

# CALLBACK

# ASRS

From NASA's Aviation Safety Reporting System

Number 226

April 1998

## The Maladies of Spring



Blossom by blossom the spring begins—and bursts forth into allergies, sniffles, and the last flushes of flu across the land. Several ASRS reporters affected by these and other seasonal maladies share their stories of how the autopilot played a (mostly) saving role in their flights. We begin with an air taxi pilot's drowsy experience aloft.

■ *VFR flight at 3,000 feet to avoid headwinds. I had been up all night with the flu and was more tired than I thought. The autopilot was on and was going direct [using] GPS. I fell asleep about 40 miles out and woke up 15 minutes later over the airport. I did not know what to do or who to call, so I deviated to a lower altitude. I circled to the south of the airport, at which point I made a call to Approach Control, received a clearance for Runway 27 and landed without any trouble. I spoke to nobody about this incident. Approach, Tower, and Ground Control made no comment to me at any time. Cause—flying while ill and tired—resulted in falling asleep. Remedy—being more cautious about health concerns and not flying if needed.*

This reporter was lucky that ATC didn't get upset over the unauthorized penetration of Class B and D airspace. His remedy is on target, and we hope he and others will practice it in the future.

### Flying Blind

A General Aviation pilot sensitive to sun exposure took the precaution of applying a sunscreen lotion before flying over a desert area. But as the cockpit became warm, he started to perspire. Then began a horrific experience...

■ *At 7,500 feet on a heading to the East...my eyes started reacting in a very violent way to the sun lotion that I had applied to my face prior to takeoff. The allergic reaction resulted in at least 5-8 minutes of total blindness. I just managed to set the autopilot on a heading away from the high terrain to the East. On partial recovery of sight, I found that I had intruded into a [Restricted Area].*

During a callback conversation with an ASRS analyst, the reporter stated that when the sunscreen lotion ran into his eyes, he experienced sharp pains and loss of vision in both eyes. Fortunately, he was able to put the aircraft on autopilot. The reporter recalled that he had placed a can of soda in the cockpit. He managed to find the soda and pour it on one eye, while wiping the eye with a tissue until it became usable. He ran out of soda, but then saw a container of water, which he used to clean the other eye. After he had recovered his sight, he checked his position and discovered that he had overflown a turn point and was now inside a Restricted Area. He called the Center controller, who vectored him clear and on course.

According to the reporter, on the back of the sunscreen container—in fine print—was a warning to avoid eye contact with the contents. He told ASRS that he remembered reading the warning before the flight, but never considered the possibility of perspiration causing eye contact with the sunscreen lotion ingredients. The reporter felt that there should be a stronger and more complete warning on the container. He knew of another pilot who had a similar experience, using the same sunscreen lotion.

### Schnooked by the Schnozzle

The late Jimmy ("The Schnozz") Durante might have appreciated this report from a Captain with a new First Officer on board, who found that sneezing at the wrong time had unforeseen consequences:

■ *I was doing IOE [Initial Operating Experience] with a new First Officer. I had turned off the Flight Director and autoflight systems except autothrottle was engaged. Cleared altitude was FL220. Approaching level-off with normal rate of climb I had a violent sneeze. I was unable to lower the nose promptly for level-off. Maximum altitude reached...was 22,300. While descending...TCAS II gave us an RA [Resolution Advisory].*

The autopilot was unfortunately disengaged before the Captain's "nose over," which led to the altitude bust and traffic conflict. ▲

### "...And I was the April Fool"

A report from a Captain having a really bad day:

■ *Tower cleared me for takeoff and maintain visual separation with crossing traffic. (Confused), I read back position and hold, because I couldn't yet see the traffic and I wasn't sure I'd heard clearly "Cleared for takeoff."*

*[After takeoff], contacting Departure, I got 7,000 feet and runway heading. But when I got to the normal turn point, I turned. Departure caught it and turned me back to runway heading. Then a turn to intercept a radial, and I turned too far and overshot. While doing this, I climbed through 7,000 feet. At 7,200 feet, bless their forgiving hearts, they cleared me to 17,000.*

*Fatigue, a dash of distraction, and I was the April Fool. Thanks to a busy ATC for being on the ball and keeping me out of trouble. ▲*

ASRS Recently Issued Alerts On...
Citation 750 inflight main gear door separation
Conflicting graphic and narrative for a Colorado SID
ATR-42 engine fire following ground propeller reversal
Gulfstream III equipment failure due to failed electrical relay
Airbus A-300 electrical failure attributed to an APU overload

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

February 1998 Report Intake	
Air Carrier Pilots	1636
General Aviation Pilots	659
Controllers	68
Cabin/Mechanics/Military/Other	70
<b>TOTAL</b>	<b>2433</b>

# SID Issues in International Flights

U.S. flight crews operating outside the country often face a number of different operating procedures. A frequent subject of ASRS reports involving foreign locations is the misreading of arrival or departure procedures, especially when the chart depictions are similar. An example reported to ASRS is the similarity between four SIDs for Frankfurt, Germany. Although the names and numbers of the SIDs have changed since the following report was submitted, the issue is still relevant. Here, the Captain of a widebody jet made the assumption that the two Runway 7 SIDs would have the same ground track, just as the two Runway 25 SIDs did.

