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Air France sues over crash

Says Pearson runway lacks safety margins

Investigators study the burned-out shell of the Air France jet that skidded off a runway at Pearson International Airport in August 2005.

OTTAWA—Pearson International Airport's newest runway **lacks proper safety margins** and falls short of international standards, Air France alleges in a lawsuit following the dramatic 2005 crash of one of its jets at the site.



The French airline and its insurers are suing the Greater Toronto Airports Authority, which runs Pearson, the federal government and the country's air-traffic control agency for some \$180 million, charging **they all cut corners that contributed to the crash** of its Airbus A340 jet.

The airline takes aim at the airport operator, saying **the design** of Runway 24 Left – which ends at a steep ravine – **failed to ensure there was an "adequate margin of safety for aircraft in the event of an overrun event."**

It also says in a statement of claim filed with the Ontario Superior Court of Justice that "GTAA **failed to provide a safe environment** for the conduct of civil air operations."

Flight 358 arriving from Paris was battered by a **violent thunderstorm** just as it touched down on Aug. 2, 2005. Going too fast, it ran off the rain-slicked runway and into the ravine, where it broke apart and burst into flames.

All 297 passengers and 12 crew survived the accident but 33 people were taken to hospital – two crew members and 10 passengers were admitted to hospital with serious injuries. Many more have struggled with memories of the incident.

In its lawsuit, Air France **pins the blame** on the Greater Toronto Airports Authority, Nav Canada and the individual air-traffic controllers who guided the big jet to the airport in the fateful minutes before the crash.

"The overrun and the consequent injuries to persons and damage to property were caused solely by the **negligence of the defendants**," the statement of claim says.

While Runway 24 Left was only opened in 2002, an adjacent runway was the site of a fatal accident in 1978 when an Air Canada jet ran into the steep ravine leading down to Etobicoke Creek, killing two people and seriously injuring 47 others.

An investigation into that accident found the "ravine beyond the overrun area left **no additional margin for error** and contributed to a high casualty rate."

Air France says Transport Canada was **"negligent"** by not implementing the recommendations of a coroner's inquest into the 1978 crash that urged the creation of a 300-metre safety area to give aircraft more room to stop after landing.

It also charges that the airport failed to install an apron of special concrete designed to quickly slow aircraft unable to stop on the runway. And it notes that the runway lacks grooves to help carry away rainwater and improve braking.

Transport Canada estimates the potential penalties in the lawsuit at \$180 million, plus any damages awarded passengers in an ongoing class-action suit, according to a department briefing note obtained by Ottawa researcher Ken Rubin under Access to Information.

But in its defense, the federal government says Air France knew that runway runoff areas **"are not standard in Canada"** and noted the airline operated from Pearson for "many years" before the crash.

"Air France has continued to operate flights including those by A340 aircraft on Runway 24L since the said incident," the government says in its statement of defense.

Federal officials point the finger at the pilots, saying the crew **failed to calculate a safe landing distance**, despite reports thunderstorms were expected at the time of landing.

An investigation by the Transportation Safety Board of Canada concluded last December that the jet touched down **almost halfway down** the 2,740-metre runway and was still traveling at almost 150 km/h when it went off the runway.

Officials with both the GTAA and Nav Canada refused to comment yesterday on the lawsuit. However, both insisted that their respective agencies are running a safe operation at Pearson.

Student pilot, 21, dies in flying tragedy after instructor failed to report plane's technical fault

A 21-year-old woman, with a lifelong dream of becoming an airline pilot, died in a plane crash while flying solo after **her instructor failed to report a technical fault**, an inquest was told.

Lisa Knaggs was just days away from getting her official pilot's licence when her Cessna aircraft plummeted to the ground shortly after take off.

An investigation revealed a **wing-flap switch had failed five days earlier** while Miss Knaggs' instructor was in the cockpit, **but he did not tell maintenance staff to fix it**.



The electrical fault happened again when Miss Knaggs was on board alone and the consequences were disastrous.

Lisa Knaggs, pictured at the controls of a Cessna plane, died as she tried to take off during a solo flight from an airfield in Florida

During take off the **flap became stuck at 30 degrees** - the angle normally used to slow a plane down for landing. It resulted in the **plane stalling** and crashing 150ft to the ground at La Belle Airport in Florida in October 2005.

