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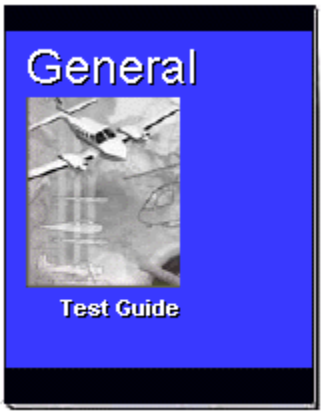
Aviation Human Factors Industry News

December 12, 2006

Vol. II, Issue 42

New Aircraft Technician Ratings Proposed



The FAA is proposing changes to the ratings of aircraft technicians under Part 145 by all but eliminating the so-called "class" structure of ratings and replacing it with more comprehensive and encompassing general ratings. The Notice of Proposed Rulemaking, which has been under construction for about five years, was published last week and appears to fundamentally restructure the qualifications standards for technicians to reflect modern aircraft construction. For example, the airframe rating has four subclasses (small composite construction, large composite, small all-metal and large all-metal) but in those ratings, which were drafted in 1962, the term composite refers to aircraft that have a mix of metal, wood and fabric in their construction and not to the modern definition of carbon fiber and resin. The new rating doesn't make a distinction between the size and construction of aircraft and effectively means that a certificate holder will be qualified to work on anything from a Piper Cub to a Boeing 787. The FAA said its research showed that the maintenance capabilities didn't vary with the type of construction and that weight is no longer an accurate measure of the airplane's intended use or its complexity. The new ratings do away with horsepower limitations on reciprocating engines but they continue to distinguish between piston and turbines. The old "radio" rating would be replaced with a more general "avionics" rating that would allow the certificate holder to work on a variety of communications, navigation and radar gear.

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Airline Employee Run Over By Plane.

An employee at Denver International Airport slipped on ice and was run over by a plane last Sunday, landing him in the hospital. According to officials at DIA, a Frontier Airlines ramp agent was putting the wedges around the wheels of a plane to stop it at the gate. The employee slipped on ice and the nose gear of the aircraft rolled over his leg, officials say. Officials at DIA say the employee suffered a severe leg injury and was taken to the hospital, with assistance from paramedics at DIA. The incident occurred at gate A39. The name and condition of the victim was not immediately released.

NTSB: Mechanical Problems In Medical Helicopter Crash

DURANGO, Colo. (AP) -- Federal investigators looking into a medical helicopter crash that claimed three lives have found problems with its fuel control unit, the Durango Herald reported Saturday.

The Agusta A119, operated by TriState Care Flight, suddenly plunged from about 220 feet above tree level near Mancos on June 30, 2005, killing pilot Jim Saler, 40, and flight nurses William Podmayer, 49 and Scott Hyslop, 33. They were on a rescue flight to pick up an injured logger.

According to a preliminary report from the National Transportation Safety Board, the helicopter's fuel control unit, which feeds fuel to the engine, had a gap on its mating flanges and a retention bolt that was "disengaged."

No other problems with the helicopter were found. The report doesn't assign blame for the crash but an NTSB panel is expected to make a "probable cause" determination in the coming months.

An examination by the helicopter's manufacturer, Prat & Whitney, found that the retention bolt was too short for that location and that there was shearing in the bolt-hole area that is consistent with pulling and rubbing, according to the report, released in late November.

But Honeywell, which made the fuel control unit and also examined it, concluded the damage was caused by the crash.

A spokeswoman for Pratt & Whitney Canada didn't return a telephone call seeking comment. Honeywell spokesman Bill Reavis said he wasn't prepared to comment on the report.

Elizabeth Ceilley-Hyslop, the widow of Scott Hyslop, believes the crash was caused by a mechanical failure.

"I think somebody needs to be accountable for what happened," she said.

TriState Care Flight, based in Bullhead City, Ariz., still uses the Agusta A119, which chief operating officer Corrin Koehler said is "absolutely" safe. One of the choppers serves Durango's Mercy Regional Medical Center.

Toledo Airport gets honor for safety work

The Federal Aviation Administration on Wednesday gave Toledo Express Airport a plaque honoring safety-program improvements - in particular, the recent removal of a taxiway that was deemed too close to the airport's main runway.

The award presented to Toledo-Lucas County Port Authority staff at an FAA conference in Chicago recognizes "exceptional efforts to correct potential safety problems" at Toledo Express, Elizabeth Cory, an agency spokesman, said yesterday.

"It recognizes really a lot of hard work," Ms. Cory said. "When an airport goes to these efforts to focus on safety, that's what we really want to support."

During 2005, the year for which the airport was honored for having the best safety program in the FAA's eight-state Great Lakes region, the port authority oversaw the removal of a taxiway that under current airport standards was too close to Toledo Express's main runway.

