

Aircraft Interiors Expo 2011

Tony Dixon reports from the world's biggest and most influential interiors event – and takes his judge's seat at the coveted Crystal Cabin Awards

NOW in its 12th year, the Aircraft Interiors Expo was held at the Hamburg Messe in Germany from April 5 to 7. It is the largest dedicated aircraft interiors event in the world and attracts all sectors of the industry from in-flight entertainment, galley equipment, seating and upholstery to cabling and composites. This year, it covered more than 336,920sq ft (31,300m²) of space and included more than 500 exhibitors from 31 countries. As a measure of its continued growth, there were 70 companies that were either totally new to the event or were returning to the show after a break. Over 11,000 visitors were expected to attend the show.

Sky-Tender Galley



GERMAN COMPANIES Air-Eltec Luftfahrttechnik and SkyMax have revealed a new galley trolley. The Sky-Tender can produce up to 30 different drinks such as tea and coffee, fruit juices, soft drinks or mixed drinks from concentrates and water, fully automatically at the press of a button. It can offer a multitude of benefits compared with customary models – primarily in terms of weight as drinks, bottles and cans on board are no longer necessary. In addition, it brings financial benefits for the caterers on the ground by refraining from the use of ready-made drinks in bottles and cans – expensive storage areas at the airport and lorry transports are reduced substantially. (Photo SkyMax)

Opening Press Conference

MODERATED BY senior aviation consultant Vern Alg, the opening press briefing always brings out some interesting comments from the assembled panel. This year, these included representatives from Air France, United Airlines, Airbus, B/E Aerospace (seats) and Lumexis (IFE). The opening question concerned the impact of the recent turmoil across the world – both in terms of natural disasters and political unrest – had on the commercial aviation industry. “There are new challenges, after a strong rebound from the global recession in 2010,” said Bob Lange, Airbus’ Head of Aircraft Interiors Marketing. “The price of oil is high again and is expected to stay high. There is more interest in lightening the weight of aircraft [hence reducing fuel consumption] and having more efficient cabin interiors. We are not expecting any disruption this year over the supply of products from Japan.” Doug Cline of Lumexis, however, said that there may be some effect on items as Sendai was an area of electronics production. United Airline’s Director of Product Marketing, John Yeng, said that the carrier had been hit hard over the last year. “It is not the end, just the beginning. The high oil prices will induce airlines to introduce more efficient aircraft more quickly.”

The panel was then asked about the continued implementation of Premium Economy in the cabins. They all confirmed that Premium Economy/Economy Plus is not only here to stay but the extra class may hold further opportunities to be explored. Alex Hervet, Long Haul Products Director at Air France, said that 600,000 passengers had already flown on the airline’s Premium Voyager service since its launch in late 2009 and that the airline now has the product across 90% of its fleet – around 80 aircraft. “Next month [May] we are receiving our fifth A380 and this will be the first one to have Premium Voyager onboard. We need to provide as many different products as the customer wants.” Tom Plant, Vice President and General Manager Seating Products at B/E Aerospace added that Premium Economy is different things to different airlines. No one size fits all and [its nature] depends on what region of the world [you are discussing]. There are lots of opportunities for innovative solutions.” The next topic was about leg room in Economy. A recent UKCAA report stated that for every four passengers who fly on business, three of them are in economy seats. This area therefore is coming under scrutiny over how to increase cabin space

for passengers. Bob Lange said he felt it was now mathematically impossible to make seat backs any thinner than the latest products already offer, while Tom Plant thought it was entirely possible that a 28in (71cm) pitch could become standard for economy use in the future – as opposed to the 30-32in on most major full-service carriers. This will be achievable through the thinner design of the seats and passengers will still think they have more space when actually they will have less in terms of seat pitch. “The challenge is still long-term comfort in that area – a true judgement of how comfortable a seat is that it needs to still be comfortable after three months, six months and a year’s worth of use – if it’s still comfortable after that then you have a great product,” he added. On the subject of in-flight entertainment, (IFE) Doug Cline said that Lumexis was getting ready for “another seismic change” with new companies coming into the market with innovations. “Suppliers have to drive down to the lowest cost of purchase, the lowest cost of maintenance and highest levels of reliability.” Bob Lange also commented that cost was also a major factor for airlines, saying that the annual costs to maintain IFE could be as much as an aircraft engine.