Coroner David Hinchcliffe recorded a verdict of accidental death at an inquest in Leeds, but the dead woman's mother Julie Smith **condemned the safety blunder** behind the tragedy.

She said outside court: 'My daughter would still be with us today **if the fault in the wing flap switch had been reported to maintenance first time it happened.** I am disgusted and appalled that this did not happen.'

A statement from her instructor Mounsee Thompson was read to the inquest.

He admitted the **flap fault happened during a lesson with another student, but no action was taken as a result.**

He said: 'Demonstrating descending with flaps, I moved the flap lever to retract them, and they did not move.'

'I therefore reset the lever to the original position and tried again. This time the flaps moved normally. **I did not mention this episode to any of the mechanics.'**

A report commissioned by the US National Transportation Safety Board blamed lack of speed and the flap fault for the accident.



Ms Knaggs instructor had spotted a fault with the wing flaps on the previous flight but failed to report it before she took off from Labelle airfield, in Florida

Aviation expert Richard Cummings told the hearing the aircraft's performance while climbing would have been 'very poor'.

He said: 'A pilot experiencing this for the first time would be **distracted and may well fail to notice the loss of airspeed** which would result in the aircraft stalling.'

Miss Knaggs, who lived in York with her boyfriend Craig Cooper, 26, was determined to forge a career as a commercial pilot.

She left her job as the assistant manager of a card shop to enroll on the European Flight Training course.

She was the only female student in a class of 35, and had already passed her theory exams.

After training in the US she planned further lessons at a nine-month course in Bristol before returning to the States to build up more flying hours.

Her mother Julie Smith, 46, used £24,000 of her own money to fund her daughter's flying dream.

'She was so sweet and cute and so very, very happy out there,' said Mrs. Smith. 'She was my rock, my angel, my best friend.'

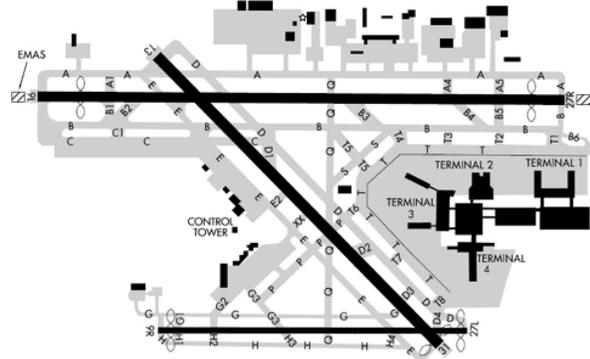
She said people should be aware that many flying schools lease rather than own their planes.

Mrs. Smith said she had spoken to lawyers in America about mounting a civil action for damages, but was advised against it as the flying school did not have any significant assets.

[NTSB Urges Airport Diagram Guidance](#)

The National Transportation Safety Board (NTSB) has issued a recommendation to FAA [regarding the process for revising and publishing airport diagrams](#).

The recommendation stemmed from an accident at Newark Liberty Oct. 31, 2006, when the wing of an aircraft incurred substantial damage due to contact with a wing of another aircraft that was under tow. [At the time of the accident, two taxiway designations incorrectly were labeled on FAA's diagram of Newark.](#) NTSB said that its investigation revealed that, even though correct changes to the diagram were submitted, [errors were not detected in the review process prior to publication.](#)



In a letter to Acting FAA Administrator Robert Sturgell, NTSB wrote, "The safety board is concerned that the FAA's lack of formal written procedures for the airport diagram revision and publication process [allows parts of the process to be overlooked, potentially compromising safety.](#) ...The safety board is also concerned that FAA organizations outside of the Air Traffic Organization are not currently part of the diagram publication/review process and may be more functionally suited to [detecting any diagram errors.](#)"

AA Fuel Saving Method Raises Concerns

Some air traffic controllers say they believe American Airlines is attempting to save fuel at the expense of safety, and risking the possibility of a runway collision.

The concerns stem from a near miss on a runway at Dallas-Fort Worth International Airport in early April that is under investigation by the Federal Aviation Administration.



It happened as American Airlines mechanics were towing a Boeing 777 to a maintenance hangar using a high-speed tug. Air traffic controllers told the mechanics to stop short of a runway, but they did not stop in time and pulled the jumbo jet into the path of another plane coming in for landing.