But Airport Director Paul Toth said yesterday there was more to the safety effort than just removing some pavement.

Eighteen months ago, Mr. Toth said, a one-man "operations department" went to work at Toledo Express to provide initial and recurrent safety training for port authority maintenance staff who have airfield access.

That operations manager, Mike Gula, has revamped the training program to include units on how to drive on the airfield, security, fire safety, runway condition observation, and general "best practices," he said.

Having a point person for airfield safety reduces the risk of people or vehicles inadvertently putting themselves on collision courses with airplanes, Ms. Cory said.
"We have a strong focus on runway safety because that's largely a human factors issue," she said. "Education and awareness are very important."

Ryanair jet narrowly avoided crash-landing

A RYANAIR flight with 144 passengers and crew on board narrowly avoided a crash-landing at Knock Airport last March after both pilots became distracted with the aircraft's computer system while attempting to land the plane.

Details of what air accident investigators described as "a serious incident" only emerged yesterday with the publication of an official report into the event.

It revealed that a ground impact warning system was triggered on board the aircraft after it began a rapid descent on an approach to Knock Airport. The report concluded that a collision with the ground was "marginally avoided."

"The captain and flight officer were so engrossed in trying to re-programme the [aircraft's computer] that they both lost their critical situational awareness for a time," said the official report.

The incident happened when the pilot of the aircraft had to abandon an approach to Knock Airport after breaking through cloud cover and realizing that the plane was just 400ft above ground level.

A report by the Department of Transport's Air Accident Investigation Unit showed that the pilot had intended to descend only to the recommended limit of 1,300ft before circling the airport to land.

Instead, the aircraft had descended dangerously below that limit as Knock Airport is situated on a plateau at 665ft above sea level.

Data provided by radar equipment showed the aircraft was descending at the speed of 2,200 feet per minute — three times the normal speed for approaches to airports.

The incident occurred on board a Ryanair Boeing 737-800 aircraft on a flight between London Gatwick and Knock Airport on March 23 last. There were 138 passengers and six crew.

The AAIU report found that confusion arose among the cockpit crew about which direction to approach the runway at Knock Airport for a landing.

It claimed uncertainty about weather conditions at Knock by both the captain and his assistant officer had impaired their decision-making.

The two pilots were also hampered by the fact that several navigational aids were unavailable at the time due to improvement works being carried out at the airport.

However, the AAIU noted that information about the unavailability of such navigational aids had not been conveyed to the Ryanair flight crew by the airline.

The AAIU also acknowledged that a widely used professional manual containing information on approaches to all airports had not been updated to reflect the ongoing works at Knock.

The cockpit crew was also distracted by the fact they were trying to input information on an extra navigational aid, which had recently come into operation, into the aircraft's computer at a time when they should have been concentrating on their visual approach.

**"The work overload meant that normal routine checks were not carried out and there was no questioning of the developing situation by either pilot,"
said the AAIU report.**

It concluded that the flight crew had contravened Ryanair's own standard operating procedures by descending below 1,300ft to circle the airport.

Ryanair was also criticized for failing to report the incident until 12 days after it occurred. Such a delay was "unacceptable" and contrary to aviation regulations, said the AAIU.

Last night, a Ryanair spokesperson said the company had assisted and co-operated fully with the AAIU report and had accepted and implemented all of its recommendations.

Near-Miss For UK Charter Airline

A 737 operated by the UK's Excel Airways missed a vehicle on the runway it was using by only 56 feet according to an official report released Friday from the country's Air Accident Investigation Branch (AAIB).

The flight was departing Manchester bound for the Greek island of Kos with 190 passengers aboard in July 2003. The pilots were unaware the runway they were using was operating at a reduced length to allow for a team removing rubber deposits at the departure end.

The reports say the pilots couldn't see the opposite end of the runway because of a slight rise in the middle. It wasn't until the aircraft cleared the rise that the pilot saw the vehicles at the far end. By that time it was too late to abort the takeoff. The pilots believed they cleared the vehicles with a good margin.

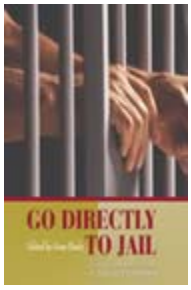
The report found the crew was unaware of the reduced runway length available and irregularities with the way the airport and ATC handled disseminating information.

In fact, a day earlier, ATC directed three separate airliners to go around after clearing them to land on the same runway. When asked, none of the three crews were aware of the rubber-removal operation, or the reduced runway available. After telling the tower they couldn't accept a landing under the conditions, they were told to go around and assigned another runway.

AAIB says while the aircrew was clearly at fault, procedures for planning and managing future runway maintenance activities were altered to address concerns the agency expressed to both the operators of Manchester Airport and the National Air Traffic Service.

