

GROUND SUPPORT

WORLDWIDE

April 2012

International: New Aircraft Materials Put Procedures To The Test

Composites help airlines move more passengers while burning less fuel. But how will the new materials stand up to routine ground handling operations?

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Flightcom: Ground Support Product

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LEADER

Wireless headsets provide hands-free mobility, clear team communication and safe ramp conditions.

Southwest Airlines is deploying Flightcom's wireless ground support communication system at all its gates across the United States.

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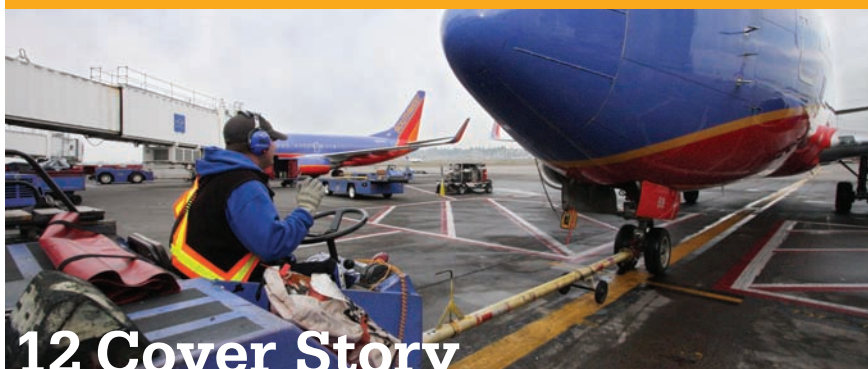
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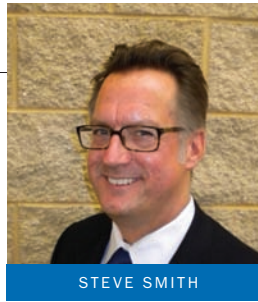
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Airlines Screw Up Less

And the flying public doesn't notice anyway.



STEVE SMITH

Airlines provided customers with their best service in at least 22 years, according to the Airline Quality Rating study released in the first week of April.

In this case, "best" means arriving on-time eight times out of 10 *with* your bags at the other end and *not* being bumped from an overbooked flight to begin with.

The AQR data showed, for example, that the rate of mishandled bags dropped to 3.35 per 1,000 passengers.

To put that in some perspective, AirTran had the best baggage handling rate – 1.63. American Eagle had the worst – 7.32.

Still, improvement is improvement, and the research indicates a positive upturn in overall numbers for each of the past four years.

Too bad passengers aren't noticing. In fact, more than 53 percent of frequent fliers said air travel has gotten worse for them in the past year despite these statistics showing the industry performing at its all-time best. Just 11 percent indicated things are better.

This other report – the Airline Passenger Survey – comes from the same researchers behind the AQR. The 2012 report was released a few days after the AQR and seeks to measure customer perceptions against the more objective performance levels of the AQR.

Over the past four years, more than 4,000 frequent fliers have expressed their opinions in the APS. Take the two together, and it's easy to see just how much good, old-fashioned customer service matters.

For example, the frequent fliers love Southwest Airlines. The airline takes top honors for "most passenger-friendly" airline and by a wide margin – 35 percent for Southwest and 12 percent for No. 2, JetBlue. That's true even for frequent fliers who report that Southwest isn't even their most preferred airline to fly.

On the other hand, Southwest has never earned a great overall AQR. It came in at No. 7 this year, about right in the middle of the pack. In other words, it screws up a little more and a little less than the other guys.

But Southwest consistently has what many competitors don't – the lowest rate of customer complaints. That's the one deciding factor, the researchers say, why Southwest continues to show strong business performance even when it isn't the highest ranked AQR airline.

If price is equal, for example, customer service is the top factor in why the frequent fliers choose an airline.

Customer service might even help the airlines explain why tickets cost more. The majority of the frequent fliers believe price increases are about more than just fuel cost offsets.

"This is part of the global perception by passengers of an industry that does not have customer service or transparency in providing service as a key goal," the researchers note.

Finally, the researchers have a match made in heaven between the objective AQR and the subjective APS with the merger of Southwest (No. 1 in friendliness and preference) and AirTran (No. 1 in the 2012 AQR). Historically, the researchers say, such mergers have caused a slide to the "least common denominator."

The researchers say the airlines can buck this trend given their strengths in customer perceptions and objective performance, "but it could also mean a decrease in these strengths for both airlines if not well-managed."



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Calendar of Events:

April 16-19

Global Aerospace Summit
Abu Dhabi, UAE

<http://www.aerospacesummit.ae>

April 29-May 3

**84th Annual AAAE Conference
And Exposition**
Phoenix, AZ

[http://events.aaae.org/
sites/120501](http://events.aaae.org/sites/120501)

May 1-3

**27th Annual Maintenance
Management Conference**
Nashville, TN

[http://www.nbaa.org/events/
mmc/2012](http://www.nbaa.org/events/mmc/2012)

EU Transportation Ministers Agree To Increase Competition At EU Airports

European transportation ministers agreed last month to a European Commission proposal that at least three ground handling companies must operate at all major European airports.

The Commission's proposals aim to ensure airlines have a greater

choice of ground handling solutions, give airports more control over the coordination of ground handling services, and clarify the rules on the training and transfer of ground handling staff.

The proposal must still be voted on by the European Parliament.

Business Buzz



Premier
ENGINEERING & MANUFACTURING, INC.

Premier Engineering & Manufacturing, Marinette, WI, was named Equipment Provider of the Year for 2011 by Southwest Airlines' GSE department.

The award started in 2007 as an expansion of the GSE department's employee

recognition program. The entire GSE staff nominates and then selects the winner based on criteria ranging from customer and parts support to training and warranty.

TUG Technologies Corporation and Corvus Energy, manufacturer of lithium polymer batteries, announced they have signed a memorandum of understanding whereby TUG will incorporate

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Corvus Energy's lithium GSE technology into TUG Technologies' portfolio of GSE products.

The two companies initially expect to collaborate by producing an electric version of TUG's popular MA series baggage tractor powered by Corvus



Energy's lithium polymer-based drive-train solutions. The lithium MA will be available for purchase this spring and will be followed by a lithium 660 belt loader this summer.

Security Certification First:

Aviapartner received the first security certification from the Transported

Servisair Not Guilty Of Safety Violations In Deicer's Death



Servisair was acquitted last month of two Canada Safety Code violations in the death of aircraft deicer Murgappa Naiker, who was not wearing his safety harness and lanyard when he fell 19 feet to his death in December 2009.

A judge ruled the ground handler did all it could to ensure the safety of its employees and had no idea the 17-year veteran deicer breached safety provisions.

Levine Leichtman Acquires Tronair



Levine Leichtman Capital Partners, a Los Angeles-based private equity firm, announced last month that it partnered with management to

complete the acquisition of Tronair, Inc.

Ken Greene, Tronair's CEO, commented:

"The Tronair global team is excited about partnering with LLCP as the company seeks to further

strengthen its market position and fuel its next stage of growth. LLCP has a long history of being a value-added partner to its portfolio companies and I look forward to leveraging their strategic, financial and M&A expertise."

Asset Protection Association's Air Cargo Security Standards for its Brussels cargo site. TACSS is the first security standard that has been developed specifically for air cargo.

12th Year In Row: Swissport International has again been named Best Ground Handling Company by the Institute for Transport Management, taking the award for the 12th year in a row. In other news, Swissport was named Ground

Handler of the Year in the inaugural Air Transport News awards.

