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NTSB ADVISORY

UPDATE ON NTSB INVESTIGATION INVOLVING MIDWEST AIRLINES AIRPLANE CARRYING SENATOR OBAMA

The following is an update on the National Transportation Safety Board's investigation of the incident involving the Midwest Airlines MD-81 airplane carrying Senator Barack Obama on July 7, 2008, in which the tail cone evacuation slide deployed in-flight.

Preliminary findings reveal that the slide was partially inflated and the inflation bottle was empty. Examination of the hardware did not reveal any evidence of missing components, nor any evidence of tampering.



The slide and hardware were removed from the aircraft for examination. There was no evidence of any punctures in the slide; however, there **were marks consistent with rubbing of elevator control cables. Additional evidence was found to indicate that a catwalk railing was broken and impinged upon elevator control cables.** The slide and hardware will be sent to the manufacturer for detailed examinations supervised by the NTSB.

The flight recorders have been removed and are en route to NTSB headquarters for download and analysis. Flight crew statements indicate that the crew did not hear the slide deploy in flight nor did a mechanic who was seated in the rear of the airplane.

The flight crew confirmed that they detected elevator control stiffness during the initial level off after departure from Chicago Midway Airport. [Maintenance records have been secured](#) for further examination.

Research has been initiated into the certification of the slide, its service history, and its design interface with the airplane.

The NTSB completed the on scene phase of the investigation last week.

NTSB ISSUES UPDATE ON 767 CARGO AIRPLANE FIRE

In its continuing investigation to determine the cause of the June 28, 2008, fire that burned a hole through the top of the fuselage of an ABX Air Boeing 767 cargo airplane parked at San Francisco International Airport, the National Transportation Safety Board has developed the following [factual information](#):



The primary location of the fire was outside the cargo hold in an area just aft of the cockpit. The fire was extinguished by San Francisco Airport Rescue and Fire Fighting, but not before causing substantial damage to the aircraft. The flight crew of two, who were preparing to start the engines when the fire broke out, escaped from the aircraft without injury.

The NTSB dispatched a team of five investigators to the accident scene. Joining them were representatives from the Federal Bureau of Investigation; the Bureau of Alcohol, Tobacco and Firearms; the Transportation Security Administration; the Federal Aviation Administration; the San Francisco Fire Department; and Airport Rescue and Fire Fighting. NTSB investigators have worked closely with all of these groups throughout the process of examining and documenting the fire damage to the aircraft.

After the NTSB was notified of the fire, [it was reported that within a week prior to the accident, the cargo carrier had received a threat against an unspecified aircraft.](#)

Preliminary examinations have not revealed any indication of an explosive or incendiary device.

The 21-year-old aircraft was originally configured for passenger operations and modified in 2004 to a cargo configuration by Israel Aerospace Industries (IAI).



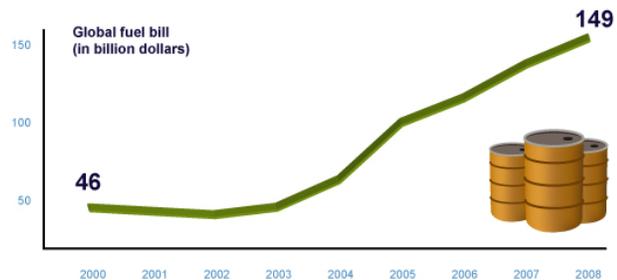
The Israel Ministry of Transport has designated an accredited representative to the investigation under the provisions of the International Civil Aviation Organization (ICAO) Annex 13. IAI will serve as a technical adviser to the accredited representative.

NTSB investigators interviewed both members of the flight crew yesterday. The cockpit voice recorder and flight data recorder are at NTSB headquarters in Washington where data from each is being analyzed.

