INTERCOM

WILLIAM J. HUGHES TECHNICAL CENTER

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A HOLIDAY MESSAGE FROM THE DIRECTOR

Dear Technical Center Family,

The Holiday Season always provides a wonderful opportunity to give thanks for life's many blessings, and to look forward to a New Year with celebration and anticipation.

Holiday lights everywhere help brighten our lives, but light also is reflected in our colleagues who come to work at the Technical Center, year after year, to do their part to help make flying better for the public.

Light is reflected in our employees who contribute so generously each year when the call goes out for the Combined Federal Campaign and other worthy causes. It radiates from the hearts of those who volunteer their personal time to work for peace and justice within their local communities, and shines in those who strive, throughout the year, to break down the walls of fear, ignorance, and prejudice.

Bright lights and warm smiles bespeak the hope of a season that promises us a bright, perhaps even a better future. As our thoughts naturally turn to family and friends, I encourage you to remember the events of September 11, including the victims, their families, and those who unselfishly serve our nation and the cause of freedom.

As this year comes to a close, I want to thank you for making the Technical Center the best organization in the FAA. I am proud of what we have accomplished this year, and I look forward to the New Year and even greater achievements in the future. I extend to you and yours my personal best wishes for a safe, happy Holiday Season.

-- Anne Harlan

Happy Holidays!

FIRST JOINT MEETING OF THE FAA'S FOUR AIR TRANSPORTATION CENTERS OF EXCELLENCE

John Halase of GE, shakes the hands of North Carolina A&T students while Chris Seher looks on.

Recently, the FAA's Air Transportation Center of Excellence (COE) partners, representing all four COEs, and over 100 academic, industry and other government organizations participated in the first Centers of Excellence conference. General Electric Aircraft Engines (GE), the FAA Great Lakes Region, and the Center for Aviation Research and Aerospace Technology (CARAT) sponsored this first joint meeting at the GE Aircraft Engine facility, Cincinnati, Ohio, November 13-15.

The agency's Air Transportation Center of Excellence Program bridges the gap among government, academia, and industry researchers -- its objective since the first Center was founded in 1992. The FAA's four COEs are: Airport Technology, formerly Airport Pavement, established in 1995; Operations Research (NEXTOR), established in 1996; Airworthiness Assurance (AACE), established in 1997; and General Aviation, established in March, 2001.

"Our COEs form a cumulative repository of knowledge and hasten the application of joint efforts benefiting the aviation community and the flying public. This industry-academia-government partnership is vital to the success of the FAA's research agenda," explained **Chris Seher**, (AAR-400), Manager, Aircraft and Airport Safety Division, and sponsor of three of the four COEs. Mr. Seher stated that through the COE program, "the agency assures that the U.S. air transportation system remains the best in the world."

The conference gave the individual COEs an opportunity to share ideas, exchange technologies, and promote greater communications across Centers in fulfillment of their common goal -- excellence in aviation research, education, and training. In addition, it also allowed for appreciation and recognition of accomplishments amongst individual COEs, FAA program managers, and university experts working jointly with the aviation community.

Key to the program's success is the three-way partnership with academia, industry, and government, which facilitates groundbreaking research, while training new professionals to serve the aviation community. This year's conference focused on the academic achievements of the COE partners. In addition to faculty presentations, students from the COE universities made technical presentations about their research to GE executives during a special dinner held in recognition of the COE's educational activities. GE managers selected and presented awards to some of students in recognition of their ongoing research.

Fred Herzner, Chief Engineer at GE Aircraft Engines, takes a moment with students at the student dinner.

The conference highlighted security as well as safety issues. Dr. Arnold Barnett, of the Massachusetts Institute of Technology, NEXTOR, discussed his recent experiences with airline security, stating, "What you can see in retrospect you can see

COE CONFERENCE CONT.

in plain view."

Erwin Herricks, University of Illinois Airport Technology Center, gave a timely presentation on developing a National Wildlife Hazard Advisory System. Airports are attracting more wildlife because they are usually surrounded by foliage, Herricks noted. They are becoming oases in industrial deserts.