Not For Wimps



UK SEAT manufacturer Contour Aerospace Limited has teamed up with Factorydesign to create a prototype concept seat that is not only technologically advanced but could also reflect social changes in the way passengers want to spend their time on board. The NFW (Not for Wimps) concept is a seat dedicated to the cutting-edge of in-flight gaming entertainment. “We want to know whether such radical thinking is viable, which is why the creation of this chair is crucial,” said Contour’s technical sales director, Bob Lovell. The design can be adapted to become a docking station for passengers to use their own devices. (Photo Contour)



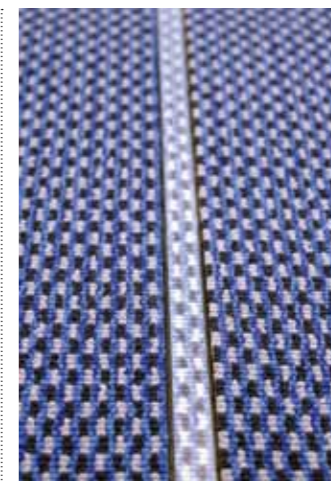
Airborne Duty Free

AIM AVIATION displayed the world’s first flying Duty Free shop, which Korean Air will be using on its first ten Airbus A380s when they enter service from June. Up to 64 individual items can be displayed and, in the event of turbulence, each of

the display bottles has a strong magnet on the bottom, which can withstand a 2g loading. Passengers can view the products – and trial the cosmetics – and then order as normal via the cabincrew as they pass through the cabin. (Photo Key Tony Dixon)

Exercise Onboard

LUFTHANSA TECHNIK revealed its latest product at the show – an exercise bicycle. Developed for use on VIP aircraft such as the Airbus ACJ, Boeing BBJ or anything larger, the product, made by Technogym, is now ready for certification. LHT also revealed its integrated onboard camera surveillance system – aerosight – which assists pilots in monitoring the cockpit entrance, cabin and cargo bay. It uses the pilots’ Electronic Flight Bags (EFBs) to display the camera images in the cockpit. (Photo Key – Tony Dixon)



Patterned Floorpath Lighting

UK COMPANY STG Aerospace has unveiled the latest innovation in photoluminescent (PL) floorpath marking. Building on the technology, and innovation of its SaFTGlo and SaFTGlo ColorMatch products, which offers over 300 colour options, the company has extended the product range with its new pattern-matching variation. Floorpath markings can now be made to match the actual pattern of even the most intricate carpet design. A translucent overlay, specially printed to match the surrounding carpet’s colour and design, sits over the strip, meaning the system is completely discreet when cabin lighting is on but just as effective as other SaFTGlo variants if the lights go out. (Photo STG)

in brief
Aer Lingus and the EAZYway team have signed a Letter of Intent for an operational lease for approximately 3,000 AeroCat Atlas trolleys. Together with Econocom and Zetes, AeroCat has developed its airline catering innovation concept named ‘TheEAZYway’ including full polymer, RFID equipped catering trolleys, RFID infrastructure & software and its finance.

Following the award of full FAA certification for the 12-seat business aircraft, the 328DBJTM (based on the Dornier 328), 328 Support Services displayed the individual features of the converted airliner at the Show. Along with the existing 328 conversions, the company is also producing non-328 monuments and interiors, and has already completed VVIP galleys for two Airbus A340s for an international customer.

Airbus unveiled its Space-Flex lavatory and galley concept, which can enable A320-family operators to fit an extra three seats on their aircraft. The unit fits behind galley units and therefore takes up less space.

