

CALLBACK

From NASA's Aviation Safety Reporting System



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FAA Calls for Wake Turbulence Reports

Since the inception of an FAA-funded wake turbulence study in March 1995, the Aviation Safety Reporting System (ASRS) has been collecting and analyzing wake turbulence reports submitted by ASRS reporters. The study uses telephone interviews to obtain detailed information about wake turbulence encounters. Its purpose is to gather information which can be used to help reduce the frequency and danger of wake turbulence events.

The collection of this data is part of a larger ongoing FAA effort to track and monitor wake turbulence incidents. As a result of the pilot response to previous announcements in CALLBACK and other industry publications, the ASRS has been able to conduct 131 telephone interviews with reporting pilots.

The FAA has asked ASRS to continue the study; consequently, ASRS is again seeking pilot reports of recent wake turbulence encounters—those that have occurred **within the last six months**. Other details of the study's telephone interviews:

- Participation is entirely voluntary, and, as with all ASRS report information, all personally identifying data (names, company affiliations, etc.) will be deleted before the research results are given to the FAA. Only aircraft make/model information will be retained in the ASRS data.
- Pilots who submit **recent** wake turbulence reports to ASRS will be contacted either by a telephone call to the phone number given on the reporting ID strip, or by letter to the address listed on the ID strip (if no phone number is given). Reports from both air carrier and general aviation pilots are needed for the study.
- If the reporter agrees to participate in the study, an ASRS analyst will make an appointment for a forty-five-minute telephone interview to discuss the wake turbulence incident and the factors that led up to it.
- As soon as the interview is complete, the report ID strip will be returned, with no record of the reporter's identity retained by ASRS.

ASRS reporting forms are available at FAA Flight Standards District Offices and Flight Service Stations, or they may be requested from ASRS by mail or phone. ASRS mailing address: ASRS, P.O. Box 189, Moffett Field, CA, 94035-0189; ASRS phone: (415) 969-3969. Forms may also be downloaded from the ASRS Internet "Home" Page (at <http://olias.arc.nasa.gov/asrs>) using the Adobe Acrobat Reader. ▲

Trailing in a Tailwind

A frequent lament among reporters who have participated in the ASRS wake turbulence study is that even when they received wake turbulence warnings from ATC and followed appropriate avoidance procedures, they still encountered another aircraft's wake. An MD81 First Officer reports taking all the appropriate precautions when trailing a B767, but environmental factors brought all the crew's efforts to naught.

■ *Wind was reported 040 at 8 knots. ILS approach and landing to runway 4. We were following a B767 by about 6 miles. I told the Captain that I would fly one-half to one dot above glide slope for wake turbulence protection. We were given all the proper wake turbulence and separation warnings by both Approach and Tower controllers.*

I was carrying much less power than usual, even staying one dot high. At about 200 feet MSL, the airplane yawed and banked to the left. I corrected with full right aileron and three-quarter right rudder, and said, "I'm going around." I applied thrust...and as soon as I pulled up, I regained complete control.

An Approach Controller...got word that the wind at the outer marker for runway 4 was 210 at 40 knots. Then it made sense. The aloft tailwind...blew the B767's wake forward into our glide path. I had never thought about the effect of a tailwind on wakes. I do now.

Several reporters suggested simulator and aerobatic training, or unusual attitude recovery training, as valuable tools for surviving wake turbulence encounters.

Takeoff Wake

Wake turbulence events on takeoff are not as common as those encountered on arrival and landing, but can be just as serious, as this B737 Captain reports:

■ *We were cleared for takeoff right behind an MD80. As we rolled, he was just lifting off. No clearance yet for visual separation. At about 800 feet AGL, we rolled hard left, bank about 10-15°, with about 50-75% aileron authority to counter the roll. The wake lasted about five seconds. We hit it again at about 4,000 feet AGL, but only a momentary roll. Separation was way too close for comfort!* ▲

ASRS Recently Issued Alerts On...

