

CALLBACK



From NASA's Aviation Safety Reporting System

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'I'M SAFE' Incidents from ASRS

Section 8-1-1 of the Aeronautical Information Manual (AIM) offers a personal "fitness for flight" checklist that can apply to all aviation personnel who want to evaluate themselves before performing flight-related duties. This checklist can easily be committed to memory: I'MSAFE. The I'MSAFE checklist presents a short list of operator impairments that can contribute to incidents and accidents:

- Illness
- Medication
- Stress
- Alcohol
- Fatigue
- Emotion

A pilot, flight attendant, maintenance technician, dispatcher, or air traffic controller can use the I'MSAFE checklist as a memory aid to detect any of these conditions, and if one or more conditions are recognized, to employ appropriate mitigation strategies. Let's take a closer look at some of these categories of impairment, using incident reports submitted to ASRS.

Illness

The safest advice is not to fly while suffering from any illness. Even a minor illness may seriously degrade performance of duties vital to safe flight, as well as produce distracting symptoms that may impair mental functioning. In a report to ASRS, a B757 Captain described his concern about a flight attendant flying with laryngitis.

■ While checking in with gate agent, she...laughed saying that we would not be able to hear the purser because she had a terrible case of laryngitis. When I attempted to brief the flight attendants, it was painfully obvious that she had almost no voice at all! I asked her if she would be able to perform her duties and 'bark' her commands if an evacuation were necessary. She replied that she would do her best...She relayed to me that she really did not want to call in sick because of the sick leave policy. She stated that she did not really feel that bad, but she was also worried about her voice and ability to give commands during an evacuation if necessary....

I nor any of the rest of the crew appreciated being exposed to her virus! I also wonder



what the health/safety authorities...would think about a flight attendant serving meals/drinks with a contagious condition? I was tempted to ask her to pull herself from the flight, but at such short notice, I knew that we would be greatly delayed, if not canceled. I advised her that if she wished to continue, that she must grab a megaphone immediately if the need for any emergency condition developed. She felt comfortable with this and even 'keyed up' the megaphone to see if she could be heard properly.

Another air carrier Captain echoed the concern over crew members who fly while ill.

■ During the flight, it became readily apparent after we departed that the First Officer was recovering from an illness. As he used the radio to communicate with ATC, he coughed uncontrollably. It was at this point that I realized that he should have taken some time off via the sick list to recover more fully...This...placed me in an uncomfortable situation, as I do not have the expertise to diagnose a person's illness. I contemplated diverting the flight due to his state, but elected not to after determining it was safe to continue....

Stress

Stress from the pressures of everyday living can impair human performance, often in very subtle ways. A PA38 pilot who had been under unusual stress had a near collision with another aircraft during takeoff roll at a small uncontrolled airport.

■ [Cherokee], piloted by the author, taxied out with 1 person on board for a photo survey flight. A normal call was made for back-taxi on Runway 1 because airport has no taxiways. A successful back-taxi was completed to the run-up area at the takeoff end of Runway 1...Run-up was completed and call made for takeoff...A call for takeoff included the alert that the [Cherokee] would be circling off the departure end of Runway 1 for the purpose of shooting pictures...The takeoff roll was started. After an acceleration to approximately 25 knots...the [Tomahawk] appeared directly overhead on a landing approach. The [Cherokee]... immediately aborted the takeoff and called 'aborted takeoff' on the radio. The [Tomahawk] did a normal touch-and-go on Runway 1 and departed the pattern. The [Cherokee] returned to the starting point on Runway 1 for another takeoff run, but also asked the [Tomahawk] pilot if he had made normal calls in the traffic pattern.. He responded that he had ...Upon further inspection, the [Cherokee] pilot (the author) discovered that, during the taxi-out, the radio volume had been turned down in order to hear something that was said by the passenger about the coming survey flight, but it had not been restored to normal volume...As the pilot of [the Cherokee], I believe that my inattention was the cause of this near-miss. Because of financial concerns and my current situation of training for a substantial career change, I have been under more than the usual stress during the past several weeks...a psychological factor which could have had the effect of reducing my

ASRS Alerts Issued in January 2008

Subject of Alert	No. of Alerts
Aircraft or aircraft equipment	13
Airport facility or procedure	8
ATC procedure or equipment	7
Company policy	2
Total	30

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Air Carrier/Air Taxi Pilots	3353
General Aviation Pilots	820
Controllers	46
Cabin/Mechanics/Military/Other	259
TOTAL	4478

alertness in the airplane. I have grounded myself until my career change is settled.