Struggles To Stay Aloft: In a Bloomberg interview, Emirates chief predicted that rising fuel cost will likely ground airlines that are already struggling to stay aloft. "We can reel off a whole load of airlines that are teetering on the brink or are really gone. ... another eight or nine months, and we're going to see this industry in serious trouble," said Emirates President Tim Clark.

Aviation Employment Report: The Air Transport Action Group released an Oxford Economics analysis organization report that puts the total number of global jobs supported by the aviation industry at 56.6 million.

Public Plea On EU Emissions: The European Union's plan to impose a tax on international airlines for their carbon emissions has run into fierce head winds, with the Obama administration joining China, India and other

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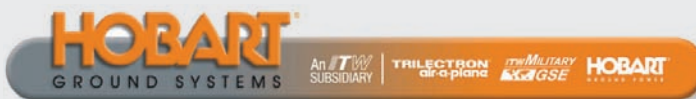
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GSE Holdings Combines Three Divisions Into Hobart Ground Systems

GSE Holdings Inc. has combined the resources of several industry leading companies, but streamlined services into one cohesive front.

Rick Hansen, vice president and general manager of GSE Americas, announced last month the establishment of Hobart Ground Systems, a combination of Hobart Ground



Power; Trilectron/Air-A-Plane; and ITW Military GSE and their engineering, design, sales and service teams.

“We are pleased to be working together to establish a more unified

front for our customers,” Hansen said. “Each of these formally separate companies has developed new products launching over the next few months.”



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For more information call **800-298-6235** or visit **www.davidclark.com**



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powers in a growing global drive to force the EU to back down.

IATA Sharply Reduces Profit Forecast:

The International Air Transport Association has reduced its profit forecast for the airline industry in 2012 mainly due to steep increases in fuel prices and projects North American carriers will deliver a profit of \$900 million this year, down from the previously forecast \$1.7 billion.

Biofuel Collaboration: Boeing, Airbus and Embraer signed a memorandum of understanding to work together on the development of drop-in, affordable aviation biofuels. The three manufacturers agreed to seek collaborative opportunities to speak in unity to government, biofuel producers and other key stakeholders.

Partnerships/ Acquisitions/ Contracts

ATS Renews With WestJet: Airport Terminal Services renewed multiyear contracts with WestJet at Edmonton International Airport; Trudeau International Airport; and James Armstrong Richardson International Airport. These locations represent the original contracts ATS secured when it entered the Canadian market in 1999.

Servisair Starts Up Interjet: Servisair announced that Interjet has chosen the ground handler as its partner in Miami for the start up of new flights to Mexico City. Servisair provides customer service and ramp handling services to

Interjet's 12 weekly 150-seat A320s at Miami. Servisair was also awarded Interjet's refueling contract for MIA.

Continental Partners With ASIG,

Signature: Continental Tire the Americas, LLC announced a strategic supplier partnership with ASIG. It is now in full force with all 109 ASIG and Signature Flight Support locations in the United States.

Menzies Wins Business In South

Africa: Menzies in South Africa has won Eritrean Airlines four weekly flights from Asmara via Entebbe to both Johannesburg and Cape Town. Menzies will handle Korongo Airlines, which will fly twice a week from Lubumbashi to Johannesburg. Both airlines' contracts include passenger services, ramp services, cargo and lounge services.

ASIG Cleans Cabins For Singapore:

ASIG has commenced cabin cleaning services for Singapore Airlines

at London Heathrow Airport. ASIG is servicing three wide-body daily flights, two A380s and a B777, on behalf of Singapore Airlines. With this new contract, ASIG is now cleaning six A380s daily at LHR.

Rental Car Business For Signature:

National Car and Signature Flight Support have entered into a multiyear agreement to supply rental car and ground transportation solutions for Signature's global network of FBOs.

People In The News



SATS Ltd. appointed **Tan Chuan Lye** as its new president and CEO. In a career spanning 35 years, Chuan Lye has held managerial positions in SIA Ground Services and SATS Airport Services, and was respon-

sible for both SIA and SATS' Changi Terminal 2 operations.

ASIG announced that Pat Pearse, managing director, ASIG Europe, will head ASIG's growth and operations strategy for the Asia Pacific region. Pearse joined ASIG in 2010 and has since led ASIG Europe through a significant growth. Pearse has more than 30 years of experience in airline operations.



The Australasian Aviation Ground Safety Council awarded Queensland Airports Ltd's Aviation Ground Handling with its 2011 Safety Award. **Janelle Jamieson**, health, safety and rehabilitation officer, focused on proper manual handling techniques and produced a DVD that will be used as part of the staff orientation process and also during training courses.

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New Aircraft Materials Put Ground Support Procedures To The Test

Composites help airlines move more passengers while burning less fuel. But how will the new materials stand up to routine ground handling operations?

By Graham Newton

Despite the roller-coaster ride in air traffic numbers in recent years, the historical trend of 5 percent growth per annum still holds true. That equates to plenty of new aircraft – some 33,500 over the next 20 years, according to the Boeing market outlook.

Many of the airplanes now taking to the skies, however, are not merely the latest generation of long-established workhorses. Increasingly, they are brand-new designs made of new materials.

So far, Airbus has delivered 68 A380s with another 185 on order. December 2011 was a record month for the double-decker Leviathan, with four deliveries in a single month.

The European manufacturer is also moving forward with its A350 project with 500 orders for the various derivatives. Over 70 percent of the A350 is made from advanced materials that combine composites (53 percent), titanium and advanced aluminum alloys.

Boeing has the 787 and the revamped 747-8 coming fresh to the market. Some 870 787s (comprising both 787-8 and 787-9) are on order and there are around 36 orders to date for the 747-8. The 787 is 50 percent composite by weight. A majority of the primary structure is made of composite materials, most notably the fuselage.

It is not only a paradigm shift for the airlines. For ground handlers, too, the market and the working systems are changing.



GOOD TEACHERS

Airplane manufacturers are well aware of the ground handling issue. New aircraft design takes into account the increasingly important role of ground operations as airlines look to increase utilization rates and improve turnaround times. Where there are significant differences to established practices, manufacturers look to help ground handlers understand the new requirements.

The A380, for example, was something completely different. It required new equipment – a 70-ton tow tractor and an upper-deck catering vehicle, for example. Ground handlers are still learning A380 best practices, especially servicing multiple aircraft.

The A350 won't demand so much. Airbus says the A350 "provides easy

There is no doubt that composite-laden aircraft are safe and correctly certified to fly. But for ground handlers, the jury is still out as to how they will react to the minor bumps of daily ground operations.

Photo provided by Airbus.

and cost-effective ground handling, minimizing aircraft turnaround time."

Boeing is, likewise, leaving nothing to chance on the 787.

"Boeing offers our customers robust training programs to ensure they are equipped with the necessary information and procedures," says Mike Fleming, vice president, 787 services and support.

As with all airplane models, ground crews must be familiar with the airplane to service it appropriately.

"Although the 787 Dreamliner brings a wide range of new state-of-



Many of the airplanes now taking to the skies are not merely the latest generation of long-established workhorses. Increasingly, they are brand-new designs made of new materials.

Image provided by ANA.

the-art technologies and features to the market,” Fleming says, “we have worked very hard with our customers to ensure a seamless transition for ground handlers more use to conventional-technology airplanes. This means that a ground handler’s transition to the 787 will be no more onerous than to any other new airplane type.”

