

# CALLBACK

From NASA's Aviation Safety Reporting System



Number 267

November 2001

## “Hotspots” – On the Ground and in the Air

Training doesn't always keep pace with changes in aviation publications, as two seasoned maintenance technicians discovered during taxi of an aircraft from the maintenance base to the terminal at a major airport. From the report filed with ASRS by the lead technician:

■ *A recent runway incursion at international airport by two veteran aircraft maintenance technicians taxiing a B747-200 could have been avoided had the technicians been made aware of recent changes in the [commercial] chart for the airport.*

*The two technicians were unaware that they were taxiing into a hazardous intersection deemed a “Hotspot” on the new [commercial airport] chart for 2001...*

*These two veteran technicians had recently attended a city-sanctioned airport familiarization class mandatory to all airmen taxiing aircraft at the airport. The city's curriculum never covered the airport's...historically, and now identified, Hotspots! The city needs to replace their outdated curriculum on airport familiarization and provide one for airmen that taxi aircraft, and not truck drivers...*

Current commercial charts for this airport clearly show the runway incursion Hotspots as circled areas on the airport diagram. In a callback conversation with ASRS analysts, this reporter added that the runway incursion occurred at a poorly lighted taxiway and runway intersection. NOTAMS and updated airport charts had not been entered in the mandatory maintenance technicians reading file.

### Right Spot, Bad Timing

When fuelers and maintenance technicians are servicing the same aircraft, positive communications are needed to safely coordinate the work. A B727 flight crew report to ASRS explains:

■ *During the first flight of the day cockpit setup, I observed that work was being done on the flight controls. All placards were normal. Ten minutes into ground operations, a ground personnel [employee] attracted my attention from outside the First Officer's window making gestures interpreted as “raise the flaps.” After verbally confirming his intentions and verbally clearing the area with ground personnel, he again made the upward gestures and I took steps to raise the flaps. Maintenance*



*technicians then intervened and informed us that they were still at work on the wings.*

*In reality, the signaling ground person was a fueler that was not aware of the work being done on the other side of the aircraft. Nor was he aware of the potentially dangerous condition that existed.*

*Unfortunately, his proximity, gestures, and timing all fit the circumstances and his actions*

*were mistaken [by the flight crew] for those of a maintenance technician summoning assistance from the cockpit, which is a common scenario. It is obvious, in hindsight, that more positive communication was needed.*

It's hard to know what the reporter meant by “normal” placards. In this situation, maintenance technicians should have pulled the circuit breakers on the flaps and hydraulics, and placarded the breakers and flap handle to prevent activation of the flight controls.

### Enhanced Class B Airspace

A general aviation pilot discovered that recent FAA changes to VFR flight rules governing flight in Class B airspace outpaced the pilot's checking of NOTAMS:

■ *I was bringing my airplane back [from airport] after being grounded by recent [terrorist] incidents. Using my GPS only at 2,300 feet it indicated I was clear of Class B airspace. I was, however, in the new extended [Class B] airspace... I reported to ATC Chief upon landing... I was told that I was being warned to check NOTAMS and comply in the future...*

The latest airspace update information is available from this FAA web site: <http://www.faa.gov/apa/update.htm>. Enhanced Class B airspace is at least a 20-nautical-mile (22.7 statute mile) radius around a major airport and extends from the ground to 18,000 feet.

Under newly revised Visual Flight Rules, aircraft with encoding transponders will be able to fly VFR in the Enhanced Class B airspace around designated major metropolitan areas. Pilots of aircraft with radio capability are instructed to monitor the guard frequency (121.5 MHz) while in Enhanced Class B airspace. Aircraft without transponders will be able to fly in Enhanced Class B if pilots first obtain a waiver. ▲

#### ASRS Recently Issued Alerts On...

MD87/90 horizontal stabilizer jackscrew maintenance
“Hold short” clearance incidents at an East Coast airport
Lack of protective containers for oxygen bottle shipments
Jet blast from aircraft between runways at a major airport
Frequency problems related to an ATC facility's outages

A Monthly Safety Bulletin from

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

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

#### September 2001 Report Intake

Air Carrier / Air Taxi Pilots	1719
General Aviation Pilots	619
Controllers	37
Cabin/Mechanics/Military/Other	139
<b>TOTAL</b>	<b>2514</b>

# Hazmat Security Issues



In the wake of the September 11th terrorist activities, the security of U.S. civil aviation passengers, aircraft, and airports has become a national priority. Materials transported in the cargo holds of passenger-carrying flights are related to these security concerns – including hazardous materials known as *hazmat*. Examples of hazmat include wheelchair batteries, dry ice, corrosive materials, and containers of non-flammable gas.

