

CALLBACK

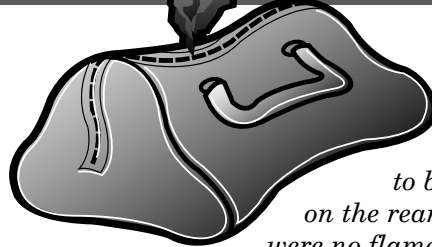
From NASA's Aviation Safety Reporting System



Number 244

October 1999

Hazmat and PICs



Hazmat is an acronym referring to “hazardous materials” or cargo. In many of the cases reported to ASRS, hazmat is brought on board aircraft by uninformed or unsuspecting passengers. But two recent reports describe events in which PICs themselves were the unwitting source of hazardous cargo. We begin with an air carrier Captain’s story:

■ *Planned to drive to do a little turkey hunting and camping. I assembled my camping equipment a couple of weeks before leaving, which included a small camp stove filled with white gas. A few days before leaving plans changed and I decided to fly instead of drive. I neglected to remove or empty stove. Gas leaked into duffel bag – luckily ramp personnel detected odor and removed bag. Can’t believe I was so stupid. Wonder how many other people do this also?*

ASRS receives several reports of similar incidents each year, and there are undoubtedly more that go unreported.

A General Aviation pilot provided a tale of a frightening hazmat discovery in-flight:

■ *While VFR returning to U.S. from Canada, I was sole occupant of my C-172. After approximately one hour enroute I smelled smoke. After several attempts to locate it*

I discovered the source to be a cotton storage bag on the rear seat of my plane. There were no flames coming from the bag, just smoke. The bag was seatbelted in place and I was able to remove it and smother the smoldering bag. No damage occurred to the aircraft. The flight continued uneventfully.

After landing I discovered the source of the fire. I had stored an extra 9-volt battery in my accessory bag. The battery had been removed from its packaging in case it was needed for my headsets (spare ready for use). The unprotected battery terminals had come into contact with the zipper of the cotton accessory bag, shorting the battery and eventually creating enough heat to burn the fabric around the metal zipper. I was very lucky to have had ready access to this bag!!

This situation was easily preventable by leaving the 9-volt battery in its original packaging and/or using a terminal cover on the battery contacts.

I believe the battery was an alkaline industrial brand. This situation could have been disastrous in the baggage compartment of any aircraft, private or commercial.



Command and Control

A delicate dilemma faced by instructors in operational training situations is deciding how far to let a student go. If an instructor is too conservative, the student may never learn the full range of skills needed. Too casual, and the student may be placed in situations beyond his or her ability to cope. An air carrier instructor explained to ASRS why being *mentally* prepared to take control from a student was not enough.

■ *I have been a line check airman for my airline for 12-1/2 years. On this flight I was giving IOE [Initial Operating Experience] to a new hire with no previous jet experience. It was our first leg together, and his first leg since simulator training. We thoroughly briefed our visual approach to runway 12, which is served by a VOR approach (no electronic glideslope). We discussed appropriate power settings for our flap 40° approach and landing. Approach was well flown from 1,000 feet, at which point we were fully configured and on speed. Weather at the time was wind 090°/8 knots, good visibility. We acquired the runway 6 miles out.*

All indications were perfectly normal until 150 feet AGL, at which point our airspeed dropped 3 to 4 knots below target. I commanded “Add power.” The First Officer added a small amount of power. I again commanded,

“Add power,” at which point the First Officer added only a slight amount of power...[and] relaxed back pressure on the yoke, allowing the aircraft nose to drop. At this point I took control, adding a lot of power and attempting to flare the aircraft. Our full airplane (landing weight 137,500 lbs.) hit hard on the main gear and bounced. I effected a recovery and continued the landing rollout. On arrival at gate we inspected the aircraft and discovered that the tailskid was heavily damaged. An additional area of lower fuselage forward of the tailskid was also damaged.

I [will] make a point in the future of discussing some of the basic differences between jets and turboprops regarding landing technique for students whose background does not include jet aircraft experience. While I was mentally prepared to take control (as I always am during a new student’s IOE), the unexpected relaxation of back pressure worsened the situation too quickly for me to avoid the outcome.

The reporter added that the geometry of the involved aircraft is sufficiently different from previous models (longer and more vulnerable to tail strikes) as to mandate trainee landing and takeoff experience in the simulator.



