

# Aviation Human Factors Industry News

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Hello all,

In this weeks edition of *Aviation Human Factors Industry News* you will read the following stories:

★Plane crash kills seven in Congo

★Report: Kalitta B742 at Newark on Apr 19th 2008, engine fire

★Metal baggage container sucked into jet engine at LAX

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★Flight Safety Foundation - Aerosafety World - Free Subscription

## Plane crash kills seven in Congo

On May 1 seven people have been killed after their plane went down in the Democratic Republic of Congo apparently due to navigational equipment glitch. There were only seven passengers, **mainly technicians**, known to be aboard the Boeing 737 that crashed some 320 kilometers east of the capital Kinshasa, around the town of Kenge.



Congolese Aviation officials cast shadows over the airworthiness of the aircraft, saying that the **airliner had not flown in a year**.

The plane was reportedly flying from Bangui, capital of the Central African Republic to Harare, in Zimbabwe for maintenance and further checkup when a glitch forced it to land in Congo.

## Report: Kalitta B742 at Newark on Apr 19th 2008, engine fire

The crew of a Kalitta Airways Boeing 747-200, registration N704CK flight K4-625 from Newark, NJ (USA) to Liege (Belgium) with 3 crew and **2 mechanics on board**, reported an engine #3 (inner right) fire while climbing to 4000 feet out from Newark at 2215 local (Apr 20th 02:15Z).

The crew shut the engine down,



discharged one fire bottle, the fire indication however continued. After the crew discharged the second bottle, the fire indication stopped. The crew dumped fuel for 25 minutes releasing 95000 lbs of fuel and returned to Newark for a safe landing.

The NTSB released a preliminary report last week stating that after the return, engine #3 was removed from the aircraft and tested for leaks. Indications of **various fuel leaks were found** at the right hand side of the engine in the area of the accessory fuel "race way". Leaks were established on the total temperature sensor fuel supply and return hose and the engine driven hydraulics pump supply inlet hose. Those parts were removed and sent for lab testing. It could not be established, which of the three hoses was the initial source of the leak.

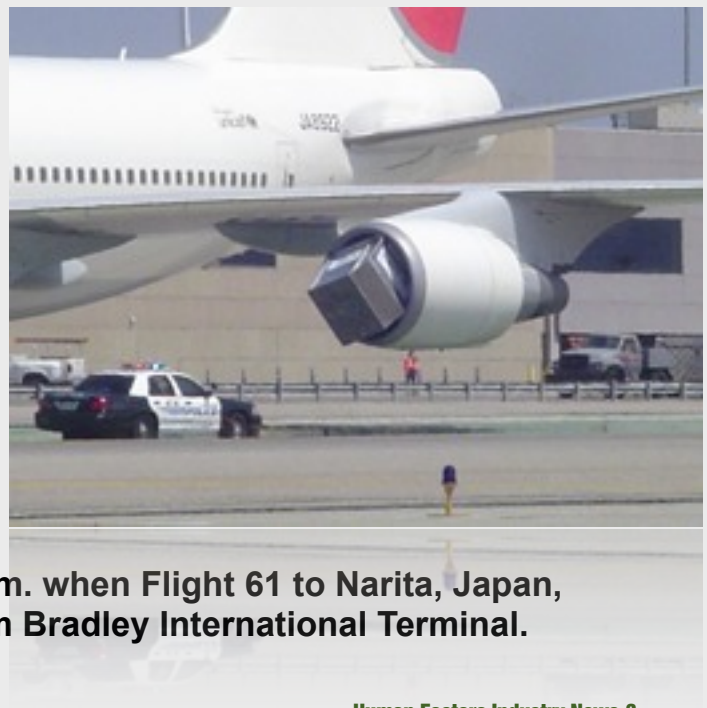
**Maintenance guidelines** did not limit the lifetime of either hose, only a visual inspection was required coinciding with "A" checks as well as a leak test whenever the hose was dis- and reconnected.

N704CK, the incident airplane, was destroyed at Brussels Zaventem Airport **35 days later** on May 25th, see Crash: Kalitta B742 at Brussels on May 25th 2008, rejected takeoff.

