the Loran for course guidance. On further comparison, it was determined that both VOR receivers were suspect as they both indicated 8 degrees off. This prompted a query of the two passengers, children ages 7 and 12, after which it was found that both were using portable tape players. Both units were turned off, and the VOR receivers returned to normal operation.*

Air carrier aircraft are not the only ones susceptible to the effects of portable electronic equipment. Small aircraft, too, can experience interference with potentially serious results, particularly in IMC conditions.

### Watch Your Step!

In the next report, departing passengers inadvertently left the pilot with a surprise to remember them by.

■ *After dropping off the load of skydivers, I was cleared to descend into Class B airspace. [Descending], I experienced an engine failure. I notified ATC that I had an engine failure. They cleared me to the municipal airport. I began the restart checklist to restart the aircraft. As I checked the fuel selector knob, I noticed that it had been bumped into the OFF position by one of the skydivers. I placed the knob into the BOTH position and regained power to the airplane.*

*The lesson I learned is that a safety guard is needed on the fuel selector knobs if you are carrying skydivers. The owner agreed, and has placed one on this aircraft.*

Another lesson learned by all these reporters is the potential impact of "significant others." ▲

| ASRS Recently Issued Alerts On...                             |
|---------------------------------------------------------------|
| Inadequate flight idle detent system on EMB-120               |
| Uncommanded full rudder deflection on a Boeing 727-100        |
| Difficulty in identifying a Washington departure intersection |
| Confusion about newly-published STARs for Salt Lake City      |
| Dornier 328 window cracks attributed to airframe contraction  |

A Monthly Safety Bulletin  
from  
**The Office of the NASA  
Aviation Safety Reporting  
System,**  
P.O. Box 189,  
Moffett Field, CA  
94035-0189

| December 1995 Report Intake    |             |
|--------------------------------|-------------|
| Air Carrier Pilots             | 1545        |
| General Aviation Pilots        | 539         |
| Controllers                    | 83          |
| Cabin/Mechanics/Military/Other | 27          |
| <b>TOTAL</b>                   | <b>2194</b> |

# ATC Assists

Air Traffic Controllers must often carry out their duties in less-than-ideal conditions, and also come to the aid of pilots who find themselves in less-than-ideal conditions. In a report from a Center controller, a non-IFR-rated General Aviation pilot took advantage of ATC's expertise and got some badly-needed help.

■ *I got a call from ABC Approach...about a small aircraft trapped on top of an overcast with only about 45 minutes of fuel remaining. The pilot thought he was 40 nm northeast of ABC VOR, but Approach couldn't find him on their radar. The Center Controller expanded the range all the way out...and discovered the aircraft about 40 miles west of XYZ [more than 100 nm south of ABC VOR-Ed.]. Being familiar with that aircraft, I realized that this pilot was in danger of losing his life. The pilot did not have enough fuel to go to an airport with good weather, committing him to land at XYZ. I told Approach to ask the pilot if he had a working autopilot on board...to turn it on so he could reduce his workload in keeping the aircraft right side up while in the clouds.*

*Later, we found out that the pilot had broken out of the overcast and was proceeding safely to XYZ.*

An air carrier Captain, dodging weather and contending with a cabin pressurization problem, called ATC for assistance, and was pleased with the quick response.

## When Silence Isn't Golden

Then there are the pilots who don't talk to ATC. In such cases, ATC often goes the extra mile to ensure the safety of these pilots and their passengers. In the next report, a Controller could not contact a GA aircraft, and finally enlisted outside help to unravel the mystery of the silent pilot.

■ *The aircraft was supposed to land at XXX...but was passing the airport, and Center could not raise the aircraft. Transmissions were made over the VOR, 121.5, [and Center, Approach, and Tower] frequencies to no avail. Eventually a military Beech was launched and it intercepted the aircraft 120 miles southeast of XXX. Evidently, the Beech awakened the sleeping pilot and very quickly thereafter, the pilot contacted ATC. The aircraft landed without incident. I'd say that Beech saved the pilot's life.*

Another pilot unknowingly courted disaster by not communicating with ATC. A quick-thinking Controller came to the rescue.

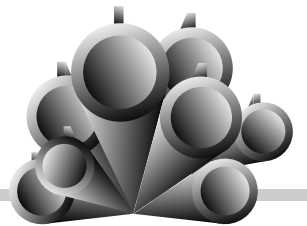
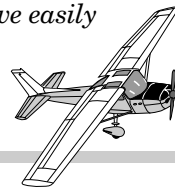
■ *I was working Approach /Departure Control when I noticed an aircraft as it entered the corner of a Restricted Area...which was active for artillery firing. The VFR aircraft never contacted ATC. As it entered the Restricted Area, I alerted the Range Control personnel about the*

■ *We advised Center we would require an immediate descent. Controller did a great job, as he understood our situation completely. He moved traffic and got us a clearance for a lower altitude and towards the airport, without our even declaring an emergency, which I fully intended to do. ATC provided us a safe path [around storm cells]. ATC couldn't have performed better.*

## Hot Times, Cool Heads

Perhaps nothing is more heart-stopping for both pilot and controller than a power failure at a terminal radar facility. Cool heads prevailed in the following incident, however, and teamwork with the Center contributed to a happy ending.

■ *A single engine aircraft called with a fuel emergency. I gave the aircraft a heading to the airport and was able to radar identify him [even though he was at low altitude due to a 700 foot ceiling]. When the aircraft was about 8 miles from the airport, my radar scope and every other one in the facility went blank—no ARTS, no primary, nothing. Center was advised of our outage, and continued to provide position info to me about the aircraft. The aircraft landed safely. If it had not been for luck and the cooperation of the Center controller, the situation could have easily been much worse.*



*intruding aircraft. The aircraft was halfway through the area before Range Control could accomplish the cease-fire. Better pilot use of VFR radar services should prevent such deviations.*

In our next example, an air taxi pilot was talking, but wasn't really communicating. As a result, the reporting Controller was unable to provide services when they were really needed.

■ *The aircraft climbed normally, but then the pilot called and said he must return. He indicated he was in no difficulty, but must return for "more work." The pilot turned on his own, and canceled IFR. He called back later requesting vectors to the nearest airport. I vectored him to XYZ, only five miles from him by this time. I lost radar and communication with the aircraft about 1.5 miles from XYZ.*

*The State Police later informed TRACON that the aircraft landed on a road due to dual engine failure. The pilot never communicated a need or a problem except the last minute request for "a vector to the nearest airport." I believe the pilot received quality service, but deserved more attention. I wish the pilot had shared the info of his impending problem with me sooner.*