

# Aviation Human Factors Industry News February 2, 2009

# Vol. V. Issue 3

## FAA Applauds Agreement that Reinstates the Aviation Safety Action Program (ASAP).

The FAA also urged US Airways, American Airlines and their labor unions to resolve their differences and reinstate voluntary reporting programs.

"ASAP has proven to be a valuable tool in helping to spot possible safety problems before they become accidents," said U.S. Transportation Secretary Ray LaHood. "We hope the other carriers will follow Delta's lead and realize just how critical voluntary programs are to commercial aviation safety."

"We are extremely pleased that Delta pilots are once again providing essential safety data," said FAA Associate Administrator for Aviation Safety Peggy Gilligan. "ASAP gives us invaluable insight into the day-to-day activities of people in our aviation system."

ASAP encourages air carrier and repair station employees to voluntarily report safety information that may be critical to identifying and resolving potential safety issues without fear of punishment.

The programs are based on a safety partnership that includes the FAA, the company, and the employees' labor organization or an employee representative. Today, more than 70 operators have almost 170 programs covering pilots, mechanics, flight attendants and dispatchers.

#### <u>Airman Looses 115 Pounds In Order To Work On</u> <u>Aircraft</u>



#### This is real motivation to work on aircraft

Eleven months ago, Derrick Bell took the first step in a journey that would change his life in more ways than one.

The 38-year-old husband and father of two shed more than 115 pounds to meet the Air Force Reserve physical standards of enlistment, astounding his recruiter, family and friends as he enlisted in the Air Force Reserve January 15 at Elmendorf Air Force Base.

Losing 115 pounds in 11 months was a journey for Bell.... and he didn't lose the weight through fad diets. Instead, he worked hard to change his lifestyle while controlling his caloric intake.

He got up at 4 am and worked out at the Elmendorf AFB Fitness Center five days a week. Bell said he cut his food portions by at least half and hasn't had a beer since February 14, 2008.

A lifelong resident of Anchorage, Alaska, Airman Bell works for the Anchorage School District as a senior warehouse specialist Mondays through Fridays. His traditional reservist service commitment to the 477th FG will include working one drill weekend a month and performing 14 days of annual tour per year.

"I feel young again," he said. "I'm in better shape and weigh less than when I got married almost 18 years ago! I've got back my confidence, and I thought it was gone for good."

#### Sailors' Families Want Answers In Helicopter Accident

A California law firm has filed a Complaint in Los Angeles Superior Court on behalf of the families of three Navy sailors



who died when their helicopter suffered an apparent tail rotor drive failure and went down in the Pacific Ocean during a training exercise two years ago.

The San Mateo-based firm of O'Reilly & Danko filed the Complaint on behalf of the spouses, families and relatives of three sailors killed when their MH-60S Knighthawk crashed during a training exercise off San Clemente Island on January 26, 2007.

Named as Defendants are the manufacturers of the Knighthawk, and of several of its components.

The Navy's Judge Advocate General Manual (JAGMAN) investigation found the reason for the crash to be "undetermined"... but, the law firm asserts, the JAGMAN's final report omitted one investigator's opinion that shortly before the pilot issued a "mayday" call the helicopter experienced a failure of the tail rotor drive system.

The crew members' survivors hired their own experts to look at the matter, the law firm adds, and asked that they be allowed to inspect the wreckage. The Navy initially indicated it would allow the inspection... but then made an about face and refused absent a court order.

"The Helmans, Dyers and Wills still have not received an answer to why the helicopter carrying their loved ones crashed into the Pacific," said their attorney, Michael S. Danko. "They just want to know what happened, and they want to make sure no other military families suffer the same losses they did on January 26, 2007."

**Cape Air Flight Loses Engine Power** 

A Cape Air plane that made an emergency landing in Naples, Fla., may have run out of gas because of a mechanical malfunction between one of its fuel tanks and its two engines, according to preliminary findings from the National Transportation Safety Board.

