



## Aviation Human Factors Industry News March 10, 2008

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#### **ASRA Report: Tissue's the Issue**

A CRJ700 Captain reported jammed rudder pedals during a takeoff.

While taking off...and at about 50-60 knots, the left rudder jammed and I rejected the takeoff. We made a full stop prior to crossing Runway 23. We then cleared the runways and returned to the ramp to troubleshoot the problem. After we were clear of the runway, I saw a small tissue box under the rudder pedal. This box apparently was already forward of the rudder pedals out of sight when we took over the aircraft. When takeoff power was applied, the tissue box slid back under my foot and rudder pedals causing the rudder to jam. Directional control was difficult but maintained during the rejected takeoff maneuver.

This was our first flight in this aircraft for the trip. Make sure all crews ensure the floor around the pilots seats are clear and that no foreign objects can slide forward on landing, jamming the rudders.

Tissue boxes, flashlights, water bottles, and manuals have all managed to interfere with rudder travel. Usually a visual preflight and a flight control check will detect these objects prior to takeoff. Flight crews should make sure that items that go missing during flight are located prior to turning the aircraft over to the next crew.



### Falling piece was aircraft maintenance device

Federal aviation officials confirmed last Thursday that a chunk of metal that fell through a West Palm Beach woman's roof was a piece of aircraft maintenance equipment used to lift airplanes.

The part, called a jack pad, was manufactured by McDonnell Douglas, the aircraft manufacturer that produces the DC-9 and MD-80 series of jets, Federal Aviation Administration spokeswoman Kathleen Bergen said.



It does not attach to aircraft, and FAA officials are trying to determine how it may have fallen from a plane.

"It's a mystery as to how this part wound up presumably on the aircraft and then falling," Bergen said. "It is not something that should have been stuck on an aircraft."

Homeowner Margaret Bagley, who lives under Palm Beach International Airport's flight path, went into her detached garage Feb. 13 to do laundry and found the hole near the roof's peak. On the ground below the hole, she found a round piece of metal that looked like the ball of a trailer hitch.

She did a Google search on the number on the piece and learned it was part of an airplane jack.

The jack pad is part of a fitting on a device used to lift aircraft for maintenance, Bergen said.

An FAA flight standards official from the agency's Fort Lauderdale office visited Bagley's home Wednesday to retrieve the part for further analysis.

Aviation officials hope they will be able to link a serial number on the part to a specific airplane jack, Bergen said.

Bergen did not know whether the part came from a jack at PBIA or was carried from another airport.

Bagley said she believes the part fell between Feb. 6 and Feb. 13. She normally goes into the detached garage only on Wednesdays to do laundry.

Bergen said the weeklong time frame makes it more difficult to determine which airplane the part may have fallen from.

An average of 1,300 planes a day fly into and out of PBIA this time of year, Bergen said.



The incident was the second time airplane parts have fallen on Bagley's property.

In 1999, a jet engine exploded just after Continental flight 1933 took off. The explosion forced the flight back to the airport and rained hundreds of parts on a five-block area.

The pieces ranged from 200 pounds to a fraction of a pound, and Bagley said an 18-inch-long piece landed on her husband's truck.

Bergen said the falling jack pad was an "isolated incident."







## **FAA Criticized In Report on Airplane Parts**

Passengers have flown on jetliners built with "substandard" parts, some of which may have been made in foreign countries, because the Federal Aviation Administration lacks an adequate system for checking the quality of airplane components, according to a federal oversight report.



The parts for commercial airliners such as the Boeing 727 and 737 were once manufactured almost exclusively in the United States.

But the parts on today's big jets, such as Boeing's 777 and its planned 787, are made in such countries as China, Japan, Brazil, Italy, France and Australia, in addition to the United States. Boeing, Pratt & Whitney, GE and other plane manufacturers buy parts made overseas largely because they are cheaper.

But the bargain-hunting has come at a price, according to a new report by the Transportation Department's inspector general.

"Neither manufacturers nor FAA inspectors have provided effective oversight of suppliers; this has allowed substandard parts to enter the aviation supply chain," reads the report, dated Feb. 26. The agency released the report yesterday after it was made public by the Project on Government Oversight, a nonprofit organization that focuses on government accountability.