## **Metal baggage container sucked into jet engine at LAX**

Airport officials say the **vacuum created by an engine** on the Japan Airlines Boeing 747 pulled the container off a baggage cart. Other arrangements were made for the 245 passengers and 18 crew members. A large metal baggage container was sucked into the engine of a Japan Airlines Boeing 747 last Monday as the giant jetliner prepared to depart with 245 passengers from Los Angeles International Airport, authorities said.

The accident occurred about 1:30 p.m. when Flight 61 to Narita, Japan, pulled back from Gate 101 at the Tom Bradley International Terminal.

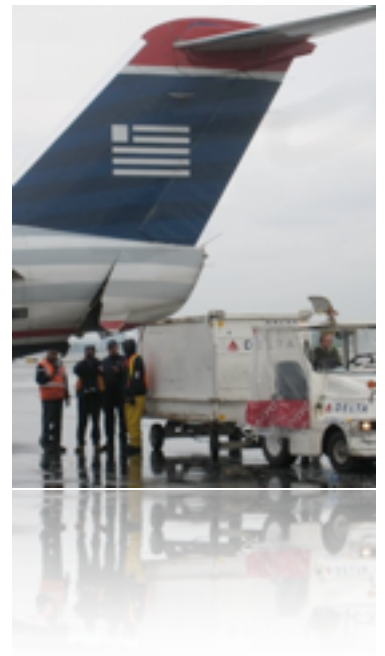


Airport officials said the vacuum created by the air intake of the left outboard engine was so strong it pulled the **empty container off a baggage cart that was either parked or driven too close to the aircraft.**

## N432AW CL60 vs Bagcart

### DESCRIPTION

In April N432AW, AIR WISCONSIN AIRLINES FLIGHT 3795 BOMBARDIER CL 600 AIRCRAFT, WHILE BEING **PUSHED BACK FROM THE GATE** A TUG STRUCK REAR FUSELAGE AND TAIL CONE, NO INJURIES REPORTED, DAMAGE UNKNOWN, LA GUARDIA AIRPORT, NY



## Did I do that?

Most of us **regularly make mistakes** - and sometimes it's not very pretty

Why We Make Mistakes by Joseph T. Hallinan,

(Random House of Canada, 283 pages, \$27.95 hardcover)

You have to chuckle when you look at this book. Thanks to some clever marketing by the publisher, the dust jacket has been deliberately cut so that it's crooked.

The contents, however, are very neatly summed up by the book's subtitle, How We Look Without Seeing, Forget Things in Seconds, and Are All Pretty Sure We Are Way Above Average.





Hallinan, a former Wall Street Journal writer and a Pulitzer Prize winner, writes in a fun, easy manner about our everyday problems -- forgetting passwords, **making errors**, losing things.

But he also delves into the **reasons** for those mistakes and **suggests** ways we can do a little better.

He even has advice on which line to pick when you're in a grocery store looking for the shortest line (go left, he says) and offers evidence showing that sports teams in black uniforms get more penalties -- and therefore lose more games -- than teams wearing colors. And he reveals that men do better with computers because they have **more confidence**, not more ability.

Hallinan has a lot of fun writing about **mistakes**, but as you get into the book you realize how serious the results can be as he describes the fatalities caused by **pilot errors and medical errors**.

In a chapter called We Can Walk And Chew Gum - But Not Much Else, he shows that **multi-tasking** just doesn't work for most of us.

One example involves a 1972 Eastern Airlines flight in which the plane flew into the ground in Florida. It was a disaster that killed 99 people, including the captain.

"The crash wasn't a fluke," writes Hallinan, who notes that there's even a name for what happened: Controlled Flight into Terrain, or CFIT for short.

"**CFIT** remains one of the most lethal hazards in aviation. Forty per cent of aircraft accidents and well over half of all aircraft fatalities have been attributed to CFIT. Since 1990, no other type of airline accident has taken more lives."

Mistakes aren't limited to pilots. Hallinan says the "miss" rate for radiologists is at least 30 per cent.