A valve that supplies gas from the plane's left tank to its left engine was stuck so both of the aircraft's engines may have drawn all of the fuel from the right tank, NTSB senior air safety investigator Tim Monville said yesterday.

Flight 9399 was en route from Key West to Southwest Florida International Airport in Fort Myers when it reported the loss of power in its engines and was diverted to Naples Municipal Airport on Florida's west coast, Federal Aviation Administration spokeswoman Kathleen Bergen said.

The plane glided to a safe landing. There were six people and the pilot on board the Cessna 402C, Bergen said. Nobody was injured and there was no other damage to the plane, she said.

Cape Air mechanics and investigators replicated the valve problem and continued to investigate the incident over the weekend, Monville said.

"We proved repeatedly that the left tank was not providing fuel to the left engine," he said.

Although there were 12 gallons of gas in the right tank, Cape Air personnel suspected the gas had transferred from the right tank overnight after the plane landed, Monville said. There were 275 pounds of gas in the left tank, he said.

After the valve was lubricated both engines started and ran normally, Monville said. The plane was flown to Fort Myers and the NTSB asked that the suspect parts be removed and preserved, he said.

"It reflects very well on the training and the experience level of the pilot," Cape Air CEO Dan Wolf said yesterday.

The pilot would have been able to bypass the stuck valve to draw fuel from the full tank but seeing the nearby airport decided to land the plane quickly and troubleshoot on the ground, Wolf said. With more than 25 years flying Cessnas the pilot did the "smart and prudent thing," Wolf said.

The pilot told investigators that he had noticed a decrease in fuel in the right engine but believed it was a problem with the instruments that read fuel levels, Monville said.

A preliminary report should be complete within the next week and a final report within the next six months, the investigator said.

## **Prison Time For Laser Pointing At Aircraft**

An Ohio man who aimed a high-powered laser at least four aircraft on June 4 last year has pleaded guilty to several felonies, and will spend three years behind bars.



Officials in the Cuyahoga County prosecutor's office tell the Cleveland Plain-Dealer that 26-year-old Justin Dewalt bought his laser on the internet. On the night of the 4th, the crews of two airplanes landing at Cleveland Hopkins International Airport, and the pilot of a MetroHealth Medical Center helicopter with a patient onboard, reported someone hit their cockpits with a laser.

When a police helicopter came to have a look, its pilot also reported being hit in the eye with the beam, and reported it came from a moving car. Ground patrols stopped a car, and discovered Dewalt in the back seat with the handheld laser.

The three-year sentence is not just for charges related to the laser. Police say Dewalt also pleaded guilty to drug charges.

### FAA Safety Alert Sheds Light on American 757 Electrical Emergency

A safety alert for operators (SAFO) recently published by the US FAA warns airlines to ensure that their flight manuals and training "reflect accurate abnormal indications and inoperative systems" when an aircraft's battery is depleted.

The SAFO comes in response to a 22 September incident in which an American Airlines 757 en route from Seattle to New York's John F. Kennedy Airport diverted to Chicago O'Hare after several cockpit electrical systems began to fail, events that ultimately led to aircraft flight control problems, a runway excursion and subsequent deplaning of passengers on the runway.

Pilots of Flight 268, with two crew, five flight attendants and 185 passengers, had earlier in the flight addressed a series of error messages in the cockpit by selecting, per the quick reference handbook (QRH), the aircraft's batteries to provide standby bus power.

Though the QRH noted that "the battery will provide bus power for approximately 30 minutes," according to a separate US National Transportation Safety Board (NTSB) preliminary report of the same incident, the crew elected to continue the flight for several more hours to New York.

FAA says by "correctly following the operator's procedure" in the QRH, the pilots isolated four power buses from the remaining electrical systems, powered those systems with the main battery and deactivated the main battery charger, making the battery the "sole power source" for the four isolated buses.

According to the report, about 100min after isolating the power busses and disconnecting the battery charger, several electrical systems began to fail while flying over western Michigan, including the public address and cabin/cockpit interphone system.

