

# NEW PRODUCTS

AEA Members Highlight Safety, Power Systems, Entertainment and More

STORY BY CHRISTINE KNAUER



*AeroFlex's ALT-8000*

**N**ew safety-related avionics systems, features and equipment commanded most of the attention at the Aircraft Electronics Association's 2010 International Convention & Trade Show in April. From tiny personal locator beacons and a rugged aircraft emergency locator transmitter with built-in global positioning to synthetic vision, a helicopter terrain awareness and warning system and more, AEA member companies proved their dedication to keeping passengers and crews safe in the air and on the ground.

Helping to satisfy tech-hungry consumers, manufacturers introduced more high-definition video capabilities and 3-D moving maps, as well as Wi-Fi for Web browsing and checking e-mail at 41,000 feet. Manufacturers also displayed sophisticated cabin management systems complete with interactive touch screens to keep passengers comfy by giving them total control over their environment.

During the convention's three-hour "New Product Introductions," AEA members also learned about new battery systems, power outlets and inverters — a reminder that without the right juice in the right places, every aircraft is grounded.

In addition, there were audio selector panels, night-vision

lighting, innovative test equipment, special overlay panels, GPS portables to take pilots from the road to the sky, and a virtually indestructible memory unit. Many companies also rolled out updates to their popular instruments and avionics suites.

New and upcoming technical standard orders and supplemental type certifications dominated the news during the convention as well, indicating that, despite the recent recession, AEA members are moving forward with designing and building the tools operators need to get the most out of their aircraft.

Here's a closer look at the new products, features, services and special announcements from the AEA convention:

### **AEROFLEX**

Aeroflex introduced the ALT-8000, an RF-based, portable radio altimeter flight-line test set. The ALT-8000, which features a large, 12-inch color touch-screen, is a lightweight universal test set for 4.3 GHz frequency modulated continuous carrier wave radio altimeters and pulse radio altimeters.

"It is the first flight-line test system of its kind," said Mike Farleigh, business development manager for Aeroflex's avionics business unit in Lenexa, Kan.

Traditionally, flight-line test sets have not been RF-based and only tested the analog or digital backend of the receiver via test port signal injection, Farleigh said. Existing RF-based test systems have been confined to bench-test applications, relying on heavy, bulky and expensive delay lines to check altitude indications at one or two fixed points.

A breakthrough in avionics test technology, the ALT-8000 is an inexpensive, portable simulator for testing radio altimeters installed in aircraft and unmanned aerial vehicles.

Aeroflex also introduced the GPSG-1000, a lightweight, portable flight-line GPS and Galileo positional simulator. Farleigh said it is easy to use, configurable and inexpensive.

"You can simulate up to 12 different constellations at a time," he said. "Without leaving the ground, you can fly a complete GPS-covered flight around the world using our built-in waypoint system."

The GPSG-1000 supports civil and military avionics field

and bench maintenance technicians, production test technicians, and systems integrators with a modern simulator for L1, C/A code and L1C, L2C, L5 GPS modernization signals, as well as new Galileo E1, E5 and E6 services. It can be configured with single-channel, six-channel or 12-channel simulation. Typical tests include acquisition sensitivity, tracking sensitivity, time-to-first-fix for cold/warm/hot starts, time-to-second-fix, positional accuracy, RAIM failure tolerance, and subsystem stimulation for 3-D flight execution.

For more information, visit [www.aeroflex.com](http://www.aeroflex.com) or call 316-522-4981.

### **AIRCELL**

Aircell of Broomfield, Colo., highlighted the company's new ATG 5000 system, which provides standalone Aircell high-speed Internet capabilities for customers who don't require integrated voice and narrowband data features.

The system includes an 11-pound, 3 MCU ATG 5000 high-speed Internet line replaceable unit, two belly-mounted blade antennas, which weigh 1.25 pounds each, and an optional 4-pound cabin telecommunications router. Wired or Wi-Fi in-cabin connection options are available.