The pilot pulled up narrowly and avoided a collision, said Ric Loewen of The National Air Traffic Controllers Association.

"It was extremely close. I've heard reports of anything from 9 feet to 25 feet apart and either way that's too close for two planes to be under those circumstances," Loewen said.

If the incident had happened at night controllers said the pilot may not have seen the other plane until it was too late. That is because at night American Airlines had been towing planes across runways without turning on any of the plane's lights that are designed to avoid a collision, NBC 5 reported.

"So essentially it's just a big black hole out there at night -- we can't see them -- you have to remember where they are," Loewen said.

Running the lights would burn fuel and when American Airlines bought the high-speed tugs last year the goal was saving fuel by moving planes without turning on the engines or the generator that power the lights, NBC 5 reported.

The Allied Pilots Association, the union that represents the airline's pilots, questioned the decision.

"This is certainly an area where we shouldn't be taking shortcuts," said Scott Shankland of the Allied Pilots Association. "All the money you save in shortcutting procedures will be wiped out if you have an incident." The pilots union said moving planes in the dark without lights appears to be a violation of FAA regulations. American Airlines and the FAA had not responded to NBC 5's questions about the issue.

"These big planes can be hard to see at night and that could pose a problem," said DFW airport spokesman Ken Capps.

NBC 5 also learned that officials at DFW Airport sent a letter to American Airlines in March asking the airline to get the planes lit. An airport official wrote: "While we have had many meetings and e-mail discussions on this item since last fall -- we have not had any substantial progress in meeting this goal."

American Airlines declined an on-camera interview, but released a statement saying: "American is working with the DFW airport and the FAA to ensure that the tug and aircraft being towed **are visible at night**. How we will accomplish that is being discussed."

After the near miss incident in April, DFW Airport officials ordered American Airlines **to park the tugs** while the FAA investigates. The airline is still using the tugs to pull planes at airports in Los Angeles, New York, San Francisco and Miami.

"I'd like to see the aircraft lit. I want to be able to see it," Loewen said. "That's how I do my job."

[Three AI engineers suspended for nosewheel crash](#)

Three Air India (AI) engineers have **been suspended pending** inquiry into Friday's incident in which the nose gear of one of its aircraft collapsed during a routine pre-flight inspection. ([Watch](#))



An inquiry into the incident has begun and one aircraft maintenance engineer, one assistant engineer and one service engineer have been suspended," said an AI spokesperson. The damaged aircraft was taken back to the AI hangar on Friday night.



The **mishap** occurred in the afternoon when a leased Boeing 777-200 ER was being readied to operate a Mumbai-Dubai flight.

The plane was berthed in a nose-in bay with its door opening into an aerobridge tunnel. "The engineer **retracted the aircraft's landing lever without putting the nose-pin in place**. A **nose-pin** is a titanium pin fixed on top of the nosewheel during ground inspections to prevent the nosewheel from collapsing into aircraft when the landing lever is retracted," said the source.

"Retracting the lever without putting the nose-pin is done only after the plane is airborne. In this case, the nosewheel went back into its retracted position and the aircraft nose, along with its twin engines, hit the ground," the source said.

The landing lever is tested in the hangar and not when aircraft is in the parking bay ready for a flight, say sources. While the losses to the airline would run into a considerable sum due to non-availability of aircraft, the extent of damage would only be known after thorough inspection.

One of its doors (L-2)-the one which was inside the aerobridge-has been completely damaged. The two engines also bore the brunt.

"Our engineers and those from Boeing will inspect the aircraft. We will ascertain the extent of the damage only after that," said an airline spokesperson.

The Directorate General of Civil Aviation has also initiated an inquiry into the matter.

Wanted: Aviation Mechanics

Sixteen openings for airframe and power plant mechanics

Maintaining airplanes--that's just a fraction of what's done at the American Eagle maintenance facility in Sawyer.

"There're other subset jobs," said base manager, Steve Rodgers. "There's composite work, there's engine work, there's sheet metal work, electrical work...a broad range of skill sets are required."



