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Aviation Human Factors Industry News

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Remembering Maggie McDonnell

July 2nd marked the 10th anniversary of the tragic death of Maggie McDonnell, a 20-year old college student who was killed in 1997 by a man who fell asleep while driving and hit Maggie's car head-on. He admitted that he had been awake for 30 hours and had been using drugs -- crossed three lanes of traffic and struck her car. Yet, because there was no specific law addressing fatigue or drowsy driving in New Jersey at the time, the jury was not allowed to deliberate on the man's sleep deprivation and his punishment for killing Maggie was a suspended jail sentence and a $200 fine.

Maggie McDonnell was the youngest member of a very close family. She was an extraordinarily social girl, lighting up every room she entered and stealing the hearts of everyone she met. She was an accomplished ballerina - a pair of pink ballet slippers now graces her tombstone. After college, she hoped to become a social worker. Her death left her parents, siblings, and an entire community devastated by grief. "She was my 'something special' and now she is my angel that walks beside me," says Maggie's mother, Carole McDonnell.

Maggie's Law: From Tragedy Comes Hope

As a result of her daughter's death, Carole McDonnell began lobbying the New Jersey legislature to enact a law that would punish those who kill or injure others as a result of their choice to drive while tired.

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On June 23, 2003, Carole's efforts finally paid off when the New Jersey State Senate passed *"Maggie's Law,"* establishing fatigued driving as recklessness under the state's vehicular homicide statute. The law narrowly defines "fatigue" as being without sleep for a period in excess of 24 consecutive hours.

More States to Follow New Jersey's Lead

Under Maggie's Law, anyone causing a fatality after being awake for 24 hours or more can be prosecuted for vehicular homicide. Currently, a number of states are considering similar drowsy driving legislation, including New York, Massachusetts, Tennessee, Oregon, Kentucky, and Illinois. To learn more about pending legislation that addresses drowsy driving, visit www.drowsydriving.org and see NSF's online chart of state bills on drowsy driving.

How to Prevent a Fatigue-Related Crash

The best way to prevent a drowsy driving crash is to get adequate sleep on a regular basis. If you're planning a long road trip, be sure that you've had enough sleep during the nights leading up to leaving to decrease your risks. Here are more drowsy driving prevention tips to keep you safe behind the wheel:

• If you feel tired while driving, pull over and find a place to sleep for the night or a safe place to take a short nap.
• Consume caffeine - the equivalent of 2 cups of coffee can increase alertness for several hours. Try consuming caffeine before taking a short nap to get the benefits of both
• Use the buddy system. A passenger who remains awake for the journey can take a turn behind the wheel and help identify the warning signs of fatigue.
• Take a break every 100 miles or 2 hours.
• Avoid alcohol and medications (over-the-counter and prescribed) that may impair driving performance and magnify the effects of sleepiness.
• Avoid driving at times when you would normally be sleeping (midnight – 6:00 am) and be aware that you are naturally less alert in the late afternoon (1:00 pm – 4:00 pm)

Who's at Risk?

There are a number of groups that fall into the high risk category when it comes to driving while drowsy, including:

• Young people - especially males under age 26
• Shift workers and people who work long hours - working the night shift increases your risk by nearly 6 times; rotating-shift workers and people working

more than 60 hours a week need to be particularly careful

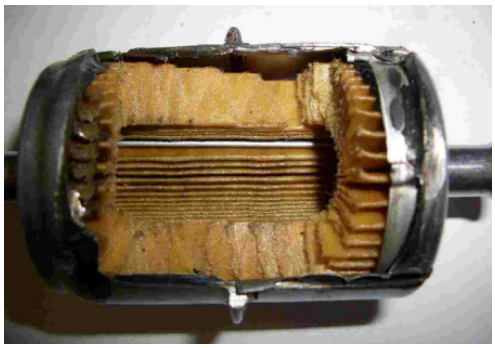
• Commercial drivers-especially long-haul drivers - at least 15% of all heavy truck crashes involve fatigue

• People with untreated disorders - people with untreated obstructive sleep apnea have been shown to have up to a seven times increased risk of falling asleep at the wheel

• Business travelers-who spend many hours driving or may be jet lagged

Clogged filter caused plane crash: investigator; Pilot suffered only minor injuries last week

Bad gas is partly to blame for causing a small plane to stall and drop from the sky last week, investigators say.