The primary cause of the near-disaster according to the AAIB was the flight crew did not realize the runway was operating at reduced length despite being in possession of a NOTAM concerning the work-in-progress, an ATIS broadcast relating to the work-in-progress and ATC passing information on the takeoff distance available.

PAMA Supports Aviation Safety Resolution Condemning Criminalization of Accident Investigations



The Professional Aviation Maintenance Association (PAMA) is endorsing a resolution decrying the increasing tendency of law enforcement and judicial authorities to attempt to criminalize aviation accidents to the detriment of aviation safety.

The joint resolution was issued by the Flight Safety Foundation, the Civil Air Navigation Services Organization, the Royal Aeronautical Society in England, and the Academie Nationale de L'Air et de L'Espace in France.

"PAMA has long held that the free flow of information is critical to ensure safety," Brian Finnnegan, president of PAMA, said.

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"Nothing hinders that flow of information more that the fear of retribution. This is the bedrock of any safety culture and must be fostered across the globe if we are to continue to achieve progress in reducing accidents. PAMA encourages it members to support this philosophy in their places of work," Finnegan added.

Clark Gordon, chairman of the board of directors, PAMA, echoed the importance of supporting this resolution, "Four of the top safety organizations from around the globe have issued this unprecedented joint statement. We at PAMA agree with the statement and feel that it sends an important message for enhancing aviation safety."

PAMA is the national association dedicated to enhancing professionalism and recognition of the Aviation Maintenance Technician through communication, education, representation and support—for continuous improvement in aviation safety.

Criminalizing Aviation Accidents Only Assures Repeats

By JOHN NANCE

On the clear, late afternoon of Sept. 29, two sophisticated jets approached each other along an airway known as UZ6. Their combined speed was in excess of 1,000 miles per hour. Both were at 37,000 feet over the Amazon jungle, and neither set of pilots were aware of the other.

No alarms went off. No air traffic control warnings were given. And no rules were broken because both crews had climbed to their assigned altitude.

In a micro-second, the left, upturned "winglet" of the brand-new Embraer Legacy 600 business jet sliced into the left wing of the Boeing 737. The Embraer's pilots knew only that an explosive force of some sort had rocked them, and that they now had a marginally controllable airplane.

For the pilots of the commercial airline flight known as Gol 1907, however, the situation was far worse. Their essentially new Boeing 737 was becoming uncontrollable. As the business jet they'd hit limped toward an emergency landing, the 737 impacted the dense forest below. All 137 people aboard died.

Within hours of the crippled business jet's safe landing at an airfield just north of the collision point, the Brazilian government began investigating the accident with a painfully obvious emphasis on finding someone to blame, rather than finding an explanation for the tragedy.

The passengers and owner of the damaged Embraer 600 — held and questioned for 36 hours — were eventually released.

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But even as another arm of the Brazilian government began to suspect that the crash had been nothing more than a tragic accident and not a result of any purposeful or negligent act by either set of pilots, an overzealous prosecutor was asking a Brazilian court for authority to confiscate the U.S. passports of the two American pilots.

In the weeks afterward, Brazilian authorities confronted the truth — that their own air traffic controllers had made a massive human error by placing the two jets at the same altitude in opposite directions along the same airway.

Yet no effort was made to present that evidence to the court and release the crew. Instead, the two American pilots — both personally devastated over the loss of the 737 — found themselves threatened with prosecution for 137 counts of manslaughter.

Beyond the outrage that Brazilian officials have richly earned, Brazil's willingness to criminalize an aviation accident also dealt a serious blow to aviation safety worldwide. Why? Because most air accidents result from unintended human mistakes, and the only way we find out about such mistakes, and give ourselves the chance to change our human systems in order to prevent further incidents, is by asking surviving crew members to speak openly.

But, if telling the truth about your own errors may land you in prison and ruin your life, who in their right mind would rush to give a prosecutor information that could be used against you? The result is that the mere threat of criminal prosecution for mistakes made in the cockpit (or the maintenance hangar or the control tower) utterly shuts down the flow of vital safety information we need.

When a pilot flagrantly disregards rules or procedures or instructions and knowingly puts his or her passengers and the public below at risk, its "pilot error."

When a pilot fails because he or she is human — failures such as starting a takeoff on a runway clearly too short to sustain flight (such as in Lexington, Ky., earlier this year) — the problem is "human error." The two are markedly different.

Human error problems account for more than 85 percent of all aviation accidents. Disasters often result from pilots being imperfect, making mistakes despite their best efforts. Blaming humans for being human is at once absurd and wholly ineffective in preventing accidents.

The best way to prevent the same human errors from happening in the future is to understand everything we can about how the system supported the error, and then change that system to safely absorb such errors.

Criminal prosecution of pilots for making human errors only shuts down the flow of information we need to get even safer; it does nothing to prevent recurrences.