According to Alan Mak, director of product management for Aircell, the ATG 5000 provides a full, rich Internet experience that is as easy as using the Internet on the ground. Users can surf the Web, send e-mail, access social media sites, watch and send videos, and more.

With built-in, wide-area network management, the system



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allows for automatic switching between Aircell High-Speed Internet and Aircell's SwiftBroadband solution, which is useful when the aircraft travels outside the network.

Aircell also announced it will offer another billing option this summer that allows Aircell High-Speed Internet customers to pay for the service based on their monthly volume usage versus a flat monthly fee for unlimited access.

In addition, the company launched a new educational series, "Getting Your Business Aircraft Online: The Seminar." Stopping in multiple cities across the United States throughout 2010, the tour will focus on in-flight connectivity. According to Aircell, the free seminar is appropriate for executives, flight department managers, maintenance directors and aircraft managers. Dates and registration information are available on Aircell's website.

For more information, visit [www.aircell.com](http://www.aircell.com) or call 303-301-3200.

## ASPEN AVIONICS

Aspen Avionics of Albuquerque, N.M., announced it is adding Evolution synthetic vision to its Evolution 1000 Pro primary flight display. The new feature offers realistic synthetic vision representation on a high-resolution display based on Jeppesen's 3-arc-second terrain data. Evolution synthetic vision will be available first quarter 2011 as a software upgrade to Evolution flight displays in the field and as an option on new Evolution PFDs.

The company also announced the release of Version 2.2 Evolution software for the Evolution 1000 Pro primary flight display, 1000 multi-function display and 500 MFD. Version 2.2 includes the full suite of AeroNav (formerly NACO) charts and geo-referenced airport diagrams, as



*Aspen Avionics' Evolution with geo-referenced airport diagrams*

well as new nav map panning functionality and an improved information selection.

Designed to meet the rigors of helicopter operations, Aspen's new Evolution EFD1000H Pro PFD, EFD1000H MFD and EFD500H MFD recently earned an STC for the Bell 206 series helicopter. Brad Hayden, vice president of marketing for Aspen Avionics, said more STCs for the Evolution helicopter displays are on the way for the Robinson R22/R44 and Eurocopter AS350/AS355 helicopters.

Hayden also highlighted the company's additional upcoming products in 2010. Aspen's Evolution backup display, which offers seven backup functions in one unit — attitude, altitude, airspeed, VSI, HSI, GPS flight plan and GPS steering — will be available in December. Also available fourth quarter 2010 as an upgrade to the Evolution MFDs, Aspen's new Evolution engine monitoring feature will display critical engine data on Evolution 1000 series and 500 series MFDs.

Aspen's first version of the EA100 autopilot attitude interface, which ships in July, will allow for the replacement of the Bendix/King KI 256 attitude indicator and will support the KAP 100/200 series and the KFC 200 series autopilots that require inputs from that model of gyro. Future versions of the EA100 interfaces will support additional Bendix/King, Collins, Cessna/ARC and Sperry autopilot systems.

Aspen's EFD1000C3 Pro PFD for Class 3 aircraft also will be available in July.

For more information, visit [www.aspenavionics.com](http://www.aspenavionics.com) or call 505-856-5034.

## AVIDYNE

Avidyne, headquartered in Lincoln, Mass., announced the Entegra Release 9 integrated flight deck avionics suite for the Extra EA-500 aircraft, Cirrus SR20/22, Piper PA-46 and PA-32.

The Entegra Release 9 system includes dual- or triple-redundant XGA-resolution IFD5000 displays, dual-redundant FMS900w systems with a Qwerty keypad, dual next-generation 16-watt, fully digital VHF nav/com radios, and dual WAAS/RNP-capable GPS receivers. The system also consists of dual PS Engineering PMA8000B audio panels, dual remote transponders, the Avidyne TWX670 for color lightning, and the Avidyne TAS610 for traffic alerting.

