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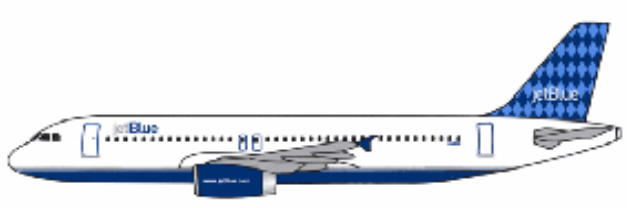

Aviation Human Factors Industry News

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Oil Pump Failure Prompts Forced Landing

One fatality and one seriously injured.

Soon after departing from Amarillo, Texas, for a business flight the morning of July 19, 2006, the pilot told ATC that a cylinder had separated from the engine and that the needed to proceed to the nearest airport. The controller provided a heading toward an airport 7nm away and advised of landmarks that could help the pilot locate the runway, said the NTSB report.

Before reaching the airport, however, the pilot reported a total loss of power and that he was going to land the airplane on a field. The landing was conducted with a tail wind, and the airplane stuck a barbed-wire fence, a tractor and a water well, came to a stop next to a large propane tank and began to burn. "As a result of the extreme heat associated with the post-impact fire, the tank's safety relief valve popped (as designed), which released propane vapors into the air," the report said. "These vapors caught on fire and added to the intensity of the fire." The passenger was seriously injured, and the pilot died of his injuries several days after the accident.

While examining the engine, investigators found a breach in the crankcase and signs of thermal distress on the crankshaft and connecting rods consistent with lack of lubrication. Disassembly of the oil pump revealed that the engine-driven gear shaft had fractured because of wear associated with the absence of support bushings. NTSB said that the probable cause of the accident was "the failure of maintenance personnel to install oil pump support bushings."

The engine had been operated 1,060 hours since overhaul in July 1998 and 460 hours since repairs were performed after a propeller strike in March 2000. The company had not retained, as was not required to retain, records from the overhaul or repairs. "As a result, it could not be determined when/who had last disassembled/reassembled the pump," the report said.

NTSB Issues Safety Recommendation Affecting Cessna 150s

Calls For AD To Inspect Rudder Boots

On Wednesday, the National Transportation Safety Board issued Safety Recommendation A-07-33, calling on the FAA to make a current service bulletin mandatory for Cessna 150 operators, in the form of an airworthiness directive.

In response to an April 11, 2005 stall-spin accident near Williamsburg, OH -- in which the rudder of a Cessna 150 jammed during spin recovery training -- the NTSB says operators of the type should heed Cessna Service Bulletin No. SEB01-1, calling for all C150 and C152 models to undergo a one-time inspection at the next 100-hour or annual inspection, to verify that the rudder bumpers are correctly installed on the rudder horn assembly.

Investigators found the rudder boots on the accident aircraft had been installed inverted, and that the right rudder bumper had traveled beyond the rudder stop and had locked behind it -- causing the rudder to jam left at a 35 degree angle, past its travel limit. Both pilots onboard the C150 died when it spiraled down.

The investigation could not determine whether the incorrect installation of the rudder bumpers occurred at the time of production or during the airplane's maintenance history. Review of the maintenance records indicated no record of work having been performed on the rudder bumpers during the airplane's 28-year history, according to the NTSB.

The Board added a similar accident occurred on a Canadian C152 in 1998. A CFI and a student pilot were practicing spins, and were unable to recover from one. The CFI was killed, the student pilot sustained serious injuries, and the airplane was substantially damaged.

During its investigation, the Transportation Safety Board of Canada (TSB) found that, although the rudder bumpers were installed correctly on this airplane, the rudder had deflected at 34° and had jammed beyond its left travel limit.