C-401 fire hazard attributed to exhaust manifold failure
Trees obstructing an Ohio controller's view of taxiways
MD-82 cabin smoke attributed to a hydraulic line failure
Uncharted 465-foot obstruction on a Louisiana approach
Hangar lights interfering with Pennsylvania controller's vision

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

November 1996 Report Intake

Air Carrier Pilots	1776
General Aviation Pilots	629
Controllers	114
Cabin/Mechanics/Military/Other	47
TOTAL	2566

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

Notable NOTAMs

Installation of a new or temporary Tower may surprise some local pilots—like this general aviation reporter who did not check NOTAMs before a routine flight:

■ *Local flight of 15 miles on a CAVU day. Approaching my destination, I called for traffic and runway advisory on CTAF, just like I had done for years. No reply, but sometimes they are away from the radio, so no big deal. I could see aircraft taking off and landing on runway 25, so I set up for that, calling downwind and base. Then someone (unknown) called and told me that there was now a Tower in operation on frequency 119.15. Not wanting to make a bad situation worse, I made a go-around and switched to the Tower. They cleared me for a normal landing.*

This was NOTAMed, but really—who checks NOTAMs for a 15-mile flight on a beautiful CAVU day? Me—next time.

Even when pilots check for NOTAMs, they may still come up empty-handed, as did this ASRS reporter:

■ *I obtained a computer briefing for VFR flight. I obtained flight following immediately after leaving home airport, and continued flight following through two states. About 15 miles north of XYZ, I tuned in XYZ ATIS to hear a message that said the Tower was closed. There was nothing else besides this. I overflew the Class D airspace at 4,000 feet, and landed [at the next airport, 25 miles further south].*

After refueling, I continued to [my destination], where I was asked by ATC to contact an FAA person upon landing. I learned that a NOTAM was in effect for the airspace above XYZ for an airshow.

Obviously, with enough diligence, I could have found this NOTAM and avoided the airspace penetration. However, had the XYZ ATIS said more than “The Tower is closed,” I could have deviated in time to avoid the area.

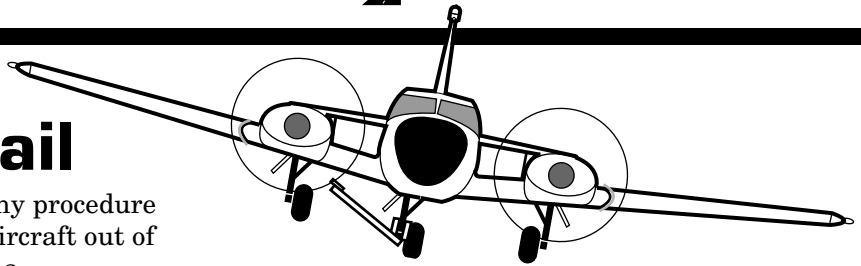
Included with the reporter’s *mea culpa*, a reasonable suggestion: The XYZ controllers might have included specific information about the tower closure on the ATIS broadcast. ▲

From Nose to Tail

A corporate pilot followed standard company procedure for using a sport utility vehicle to tow an aircraft out of the hangar. But the routine ferry flight to a maintenance base turned out to be a little more exciting than planned.

■ *Through the checklists, engine start, taxi, and runup, everything was normal. As I rotated, right away I noticed that the airplane yawed some, and it seemed to me that I had experienced a rudder boost failure. I retracted the landing gear. The yaw ceased, the gear made a louder thump than normal, but then everything seemed all right except the landing gear handle light stayed on. Then it dawned on me—I hadn’t removed the tow bar. Was it still there?*

I called Departure Control and advised them of the situation. They sent a truck down the runway to see if the tow bar was anywhere to be found. [It wasn’t.] I decided to continue to our maintenance base, due to better facilities and equipment to deal with who-knows-what on landing. The Approach Controller set things in motion for my arrival. The Tower cleared me for a low pass. The Controller could see the tow bar...it was being held out forward at about a 60° angle by the nose tire itself. Amazingly enough, I landed uneventfully, except that the initial touchdown sent up quite a shower of sparks from the eye of the tow bar.



The only damage, besides that to my ego, was to the nose gear doors.

The reporter states that the company’s towing procedure has been changed to prevent this from happening again. As if our reporter could ever forget!

And now to the tail: a predawn departure set the stage for this cargo carrier’s First Officer to overlook an extra “load”:

■ *Upon landing, we noticed the tailstand [tail support stand] had been left on the tail during the flight. The tailstand was removed and the [subsequent] flights resumed without incident. “Tailstand check” will be added to my before-engine-start checklist. Pilot fatigue may have been a contributing factor, coupled with the dark departure ramp not allowing you to see the tail as you get in the plane.*

One last look by a flight crew member (with a flashlight, if needed) before boarding the aircraft, plus adherence to “tailstand check” on the checklist, may keep other crews from experiencing this potentially dangerous situation. ▲