This is good news for ground handlers since ground damage costs the industry an estimated \$4 billion every year.

The concern voiced in some corners, however, is that composite material may hinder current safety efforts rather than help them.

DETECTING DAMAGE

While major repairs, where the aircraft can be extensively tested, are not expected to be an issue, unscheduled work could be a cause for concern.

The topic gained momentum in 2011 following a minor collision between an All Nippon Airways 787 and a boarding bridge.

In an October 2011 report, the U.S. Government Accountability Office noted several challenges relating to composite materials. It worried that damage to composites “may not be visible or may be barely visible, making it more difficult for a repair techni-

cian or aviation worker to detect than damage to metallic structures.”

The GAO also noted repairs could be more troublesome, in part, because of the lack of standardization.

As yet, solid data on damage to composites are lacking.

“A repair technician could confuse materials or processes, which may result in improper repairs,” noted the GAO report.

Others in the industry have also commented on the provision – or lack of it – of tools and training across the industry. The relevant equipment and skill set for composite repair may not be available at all outstations for some time to come, delaying aircraft repairs.

The manufacturers refute such arguments. Boeing cites the 787, designed from the outset to be especially robust in damage-prone areas, such as passenger and cargo doors.

Fleming also insists it can be repaired in exactly the same way as older models.

“The ability to perform bolted repairs in composite structure is service-proven on the 777 and offers comparable repair times and skills as employed on metallic airplanes,” he says. “By design, bolted repairs in composite structure can be permanent and damage-tolerant, just as they can be on a metal structure.”

There is also the option to perform bonded composite repairs, which offer improved aerodynamic and aesthetic finish.

Although a typical bonded repair may require 24 or more hours of airplane downtime, Boeing has developed

a new line of maintenance repair that requires less than an hour to apply.

Improvements in nondestructive testing methods, such as using x-rays and ultrasonic scanning, will also pave the way forward. Lufthansa Technik is one of a number of companies looking at providing a comprehensive, mobile service for repairing composite material.

TRAINING TIME

The debate is unlikely to go quiet any time soon.

In the meantime, plenty of research is being done. The Commercial Aircraft Composite Repair Committee is an industry-wide effort to fine-tune work on composite materials. Both Boeing and Airbus are involved

But the best knowledge will come when composites have a flying history comparable to metals.

Until then, some robust training schedules for inspectors, technicians and engineers are the industry’s best solution.

At Boeing, during training for inspectors, the students learn how to perform an inspection and analysis to make a “fix or fly” judgment on 787 composite damage. Technicians learn how to carry out repairs and engineers learn how to design repairs.

There is no doubt that composite-laden aircraft are safe and correctly certified to fly.

But for ground handlers, the jury is still out as to how they will react to the minor bumps of daily ground operations.

The service level agreements of the future could look very different indeed.

Graham Newton is a professional writer and editor with more than 10 years of experience contributing to international aviation publications, including Airlines International, the official Magazine of the International Air Transport Association. ■

Southwest Airlines is deploying Flightcom's wireless ground support communication system at all its gates across the United States.

Photo provided by Flightcom.



Flightcom: Ground Support **PRODUCT LE**

Wireless headsets provide hands-free mobility, clear



We added a Product Leader category to our popular Ground Support Leaders of the Year awards this year. At last month's Cygnus Aviation Expo, we officially recognized Flightcom Corporation, Portland, OR, for its wireless ground support communication system.

The company's headsets – both wired and wireless – are already supporting hundreds of commercial and military flight crews and ground support personnel at more than 40 U.S. airports.

Last December, however, the company won a major contract with Southwest Airlines to provide a wireless ground support system for pushbacks outside Southwest's 420 gates at 73 airports in 37 states for more than 3,400 flights a day across the United States.

How does the system work? Here's a basic explanation of its four main components:

- **The ComHub:** Essentially, the heart of the system. The ComHub connects the pushback driver and the wing walkers to a DECT-based wireless network. During pushback, the ComHub, carried inside a bright yellow weather-resistant bag, is connected to the plane's interphone so that the driver can talk directly to the flight deck.
- **The Wireless Headsets:** One for the driver and, typically, two for the wing walkers (although the system can work with as many as four wing walkers). The headsets provide a transmission range of 1,600 feet. A push-to-talk button on the



Deicing crews can also use Flightcom's wireless communication system. Maintenance workers are another potential user at the airport.

driver's headset allows for direct communication with the flight deck. Headsets for the wing walkers keep these important guides in continuous communication with the driver on an open mic.

- **Waterproof Charging Case:** Everything fits into an unbreakable, airtight and dustproof carry case that can easily be wheeled to wherever it needs to be. A convenient, built-in battery charger provides power for all the components. The case easily plugs into a standard AC outlet to provide the headsets with a

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...r team communication and safe ramp conditions.

full charge in two hours that's good for 24 hours of continuous use.

Batteries will stay charged for up to a year, keeping the system "at the ready" whenever it's needed.

There's more to the system – and more to its potential aviation uses besides pushing back planes from gates. We talked with a couple of Flightcom executives and here's what

they had to say about what makes the wireless system an award-winner.

TEAMWORK

On a loud, busy ramp with the pressure always on to make the turn, the difference between costly work injuries and hundreds of thousands of dollars in damage to aircraft is often measured in fractions of a second.

So much the better then, if the entire ground team can hear one another and let their own voices be heard to stop an accident from happening.

"Once we got on the ramp, we realized flat out that there was no good communication system for the entire ground support team," says Simon Broadley, vice president of engineering for Flightcom.

Before striking the deal with Flightcom last year, Southwest Airlines relied on what most airlines relied on for pushbacks. The pushback driver wore the sole headset that was plugged into the aircraft. Meanwhile, the wing walkers relied on what wing walkers had relied on for the past half century – hand signals.

Hand signals, of course, only work when they can be seen. As Broadley sees it, the wing walker is crucial to a safe pushback, but literally had no voice in the matter without the wireless headsets.



"Wing walkers were living the life of silence," Broadley says. "They just were not able to have any effective communication. Now, when a wing walker sees a problem, he can say something right away."

Studies by the Flight Safety Foundation show that human factors are the primary culprit in ramp accidents. Poor communication typically tops the list when things go wrong.


"The wireless system not only enables communication between the flight deck and ground crew," says Michael Walsh, director of business development for Flightcom, "it optimizes communication by controlling who can talk to whom and under what circumstances."


All ground personnel, for example, can hear the flight deck on an open mic. But to minimize confusing cross-talk, only the driver can talk directly to the flight deck.


The pilot can also be heard. "We purposefully gave the pilot priority over everyone else to ensure the flight deck could be heard at all times," Broadley says.