Industry Threats and Stress

At a recent Air Transport Association (ATA) Safety Committee meeting there was a frank discussion of the state of the industry and how this is affecting the pilot (technician) group of all participating carriers. High fuel costs, industry financial losses, threats of furlough, mergers, and the potential impact of our careers and families are **increasing the**

stress and distractions present in the cockpit (ramp/hangar). Airline pilots (technicians) are **working more, getting less rest, and with the external stressors present are seeing more fatigue**. This **environment** is causing a rise in the frequency and severity of **errors** being made at all air carriers. Some **strategies to mitigate** the affects of stress and distractions are to find an outlet for it. **Exercise**, take personal **time off** (PTO) to enjoy your family, or a much needed vacation can be just what you need to regroup and refocus. Your company may have a **Peer Assistance Program** such as Life Solutions. Now more then ever you have to take care of yourself. **Put a plan in place.**



Source : IATA industry Outlook Dec 2007

Air France Press Office - May 2008
corporate.airfrance.com

U.S. Naval Safety Center

Maintenance Mishap Summary

Welcome to this month's maintenance mishap summary.

Flying with tools? It is still happening. A squadron's aircraft port engine would not start, the crew switched to their back up. Our finest mechs in the fleet went hard at work to get the down aircraft back on the flight schedule. The engine starter was changed; low power turn checked 4.0 and the MAF was signed off. The evening shift went as normal, 24 hours have passed now since the starter was changed.



The next day, the aforementioned aircraft had a fresh daily on it and was on the flight schedule. Engines started, plane taxis and takes off. About an hour passes, power plants notifies maintenance control that they are **missing a screwdriver**. The aircraft that is airborne **gets called back** to search for the missing tool. Low and behold, the **screwdriver is found in the engine nacelle**. How does this happen? A CDI does a post job tool inventory. The day shift supervisor does an end of shift inventory. The night shift supervisor does and beginning and end of shift inventory. The day shift supervisor does another beginning shift inventory the following day. It's amazing how this common tool went through at a **minimum of 5 tool inventories** and was overlooked. This definitely had the potential of killing a crew or damaging valuable assets.

The bottom line is we, the aviation professionals, need to **accurately account for the tools** we use to keep our machines running. Accuracy: Webster defines it as; freedom from mistake or error. We need to remind ourselves that Webster's definition is what we must employ when conducting tool inventories.

Conviction Denounced

Flight Safety Foundation, the International Federation of Air Traffic Controllers' Association and the International Federation of Air Line Pilots' Association have **criticized the prosecution and conviction** of two air traffic controllers on duty at the time of a near midair collision of two Japan Airlines aircraft. A Japanese court also imposed prison sentences on the two controllers but suspended the sentences.

“The prosecution and conviction of these two air traffic controllers in a situation where there was not intent of wrongdoing is contrary to international best practices for aviation safety and the **principles of a just culture,**” the three organizations said in a joint statement.



The incident, which occurred Jan. 31, 2001, over Yaizu, involved a Boeing 747 on a flight from Tokyo to Okinawa and a McDonnell Douglas DC-10 en route from Busan, South Korea, to Tokyo. Published reports said that nine people in the B747 received serious injuries when the captain pushed the aircraft into a dive to avoid the DC-10; the flight crews had received **conflicting instructions** from air traffic control and their traffic-alert and collision avoidance systems.

Flying fears switch from terrorism to technical faults

MELBOURNE: A new survey has shown that air passengers are now more scared of **mechanical or technical problems** on flight than any other danger.

According the report released by Civil Aviation Safety Authority, passengers are now more worried about **human error** and mechanical problems than terrorism and sabotage.



The survey showed 27 per cent of the Aussies cited the mechanical and technical problems as their biggest fear, compared with 23 per cent in 2005.

Worries about **human error** ranked third - psychological factors ranked second - and were up by 4 percentage points to 16 per cent.

On one hand where passengers' concerns about mechanical or technical problems rose from 16 per cent to 26 per cent, on the other terrorism or sabotage showed a sharp fall from 52 per cent to 16 per cent.

"Also worth noting is the increase in the number of people **nominating human error** as a cause of concern (up from 1 per cent in 2005 to 14 per cent in 2008)," the report stated.

"CASA may need to consider news reports or the regular scheduling of air **crash** investigation television shows as contributing factors to this increase since 2005."



The study findings also revealed that Australians are more assured about domestic aviation safety, with 78 per cent of those flying between capital cities saying they were **confident or very confident** they would reach their destination in one piece, reports the Australian.