A new feature in Release 9, called "FMS Preview," allows pilots to see a graphical presentation on the split-screen map as they scroll through available departures, airways, transitions

*Avidyne's  
Entegra  
Release 9 with  
its new FMS  
Preview*



and approach procedures. FMS Preview provides an FMS-centered view, which centers the map on a selected waypoint. Pilots also can scroll through the flight plan and view the entire route on the map for a better look at the weather along the way.

FMS Preview will be available as part of the upcoming Entegra Release 9.1 software, which is targeted for certification late second quarter 2010, according to Tom Harper, director of marketing for Avidyne.

Avidyne also showed off its new EX600 MFD for general aviation aircraft and helicopters. The larger, 5.8-inch diagonal display features dedicated map planning keys and QuickPan for one-touch toggling between present position and a panned-to position. CMax, which provides electronic approach plates and worldwide airport diagrams, also is included.

In addition, Avidyne has partnered with RocketRoute.com to provide Eurocontrol-approved flight planning for the European general aviation market. With RocketRoute.com's Web and mobile apps, pilots can prepare, file and send the route direct to their Avidyne-equipped aircraft.

For more information, visit [www.avidyne.com](http://www.avidyne.com) or call 781-402-7400.

## AVIONIC INSTRUMENTS

Avionic Instruments of Avenel, N.J., which designs and produces power conversion equipment for military, commercial and aerospace applications, introduced its 2KVA static inverter. The single-phase unit is available with output configurations of 115, 230 VAC and 50, 60 and 400 Hz.

The 50/60 Hz static inverters are suitable for business jet and VIP amenity power for entertainment systems, galley accessories, personal computers, and telecommunications, as well as for providing power for special-purpose military and medical aircraft. The 400 Hz units can be used for emergency backup power or for AC loads on strictly DC-based aircraft.

The inverters are highly reliable, extremely lightweight

and technologically advanced, according to Daniel Cercone, product line specialist for Avionic Instruments.

"The unit utilizes a two-stage conversion electrical topology that provides overall device isolation, as well as excellent overload and non-linear load handling capability. It's able to operate reliably even in extreme thermal and high-level vibration installations," he said.

Avionic Instruments also unveiled its DC-DC controller light dimming unit. "The new 5V, 75W unit is smaller and weighs 7.4 ounces, which is a 31.4 percent reduction in weight from our standard 5V, 75W unit," Cercone said.

Typical dimming applications include cockpit display panels, interior and exterior lighting systems (incandescent, LED and electroluminescent panels), fixed DC output for laptop power and other accessories requiring DC power.

Available in fixed voltage, rheostat, potentiometer and voltage control types, the units are designed with a protection feature that includes a delayed restart after tripping when caused by over-temperature, output over-voltage and output over-current. This ensures low power operation during repetitive fault conditions.

Both the 2KVA inverter and DC-DC controller are expected to deliver at the end of 2010.

For more information, visit [www.avionicinstruments.com](http://www.avionicinstruments.com) or call 732-388-3500.



*Avionic  
Instruments'  
2KVA static  
inverter*

## CIRRIS SYSTEMS

Cirris Systems, which creates cable and harness test equipment, unveiled new programming capabilities and pre-programmed connector libraries to its Pin-Sight system. Pin-Sight is designed to ensure correct pinning of electrical connectors during wire harness assembly.

In addition to accessing connector libraries, users now can import pinning data from a variety of electronic document types, including Excel, CSV and PDF. Wire identifica-

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tion also can be input via barcode, keyboard or speech.

The Pin-Sight tool features a high-resolution CCD camera and an adjustable connector holder mounted to a force-

sensing base. The combination allows operators to quickly and accurately insert wires or plugs into the correct cavity and to verify all wires truly are locked in.

An extreme close-up zoom and adjustable transparency levels offer real-time guidance on a video monitor to provide a clear picture of the connector and allow the operator to “see through” fingers and wires. Text-to-speech capability provides spoken instruction in a variety of languages.