"It was fuel starvation caused by a clogged fuel filter," Peter Rowntree, a senior regional investigator with the Transportation Safety Board, said yesterday from Richmond Hill, adding such circumstances in home-built aircraft are not uncommon.

An Arthur man had just taken off from Huronia Airport in his single-engine SeaRey aircraft last Friday morning when he encountered engine failure. He was able to deploy a parachute that dampened the plane's fall into a stand of trees near the airport.

The pilot sustained minor leg injuries from kicking out the windshield.

The plane was powered by regular gasoline, as opposed to special aviation fuel.

"With these little guys (planes), they'll have jerry cans full of gas that is usually not filtered, so you run the risk of contamination," said Rowntree, who interviewed the pilot yesterday. Due to the minor nature of the crash and the pilot's injuries, the TSB didn't launch an official investigation but did gather information for its database, Rowntree said.

The $75,000 plane was equipped with a parachute system in case of emergency, which is becoming more common on small aircraft, Rowntree said.

"It probably helped in this instance," he said, "but he also maintained control as well as he could."

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Flight nurse tells how he survived window blowout

BOISE, Idaho -- A flight nurse who had his head and right arm sucked through the broken window of an air ambulance at 20,000 feet said the hard shell of his headset frame may have saved his life.

Chris Fogg, 41, suffered lacerations on his head that required 13 staples. A chunk of flesh was also ripped from his arm.

The nurse for Ada-Boi Critical Care, a business owned by his family, said the headset he uses to talk to the pilot during patient transports likely kept him from being knocked out from the impact when the window exploded.

One second he was chatting with the patient and pilot, Fogg said, the next he was hanging out the window, looking back at the tail of the plane.

"It (the headset) took the major brunt of the blow going through the window. I think that's what saved me from having severe injuries.

"If I had been knocked out, I think I would have been pulled completely through," Fogg told The Associated Press on Monday.

"I was struggling with every ounce of my being. My left arm was keeping me from going out. I was holding the wall."

The plane, a twin-engine Piper turboprop flown by a pilot from a Boise charter aviation company, was 18 minutes out of Twin Falls on a 2 1/2-hour evening flight to a Seattle hospital Wednesday. The plane was climbing to 22,000 feet. Fogg had just reached for water bottles for the patient and the pilot when the window blew out; he hadn't yet fastened his seat belt.

"I have a vivid image of the tail, and of my headset whacking the fuselage of the plane, because it was still hooked up (inside)," said the resident of Meridian, a suburb of Boise.

Fogg said he struggled to finally break the seal his body had formed against the window frame and pull himself back into the cabin. By then, he was bleeding heavily from the head and arm wounds.

Fogg said the pilot reacted quickly: When the plane lost cabin pressure, he put it into a steep dive to 10,000 feet, an altitude where Fogg would be able to get enough oxygen to survive. The patient was already breathing oxygen.

The plane made an emergency landing about 20 minutes later at the airport in Boise.

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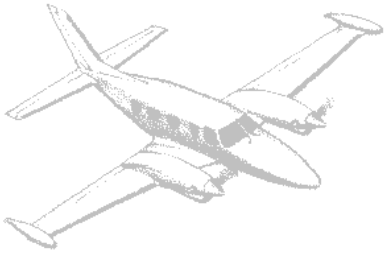
Loose Fuel Fitting Cited in Engine Fire



Piper Chieftain, Substantial damage. No Injuries.

One of the six passengers on the commuter flight noticed the odor of gasoline and smoke as the airplane was being turned onto final approach to land at Elim, Alaska, U.S., the afternoon of May 9, 2005. During the landing roll, the pilot saw a fire in the fight engine compartment.

"He pulled the firewall fuel shutoff for the right engine and stopped the airplane" the NTSB report said. The passengers were evacuated, and the pilot and airport personnel extinguished the fire. Examination of the engine revealed that the fire was concentrated around the hydraulic pump, fuel pump and turbocharger.
A B-nut fitting on the fuel pump was found loose.