Passengers flying to and from regional centers on smaller planes were less confident about safety than their capital city counterparts, but still felt happier about safety than they did in 2005.

The survey found 64 per cent - up 2 points from the previous survey - were completely or very confident.

For regional travelers lack of security at regional airports (5 per cent), inferior facilities (4 per cent) and lower safety on small aircraft (2 per cent) were reasons for concern.

FAA's Push To Push Air Traffic Controllers

The FAA's latest plan to adjust its workforce of controllers amid a boom of attrition, retirement and training aims to seduce veteran controllers to particular locales with higher incentive bonuses that, according to the FAA, are necessary to offset the higher cost of living in those areas. Current openings include spots in Westbury, N.Y.; Aspen, Colo.; Nantucket, Mass.; and heat-challenged Anchorage and Fairbanks, Alaska; and span a total of 25 facilities nationwide. In New York, "incentives" translate to \$27,000 as a transfer bonus for accepted applicants, plus up to \$75,000 over four years as an incentive bonus. That's on top of the roughly \$99,000 to \$137,000 per year that the FAA says it pays its New York controllers.



The move may bring attention to issues highlighted in a recent report from the Department of Transportation Inspector General that found one-quarter of current air traffic controllers are new hires still in training and 20 percent of facilities fail to match the FAA's limits for the number of controller-trainees allowed.

An ABC news report Thursday noted that the agency's job postings list "Vacancies: Many" and that the FAA is seeking to manage its shrinking force of seasoned air traffic controllers, which it ultimately must nearly replace over the next 10 years to counter attrition and retirements. All the while, the FAA and the National Air Traffic Controllers Association (NATCA) continue to disagree about staffing levels and pay, with NATCA frequently referring to the current condition as a crisis, and the FAA contending that everything is under ... control.

Plane soar past destination as pilots doze: report

An Air India flight headed for Mumbai overshot its destination and was halfway to Goa before its dozing pilots were woken out of a deep slumber by air traffic control, a report said.

The high altitude nap took place approximately two weeks ago, the Times of India reported Thursday.

Some 100 passengers were on board the state-run flight that originated from Dubai and flew to the western Indian city of Jaipur before heading south to Mumbai when both pilots fell asleep, a source told the paper.



"After operating an overnight flight, **fatigue levels peak** -- and so the pilots dozed off after taking off from Jaipur," the source, who was not identified in the report, said.

The plane flew to Mumbai on autopilot, but when air traffic there tried to help the aircraft land, the plane ignored their instructions and carried on at full speed towards Goa.

"It was only after the aircraft reached Mumbai airspace that air traffic control realized it was not responding to any instructions and was carrying on its own course," the source said.

"The aircraft should have begun its descent about 100 miles (160 kilometers) from Mumbai, but here it was still at cruising altitude. We checked for hijack."

Finally air traffic control buzzed the cockpit and woke up the pilots, who turned the plane around, the report said.

When contacted by the newspaper, Air India said it was gathering information on the incident.

The manager of Mumbai's airport insisted the aircraft had suffered a **"communications failure" and that no napping had taken place.**

But sources told the daily that authorities were trying to **hush up the matter.**

Indian papers reported this week that a flight operated by private airline Jetlite to the central Indian city of Patna was grounded after the pilot was found to be drunk.

Defence chief demands end to helicopter 'cowboy' culture

A **CULTURE** of risk-taking and sloppy safety standards exists in the army's elite helicopter squadron, according to a damning report by a military inquiry into the fatal crash of a Black Hawk helicopter off Fiji in 2006.

The scathing assessment of the Sydney-based 171 Squadron was in part based on evidence of a number of similar incidents, including the crash of a Black Hawk in East Timor last year that was kept under wraps by Defence because it was "not newsworthy".



Headed by the former Supreme Court judge David Levine, QC, the board of inquiry was convened last year to examine the crash of Black Hawk 221, which smashed into the deck of HMAS Kanimbla before tumbling into the Pacific Ocean and sinking on November 29, 2006.

The pilot, Captain Mark Bingley, and SAS Trooper Joshua Porter **died in the accident.**

The final report of the inquiry was handed to the Chief of Defence Force, Air Chief Marshal Angus Houston - a decorated helicopter pilot - six months ago.

