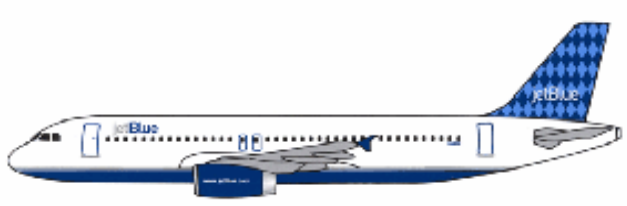

Aviation Human Factors Industry News

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2006 was good year for aviation safety, survey shows

GENEVA (AP) — The number of air crashes around the world in 2006 was the lowest in 53 years, making it one of the safest in aviation history, an independent watchdog said Tuesday.

Last year saw 156 crashes, compared with 178 in 2005, the Aircraft Crashes Record Office said in a statement.

The Geneva-based organization said 1,292 people died in plane crashes in 2006 — a drop of 11% on the previous year.

According to the International Civil Aviation Organization, air travel increased by 4% in 2006 to about 2.1 billion passengers.

Almost a third of all crashes last year occurred in North America, with 45 accidents in the United States alone, ACRO said.

The deadliest accident was the downing of a Tupolev TU-154 in Ukraine in August, in which 170 people lost their lives.

While the largest number of fatalities usually occurs when a large, jet-powered plane crashes, three quarters of accidents last year involved smaller, propeller-powered planes.

Two European-made Airbus planes crashed in 2006 compared with five made by Seattle-based Boeing and 16 Ukrainian Antonov aircraft.

ACRO records all aviation accidents in which planes capable of carrying at least six passengers in addition to the crew are damaged beyond repair.

What Is Ergonomics?

Ergonomics is the study of adapting equipment, procedures and surroundings to the individual. Paying attention to human factors at work can reduce injuries and improve quality and production.

Instead of forcing the worker to adapt to the task, tool or work environment, the job and equipment is adapted to the worker.

Using ergonomics will help prevent injuries. It can help get work done faster and result in improved quality.

Part of ergonomics is studying workers, the jobs they do and the environment in which they work. The results of these studies can show where improvement and changes are needed.

Stress on the body is caused by awkward positioning, application of excessive force or repeated movements. This stress, over a period of time, can result in permanent and disabling injuries including: Carpal Tunnel Syndrome, Whole Body Vibration, tendonitis, bursitis, tennis elbow, trigger finger, back sprains, back disc degeneration and similar injuries that can be permanent and disabling.

Jobs requiring small intensive hand or other upper body movements over time can cause injuries. Exposure to vibration and to temperature extremes also can lead to soft tissue injuries.

Damage to muscles and connective tissues, back problems, fatigue, eyestrain and headache are common results of poor ergonomics.

Ergonomics covers all aspects of your work environment and how to make it more user-friendly. It can include the layout of your work area, the work methods, tool and handle design, the design of the controls on machinery you use, air quality, lighting, noise level and many other factors.

Following are examples of improvements that can be made to make work areas more ergonomically friendly:

- **Adjustable work stations that can be raised, lowered, rotated and moved. These adjustments adapt to the different heights of various workers and accommodate the needs of various tasks.**
- **Materials placed conveniently to minimize reaching, twisting and lifting movements for the worker.**
- **Bins located strategically so workers do not have to toss waste and scrap to them.**
- **Mechanical and powered assist devices to eliminate the need for using excessive force to do the work.**
- **Suspension of heavy tools so the operator does not have to hold the weight when he is using them.**
- **Scheduling of frequent rest and exercise breaks to give the body a chance to recover. Job rotation in which the worker spends some time doing non-repetitive work also helps minimize problems.**
- **Improvements to the overall environment of the workplace, including air quality, noise and temperature.**

There is a lot you as an individual worker can do to improve the ergonomics of your job. Be conscious of your work habits and your workstation arrangement and look for ways to improve them. Pay attention to body position, lifting techniques and wrist posture. Take the time to plan your tasks with ergonomics in mind. Choose tools designed to minimize cumulative injuries, and use them correctly. Change your position often. Use your scheduled breaks to stretch and flex your muscles.

Talk to your supervisor about possible changes in your work station and routines.

If you think you might be developing a physical problem from repetitive work, report it right away while the injury can still be treated successfully.