The report cited four engine failures in 2003 -- three on the ground, one in flight -- that were traced to "unapproved design changes made by a . . . supplier" of speed sensors on engine fuel pumps. It did not cite any more recent incidents, nor did it specify the degree to which continuing problems with parts threaten to cause similar failures.

During a visit to one parts supplier, the inspector general's office observed an employee who <u>"used a piece of paper, scotch-taped to the work surface, as a measuring device for a length of wire on an oil and fuel pressure transmitter."</u>

Among its recommendations, the report said that the FAA needs to require manufacturers to make more on-site visits. The FAA also needs to improve its own inspections, the report said.

"The nature and number of discrepancies found at suppliers we visited would not have been identified through records reviews only," the report says. "For example, a supplier of fuel system parts for a major manufacturer had no record of the manufacturer ever completing an on-site audit of their facility. We found numerous deficiencies at this facility, including problems with the calibration program, employee training and product inspection."

So far, no airline accidents have been attributed to faulty overseas parts, the FAA said. "There are absolutely no imminent safety issues raised by the report," FAA spokeswoman Alison Duquette said.

The FAA largely concurred with the report and said it would implement most of the recommendations. It said some improvements urged by the report were already underway.

The report identifies 17 major components of commercial airliners made by Boeing, including the wings, rudder, nose and engine nacelles. When the Boeing 727 was introduced in 1964, all 17 of the components were made in the United States.

By contrast, of the 17 major components of the Boeing 787, which is scheduled to make its first test flight this year, 13 were made exclusively or partially overseas.

"FAA's process for supplier audits should be designed to address newer manufacturing business models, which have expanded the number of foreign suppliers, locations where parts are assembled, and the degree of independent manufacturing responsibility suppliers now have," the report reads.



Boeing said yesterday that it was taking the report seriously. "Oversight is really important in maintaining a high-quality supply system," spokeswoman Liz Verdier said. "We're reviewing the report, and then certainly if it's necessary to make changes to our process, we'll make changes."

# NTSB Considers Drastic Measures To Locate Missing Turbofan Part

**Southwest 737's CFM56 Shed Spinners In November** 

The National Transportation Safety Board is so concerned with finding a missing aircraft engine part in northeast Texas that it's reportedly considering a search on a scale normally reserved for missing pilots and passengers.



As ANN reported, back on November 17, 2007 Southwest flight 438 was climbing out from Dallas Love Field when passengers heard what they called an "explosion" from the left engine at 25,000 feet. When the 737-300 returned to Love Field, it had a gaping hole in the engine cowling, and it was quickly determined the engine's fan blades had suffered a catastrophic, uncontained failure.

Southwest was criticized in blogs by angry passengers for understating the engine failure as a "vibration" on takeoff, and for sending a letter to the flight's 133 passengers which explained, "The fan blades on the front of the engine were damaged, and rattled around the engine's intake area."

Passengers countered neither that description -- nor the FAA's preliminary incident report -- adequately explained what happened. "It was not during takeoff. There was a lot of damage. There was no vibration. It doesn't say anything about an uncontained explosion at 25,000ft," said one passenger, only identified as "Joe."

The engine in question is a CFM56-3B1, the most popular airliner powerplant currently flying. The engine is manufactured by CFM International, a joint venture between General Electric and Snecma, the latter now a division of the French aerospace company SAFRAN Group. If there's a problem which may affect more of these engines, it could represent a significant risk, due to the number of engines in service.



The front and rear spinners were lost in the engine failure, and NTSB says finding the front spinner is critical to determining whether the spinner or the turbine fan blades failed first.

The front spinner is a dome-shaped object about the size and shape of the top cover to a medium-sized barbecue grill. Based on the flight's speed and location and weather conditions at the time, investigators believe the spinner landed in a marshy, rural area of Hunt County, probably west of state Highway 50 and south of County Road 4403, according to KXAS-5.

Investigators say this is the first time ever they've had to search for a spinner. They don't know whether it will be found intact, or may have been broken up into smaller pieces.

The public has been alerted to look for the object, and Cattle rancher Mike Crowell, who owns most of the land in the area, says he's been keeping an eye out while working his ranch. But, Crowell says, he'd need lots of help to properly search his entire 300-acre property for the part.

