

# CALLBACK

From NASA's Aviation Safety Reporting System

# ASRS

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## ASRS to Conduct FANS Study

■ *We received a FANS message to climb to FL330 (we were at FL310). The Captain printed the message, verified the plane number and tail flight number, but somehow missed the phrase 'at XA40Z.' We climbed at XA28Z and reported level at FL330. ATC advised us to return to FL310 which we immediately did. This problem could be avoided if conditional clearances were not given...*

This ASRS report filed by a First Officer refers to a new technology called FANS (Future Air Navigation System) that is currently being introduced aboard commercial air carrier aircraft such as the B-747-400. FANS enhances aircraft communications and navigation through a data link (electronic non-voice) connection between the aircraft Flight Management Computer (FMC) and ATC facilities. This data link is supported by ground and satellite relay stations.

The messages relayed through FANS data link may involve clearances, flight crew requests, route modifications, and other types of routine and emergency communications. The FANS system currently is being operated by several international carriers on Pacific oceanic routes as a partial substitute for ARINC and other types of voice communications.

NASA has asked ASRS to collect operational experiences from pilots who have used FANS within the last 6 months. Pilots are encouraged to submit both beneficial experiences as well as operational difficulties they have encountered with the system. ASRS will conduct the FANS study through a number of voluntary telephone interviews, known as *structured callbacks*, with participating pilots.

The information gathered by ASRS will help NASA recommend appropriate ways to improve FANS technology, including training, documentation, and future implementations of data link technology.

Only reports from air carrier pilots using the FANS system will be solicited for the study. Pilots who submit reports to ASRS on FANS incidents and experiences will be contacted by a telephone call to the phone number given on the ASRS report form ID strip. Reporters who agree to participate in the study will be able to discuss the incident they reported in detail with an ASRS analyst, at a time that is mutually convenient.

Participation in the ASRS study is entirely voluntary. As with all ASRS report information, all personally identifying data (names, company affiliations, etc.) will be deleted before the research results are given to NASA. Only aircraft make/model information will be retained in the ASRS data. If there are any questions that a reporter prefers not to answer, the ASRS analyst will skip those questions.

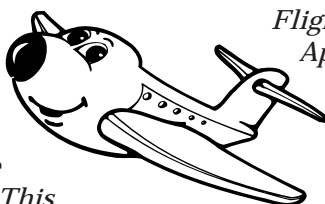
As soon as the interview is complete, the report ID strip will be returned to the participating pilot, with no record of the reporter's identity retained by ASRS.

ASRS reporting forms are available for downloading from the ASRS Web site at <http://olias.arc.nasa.gov/asrs>. Forms may also be obtained from FAA Flight Standards District Offices and Flight Service Stations; from participating air carrier companies; or by written request to ASRS, P.O.Box 189, Moffett Field, CA, 95035-0189. ▲

## CHEERS!

Flight crews routinely listen for unusual noises in the aircraft, but the racket this crew heard was never covered in any training syllabus. A First Officer reports:

■ *Departed the gate and found out that there was a [short] ground stop to our destination. This turned out to be about 3 hours. The Flight Attendants were doing a good job of keeping the passengers content even though we were not making any progress towards our destination. We got word that we could start our engines and get ready for takeoff. We had just run up the power and started our takeoff roll when we heard loud screaming and hollering from the back. We discontinued the takeoff roll and advised Tower that we needed to get off the runway. Upon exiting the runway, we checked with the*



*Flight Attendants to see what the problem was. Apparently the passengers were so happy to be taking off that they all started cheering. We had no way of knowing this at the time, of course. We then went back and got in line for departure again. This time the takeoff roll was uneventful and we proceeded to our destination. Most of the passengers thought it was humorous that we would stop for the noise, but as we explained, we had no idea what the seriousness of the problem was or could be. Just another glamorous day in aviation.*

Flight crews have come to expect the occasional cheer on landing, but rarely hear such praise on takeoff. ▲

ASRS Recently Issued Alerts On...
Failure of a DA-20 flight idle (throttle) stop
Confusing departure procedure for a Colorado airport
Uncharted navigational aid relocation in South America
Flight crew baggage security breach at a European airport
Pilots' concerns about LAHSO (Land/Hold Short) procedures

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P.O. Box 189,  
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<http://olias.arc.nasa.gov/asrs>

May 1998 Report Intake	
Air Carrier Pilots	1758
General Aviation Pilots	704
Controllers	50
Cabin/Mechanics/Military/Other	61
<b>TOTAL</b>	<b>2573</b>

# Taildragger Tales



An experienced taildragger pilot and former air carrier Captain sent this report to ASRS to alert other pilots to a potential hazard that might be detected during the preflight check of some tailwheel aircraft.