Peter Sparacino (AAR-410), Tom O'Brien (AAR-400), Richard L. Perry, Sandia National Laboratories, and William Sheehan, (ACT-7) at the welcome reception.

Echoing the conference theme, "Bridging the Gap," Dr. Oliver McGee, Chair of the Civil and Environmental Engineering and Geodetics Sciences Department at the Ohio State University, and formerly Assistant Secretary of Technology with the Department of Transportation, championed a proactive approach toward partnerships in the aviation field.

The second annual joint Center meeting will be co-hosted by Boeing Aircraft and Wichita State University. For more information, contact Patricia Watts, National COE program director (AAR-400), at 609/485-5043 or e-mail her at Patricia.Watts@faa.gov.

WATCH AND CAMERA BATTERIES POSE POTENTIAL FIRE HAZARD

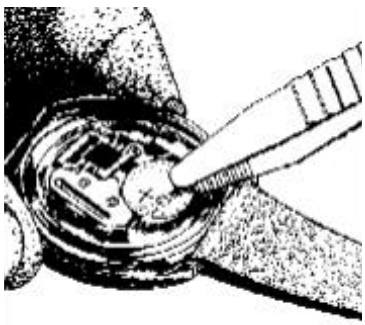
Batteries commonly used in watches and cameras pose a potential fire hazard, according to preliminary tests conducted by the Fire Safety Section (AAR-400). Responding to a National Transportation Safety Board (NTSB) recommendation, AAR-400 and the Research and Special Programs Administration are evaluating the fire hazards posed by lithium batteries and will seek appropriate measures to protect aircraft and occupants based on the results.

The fire of a pallet of lithium batteries (approximately 500,000 batteries) on a ramp at Los Angeles International Airport in 1999 was the catalyst behind the NTSB's request. Preliminary tests of the battery (about half the size of a AA battery) show that even one battery can ignite all surrounding batteries.

"The goal of our testing is to generate enough data to enable us to make a sensible ruling on the number of batteries that can be safely transported in a cargo compartment protected with a fire detection and suppression system," said **Harry Webster**, project manager (AAR-422).

Some of the underlying concerns are the potential intensity and explosiveness of lithium battery fires and the reactivity of lithium with the halogen-containing fire suppression agent.

For more information, contact Harry at (609) 485-4183 or email him at Harry.Webster@tc.faa.gov.



NEW LIGHTING STRIPS ENHANCE VISIBILITY OF AIRPORT MARKINGS

Recently developed light emitting diode (LED) lighting strips can enhance visibility of airport paint markings better than conventional paint markings, according to a new study conducted by the Airport Technology Research & Development Branch's Airport Safety Technology Research and Development Section (AAR-411).

"Painted markings on runways, taxiways and apron surfaces are often obliterated, particularly at night, when covered by even a thin layer of water or other form of precipitation," said **Don Gallagher**, visual guidance lead. "An effective method for delineating critical areas on the airport surface is essential."

The LED lighting strips can be readily imbedded within, and virtually flush with, the pavement surface. They require comparatively low levels of power and have demonstrated minimal failure rates in service.

Safety researchers installed a test LED lighting strip configuration in the form of a parking location "T" at the number one parking spot on the apron area of the Tech Center. It comprised five 3-meter (10-foot) sections, or strips, forming the crossbar of the T and an additional nine sections forming the "tail" of the T.

Experienced pilots and lighting personnel evaluated the configuration. All participants felt the LED lighting presentation was sufficiently clear and could be seen from a much farther distance than paint markings. All but one tester rated the proposed addition/modification to painted surface markings as "well worth while."

Snow continues to be an obstacle. The technology becomes obliterated the same as paint markings with practically any coverage.

The study can be found at www.airporttech.tc.faa.gov/Safety/TN01-39.pdf. For more information about the LED lighting strips, contact Don at (609) 485-4583 or email him at Donald.Gallagher@tc.faa.gov.