NTSB now says it may provide exactly that -- a full-scale search of Crowell's property, and may expand the search area.

Crowell says the government investigators are welcome on his property, but tells the television station "If that plane part fell in certain areas, it might be years before somebody stumbled on it."

#### FAA proposes record \$10 mln fine for Southwest Air

U.S. aviation regulators on Thursday proposed to fine Southwest Airlines Co a record \$10.2 million for allegedly failing to inspect planes for structural cracks.

The Federal Aviation Administration (FAA) said Southwest continued to fly uninspected aircraft even after the carrier notified the agency that it had missed a mandatory deadline to complete the work.



"The FAA is taking action against Southwest Airlines

for a failing to follow rules that are designed to protect passengers and crew," said Nicholas Sabatini, the agency's associate administrator for safety.



The FAA said there were no safety incidents related to the missed inspections of Boeing Co 737 aircraft but the allegations and the fine amounted to a startling mark against the airline that has been an industry model for efficient operation for nearly 40 years.

"This is going to hurt Southwest in the image of the public," said Richard Gritta, a professor of finance and transportation at the University of Portland. "This is not just a toilet that's not functioning. This is serious."

Southwest said it acted promptly and responsibly and that flight safety was never compromised. It said the inspections were routine and redundant.

After discovering the missed inspection area, Southwest said it promptly reinspected the aircraft. It said the FAA approved of its actions, which were supported by Boeing.

#### **UNINSPECTED PLANES**

Southwest flies only 737 planes and the inspection program was part of an industry-wide FAA initiative to examine older planes more closely for signs of structural fatigue.

While commercial jetliners are built to fly for decades, the repetitive fuselage inspections imposed in 2004 are aimed at finding any minor skin cracks or other structural issues that occur with heavy use. They usually can be fixed easily.

But the FAA asserted that Southwest operated 46 planes on nearly 60,000 flights while "failing to comply" with the inspection requirement between June 2006 and March 2007.

The carrier continued for eight days to operate the same planes on more than 1,400 additional flights after discovering last March that it missed the inspection deadline, the FAA said. This breach, the FAA said, prompted the heavy fine.

Cracks were found on six planes after the inspections were completed, the FAA said.

Southwest said it acted promptly once it discovered the lapse and reported it to the FAA.

The carrier consulted Boeing about the airlines' plan to reinspect the planes over a period of up to 10 days, while continuing to operate them.



Boeing agreed that the plan did not pose a safety issue, Southwest said. A Boeing official confirmed the consultation.

The FAA "approved our actions and considered the matter closed as of April 2007," Southwest said in a statement.

#### **FAA ROLE QUESTIONED**

Questions were raised about the FAA's role and whether its oversight was insufficient. Congressional lawmakers are asking why it took the FAA so long to act and why uninspected planes were not grounded immediately.

The House of Representatives Transportation Committee is investigating and the panel's chairman, Rep. James Oberstar, a Minnesota Democrat, has scheduled a news conference for Friday. A hearing is planned for April.

Sen. Patty Murray, a Washington state Democrat and chairman of the appropriations subcommittee that funds FAA operations, called the safety violations "grotesque" and an "inexcusable lapse."

Murray was critical of the airline but also promised to hold FAA officials responsible. "We need to ask serious questions as to why it took the FAA so long to discover them," she said.

The FAA said it is sending a team of inspectors -- those that do not normally work closely with Southwest at its base in Dallas -- to review the maintenance program. Airlines overall are complying with the timelines for completing structural inspections, the agency said.

Southwest can appeal the proposed fine, which would be the largest ever against an airline, if enforced. The largest to date is a \$9.5 million penalty against Eastern Airlines in the 1980s.



# Airbus Almost Loses It in Nasty Winds

A Lufthansa A320 with 130 passengers onboard nearly crashed during its landing approach to the Fuhlsbuettel airport in Hamburg, Germany on Saturday in winds gusting as high as 55 mph.

Amateur video footage shows the airliner approaching shows the the runway at a substantial crab angle in rain and gusts. Moments after the unidentified pilot kicked out the crab prior to touchdown, the left winglet scraped the runway.

