A Monthly Safety Bulletin
from The Office of the NASA Aviation Safety Reporting System
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June 1999 Report Intake
Air Carrier/Air Taxi Pilots 2045
General Aviation Pilots 786
Controllers 72
Cabin/Mechanics/Other 147
TOTAL 3050

Ramp Safety Revisited
Cargo and APU Blues

ASRS recently has received several reports describing unusual ramp operation hazards that require flight and ground crew awareness. We lead off with an incident that presents a new slant on fatigue, as reported by an air carrier Captain.

No Snooze is Good News

At FL200 I was notified by my Flight Attendant that there was a loud knocking noise from the forward baggage bin. After checking with our departure station, we discovered a baggage handler was missing. We returned to the station to find a scared but otherwise O.K. baggage handler. Cause: Sleeping in the baggage bin before loading. Corrective action: Don’t do it.

In addition to our reporter’s firm admonition, we add another; ground crews should conduct a visual inspection of cargo bin interiors before closing and securing doors.

COD – Caterer Object Damage

The Captain of a Boeing 727-200 describes a harrowing incident that has led his company to revise its ramp procedures. The incident underscores the importance of ensuring that contract, as well as company ground personnel, undergo training in ramp safety procedures.

In particular, all ground personnel need to understand that flashing aircraft beacons mean EXTREME CAUTION – engines are running, or engine start is imminent.

Arriving at gate, could not get aircraft to accept external power (Auxiliary Power Unit inoperative). Left #1 engine running while off-loading passengers, while still trying to get aircraft to accept external power (beacon on). Lead Flight Attendant came running up aisle saying to shut down the engine, that somebody had been sucked inside. Shut down engine. Went to back of aircraft and talked to caterer after he had been removed from intake. He said he did not know the engine was running. #1 engine received FOD [Foreign Object Damage].

The Captain provided additional details about this incident to ASRS analysts during a callback. The B-727’s #1 engine had been left on idle power while maintenance attempted to get ground power on the aircraft. The aircraft’s upper and lower beacons were on, and flashing, to alert all ramp personnel that one or more engines were operating. The station procedures required that the aft galley be serviced through the left aft exit. The catering truck parked next to this exit. As the catering supervisor approached the aircraft door from the walkway of the elevated catering truck, he was immediately sucked into the turning engine. After he was removed and checked for injuries, he was asked whether he had heard the engine running. He replied “no.”

The caterer suffered a number of broken ribs, but amazingly avoided more serious injury thanks to quick intervention by the cabin and flight crew. A preventative for this type of event is procedures that prohibit service vehicles from approaching parked aircraft until all aircraft beacons have been turned off.

It’s in the Bag

A lost-communications incident that affected this air carrier flight crew may inspire other pilots to take a second look at where they place book bags containing flight charts and manuals.

About 30 nm out of airport at 10,000 feet, I reviewed the approach and runway diagram and set my approach book back on top of my book bag. After about 4-5 minutes of silence on the radio and about 10 miles from the airport I asked the First Officer to query Approach Control about his intentions. The First Officer was unable to contact Approach. I attempted to no avail, but the First Officer now told me he was getting feedback even when I was not transmitting. I looked down and realized that my approach book had shifted up to my comm panel and had toggled the transmission switch to ‘on.’ I removed the book, contacted and apologized to Approach and continued to landing. Approach was very understanding even though I knew we had unintentionally disrupted his operation.

The comm panel on the [aircraft] on the Captain’s side has been moved down and aft to make room for the steering wheel. This puts it right at the same level as the approach books, and the transmit switch is the first to be touched should the book shift.
What’s in a word? Sometimes a world of difference, especially when ATC clearances are involved. Several recent ASRS reports illustrate, beginning with a First Officer’s account:

It was a nice day and we were heavy for the flight… This was my leg and we were departing Runway 22L with the SID. I briefed the departure—an immediate left [turn] to 190° with a right [turn] at 2.3 DME to 220°, climb to 2,500 feet (ATC restriction).