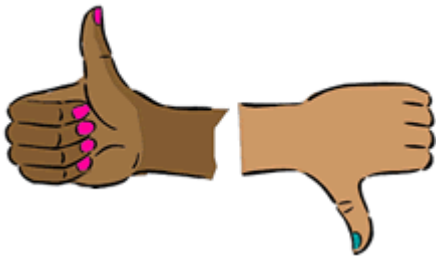
The TSB also found the right rudder bumper had traveled beyond the rudder stop and had locked behind it.

ANA warned for allowing unlicensed mechanics to make aircraft checks

The Japanese Ministry of Land, Infrastructure and Transport issued a warning against All Nippon Airways for allowing 11 unlicensed mechanics to make final aircraft checks between January 2006 and March 2007. The ministry requested ANA to conduct an investigation and file a report of its measures.

A total of 63 aircraft were checked by unlicensed staff. Sixty of the total involve checks of cargo planes done by mechanics who have in-house licenses only for passenger planes of the same type. There were three other cases involving checks by personnel who received training to do so but have yet to receive the formal in-house license.

CRM Meltdown



The pilots of a passenger jet were arguing moments before it crashed last month at an Indonesian airport, killing 21 people, a senior investigator said in an interview broadcast Sunday.

The Garuda Airlines Boeing 737-400 burst into flames after overshooting the runway and skidding onto a rice field on March 7 as it landed at Yogyakarta airport, on the main island of Java. The chief investigator, Tatang Kurniadi, said his preliminary findings would point to human error as the cause of the disaster. "I worry that this accident came from the absent-mindedness from the cockpit," Kurniadi said in the Nine Network interview.

The airliners' cockpit audio recordings revealed that the pilot and co-pilot were arguing over the speed and wing-flap angles moments before the crash, Kurniadi said. The captain and co-pilot, who were among 119 survivors of the crash, were flying together for the first time, he said. The captain had 'enough experience" after flying more than 15,000 hours while the co-pilot was a "young pilot" with 2,000 flying hours, he said.

The co-pilot demanded that the pilot "go-around" – that is, abandon the landing attempt and make a second approach, Kurniadi said. The pilot proceeded to land so fast that the co-pilot could only partially extend the flaps that were supposed to slow it down, Nine reported.

Kurniadi and his investigation team are to finalize their results within a month. Survivors of the crash escaped through the exits of the burning jet. It was the fourth accident involving a commercial jetliner in Indonesia since 2005. Experts say poor maintenance, rule-bending and a shortage of properly trained pilots may contribute to the country's poor aviation safety record.

Copter crash blamed on maintenance

Improper maintenance is cited by the National Transportation Safety Board as the cause of a 2005 medical transport helicopter crash at a Valparaiso hospital. The company that maintained the medical transport aircraft disputes the agency's claim.

The NTSB released its report on Feb. 26, about a year and a half after the accident at Porter Valparaiso Hospital Campus.

The helicopter crashed on July 14, 2005, on the rooftop heliport just seconds after takeoff. The helicopter was called to fly a patient to University of Chicago Hospitals. The pilot, physician, nurse and patient were not injured in the incident.

The findings, following investigation of that crash, determined that pilot error was not to blame for the crash, and instead, a malfunction of a part in the helicopter caused by faulty wear from improper employee maintenance on the vehicle.

The NTSB wrote in its report that the cause of the accident was a "loose tail rotor drive shaft coupling due to its improper installation by the operator's maintenance personnel, which resulted in the failure of the tail rotor drive shaft."

The operator of the helicopter, CJ Systems Aviation Group, Inc. in West Mifflin, Pa., issued a statement in response to the report.

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"CJ Systems Aviation Group disagrees with the NTSB's findings. After reviewing the facts, we believe there was a tail rotor drive shaft failure, not a (sic.) installation-related error. We stand behind our site maintenance technician's integrity, and he continues to be a valuable member of the CJ Systems' team. We also firmly believe that our pilot did everything possible to control the aircraft and land it as safely as possible. He, too, remains an employee of CJ Systems," wrote Sandy Koeppl, manager of marketing and communications for the company.