Rodgers says **finding qualified mechanics to do this work has been difficult.**

"Right now the demand is high in the local area because of the added work that we put on last year," Rodgers said. **"And we have just not been able to recruit people to the area to fill those positions."**

So, American Eagle has **teamed up** with Michigan Works and Northern Michigan University to help get the word out that jobs are available in our area. They held an open house at the facility Thursday night for residents interested in NMU's Aviation Maintenance Technology Program.

"We'll take people **who don't know hardly anything about aircraft mechanics,**" said Assistant Aviation Professor Mark Matteson, "and take them through the different systems of the aircraft--the airframe, hydraulics, electronics. At the end, they'll be available to test for their Federal Aviation Certificate."

The **two-year program** gained a lot of interest from eager potential students.

"There is room for advancements here with mechanics and the crew chiefs," said Jeff Parks of Ishpeming.

NMU's aviation program takes four semesters of course work and hands-on training. Most graduates do end up staying local and working at Sawyer.

Get Your Airplane Parts—on Craigslist

On business-to-business Web sites like Alibaba and Craigslist, spare parts are showing up for sale by vendors not approved by the FAA

Key airplane parts of sketchy origin are being sold in a thriving online market by vendors that aren't on the Federal Aviation Administration's list of approved suppliers, according to a new study by MarkMonitor.

The study identified at least 24 vendors using business-to-business Web sites, including [Alibaba.com](#), [Craigslist](#), TradeKey, and iOffer, to sell spare parts for Boeing (BA) and Airbus airliners. [MarkMonitor](#), a firm that specializes in protecting brands, says most of the vendors are based in either mainland China or the U.S. The parts—including valves, gears, gauges, and radar components—haven't been tested for airworthiness or lack documentation that such tests have been conducted.

"Sophisticated" problem

The FAA declined to comment on the report, which comes amid rising safety concerns as U.S. airlines cut costs by sending their planes to maintenance facilities outside the country, [many of them not properly inspected by the FAA](#) (*BusinessWeek*, 7/30/07).

The aviation industry has struggled for years with the problem of spare parts that are either unapproved, suspected of being unapproved, or sold by unauthorized vendors. In 1995 the FAA created an office devoted to eliminating "suspected unapproved parts" (SUPS). But the unit was disbanded in 2007 and the agency shifted those responsibilities to its Flight Standards bureau.

Statistics on the extent of the problem are hard to come by. Since 1996, the FAA has issued 117 warning notices about unapproved parts to staff, airlines, flight-service facilities, and foreign civil aviation authorities. But that may be only the tip of a much larger iceberg, says Linda Goodrich, an FAA flight safety inspector for 24 years and vice-president of Professional Aviation Safety Specialists, a union affiliated with the AFL-CIO that has frequently criticized FAA policy. "This is an age-old problem and it's becoming more sophisticated all the time," she says.

SUP Law: Penalties

(b) PENALTIES-

(1) AVIATION QUALITY- If the offense relates to the aviation quality of a part and the part is installed in an aircraft or space vehicle, a fine of not more than \$500,000, imprisonment for not more than 15 years, or both.

Notably, MarkMonitor's findings come just weeks after British regulators brought charges against the budget airline [Flyglobespan](#) in a case involving [faulty aircraft parts](#). The airline, based in Scotland, was accused by Britain's Civil Aviation Authority of allowing a June, 2007, flight from New York to Liverpool to proceed although the plane had broken engine pressure gauges. The airline has denied any wrongdoing.

[Adequate controls?](#)

MarkMonitor, which declined to say whether Boeing and Airbus are among its clients, reported that 58% of the questionable listings the study found were placed on Alibaba.com. About 41% percent originated from China, while 38% came from the U.S. Christine Splinder, a spokeswoman for Alibaba.com, says the China-based site "operates a neutral marketplace." Alibaba's terms of use, she says, place responsibility on the seller for claims made about products sold. A spokeswoman for Craigslist didn't have immediate comment.

While it's not absolutely certain that the parts being sold on these Web sites are of shoddy make, "unusual variations among vendor product listings, large supplies, and inconsistencies in origination raise questions about the safety of this supply route," MarkMonitor contends.