Ergonomics isn't just for the experts. Everybody can apply the principles of ergonomics to work more safely, efficiently and comfortably.

Southern Air cargo jet lands safely after damage just before takeoff

ANCHORAGE -- A 747 cargo jet took off from Ted Stevens Anchorage International Airport even though, unknown to the crew, it had been damaged by a de-icing machine just before, a spokesperson for the National Transportation Safety Board said.

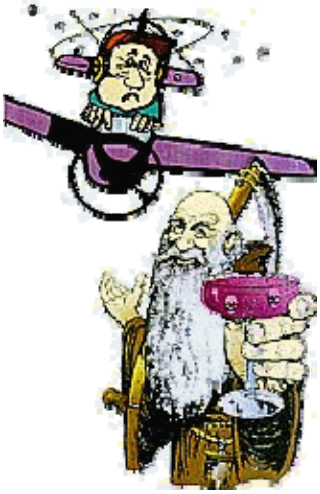
Nobody was injured and the plane returned safely to Anchorage.

The Southern Air cargo flight received damage to its fuselage when it was parked at the airport in the morning, said Larry Lewis, an air safety investigator with the NTSB.

The plane took off on its scheduled flight to Dallas and the three crew members onboard immediately realized the plane was not pressurizing properly. Fuel was dumped in the Anchorage area for about an hour before the aircraft could land again, Lewis said.

The NTSB is conducting an investigation into the incident.

Report: Comair Pilot Fired After FA Smells Alcohol



Airline Will Not Confirm Events Are Related A pilot for Delta Connection carrier Comair has been let go from the airline, after a flight attendant noticed the smell of alcohol on the pilot's breath before a flight earlier this month.

Cincinnati, OH television station WLWT-TV reports the incident occurred on a December 1 flight at Cincinnati/Northern Kentucky International Airport (KCVG). Sources tell the station the pilot was removed from the flight after the FA smelled alcohol, and alerted supervisors.

Comair confirmed an incident occurred, and that the pilot involved was no longer with the airline... but refused to link the two events. WLWT states its sources confirm the pilot was fired.

Authorities have not released the reading of a blood-alcohol test administered to the pilot after the incident. The FAA states pilots cannot have a BAC level higher than .04 percent.

The agency says less than 10 pilots per year, out of nearly 142,000 who hold an airline transport rating, are caught violating BAC limits.

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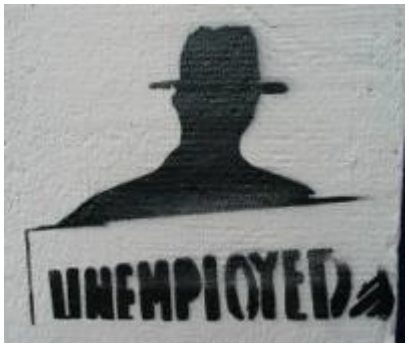
Delta, other airline workers slow to return
New jobs keep some from joining recall



Furloughed airline employees used to get fill-in jobs as a way to pay the bills. As soon as a recall notice came, they returned to the industry they loved.

These days the decision to return is getting tougher.

The turbulence caused by a recession, the terrorist attacks of 2001 and multiple bankruptcies have kept more than 100,000 U.S. airline workers away from their airline jobs longer than previously. And cuts in pay, pensions and benefits have persuaded many to pursue alternate careers.

With conditions improving, Delta Air Lines started recalling workers and plans to accelerate rehiring next year. It has offers out or planned for about 3,000 of the more than 6,800 mechanics, flight attendants and pilots on furlough. But the Atlanta-based carrier and others have found some ex-workers are in no hurry to return.

Mechanic Troy Edwards, 43, thought his position at Delta was "the last job I'd ever have," but he was laid off last year. He went to work for TIMCO, a contractor that maintains airliners for a variety of carriers. This year he was hired to work on Air Force planes in Warner Robins.

"I get a lot of satisfaction knowing I'm supporting the war effort," he said. "But I'll definitely come back to Delta when they call. There are about 200 in front of me. Once you get commercial aviation in your blood, it's hard to give it up."

But Tom Shackleford, 44, a Delta mechanic with 14 years experience, left the airline before being furloughed and has no regrets. He's now in business for himself as a Mac Tools distributor.