Bill Cummins, vice president and chief administrative officer at Porter hospital, also responded to the report.

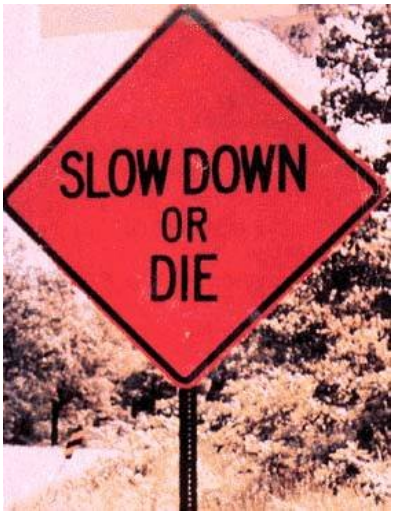
"We remain grateful there wasn't any serious damage and that people could walk away from this accident and we could repair the building," said Cummins.

Despite the NTSB's determination of employee error in the report, Cummins said the hospital will not pursue the matter any further.

Officials with the University of Chicago Hospitals, to which the helicopter was en route, said the report findings were consistent with their assumptions after the crash.

"We were all happy to see that it wasn't pilot error and we thought that all along," said John Easton, communications director for U of C Hospitals.

Garuda 737 reportedly hit runway at twice normal speed



Garuda Indonesia 737-400 that crashed last month, killing 21 people, was traveling at 410 kph when it hit the runway at Yogyakarta Airport, nearly twice normal speed, according to a report by Indonesia's Transport Committee obtained by Australian media. According to *The Age*, the pilots reported a fault in the reverse thrust of one engine prior to takeoff, FDRs revealed no mechanical problems before landing, weather was calm and reports of the two pilots arguing in the cockpit were unsubstantiated.

While pilot error is seen as a major cause of the accident, the committee also concluded that the safety runoff on Yogyakarta's runway is too short and that rescue vehicles responding to the accident were too slow and insufficiently equipped. The report did not suggest a reason for the pilots' apparent ignoring of speed and flap warnings in the cockpit.

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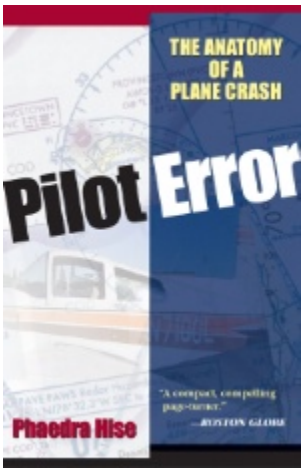
Comair says pilots erred

NTSB cites many factors



Comair acknowledged the conduct of the crew of Flight 5191 contributed to the fatal crash in Lexington last summer, but newly released documents filed with the National Transportation Safety Board say those actions were only part of a chain of factors that led to the crash that killed 49 passengers.

The Erlanger-based airline made its case to investigators at the safety board in documents made available Wednesday. The carrier didn't specify the flight crew's conduct, but airline officials have acknowledged the pilots broke a rule against non-flight chatter during taxiing, which may have distracted them.

Still, Comair stressed that multiple factors led to the crash and it would be a mistake to put all the blame on Captain Jeffrey Clay and first officer James Polehinke, who attempted to take off from the wrong runway at Blue Grass Airport. Everyone aboard the jet but Polehinke was killed.

"Comair understands and accepts that the conduct of one of its flight crews is one of numerous factors which contributed to this accident," said president Don Bornhorst in the statement.

"It would be simple but inaccurate to conclude that the only cause of this tragic accident was a mistake by Comair's well-trained and experienced flight crew."

The safety board is expected to issue a final report on the crash this spring or summer.

The airline faces dozens of lawsuits from crash victims. The Erlanger-based Delta Air Lines subsidiary in turn has sued the Federal Aviation Administration for its role.