"A flight attendant wrote a note and slipped it under the cockpit door to inform the flight crew of their communications problems," says the NTSB. "A short time later, the cabin crew was informed that they were diverting to Chicago. One of the flight attendants then walked through the aisle informing the passengers of the unscheduled landing in Chicago."

Once aligned with Runway 22R at O'Hare, the flight crew declared an emergency "as a precaution", says the NTSB. Closer to touchdown, the pilots discovered that the main and backup elevator trim systems were inoperative, requiring both pilots to use their control yokes to control the aircraft's pitch attitude. Given the reduced control, the crew also elected to use less than normal flap extension for the landing, trading off a lesser pitch change with a faster than normal landing speed.

"The touchdown was smooth despite the control issues, however, the thrust reversers and spoilers did not deploy," says the NTSB. The aircraft touched down approximately 762m (2,500ft) down the 2,286m (7,500ft) runway and left skid marks for its entire length. Unable to stop, the captain had "elected to veer the airplane off the left side of the runway into the grass," according to the report. The aircraft sustained "minor damage" to the landing gear.

However, the incident did not end after the aircraft stopped as the flight crew could not shut the engines down with either the fuel cutoff values or by extending the fire handles, says the NTSB. The crew ultimately shut down the engines by "depressing the fire handles". Passengers were deplaned through the two doors using portable stairs, according to the report.

The FAA in the SAFO is asking airlines safety and training departments to review QRHs and other materials "to ensure that procedures lead to problem resolution rather than complication." The regulator says that while some operators provide a list of inoperative equipment, few give "a complete list of critical systems or components rendered inoperative by complete loss of battery power."

"In most transport category airplanes, systems such as those for fire protection and detection, flight control, navigation and flight instruments, engine fuel control, braking, auto-flight functions, standby horizon and others are either fully or partially inoperative with no main battery power," the FAA writes. "If flight crews do not have appropriate understanding of the effects of lost battery power on critical airplane systems powered by the battery, they may be faced with a rapidly compounding emergency situation."

#### Pan Am 943 Predecessor of US Airways 1549

All Survived 1956 Boeing 377 Ditching In Pacific

While the story of US Airways Flight 1549's "Miracle on the Hudson" has been reported in some general media as "unprecedented," it's really not. Aviation historians know it, and so do the passengers of Pan Am Flight 943.



The San Francisco Chronicle recently interviewed the

surviving passengers in that 1956 incident... and while the circumstances differed in many ways, many of the emotions may have been the same.

The Boeing 377 Stratocruiser was a four-engine, pressurized piston airliner. Despite its technical challenges and resulting low production rate, the plane was popular among well-heeled travellers for its trans-oceanic range and luxurious cabin. A Stratocruiser flying at Pan Am Flight 943 was headed to San Francisco from Hawaii on October 15, 1956, carrying a crew of six, 25 passengers and their luggage.

At 3:30 am, over a remote area of the Pacific Ocean, two of the plane's four engines shuddered to a stop. Unlike Captain Sully Sullenberger, 42-year-old Pan Am Captain Richard Ogg still had partial power. But it was clear that turning back or pressing on both held high risks.

Ogg had been in contact with the US Coast Guard cutter Pontchartrain, which served as a relay station for the HF radio transmissions then in use by long-haul aircraft. Ogg decided that the best hope for the survival of the souls onboard his aircraft was to position and circle near the ship, burn off fuel, and make a water landing after sun-up.

Unfortunately, on approach at 90 knots, one wing of the plane clipped a swell about a mile from the Ponchartrain, spinning the plane into the water. The ship's reported feeling the impact which shattered the plane's nose and tore off the tail, and assuming no one onboard could have survived.

But they did, every one... and when they arrived in San Francisco aboard the Pontchartrain, they had stories similar to those of the passengers of US Airways 1549, including a captain with nerves of steel who walked the aisle twice to make sure everyone was out before being rescued himself.

Unlike US Airways 1549, Pan Am 943 gave its passengers and crew hours to anticipate their water landing, while 1549 was on the water 121 seconds after the engines quit. Conversely, the Airbus A320 floated for hours after landing, while the broken Stratocruiser disappeared below the water just 21 minutes after impact.