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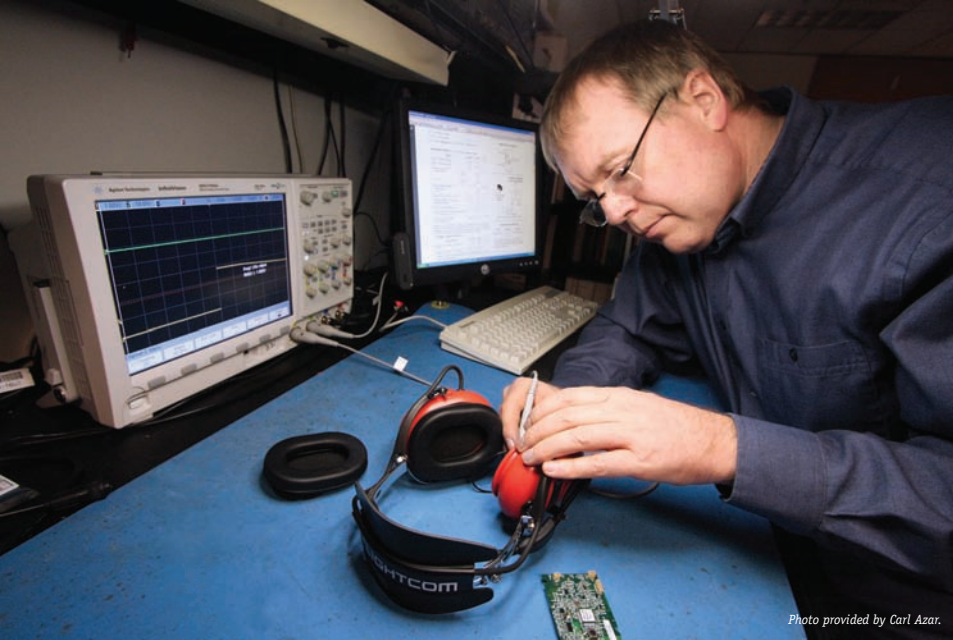


Photo provided by Carl Azar.

Tom Carlson, Flightcom's senior electrical engineer, adjusts the configuration on one of Flightcom's wireless ground support headsets.

Overall, the system gives the pushback driver the chance to better manage his team during pushback.

"It's often the case that individual members of the ground crew just focus on their own individual tasks," Broadley adds. "A driver might be so focused

on that towbar, for example, that he doesn't see the wing walker's signals. This way everyone can hear and be heard and that really helps make these individuals operate like a real team."

After the pushback, the driver removes the ComHub from the aircraft (the bag also has a long, red flag that says "REMOVE BEFORE FLIGHT") and displays it to the flight deck.

However, a safety backup built into the system alerts the pilot if the bag remains on the plane.

DECT-BASED WIRELESS

One key to the Flightcom system is in the choice of technology to hear and speak without the wire. A wireless system transmits voices largely in one of two ways – either by incorporating DECT (Digitally Enhanced Cordless Telecommunications) or Bluetooth.

"The first forays with wireless systems on the ramp used Bluetooth technology," Broadley explains.

But there are drawbacks to Bluetooth.

"Bluetooth is meant for close communications," he adds, "typically about 300 feet."

Bluetooth transmissions are also subject to interference from other communication devices – especially those operating on the 2.4 GHz or 5 GHz frequencies – and can even be blocked by



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physical barriers – something there's quite a lot of on the ramp.

DECT, on the other hand, can offer better coverage than Bluetooth. The range of transmission can extend to 1,600 feet. The Flightcom system also uses DECT 6.0 and is less subject to interference in the 30 MHz to 1.8 GHz frequencies. What's more, DECT can bounce its signal up, over and around objects to establish the best connection.

Flightcom's wireless system is also full-duplex – meaning it allows communication in both directions simultaneously. Full-duplex capability is important for ground support communication since it lets all personnel speak and hear others at the same time, much like a telephone.

Half-duplex systems, such as walkie-talkies, allow communication in both directions, too – but only one direction at a time. If one person is transmitting, all other transmissions are blocked until the first transmission is over.

HEARING PROTECTION

While the wireless headsets can be viewed as merely a better way to communicate on the ramp, Flightcom's equipment also provides



Michael Walsh, director of business development for Flightcom Corporation, accepts the Ground Support Product Leader award at last month's Cygnus Aviation Expo.

excellent hearing protection. OSHA regulations require hearing protection when the time-weighted average noise level exceeds 85 decibels.

A Noise Reduction Rating is a measurement that's also in decibels. Simply subtract the NRR from the average noise level, and users can tell how much hearing protection they'll get. Flightcom headsets are rated at 26 decibels. So, if noise levels on the ramp work out to 71 decibels, then the headsets cut that noise down to 45 decibels. By comparison, a normal conversation at three feet measures 65 decibels.

And lest we forget to emphasize this point, the Flightcom executives we interviewed reiterated that there's more than one way wireless equipment can be considered "wireless." Some wireless headsets, for example, may still require a wire to a radio or a belt pack. In addition, the transmission range for such devices aren't likely to be as robust compared to the Flightcom system.

"Wires are a real sore spot with airlines since they are always breaking," Broadley says.

Walsh adds that it's a question of "when not if," wired headsets will

Company Profile

FLIGHTCOM



Flightcom can trace its beginning to 1983 when electronics engineer Brian VanderPloeg decided to take flight lessons. VanderPloeg simply couldn't hear the flight instructor sitting right next to him.

Working out of his Portland, OR, garage VanderPloeg started Oregon Avionics and developed a better headset for the general aviation industry. VanderPloeg, an active member in the Experimental Aircraft Association, soon discovered that he had indeed built a better mouse trap.

Demand further increased after *Aviation Consumer* named the company's system the "Best Portable Intercom" in 1986. From there, Oregon Avionics became the Flightcom division of parent company Sonetics Corporation in 1989.

Flightcom's business grew 1,325 percent in a five-year period in the early-1990s and by then had expanded its lines of equipment in the commercial and military aviation markets.

While the Flightcom division was growing, Sonetics began to focus on other applicable markets that needed the best in hearing protection, plus clear communication. In 2008, Sonetics' Firecom division introduced that industry's first completely wireless headset.

Other expansions followed. Sonetics Apex headsets and a line of portable and vehicle-mounted communications systems, for example, are used by work teams in industrial, construction and public works environments. And Sonetics Triton wireless headset and intercom systems were specifically designed for noisy marine settings.

Today, Sonetics counts more than 500,000 customers in 90 countries. It's been recognized twice by *Inc. Magazine* as one of the 500 Fastest-Growing Companies in the nation in 1991 and 1992. The company continues to grow by 20 percent a year.

Meanwhile, Flightcom is working with or in discussions with nearly every major commercial airline in the United States. The company is also working with federal regulatory agencies to advance the safety and hearing protection requirements for the ground support workers.



Photo provided by Chris Hawley.

Simon Broadley, vice president of engineering for Flightcom Corporation, shows the standard wireless pushback system he and his team designed in conjunction with Southwest Airlines.

need to be repaired. He says the repair issue really gets the airlines' attention when they look at their overall repair costs for wired headsets, whether they're used for pushback or deicing.

"We've seen instances where the same wired headset has been repaired eight to 12 times annually," Walsh adds, "and the majority of those repairs are either for broken wires or cables."

Such an after-market installation of wired headsets on deicing equipment, Walsh also notes, is expensive and can be eliminated with a true wireless system.

"And anyone in the bucket loves that they aren't tethered," Walsh adds, "and the drivers like the fact that they can get out of the truck and still be in communication."

The setup is different for deicing operations. A vehicle-mounted base station provides communication between the driver and the deicer. But the system can also be configured to provide push-to-talk commu-

nication with ground control or other teams by way of two-way radios.

Walsh also notes that Flightcom's wireless systems can be used for maintenance as well as pushback and deicing.

In this instance, the ComHub supplies hands-free communication to the maintenance crew, no matter where they're stationed.