In a major study, he says, doctors at the Mayo Clinic discovered that radiologists **missed up to 90 per cent** of cancerous tumors that had been visible months or even years earlier.

According to Hallinan, we can **blame many of our mistakes on multi-tasking** (he calls it one of the greatest myths of modern age), on looking through rose-colored glasses (he says gamblers underestimate losses and overestimate wins), on overconfidence (CEOs think they know more than they do, and that can cost businesses money) and on biases we are simply unaware of (doctors who over prescribe medications because of the

influence of drug companies).

Hallinan backs up his statements with studies, interviews with experts and lots of examples. In fact, he has more than 60 pages of references, bibliography and an index.

**But there is hope.**

We can reduce our mistakes, says Hallinan, by getting **more sleep**, by **being happy**, by **not being overconfident** and by trying not to do **too many things at one time**.

This will make us much more productive -- and we'll save a lot of money.

## **Build a Winning Mind - Part I**

How you view ability is key

What is a winning mindset? Law enforcement, along with the military, business and athletics, has accepted that a winning mindset is key to a winning performance. But

\* What is a winning mindset? \* Can it be taught?

\* If so, how?

For 30 years, Carol Dweck, a professor of Psychology at Stanford University and an expert in motivation and intelligence, has researched what makes some people give up when they encounter difficulty while others - who are no more talented or skilled - press on, persevere and excel.

Her work is rocking the scientific, business and educational worlds and has taken the public by storm in her book, **Mindset: The New Psychology of Success**.

There are important lessons here for law enforcement in hiring, job performance and supervision. First, let's look at the differences between a **winning** (what Dweck calls a "**growth**") mindset and a **limited** (or Dweck's "**fixed**") mindset.



## **The limited mindset**

**People with this mindset:**

- \* Believe ability, intelligence, personality are static - You've got it or you haven't.**
- \* Effort is fruitless, or worse - because if you try and fail, you're dumb, a loser.**
- \* This person wants to appear smart so...**  
**Rather than risk failing and negatively impact their self-image they avoid challenges because they're hard and success is not certain.**
- \* They stick to what they already know and can do.**
- \* When facing obstacles they give up. If you have to try, you're dumb.**
- \* Any criticism of their capabilities is seen as a personal criticism. They ignore it or are insulted.**
- \* They are threatened by the success of others. It's a measure by which they look bad. They may try to convince themselves and others the success was luck or even try to demean it.**

## **The winning mindset**

**People with this mindset:**

- \* Believe ability, intelligence, personality can be developed - Anybody can change and grow.**
- \* Effort is necessary to grow and gain skill mastery.**
- \* They embrace challenges as opportunities.**
- \* They are not discouraged by obstacles or setbacks. Their self-image is not tied to how they look to others.**
- \* Failure is seen as an opportunity to learn, so risking it is a win-win.**
- \* To them, constructive feedback may provide useful information about their current abilities, which they can learn from.**
- \* The success of others is a model from which they are inspired and learn.**

## **Mindset produces different results**

What are the results of a limited mindset? These folks level off early and then their beliefs become self-fulfilling. They don't risk, change, or improve much. This confirms their belief that we are as we are. **They end up achieving less than their full potential.**

And a winning mindset? Seeing challenges and obstacles, failures and set backs as opportunities to **learn and grow**, these people keep striving and learning. They create a positive self-fulfilling prophecy that encourages them to try harder, **learn from their mistakes**, persevere and get smarter and wiser.

## **Flight Safety Foundation - Aerosafety World - Free Subscription**

A **free subscription** to Flight Safety Foundation's AeroSafety World magazine The Flight Safety Foundation in July 2006 launched AeroSafety, a monthly magazine to provide those in the global aviation system with **in-depth analysis of important safety issues** facing the industry and timely safety news, presented in an easily readable and appealing layout.

Previously available just to FSF members, the Foundation now is making the digital version of ASW available at no cost. Just fill out a brief subscription application and every month you will receive an e-mail with a **link to download the new edition of AeroSafety World** from our website. **Stay knowledgeable** about current safety trends, events and topics by reading the journal of the Flight Safety Foundation, your impartial, nonprofit voice of international air safety.