So who's buying these parts? The study was unable to identify any specific buyers. But that's the key question, says Jason Dickstein, general counsel for the Aviation Suppliers Assn., a trade organization. He says U.S. airlines and the companies they hire to repair and maintain their planes are extremely careful to [buy parts only from FAA-approved suppliers](#), going to great lengths to ensure that parts come with the relevant documents to prove it. "If you're a counterfeiter, it's very hard to break that system," he says.

Dickstein says that during the 1980s and early 1990s the aviation industry [struggled with a huge number of counterfeit parts](#). The industry responded by clamping down with a strict regimen of audits and inspections that air carriers and manufacturers use to prove that plane parts have been sufficiently tested for airworthiness. Countries in North America and Europe generally have the best controls, while countries in Africa and in some parts of Asia tend to have less rigorous standards, he says.

During a database update a hard drive on the server failed and the database was corrupted. Before the admin staff realized what was happening a backup copy was taken and the **database errors** propagated into the backup.

The database failed and still did not run properly when the hardware was replaced. That was when the corrupted backup data was detected. Altogether it took 20 hours for the outage to be dealt with.

While it was ongoing pilots were given NOTAM information by air traffic controllers or through a specially set-up web site.

The FAA says that at no time was passenger safety compromised.

It is apparent that the NOTAM server did not have RAID facilities and that the **backup procedures had not been designed to properly cope with a disk drive failure**. It is also apparent, with hindsight, that the replacement hardware for the Sun server involved **was not installed fast enough** by the FAA.

That's **three mistakes** by the FAA which, ideally, should not have happened

[Japan Calls On Bombardier To Shape Up After Crash](#)

The Japanese government will be calling on plane maker Bombardier Inc. **to step up its quality controls** after finding out that the All Nippon Airways crash in March 2007 was caused by a **maintenance error**.

On Wednesday, Japan's Aircraft and Railway Accidents Investigation Committee released the crash report, which attributed the accident to workers' **failure to attach a bolt during repairs of the plane's front landing-gear doors**.

In March 2007, the All Nippon DHC-8-Q400 turboprop nose-dived at the Kochi airport in western Japan. No injuries were reported. However, the incident resulted in grounding of Bombardier planes operated by All Nippon and Japan Airlines Corp.



The Montreal Gazette reported All Nippon Airways President Mineo Yamamoto is seeking compensation for the crash.

"We deeply regret this situation," Bombardier's vice president of customer support and engineering Todd Young said in a news conference in Tokyo, adding, "We do take these matters very seriously, and we have taken many steps and countermeasures since the accident."

Officials of the Canadian aircraft maker reiterated that it would create a spare parts depot at Narita airport as well as open a customer support center at Tokyo's Haneda airport to improve its service

[New Space Museum Opens In Oregon](#)

The Evergreen Aviation Museum, home of Howard Hughes' Spruce boat and a rare SR-71 Blackbird,



[new space facility](#) this Friday. The new museum will feature Titan missiles, a replica Lunar Module and Lunar Rover, and the Russian Photon Space Capsule. The new 120,000-square-foot building is a twin to the original museum. Interactive exhibits and simulators will be used to tell the story of spaceflight.

known as the Goose flying will open a



The museum also plans to host a series of [educational programs](#) and space camps, and will offer programs for local high schoolers. The museum is located about 20 miles southwest of Portland, Ore., at the McMinnville Airport.

A dedication event on Friday morning will feature a visit from astronauts Gen. Joe Engle and Gen. Tom Stafford, and Titan II expert Chuck Rash.

[SMS: more than just the latest buzzword for bizav](#)

If you regard [safety management systems](#) as just the latest fad for corporate aviation flight departments, think again, Daedalus Aviation Services president David Bjellos told the nearly 450 attendees at the 53rd Corporate Aviation Safety Seminar (CASS), which was held early last month in Palm Harbor, Fla. Emphasizing SMS's importance, almost every presentation at CASS was about SMS or mentioned the topic in some shape or form.



The FAA, via [AC 190-92](#), defines an SMS as “a [quality management approach to controlling risk](#). It also provides the organizational framework to support a sound [safety culture](#).” In practice, it's a way for a flight department internally to capture previously unreported incidents or safety concerns so they can be addressed in a [proactive manner](#).

But the key to any SMS is [no fear of retribution](#) for those submitting these incidents or concerns. “A blame culture and an open reporting culture can't coexist,” noted University of Southern California instructor Mike Barr.