Pat Pimsner of San Carlos, CA remembers the 1956 ditching. She was the purser on Flight 943. She tells the Chronicle she's still proud of the competence and helpfulness of the passengers and crew that day, and saw similar traits among those aboard Flight 1549.

After more than a half-century of reflection on the 1956 event, she was asked what advice she'd offer the passengers who experienced The Miracle on the Hudson. She laughed and said, "*Don't do it again*."

## Flight Department, Pilot Responsible For Fatal C310 Accident

#### Plane Was Released & Operated Despite Knowledge Of Electrical Problem

The National Transportation Safety Board determined Wednesday that a July 2007 aircraft accident in Sanford, FL was caused by a series of poor decisions, both by corporate flight department management and by the pilots that flew the accident aircraft.



Cessna 310R impacted a Sanford, FL residential area on

July 10, 2007, destroying two homes. The accident aircraft was part of the fleet operated by NASCAR's corporate aviation division.

The crash occurred while pilots were performing an emergency diversion to the Orlando Sanford International Airport after reporting an in-flight fire. The two pilots on board the airplane and three people on the ground were killed, four others were seriously injured.

In its final report, the Board laid blame squarely on the NASCAR corporate aviation division's decision to allow the accident airplane to be released for flight with a known and unresolved electrical system problem, and on the accident pilots' decision to operate the airplane with full knowledge of the maintenance discrepancy.

"This accident is especially tragic not only because lives were lost and people were grievously injured, but because it could have been so easily avoided," said NTSB Acting Chairman Mark V. Rosenker.

During its investigation, the NTSB found that the day before the accident, **another NASCAR pilot flew the accident aircraft and reported a "burning smell" while in flight.** The pilot turned off the weather radar and manually pulled the associated circuit breaker, after which the odor dissipated. He recorded this event in the aircraft's maintenance discrepancy binder and reported it to senior staff in the NASCAR corporate flight department.

The NTSB states the flight department released the aircraft for flight, despite being aware of this unresolved issue involving the aircraft's electrical system. The two pilots, one of whom was employed by NASCAR and was aware of the unresolved electrical problem, accepted the aircraft for their planned flight between the Florida cities of Daytona Beach and Lakeland.

At some point prior to or during the accident flight, it is likely that one of the pilots reset the circuit breaker that had been pulled on the previous flight, re-energizing related components in the electrical system, which likely led to the in flight fire.

Additionally, in its findings that the NASCAR flight department had inadequate policies and procedures to prevent an aircraft with a known maintenance issue to be released for flight, the Board determined that had a Safety Management System (SMS) been in place, which would have provided a formal system of risk management and internal oversight, the accident might have been avoided.

Rosenker remarked that "given how effective SMS would likely have been in this accident, those corporate flight departments without one should study the lessons of this accident and ask themselves how they can justify operating without the substantial safety improvements such a program provides."

The Board noted that because the accident flight was released for flight and operated with a known maintenance issue unaddressed, the aircraft was not in compliance with Federal regulations. In reference to a missing maintenance document, Rosenker said, "that the NASCAR flight department had no record of the maintenance form on which the electrical problem was reported by the pilot on the previous flight, is frankly, alarming."

As a result of the investigation, the Board issued five recommendations to the Federal Aviation Administration (FAA). The NTSB called on the FAA to advise general aviation pilots and maintenance personnel of how resetting a circuit breaker in flight without knowledge of what caused the circuit to be tripped, could create a "potentially hazardous situation," and to require that information to be included in their initial and biennial training. The Board further recommended that initial and recurrent training of maintenance personnel working on general aviation aircraft include "best practices" regarding the inspection and maintenance of electrical systems, circuit breakers and wiring.

The Board also recommended that both aircraft manufacturers and those responsible for post manufacture modifications improve guidance or create new guidelines regarding which circuit breakers pilots should and should not attempt to reset before or during flight, and that this information be disseminated to airplane pilots, mechanics and owners.