Visual feedback ensures the proper wire color has been placed in the proper cavity, eliminating mis-plugged wires.

“Pin-Sight requires no mating connectors, which makes set up fast and easy,” said Brent Stringham, director of sales and marketing for the Salt Lake City, Utah-based company. “It will virtually eliminate mis-wiring errors and can decrease connector plugging time 30 to 50 percent. Pin-Sight is especially helpful for getting new, unskilled operators up to speed with minimal training.”

For more information, visit [www.cirris.com](http://www.cirris.com) or call 800-441-9910.

**DPI LABS**

DPI Labs of LaVerne, Calif., launched Smart Link/HD, a digital system that distributes high-definition content, as well as other video formats, to standard or high-definition monitors in their native format. It supports 22 channels of uncompressed HD content and more than 500 independent channels of stereo audio over a noise-immune, fiber-optic trunk. The unit is 1080p-compliant and configurable, and it can be scaled to any cabin requirement.

The result of a partnership with Innovative Advantage of Redmond, Wash., the Smart Link/HD system combines both DPI Labs’ Smart Link cabin management control system and Innovative Advantage’s audio and video distribution system.

Smart Link/HD uses industry cabling and supports long

cable runs with no loss and without the need for converters. It is retrofit-friendly with DPI Labs’ existing cabin management system.

“It is a true cross-point switcher, which means you can map any video input to any standard-definition or high-definition output for your configuration,” said Kevin Hayes, vice president of sales and marketing for DPI Labs.

For more information, visit [www.dpilabs.com](http://www.dpilabs.com) or call 909-392-5777.

**EDMO DISTRIBUTORS**

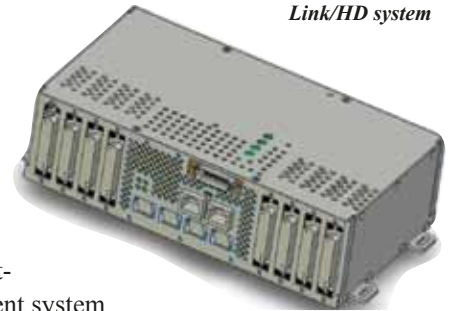
EDMO Distributors of Spokane Valley, Wash., a wholesale distributor of aircraft avionics, avionics test equipment, installation and pilot supplies, announced it is supplying two new products to the aviation market: the Nulite NVG from Nulite Lighting Systems and the ELT406GPS from Emerging Lifesaving Technologies.

The ELT406GPS is the first and only 406 MHz emergency locator transmitter with built-in GPS, according to Mike Schmidt, vice president of sales and marketing for Emerging Lifesaving Technologies.

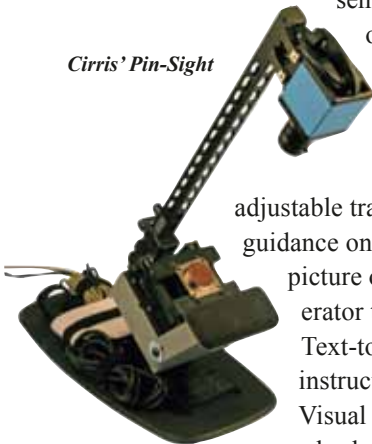
“Having (GPS) built in greatly simplifies the installation as it eliminates the requirement for the avionics technician to tap into the avionics system to get the GPS data. It also provides GPS data even if there is a power failure, something no other ELT can do,” Schmidt said.

“Our ELT provides 110 hours of transmission time and

*DPI Labs’ Smart Link/HD system*



*Cirris’ Pin-Sight*



*EDMO Distributors announced it is supplying two new products to the aviation market: the Nulite NVG from Nulite Lighting Systems (pictured) and the ELT406GPS from Emerging Lifesaving Technologies.*

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has a patented battery monitoring system that will notify the operator if the battery falls below 40 hours of capacity — another exclusive feature,” he said.