He is said to have been **appalled by its revelations.** The *Herald* understands that, after reading it, he dubbed senior pilots from 171 Squadron **"cowboys"** and launched an audit of all of Defence's helicopter fleets to ascertain if the problems were more widespread.

Sources familiar with the report say it finds that senior pilots in 171 Squadron, while highly trained, had a **culture of aggressive flying** and a tendency to needlessly "push the envelope".

Safety procedures were slack and the reporting of incidents involving engine failures and other safety breaches was haphazard, it says.

The crash on HMAS Kanimbla occurred while Australian troops were stationed off Fiji preparing to remove Australians if the civil unrest there worsened. They undertook training exercises while they waited for a possible call to action.

In a helicopter packed with Special Air Service soldiers, Captain Bingley was attempting a special operations assault drill, flying at high speed before suddenly turning and "flaring" into a hover above the ship, with the helicopter's nose up, so soldiers could descend by rope or fire weapons.

The inquiry concluded that the exercise was highly dangerous, given the tailwind, the heavy cargo, HMAS Kanimbla's drift in the sea and the fact that it had not been rehearsed at a slower pace.

The report finds that Captain Bingley misjudged the strength of the tailwind.

The crash resulted from an overstressed engine losing power, leading to catastrophic "main rotor droop", a dramatic slowing of the rotor's blades.

However, the inquiry found that Australia's Black Hawks did not contain a "digital electronic control unit" that reduced the risk of rotor droop. Moreover, incidents of rotor droop were quite common but not always reported.

Indeed, late in the inquiry's deliberations it emerged that a Black Hawk undertaking a similar drill to Black Hawk 221 in East Timor had crashed.

No one was seriously injured but the helicopter was badly damaged and has yet to be repaired, the *Herald* has learned. The accident, which happened on June 21 last year, was never made public, even though it occurred when there was intense interest in helicopter safety.

Not only was the Black Hawk 221 inquiry underway, the damning report into the crash of a Sea King on Nias, Indonesia, in 2005, that killed nine Australian servicemen and women, had been released two days before the crash in East Timor. A Defence spokesman told the *Herald* the East Timor incident was not publicly announced as it was deemed "not newsworthy".

The *Herald* understands testimony from the aviation safety officer at the US Army's special operations command, Warrant Officer (5th Class) Charles King, was particularly influential during the inquiry into the Black Hawk 221 crash.

He described its flight plan as "an aggressive approach that had **very small margin for error**". After reviewing some of the training techniques of 171 Squadron, he said there was **poor guidance** about when a pilot should pull out of a maneuver.

He also said the presence of special forces troops in a helicopter often encouraged pilots to take more risks and regard any joint training exercise as a "no fail" proposition.

The inquiry's report and the results of Air Chief Marshal Houston's audit are expected to be published in the next fortnight.

Midnight Shift Nugget

Not Getting Enough Sleep Could Increase Risky Behavior

People who **don't get enough sleep** are more likely to engage **in risk-taking behavior**, according to a study conducted by researchers at Harvard Medical School and the Walter Reed Army Institute of Research. As part of the study, volunteers were deprived of sleep for seven nights and then given tests involving playing cards in order to determine their susceptibility to risk-taking behavior. Erica Lipizzi of the Walter Reed Army Institute of Research told *Medical News Today*, "Lack of sleep appears to cause people to **lose the ability to weigh things up and make a sensible decision**." Researchers also discovered that it might take days to reverse risky behavior patterns after normal nightly sleep is restored.



- Read the [abstract](#).



Historic B-17 Bomber Makes Trans-Atlantic Flight Back to Europe

Almost 65 years to the day after the original 390th Bomber Group departed for their trip across the Atlantic, the **Liberty Belle B-17** is repeating her historic journey to England. The flight, which departed on June 30, took the historic aircraft on its original famed route, which originates from its home base in Georgia. Day one of the Liberty Belle's trip took the B-17 to Bangor, Maine, then to Goose Bay, Canada, where it stayed for the night. Day two's first stop was Narsarsuaq, Greenland, for a short fuel stop. Then it was off to the "Lost Squadron" location on the Greenland Icecap followed by another stop at Reykjavik, Iceland. After one more short stop at Prestwick, Scotland, the **Liberty Belle** will be back at home base at RAF Airfield in Framlingham, UK. The total round-trip distance is 7,800 miles.