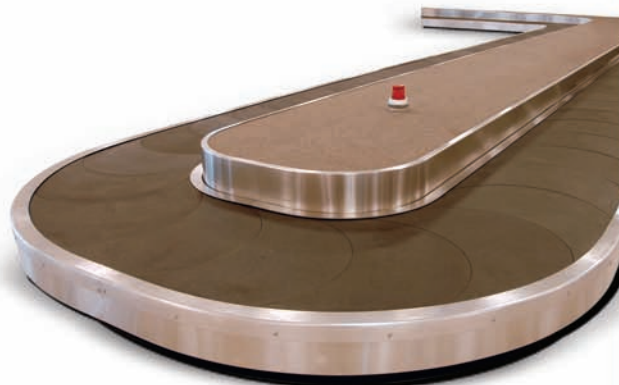
"Our system allows maintenance technicians inside and outside the aircraft to stay in continuous voice contact," Walsh says, "and that's a far better alternative than banging on the wall to get someone's attention. Maintenance personnel also enjoy the ability to communicate in real time during aircraft movement." ■

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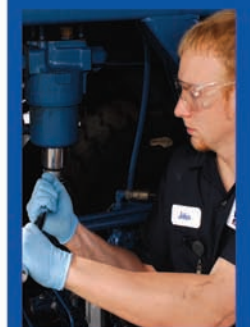


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Procedures 101

A government and industry workshop tries to untangle the web of technical information and regulations and make it easier to follow procedures.

By Dr. William Johnson, Chief Scientific and Technical Advisor – Human Factors, FAA

We hear it every day: “They did not follow procedures.”

As a result, an aircraft is damaged ... someone is injured ... the baggage is lost ... the flight is delayed. The outcome is varied and infinite, but the overriding cause is that a procedure was not followed. The challenge is as old as aviation and the solutions seem to be elusive. Or are they?

A panel of aviation industry and government officials recently spent two days trying to get their hands and heads around the issue of following procedures.

The invited group was composed of OEMs (such as Boeing, Airbus, Gulfstream, and General Electric), airline and independent maintenance organizations, FAA inspectors, CEOs and organized labor leaders. Industry professionals from airlines, general aviation, rotorcraft, corporate and regulatory all agreed that we have a problem. Or make that problems.

Industry professionals from airlines, general aviation, rotorcraft, corporate and regulatory all agreed that we have a problem. Or make that problems.

Today, safety management approaches these problems not by merely looking for whom or what to blame. Instead, proper safety management identifies and corrects the hazards that contributed to the risk. When it comes to following procedures, however, that may be easier said than done.

The workshop participants decided that the word “documentation” is too limiting. The focus must be on “information.” It can range from traditional written text to graphics to animation and more.

Carol Daniels, CEO of Aircraft Technical Publishers and chairman of the General Aviation Manufacturers Association emphasized that “information must be delivered in a usable format, at the right time, on the appropriate device.”

According to Daniels: “Users should specify their information requirements. What works for an airline on the Atlanta ramp may not be suitable for a helicopter operator in Alaska. If we do our job right, mechanics are more likely to access the information.”

John Goglia, former National Safety Transportation Board member and long-time airline mechanic talked about the culture that heralds safety as “No. 1,” but then drives decisions, actions and rewards with on-time performance.

According to Goglia: “When a crew is rewarded for meeting the schedule rather than for reading the instructions, the technical information availability and access lose priority.”

The workshop broke into five working groups that focused on quantifying the challenges and possible solutions in particular areas. From a straightforward view these groups looked at the user, the documents and the event data.

A quick look at the top challenges and summary solutions from each of the five groups reveals a number of action items.

HUMAN ISSUES

The group identified a lack of involvement by mechanics to create and validate written procedures. The members suggested the OEMs and the airline engineers who write work cards must do more field-testing of



Photo provided by the FAA

the written procedures. The OEMs and airline engineers must also streamline the process to modify poor procedures identified by on-the-job users. Either this must improve or mechanics will continue to bypass or ignore procedures.

INFORMATION QUALITY

With representation by OEMs, airlines and government, this group said the greatest challenge was the government's inconsistency and non-standardized requirements. The members called for new federal aviation regulations and internal training that is matched to current technologies and user requirements. Government acknowledged that they are traditionally understaffed in the offices that oversee technical documentation.

INDUSTRY RESPONSIBILITY AND MEASUREMENT

While Industry Responsibility and Measurement are two separate groups, the members were like-minded in their conclusions. According to both groups, there is not a sufficient business case to improve technical information. In the trade-offs among production, quality and compliance, the technical information is seldom top priority. The solution is to provide additional detailed error data when "failure to follow instructions" is the cause of a loss. Additional information-related root cause analysis is necessary.

REGULATORY

The group said the top issue is the inconsistent communication of expectations regarding technical information. The solution must emerge with new regulations and guidance materials. Such materials must be created in concert with industry groups. The members believed there must be increasing reliance on industry toward a process of internal validation and acceptance of information systems.

Perhaps the best finding of the workshop was the unanimous

agreement that current technical information must evolve to today's working environment. There are many modern solutions to ensure that proper application of technical information can contribute to ongoing safety, increased work efficiency and enhanced job satisfaction.

Stay tuned for upcoming articles that will examine proposed solutions

and show you how to be a big part of the technical information solution.

Dr. William Johnson has spent more than 30 years as senior executive and scientist for engineering companies specializing in technical training and human factors before joining FAA in 2004. He is also an aviation maintenance technician and has been a pilot for more than 45 years. ■

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Aviation's Answer To 'Mad Men'

Times have certainly changed as have the attitudes toward drinking while on the clock.

By Tony Vasko

There I was in the supermarket's meat section looking for bargains, if such still exist. The sign said, "2 for \$5." Nice, round, plump filet mignons with bacon around their edges in vacuum packs. Instantly the brain cells went into memory mode for once upon a time these were the staples of first-class airline food. This, of course, was in the days before no meals at all or maybe just a handful of peanuts.

I was familiar with those filets sitting in their ovenware plates, a bit of juice pooled under each. Not because I was a first-class passenger. No, I was on midnights, the graveyard shift, and we would pick up late arrivals at the terminals and taxi the Connies and DC-6s and DC-7s to the hangar for an overnight check.

I can admit to occasional scavenging. (Dumpster diving?) A filet mignon on a good European roll had an exquisite taste not to be found nowadays. Mark Twain once wrote that there was a distinct difference in taste between a watermelon served at home and one "borrowed" from a farmer's field.

Of course, it was stupid since it could have cost me my job. It also leaves one to suffer from an interesting variety of food poisoning. But one thing's for sure: There would be no food worth scavenging – or diving in a dumpster – on most of today's average flights.

LIQUID REFRESHMENTS

There were others who scavenged the liquid offerings. In those days, the steward would mix martinis and manhattans in crystal pitchers for the stew-

ardesses to serve. No miniatures then either; these were full-sized bottles.

We had a cleaner who would hit the galley and find all the leftovers in the bottles and pitchers. The cleaner would mix all this up together, including the residue in the wine bottles, into one pitcher and chug-a-lug it down, smack his lips and get going on the cabin cleaning.

A leftover filet mignon was one thing. Leftover cocktails and wine was another thing entirely.

In this day, we randomly test for alcohol and drugs. Drinking on the job is as rare as finding those filet mignons onboard.

I can categorically say, however, that in the 1950s and even later some very bad cases of alcoholism were just overlooked. In fact, it was not unknown for lead mechanics to assign their alcoholic mechanic(s) to the aircraft cabin where he (they) could sleep it off while the rest of the crew did his (their) work.

Even in the 1970s, when companies had alcohol programs offering protection against punishment and entry into facilities for addiction, I found I had inherited a lead avionics mechanic on graveyard who was in the worst shape I had ever seen. I was appalled, and after some heated words, the shop steward had the union bring in its alcohol adviser.