In the filing, Comair said the crash was a result of "multiple systemic weaknesses inherent in the ... individuals and organizations that were links in the causal chain."

Specifically, Comair alluded to the heavy workload placed on the sole air traffic controller on duty at the time.

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Previously released details from the investigation have revealed that the controller on duty had his back to the runway at the time of the crash and that the FAA violated its own staffing rules in Lexington at the time by not having two controllers working the overnight shift.

"Had the controller on duty been required to devote all his attention to the airport environment while aircraft were departing, this accident may have been prevented," the carrier said.

Comair also noted the flight crew was given incomplete and inaccurate information to navigate the airport's taxiways.

The crew had an outdated map of the airport and incomplete information about airport conditions that were changing with an ongoing construction project, Comair said.

The airline suggested the safety board determine better ways to get timely information to crews, noting the system of providing notices to airmen was "developed in the era of the Teletype."

In a separate filing, Blue Grass Airport officials criticized Clay and Polehinke's taxi conduct, which violated federal rules and Comair's procedures.

"The loss of situational and location awareness was due to the unprofessional manner in which the flight crew performed their required duties after starting the airplane and during the taxi for takeoff," airport officials said. "The flight crew engaged in continuous non-essential and distracting conversations."

Airport officials said they complied with safety regulations at the time of the crash, including those governing lighting and signage. The airport also said the

FAA overruled a suggestion it made to provide an interim diagram of the airport as it continued through construction.

In other filings, the unions representing the pilots and the air traffic controller involved also weighed in on what caused the crash.

The Air Line Pilots Association said the crew was not given an accurate picture of the airport's evolving layout nor all the notices pertaining to airport conditions at the time of the crash.

The union also blamed fatigue for the pilots' confusion on the runway.

"Pilot and controller fatigue, as well as workload management and signage problems and charting inaccuracies all served to fuel this disconnect and allow this misperception to continue," the pilots union said.

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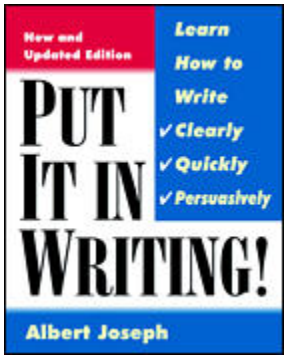
A Worthwhile Construction Project!

Los Angeles International Airport's newly constructed runway 25L/7R is open for business. Its 11,095-ft length is the same as the former 25L/7R, which was demolished and relocated 55 ft. south in a $250-million reconstruction. The project is part of the airport's $333-million South Airfield Improvement Program aimed at reducing runway incursions. LAX in 2000-03 had the highest number of incursions among U.S. major airports; in 2006, it had eight, two of which had the serious potential to lead to accidents.

Not sending the message

The FAA should have been clearer about air-controller requirements nationwide.



It's hardly a novel concept: "If you want something done right, put it in writing." But at the Federal Aviation Administration, it's not exactly standard operating procedure. The agency in 2005 ordered airports operating round-the-clock to maintain at least two air-traffic controllers at all times.

But according to a Department of Transportation inspector general, 2,500 overnight shifts at airports in a year were staffed by a single controller. The reason? The FAA didn't relay its two-person, minimum-staffing rule in writing.

An FAA spokesman says the agency has taken corrective action and that understaffing at airport towers has since stopped, and, indeed, raised issues recently with Orlando International Airport about its staffing issues.

Vehicle Parked In Prohibited Ramp Area

Boeing 737-400. Substantial damage. No Injuries.

The airplane was being taxied to its assigned parking stand at London Heathrow Airport on Feb. 20, 2006, when the right wing struck a vehicle-a van- that was parked in a prohibited area. The wing tip was crushed, and the navigation and strobe lights were destroyed. None of the 95 occupants of the airplane or the van driver was injured. Damage to the vehicle was relatively minor, said the AAIB report.

