



AIRCRAFT INTERIORS EXPO

photos and story by Kirby J. Harrison

The Aircraft Interiors Expo (AIX) continues to grow and this year saw more than 500 exhibitors spread over 194,000 sq ft of space at the vast Messe Center in Hamburg, Germany. While the number of exhibitors has remained relatively consistent over the past several years, said event director Katie Murphy of Reed Exhibitions, the amount of floor space this year was 21,000 sq ft more than in 2012, the result of many exhibitors opting to expand their presence.

More encouraging, said Murphy, is the fact that midway through the three-day show (April 9-11) this year, more than 80 percent of the exhibit space for the 2014 show had already been sold.

This year also marked the second year that the World Travel Catering and Onboard Service Exposition was held concurrently. More than 200 exhibitors crowded 5,800 sq ft in three halls, from Monty's Bakehouse with hand-held, bake-in-a-box wraps to

Chilean vintner Concha y Toro with wines selected specifically for the aircraft cabin environment.

In addition to cuisine suited to virtually every taste, participants showcased galley staples. Dutch supplier Sola Airline Cutlery showed off its latest designs and Intex of Zhejiang, China, was there with a line of high-end bedding products, from hot and cold towels to pillows, blankets and duvets.

Also presented in collaboration with AIX for the second year was the Passenger Exposition Conference, held the day before the doors of the interiors show opened. More than 300 visitors attended the day-long conference.

All these, along with the annual Aircraft International Exposition In the Americas, scheduled this year in Seattle in October, create a broad source of industry marketing intelligence that allows multiple resources to meet the needs of a wider number of exhibitors and visitors, explained Murphy. ■

Iacobucci flexing cabin muscle

Building on 40 years of experience, Italian supplier Iacobucci expanded its presence this year at the Aircraft Interiors Expo by announcing deliveries of its first executive seats and unveiling a new food and beverage trolley.

According to Pascal Jallier, head of sales and programs for Iacobucci HF Electronics, the seat has received EASA and FAA approval and the initial ship-set is in service on a Boeing Business Jet.

The seat features high-quality stitching and upholstery design "by artisans who give the Italian luxury brands their reputation." It has up to 23 inches of space between armrests, mechanical tracking and 360-degree swivel capability. Thanks to a nine-inch extendable leg rest and foldable manual footrest, it expands to a 6-foot, 5-inch long, full-flat sleeping surface.

The seat, along with two other models, was on display at AIX in Hamburg, Germany, where the company's new galley insert design line was unveiled. In addition to the expected array of the latest in espresso and coffee makers, there were water boilers, trash compactors and induction ovens.

And on display for the first time in public was the company's new food and beverage service trolley, weighing just 32.7 pounds and "ideal" for use on larger business and private jets with cabins incorporating a large section of airline style seating.

According to Jallier, the company is taking orders for the new "Superlight Cart," with initial deliveries scheduled for this year's second half.

CEO Lucio Iacobucci emphasized the company's innovative approach and consistence of the galley interface, "thanks to new iconography, modern graphic and unique color combination, with a distinctive 'Iacobucci HF titanium' tone for the galley panels." ■



Aviation Glass and ATG form 'unbreakable' bond

Aviation thrives on innovation, and Aerospace Technologies Group of Boca Raton, Fla., and Aviation Glass & Technology in the Netherlands are doing exactly that.

ATG is a leader in the design and manufacture of aircraft window treatments and shades, and Aviation Glass recently introduced a 1.7-mm clear glass that is up to 25-percent lighter than the typical 3-mm polycarbonate currently in use. The two companies formed a partnership and expect to "conquer new frontiers with its revolutionary glass solution."

"We are excited to be collaborating with such an industry innovator," said Aviation Glass founder and CEO Frans van Hapert. "It's the perfect platform to engage with vital stakeholders and to showcase our unique aviation glass."

Seeing a "like-minded partner," ATG



Aerospace Technologies Group and Aviation Glass & Technology have formed a partnership that brings together the talents of Aviation Glass & Technology CEO Frans van Hapert (left) and ATG president and CEO Simon Kay.

president and CEO Simon Kay expressed the opinion that incorporation of the glass into ATG's window treatments "offers a solution that will not only transform the passenger experience, but also reduce the overall product weight and life-cycle cost."

Aviation Glass lenses were already incorporated into some of ATG's products on display at AIX. ■

Take a deep breath and relax

When oxygen is required, nothing else will do. The new Avia Pulse DE series emergency portable pulse oxygen system from Avia Technique is one answer.

Introduced at AIX last month, the system is "a major improvement over everything that has come before," according to the Berkshire, UK-based company that developed it.

The DE series has five pulse settings

and constant-flow settings of two and four liters per minute. It consists of a lightweight DOT-approved cylinder available in three sizes. A newly designed "cage" protects the regulator, conserving and pressure gauge and makes handling easier. The cage has withstood a three-meter impact drop test.

