

# CALLBACK

From NASA's Aviation Safety Reporting System



Number 221

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## Maintaining Safe Aircraft

Since ASRS introduced incident reporting forms for maintenance personnel in the spring of 1997, we have received over 150 reports from mechanics, and continue to hear from flight crews about maintenance-related incidents. Following are some examples, beginning with a report from an air carrier mechanic:

■ *[As part of routine maintenance requiring an engine run to check for leaks], I assisted by pulling some of the gear safety pins...then proceeded to perform a quick inspection of the nose gear area. From my vantage point in front of the gear, I did not notice the nose gear pin still installed.*

Another mechanic provides the rest of the story:

■ *At the beginning of the next night's shift, I was briefed that the aircraft had returned to the airport because the nose landing gear wouldn't retract. The mechanics found the nose gear safety pin still installed. The safety pin was removed, and the aircraft was once again dispatched.*

One reason the mechanics may have failed to notice the safety pins is that the "remove before flight" flags attached to the pins are often rolled up and tucked out of the way to enable good visibility of the work area. Flags can also blow up into the wheel well and become caught there. Solution: make certain those flags keep flying until the aircraft is released back to the flight line.

## Static Display

Flying the flags might have prevented another return-to-land incident, as reported by a corporate Captain:

■ *Early morning departure from a dark ramp; I did not finish my walk-around inspection, as I was interrupted by a passenger arriving early. I never resumed my normal routine. On takeoff, I heard the First Officer call, "You've got no airspeed." I then called, "Say your airspeed." Came the reply, "I've got no airspeed either." By that time, we had considerable speed, and...I elected to continue takeoff. Airborne, I got the "ADC [Air Data Computer] failure" light. We decided to dump fuel and return to base.*

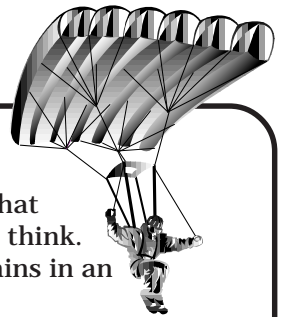
*The aircraft had been inspected and washed the day before, and tape had been left on the static ports and pitot tubes. I had not seen it in the dark, and my pre-flight had been interrupted. No excuse! It was CAVU this time, but what if it had been 200 feet and half-mile visibility?!*

A "remove before flight" flag or long strip of "caution" tape attached to the tape covering the static ports and pitot tubes would have provided a visual warning to ground and flight crews.

## Half-Full or Half-Empty?

Optimists and pessimists alike can appreciate the difficulties a commuter Captain confronted due to a half-cup of water:

■ *The First Officer handed his nearly-empty cup of water to the Flight Attendant (FA), and requested a refill. The FA dropped it on the center console. Very little water spilled and we immediately cleaned it up. A few minutes later, the cabin altitude began to fluctuate—climbing and descending. We initiated a descent to below 10,000 feet. While descending, the passenger oxygen masks deployed. The flight continued to our destination without incident. Even though everything turned out all right, it can never be emphasized enough: be very cautious with liquids around electronic components.* ▲



## The Big Sky

A recent ASRS report reminds us that the "big sky" isn't as big as we may think. A parachute-jump plane pilot explains in an ASRS report:

■ *After takeoff, I told Center that we were 4-1/2 minutes until jumpers away, and I confirmed that there was no traffic in the area. At 12,000 feet, I made an announcement on CTAF that jumpers would be jumping in two minutes. At one minute away from jumpers exiting the aircraft, a spotter checked one last time for hazardous traffic. I made one final announcement on CTAF that jumping would be in progress for the next 10 minutes.*

*After landing, I was told that an aircraft hit a skydiver's open canopy at about 2,000 feet, just seconds after the chute deployed. The most outboard cell of the chute had a one-foot tear in it, confirming the event. The skydiver was not hurt, nor was the chute damaged enough for a cutaway.*

*The pilot of the other aircraft knew he was near the drop zone. He also heard the two-minute call on the CTAF, but continued flying circles near the area. It is possible that he was distracted while circling and sightseeing.*

The pilot of the other aircraft was legal to be occupying the airspace at the same time as the jumpers. However, careful see-and-avoid practice by the pilot might have prevented this near-tragedy. ▲