ASRS Recently Issued Alerts On...
Canadian 200-foot “hold short” rule
B-737-200 uncommanded rudder movement
Conflicting departure operations at a Texas airport
Suspected electrical fire in a B-757 entertainment system
Infectious material loaded on the main deck of a cargo DC-8

A Monthly Safety Bulletin from

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

<http://olias.arc.nasa.gov/asrs>

August 1999 Report Intake	
Air Carrier / Air Taxi Pilots	2187
General Aviation Pilots	805
Controllers	83
Cabin/Mechanics/Military/Other	152
TOTAL	3227

The Best Laid Plans

Everyone's heard of the golfer who was all backswing and no follow-through. A distant relative may be the pilot who dutifully engages in preflight planning and activities, but loses sight of details and contingencies. Several ASRS reporters describe flight preparation omissions that put them "in the rough":

■ *The purpose of the flight was to fly formation with another aircraft and take photographs of my [antique] aircraft for a magazine cover. Because this is not the type flying the pilot of the other aircraft and I regularly do (close formation), we methodically and carefully briefed the flight along with the magazine's photographer (who was experienced at this) and my safety pilot/observer. We briefed the "rules" for the formation, communications, hand signals and each crewman's particular duties. The lead pilot was to fly a steady course and altitude as requested by the photographer to get the desired sun angle and background. I, of course, never took my eyes off the lead and the photographer coached my position with a combination of hand signals and radio communications*

My workload was high but all was going well as we flew over the unpopulated hills at about 500 feet AGL. As we approached a ridgeline my observer said, "there's a housing tract ahead we shouldn't fly over." I remained concentrated on the lead and suddenly we were flying very low over some very expensive homes. I immediately broke away from the lead but that maneuver took my aircraft directly over the heart of the housing tract at about 300 feet AGL. Oh [!@#%]! My antique airplane has 3-foot high NC numbers on the bottom of the wing too! I rejoined with the lead and radioed that there'd be no more of that and he said that the photographer had been getting some "great shots" and didn't*

want to break it off. Despite our attempt to fly the mission with military-like planning and coordination, we screwed up! With hindsight we should have taken more time and started up higher, rehearsed [route and altitude], and then dropped down [to a legal altitude] for the final photos.

Say 'Bye Before Hi

A First Officer describes the last leg of a LONG day:

■ *...It was a trip to the Northeast, weather to near minimums on 3 of the 5 legs, snow falling heavily on frequent occasions and each leg a maximum of 200 miles...[with] NO autopilot. The tension was high all day...*

As we taxi out, I ask for appropriate checklists. At this point...we are exhausted flying...in weather that is miserable, with snow and minimum visibility, and the high pace of Center working [us], on a day that has had no end. We call our position on the field, announce runway taxiing to, position runway, departing to SW, altitude...the usual callouts. Out of 6,000 feet we call Center... Center says, "HI and Tower would like to say goodbye" – in person. Captain is 2 inches tall and I am writing NASA. They were very understanding only because nobody in their right mind was in the air that day and there were no close calls. In the flurry of cockpit duties, I was so far ahead that I switched out Tower frequencies with [previous airport's] frequencies ...

Exhaustion is no excuse, only a reason to slow down and regroup. The alternative is not pleasant and far too quiet for us all.



Alone in the Dark


In the spirit of the witching season, we offer a recent ASRS report that describes **THE LIGHT THAT WASN'T THERE.**

■ *Flight was a cross-country to position a homebuilt single-seat aircraft for a race. Aircraft was not ever intended to be flown at night (flashlight is therefore not included as cockpit equipment). Flight was delayed for several reasons and landing would not be before dark. I continued anyway knowing weather was excellent and that I had a full moon. As it got darker, I discovered that cockpit lighting was inoperative. I told Center that I had a problem and would not be able to change frequencies. I suggested that we start using 121.5 – I was told to stand by. After approximately 10 minutes Center gave me a frequency change to a different sector... At this point I declared an emergency. It was now dark enough that I could not see heading, altitude, airspeed, or power instruments. I also could not read*

my kneeboard. Center and Approach gave [left-right] vectors to destination. They also advised of altitude during the descent using Mode C. Tower gave altitude calls on base to final turn until VASI lights were in sight. Landing was uneventful.

I will in the future carry some kind of emergency lighting that can be used in an aircraft without having to be held. Aircraft requires that pilot not let go of stick and also must wear an oxygen mask. Therefore a handheld flashlight is not appropriate.

Kudos to our reporter for keeping his head, and to ATC for their invisible but benevolent guidance.

Moral: the goblins will get you  if you don't watch out!