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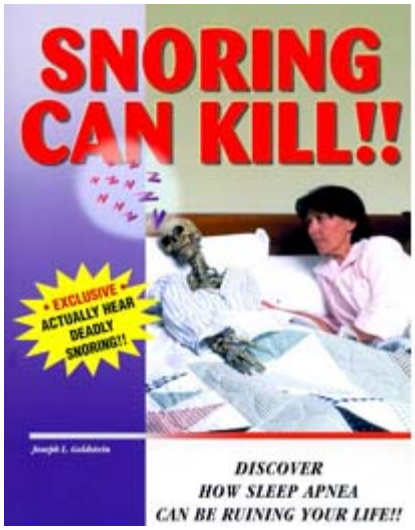
This does not mean that a pilot who purposefully does something unsafe (such as drink and fly) should not be held criminally liable. Subjecting such fringe-element airmen to prosecution in no way worries the 99-plus percent who would never do such things.

But equating human mistake with crime, as some nations have tried to do too often over the years, is a trend that must be stopped cold.

As the internationally respected Flight Safety Foundation said just this week in a joint resolution issued in response to Brazil's outrageous behavior: "…criminal investigations and prosecutions in the wake of aviation accidents can interfere with the efficient and effective investigation of accidents and prevent the timely and accurate determination of probable cause and issuance of recommendations to prevent recurrence."

Apnea Screening Saves Money & Reduces Accidents

Schneider National Inc. has recently published a white paper that reveals its sleep apnea screening and treatment program has generated a strong return on investment in the form of savings on medical costs, accident reduction, reduced turnover and increased productivity. For example, among the 348 drivers diagnosed with Sleep Disorder Breathing (SDB) and who were treated, medical costs accrued were slashed in half per month.



There was also a 73% reduction in preventable driving accidents among a group of 225 SDB-diagnosed drivers treated with Continuous Positive Airway Pressure (CPAP) devices. (The Trucker News Services, "Schneider says sleep apnea screening, treatment program saves costs, cuts accidents" The Trucker, October 15, 2006).

Obstructive Sleep Apnea Syndrome (OSA) is a common sleep disorder found in approximately 5% of the general population, but 11.6% of the shiftwork population. Each undiagnosed employee in the workforce costs an additional $6,000 per year in apnea-related expenses, including increased physician and hospital visits, cardiovascular treatment costs, increased on-the-job injuries, and absenteeism, to name but a few.

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Picture This!

How Many Hazards Can You Spot In This Photograph?

Okay, how many hazards did you spot in the photo? Here are several: tripping hazard (cord), no gloves on worker (left), fire extinguisher obstructed, poor housekeeping (teetering box on top of bins) and fire hazard (grinding near flammables in refuse can).

INJURY & ILLNESS TRENDS

An Overview of 2005 Workplace Fatalities

December 11, 2006

On August 10, 2006, the Bureau of Labor Statistics (BLS) published a 16-page report on fatal work injuries in 2005. Here's a quick and dirty overview.

Types of Fatal Incidents

There were 5,702 fatal work injuries in 2005.

The leading types of fatal incidents:

- **Highway incidents: 1,428 worker deaths;**
- **Non-highway incidents involving vehicles: 390 worker deaths;**
- ***Aircraft incidents: 147 worker deaths;***
- **Railroad incidents: 84 worker deaths;**
- **Fatal falls: 463 worker deaths;**
- **Struck by objects: 604 worker deaths;**
- **Homicides: 564 worker deaths; and**
- **Suicides: 177 worker deaths.**

Fatalities by Industry

48 percent of the fatal work injuries recorded in 2005 occurred in the service-providing industries, while 43 percent occurred in the goods-producing industries. Another 9 percent involved government workers.

Victims

The number of fatalities among male workers was down 1 percent to 5,300. The 402 fatalities among female workers was the lowest annual total ever recorded for women since the BLS started keeping a census. The bad news is that the number of fatalities among Hispanic workers (917) was a series high. But due to increased employment, the overall fatality rate for this group went down. Fatalities among black workers rose to 577, while those among Asian and Native Hawaiian workers dropped to 162.

Fatalities increased for both younger and older workers. Workers age 19 and younger accounted for 166 fatal work injuries, an increase of 18 percent. Fatal work injuries for workers age 55 and older rose to 1,499 - a series high - although the overall fatality rate for older workers was lower.

Conclusion

To put these findings into perspective, fatalities in 2005 fell 1 percent from 2004 totals - 5,764 versus 5,702. The fatality rate also dipped slightly from 4.1 to 4.0 per 100,000 workers. In 2004, fatal falls hit a record high. Thankfully, that number came down seven percent in 2005. Fatal falls among roofers, one of the most vulnerable groups, declined sharply by 44 percent.

END