Seat manufacturer Contour has also produced this Premium Economy/Economy Plus unit for Air New Zealand. As it is angled, the perceived space available for passengers is much more. It also enables passengers who are together to eat at the same table. (Photo Key – Tony Dixon)



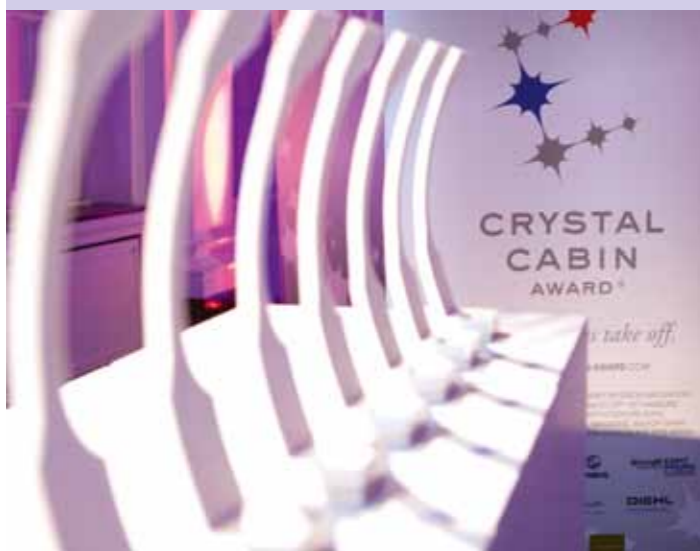
Responding to requests for ‘softer’ surfaces surrounding passengers during flights – particularly next to flat beds in First and Business Class, MGR Foamtex displayed a new, patented, soft trim panel. The product is being used on Cathay Pacific’s new Business Class product, which is already being installed across the airline’s long-haul Airbus A330-300s and Boeing 777-300ERs.

NobleTek has launched an innovative product by developing an application with maintenance and repair instructions for cabin interior monuments, such as overhead storage bins and galleys that runs from an Apple iPad. The document management system is highly accurate as it accesses the latest database of relevant information and the progress of each project can also be tracked online. The idea is based on the SIEMENS Teamcenter MRO solution, and NobleTek estimates that process times could be reduced by 25%.

Crystal Cabin Awards 2011

PRESENTED DURING the Aircraft Interiors Show, this year's Crystal Cabin Awards were again very hotly contested. From over 60 contestants, the panel of judges, who come from all areas of the airline industry (and include Airliner World's Editor), whittled them down to 21 – three for each of the seven categories. On the day prior to the show, presentations were made to the judging panel and the winners decided. "It is surprising that, although there have been many improvements in the past

ten years, there are still new innovations coming to light every time. It is often said that allowing for variation in body posture poses a difficulty in aircraft, but the finalists have proven that this is not necessarily the case," commented Professor Dr Peter Vink from the Delft University of Technology in the Netherlands (Industrial Design Engineering). In the last few years, the awards have become much sought after within the industry. (Photo Crystal Cabin)



Entertainment and Communication

The IMS Company from the USA has produced its RAVE (Reliable Audio Video Entertainment) product – commonly known as Reliable Affordable and Very Easy. It is an embedded onboard entertainment system and fits in the back of a seat headrest with all of the system's functionality built in. This makes it independ-

ent from the aircraft's System Control Unit (SCU), which has the sole task of downloading the content for the coming month in the background and providing an interface to the aircraft. Information is stored on two memory cards – similar to those used on digital cameras, although each has a 256-gig memory. (Photo IMS)



Greener Cabin, Health and Safety

For those people who are concerned over the cleanliness of the waste flap (for paper towels) in aircraft toilets, Germany's Elektro-Metall Export won the award in this category for its Non-Touch Waste Flap product. Working together with Schüsckle Solid Surface,

the company has developed an automatic flap with a sensor that responds to the proximity of the user's hand to activate the system and open the flap "creating a more hygienic and thus more pleasant environment for passengers and crew." (Photo Elektro-Metall)



Passenger Comfort

In co-operation with Air New Zealand, RECARO Aircraft Seating was also successful in the Passenger Comfort category with the SkyCouch. Already in operation on the carrier's fleet of Boeing 777s, the SkyCouch is a set of three Economy seats that create a flexible space for up to three passengers. The leg rests can be raised

to 60 or even 90 degrees, giving passengers the choice of three seats, or one couch. The system is ideal for a couple and a child travelling together and can even be used by a couple who want a bit more space. In this case, the third seat can be pre-bought (at 50% of the normal cost) prior to travelling. (Photo Recaro)

Industrial Design/Interior Concept

The problem of how to give the passenger more space is one that is at the forefront of many developments in seat technology. RECARO Aircraft Seating of Germany won the award with its BL3520 Economy Class seat, which has three key characteristics that are an improvement on current designs.