It probably didn't help that the adviser was blowing 100 proof himself.

But he did succeed in talking the fellow into signing himself into a facility.

They had several husky guys ready and whipped him off immediately. Unfortunately, it was far too late, and the mechanic died at the clinic a couple of days later. Try to explain that you only had the best of intentions to the wife and daughter who came to my office after the funeral.

The problem extended very high up in the companies, too. When I began as a maintenance instructor I was told to always meet the station's maintenance manager. The maintenance training department wanted to make a good impression. So when I went down to Washington D.C. to teach a class on the DC-9, I tried my best to meet the manager.

Despite repeated attempts, I was always pushed off to the general foreman. "Mr. X" was always in conference ... at lunch ... or just plain not available. I later discovered that the manager was a severe alcoholic, and his people were covering for him. He finally retired when he reached the right age. At least they rewarded the GF by promoting him to manager.

EVEN HIGHER

The drinking problem could go a lot higher than that, too. At one time we had a senior vice president who, in addition to a drinking problem, had a nasty and tyrannical personality. People down at the main base lived in perpetual fear of him. Even worse, it was not unknown for him to wander into a station in the middle of the night, blitzed to the eyeballs, and abuse one and all – even fire people.



There would be no food worth scavenging on most of today's flights.

Usually they reported for work the next day. Nothing would happen since you weren't ever likely to spot the man at two consecutive shifts. But it made for a terrible time when the local manager tried to enforce discipline and every single member of the staff could point to the company's role model.

I was unlucky enough to be challenged by him during the company's morning briefing. I had just had an APU fail in a spectacular way during an engine run-up. It started to burn and the aircraft automatically shut it down and discharged the first fire extinguisher. The fire alarm kept going so I discharged the second extinguisher bottle. That put the fire out.

He criticized me in front of everyone for "panicking." This, I hotly denied since I was a fire chief in my community and knew a thing or two about such situations.

He then challenged me about the aircraft automatically discharging the first extinguisher. Even though everyone knew I was in the right, I could feel people pulling away from me. Later, I sent him marked-up pages from the applicable manuals and the wire diagrams to prove my case. (I think he may have fired me, too.)

Well, times have certainly changed – and no doubt for the better. Still, there is a time and place ... on one cold and windy night in the 1940s, the night crew at LaGuardia came together in the wee hours to wish each other a Happy New Year.

They were surprised to see an erect figure wearing an overcoat and a fedora walk into the hangar. It was Captain Eddie Rickenbacker, himself, president of the airline.

"Hello boys," he said. "Are the airplanes all ready?"

"Yes, sir," said the lead.

"Do you have to move any of them for the morning departures?" Capt. Eddie asked.

"No sir. All positioned. Aircraft fueled. Everything ready."

"Good!" said the Captain pulling out a bottle of fine Scotch. "Let's celebrate the New Year."

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How To Increase Safety And Efficiency Of Refueling Operations

One obvious safety precaution ground support personnel can take is made easier through static grounding reels.

By Ed Rash, Director of Marketing Communications, Hannay Reels Inc.

On Feb. 12, 2011, 150 gallons of fuel spilled onto the apron at the Bradford County airport in Towanda, PA, flowing past the pavement and into the surrounding soil. In order to minimize the environmental damage the spill caused, the Pennsylvania Department of Environmental Protection ordered the removal of the contaminated soil, resulting in countless hours of cleanup.

Similarly, 1 million liters (264,172 gallons) of jet fuel spilled out of South Africa's OR Tambo International Airport and into the Blaauwpan Dam and storm water system on Nov. 7, 2006, damaging 5,000 cubic meters (53,819 square

Static grounding reels are a necessary safety tool to prevent against fires or combustion during ground support.

feet) of soil and leaving thousands of dead small animals and birds.

Although major fuel spills like these are relatively rare, thousands of smaller fuel spills occur worldwide every year. Even small spills can have devastating environmental impacts. Leaks can spread extremely quickly, and attempts to stop the flow with containment booms may be insufficient.

Ground water, soil, small animals and birds are all affected when a spill overflows into soil. Failed fueling operations are time consuming, expensive and disrupt flight traffic as well.

Deadman emergency shutoff systems prevent major fuel spills and leaks that could lead to these environmental hazards. NFPA's code 407 requires a deadman system to control

fuel flow, so it is integral that all components meet these specifications.

Hannay Reels' N600 Series is a spring-loaded, dual-hose reel specifically designed for pneumatic, deadman control systems. The reel simultaneously accommodates equal lengths of two hoses ranging from ¼-inch to ½-inch in diameter. It has a compact mounting base and narrow frame for an easy fit onto any refueling truck or cart. Since the N600 Series uses a self-contained spring rewind mechanism that does not require an electric connection, these reels can be installed in any position on all types of equipment.

PREVENTING SPARKS

Another important safety feature is the non-sparking ratchet that reduces risk of combustion. If the cable is rewound quickly, this feature prevents sparks that can emanate from the rotating metal. Each reel features a declutching arbor that controls cable payout and rewind, ensuring maximum cable control and less time handling the cable. This mechanism automatically locks to hold the cable in place or loosens for rewind or longer payout.

One of the most obvious safety precautions ground support personnel must take can be made even easier through static grounding reels. Using a cable reel increases safety during operations by providing a quick, convenient connection to prevent the buildup of static electricity in volatile areas. Used both in smaller airports' stationary fueling areas and on larger airports' fueling



All images provided by Hannay Reels



Refueling reels offer effortless, fast rewinding, wrapping and guiding of heavy fuel hose making operations easier and safer.

carts and trucks, reels must meet strict NFPA and ATA regulations for OEM truck and cart assembly.

These models are manufactured with specific industry requirements in mind. NFPA and ATA regulations change frequently, so engineers work diligently to ensure that the final product a customer receives not only makes the refueling process easier and shorter, but also maximizes on-site safety. Hannay Reels' HGR and GR static grounding reels are specifically designed to meet these stringent requirements and accommodate the changing needs of leading OEMs in the aviation industry.

Grounding reels make the critical refueling process as quick and easy as possible by offering smooth operation and minimal cable pull so ramp wait time is decreased. With these simple-to-use reels, operators can handle heavy fuel hoses effortlessly, instead of having to struggle pulling cable.

As with the N600 Series, Hannay also offers subcompact static grounding reels to meet specific space requirements. Sturdy, compact units can fit into almost any type of installation by offering the flexibility to be mounted at the bottom, back or sides of trucks or carts. They can also be

mounted side-by-side to maximize available space on transport vehicles.

Although 95 percent of fueling operations are portable through the use of 3,000- to 17,500-gallon trucks, AV gas refuelers, regenerator ramp carts or hydrant trucks and carts, reels can also be mounted on permanent installations.

Grounding reels from Hannay are available with several connector attachments used for a variety of grounding

hookups. Hannay offers different colored shielded cables in varying lengths with multiple clamps for many types of grounding fixtures, such as landing gears, posts, ground balls and rods, engine exhausts, wing lugs or bolts, bayonet plugs or

metal lugs on the nose wheel strut where the tow bar attaches.

Grounding jacks, "Y" branches, and Browne and Alligator clamps are available to make the connection process easier. Single or twin leads also allow versatility during the grounding procedure.