Shackleford said his new position offers greater independence and the chance to earn more than the roughly $65,000 he earned during his best years at Delta. "I work more hours now than I used to," he said. "But the time flies by. It's fun."

Shackleford sold his beloved 2001 Corvette to finance his new business. Shackleford said he's too accustomed to being his own boss to consider returning to the volatile airline industry. But he misses the teamwork at Delta.

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"We'd completely overhaul a plane in 45 days working three shifts. When it was done and you watched it fly away for the first time, that was an awesome feeling. I never got tired of it."

Neglect and Failures Imperil Small Cargo Flights

After his cargo plane crashed aside a North Carolina prison in near darkness, all eyes turned toward pilot John "Skip" Wilkens. First the prison guards, who pulled their weapons, fearing he was trying to spring an inmate. Then inspectors, who suspected Wilkens was at fault.

There were few other explanations for the Piper falling from the sky starved of fuel. "I screwed up," the former Marine Corps pilot convinced himself.

Thirty-four days later the same plane crashed, again starved of fuel, with a different pilot -- Brian Keith Hardee, who was bruised and scarred. Only then was the true culprit found for both crashes: a faulty pump, which deprived the engine of fuel. Worse, the mechanical breakdown had been missed by inspectors for the company and the Federal Aviation Administration.

"Keith's accident should never have happened," Wilkens said. "Every time I see him and look at the scars on his face, I am very, very upset."

The case is emblematic of an industry fraught with faulty maintenance, shoddy equipment, company errors and lax FAA oversight, endangering pilots and the public. The air cargo industry has evolved into the deadliest form of commercial aviation in the United States, with nearly one fatal crash a month, The Miami Herald revealed in July.

But a review of nonfatal accidents -- with most fuselages intact and pilots alive to tell the story -- reveals even more problems in a perilous industry.

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INCIDENTS MOUNT

Air cargo planes have been in 166 nondeadly U.S. accidents since 2000, the newspaper found, injuring 59 people, 21 seriously, in a business that has long resisted major safety reforms.

Some were as simple as a plane's nose clipping an object on the runway or skidding in snow. Yet others were serious crashes that left pilots in the hospital and barely averted tragedy on the ground.

The newspaper found:

--In one of every 10 accidents, the planes were deprived of fuel -- "fuel starvation" or "fuel exhaustion" in government parlance.

One splashed down on Sunny Isles Beach. Another pilot lost power in the air in Ohio and, avoiding homes and schools, crashed in a cornfield and broke his pelvis.

The problem has persisted so long the FAA was pressed 15 years ago to issue more directives telling pilots how to deal with fuel emergencies. The agency refused, and planes continue to fall dry from the sky.

--In one of every four accidents, planes suffered mechanical failings that had gone undetected by company ground crews or FAA inspectors, the newspaper found.

In 15 cases, maintenance crews signed off on inspections only to have the plane crash hours later with mechanical defects -- long-deteriorating landing gears, engine pistons and propeller blades.

--Some operators encountered so many maintenance problems the FAA hit them with fines, records obtained under the Freedom of Information Act show. Yet the operators continued to fly and crash.

Larry's Flying Service, a carrier in Alaska, a bustling cargo state that is home to more than a quarter of all nonfatal accidents, has been fined nine times since 1990 -- with three accidents since 2000 and a fatality in 1999.

THE FAA'S FOCUS

To safety experts, these trends are no surprise: The FAA devotes most resources to passenger planes, leaving small cargo carriers, which transport everything from business letters to car parts to medical supplies, to operate largely under an honor system.

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More than a dozen times, accidents were caused by flawed landing gear or propellers. In 12 cases, shoddy maintenance and company oversight were cited as factors.

Those deficiencies -- coming on planes that average 27 years -- create breakdowns that lead to accidents, a sequence of failings that rarely occur in more tightly regulated airlines.

"It's a lot easier for things to slide by," said John J. Goglia, who served on the National Transportation Safety Board from 1995-2004. "It just sort of sits there and waits for the right set of circumstances to go wrong."

On April 26, 2001, a Cessna 208B suffered heavy damage after an emergency landing in a field in Plattsburgh, New York, forced it to nose over.

An inquiry found the propeller-reversing lever was installed on the wrong side, an error that triggered the crash -- and was missed in an inspection by the Tennessee Company just five flight hours before takeoff.