The report noted that the hydraulic pump had been replaced about 31 hours before the accident flight. Maintenance personnel had removed the fuel pump to gain access to the hydraulic pump. "Due to the confined area during the reinstallation of the feeder line to the fuel pump, one mechanic held the line in place and another turned the fitting with a wrench," the report said.
"A leak check revealed that the fitting was cross-threaded and leaking. The fitting was retightened and sighed off"

NTSB said that the probable cause of the accident was improper installation of the fuel line fitting.

Official: Faulty aircraft maintenance may lead to disaster

Aviation experts warn that difficulty to enforce safety regulations in Israel could result in fatal accident.

The series of breakdowns that were revealed in Israeli passenger aircrafts during the last year causes much concern among aviation officials in Israel, who warn that continued negligence might lead to a catastrophe.

"Not enough is being invested in the planes' safety, and this is a serious problem," Transportation Ministry Chief Inspector Yitzhak Raz said. "If we don't improve the maintenance of the aircrafts, a disaster is bound to occur."

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The last in the series of incidents took place Monday, when smoke filled the cockpit of an El Al flight returning from Madrid. The plane, a Boeing 757, eventually made a regular landing at the Ben Gurion Airport, and technicians later discovered that the smoke was apparently the result of a short circuit in the engine's ventilator.

Raz and other aviation experts agree that although the recent recurring technical problems had nothing in common, they were all due to "the meager investment in the issue of aviation safety in Israel."

According to Raz, "The Israel Airports Authority is at its lowest point when it comes to its inspection capabilities, and the situation is very serious." He explained that the problem was mainly due to the shortage in manpower and the Authority's inability to enforce regulations.

Bauer sues companies that worked on engine before plane crash

GAFFNEY, SC - Lieutenant Governor Andre Bauer is suing three companies that performed maintenance on his aircraft's engine in the months leading up to a fiery May 2006 crash in Cherokee County.

He's accusing them of negligence, breach of contract and warranty, and deceptive trade practices.

The suit says poor repair work led to engine failure, causing the crash.

Bauer's crashed plane

So did Bauer when he spoke to us a few days after the accident. "That engine was just 20 hours old. It just wouldn't get enough power."

When asked if he thought it was mechanical error, Bauer responded, "No question."

Bauer was piloting the aircraft. His passenger was a veteran pilot and the plane's former owner.

Last October, John Leonhart also told us there was something wrong with the engine. "He did a beautiful job taking off on it and the airplane was performing good until we got to the point of no return. And then the RPMs started dropping on it and stopped producing enough power to keep us going."

An FAA inspection discovered wrong size or improperly installed bolts on the engine's cylinders. But a National Transportation Safety Board report suggested Bauer needed a longer runway.

And in a report issued in January, the NTSB noted, **"the pilot's failure to abort" the takeoff.**

Both pilots say aborting the takeoff was not an option at that point. Their attorney was out of town Thursday and not available for comment.

The lawsuit asks for a jury to decide compensation and punitive damages. Bauer and Leonhardt have both recently required medical care as they continue to recover from their injuries.

Bauer shattered his heel and had surgery last month to have screws and a metal plate removed.

Leonhardt suffered minor leg injuries.

We are still waiting for the NTSB to issue its final report, and possibly a cause for the crash.

FAA: SFO Runway Near-Miss Most Serious In a Decade

May 25 Incursion Categorized As Level A

The near-collision May 26 on a runway at SFO has been categorized as the most serious of incursions by the FAA, which noted that **it is the most serious incident of its kind in at least a decade,** reported MediaNews.

The incident involved a Republic Airlines pilot who had to take off to avoid colliding with a SkyWest Airlines plane on the runway.

According to the FAA safety board, the incursion occurred about 1:30 pm when an SFO tower controller cleared SkyWest Airlines Flight 5741 from Modesto to land on runway 28R. The same controller then cleared Republic Airlines Flight 4912 to Los Angeles to take off from runway 1L, which intersects runway 28R.

When the SkyWest plane landed, the **Airport Movement Area Safety System alerted the traffic controller that the two airplanes were on a collision course,** the safety board said.

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The controller then ordered the SkyWest flight to halt short of runway 1L, but the plane couldn't stop until it reached the middle of the runway. The Republic Airlines pilot had to take off to avoid colliding with the SkyWest flight.