The system also includes a vertically and horizontally polarized antenna, which allows the transmission of the ELT signal to radiate skyward, regardless of how an aircraft comes to rest in a crash.

The new Nulite NVG brings night-vision imaging system instrument lighting to the cockpit without altering the appearance of the instrument or the panel. The open-bezel design does not utilize filters or films, so there is no color shift or degradation of daylight legibility. NVIS white LEDs allow panel brightness and dimming control with one controller.

Systems are available in 5-, 14- and 28-volt configurations, and multiple STCs are available to help with installation certification.

For more information, visit [www.edmo.com](http://www.edmo.com) or call 800-235-3300.

## EMS AVIATION

EMS Aviation, a division of EMS Technologies, showed off its Forté AirMail, which gives users of BlackBerry smart phones, iPhones, iPads and other Wi-Fi-enabled handheld



*EMS Aviation's Forté AirMail*

devices access to e-mail via the Iridium satellite network.

Designed for business aircraft, the system currently is STC'd for 14 aircraft, including the Bombardier Chal-

lenger, Bombardier Global Express, Dassault Falcon 50, 900 and 2000, and Gulfstream G-V and G550.

The Forté AirMail suite includes the Wi-Fi interface unit (3.4 pounds), Iridium transceiver (3.3 pounds) and a small antenna. The system's Wi-Fi device, which is in the cabin and connected via cable to the EMS Iridium transceiver, provides e-mail connectivity to both passengers and pilots.

Operators can manage airtime usage through several access modes, including the default mode, which connects

whenever an e-mail action is detected. When the connection is active, multiple users can access e-mail simultaneously. If immediate access is required, a manual connection is possible anytime.

“EMS Aviation is now the new face of the marketplace of the former EMS Satcom out of Ottawa, Canada; EMS Sky Connect operation in Tacoma Park, Maryland, outside of Washington; and EMS Formation in Moorestown, N.J.,” said Steve Silverman, vice president of product innovation.

For more information, visit [www.emsaviation.com](http://www.emsaviation.com) or [www.fortemail.com](http://www.fortemail.com), or call 613-591-1043.

## EMTEQ

EMTEQ of New Berlin, Wis., announced its family of new cabin power systems, which includes universal outlets, European outlets and U.S. outlets, as well as outlets for Ethernet and phone/fax jacks and inverters.

“A while back, the FAA released a memorandum (PS-ANM-01-111-165) that set the stage for more comprehensive guidelines for safety features within outlets.

It included plug presence detection and ground fault interrupt,” said Kariann Tector, business development manager for EMTEQ. “With

this memorandum, EMTEQ jumped into action to design and engineer new products for AC outlets.”

Plug presence detection is a safety feature designed to provide power to an outlet only when a plug is properly inserted in the receptacle, thereby preventing electrical shock when the outlet is not in use or is being used improperly. EMTEQ's PPD works through a series of mechanical switches that, when engaged, send a signal to the inverter to send electrical power. Power is only applied to the outlet when the switches are engaged. EMTEQ's PPD design also provides fluid ingress protection as an added benefit.

The ground fault interrupter protects against electrical shorts and potential shock or electrocution from products plugged into the outlet. The inverter detects an imbalance of



*EMTEQ's North American outlet with PPD*

current and automatically shuts off output to the outlet when the imbalance reaches an unsafe level.

“Another feature of our inverters is that they are a one-to-one system,” Tector said. “There is one outlet per one inverter. This provides the passenger maximum power to their outlet, eliminating problems that come with sharing power between multiple outlets.”

Converting 28 VDC aircraft power to 115 VAC, 60 Hz output, EMTEQ’s inverters weigh less than one pound and the compact size allows for easier storage.

The technologies are being incorporated into cabin power system designs for upcoming OEM airframe platforms, as well as for aftermarket customer programs.

For more information, visit [www.emteq.com](http://www.emteq.com) or call 262-679-6170.