■ *After a slightly tail-first touchdown in a crosswind ...the airplane tried to weathervane. I took over [from my student] and tried to keep the airplane straight, but with full right rudder and slight braking, the airplane tipped over to the right, damaging the right wingtip and right aileron, and turning the right wheel very slightly. I had the airplane towed to the hangar for repairs. When I inspected the tailwheel, I noticed the right spring and attachment chain were disconnected, preventing directional control on rollout. I hope this will help make pilots check for security and tightness of the tailwheel attachment mechanism.*

A disconnected or broken attachment mechanism could doom a pilot to unsafe ground operations.

Another General Aviation reporter received help from an alert airport worker about an unwelcome addition to the tail of the airplane.

■ *Since my last flight in the airplane, the mechanic added a small rudder gust lock because the airplane is parked outside. On preflight walkaround, I didn't see the gust lock. We taxied out to the runway and one of the ground crew that was cutting the grass saw the gust lock, informed the Tower, and the Tower informed us. I hadn't performed my before-takeoff checklist yet, and I am confident that I would not have taken off with the gust lock on the aircraft.*

A brightly-colored REMOVE-BEFORE-FLIGHT streamer will help make gust locks, gear door pins, intake covers, and other ground safety gadgets more noticeable on preflight. ▲

## Wandering Hands...Engine Out!

A wise flight school owner once warned the instructors, "Do not turn a simulated emergency into an actual one." The next reporter let a student's wandering hands toss this advice right out the window.

■ *I was conducting an aircraft checkout for [an experienced pilot for whom English is a second language]. After [some air work], I initiated a simulated engine failure by reducing the throttle to 12 inches manifold pressure. The pilot started his engine-out procedures, omitting the electric fuel pump. Because he forgot it, I pointed to it and told him that I would have turned it on during a real engine failure.*

*I was demonstrating the positive effects of pulling the prop back. I did not see the student actually turn on the electric fuel pump, but I noticed that the pump was on. I...turned it off, and told him to only simulate turning it on. He turned it back on, stating that I had said to turn it on. I again turned it back off... and told him to recover. He advanced the throttle, and seeing no power, announced this fact to me. The engine had flooded and quit. I took the controls, focusing on the dirt road the student had turned to during the initial simulated engine out.*

Alas, the dirt road appeared more favorable as a landing site when the situation was only a simulated emergency. There were obstacles yet to overcome, as our reporter continues:

*I had tall trees directly in front of me lining the right side of the road. I stretched my glide with the gear up. As I cleared the trees, I dropped the gear, hoping to get the airplane down on the road before hitting the wires that*

*crossed the road. I touched down in a nose-high flare. However, the gear had not yet locked down, and they folded up on touchdown. There were no injuries and aircraft damage was minimal.*

*I'm certain that, even though the student spoke good English, the language barrier helped in misunderstanding my instructions pertaining to the use of the electric fuel pump. Additionally, we were not wearing headsets, and, even at a manifold pressure of 12 inches, the noise of the cockpit probably added to the confusion. Finally, because of [the student's] high flight time and experience in [a similar model aircraft], I did not thoroughly brief him during preflight. Had I done so on the ground, this event might not have happened.*

## Single-Engine Takeoff

A relatively new air carrier Captain admits to paying too much attention to monitoring the actions of an even newer First Officer. The result was an attempted single-engine takeoff—in a multi-engine airplane.

■ *Crew took the runway for departure without having started the left engine. Sound and yaw made this immediately evident as power came up. The First Officer said, "This is wrong"...and both pilots reduced power to idle. We advised Tower that we would need a moment. I started the left engine, and we reviewed all systems and departed.*

*Both pilots failed to properly monitor all systems, and I failed to properly direct the taxi process. The company plans to change the Before-Takeoff checklist [to prevent a recurrence]. ▲*