"Just before landing, the plane was hit by a very

strong gust of wind that led to the left wing



touching the ground very briefly," Juergen Raps, Lufthansa executive vice president of operations, told the Reuters news agency. "The pilots reacted outstandingly by inducing a go-around." The Associated Press said that the jet landed on a different runway about 10 minutes later with no injuries reported. Various news agencies reported gale force winds caused flight delays throughout Germany, but no information was available as to why the Lufthansa flight attempted to land in such adverse conditions.

### Records show go! pilots had OK rest

The go! pilots being investigated by the Federal Aviation Administration for possibly falling asleep on a Feb. 13 midmorning flight from Honolulu to Hilo had nearly 15 hours of rest prior to reporting to duty, according to an airline source -- nearly twice the amount of time required by federal regulations.



www.iflygo.com

Both the captain and first officer finished their shift on Feb. 12 at 2:47 p.m. and didn't return to duty until 5:40 a.m. the next day, according to information obtained from flight logs of Mesa Air Group, the parent of go!

The data, provided by a source who requested anonymity, indicates that the pilots had 14 hours and 53 minutes of rest before their Feb. 13 flights. The data also shows that the captain had 14 hours and 55 minutes of rest in each of the prior two days, while the first officer had 38 hours and 52 minutes of rest and 14 hours and 55 minutes of rest, respectively, prior to duty on Feb. 11 and Feb. 12.

FAA regulations require a minimum of eight hours of rest prior to beginning flying duties.



The pilots were out of communication with air traffic control for 20 to 25 minutes, according to the FAA, and overshot Hilo Airport by 15 miles. The pilots subsequently made a return flight to Honolulu Airport following the incident, sources said.

In a memo to Mesa employees yesterday, the company said the captain of that flight has 25,000 hours total flight experience and 8,000 hours on the CRJ. The first officer -- the co-pilot -- has 1,250 flight hours with 500 hours on the CRJ.

In the wake of that ongoing investigation, the FAA is now looking into another communication blackout involving go! flight 1015 that flew from Kona to Honolulu the day before the Feb. 13 incident. The control tower lost communication with the pilots for about 14 minutes, FAA spokesmen Warren Woodberry said.

Mesa spokesman Paul Skellon said the Feb. 12 incident "is being reviewed."

Hilo Airport Air Traffic Manager Ray Robinson said in the Feb. 13 incident that the controller in Honolulu was trying to contact the pilots "and didn't get any answers."

Pilot rest and fatigue has been a key issue in the current contract negotiations between the airline and the Mesa unit of the Air Line Pilots Association.

"It is probably one of the primary concerns in negotiations -- scheduling and pilot fatigue," said Michael Jayson, chairman of Mesa's ALPA unit.

"We strongly feel that just because something is FAR (Federal Aviation Regulations) legal, that doesn't make it safe."

#### **B-2 Spirit Crash Update**

The B-2 Spirit "Stealth Bomber" that crashed Saturday, Feb. 23, at Andersen Air Force Base, Guam, was on fire prior to the crash, according to a report cited by the Air Force Times. The fire, which was reported shortly after takeoff, was followed by an uncommanded and uncontrollable roll to



the right. The aircraft crashed between the ramp and taxiway at approximately 10:45 a.m. local time, and not before both pilots had safely ejected. One of the pilots suffered spinal compression and as of Thursday remained in the hospital. The crashed aircraft, the Spirit of Kansas, a part of the 509th Bomber Wing, had more than 5,000 flight hours. The remaining fleet is not "grounded" but under a "safety pause," according to the Air Force -- the aircraft could be called to service if tasked with a mission. During the safety pause, six B-52s have arrived "to replace" the remaining three B-2s in Guam. An investigation is under way.



#### **Boeing Hones In on Hummingbird Crash Cause**

Boeing hoped to resume ground testing of its A160T helicopter Drone last month and flight testing shortly after that.

This follows its investigation into the early December crash of a Hummingbird prototype. It found a flight control software problem not previously seen was the cause and has identified a fix. The A160T, designed with an optimum speed rotor, is being developed for the U.S. Defense Advance Research Projects Agency and the Special Operations Command.



Boeing in December halted flight tests of its optimum-speed-rotor drone while it investigated the latest crash of the aircraft type.