Many flight departments simply opt to allow crew-members to submit hazard information anonymously so blame can't be assigned to a specific person.

SMSs are currently voluntary in the U.S., but “at some point they will be mandatory for Part 121 and 135 operators,” FAA SMS program coordinator Rick Krens said during a panel discussion on SMSs. In fact, the FAA is working on Ops Specs for safety management systems and is updating AC 90-192; the latter could be released within the next three months, he said.

Part 91 operators, however, should not assume that they're off the hook when it comes to SMSs, several presenters at CASS warned. According to Krens, SMSs could be a requirement for entry into some foreign countries starting in 2010, per ICAO Annex 6 section 3.2.4. In the not-too-distant future, an “SMS acceptable to the state” could be just as important as aircraft occupants' having the required visas and passports for entry into a country.

But there is a gray area in what constitutes an “acceptable” SMS, noted Flight Safety Foundation manager of safety audits Darol Holsman. He believes that flight departments that have passed an International Standard for Business Aircraft Operations (IS-BAO) audit will be accepted automatically since a safety management system is a required element of IS-BAO. The problem is that only 107 flight departments have passed an IS-BAO audit. The only alternative, Holsman said, is for each individual country to approve an operator's safety management system.

For Part 91 operators, an SMS can form the basis of the company's safety efforts, but employees—as well as company management—must buy into the program, noted Harley-Davidson aviation department safety team leader Maria Jeanmarie. When the flight department implemented an SMS in 2004, she said the first order of business was to communicate the benefits to flight crews and reward them for participating.

Harley-Davidson developed its SMS as a standalone safety initiative. “IS-BAO is not needed for SMS,” Jeanmarie told CASS attendees.

She said that the system's methodology depends on the type of equipment being operated, geographical areas of operation and personnel composition. “An SMS should be specific to your operation,” she noted.

Reflecting Harley-Davidson's small, two-aircraft flight department, its SMS takes a low-technology approach—flight crews submit paper hazard identification and tracking forms and Jeanmarie, who is also a Hawker 800 captain, inputs them into a computerized spreadsheet.

Flight department leaders review the submissions monthly during risk-awareness program sessions and then make necessary operating changes or disseminate information to crews as needed.

General Electric Corporate Air Transport's SMS uses a more **high-tech approach** since the flight department has eight aircraft and 90 employees, said aviation safety manager Matt Dengler. Its safety management system was developed as part of its larger goal of obtaining IS-BAO certification. The flight department eschews paper for a computer-based submission system, not to mention that it also evaluates the data using an elaborate safety-management software program.

Jeanmarie and Dengler credited their respective SMSs with enhancing safety at their flight departments. While Harley-Davidson had only eight reports submitted last year, it still made several changes that have improved safety at the flight department. GE's department gets substantially more submissions since it flies more aircraft and conducts more international operations.

"Safety must permeate everything that you do," concluded Barr. "You can't have prevention without change." And, he said, SMS is a platform to identify what needs to be changed so that potential accidents can be avoided in the future.

[Tonganoxie man earns prestigious aviation mechanic award at KCI](#)

Willard Harper, FAA representative from the Kansas City International Airport, left, presents Larry Turpin, and his wife Jeanne Turpin, with the **2008 Charles E. Taylor Master Mechanic Award** Thursday.



Turpin was nominated for the award after **completing 50 years** in the aviation industry as an accredited mechanic.

Dressed in early 20th century clothing, Larry Turpin stepped up to the front of the crowd to give a speech after being given the **Charles E. Taylor Master Mechanic Award**.

He explained to an audience filled with his friends and co-workers at the [American Airlines repair hanger at the Kansas City International Airport](#) that he chose to dress that way to pay his respects to Taylor. Taylor is credited by the Federal Aviation Administration as being the first aviation mechanic in powered flight and credits him for designing and building the engine for the Wright brothers.

“I was going to get a derby hat online, but I wasn’t sure if it was going to make it in time,” he said later.

On Thursday, the 50-year aviation mechanic received the award that [honors life-long mechanics for aviation safety](#).

To be eligible for the award a candidate must have at least 50 years in aviation maintenance as an accredited mechanic and be an FAA certified mechanic for a minimum of 30 years.