Lastly, the Board recommended that the FAA develop a safety alert to encourage all 14 CFR Part 91 business operators to adopt a Safety Management System that includes sound risk management practices.

## **Too Many Emails Fog the Brain**

If you're dealing with too many emails, text messages and phone calls during your workday and suspect they are putting you in a mental fog, you probably aren't imagining things.

A British study has found that workers who are distracted with too many electronic interruptions actually lose more IQ (intelligence quotient) points than a person who has recently smoked marijuana.

King's College London University researcher Dr. Glenn Wilson, a psychiatrist, monitored workers' IQs throughout the day and found that those who were chronically interrupted by emails suffered an average 10-point drop in their IQs. That was more than double the four-point drop experienced by someone who had recently smoked marijuana.

"This is a very real and widespread phenomenon," said Wilson, adding that becoming obsessed with checking and dealing with emails while trying to get work done muddles the brain and destroys productivity. "Companies should encourage a more balanced and appropriate way of working."

The moral of this story is that supervisors can't let email take over their lives. That means not checking work email from home or while on vacation and also not compulsively checking and responding to work email every few minutes.

### Starbucks To Forgo Corporate Jet

#### The aircraft has only 20 Flights since new

For whatever reason -- be it the economy, White House pressure, or bickering shareholders -- selling off corporate jets is all the rage right now. Seattle-based coffee conglomerate Starbucks Corp. is the latest company to forgo one of its company aircraft



There's a quirk, however: the company took delivery of the \$45 million Gulfstream G550 just last month.

The Puget Sound Business Journal reports the aircraft, N211HS, is now being offered by Avpro Inc. The aircraft has less than 40 hours total time, with fewer than 15 cycles since Starbucks accepted the plane in December 2008... about the same time the company announced it planned to close more of its stores, and would reconsider how much it would contribute to employee 401(k) plans.

The timing of the delivery (around four years after Starbucks ordered the plane, incidentally) couldn't have come at a worst time for the coffee giant.

Since November, corporate aircraft have drawn fire from lawmakers -- and, increasingly, the general public -- after the CEOs of the Detroit Three automakers flew to Washington in their individual corporate jets, to beg for federal bailout money. Regardless of the logical reasons for that decision, it was still a PR-blunder arguably rivalling New Coke.

So far, Starbucks hasn't begged for a taxpayer-funded bailout... and the company was also trying to sell an older, less-efficient Gulfstream G-V to offset some of the purchase cost. Nevertheless, the combination of a hostile economic environment, and the company's purportedly "green" reputation, was apparently enough to kill the deal

The announcement comes two days after Citibank similarly capitulated, and said it would cancel its contract for a new Dassault Falcon 7X.

For what it's worth, Starbucks' decision probably means a pretty good deal for the G550's next owner. After all... in addition to the full Honeywell Primus Epic avionics suite complete with synthetic vision, they'll be able to enjoy a tasteful interior "completed in neutral tones of gray leather and gray cashmere," and sporting high-gloss "Australian Walnut woodwork... enhanced with satin nickel plating," for what should be a fairly significant discount over new, given the slumping bizjet market.

## NTSB: Inadequate Bombardier action on persistent CRJ door problems

A review of pilot reports since 1995 in the Canadian service difficulty system, provided to US investigators by Bombardier, has revealed 823 incidents in which the main cabin door of a CL65-series regional jet (CRJ100 through CRJ900) has jammed or was difficult to open.

The issue came to light on 13 June 2007 after a Mesa Airlines flight operating as US Airways flight 2705 with 53 onboard landed in Phoenix after a flight from Los Angeles. Once at the gate, a flight attendant and later, the first officer, were unable to get the CRJ's jammed main passenger cabin door open.

Though a mechanic ultimately opened the door after entering the aircraft through the galley service door, an NTSB investigator who happened to be aboard the flight launched an investigation of the issue.

Mechanics later determined that the door had jammed because it was out of adjustment and some internal components had failed, issues the National Transportation Safety Board (NTSB) ruled in a final report issued yesterday were the probable cause of the incident.