According to the SkyWest crew, the Republic Airlines plane flew over it by 30 to 50 feet. The FAA's preliminary report can be found here.

Airport officials are notified about such incursions," SFO spokesman Mike McCarron said, "but there is nothing they can really do unless they involve one of the airport's vehicles, which this didn't.

"Every category A is a serious event, and it is a serious concern for us," said FAA spokesman Ian Gregor. "This wasn't a procedural issue, this was caused by a good controller with a lot of experience making a mistake."

The controller, with about 20 years of experience, was required to be recertified for his job, Gregor said.

Other than the pilots and air traffic controllers, it's doubtful anyone knew about the incursion when it happened, Gregor said, adding that it did not affect SFO operations.

There have been 11 category A incursions nationwide so far this fiscal year, out of more than 34 million takeoffs and landings.

The severity of the SFO incursion has generated an NTSB investigation, as well, as reported by ANN.

"We investigate probably just a handful (of incursions) a year," said safety board spokesman Ted Lopatkiewicz.

The safety board lists runway incursions as one of the most serious transportation safety issues.

As a result, it has recommended that aircraft be equipped with devices such as the Airport Movement Area Safety System and advises pilots not to cross actively used runways without the approval of a controller.

Current regulations do not require pilots to secure clearance to cross each runway while taxiing for take-offs and landings.

"It would slow down the process of taxiing, but we think it would improve safety," Lopatkiewicz said.

NTSB officials said their investigation could be completed in the fall and may result in safety recommendations to the FAA, which isn't required to follow them.

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Helicopter door plunge probes focus on 'tampering'

The scene after the accident

AN investigation into how an emergency door fell from a helicopter during an air show and injured three people is focusing on the possibility that the door was interfered with while the public had access to it.

Two women and a man had a lucky escape when the door fell off the British Army Merlin helicopter immediately after it became airborne at the end of the big Salthill Air Spectacular on Sunday evening in Galway. All three were rushed to University College Hospital Galway and detained for a number of hours.

Their injuries were not serious and a hospital spokesperson confirmed yesterday that all three had been released following treatment. A total of four investigations are under way into the accident. The Garda, Irish Aviation Authority, Air Accident Investigation Unit and British Ministry of Defence are all probing the circumstances surrounding the incident. Aviation experts said yesterday that it was unlikely that a mechanical malfunction had caused the accident. One of the main lines of inquiry is understood to be the possibility that the door was tampered with - either accidentally or otherwise - while it was on the ground and open for inspection by the thousands of air show fans at Salthill Park. The helicopter remained at Galway Airport in Carnmore overnight and was yesterday examined by technical experts. It was later flown back to base in the UK.

Supt Noel Kelly of Salthill said that all aspects of the accident would be fully investigated by gardai. But the incident drew further criticism of the event from the Galway Alliance Against War, which has strongly opposed the air show. Niall Farrell of the GAAW said that it was "an accident waiting to happen".

Mr Farrell pointed to a warning on the air show website stating that spectators attended at their own risk. "We would like to offer our best wishes for a speedy recovery to those three people injured. But it could have been worse, much worse.

"If the door had fallen on a child or onto a busy road we could be talking of fatalities. The organizers present this event as a family day out, but their website warns that people are attending at their own risk.

"It is a danger to all the people in the greater Galway area as these planes and helicopters fly not just over Galway Bay, but over large areas of the city and county as they carry out their combat maneuvers."

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Southwest jet's landing gear collapses in Oakland, no injuries

June 3, 2007

OAKLAND – The nose landing gear of a Southwest Airlines jet collapsed during an emergency landing at Oakland International Airport last Sunday, but none of the 119 passengers or crew were reported injured.

Associated Press

Authorities investigate a Southwest Airlines jet at Oakland International Airport Sunday.

Southwest Flight 3050 took off from Sacramento and was scheduled to land in San Diego. But after takeoff the plane reported problems with its landing gear.

"The pilot flew out over the water near Oakland to call Southwest and go through the procedures to get gear down," said Ian Gregor, a spokesman for the Federal Aviation Administration.

The pilot was diverted to Oakland to land, and on approach had three green lights in the cockpit showing the gear was operating properly, Gregor said. But after landing, the gear at the plane's nose collapsed and the plane skidded down the runway.