While in England the **Liberty Belle** will be participating in many different events to commemorate the brave airmen and all other service men and women who fought in the war. A team of documentary filmmakers will also be on board to record this historic journey. While on tour visitors will be to visit with the crew, view this historic aircraft, and be able to purchase a chance to go on a flight in the famed aircraft.

FAA Releases New 8130-3 Tag Guidance

The FAA has released the eagerly-awaited revision to its instructions for completing the 8130-3 tag: [Download order 8130 21f 053008.pdf](#)



. The instructions deactivate block nine by requiring persons completing the form to insert "N/A" into this block in all cases. The revision also includes significant new instructions for establishing an electronic data system that will permit the exchange of electronic airworthiness authorization information. Dated May 30, the new guidance can also be found on the FAA's Regulatory and Guidance website.

Sensing & Utility Systems Solutions

SmartStem^(R) Tire Pressure/Temperature Sensing System

The Crane Aerospace & Electronics **SmartStem^(R)** is the latest product in our Sensing & Utility Systems Solutions.

Maintaining proper tire pressure is very important both to aircraft safety and economics. **SmartStem^(R)** is a wireless sensor built into the tire's inflation stem that makes the daily tire pressure check quick, easy, accurate, and automatically documented. A reading takes less than three seconds. The user simply places the hand-held reader near **SmartStem^(R)** and reads the tire's pressure, temperature, unique ID number, and other stored data. The reader displays the data, date/time stamps it, and stores it for later download and automated record keeping.



[See SmartStem Brochure](#)



Advantages

- Fully compatible with all tire servicing equipment**
- Passive Wireless Pressure Sensing**
- No Battery**
- Pressure and Temperature Monitoring**
- Superior Accuracy**
- Triple-channel Redundancy**
- Data Logging**
- Does not let gas out of tire**
- Rugged and Reliable**
- Low Cost**
- Easy Retrofit**

Additional Information

To find out how *SmartStem*^(R) can be used in your application, submit an inquiry to [Ask the Expert](#).



Surgeons, pilots trade safety ideas

Doctors hope to improve care of patients

Surgeons and Navy pilots gather at BWI Marshall Airport's General Aviation Terminal to exchange ideas on safety procedures.

Surgeons hoping to improve patient safety traded ideas yesterday with military pilots - trained professionals who also know a little about performing when the stakes are high.

In a hangar at BWI Marshall Airport, Navy pilots described efforts they take to ensure that **stray objects don't get caught in their engines**, that their every mistake is recorded and reviewed, and that they practice new tasks over and over on simulators before they attempt them in flight.



The parallels between surgery and aviation are gaining traction in an era in which doctors are **under pressure to reduce medical mistakes** that account for an estimated **100,000** deaths a year in the United States.

"Both work in a **high-stakes environment** where the tolerance for error is zero, and error can translate in very short order to fatality," said Dr. Adrian Park, chief of general surgery at the University of Maryland Medical Center, which sponsored the two-day forum that began yesterday.

At the same time, he acknowledged that the **human body and mind are more complex than any aircraft**. "The most sophisticated shuttle cannot approximate the complexity of human machines, but we believe there's a lot we can learn," he said.

Just a day earlier, the World Health Organization unveiled a "**checklist for safer surgery**" that was endorsed by 40 countries. Before an operation can begin, it requires that surgical personnel **confirm** the patient's identity, known allergies, the exact surgical site and the procedure to be performed. Afterward, they must make sure that all instruments, sponges and needles **are accounted for** and that specimens be labeled.

Dr. Atul Gawande, a Harvard surgeon who led development of the checklist, said his team followed the example of the aviation industry, which has **long used checklists to avoid human error.**

At yesterday's symposium, doctors saw a widely publicized example of what can happen through carelessness. An X-ray image projected on the screen showed a shiny retractor that had been left inside a patient's abdomen. Six months after the instrument was extracted, the patient is still recovering.

