Toxic air flights

By Allan Chernoff, CNN

(CNN) - January 16. Ambulances meet US Airways Flight 1041 arriving in Charlotte from St. Thomas. Eight passengers receive medical treatment at the airport. Seven crew members are rushed to the hospital.

"Headaches, confusion, some disorientation, dizziness, nausea. These are some of the symptoms that they've described," says Judith Murawski, the Association of Flight Attendants' industrial hygienist.

All seven crew members of Flight 1041 – two pilots and five flight attendants – were unable to work after the January 16th "fume event." One flight attendant has since returned to the air, while the other crew members remain out on disability. None would speak directly with CNN for fear of losing their jobs.

"They continue to experience neurological symptoms, that impair their daily living and have precluded them from returning to flying," says Murawski, citing complaints of continuing headaches, joint pain, tingling and numbness in their hands and feet, as well as memory and reaction time issues.

The crew of Flight 1041 fell victim to a "fume event," the third time in three weeks that the aircraft, a Boeing 767-2B7, tail number 251, suffered contamination of its cabin air.

US Airways' Service Difficulty Report filed with the Federal Aviation Administration says "a very strong odor smelling like wet socks and/or dirty feet circulated through the passenger cabin and flight deck" during Flight 1568 on December 28 from Charlotte to San Juan, Puerto Rico.

Crew members reported trouble breathing, itchy eyes and stomach cramps. Two days later on the same route a "foul odor" entered the cabin. "Passengers and flight attendants were feeling faint and nauseous," according to the Service Difficulty Report.

US Airways tells CNN hydraulic fluid was released into the ventilation system on the two December flights. That fluid – Skydrol – is a known irritant to the respiratory tract.

"These are rare occasions," said Paul Morell, US Airways' vice president of safety and regulatory compliance. "US Airways takes these seriously. We do all we can to maintain the utmost in air quality, to maintain the safety of the passengers and crew."

The "fume event" on January 16 was more serious. US Airways tells CNN there was a leak on a seal of the right engine of the Boeing 767 that allowed a toxic mist to enter the aircraft.

"There was a little bit of oil that seeped into the cabin. It vaporizes and that's what caused the symptoms," said Morell.

How could engine oil mist get into the air on board a plane? Half of the air we breathe on a plane comes through the jet engines. It's called "bleed air" because it bleeds off the engine, then travels through the wings and into the cabin where it mixes with recirculated air. So, a leak within the engine can cause contaminants to enter the cabin.

Engine oil is particularly dangerous because it contains an agent, tricresyl phosphate, that can cause neurological damage.

"It can be converted to a very potent toxin in your liver," said Professor Clement Furlong of the University of Washington.

After being exposed to a "fume event" nearly three years ago, Terry Williams – formerly a flight attendant for another airline – says she still suffers severe headaches and tremors in her arm. "It just feels uncontrollable, I can't stop it from twitching or turning, trembling," said Williams.

A British study for the House of Lords found contaminated air entered the cabin approximately 1 of every 2,000 flights, dependent upon the aircraft.

"It exposes passengers and crew to something they shouldn't be exposed to," said Dr. Frederick E. Tilton, the FAA's federal air surgeon, who oversees pilots' medical certification.

After the January 16th incident, US Airways took its 767 out of service for maintenance work. When it returned to the air on January 21, US Airways reported to the FAA "a scorched odor...like a gym or locker room" filled the aircraft. Maintenance found no problems and the plane remains in service.

The "fume event" problem is one that all airlines share. Indeed, Northwest flight attendants complaining of headache and tremors, say their airline also suffered a series of three "fume events" over the past several weeks on the same aircraft flying between Frankfurt and Detroit. The airline, though, won't confirm precisely what happened.

"We are investigating each case of employee illness, but at this time we can not pinpoint a specific cause," said Anthony Black, a spokesperson for Delta, which recently merged with Northwest.

Aircraft manufacturer Boeing concedes there is a chance of fume events, but the company says the air on board its aircraft is "safe and healthy."