The turbine-powered A160T Hummingbird unmanned air vehicle crashed Dec. 10 during a flight test from Boeing Advanced Rotorcraft Systems' facility in Victorville, Calif., about 50 nm northeast of Los Angeles. The aircraft was flying at about 2,300 ft agl, or 5,000 ft msl, whe it crashed. The drone was destroyed.

#### Software snafu delays United's Leap Day check-ins

Passengers using United Airlines' "Easy Check-In" found it anything but that on Leap Day when the automated system crashed, resulting in longer lines.

The nation's No. 2 carrier blames the service interruption on software issues related to the leap year.

Spokeswoman Megan McCarthy says customers were still able to check in online

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and with customer service agents but not at Easy Check-In kiosks for several hours. She says the units are now back in service.

McCarthy says no flights were delayed and the Chicago-based airline apologizes to customers for any inconvenience.

She says United didn't have any such problems with the software on Leap Day four years ago.



#### Alaska Airlines honored with two safety awards

Alaska Airlines has received two awards in recognition of its safety record over the past year.

The carrier has been presented with a "Shield" for the fifth year running from The Medallion Foundation of Alaska. The Shield is the highest accolade given by the Alaska-based nonprofit organization and recognizes Alaska's best practice and accident-free year of operations.



As well as gaining another Shield title, the airline was also praised by the Alaska Air Carriers Association (AACA) which aims to improve aviation safety and training.

Chris Glaeser, Vice-President of Safety at the airline, commented: "It's an honor for Alaska Airlines to be recognized by the AACA and the Medallion Foundation.

"These groups are dedicated to promoting a level of safety above and beyond minimum FAA requirements."

Alaska's codeshare partners Era Aviation and PenAir also gained Shield awards from The Millennium Foundation

#### **Help wanted: airplane mechanics**

A company that works on Boeing airliners in Indianapolis says it has lost business to Asia because it can't find enough airplane mechanics.

AAR Corp. plans to recruit unemployed industrial and sheet metal workers throughout the Midwest to help fill 400 to 500 open positions at its Indianapolis maintenance center, said AAR general manager Mickey Cohen.



"I have aircraft sitting out there because we don't have enough workers," Cohen said. "A lot of our business is going to Singapore. A lot of it is going to South America."

AAR, based in Wood Dale, III., works on airplanes in the former United Airlines maintenance center at Indianapolis International Airport.

Cohen said people may apply for jobs through AAR's Web site — www.aarcorp.com.





Cohen is president AAR Aircraft Services, an AAR Corp. business unit that runs repair centers in Indianapolis; Hot Springs, Ark.; and Oklahoma City, Okla.

AAR's operation in Indianapolis now employs about 950 workers on two shifts. While airlines have outsourced maintenance, AAR hasn't been able to recruit enough mechanics. Relatively few people have looked for aviation jobs in recent years because many believe troubled airlines are shedding workers, Cohen said.

In Indianapolis, AAR maintains airliners that come in for inspections required every several years by federal regulations. The aircraft include Boeing 727s cargo carriers flown by Federal Express, and Boeing 737 passenger airplanes used by United and Southwest Airlines.

Maintenance includes engine oil changes, inspecting power and electronic systems for defects and replacing worn aluminum body panels. A shop that will paint the exterior of airliners also is being added in an unused hangar.

Wages start at about \$16 an hour for licensed mechanics with less than five years of experience, rise to about \$20.25 an hour in five years and can surpass \$23 an hour for inspectors.

Employees are required to train in class and obtain valid Federal Aviation Administration licenses. On the airport grounds, Vincennes University currently has about 100 students enrolled in its aircraft program.

Vincennes' program, originally scaled for 400 students, was set up to provide workers for United's 1.6-million-square-foot maintenance center. In the early 1990s, Indianapolis landed the center after committing about \$300 million in public incentives.

United eventually employed 3,000 at the airport but shut down the center by 2003 after fuel prices soared and travel declined following the 2001 terrorist attacks. AAR currently employs about 650 former United mechanics. Many apparently left the region, Cohen said.

AAR took over 10 of the 12 former United hangars. Separately, Indianapolis-based Republic Airways maintains aircraft in two hangars.

Cohen disclosed the worker shortage Monday during a ceremony in which AAR agreed to participate in the U.S. Army's partnership for youth success program. The program will identify new enlistees interested in aviation careers and attempt to steer them into Army aircraft positions. Soldiers who agree will have their names made available to AAR for potential employment after they leave the Army.