Dr. Carlos Godinez, a Navy pilot in a surgical fellowship at the University of Maryland Medical Center, noted that the crew of an aircraft carrier walk the flight deck several times a day, heads bowed, to search for stray washers, rocks, wire or bolts that could be sucked into an aircraft engine.

Like surgeons discussing their performance after each operation, pilots hear about their **mistakes and near-misses** after each flight. Not only do supervisors discuss what went wrong and how the pilots can improve, but electronic recorders also provide detailed evidence of what happened.

Godinez said the systems for reviewing and avoiding medical errors are "less codified" than systems to prevent mistakes in flight.

Navy pilots in training spend eight hours preparing for and reviewing a flight for every hour they spend in the air, said Navy Lt. Brian Colburn.

Alarming Increase in Motorcyclist Deaths Reported

With summer in full bloom, the Governors Highway Safety Association has greeted its arrival with a new "Survey of the States: Motorcycle Safety Programs" report that warns **motorcyclist deaths are rising fast.**

The GHSA report says motorcycle fatalities rose in 2006 for the ninth straight year and more than doubled in a decade, from 2,110 in 1997 to 4,810 in 2006. In 2006, 67 percent of all motorcycle fatalities occurred in 15 states; in 2004, 2005, and 2006 nearly one-third of all fatalities occurred in California, Texas, and Florida alone. Last year, GHSA asked state highway safety agencies to complete a survey on motorcycle safety activities designed to curb the annual increase in motorcycle crashes



The surveys show "a **patchwork of helmet laws**, scant enforcement and a lack of helmet promotion exist despite clear evidence that proper helmet use saves lives," GHSA said. Twenty states, the District of Columbia, and Puerto Rico have universal motorcycle helmet laws. "Twenty-seven states and Guam have laws that cover certain riders, and three states have no motorcycle helmet laws. In states with partial laws or without helmet laws, most riders **who died were not wearing helmets.**

Only nine states and Puerto Rico indicated special efforts to help law enforcement identify helmets that don't meet safety standards. Although it is widely accepted that proper helmet use dramatically reduces the likelihood of a fatality in a crash, only 17 states reported special efforts to promote the benefits of helmet use and other protective gear."

Motorcycle sales almost quadrupled from 1997 to 2006, from 356,000 to almost 1.1 million, and as a result, 29 states "indicated they have capacity problems with delays ranging from one day to 12 weeks for training classes. Only three states, Florida, Maine, and Rhode Island require rider education for all riders, regardless of age," according to the association. The report also says many motorcyclists drive without valid licenses: In 2006, 25 percent of operators in fatal motorcycle crashes did not have a valid motorcycle license, compared to 13 percent of drivers of passenger vehicles. To read survey responses by state, visit

www.statehighwaysafety.org/html/publications/survey/motorcycle/motorcycle.by.state.html.



WORKPLACE HEALTH

Surgical gloves are no substitute for hand washing

PPE & the Risk of Infection

Workers in the healthcare sector use a variety of personal protective equipment (PPE), including gloves, gowns, respirators and goggles, to avoid contracting communicable diseases from the patients they treat. Of course, the risk of infection doesn't end when patient contact ceases. **The worker might still become contaminated when removing the PPE.**



To minimize their risk of infection, healthcare workers use a protocol from the U.S. Centers for Disease Control for removing PPE. But a new study suggests that the CDC protocol **is not as effective** as initially believed. Researchers conducted a **"human challenge study"** involving 10 volunteers who followed the CDC PPE removal protocol. The end result: High levels of contaminant were found on the participants' **hands and clothing** after PPE removal. (If you want more complete data, click on the link below.)

The authors' recommendations for minimizing the risk of infection:

Double Gloving: Wearing two sets of gloves would prevent healthcare workers from handling PPE with their infected gloves or bare hands. The sequence for removing PPE under a double glove system would be:

Step 1: Remove the outer glove;

Step 2: Remove goggles/face shield, respirator and gown; and

Step 3: Remove the inner glove.