THE ITWS TEAM

Last month Intercom mentioned that the Integrated Terminal Weather System (ITWS) program has been selected by *Popular Science Magazine* to receive a 2001 "Best of What's New" award in their Aviation and Space category. This is described in their December 2001 issue. *Popular Science* interviewed Tech Center personnel from ACT-320 in August about ITWS for a feature article that ran in the September 2001 issue, titled "Freeing the Skies" Five High Tech fixes for Air Traffic Gridlock."

Weather Branch Manager, **Bill Benner** tells us that "all in all it was a busy and a productive year for the ACT-320 ITWS team and the ITWS program. The coming year also offers many challenges, including installation and testing of the production ITWS in Atlanta. The ACT-320 team and the ITWS team are up for those challenges. They truly are One of the Best!"

Pictured are back row left to right: **Tom Weiss** (ACT-320) ITWS test lead; **Bill Benner** (ACT-320) Weather Branch manager; **Steve Maciejewski** (ACT-320/BCI) ITWS Meterologist. Front row left to right: **Jim Olivo** (ACT-320/BCI) ITWS test engineer; **Gerry DiMassa** (ACT-320 /BCI) ITWS Test engineer. Missing from the photo are: **Tom Carty** (ACT-320) ITWS supervisor; **Steve Vieverios** (ACT-320) ITWS test engineer; **Donne Wedge** (ACT-320/BCI) ITWS test engineer; **Pat Munn** (ACT-320/BCI) ITWS test engineer.

MEDIATION

The Tech Center has established a mediation program to resolve allegations of discrimination and/or harassment raised through the EEO complaint process. It is the agency's intent to resolve discrimination complaints at the lowest level.

An employee has 45 days from the alleged discriminatory incident to contact an EEO counselor. The EEO counselor has 30 days to attempt resolution between the disputing parties.

At anytime during the complaint process, an employee or applicant may request mediation. If the aggrieved individual requests mediation, the EEO counseling timeframe is extended 60 additional days. The informal stage of the process should not exceed 90 days.

What to Expect During Mediation

- Mediators will present the mediation guidelines.
- Each party will present the situation, providing information from each party's perspective.

- Mediators will then ask questions to clarify and find areas of agreement. A caucus may be called by the mediators, with each party to explore options for conflict resolution.
- The parties as well as the mediators are bound by confidentiality.
- Mediation does not replace the formal discrimination complaint process, it only enhances it. No rights will be lost.
- If mediation does not result in an agreement, the EEO counselor will issue the notice of final interview to the aggrieved. The aggrieved remains free to puruse their EEO complaint through the formal process with the department of transportation.
- All participants should assess interest, needs, and expectations of all parties involved before the beginning of mediation.

The goal of mediation is to assist both parties in reaching a mutual resolution and to reach a positive and productive working environment and/or relationship by addressing the issue(s) at their earliest stage.

Thanks to **Vienna L. Drago** (ACT-9) for writing this article.

A SAFETY MINUTE

FROM THE SECURITY OFFICE
ENVIRONMENTAL BRANCH (ACT-640)

So tell me have you been naughty or nice? The Big fellow in the Red Suit wants to know. Actually, there's no use answering the question, after all he sees you when you're sleeping and he sees you when you're awake so he knows whether you've been bad or good! Adding to Santa's eyewitness account of your behavior is of course your safety record.

Now you're probably wondering why Santa is interested in your safety record? Well, it's a little known fact that Santa is a very safety conscious person and he looks closely at how well you practiced personal safety throughout the year. That's right, Santa is one very safe fellow! To give you an idea of just how safe Santa is, here are a few little known but highly effective **Kris Kringle Safety Facts**.

- Santa checks the reindeer hoofs for wear and tear before he makes a long trip.

- Santa always wears the proper personal protective equipment whenever he enters a confined space such as a chimney.

- Santa practices proper lifting techniques every time he lifts his sack full of toys. For big items, like a new desk, he gets a little help from his coworkers (Elves).