Maintaining awareness of stressful situations, and exercising extra diligence in the performance of duties, may prevent unwanted events from occurring. Here is more from an aviation maintenance report to ASRS.

■ *The inbound air carrier experienced a slat problem channel #2. Our...technician requested my assistance in deferring the problem per MEL. We pulled up MEL and both agreed that our problem matched MEL 27-XXX and performed test as prescribed, which resulted in pulling and collaring circuit breakers. On arrival of flight at ZZZ1, crew experienced channel 2 flaps (circuit breaker out). Item changed to MEL 27-XXY...I have since reviewed MEL and determined that in fact we did use wrong MEL. I feel that stress might have been determining factor, as both the...technician and myself had been working outbound aircraft which were having unusual problems, and we were shorthanded and working against the clock.*

Alcohol

The FARs prohibit pilots from performing crew member duties within 8 hours after drinking any alcoholic beverage or while under the influence of alcohol. The AIM suggests an excellent rule is to allow at least 12 to 24 hours between “bottle and throttle,” depending on the amount of alcoholic beverage consumed.

A B757 First Officer was faced with a “bottle to throttle” dilemma due to an unknown schedule change at a foreign location.

■ *...I arrived at the hotel and checked into my room. I consumed alcohol during an approximate half-hour time period. Thereafter, one of our company flight attendants mentioned to me that I had a trip the next day...with a departure time 11 hours after consuming alcohol. This is the first indication I received that my schedule had been changed. Our company regulation (approved by FAA) is clearly stated, no consumption of alcohol within the 12 hours prior to operation. When I was made aware that I was to be on duty the following morning, it was already less than 12 hours prior to the assigned flight. This meant I would not be able to meet our company regulation regarding alcohol if I were to fly the following morning... I called Scheduling to inquire about the possible change. When I notified them that I had consumed alcohol, Scheduling stated that they had notified me previously regarding my schedule change. I was never notified...There was no phone conversation, no email, and no message, neither written, nor voice mail, nor verbal, regarding a change to my schedule. Scheduling notified Chief Pilot about the situation. Chief Pilot called me and I notified him that I had consumed alcohol. Chief Pilot told me to fly the trip...He told me that our company would waive the 12-hour alcohol regulation and apply the less restrictive FAA 8-hour limit. Chief Pilot stated that I would receive a faxed written statement from him that I was to ‘waive’ the 12-hour alcohol regulation and implement the FAA*

8-hour limit in my current situation...After considering the minimal amount of alcohol I consumed, I believe 8 hours was adequate to operate under no influence of alcohol....

Fatigue



Fatigue is an important human performance consideration within the transportation industry. It can be a significant hazard to flight safety, as it may not be recognized or detected until a serious error has occurred. As one indicator of the pervasiveness of this problem, almost 6,000 ASRS Database reports directly reference fatigue issues.

For a BE400 corporate flight crew, fatigue (and nutrition) issues complicated what should have been a routine flight.

■ *Nav #1 failed en route to airport. VOR/DME A approach in use landing Runway 19. With Nav #1 inoperative, Captain and First Officer decided to have First Officer fly the approach and return aircraft control to Captain when approach completed overhead the airport. In hindsight, this was poor decision making and was likely agreed to due to both pilots being tired. First Officer was nearing the end of a 14-hour duty period. First Officer was briefed 10 hours prior to show time, and between late notice and a new baby, had been awake nearly 20 hours, not eaten in 7 hours. In any case, the Captain was handling radios and forgot to contact Tower, and First Officer relinquished control to Captain overhead airport, thinking they were in a position to turn downwind. First Officer was unable to see the airport. Checklist was still being performed and crew turned downwind overhead [airport], completing the checklist. First Officer was now PNF and asked Captain if he called Tower. No reply. First Officer called Tower, who was already asking us what was going on, and at this time, Captain had begun a right turn to correct course. It was too late by now. We turned final, overshot and returned to course, landed.*

The next morning, after calling in fatigued...[and] with adequate rest, it was clear to us that we created our own mess out of a simple instrument error. This goes to show how two tired pilots can over-complicate what should have been a routine flight with a simple VOR out. Recommendations: (1) Call in fatigued before you deteriorate, even if coming in from a day off. (2) When the company knows an early show with a time change is scheduled, [they should] not wait until the last minute to notify a crew member.

Editor's Note:

The ASRS Database Online (DBOL) provides a report set of Air Carrier (FAR 121) Fatigue Incidents that can be downloaded at <http://asrs.arc.nasa.gov/search/reportsets.html>. Twenty-three other report sets of interest to the aviation community can be accessed at this web address.