"Unfortunately, the back landing gear landed just fine but the nose gear went up inside the aircraft and retracted," said airport spokeswoman Cyndy Johnson.

All passengers were evacuated to the terminal. There were no injuries, Johnson said, and most passengers were already being put on other flights home.

Delays at Oakland International are light, Johnson said, and incoming and outgoing flights are being diverted to an alternate runway.

After aborted touchdown at Logan, NTSB isolates problem in landing gear

Federal investigators have isolated the problem that forced a commercial airliner to immediately take off again after touching down at Logan International Airport last month to an electronic component in the plane's landing gear.

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The American Eagle flight was carrying 37 passengers and three crew members on June 20 when the landing gear did not extend properly as it was attempting to touch down. The plane circled the airport and the crew extended the landing gear using emergency procedures and touched down safely on the second attempt.

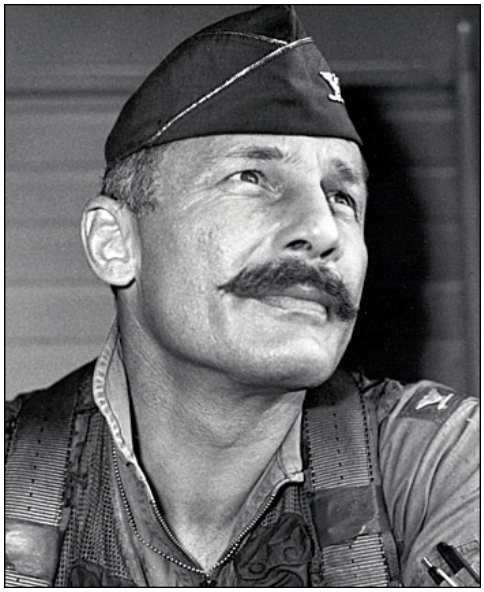
As part of an investigation by the National Transportation Safety Board, the electronic component from the landing gear control system was installed in another plane and the same problem occurred. Three green lights in the cockpit indicated that the three landing gear were down and locked, but none of the wheels was extended.

Investigators are trying to determine whether the malfunction is an isolated issue or a systemic problem with Embraer 135 regional jets or the electronic component, which was manufactured by Parker Aerospace.

As a precaution, Embraer issued a notice to all operators of similar jets to remind pilots of emergency procedures if they experience problems with landing gear.

The NTSB has also interviewed the crew and sent the cockpit voice and flight data recorders to a laboratory in Washington to be analyzed. No one was injured during the aborted landing on June 20, and the plane sustained minor damage.

A Human Interest Story



The Vietnam Fighter Pilot Who Was a 'Triple Ace'

Brigadier General Robin Olds, a World War II fighter ace who became an aviation legend by commanding the U.S. Air Force wing that shot down seven MIGs over North Vietnam in the biggest air battle of the Vietnam War, died last Thursday at his home in Steamboat Springs, Colorado. He was 84.

The air force said the cause was congestive heart failure. He had earlier been treated for prostate cancer.

Olds, who in the course of a long career flew 65 kinds of military planes, almost perfectly filled the role of hotshot flier. Piloting P-38 Lightnings and P-51 Mustangs, he shot down 12 planes during World War II. In Vietnam, he led the 8th Tactical Fighter Wing, which scored 24 such kills, an unsurpassed total for that conflict.

In all, he downed 16 enemy aircraft in the two wars, making him a triple ace. (Five kills are needed to become an ace.) And when he could not wangle a combat assignment in the Korean War, he participated in transcontinental jet races and flew with the air force's first aerobatic demonstration team.

Adding to his glamorous image, Olds was a former all-American football player at the U.S. Military Academy and the husband of a movie star, Ella Raines. In a gesture of individuality, he grew an enormous, meticulously waxed handlebar mustache.

His greatest moment came on Jan. 2, 1967, when, as a colonel, he created an aerial trap for enemy MIGs. Called "Operation Bolo," the trap entailed use of radar-jamming devices and other tactics to make faster, more maneuverable F-4s appear to be the slower F-105s used for bombing missions. When the MIGs responded by attacking what seemed to be F-105s, the F-4s downed seven of them.