Hannay's HGR and GR Series reels feature an adjustable guide arm that holds the cable in position. When it returns to the drum, the cable feeds neatly onto the spool rather than wrapping around the reel itself. It also keeps the cable from kinking, which can prematurely wear the cable and decrease its overall life.

The arm has teeth that adjust the reel to any position, vertically or horizontally, to dispense the cable from the top, bottom, side or back of the reel. This totally adjustable arm is designed for any cable outlet position, allowing complete user control.

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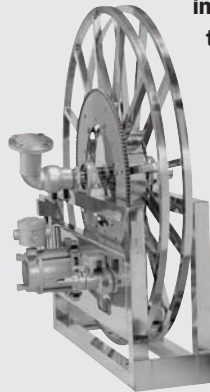
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Customers may choose optional stainless steel construction of the spool, frame and ratchet system to withstand harsh runway conditions. Standard, oven-cured enamel is used to coat all reels unless otherwise specified. A non-sparking ratchet assembly and declutching arbor is also featured on this model.

Designed specifically for ground support operations and built to last using the best materials available, aviation reels increase on-site safety and operational efficiency in dangerous refueling processes.

As a 31-year veteran of Hannay Reels, Ed Rash, director of marketing communications, supervises all activities and personnel involved in advertising, marketing and public relations. ■

Fuel Reels



The 5000 Series single wrap power rewind reel includes several features with many different mounting options, making it ideal for any installation position on a refueling truck, cart or even on the ground.

Hannay Reels also offers fuel reels that increase safety and efficiency during the refueling process. The 5000 Series single wrap power rewind reel offers effortless, fast rewinding, wrapping and guiding of heavy fuel hose. This increases operational productivity by keeping hoses protected and out of the way since minimal truck space is available. A chain and sprocket drive powered by an electric, hydraulic or compressed air motor allows rapid rewind and payout.



Using a cable reel increases safety during operations by providing a quick, convenient connection to prevent the buildup of static electricity in volatile areas.

An auxiliary crank rewind and air brake is also available. Constructed from aluminum with stainless steel available upon request, these reels handle any outdoor conditions whether they are positioned on a truck, cart or directly on the ground.

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Cygnus Aviation Expo 2012 Report

New products, directions and people on display at this year's show.

By Steve Smith

Our recent Cygnus Aviation Expo, March 7-9 at the Las Vegas Convention Center was my first trip to the trade show. Here's a rundown of some of what we saw, heard and learned:

NEW PRODUCTS

I hear there are no new products for the GSE industry. But how about "relatively new" products? I had a list, for example, of almost 20 exhibitors that had something new – regardless of whether it was brand-new or a new twist on the tried-and-true. Considering we had 200 exhibitors, that's 10 percent right there. About a third of the exhibitors also sported a "New Exhibitor" decal in front of their booths. In other words, there was something new to see at 40 percent of the booths.

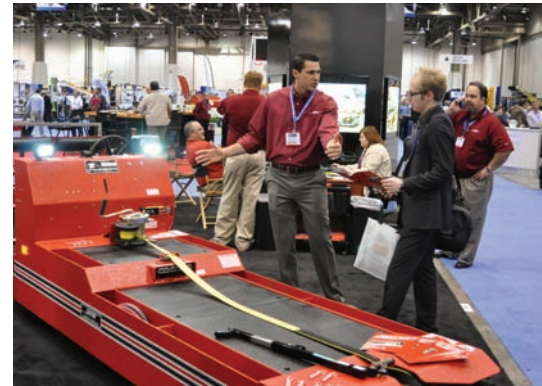
For brand-new, the first thing that comes to mind is the biggest thing

Some 200 exhibitors from ground support, airports and aircraft maintenance displayed their latest products and services.

that comes to mind. Genie Industries brought its new GS-2646 AV scissor lift to the show – both at its booth inside and outside at the Demos-On-Demand.

The new lift offers a working height of 32 feet and a lift capacity of 900 pounds. An optional extension deck provides an extra reach of 5 feet. Padded cushions not only protect the user, but the aircraft, too. The new SmartLink control system provides onboard diagnostics either remotely or while connected to a laptop.

As for a new twist, MCM Engineering's 270 VDC aircraft cable features the same high-quality molded connector as its 400 Hz cables. The nose has individual replaceable, easy-insert power and control contacts and a durable yellow cover.



Here are some other product highlights:

- Affordable Fuel Injection Inc.'s Drive By Wire is now available for the Ford 300 engine. Units are available for deicers; heat carts; belt loaders and Tugs that require specific or limited RPM range operation.
- Conney Safety Products LLC's WingWalker is a wireless colli-



William "Bill" Jacob (center), vice president of the United Parcel Service ground support division, surrounded by well-wishers after winning our Ground Support Leader award for Lifetime Achievement.



Brad McAllister, editor of Airport Business, moderated a panel discussion on how to use social media to reach and better serve customers.

sion avoidance safety system that prevents accidents during pushback by providing advanced warning to Tug operators. The product's safety management system easily works with existing business practices.

- Corvus Energy displayed its CorPower lithium electric conversion kits for gasoline and diesel GSE. GSE powered with CorPower requires no maintenance, comes with 24/7 support, remote diagnostics and features an eight-year/20,000-hour battery warranty. (The company also had a booth outside, and we got a chance to get behind the wheel of a retrofitted Tugs. We'll post this at www.aviationpros.com/media-center.)

com/media-center.)

- FCX Systems formally unveiled its FCXtreme 400, billed as the next generation of 400Hz ground power systems. A new feature allows for Wi-Fi access through any enabled device such as a smart phone or tablet. That means easy diagnostics from

virtually anywhere and has the potential to wirelessly integrate building and ramp management systems. (We also had the opportunity to interview executives at the booth for a special video report. We'll post the video online at www.aviationpros.com/media-center.)

- Harlan Global Manufacturing, LLC unveiled the first USA-built and assembled Kocoverk heater. Since 2007, Harlan has sold and serviced many of the Swedish-built Delta II Aircraft Heaters. For the first time Harlan also displayed the HBLE Express all-electric beltloader. The beltloader uses many of the same components as the company's Charger HLE series



Genie Industries was just one of the exhibitors that featured new product at the show, such as a new scissor lift designed specifically for the aviation industry.

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bag/cargo/pushback tractor. Harlan also discussed its recent partnership with KMT of Sweden to offer the KMT mobile tracking and monitoring system for GSE.

- JBT Corporation AeroTech, Jetway Systems started a new division last April called Jetway Aircraft Support Equipment. The company brought a few products that were so new they hadn't even been seen at trade shows before ours. The Jetpower II Plus 400Hz/270



Todd Allen, Allen Energy, discussed what's next for rechargeable batteries at one of our Ground Support Worldwide green GSE seminars.

VDC Combo Ground Power System provides power from a single unit for legacy military fighter jets as well as the new generation squadrons. JBT's first diesel-powered GPU, the Jetpower D90 features a completely new European design for this market. The Jetaire HPCX is designed for extreme climates and features a high-pressure PCA system that can cool any fighter aircraft's aviation compartment in temperatures up to 140 degrees Fahrenheit.

- Rampmaster's Engine Management System features an engine-controlled pump module that reduces engine rpm, which saves fuel and cuts emissions. The exhibitor featured an array of equipment that's essentially replaced by electronic components. The company says the system will cut fuel use by up to 40 percent – about \$8,700 a year – and reduce engine wear by 46 percent.
- Velcon Filters LLC displayed its Sump Recovery System that allows sumped fuel to be sampled, cleaned and reused. The SRS-04DFS unit can be mounted in a stationary location or mounted on a trailer.