On July 29, 2001, in Colorado, a pilot about to land noticed the landing gear hanging at an angle. When he touched ground, the nose gear collapsed, and the NTSB discovered the equipment had failed due to wear and tear. Just 22 flight hours earlier, the nose gear passed inspection.

The company, American Aviation of Salt Lake City, has been fined seven times in five years for safety violations.

On May 19, 2000, a pilot was injured when his cargo plane began to vibrate violently and he had to abort takeoff in Colorado, an accident attributed to severe propeller blade deterioration and fatigue. Just two hours earlier, the plane was inspected -- with propeller blades passing review by in-house examiners.

Experts say the culture of the industry explains why air cargo flies in the most crash-prone family of commercial aviation, with an accident rate 10 times higher than larger airlines in 2005.

For pilot Gary Reins, who crashed in treacherous weather with faltering equipment in South Dakota in 2001, the trauma remains.

"Fortunately I didn't die in the crash, which I should have," Reins said. "It was a flaming inferno."

FALLING FROM THE SKY

At least 18 times since 2000, The Miami Herald found, U.S. air cargo planes crashed after flying on fumes.

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Some came down with empty tanks because of pilot error or company cost-cutting pressure. Others fell after mechanical breakdowns starved the planes of fuel that was available.

"How do we as professionals in aviation run out of fuel? It happens over and over and over," said Goglia, the former NTSB official, who speaks to this day of the problem.

Package Express, of Concord, N.C., is a carrier whose string of crashes exemplifies the industry's hazards. Not once, but three times.

On June 17, 2003, in Fort Mill, S.C., pilot Derek Martin Davis, 27, ran out of fuel on approach to landing, striking trees and power lines before slamming into the ground and coming to rest in a resident's front yard.

With the plane on fire, the pilot tried escaping, but the right door wouldn't open, forcing Davis -- the hair singed off his legs -- to dive out of a baggage door. The NTSB blamed him for mismanaging the fuel supply.

The plane was ferrying bags of cargo and laboratory specimens, some of which were being transported in a biohazard bag.

PRISON LANDING

On Jan. 5, 2005, Package Express pilot 'Skip' Wilkens lost power at night, and in darkness, brought a Piper down onto a berm along a perimeter fence at Brown Creek Correctional Institution in Polkton, N.C.

Wilkens said the engine sputtered, indicating it was starved of fuel, yet when he switched to the alternate fuel tanks it still lacked power. Unable to make it to the airport, he scoured for a place to land, then readied himself for a violent crash.

"I was asking God to take care of my kids when I was going down," Wilkens said in an interview. "I honestly expected I was going to get hurt bad or get killed."

In the blackness, he brought the plane down with no injury and little damage.

He had no idea his emergency destination was a prison's security area, where he was greeted by armed guards. "They honestly thought I was trying to break someone out of the prison," Wilkens said.

Package Express tested the engine for more than two hours, but was unable to duplicate the problem. The company put the plane back in service. The FAA, overseeing the inquiry, called it "an appropriate action," and Wilkens said he was given the clear impression he was at fault.

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Yet the carrier didn't send one of the most crucial pieces of equipment -- the fuel pump -- out for a detailed teardown.

One month later, in the same Piper, pilot Hardee lost engine power in the sky and told the Concord Regional Airport tower he was "going down." He crashed, hard, into a rock quarry, heavily damaging the plane and sending him to the hospital.

PILOTS CLEARED

A more thorough inspection turned up what had been missed: severe wear to the fuel pump -- with an oversized seal that caused extensive leaking. "No evidence of preventive maintenance was noted," NTSB files say.

It wasn't the last trouble for Package Express, which had a South Carolina accident in December 2005 caused by faulty maintenance. It has since been sold to another carrier that was fined last year over safety issues.

More than a quarter of crashes, like Hardee's, left injuries: 43 of the 166 cases.

Near Skwentna, Alaska last June, a Cessna U206F improperly carrying plywood caught fire, bringing smoke into the cockpit and forcing a daring river escape for pilot Mark Bills, who suffered burns on his head, face and hands and torn knee ligaments.

His plane had not been inspected for a full year -- an unacceptable period for passenger planes. Bills recently surrendered his operating certificate, FAA records show. He did not respond to interview requests.