The conserving gives "an extremely economical performance," according to Avia. It releases a bolus of oxygen each time the sensor registers a small drop in pressure in the passenger's nose, then closes quickly to conserve oxygen. ■

Cobham signals intent to lead the way

With the Aviator SwiftBroadband series now part of its repertoire, newly formed Cobham business unit Cobham Satcom has signaled its intent to lead the way in the in-flight communications sector.

Cobham Satcom was formed last October after British defense equipment manufacturer Cobham acquired Danish satellite telecommunications group Thrane & Thrane in July last year. The business unit now consists

of the skilled experts and engineers who created the Aviator and the Omniplex brands.

"The opportunity to join these two businesses creates the engineering platform to really make a leap in the kind of satellite systems available," said Kim Gram, v-p of Cobham Satcom.

Cobham Satcom's portfolio already consists of a broad spectrum of SwiftBroadband solutions, including Aviator 200, 300 and 350, as well as Aviator 700 and 700D. They support "a host of advanced applications, from cockpit voice dialing to in-flight calling, to e-mail and Internet browsing for passengers." ■

EASA OKs TravelChair for disabled children

Introduced at AIX, the TravelChair for severely disabled children also won first prize in the Crystal Cabin Awards Passenger Comfort Hardware category (see award winners on next page), receiving the trophy on April 9, the opening day of the show.

Years in development, the 13.2-pound chair is designed for children between the ages of three and 11 and fits most aircraft seats by way of a strap around the seat-back. It is further anchored using the standard seat belt, meeting airline regulations.

Built by manufacturing partner and aircraft parts supplier Balforn, the seat is EASA approved and folds in half for easy transport and storage. Virgin Atlantic was the launch



The new TravelChair from Meru has been approved by EASA for use by severely disabled children.

customer and has purchased 25 TravelChairs for use by its disabled child passengers.

For additional information, contact Meru by visiting www.meru.org.uk or calling +44 1372 725203. ■

328 Group does a brand split

The 328 Group returned to the Aircraft Interiors Expo in Hamburg with a new brand identity that splits the company into its two prime areas of expertise: "328" and "Jets."

The move reflects 328 Group's increasing portfolio of interior manufacture and design work on aircraft ranging from small helicopters to large airplanes such as the Airbus A340 and Boeing 767, and its expansion of maintenance expertise under the "Jets" brand. The change also

comes following the recent acquisition of a new maintenance facility at London Biggin Hill Airport.

Under the 328 brand is 328 Support Services, the type certificate holder for the Dornier 328 (jet and turboprop series), as well as 328 Design. The group will continue to concentrate on providing support for the worldwide Dornier fleet, through 328 Support Services, as well as building on its success with its STC design activities and manufacturing, primarily centering

Inmarsat, Honeywell feel the need for speed

Mobile satellite communications provider Inmarsat and Honeywell offered a preview of avionics designed to support Inmarsat's "game-changing" GX Aviation service at AIX in Hamburg, where the components were on display for the first time.

As Inmarsat prepares to launch the first Global Xpress Ka-band satellite later this year, Honeywell engineers have completed the preliminary design review of satcom hardware that will be installed in aircraft. The review covered the satcom terminals and antenna subsystems that Honeywell will manufacture for commercial and business aircraft.

This included "external interface control documents and fuselage- and tail-mount antenna specifications," according to Honeywell.

Global Xpress is Inmarsat's newest satellite network, consisting of three Ka-band satellites. The first is expected to launch by year-end, with global service available in 2015.

Following the preliminary design review, which demonstrated that the design met Inmarsat's system requirements, Honeywell engineers have embarked on detail design and plan to achieve critical design review (freezing of the final design) later this year.

"Launching Global Xpress is a key part of our strategic objectives," said Inmarsat CEO Rupert Pearce, speaking in February at the Satcom Direct conference. "It's a \$1.2 billion investment in a completely new global satellite fleet. It [offers] revolutionary capability delivering very high data speeds to fast-moving aircraft, [up to] 50 Mbps for commercial Ka-band and essentially more than that for military Ka-band."

Current Ku-band satcom speeds offer 128 to 256 Kbps, and Inmarsat's

SwiftBroadband clocks along at 432 Kbps, or in the 700-Kbps range with certain enhancements such as the aggregation service offered by service provider Satcom1.

Global Xpress opens new markets for Inmarsat, according to Pearce, with "dramatic speed and capacity increases for our expansion needs. And it diversifies our global aviation business by taking us into a new commercial market, which is next-generation air transport passenger connectivity services where we see an evolving bring-your-own-device market and the need to deliver streamed video and proper browsing



Erica Baker, director of Marcom Execution Americas, shows off the new Global Xpress antenna.

services to the cabin. We see that market as the tipping point, and we see Global Xpress delivering for the first time the economics to close the business case for that market."

According to Jack Jacobs, v-p of marketing at Honeywell Safety and Information Systems, "In addition to the successful preliminary design review, we are actively working with several aircraft OEMs to provide GX Aviation services, giving crew and passengers access to higher performing in-flight connectivity around the world for less."