- Vortron Industrial introduced its new VT-140 centrifugal compressor for high-performance aircraft deice/anti-ice GSE applications where additional airflow and extended air jet reach are required.

NEW DIRECTIONS

We held two seminars at the show that both focused on possible



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new directions the industry may take in electric GSE.

Our first seminar discussed alternatives to traditional rechargeable lead-acid batteries. Corvus Energy's CEO Brent Perry, discussed lithium power and laid out his case for electric GSE powered with such a source. Brad Compton, vice president of sales and marketing for TUG Technologies, shared a manufacturer's perspective on electric and other green GSE possibilities, such as retrofitting traditional combustion engines with Tier IV engines.

Our second session focused on what might be in store for the next generation of rechargeable batteries. Todd Allen, president, Allen Energy, has been providing batteries and chargers for GSE since 1993. He also shared some "best practices," from the companies he's worked with that



FCX Systems unveiled its FCxtreme 400, billed as the next generation of 400Hz ground power systems.

have made the transition from diesel power to electric power more productive.

Meanwhile, our sister publication, *Airport Business*, and colleague Brad McAllister held a well-attended seminar on social media. Panelists included Jetwhine blogger

Robert Mark; Cutter Aviation's Ryan Keough; and aviation business marketing consultant Paula Williams.

NEW PEOPLE

We think the best part of any trade show is meeting plenty of new people as well. While I didn't spend much time at our booth, when I was there I met a recent MBA grad from MIT who was testing prototypes of a new collision avoidance system (go to www.airventions.com for more) and a former investment banker planning a new career by selling LED lights for the aviation industry (go to www.starteklighting.com for more).

During lunch, I just ended up sitting next to an attendee who was developing a solar-powered baggage cart.

And with literally 15 minutes to go before the show ended, we enjoyed meeting Gayl Tibbs, Western regional manager for David Clark Company, Inc. who filled us in on the interesting beginnings of the company, as well as its "sideline" business making the space suits for NASA's missions (go to www.davidclark.com/aerospace/aerospac.shtml for more).

As it turns out my first trip to the Cygnus Aviation Expo was my last trip to the Cygnus Aviation Expo. Here's another new "product" announced at the show: Next year's trade show will be called AviationPros LIVE. Turn to our Publisher's Note on page 34 for more. ■

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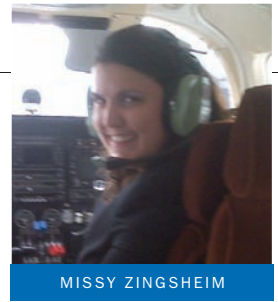


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Make Plans For AviationPros LIVE In 2013

Our new show will feature more educational sessions outside the classroom and more networking opportunities.

We'll be returning to Las Vegas next year, but that's about the only item not changing for our 2013 trade show.

AviationPros LIVE is the new name for a new show, March 12-14, at the Las Vegas Convention Center.

"The four-day conference and exhibition will include educational programming presented by industry experts, a resource-rich exhibition hall with vendors showing the latest products and services, plus a variety of networking experience designed to create meaningful discussions and relationships," said Emily Patten, trade show director, at our packed Attendee and Exhibitor Networking Party at last month's show.

What's new? We'll start the show with a half-day Ground Support Summit, March 12, which will feature sessions on the latest industry challenges. Once the exhibit hall opens for business on March 13, our Summit program will

continue with "Knowledge Centers," mini-educational sessions located in the exhibit hall, plus additional educational opportunities provided by industry associations and other groups.

We'll also have new networking events, such as an opening night reception banquet; special interest group lunches and receptions; plus topic tables with discussion leaders and further networking at our Knowledge Center lounges.

Finally, we'll be amping up our social networking capabilities before, during and after the show.

We're just beginning to plan the educational sessions and we will have more news to share. For updates, log on to <http://aviationproslive.com>.

NEW LEADERS

We also officially recognized this year's Ground Support Leaders at the Attendee and Networking Party.

Our Product Leader, Flightcom's wireless communication system for ground operations, is on the cover of this issue. Here are our other two winners, which we will feature in our May and June/July issues:

- **Lifetime Achievement:** William "Bill" Jacob with the United Parcel Service Inc. This award recognizes a person who has demonstrated commitment to the industry through numerous years of dedicated service. Jacob has more than 40 years of GSE experience with Eastern Airlines and UPS. Jacob, vice president of



the UPS Ground Support Division, is directly responsible for almost 32,000 pieces of powered and nonpowered GSE.

- **Team Leader:** Chief Warrant Officer Gregory McDermott with the United States Coast Guard. This award recognizes an individual who has taken a leadership role with personnel. McDermott leads an aviation ground support team with a budget of \$12 million at the Coast Guard's only Aviation Logistics Center. McDermott's work supports 26 Coast Guard air stations through the United States and Puerto Rico. (By the way, the U.S. Coast Guard team placed first in the Military category during the AMT Society Maintenance Skills Competition, and also achieved the overall fastest score among all 27 teams that competed this year, for which they received the William F. "Bill" O'Brien Award for Excellence in Aircraft Maintenance.)



Chief Warrant Officer Gregory McDermott, U.S. Coast Guard, accepts his Ground Support Team Leader award from Missy Zingsheim, publisher of Ground Support Worldwide.

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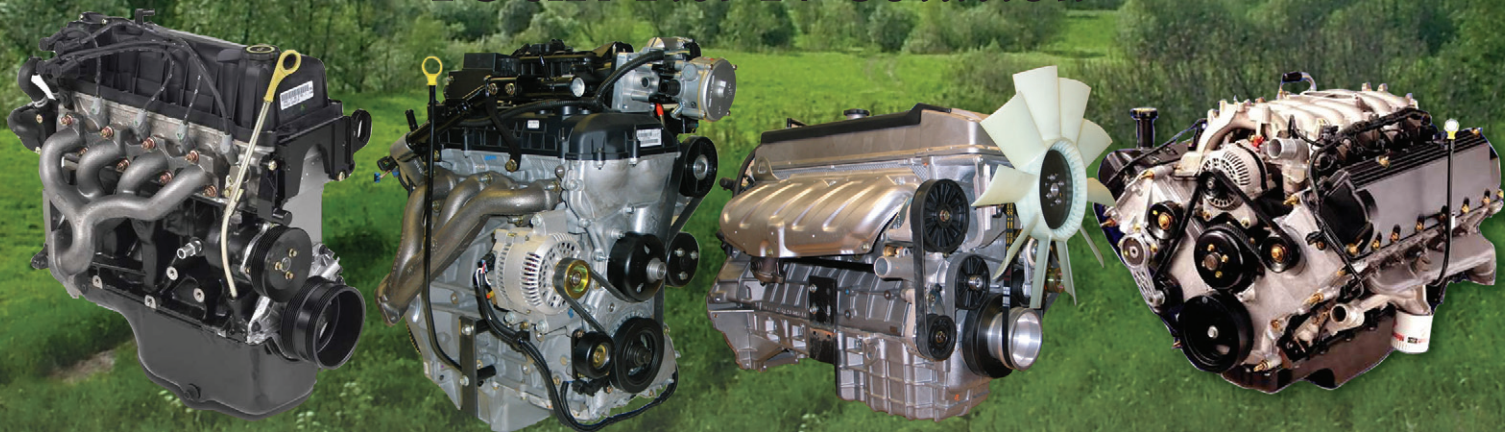
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