Turpin began his 50-year career when he first enlisted in to the United States Air Force Technical School at Sheppard Air Force Base in 1958 at the age of 18.

After his work at the Air Force he was a fleet service helper for TWA in 1962 and in 1963 he began working for [TWA as an aircraft mechanic](#). In 1982, Turpin was promoted to Airframe and Power Plant Inspection Department for TWA and continues the same work for American Airlines.

“You’ve made this award something special that I will remember for the rest of my life,” Turpin said. [“It’s quite an honor. I’m very humbled by it.”](#)

Turpin was also given a 45-year service pin by Rick Tasetano, Vice President of the Transportation Workers Union Local 530.

Giving the keynote speech at the ceremony was Mary Feik, who has had an accomplished career as an aviation engineer for the United States military since World War II. She spoke on how aviation has changed over the years and what her experience was like working in a profession dominated by men. Feik was also the first woman to receive the Charles M. Taylor award.

Turpin’s wife Jeanne said she was thrilled about her husband’s accomplishment.

“He has really been looking forward to it,” she said. “I am glad he made it.”

Afterward a line of people from the audience formed to congratulate Turpin.



You're Left, Right?

The old Abbott and Costello comedy routine, "Who's on First," is a well-known example of how an intended meaning can get lost in the exchange between the speaker and the recipient. In the following report, the **ground crew's hand signals were at odds** with the flight crew's **mindset**, and a repeated **misunderstanding** was the result. An Air Carrier Captain reports:

- Ground man checked in on the headset prior to departure and briefed a powerback with a left turn. During the powerback, the ground man gave the signal for a right turn. Since I was **primed by the briefing** for a left turn, I began a left turn. This rightly excited the ground man who stopped me, brought me forward, and began the powerback again. Again, he gave the signal for a right turn, and again I turned left. By this time the ground man was pretty frustrated. We finished the powerback straight out and the flight departed. Departing, I saw another aircraft on the taxiway behind us. We would have been nose-to-nose with it if I had turned as I was trying to do.

The briefing had said a left turn, so even though he was giving a right turn, in my mind, I had **locked into** a left turn.

The system worked as it was supposed to the **ground man used the proper signals** to stop the aircraft from doing something he didn't want it to do, and got the problem sorted out. The flight departed without incident or compromising safety. **A good job by the ground man in the face of confusion.**

Although the reporter does not indicate that the problem was a **"left/right" confusion, such errors also occur**. Some airlines avoid this issue by requiring the ground crew to describe the compass direction the nose of the aircraft will be pointed during the pushback turn.

Klein Tools Offers New Aviation Snips For Cutting and Notching Sheet Metal

Klein Tools is introducing new aviation snips in offset and notching cutting patterns, for **comfortable** and reliable sheet metal cutting and trimming.

The new Klein offset snips are available in right, left, and straight cutting patterns (Cat. Nos. 2101R, 2100L and 2102S). Snips with a notch cutting pattern (Cat. No. 2103) are also new. The new offset snips have the capacity for cutting 18 gauge cold-rolled sheet metal, and 22 gauge stainless sheet metal, making them perfect for the aviation and the HVAC industries. The notch (or bulldog) snips notch or trim 16 gauge cold-rolled sheet metal and 18 gauge stainless steel sheet metal.



Each style of snips is constructed with **comfortable, contoured plastic handles** that are color-coded by cutting pattern. The snips are spring loaded for easy self opening, and come with a latch to keep the jaws closed when not in use.

The offset blades keep the **user's hand away from the metal**, and provide ease when cutting tight curves. Forged and heat treated, the steel blades offer strength and durability when cutting or notching sheet metal. The overall length of the offset snips is 9-1/2" (241 mm), while the notch snips measure 9 1/4" (235 mm).