More than half of the no-fuel cases, 11 of 18, resulted in injuries. One, a 2004 crash onto a golf course in Kentucky, was fatal.

CLOSE CALL ON BEACH

In Sunny Isles Beach on Dec. 6, 2001, a cargo plane came down on the surf amid high-rises and stunned beachgoers, injuring the pilot and copilot.

They had finished their Bahamas run when they lost power to both engines on the 48-year-old Convair 340 operated by Trans Air Link Corp. The pilot spotted a pier

with lights, veered to the left, then made a splash-landing just before 11 p.m. Next day sunbathers were forced to navigate the hulking plane.

The pilot "failed to note the low level of fuel in the fuel tanks before departure," said the safety board, which also found inaccurate fuel quantity gauges on the plane.

Hernando Gutierrez, president of Trans Air Link, which later shut down, knows it could have turned deadly. "I could not believe it," he said.

Some operators with histories of crashes say they could not survive under more rigorous safety regulations. "It can't be done where your markets are that small; that's the bottom line," said Larry Chenaille, a pilot for 46 years and president of Alaska's Larry's Flying Service.

Yet others say maintenance must be given the same priority as shipping goods on time.

"There are people who always want to go around the regulations," said Miami's Gutierrez. "We cannot risk safety because of economics."

FAA Refuses to Act of 15-Year-Old Request to Update Manuals on Flying Low on Fuel

When an Avianca Airlines plane ran out of fuel and crashed on Long Island in 1990, killing 73, a government board moved to ensure such a tragedy would not reoccur.

The National Transportation Safety Board, seeking to improve flight manuals to help pilots low on fuel, turned to the agency with the power to order change: The Federal Aviation Administration.

The request was denied.

A decade later, planes continue to fall because of fuel failures, and the FAA has yet to adopt the request.

"We feel that the procedures that are in place . . . if they follow that they will never have a problem," Jim Ballough, director of the FAA's Flight Standards Service, said recently.

Yet The Miami Herald found fuel failure in one of every 10 nonfatal U.S. cargo accidents since 2000.

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Thirteen years after the Avianca crash, the NTSB safety push resurfaced when a twin-engine cargo plane ditched into the Mississippi River in

2003 after running out of fuel while carrying 155 bags of seat covers, seriously injuring the pilot and copilot for Grand Aire Express.

Investigators cited the pilot's failure to divert to another airport or promptly tell air traffic controllers he was running out of fuel. But key testimony showed the company pushed pilots to fly on low levels of fuel, and that the policy was not to buy fuel from non-contract vendors. The reason: It was pricier.

If the pilot returned to Toledo, the base, with above minimum fuel, "They would get a call . . . reminding them they returned with too much fuel," pilot Saleem Iqbal told the NTSB.

For Grand Aire, "low fuel did not necessarily constitute declaring an emergency," the pilot said.

Iqbal recently filed suit against Grand Aire in Ohio, saying he sustained "debilitating injury" after crashing in a plane "that had been improperly maintained or fueled."

"His seat belt broke, and his face crashed into the front window," said his attorney, Michael Zychowicz. Iqbal, he said, suffered "massive fractures of his face," requiring reconstructive surgery.

Grand Aire has a history of deaths, crashes and fines, yet the FAA said it is cautious before grounding companies "because we almost certainly will be forced to defend our action in court." The company has declined to comment.

The NTSB cited its earlier safety recommendation in the Grand Aire crash report.

After the Avianca crash, the board wanted flight manuals to detail safe fuel practices and protocol. The manuals "should include criteria for when Air Traffic Control must be notified . . . and when emergency handling is required."

The FAA replied that fuel requirements were already spelled out in aviation regulations, so the agency saw no cause to revamp manuals.

"The Board regrets that the FAA does not agree with this recommendation," the NTSB wrote, closing the matter.

LIFT TRUCKS
A General Safety Guide

Lift trucks are handy tools found on the sites of many businesses. Although essential to the conduct of day-to-day business, lift trucks generally don't add any value to the company's product. Handled improperly, though, they can add cost. This article will explain what you can do to reduce the risk of a lift truck incident.

The Equipment

Lift truck safety starts with the actual equipment. It is critical that lift trucks be right for the materials and goods to be moved. They must also be properly maintained on an ongoing basis. Proper maintenance is essential not only to ensure safe and efficient handling, but since lift trucks are fueled by propane, to preserve the air quality in your workplace.