## NTSB To Hold Safety Forum On UAVs

**Event Comes Following April 2006 Predator Downing In Arizona** 

The National Transportation Safety Board will hold a three-day forum on the safety of unmanned aircraft systems (UAS). The



forum will be convened April 29 to May 1 in the NTSB Board Room and Conference Center in Washington.

The agency says the forum will provide an opportunity for the Board and interested parties to understand the safety implications presented by the growing use of UAS in the National Airspace System. Issues addressed will include: - Regulatory standards, - Integration with the National Airspace System, - Perspectives of current UAS operators, - Design, certification and airworthiness, - Human factors, - Future UAS applications and perspectives of current users of the National Airspace System.

The forum is a result of the Safety Board's investigation into a Predator B unmanned aircraft that crashed near Nogales, AZ in April 2006. As ANN reported, the Board's October 2007 meeting on this accident resulted in 22 safety recommendations to address deficiencies associated with the civilian use of unmanned aircraft.

"The Nogales accident surfaced a number of important questions that need to be addressed if UAS's are to operate safely in the National Air Space," said Board Member Kitty Higgins, who will chair the forum. "We are very interested in the military's experience with UAS's, training of pilots, maintenance of the aircraft, communication with Air Traffic Control and oversight of UAS operations by public use agencies and other operators."

The forum will include representatives from the military, industry, the FAA, and government agencies involved in UAS operations. Interested members of the aviation community and general public are encouraged to attend. A forum agenda will be announced in mid-April.

Representatives from the UAS industry also are invited to set up display booths and unmanned aircraft vehicle scale models that demonstrate unmanned aircraft systems and technologies. Display space is limited and will be allocated on a first-come, first-served basis.



#### First female Harrier engine mechanic retires

Retired Maj. Lou Ann Rickley stands before the Marine Corps CH-46 Helicopter at Marine Aviation Logistics Squadron 39 Dec. 19. Rickley is a legend in the Marine Corps aircraft maintenance community as the first female Harrier Engine Mechanic.

She walked in to the joint recruiting office intending to join the Army. Then she saw a Marine in dress blues. The rest is 30 years of Corps history.

Born in Pittsburgh, Maj. Lou Ann Rickley joined the Marine Corps in 1977 and blazed a trail of accomplishments, as the first female to contribute in many areas of the Corps.



She became an Aviation Mechanic and soon discovered this was her dream job when landing with a harrier unit; Marine Attack Squadron 513 Flying Nightmares. There she became qualified as the first female AV-8A Harrier Plane Captain, who is ultimately responsible for ensuring the aircraft are ready for flight.

"I suspected that the Corps made a mistake by assigning me to this unit because it was a deployable unit and females were not yet allowed to deploy," Rickley said.

That issue was highlighted when then-Sgt. Rickley realized participation in workups for the unit's deployment was necessary for promotion in her field. The workups included sailing out aboard a ship which had no female living quarters.

"Eventually, I was allowed to sail out for one day to obtain the necessary qualifications, but had to be flown off ship the same night," Rickley said.

"I believe the obstacles Rickley faced as a female earlier in her career had a tremendous impact on creating her well known 'firm but fair' style of leadership," said Lt. Col. Vincent E. Clark, commanding officer for Marine Aviation Logistics Squadron 39.

Her years on the drill field may have influenced her leadership style as well. In 1986, Rickley graduated Drill Instructor school and became a Senior Drill Instructor after one training cycle. In her tenure, she trained a total of nine platoons and all nine took home final drill trophies.

"It was a mental game," said Rickley. "The recruits always aim to please the Senior DI. The day before final drill I would be extremely upset with their performance, whether it was good or not, and walk out. On final drill day it would all be 'snap and pop.' It worked every time," she said.



Before leaving Parris Island, she was meritoriously promoted to gunnery sergeant and was the first to fill the newly established position of Series Chief Drill Instructor, 4th Recruit Training Battalion.

Clearly identified as an outstanding Marine and beating every obstacle thrown her way, Rickley was just getting started.

While stationed at MALS-11, Marine Corps Air Station, El Toro, Calif., Rickley was selected to become one of only two female Warrant Officers in the Marine Corps.