### ASRS Recently Issued Alerts On...

Uncommanded 20-degree roll in a B737-300
A spoiler cable incorrectly installed on a DC9-10
Parachute jumping activity over a Nevada STAR
Unpronounceable computer-generated navaid fix names
SF340 cargo fire detection system false alarms above FL180

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### September 1997 Report Intake

Air Carrier Pilots	1974
General Aviation Pilots	759
Controllers	84
Cabin/Mechanics/Military/Other	63
<b>TOTAL</b>	<b>2880</b>

# Communications Problems in GA Flight Training

In the September CALLBACK, we published summaries of two research papers presented by ASRS at The Ohio State University Ninth International Aviation Psychology Symposium. One of these discussed communications-related difficulties that occur during general aviation dual flight instruction. Some of these problems included failure to comply with ATC clearances, poor radio technique, and confusing or misleading intra-cockpit communications. Below are three incident reports relevant to these issues. First, an instructor confesses to being a little too wrapped up in the instruction mode.

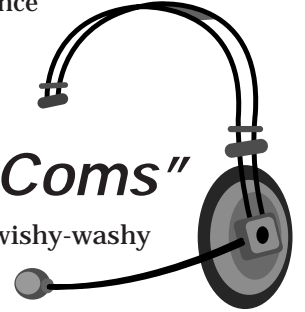
■ *My student and I were practicing takeoffs and landings. We had started flying using headsets, with the radios being monitored through the headsets. After the first landing, my student stated that he would prefer to continue the flight without the use of the headsets. I said OK, and we both took our headsets off. At this time, I failed to ensure that the radios were being monitored on the overhead speaker in the cockpit. We got involved in the lesson, doing approximately five touch-and-goes, and I failed to notice that we had not heard from the Tower during this time. When I did notice the speaker button was not in the proper position, I immediately pushed the button and made contact with the Tower. They terminated the flight and I was instructed to telephone the Tower as soon as possible. The Tower Supervisor made me aware of the impact of my error.*

In another radio-related report, an introduction to instrument training turned into a lesson in priorities and cockpit discipline. A private pilot reports:

■ *After a briefing on the ground, we took off. Runway 35 was in use; we were to fly the ILS 17 approach. I was wearing a hood, and the CFI was coaching me through the turns and timing. Intercom between headsets was in use. At some point, the CFI turned down the radio volume because traffic between Tower and other aircraft was conflicting with his instructions. I removed the hood at Decision Height, noted a flashing red light signal from the*

*Tower cab, and immediately initiated a missed approach. My first thought was that the Tower had lost their radio. Then I was shocked to see our radio volume turned down. The CFI admitted that he had forgotten to turn it back up.*

Thankfully, there was no departing traffic to create a head-on conflict. In both these incidents, the instructors allowed the intra-cockpit communications of the teaching situation to take precedence over communications with ATC.



## “Wishy-Washy Coms”

What a private pilot refers to as “wishy-washy communications” led to lack of a positive hand-off of aircraft control—and nearly resulted in a damaged aircraft.

■ *We were shooting a practice approach on the ILS/DME. At the middle marker, the instructor took the controls while I removed the hood. He flew it to about 75-50 feet above the runway surface. I was willing to let him do the landing, although I did not communicate this to him. He then said, “Uh, you can have control...if you, uh, want it.” I probably replied, “OK” rather than the usual, “I have control.” I began to pull the nose up slowly, when I thought I felt the instructor push forward on his wheel. I thought this to be unusual since we were low and descending fast in a nose-low condition. I then relaxed, thinking he was still flying the aircraft. The nosewheel touched down first and we bounced back up. I then noticed him grabbing the wheel as he announced, “I have control.” My response was, “I thought you [already] had control.” We both then realized that nobody was really flying the aircraft. Autoland?*

*Wishy-washy communications and lack of decisiveness played major roles in this. ▲*

## Reservations Required

Arrival and departure reservations are required at certain designated “High Density Traffic Airports,” including Kennedy, LaGuardia, Chicago O’Hare, Washington National, and Newark airports, as this general aviation pilot learned:

■ *I was unaware that a reservation was needed to land or take off at Washington National Airport. It was only told to me when I discussed the flight with my instructor after my return home. This information is not shown on*

*any approach charts. I have since reviewed the necessary steps for flying into airports that require reservations.*

IFR traffic can request reservations through Flight Service Stations. VFR operations may be accommodated if ATC can fit them in without significant delay to IFR operations. For more information, see the Aeronautical Information Manual, Section 4-1-21. ▲