■ *We were flight-planned for the NAPIT 3G departure [for Runway 25]. Prior to taxi out, the wind shifted in favor of Runway 7, so we were cleared for the NAPIT 3D. The First Officer loaded the NAPIT 3E SID. I noticed this, reviewed the SID, and saw the note about the “D” designation being for heavy aircraft. I did not see the verbal description for the NAPIT 3D... I thought the ground track for the SIDs was the same. We took off and flew the NAPIT 3E.*

*After turning north at 1.5 DME, Departure Control asked if we had started our turn. We replied affirmative, and he immediately gave us clearance [further east]... We were then given a heading to intercept and continue the 3D SID.*

*I had flown the NAPIT 3G many times, and...there is no difference in the ground track from the NAPIT 3F, so I did not look closely enough at the plate for the difference [between the 3D and 3E SIDs].*

Since the SID graphic and accompanying descriptive text may not be on the same page, thorough review of charts and their related text is the best defense against deviations from published departure procedures.

## Last Tango in Zurich

Misunderstanding of clearances and instructions is a common problem for English-speaking crews operating in countries where English is not the native language, as another Captain reports:

■ *After departing the gate at Zurich, we received an entire new clearance SID. We verified the new routing and manually loaded the new flight plan. We were given the ZURICH 5E SID. We were told [to fly to] the ZURICH EAST VOR, out to TANGO, climb to FL080 [8,000 ft].*

The crew apparently started to follow these instructions, turning north toward TANGO after the VOR. Then...

*The Controller gave us a vector, and said we were supposed to go to ALAGO, then TANGO [that is, further east before turning north]. What he had really said [in the new clearance] was, “ZURICH, **ALAGO**, TANGO,” not “ZURICH, **and out to** TANGO.”*

The clearance as the crew understood it was not in accordance with the published procedure, which should have been a heads-up to question ATC about the instructions. Following the incorrect headings, particularly in IMC, could have put the flight at an unsafe altitude in this mountainous terrain. ▲

## The Transition Altitude Challenge

Outside North America, the altitude at which pilots transition from indicated altitude to pressure altitude is variable. Above this Transition Altitude, the term “Flight Level” (FL) is used. In most of Europe, the Transition Altitude is between 4,000 and 6,000 feet MSL, but in some areas, it ranges from as low as 3,000 to as high as 7,000 feet.

In the following report from an air carrier First Officer on a European flight, the unfamiliar, nonstandard Transition Altitude added to the distractions of an inexperienced crew attempting a very complicated departure procedure.

■ *This SID is no problem for a glass cockpit, but requires a lot of support on [this non-glass aircraft]. Takeoff Runway 24, track 240 degrees to 3.8 nm on VOR #1, turn left to 226 degrees, track to intercept a radial outbound on VOR #2 to 19 nm, to begin turn just prior to ADF #1, passing abeam of it above 3,000 feet, to intercept and track out the 331 degree radial of ADF #1 until intercepting and tracking outbound of VOR #3, contacting Departure Control at 2,000 feet, transition altitude of 3,000 feet, climb limit of FL060.*

*The Captain had just a few departures out of here; the Flight Engineer had never been out of here before. We thoroughly briefed the departure earlier, then in detail again as we were taking the runway... The SID also prescribes a maximum of 220 knots in the turns, which alters our after-takeoff clean-up...*

*I made the 1,000-foot callout (“5,000 feet for 6,000 feet”) at about 5,200 feet and realized that the Captain had not yet called Departure Control (which was required at 2,000 feet). By the time he made contact, I was leveling at 6,000 feet, and ATC was requesting we check our Mode C. We were still at an altimeter setting of about 29.58 inches instead of the required 29.92 at 3,000 feet, so we were about 300 feet high. I corrected back to FL060.*

*In spite of thorough briefings—twice—the Captain and I both missed the frequency change at 2,000 feet and the altimeter setting at 3,000 feet.*

The reporter emphasizes that in the future, he will use the autopilot, especially when flying with crew members who are unfamiliar with this complex departure. ▲