Use of PPE Protocols from Surgery: Surgeons tuck the ends of their gown sleeves into their gloves to prevent contamination. Healthcare **workers should do the same.**

Treated PPE: PPE should be impregnated with antimicrobial agents to cut the risk of contamination to skin and clothing.

Emphasis on Hand Hygiene: Last but not least, employers need to remind workers that using gloves is **no substitute for hand washing** and proper hand hygiene.

Source: Casanova et al., "Virus Transfer from PPE to Healthcare Employees' Skin & Clothing," *Emerg. Infect Dis.*, 2008 August,

<http://www.cdc.gov/eid/content/14/8/pdfs/08-0085.pdf>



AAA Advises Hypermilers to Avoid Dangerous Fuel-Saving Techniques

Keep safety first by avoiding techniques that endanger motorists and harm vehicles

As record-high fuel prices continue to stress household budgets, many motorists are looking for ways to improve their vehicle's fuel economy—sometimes to the point of putting their **lives in danger**. AAA advises motorists to think of safety first, refraining from fuel-saving techniques that could put themselves and others in danger and avoid practices that could harm their vehicles.



Some motorists have **gone to extreme measures** to conserve fuel while driving by 'hypermiling'—trying to exceed the EPA estimated fuel efficiency of a vehicle by drastically modifying driving and maintenance habits.

“The goals of hypermiling are positive, such as eliminating aggressive driving and saving energy,” said Marshall L. Doney, AAA Automotive vice president. “Unfortunately some motorists have taken their desire to improve fuel economy to **extremes** with techniques that put themselves, as well as their fellow motorists, in danger.”

Examples of the dangerous hypermiling techniques include cutting off the vehicle’s engine or putting it in neutral to coast on a roadway, tailgating or drafting larger vehicles, rolling through stop signs and driving at erratic and unsafe speeds. “These practices can put motorists in a treacherous situation where they could lose power steering and brakes or be unable to react to quickly changing traffic conditions,” Doney said.

“Not only are these extreme driving behaviors dangerous, many of them also are illegal. However, there are several safe and legal driving techniques motorists can implement to conserve fuel, such as smooth and easy acceleration and braking, maintaining a steady speed, using cruise control and looking ahead to anticipate changing traffic conditions,” he said.

Hypermiling techniques are not limited to driving style. How motorists maintain their vehicles is also key in reaching optimal fuel economy, but extreme measures can be harmful to a vehicle.

Keeping tires properly inflated can improve fuel economy by two to three percent, according to the U.S. Department of Energy. However, some drivers have taken this advice too far by over-inflating their tires, which the Rubber Manufacturers Association reports can make them more susceptible to road hazard damage and result in premature wear to the center portion of the tread. Over-inflation can also cause handling issues due to less tire surface making contact with the road.

Using the recommended grade of motor oil is also helpful in improving fuel economy. However, some hypermilers opt to use the lowest ‘weight’ motor oil (or that with the lowest kinematic viscosity) on the market. However, motor oil is not a fluid that can be freely interchanged and using too light of oil can cause major damage to a vehicle’s engine.

In both instances, AAA’s auto maintenance experts recommend motorists check their owner’s manual for the manufacturer’s recommendations. Tires should only be inflated to the pressures specified by the vehicle manufacturer—and not what is listed on the sidewall of the tire. Motorists also should use the lowest grade motor oil recommended by the manufacturer for their climate.

For assistance with vehicle maintenance, AAA offers a listing of [Approved Auto Repair](#) facilities it has certified for meeting and maintaining high professional standards. To locate AAA Approved Auto Repair facilities nearby, visit the [Automotive page](#) on AAA.com.



As North America's largest motoring and leisure travel organization, AAA provides more than 51 million members with travel, insurance, financial and automotive-related services. Since its founding in 1902, the not-for-profit, fully tax-paying AAA has been a leader and advocate for the safety and security of all travelers. AAA clubs can be visited on the Internet at www.AAA.com.



[Excessive Heat Could Cause A Disaster For You](#)

Heat waves and droughts take more lives than almost any other natural disaster in North American history. This fact should serve as a reminder of the importance of [protecting yourself](#) from the effects of excess heat.