Contributing to the failure however were the airline's "inadequate" maintenance programme and airframer's "inadequate" response to what turned out to be a long list of similar failures on other CRJs, says the NTSB.

Investigators reviewing Mesa's maintenance data and FAA records learned that crews had experienced problems opening or closing the incident aircraft's main cabin door on 14 different occasions over the previous 18 months.

A review of the FAA's service difficulty reporting (SDR) database revealed 58 similar events for the CL65 model since 1994.

Neither US Airways nor Bombardier was immediately available for comment.

# **Three FAs Sued By First Officer For Pointing Out Wing Ice?**

Three former America West (now US Airways) flight attendants are facing a costly court battle on their own, stemming from a 2003 flight from Calgary to Phoenix that has sparked controversy and a defamation suit filed by the First Officer against the FAs.



The Phoenix New Times reports the FAs working aboard America West Flight 851 on that cold wintry morning in 2003 had mentioned de-icing the frosty airplane to the FO, who dismissed the FA's concerns. The FA's further appeal to the captain was also fruitless.

"We had to think of something fast," they said. All three FAs were experienced, averaging 20 years of service apiece. The FAs weren't the only ones who noticed the icy plane and sensed something out of the ordinary. A de-icer crewman said, "At about 6:15 [am], my de-icing partner... approached a member of the flight crew, asking if they were going to require a de-icer. They said no, that they were fine. We were both surprised, because we could see the frost on the wings and the fuselage."

Alarmed that the pilots had pushed back and chosen to depart without de-icing the frosty airplane, the trio stretched the truth -- calling the cockpit with a fabricated story, stating that passengers had become concerned about ice on the wings.

The FO then took another look at the frost-covered wings and begrudgingly relented, grumbling, "Now we have to de-ice to cover our ass." America West Flight 851 departed Calgary de-iced, and arrived in Phoenix safely and on time. The flight attendants may well have saved Flight 851 from tragedy.

The incident was so disturbing to the FAs that, immediately upon landing at Phoenix's Sky Harbor Airport, the three filed a complaint at the airline's on-site offices.

Shortly after the FA's filed their report of the incident with the Federal Aviation Administration, the FO filed a \$2 million suit against the three -- alleging defamation.

According to their union contract, legal expenses for lawsuits against FAs for actions taken while on official duty are to be provided for by the airline, but so far US Airways has refused to pay a penny for the FAs' defense.

The loophole? If determined to be guilty of "willful misconduct," the employee is on their own. This raises the moral question of defining "misconduct" - is it wrong to make up a story to save lives that one believes are in imminent danger?

The case is expected go to trial soon, possibly pushing the FAs' legal bills into six figures. The three have set up a website to appeal for donations to offset legal expenses, which have been paid for so far by refinancing their homes and paying out-of-pocket.

A attorney representing the flight attendants, said, "When I got involved in this case and they said the company wasn't covering their defense, I was very surprised. They should be treated as heroes, not ostracized."

A FAA spokesman said, "We did not take any action against the pilot in the case... I cannot comment on the allegations, other than to say that we were unable to substantiate them. Please note that this does not necessarily mean that we doubted the word of the flight attendants. It simply means that we were unable to prove the allegations."

## 59 Years Ago – The Golden Hawks

The following are pictures of a restored F86 Sabre in Canada's first precision aerobatic team's colours. They were called "The Golden Hawks"

This year, on February 23 Canada also celebrates 100 years since the first flight in a fragile aircraft called "The Silver Dart.



Here are a few pictures of the Golden Hawk 1 and the Silver Dart. We've come a long way.

What a beautiful aircraft

#### If it looks cold, it was,





That is one great paint job.

Now its maintenance turn to bring it in and keep it in top shape.

Note the warm suit worn.

At -27 you need are the warm clothing you can fit on.

If you would like to see more pictures, go to the link below

www.vintagewings.ca/page?a=529&lang=en-CA





The Silver Dart on February 23, 1909