- In bad weather Santa installs reflectors and uses Rudolph with his nose so bright to lead his sleigh at night.

- Before Santa leads his team, he checks his list twice to make sure that everything is in place.

- He wears skid resistant shoes on slippery and wet surfaces like a roof.

- He requires the Elves to use machine guards when making the toys.

- Most importantly, Santa has a weekly team meeting with the Elves and his reindeer to remind each and everyone to follow the proper safety procedures.

So you see Santa is one safe fellow! Which may explain why he is so jolly and nice. We hope that you found this message useful. Who knows by increasing your safety awareness you just might find an additional present under the tree!

The Safety Office wishes all employees a safe holiday season!

THE THIRD INTERNATIONAL CONFERENCE ON AVIATION SECURITY TECHNOLOGY

In the aftermath of the horrific events of September 11, the FAA's aviation security research and development program has dramatically increased efforts to determine what security technologies are worthy of accelerated development and deployment.

There is urgency to this work. When President George W. Bush signed the Airport Security Federalization Act of 2001 into law on November 19, 2001, security R&D changed forever. That law creates a new Transportation Security Agency and requires that agency, among other things, to:

- Strengthen and enhance the ability to detect or neutralize non-explosive weapons, such as biological, chemical, or similar substances;
- Review potential release of biological, chemical, or similar substances within air craft and airports; and
- Undertake a short-term assessment of emerging security technologies and procedures.

While work to establish the new organization proceeds, so too does security R&D efforts. Introducing new technologies into the National Airspace System and significantly enhancing the performance of current technologies and its users requires a coordinated effort. That is why AAR-500, in conjunction with the National Safe Skies Alliance, recently hosted the FAA's Third International Aviation Security Technology Symposium.

When this conference was planned over a year ago, it was simply going to be an aviation security technology conference. A forum for government, academia, and industry to network, share requirements, compare notes, showcase new technology, and plan for possible future aviation security system enhancements.

After September 11, however, the conference took on an added urgency. Instead of simply networking and exchanging ideas, government, industry, and academia had some real work to do to upgrade and strengthen the civil aviation security system.

HEADQUARTERS HEADLINES

FAA to Use AAAE as Criminal Record Check Clearinghouse. The FAA has designated the American Association of Airport Executives (AAAE), a non-profit organization based in Alexandria, VA, as the clearinghouse for criminal record checks conducted on all persons with access to the secured areas of the nation's airports who have not been subjected to previous checks.

Administrator Jane Garvey last month announced plans to conduct criminal record checks on approximately 750,000 employees with access to secured areas.

Under the public-private partnership, airlines and airports will submit employee fingerprints and a $31 per-person fee to AAAE. AAAE will forward the fingerprints to the Federal Bureau of Investigation for the criminal record check. The results will be submitted to the FAA and posted on a secure FAA website, available only to airlines and airports using their own secure access codes. Airlines and airports will only be able to view results for fingerprints they have submitted.

AAAE, in serving as the single point-of-contact for approximately 430 airports and airlines, will provide efficiencies and an expedited processing for both the federal government and industry. In addition, AAAE will provide accounting and training services, and assist the industry in purchasing electronic fingerprint equipment.

FAA Free Flight Technology Used Daily at Kansas City Center. On December 4, the FAA announced the expanded use of a technology that will improve the efficiency and capacity of the U.S. aviation system by allowing pilots to select more direct routes to their destinations.

The User Request Evaluation Tool (URET) began daily use last night at the Kansas City, KS, En Route Traffic Control Center. This new software is part of the FAA's free flight program.

"When the industry came to us three years ago, they laid the challenge of Free Flight at our doorstep," said Administrator Garvey. "We've met that challenge. URET technology works, for the controller, the pilot, and the passenger."