"The MIGs reacted as we had hoped," Olds said at a news conference in Saigon shortly afterward. "To make a wonderfully long story short, they lost."

The New York Times that May called him "everybody's choice as the hottest pilot of the Vietnam War." Last year, the History Channel televised a computer animation of Olds's big Vietnam battle as he provided commentary.

Olds went on to serve in many countries and positions, including assignments to air force headquarters and the Joint Chiefs of Staff.

From 1967 to 1971, he was commandant of cadets at the Air Force Academy.

Midnight Shift Nugget

Here are some ideas when you're brown bagging it:

> Bread. For sandwiches, choose healthy bread such as whole wheat, rye or oatmeal. For a change of pace, use a bagel, an English muffin or pita bread.

>Fillings. Chicken, tuna, turkey, lean beef, seafood, low-fat cheeses, a moderate amount of peanut butter with low-sugar jam.

> Toppings. Lettuce, tomato, onions and zucchini.

> Soups. Chicken and vegetable soups with pasta or rice make good meals or snacks.

> Salads. **Well-rounded salads make great meals – just avoid high-fat dressings.**

> Snacks. **Good choices include fresh fruit, unsalted pretzels, fig bars, low-fat crackers, low-fat yogurt and graham crackers. Some shiftworkers like to much on dry cereal**

4 tips for safer grilling

Ruining a piece of meat isn't the only thing you need to worry about if you're cooking at high temperatures. High heat can also produce chemicals with cancer-causing properties. They're produced in tiny amounts, measured in the billionths of grams, but lab and animal experiments show that these chemicals have potent cancer-causing properties.

When meat is cooked at high temperatures, amino acids react with creatine to form heterocyclic amines, which are thought to cause cancer. That's why cooking meat by grilling, frying, or broiling is the problem. Grilling is double trouble because it also exposes meat to cancer-causing chemicals contained in the smoke that rises from burning coals and any drips of fat that cause flare-ups. How long the meat is cooked is also a factor in heterocyclic amine formation; longer cooking time means more heterocyclic amines. Depending on the temperature at which it's cooked, meat roasted or baked in the oven may contain some heterocyclic amines, but it's likely to be considerably less than in grilled, fried, or broiled meat.

Marinating meat is often suggested as one way to cut down on the formation of heterocyclic amines, but the evidence that marinating helps is mixed. In the meantime, here are some other tips that can help make grilled meat safer to eat:

1) Cook smaller pieces: They cook more quickly and at lower temperatures.
2) Choose leaner meat: Less fat should reduce flames and therefore smoke.

3) Precook in the microwave: Doing so for two minutes may decrease heterocyclic amines by 90%, according to some research.
4) Flip frequently: That way, neither side has time to absorb or lose too much heat.

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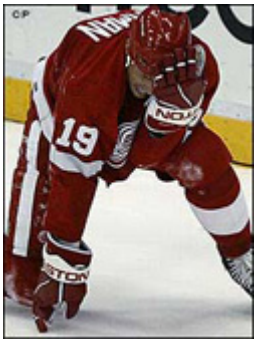
BY THE NUMBERS

Occupational Eye Injuries



Steve Yzerman: Detroit Red Wings' immortal suffers an eye injury that a visor would have prevented

Statistically, eye injuries are most likely to occur within the workplace. Consider the following statistics:

36,680 The number of lost workday eye injuries suffered by U.S. workers in 2004

80 The percentage of victims of occupational eye injury who were male

25 to 34 The age group most likely to suffer an occupational eye injury

300 Million The cost in dollars to U.S. businesses of eye injuries per year in terms of lost production time, medical expenses and workers' compensation

90 The percentage of occupational eye injuries that could have been prevented if the victim was wearing proper eye and face protection

SOURCE: U.S. Bureau of Labor Statistics; the statement regarding 90% of eye injuries being avoidable comes from Prevent Blindness America, www.preventblindness.org.

Picture This!

A worker was on his way to a safety meeting when he saw this painter. Clearly, the painter should have been on his way to the meeting as well. Consider the situation: This person is deliberately stepping through the railings from a safe, solid scaffold with fall protection, out onto the uncertain stability of the slippery plastic road barrier. It might take a minute or two to move the scaffold, even longer to shift the barrier. But it could take a lot longer to recover from a fall.