"I probably would have been the first female Warrant Officer," said Rickley. "After several unanswered submissions I gave up. It never occurred that there were no female WO's in the Corps. The year I gave up was the year they selected the first female," she said. "I applied again and may have been selected as the second."

Rickley's first deployment came in 1996 with Marine Tactical Electronic Warfare Squadron 2 to Aviano, Italy in support of Operation Decisive Endeavor, Bosnia.

As a Chief Warrant Officer, Rickley applied for the Limited Duty Officer program and was the only Aircraft Maintenance Officer selected and promoted to Captain in 1999.

That year, Marine Medium Helicopter Squadron 364 demanded all her experience. The unit failed their maintenance inspection and Capt. Rickley was called in to fix it.

"She came in like the Tasmanian Devil," said Staff Sgt. Jessica Pfister, Maintenance Administrator, MALS 39, who was a private first class at the time. "It took eight months for her to dismantle the unit and rebuild it the right way. We passed the next inspection with flying colors," she said.

Her final accomplishment as a Marine included her being promoted to major and becoming the first female Aircraft Maintenance Limited Duty Officer in March 2005.

"Rickley has represented the epitome of all that is right in the Marine Corps and in the aircraft maintenance profession," said retired Lt. Col. Michael Nisley, Rickley's former Aircraft Maintenance Officer. "She has strived and worked her whole career to be an equal regardless of gender, she is not a female Marine, she is a Marine who happens to be female."

Rickley's final tour as a Marine was with MALS 39 as their AMO. There is where she has made her mark not only as an outstanding Marine but an outstanding human being.

"Maj. Rickley is Mother Teresa in a Marine Corps uniform," Pfister said. "She's very tough and accepts nothing but your best performance, but she's equally relentless at taking care of her Marines."



Rickley officially retired from of the Corps in December. But even after her retirement, she'll be first again, as a civilian contractor titled Program Management Air 226 West Coast CH-46 Helicopter Manager.

"She has earned the respect of every Marine she's touched, and the Marine Corps will benefit from her prodigious talents for years to come," Nisley concluded.

Pensacola instructors and maintenance crew will be trained in Meridian, Miss., to tangle with the Goshawk, which offers contemporary avionics and technology similar to modern fighter jets. New pilots may welcome the change. Older ones may wonder if the Goshawk can possibly outlast the T-2 ... or if they can soon find a Buckeye on eBay.

#### A 1928 Biplane Returns To The Sky

A 1928 Boeing Model 40C biplane, lovingly restored by Pemberton and Sons Aviation of Spokane, Wash., flew this Monday for the first time in 80 years. "The airplane is very controllable and pleasant with excellent ground handling, good elevator and rudder, and heavy but effective ailerons," Addison Pemberton said in the Nordo News. "The visibility is very poor but not difficult. The overwhelming surprise is stability." Pemberton flew the airplane for about 20 minutes,



and said he was able to fly hands-free for much of the flight. "In all flight configurations I never used more than 1 1/2 degree of trim change, including slow flight at 55 mph," he said. The airplane was originally used on mail routes, and Pemberton said it's now the oldest flying Boeing aircraft. More than 60 volunteers helped on the project, logging over 18,000 hours of work.

Videos about the airplane and the first flight can be downloaded at the Pembertons' Web site.



### **Midnight Shift Nugget**

#### **Eat Light Before Sleep**

When you eat in the morning after work, stick to low-fat healthy foods before going to bed. A bowl of cereal or a small serving of pasta with chicken are good examples. This reduces your chances of having stomach problems while sleeping and also may help you maintain a healthier weight because you burn less



may help you maintain a healthier weight because you burn less calories while asleep. If you've used to eating a large breakfast after work, just remember that it doesn't tale a lot of food to eliminate a seemingly huge appetite. What it requires instead is patience: From the time you start eating, it takes about 20 minutes for the feeling of hunger to go away.



# Health Study: Aircraft Noise And Blood Pressure

"Nighttime aircraft noise can affect your blood pressure instantly and increase the risk of hypertension," according to Dr. Lars Jarup of the Department of Epidemiology and Public Health at Imperial College, London. ...And so can sleeping next to someone who snores, according to a study co-authored by Jarup and published in the February issue of the European Heart Journal. Researchers remotely measured the blood



pressure of 140 volunteers and analyzed the noise level in each person's bedroom.