AeroSafety World editorial staff members blend their experience as pilots, writers, researchers, editors, journalists and specialists in graphics and design with the aviation safety expertise of other FSF staff, FSF members and contributing authors to deliver original articles and adaptations of accident-investigation reports and technical papers. **The result is consistently high-quality information.**





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## **Midnight Shift Nugget**

**Immune System Most Active During Sleep** The **virtues of a good night's sleep** just got better, with the arrival of the news that the **immune system functions best during the night**.

Researchers at Stanford University used fruit flies to test their theory but there is strong evidence that the effect carries through to humans as well.



The research team infected the flies with two strains of bacteria, with some flies getting the bacterial infection during the day and others during the night. Those getting sick during the night were more likely to survive the infection than those getting sick during the day.

Mimi Shirasu-Hiza says her team's findings suggest we enjoy **strongest immunity at night**, when other bodily functions have been put to rest. The Stanford study was presented on Sunday at the annual meeting of the American Society for Cell Biology in San Francisco.

Testing the influence of **circadian rhythms**, the body's natural cycle of sleep and wakefulness, flies with impaired circadian rhythms were infected with the same bacteria the other flies were. Like the flies infected during the day, those with impaired circadian rhythms had a harder time fighting off infection, confirming previous research that indicated bacterial infections hinder the flies' natural circadian rhythms.

**The human body is regulated by circadian rhythms**, just as the flies are. It's this internal clock that makes us want to eat, sleep, and work at the same times every day and makes us feel out of sorts when our natural sleep cycle is interrupted.

## **Safety First? Not Necessarily So, Say Airline Employees**

Penny-pinching by airlines is raising the anxiety among their employees over a **perceived erosion of safety standards**, according to a new survey by UK-based aviation consultancy Ascend. The second annual survey gathered input from 200 aviation industry professionals from 41 countries, who gave their views anonymously. The respondents ranked **“management experience and culture”** as the greatest threat to safety among aircraft operators, closely followed by “a shortage of experienced personnel,” “airline financial health,” **“fatigue and difficult work practices”** and **“complacency.”**



“Industry cutbacks are causing concerns. All aviation personnel are aware that they are working harder for less money, and they link this with increased risks to safety,” said Ascend safety director Paul Hayes.

“However, these views need to be balanced with the fact that [according to survey respondents] **safety is expected to continue improving over the next five years** thanks to better technology and management accountability for safety. It follows that respondents overwhelmingly placed responsibility for continued improvement with management.”

Respondents accused airline management of “irresponsibly” viewing safety as an additional cost and endorsed the view that “cost is the problem in all areas.” More details of the Ascend safety survey, which it conducted during March, are available at

<http://www.ascendworldwide.com/content/download/SafetyData/AirsafetyData.htm>.

## **Mac Tools Introduces a New Lighted Inspection Mirror**

Mac Tools introduces a new Lighted Inspection Mirror – MHTLM2. This new LED lighted inspection mirror illuminates darkened areas. The stainless steel antenna telescopes from 6-3/4 inches to 37 inches enabling fast accurate inspection. The new Lighted Inspection Mirror – MHTLM2 features the following:

- \* 2-3/8" LED case illuminates darkened areas.

- \* Textured cushion grip will not slip in wet or oily hands.

- \* All angle ball joint holds the lighted mirror head firmly at any angle for perfect viewing.

- \* Comes with two easily replaceable watch batteries.

- \* Comes packaged in a four-piece display with two Velcro strips on the back for easy placement on the truck.

To order the new Mac Tools Lighted Inspection Mirror – MHTLM2, contact your local Mac Tools Distributor or call 1-800-MACTOOLS.



For information on other products offered by Mac Tools, visit [www.mactools.com](http://www.mactools.com).

## **Picture This!**

**These contractors are installing the steel pillars in concrete to stop vehicles from parking on the pavement outside a Sports Bar downtown... They are now in the process of cleaning up at the end of the day and anxious to go home.**

**How long do you think it will be before they realize where they parked?**