Heat stress occurs when the body has to work too hard to cool off. The body's core temperature gets too high for the body to cool off quickly enough. Heat stress symptoms include the following:

- [Heat cramps](#) often occur in the legs and abdomen when a person is sweating heavily and replacing water but not salt. The skin is hot and moist. Pulse is normal.
- [Heat exhaustion](#) occurs when the body's heat control system is overtaxed. The core body temperature is increasing, which may lead to heat stroke. Symptoms of heat exhaustion include heavy sweating, intense thirst, cool and moist skin, weak and fast pulse and feelings of fatigue, weakness or dizziness.
- [Heat stroke](#) is a serious emergency which requires immediate medical attention. It occurs when the body is rapidly using up its supplies of water and salt. Sweating stops and the body, including the brain, begins to overheat rapidly. Body temperature climbs to fatal levels. Symptoms include hot, dry, flushed skin, rapid pulse, difficulty breathing, headache, confusion and strange behavior, weakness and nausea. Heat stroke can rapidly progress to seizure and convulsions, unconsciousness and loss of pulse.

The following are some [tips](#) for avoiding heat stress this summer:

- [Follow work and rest routines](#) which keep you from becoming exhausted in the heat. Alternate heavy work with lighter work, or move from a hot location to a cooler one periodically. Take advantage of scheduled breaks to rest and cool off.

- **Drink water frequently.** One of the main causes of heat stress is dehydration, so keep up your intake of water or fluid replacement drinks.
- **Don't wait until you are thirsty to drink.** Avoid alcohol and caffeine beverages, which actually deplete the body of fluids.
- **Eat regular, light meals.** Save the hot dinner until after work, and have something cool such as salad for lunch. If you are sweating a lot, lightly salt your foods to replace salt. However, if you are on a salt-restricted diet, seek medical advice about this. Salt tablets are not recommended.
- **Take care when moving** from a cool area to a hot one, such as leaving an air-conditioned workplace and stepping out into the late afternoon heat. Take time to get accustomed to the temperature, and slow down. Getting into a hot car can also be a shock to the system, so use ventilation to cool it down.
- **Dress in loose,** comfortable clothing made of light fabrics and in light colors. Layer your clothing so you can add and take off items of clothing as the temperature changes.
- **People in poor health,** overweight, tired, hung over, taking certain medications, older, or previous victims of heat stress, are more susceptible to heat illness.

The **treatment** of heat stress depends on how serious it is:

- In the case of heat cramps move into the shade and loosen clothing. Drink lightly salted fluids. Seek medical help if the cramps persist. Keep the victim sitting or lying down.
- For heat exhaustion, get the victim to a cooler shaded area. Loosen clothing, and begin cooling the victim quickly - by fanning him and pouring cool water on him if necessary. Have the victim drink water, salted if available.
- Heat stroke is a serious, life threatening condition and the person needs immediate medical help. Call an ambulance immediately, and begin cooling the victim as quickly as possible. Spray or sponge him with cool water or immerse him. Do not give liquids to an unconscious person.
- Heat stroke is a life-threatening illness. Take steps to prevent heat illness, and treat all heat disorders seriously.

AUDIO SAFETY TALKS!

HEAT ILLNESS CAN KILL

It's no big secret that heat illness, or hyperthermia, can quickly incapacitate or kill a person. But heat exhaustion isn't the only hazard. For example, a worker suffering the early stages of heat illness may exhibit few or no outward symptoms, yet still have impaired judgment, causing him or her to make mistakes that could, in a crunch, cost lives. Help your workers to be on guard against heat illness with this audio talk.

- [To listen to the talk, click this link](#)



PICTURE THIS!

As the price of gasoline climbs, some people are going to desperate, and dangerous, measures to get a few extra gallons or liters to fill their tanks a little more cheaply. For many people that means filling jerry cans or other containers. At the gas station at Lackland Air Force Base, in Texas a man was filling a jerry can in the back of this truck when **static electricity ignited spilled gas**. His pants caught fire and the man suffered second- and third-degree burns to his legs. Four bystanders fought the fire and took the victim to hospital. If you must use jerry cans, please remember to **fuel them on the ground** to avoid building up a static charge.