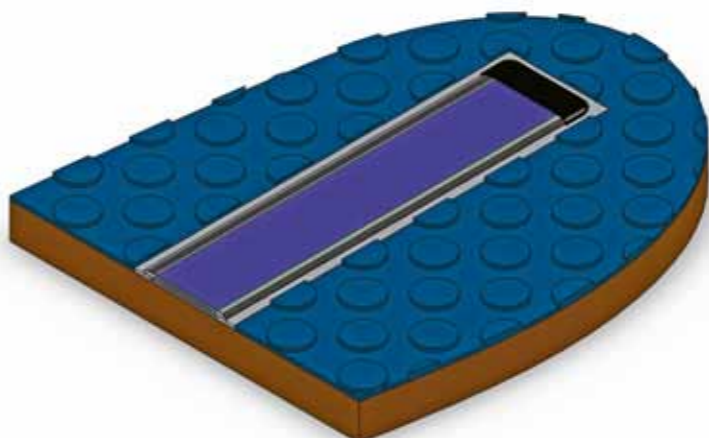
It is some 6.6lb (3kg) lighter than current models and the company claims that it is comfier than its competitors. Its thinner design means that it is 2in (4cm) thinner than its competitors and its innovative design at knee-level makes the passenger feel that there is even more space. (Photo Recaro)



Material and Components

On every safety briefing given by the cabincrew pre-flight, reference is made to the emergency cabin floor lights "that will guide you to the emergency exits." Lufthansa Technik has produced an ultra thin floor path marking system called the Galley Light for use in the galley areas. The problem of pushing the wheels of a galley cart over existing systems is an annoyance to the cabin-

crew and the new system reduces this resistance. The system can withstand a variety of physical loads, fluids and temperatures that it will encounter in an airliner's galley. Indeed, it actually wore out the castor of a cart during testing without any problems. The system operates without electricity and is available in a wide range of colours. (Photo LHT)



University Category

Still a very new category, this award is open to university students and looks more at innovation than meeting current regulations. "The three offerings in this category gave the judges the most difficulty in choosing a winner," said Airliner World's Editor, Tony Dixon. The award went to Marina Fischer, Bianca Herberth and Veronika Ruml from the Munich University of Applied Sciences for their Airgonomic interior design concept study, which was produced in co-operation with EADS Innovation Works. The new concept seat looked

at the basic needs of passengers on short-haul flights. The materials used for the seat, with an integrated high-tech gel, ensure an optimal, ergonomic posture for every passenger – even in Economy. Electrical impulses adjust the firmness of the gel pads, making it possible to tune the seat to the needs of the individual passenger and the phase of the flight. Its principle advantages are that the seats weigh less and have fewer components than normal and moving parts have been avoided. (Photo Key – Tony Dixon)



Judges Commendation Prize

Allowing the judges a 'Wild Card' for submissions that do not perhaps fit specifically into any of the other categories but still merit an award, the Judges Commendation Prize went to THALES for its Touch Passenger Media Unit. It is a handheld device running the Android operating system and controlled with a 3.8in (9.7cm) touchscreen. The system presents airlines with a vast degree of flexibility in terms of both the entertainment and information they provide

for their passengers and the way they communicate. TouchPMU represents a whole new level in the development of on-board entertainment systems, enhancing both functionality and ease of use at the same time. For instance, a passenger may be watching a film on their main screen, but wish to quickly look at the aircraft's position, for example. The PMU effectively provides a second screen without interrupting the main system. (Photo Key – Tony Dixon)