Service providers Satcom Direct and Satcom1 have said they will provide Global Xpress services for their satellite communications customers.

Inmarsat v-p of aerospace Miranda Mills said at AIX, "With our fleet of three satellites under construction by Boeing, and the first scheduled launch this year, avionics represent the final segment that turns **Global Xpress** from a concept into a reality." —K.J.H., M.T.

on executive cabin completion and refurbishment, through the design division.

The group's main facilities are at Oberpfaffenhofen, near Munich, Germany. Its current Jets operational UK base is at Bournemouth Airport and its third home is the new facility at London Biggin Hill.

"We are also eying other locations for maintenance and completions in the future," said 328 Group CEO Dave Jackson.

In other 328 Group news, 328 Design received EASA supplemental type

certification for a Bombardier CRJ200. In collaboration with Ruag Aircraft Services, the company converted the CRJ from regional airline configuration to a 10-passenger executive layout.

The cabin has been fitted with Emteq's eConnect and eQuation system, allowing passengers to use personal electronic devices to connect to and control the cabin.

It was the first collaboration of 328 Design and Ruag, a partnership that is not likely to be the last, said 328 Design CEO and head of design Jörg Gorkenent. ■

Crystal Cabin winners see future in business aviation

by Kirby J. Harrison

Seven winners emerged from the Crystal Cabin Awards judging last month, and some of them stand to find a market in business aviation.

The winners were announced at a gala dinner in Hamburg, Germany, on the eve of the opening of the annual Aircraft Interiors Expo (see article on page 66).

Candidates with winning entries included Boeing, Diehl Aircabin, Dornier Technologie Systems, Hamburg University of Applied Sciences, Meru, Thales and Zodiac Aerospace.

Perhaps the most eye-opening winner was Thales in the passenger comfort systems category with its in-flight entertainment system controlled exclusively by a combination of hand and eye movements. The company believes the combination of eye tracking and hand gesture technologies represents the next generation of cabin entertainment and will find a ready market among private and business jet owners.

A TravelChair created after extensive development by Meru in the UK won the passenger

comfort hardware category. The chair was created specifically for severely disabled children between the ages of three and eleven. It weighs 13.2 pounds, fits most airline seats and has been approved for use by EASA.

Designers of larger business jets carrying a large entourage in cabin class may find Zodiac Aerospace's winning innovative space interior system (Isis) worth considering. The company's new Isis overhead bin system is the result of deconstructing and reimagining the A320 interior. The pivoting bin provides a 60-percent gain in bag capacity and improves headroom. Meanwhile, the 100-percent recyclable EcoForm sidewalls contribute to a greener cabin.

Also for owners of large cabin-class bizliners is a new Boeing-designed insulated galley cart, winner of the greener cabin health, safety and equipment category. It keeps cold food within required parameters for as long as 17 hours, allowing the carrier to get rid of



Walter Birkhan, president of the Crystal Cabin Awards Association and managing director of Hamburg Aviation Services

heavy refrigeration units.

Other winners were Diehl Aerospace Systems in the premier class and VIP category, for its capacitive touchscreen "Glass PCU," which it describes as "robust, durable, hygienic and easy to clean."

In the material and components category, Diehl Aircabin of Germany took the top prize with its "iPanel," which integrates electronic components, reducing the number of parts by one-tenth and yielding a 30-percent weight saving.

Hamburg University of Applied Sciences won first place in the university category, picking up a check for \$3,915 (€3,000). The entrant was the BigLavC larger aircraft lavatory to accommodate both larger users and wheelchair-bound passengers. ■

ViaSat Exede aims for 12 mbps speed

ViaSat's Exede Internet consumer broadband service is expanding to the airline sector, and sources at the Carlsbad, Calif.-based company say it is considering providing Excede to business aviation, though no plans have been announced yet.

At AIX, ViaSat announced it had set Guinness world records for the highest-capacity satellite, allowing 100 times the capacity of a typical Ku-band satellite and 10 times the throughput of any Ka-band satellite launched before ViaSat-1.

ViaSat claims a data transfer rate for Excede of 12 Mbps "or more" for airliners, with the major differentiator being the Ka-band satellite system. The company is already under contract to install its in-flight system, working with partner LiveTV, in 370 aircraft operated by JetBlue and another unidentified commercial carrier. Installations are scheduled to begin later this year.

The current ViaSat connectivity package available for business aircraft is Yonder Internet, with global coverage and data transfer speeds between 1 and 2 Mbps. The network operations center manages and combines the coverage provided by each satellite in the ViaSat network so that transitions through coverage areas are seamless. The company expects that within three years, improvements in the available Ku-band satellites and ViaSat's ground infrastructure should allow an increase in data transfer of up to 4 Mbps for Yonder users.

Among what ViaSat claims are the advantages of Yonder is that the service is "always on" and available, while idling on the ground or in flight, with no special log-in required to connect. ■