URET is a hardware and software program that aids controllers in granting pilot requests to change their flight path for more direct routes or for different altitudes. The software allows controllers to look 20 minutes into the future of a flight path. If a pilot wants a more direct or different route, the controller punches in the request. The proposed route flashes green or red. Immediately, the controller is advised if the request is safe. Previously, the controller relied on paper flight strips and mental calculations. As a result of URET, pilots now receive more direct routes and the airlines are saving time and money.

Operating as a prototype, URET demonstrated in Memphis, TN, and Indianapolis airspace a savings of $1.5 million per month for the airlines. There has been an increase in direct routings there by about 20 percent. Reduction in airspace restrictions has saved $1 million per year in Indianapolis. This translates to less flying time, less fuel burned, fewer expenses and greater passenger benefits.

"The FAA is delivering on its promise to put new equipment into the hands of the controllers," said John Thornton, director of the FAA's free flight program. "Increased direct routings mean shorter flights, which benefit controllers, technicians, pilots, and passengers."

URET was conceived and built by MITRE Corp., McLean, VA, and is being further developed by Lockheed Martin, Rockville, MD, for use at high altitude centers. The digital system will be deployed in Atlanta, Chicago, Cleveland, Kansas City, Indianapolis, Memphis, and Washington centers.

MAKING ON-LINE TRAVEL RESERVATIONS

The Tech Center is the latest FAA facility to rceive approval to use the FedTrip on-line travel reservation system. The Center expects to begin using it by next April.

Located at www.fedtrip.gov, FedTrip is designed to lower government travel costs by charging lower reservation fess than the Travel Management Centers.

FedTripallows travelers and travel planners to make domestic air, hotel, and car reservations easily and efficiently for business purposes only. For more information, contact Loretta Rollins at (202) 267-7360.

NEWS FROM AROUND THE CENTER

Holiday Celebration: On December 11, the ladies of AAR-500 celebrated the holidays in style once again by having their luncheon in the beautifully decorated Terrace Room at the Ram's Head Inn. This has become a tradition for the ladies of AAR-500 and represents the 8th year of happy celebrations!

Baby Shower: AAR-500 hosted a Surprise Baby Shower Luncheon for **Melissa Dixon** (AAR-510) on December 4. Melissa's baby boy is due on February 3. To make the atmosphere more festive everyone wore some-thing "blue" on the day of the shower.

Retirements: **Retirements**: **Dr. Francis T. Fox** (AAR-520) and **Tom O'Brien**, Deputy Program Director for the Airport and Aircraft Safety Research and Development Division (AAR-400) are retiring effective January 3.

Rock On: **Pete Saraceni** (AAR-510) is very proud of his eleven-year-old son Andrew. Andrew plays drums in a band that Pete hopes will be the next musical sensation and top-the-charts one-day soon. Andrew's been playing and taking lessons for nearly four years and has become quite an accomplished percussionist. He also provides lead and back-up vocals. His band is called "EXIT 4" and has four members. Andrew's

cousin, Nick (15) Saraceni, plays lead guitar and sings. Nick's brother Dan (14) plays bass guitar and sings as well. Newest member Derrick Platt (15) adds lead and rhythm guitar. The band has been performing in and around the Cherry Hill, NJ, area and performed their pop and alternative rock music at the Tech Center's Family Day Picnic.

Award Winner. **Dr. Frank Fox** (AAR-520) recently received two awards: one from the FAA for helping Amtrak develop Explosives Trace Detection capability, and the second, a medal, from the Potomac Institute on Policy Studies/Center for Emerging Threats and Opportunities for helping the Marine Corps to develop dockside ship protection methods.

NEW JERSEY EDUCATION ASSOCIATION CONVENTION

The Center teamed with New Jersey Aviation Education Council and the NJ Wing of the Civil Air Patrol at the New Jersey Education Association's (NJEA) Convention held recently in Atlantic City. Over 51,000 teachers attended the two-day convention, with a good portion of them stopping by the Tech Center booth. "Air Bear" made an appearance each day handing out gliders.