The sample included people living near London's Heathrow, and airports in Athens, Milan and Stockholm. Noticeable increases in blood pressure were correlated with increases in noise levels reaching more than 35 decibels -- which can be similar to the amount of noise generated by snoring or nearby automobile traffic. The level of noise, according to researchers, was the key factor. The type of noise was not. Similar increases in blood pressure have been reported in other environmental noise studies. The study found that systolic blood pressure increased by 0.66 mmHg per 5 decibels of noise and increases were apparent even when individuals remained asleep.

#### **HEALTHY HEART**

#### Three Free Online Measuring Tools

February was Heart Month and adopting a healthy lifestyle is key to battling cardiovascular diseases. Before you begin, though, it's important to know where you're starting from. These three measuring tools can help.



## 1. Measure Your Body Mass Index

Being overweight or obese puts you at risk for developing many diseases, including heart disease. So how do you determine if you're overweight or obese? By calculating your body mass index, which measures your body fat based on height and weight. (Note that this is not intended for anyone under aged 18 or for pregnant or lactating women.) http://www.safetysmart.com/health/bmi.html



#### 2. Measure Where Your Weight Is

From a healthy heart perspective, which of these two is more important?

- a. How much you weigh, or
- b. Where you carry your weight?

#### Answer:

b. Where you carry your weight.

According to the Heart and Stroke Foundation, if you carry most of your weight at your waist (as opposed to your hips and thighs), you may be at an increased risk for high cholesterol levels, high blood pressure and diabetes, any of which can increase your risk of heart disease and stroke.

Finding out how much you weigh is easy-you step on the scales. But do you know the correct way to measure your waist? If not, this two-minute video from the Heart and Stroke Foundation can help:

http://www.heartandstroke.com/site/c.iklQLcMWJtE/b.3876195/

#### 3. Measure Your Food

If you've determined that it's time to make healthier eating choices and want to analyze the nutritional value of your favorite recipes, the Dietitians of Canada have now launched a free Recipe Analyzer.

Enter your recipe's list of ingredients and receive a full nutrient profile for a serving, as well as tips on how to adapt the recipe so that it's more nutritious. The Analyzer will also let you know the number of Canada's Food Guide servings your recipe provides.

Registered users can also save their recipes in an online recipe binder.

Visit <u>www.dietitians.ca/eatwell</u> and click on Recipe Analyzer on the left side of the page.



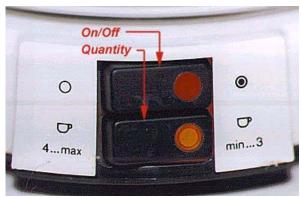


## **Bad Design**

#### More coffee or less

Are you confused by the switches on his coffeemaker? (See photo.) Each switch has a light on it. The top switch turns the coffee maker on and off. When it is on, its light goes on. No light appears when the coffee maker is off.

The bottom switch selects the quantity of coffee desired, either a) the smaller quantity of 3 or fewer cups or b) the larger quantity of 4 or more cups. The problem is with the light on this bottom



switch. When would you expect the switch light to go on, for the smaller quantity or for the larger quantity?

If you said that the light goes on when the switch is set to the larger quantity of 4 or more cups, you would be wrong. The quantity light ONLY goes on for the smaller quantity, three cups or less. It does NOT go on for the larger quantity, 4 or more cups.

Why is this confusing? People naturally expect more coffee to be associated with more light (light on) and less coffee to be associated with less light (light off).

Design Suggestions

- Change the operation of the coffee quantity switch so that the light goes on when the coffee quantity is set to make more cups of coffee, not fewer cups. This change would involve switching the positions of the "min...3" and "4...max" labels.
- Remove the light from the coffee quantity switch.
- Consider removing the coffee quantity switch entirely. Most coffee makers don't have one.



### **Picture This!**

Attitude: it's the difference between safe and sorry, between looking and leaping, and also between "Do as I say," and "Do as I do." This gentleman seems to have a positive safety attitude and is proudly proclaiming the fact. Yet he's ignoring a basic, simple safety requirement. He may need to rethink that, because a safe attitude can make the difference between being right, and being dead wrong.