The Work Setting

Lift trucks must be operated in a work setting that allows for safe use and maximum efficiency. Among other things, aisles must be wide enough to accommodate the turning radius of the lift truck.

The Operator

Lift trucks must be handled by a well-trained and competent operator. A lift truck operator needs to have:

- **An understanding of the operation of the truck, including its stability, capacity and load security;**
- **An appreciation of the hazards associated with the particular load being handled by the lift truck; and**
- **Proper driving techniques.**

The Training

Many of the above qualities can be taught in the classroom. But success in the classroom doesn't necessarily translate into safe and efficient operation. That's why operators must also be allowed to put the skills they're taught into practice in the course of an on-the-truck session. This way you can observe the operators and how well they apply the skills in real-work situations.

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A lift truck operator should demonstrate efficient handling techniques and ability within the workplace using typical loads. Assess their skills in:

- **Racking;**
- **Stacking;**
- **Trailer loading;**
- **Ramp use; and**
- **Dock use.**

The Pre-Use Assessment Checklist

A key part of operator competency is effectiveness in checking the lift truck before using it. This can vary from the start-of-the-shift detail check to a simple walk-around periodically during the day.

You can use the pre-shift checklist found in the Tools section to perform this assessment. Of course, there's no such thing as a one-size-fits-all model for this kind of thing. But the checklist in the Tools section is deliberately generic to facilitate adaptation to your own equipment and site procedures.

You'll also need to be flexible in how you use it. For example, you may decide to have a maintenance person complete certain parts of the checklist and make the operator responsible for conducting a visual walk-around and operational check.

Conclusion

For lift trucks to be a cost-effective tool for your business, you need to look at the whole picture and check the operating environment, the operator competency and the lift truck maintenance. I hope this short guide and accompanying checklist will help you in your efforts.

HEALTHY TIPS

How to Improve Your Memory

Harvard Health Publications recently released a report on steps people can take to prevent age-related memory loss. In short, the seven steps, which can be started at any age, are:

1. **Exercise;**
2. **Keep learning;**
3. **Don't smoke;**
4. **Eat your fruits, veggies, fish, nuts and whole grains;**

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5. **Get six to eight hours of sleep a night;**
6. **Take your vitamins;**
7. **Establish supportive social relationships.**

The report also included some strategies to overcome common memory lapses. You don't need to wait until you're a senior to find these tips helpful:

1. To remember someone's name, use the person's name in the conversation as soon as you are introduced. For example, *"It's nice to meet you, Dave. Ted was just telling me about his holidays. Ted, tell Dave that story about your mother-in-law's bus ride."*

2. To remember where you've put something, note out loud where you are placing the object as you put it down. For example, *"I've put the car keys on the hallway table."*

3. To remember what someone's told you, silently repeat the information to yourself and think about what it means. For example, *"The office is closed next Monday. This means I'll have to get my paperwork in on Friday."*

Would you like a good quote to start off the New Year ?

I am still determined to be cheerful and happy, in whatever situation I may be; for I have also learned from experience that the greater part of our happiness or misery depends upon our dispositions, and not upon our circumstances."

--Martha Washington, former U.S. first lady

In any moment of decision the best thing you can do is the right thing, the next best thing is the wrong thing, and the worst thing you can do is nothing."

--Theodore Roosevelt,
Twenty-sixth president of the United States

Those people who think they know everything are a great annoyance to those of us who do."

--Isaac Asimov,
American writer

Inside every older person is a younger person wondering what the hell happened."

--Cora Harvey Armstrong,
gospel singer and songwriter

When one door of happiness closes, another opens; but often we look so long at the closed door that we do not see the one which has been opened for us."

--Helen Keller,
author, activist and lecturer

Champions aren't made in the gyms. Champions are made from something they have deep inside them -- a desire, a dream, a vision."

--Muhammad Ali,
boxing legend

We are what we repeatedly do. Excellence, therefore, is not an act but a habit."

--Aristotle,
Greek philosopher

People rarely succeed unless they have fun in what they are doing."

--Dale Carnegie,
American Writer

Opportunity is missed by most people because it is dressed in overalls and looks like work."

--Thomas Edison,
inventor and businessman

Do not fear going forward slowly; fear only to stand still."

--Chinese proverb

END