Airline dispatchers are required to provide specific load and weight-and-balance information to flight crews before flight, including the location of any hazmat. It is crucial to safe flight operations that load information be declared and accurate, as this is the only means the flight crew has of knowing what cargo is on board and where to find it.

An informal review of pre-September 11th ASRS hazmat reports revealed that most incidents had one or more of the following factors in common:

- ☞ Undeclared hazmat
- ☞ Illegible load manifests
- ☞ Inaccurate load manifests
- ☞ Unsafe handling of hazmat

The following report excerpts illustrate the range of problems identified.

## Undeclared Hazmat

■ *Upon arriving, it was discovered that a battery had been loaded onto my aircraft. The labeling of the battery indicated that it was a 12-volt automotive battery. The battery was tagged as a piece of checked baggage. The battery was not in a battery box nor was it carried as part of a wheelchair. Further, no mention of the battery was made on the [load] manifest. At no time prior to arriving was the crew made aware that we were carrying this hazmat. The owner of the battery was not even on my flight. The owner had actually arrived at [destination airport] the day before and made a claim for the lost battery. On the claim itself he described his lost bag as a “boat battery”! From the ticket agent to all the rampers who handled the battery, I’m stunned that nobody refused this shipment.*

## Illegible Load Manifests

A DC-10 flight crew returned to their airport of origin when the source of a strong odor could not be identified inflight. After the aircraft was met by the rescue squad, the crew secured and exited the aircraft. But their problems were only beginning...

■ *Even though the yellow pouch that contained the hazmat paperwork was presented to the rescue squad, the illegibility of some of the individual 5-part forms failed to satisfy their requirements due to a lack of specificity. We were quarantined at the aircraft for an extended period of time, arriving at the hospital approximately 4 hours after egress....*

Lessons learned: Specialists who prepare load manifests need to make hazmat paperwork legible, and flight crews need to review this paperwork for legibility and content prior to flight.

## Inaccurate Load Manifests

A B757 Captain reported another aircraft diversion incident to the ASRS due to an equipment overheat indication. Once the aircraft was safely on the ground, the flight crew made a chilling discovery:

■ *...On arrival at our gate, our forward cargo compartment was found to be “frozen.” Our hazmat slip indicated we had dry ice on board. We had 21 pieces each weighing 22 lbs. We thought they meant 2.2 lb., as that is the lb. weight of a kilogram. This was interpreted as 46.2 lb...which is far less than the authorized 440 lbs. that our B757’s are allowed to carry. Our hazmat slip should have indicated either kilograms or liters, but we assumed the 22 lb. weight to be a courtesy conversion of a kilogram to lbs. by our cargo personnel. Our assumption was wrong, and should have prompted an inquiry as to the exact weight of the dry ice. In the future, I will assume nothing... I also believe that a visual confirmation of the cargo is a good idea...*

## Unsafe Handling of Hazmat

■ *FAA Inspector found 1 of 3 hazmat boxes that were ready to load onboard had a puncture. He advised the Crew Chief of the damage. I advised the Crew Chief that he should at least tape the hole. At departure time the FAA inspector went back downstairs and observed that the box had been taped in violation of FARs and [said he] intended to issue a violation... I apologized to the inspector for asking that the Crew Chief tape the box. He said that the Crew Chief should have known better and that the box needed repackaging. A second violation will be forthcoming, according to the FAA inspector, for the way the 3 boxes were placed in the forward cargo compartment. Evidently they were not secured with ropes until [the inspector] asked the Crew Chief...*

Transportation of dangerous goods by air requires proper packaging and rigorous adherence to safety requirements, especially in these times of heightened national security awareness. ▲