Carleen Genna-Stoltzfus, Community Outreach/Aviation Education (ACT-70), **Rosanne Weiss** (AAR-424), and **Barbara H. Para** (ACT-510) worked in the aviation education booth during the convention. Also helping out in the booth was Dr. Ann Walko, a member of the Civil Air Patrol - McGuire AFB and professor at Kean College; Charlotte Helge, Civil Air Patrol; and Michael Stoddard, NJDOT.

During the convention, those manning the booth handed out lots of information to future teachers, teachers, administrators, and guests. The handouts included information on the Wright brothers, August Martin, and the Gate to Gate CD Roms, balsa wood gliders, as well as other educational materials. Discussions concerning how "Aviation Education" can be incorporated into classrooms was the hot topic.

Thanks to Wackenhut employees Jennifer Hicks and Frankie Sanchez, who set up and removed the booth.

A MILESTONE FOR BETTY LAFFERTY

In a special awards celebration, **Pat Mabis**, Manager, Communications Management Division (ACT-70) presented **Betty Lafferty** a certificate recognizing her 40 year's of service and dedication to the government.

Betty began her career at "NAFEC" as a teletype operator. In 1960 she became a government employee working in the old "Print Shop" performing secretarial duties. Later, Betty moved to the position of bindery worker until the Print Shop closed in 1984. Currently, she performs duties as Printing Officer, serving not only the Tech Center, but other organizations within the FAA.

Betty's continual dedication, professionalism, and positive attitude have been a benefit to all who come in contact with her.

STAY INFORMED

Don't forget -- you can now get to the VOICE webpage through the FAA intranet at interweb.faa.gov. Once in the VOICE page, click on Hot Topics, to see the latest agency news. The Hot Topics are updated daily. And, don't forget to call 1-877-888-4325 to keep informed about agency happenings. The message is updated weekly on Wednesdays.

JUST FOR FUN

Dilbert's Ultimate Cubicle

Voice of the working stiff, Scott Adams is working on a new project—the ideal office cubicle. What has Dilbert's creator created in the Ultimate Cubicle? Here are a few features:

A "**boss monitor**." The cubicle is equipped with big view-screen that has an icon for monitoring the boss. Whenever you click on the icon, a live video of your boss's door comes up, and you can check if the boss is in or is leaving.

Built-in cooler. The problem of co-workers stealing your food from the common break room is solved with a cooler built into the floor.

Fold-down guest chair. Now you have protection against unwanted co-workers and bosses. The fold-down guest chair means people can't borrow it and never bring it back. The other advantage is that it activates a timer that, after a pre-set amount of time, makes the phone ring so you can excuse yourself and send the unwanted guest away.

Acknowledgement and recognition. The cubicle provides you with the recognition you don't get from co-workers or the boss. A built-in mechanical flower is acoustically activated. When you're not in the cubicle, it wilts. But when you enter, it perks upright and even "shudders" a bit with happiness. The wastebasket vibrates with happiness, too, when you throw trash into it.

Life Lessons

It often takes years of trial and error to learn some of life's most important lessons. But here we give you a head start by telling you a few of the more important ones:

1. The most powerful force in the universe is gossip.

2. The one thing that unites all human beings, regardless of age, gender, religion, economic status or ethnic background, is that, deep down inside, we all believe that we are above-average drivers.

3. The main accomplishment of almost all organized protests is to annoy people who are not in them.

4. No matter what happens, somebody will find a way to take it too seriously.

A HAPPY THANKSGIVING WAS HAD BY ALL

The Little Flyers Academy's little Pilgrims and Native American's celebrated Thanksgiving with a luncheon feast. The children helped prepare all the fixings to go along with the delicious turkey. Moms and Dads joined the kids for a yummy dessert and some Thanksgiving songs.

Libby Neuweiler and Sylvia Edwards

Alfie Vargas and Kamryn Englert

DON'T FORGET

Please try to get *Intercom* submissions (articles, photos, ideas) to Terry Kraus via email by the second Tuesday of every month.

Happy Holidays from the Intercom Staff

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Intercom

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