Klein Tools, Inc. is a leading manufacturer of professional hand tools. For more information, please contact: Klein Tools, P.O. Box 599033, Chicago, IL 60659. Phone: (800) 553-4857. www.kleintools.com

Please send inquiries to: Marketing Department, Klein Tools, P.O. Box 1418, Lincolnshire, IL 60069-1418. E-mail: marketing@kleintools.com



Midnight Shift Nugget

Sleepiness, Shift Work Increase the Risk of Crashes

Sleepiness, particularly sleepiness **related to shift work**, is a risk factor for motor vehicle crashes, according to a new study published in the journal *Internal Medicine*. The study was based on questionnaire responses of 112 drivers who had been injured in a motor vehicle crash. The Australian researchers who conducted the study found that approximately 50 percent of drivers had at least one sleep-related risk factor, and that 20 percent had two or more. They also found that **shift work was the greatest sleep-related factor identified contributing to crashes.**



Background: Although alcohol and recreational drugs are recognized as significant risk factors for motor vehicle collisions (MVC), the contribution of **sleepiness** alone is less clear. We therefore sought to identify the contribution of sleepiness to the risk of a MVC in injured drivers, independent of drugs and alcohol. **Methods:** A prospective questionnaire and examination of sleep-related risk factors in drivers surviving MVC in a major hospital-based trauma centre was carried out. **Results:** Forty of 112 injured drivers screened were interviewed, of whom approximately 50% had at least one sleep-related risk factor, 20% having two or more. Of the MVC deemed sleep-related by questionnaire, only 25% were identified by the Australian Transport Safety Bureau definitions. **Shift work was the greatest sleep-related factor identified contributing to MVC.** **Conclusion:** **Sleepiness**, particularly related to shift work, needs to be emphasized as a risk factor for MVC. Australian Transport Safety Bureau definitions of sleep-related MVC are too lenient.

9 strategies to improve memory

Normal age-related changes in the brain can slow some cognitive processes, making it a bit harder to learn new things quickly or **to ward off distractions**. The good news is that, thanks to decades of research, most of us can sharpen our minds with proven, do-it-yourself strategies. Here are some ways to boost your ability to remember as you age.



1. Economize your brain use.

Take advantage of calendars and planners, maps, shopping lists, file folders, and address books to keep routine information accessible. Designate a place at home for your glasses, keys, and other items you use frequently.

2. Organize your thoughts.

New information that's broken into smaller chunks, such as the hyphenated sections of a phone number or social security number, is easier to remember than a single long list, such as financial account numbers or the name of everyone in a classroom.

3. Use all your senses.

The more senses you use when you learn something, the more of your brain will be involved in retaining the memory. For example, odors are famous for conjuring memories from the distant past, especially those with strong emotional content, such as the scent of your grandmother's freshly baked cookies.

4. Expand your brain.

Widen the brain regions involved in learning by reading aloud, drawing a picture, or writing down the information you want to learn (even if you never look back at your notes). Just forming a visual image of something makes it easier to remember and understand; it forces you to make the information more precise.

5. Repeat after me.

When you want to remember something you have just heard or thought about, repeat it out loud. For example, if you've just been told someone's name, use it when you speak with him or her: "So, John, where did you meet Camille?"

6. Space it out.

Instead of repeating something many times in a short period, as if you were cramming for an exam, re-study the essentials after increasingly longer periods of time — once an hour, then every few hours, then every day. Spacing out periods of study is particularly valuable when you are trying to master complicated information.

7. Make a mnemonic.

Mnemonic devices are creative ways to remember lists. They can take the form of acronyms — such as the classic "Every good boy does fine," to remember the musical notes E, G, B, D, and F on the lines of the treble clef. For older learners, a particularly helpful system is a story mnemonic — that is, a brief narrative in which each item cues you to remember the next one.

8. Challenge yourself.

Engaging in activities that require you to concentrate and tax your memory will help you maintain skills as you age. Discuss books, do crossword puzzles, try new recipes, travel, and undertake projects or hobbies that require skills you aren't familiar or comfortable with.

9. Take a course.

Memory-improvement courses are becoming more popular. If you decide to try one, choose a program run by health professionals or experts in psychology or cognitive rehabilitation. Stay away from courses that center on computer or concentration games, which generally won't help you with real-life memory problems. Select a course that focuses on practical ways to manage everyday challenges.

PICTURE THIS!

A picture can say so much. In this case it says "This building has undergone extensive renovations since its construction during the Second World War." It also says "Safety wasn't as much of a priority as it should have been when this phase of renovations was carried out." Your workplace will show your **safety attitude** in the same way. Whatever the **safety culture** is on the inside of your business, you can bet it will **leave its mark on your facility, and sometimes on your workforce..**