"The member of the ground staff whose responsibility it was to ensure that the stand was unobstructed was unable to see the whole stand from his assigned position in the jetty (airbridge)," the report said. "Members of the ground staff who saw the potential conflict were unable to alert the pilots." The pilots did not see their hand signals, and none of the ground staff was near a button that can be used to illuminate an emergency-stop signal visible at the end of the stand.

The van driver had stopped the vehicle in the prohibited area, which was marked with hatched lines, to make way for other employees of the handling agent who was maneuvering baggage carts in the same area. "He kept the engine of the van running and, aware that the aircraft was approaching, intended to return to the non-hatched area as soon as the baggage trolleys were in place," the report said. "He was unable to do so before the aircraft hit the van."

The pilots were aware that the van had been parked incorrectly but did not believe that it would be an obstacle. "this would have been the case if the aircraft had been lined up on the stand centerline before entering the stand," the report said. "However, the commander, aware of the confined nature of the stand, made a tighter turn onto the stand than that indicated by the lead-in line painted on the ground and remained at all times to the right of the stand centerline."

Just Culture Community

The Just Culture Community continues to grow and address today's topical issues. Our next Public Course will take place on April 17-18 in Dallas, Texas.

The most effective way to get engaged in the Just Culture dialogue is to participate in this course, where you will have the opportunity to learn from other community members and exchange ideas on how to best implement a Just Culture within your organization. This course promises to bring together a diverse mix of healthcare and industry leaders who are at various stages of the Just Culture journey. To access the course agenda and obtain information about registration, please click on:

http://www.justculture.org/pge_publiccourse.asp

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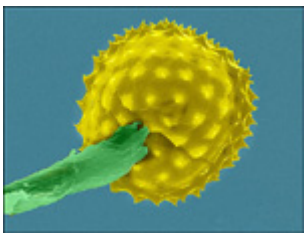
GO FIGURE

What does this figure represent?



Pretty but pesky

35.9 million

That's the number of Americans who suffer from seasonal allergic rhinitis (hay fever) - another sure sign that spring has arrived.

If you or your workers notice an increase in coughs, sneezes, congestion or itchiness of the nose, roof of mouth, throat, eyes and ears at this time of year, seasonal allergic rhinitis could be the culprit. The American Academy of Allergy, Asthma & Immunology (AAAAI) offers these tips:

- **Stay indoors between 5am and 10am, if possible. This is when tree and plant pollens are the most active.**
- **Avoid going outdoors on windy days.**
- **Avoid going outdoors after heavy rains, which produce a high mold spore count.**
- **Wear a dust mask while raking to avoid breathing in molds and other allergens stirred up from the leaves.**
- **Remove and wash right away all exposed clothing to avoid bringing the allergens into your home.**
-
- **Don't hang-dry clothing or sheets outdoors, where they may attract pollens or molds.**
- **Spring clean your home. Over the winter months, dust and mold accumulate on windows and shelves and in vents.**

Smoking Bans Proven to Reduce Heart Attacks

The topic of government-enforced smoking bans is guaranteed to generate heated discussions. People who hate government intrusion into health issues complain about the "nanny state" while those who support

smoking bans say smokers have no right to make non-smokers inhale second-hand smoke against their will.

Two new studies, one in Colorado and the other in Italy, provide some solid evidence that smoking bans may save lives. A study led by Dr. Carl Bartecchi of the University of Colorado School of Medicine revealed that heart attack hospital admissions in Pueblo, CO, dropped by 27 percent in the 18-month period after that city brought in a smoking ban in workplace and public buildings.

Bartecchi said the ban resulted in 108 fewer heart attacks in the community during that time. The American Heart Association says that second-hand smoke is a triggering factor for heart attacks and this threat is much lower in communities and states that have introduced public smoking bans.

Another study conducted by researchers at the University of Turin in Italy found that hospital admissions for heart attacks dropped 11 percent in the five months following a countrywide ban on indoor smoking in public places in Italy in 2005.

END