Flying the departure, ATC issued a left [turn] to 230° as we crossed the 2.3 DME fix, climb to 6,000 feet and a frequency change. The next controller, who was very busy, issued a “tight turn to 040°,” which I mistakenly assumed to be a left turn. Starting the turn, ATC commented, “need a nice tight turn…” which the Captain responded to affirmatively. Then ATC came back, “just wanted to confirm a right turn.” We complied immediately.

Looking back, I should have requested clarification on direction of turn. ATC never issues a “tight turn,” always a direction of turn—“right turn” is what he must have said. In this situation, I knew there was a parallel departure off Runway 22R, and at the time the 040° turn heading was issued, left was the closest direction. Also, I was too eager to comply instantly in a very busy environment with rapidly issued clearances. Next time I will…verify any ATC clearance that seems vague or non-standard, especially one as critical as direction of turn that close to the airport.

A “mea culpa” from a General Aviation pilot who misheard an initial taxi instruction, and didn’t question the logic of the clearance:

Inadvertent runway incursion due to misheard Tower clearance. “Taxi to” heard as “taxi onto.” No other traffic in vicinity at time. No other aircraft involved. Error identified by Tower radio call. Apology offered!

Unusual Attitudes – and Outcomes

Several highly experienced General Aviation pilots share new lessons learned about pre-flight as the result of aerobatic maneuvers. We hear first from a pilot who went out to practice aerobatics right after an annual inspection:

Lost about two quarts of engine oil during negative “G” maneuver. Oil covered the canopy, limiting visibility. Declared an emergency with Tower, but landed at Army airfield, as it was closer. Discovered oil dipstick loose, but not out of filler tube.

I had just completed annual. When I buttoned up the cowl, I saw the dipstick in place, and it appeared fully seated, however I did not check to verify its security.

Another experienced pilot indulged in uncoordinated spirals in a light plane that was not approved or stressed for such maneuvers. Result: an off-airport emergency landing.

After dropping skydivers at 1,500 feet AGL a steep uncoordinated spiral was entered to rapidly lose altitude. At approximately 1,000 feet AGL, the spiral was discontinued and a forward slip applied as a 45° entry to a left downwind… About 1/3 mile from the runway at approximately 400 feet AGL the engine quit making power, [and] an immediate turn to the runway was made and a glide established. It became obvious that some trees off the end of the runway would not be cleared and an alternate landing site was selected. The alternate site required a right 120° turn. After making the right turn, just before touchdown, the engine began making power. A precautionary landing was made off-airport. Fuel quantity was checked and approximately 8 gallons remained in the right tank. The left tank was less than 1 gallon. The unusable fuel for this aircraft is listed as 5 gallons. Fuel was added and the aircraft flown to the airport.

I suspect fuel was unported by prolonged uncoordinated flight and low fuel levels. I recommend no prolonged uncoordinated flight below 1,500 feet AGL…

The low fuel state that contributed to this incident could have been avoided by a manual or visual fuel check prior to taking up each group of skydivers. The reporter also placed himself in jeopardy by performing aerobatic maneuvers that were not approved for this aircraft at any altitude.

A Plea for PIREPs

ASRS has received an important reminder from an air traffic controller to pilots everywhere: Pilot Reports (PIREPs) are sometimes the only way that ATC can know about adverse flight-related events that can affect all aircraft:

On taxi-out, [commuter aircraft] indicated he was involved in a bird strike… ATC was not notified of the bird strike in a timely fashion. It is understood that the flight crew was busy at the time of the occurrence. However, due to the time of day (night, after sunset) and distance from field (4 miles) it was impossible for ATC to know of the occurrence without a PIREP. With the PIREP we could have warned subsequent inbounds of birds in the area, allowing us to provide better service to the aircraft landing here. Please, help us to help you make your job easier.