## FLIGHT DISPLAY SYSTEMS

Flight Display Systems of Alpharetta, Ga., introduced an Airshow upgrade kit, a direct, pin-for-pin replacement for Airshow 100, Airshow 200 and Airshow 400 units. Flight Display’s system gives passengers the new FD200CPU-8 moving map with worldwide satellite imagery, hardware and a new two-year warranty.

The system reuses the existing tray, therefore eliminating the need for rewiring and aircraft down time. Its new mounting tray kit includes tray adapter plate, pre-wired mating connectors and USB keyboard.



*Flight Display Systems' Airshow upgrade kit*

“There are thousands of old Airshow units flying today that are no longer supported,” said Jay Healey, vice president of satellite systems for Flight Display Systems. “This is an easy, inexpensive option to modernize those moving maps for passengers.”

Flight Display Systems also introduced the company’s new 22-inch widescreen Fly HD flat-panel LCD called

the FD220CV VerHD. With 1080p input capability and a native resolution of 1920 x 1080, the display is ideal for Blu-ray movies and other in-flight entertainment onboard Gulfstream, Challenger, Global Express and Falcon aircraft, according to Flight Display Systems. It weighs 9.75 pounds and is 1.6 inches deep.

Nick Gray, director of international sales for Flight Display Systems, said the first installation was performed on a Challenger 604.

For more information, visit [www.flightdisplay.com](http://www.flightdisplay.com) or call 678-867-6717.

## FREEFLIGHT SYSTEMS

FreeFlight Systems of Waco, Texas, introduced a new flight data recorder-like system intended to provide low-cost recording, storage and data transfer capability with high crash survivability and extreme temperature protection.

It is made up of the memory management system, as well as a hardened memory unit, which is available in

two versions. The 8 GB HMU-E is crashproof, fireproof to 1,000 degrees for one hour, waterproof and capable of withstanding rifle and automatic weapons fire. The 2 GB HMU Lite is able to withstand handgun fire only. Both models use a standard USB 2.0 interface and are fully compatible with FreeFlight Systems’ memory management system.

The MMS is a lightweight, rugged, programmable unit that can record, store and transfer aircraft information provided by the pilot or other aircraft systems, such as onboard cameras, microphones and sensors. The unit also can be used as an onboard network attached storage system.

FreeFlight Systems’ Dzus-mounted cockpit data transfer system allows large data transfers to and from the aircraft. The removable solid-state hard drive can read/write to any SATA-capable device.

The FreeFlight RANGR 978 MHz (lite) ADS-B data radio, a component of FreeFlight Systems’ ADS-B Out



*FreeFlight Systems' RANGR FDL-978TX*

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package (978 MHz), likely will certify mid-2010. This “lite” version offers RS-232 capability and will meet TSO-C154c.

“At less than \$10,000, the ADS-B Out transmit-only package, including the RANGR 978 transmitter and 1201 remote-mount GPS, is the company’s lowest cost option to achieve ADS-B compliance. The RANGR without 1203 is approximately \$6,000,” said Jamie Luster, director of sales and marketing for FreeFlight Systems.

FreeFlight Systems expects its 1205 Beta 3 remote-mount WAAS/GPS receiver for Class 3 aircraft to receive TSO-C145a certification in fourth quarter 2010. The receiver allows for full LNAV and VNAV navigation and is compliant with ADS-B, required navigation performance, performance-based navigation and sole-use navigation source requirements.

For more information, visit [www.freeflightsystems.com](http://www.freeflightsystems.com) or call 254-662-0000.

**GARMIN**

Garmin showed off Aera, its new line of dual-duty GPS aviation portables that take pilots from flying to driving. Each of the four Aera models in the Garmin lineup features a moving map display and menu-driven, touch-screen controls.

The Aera 500’s 4.3-inch QVGA wide-format screen displays detailed chart-style shaded mapping, as well as extensive terrain and aviation databases, to help pilots visualize the aircraft’s flight path in relation to nearby nav-aids, terrain, SUAs and obstructions. A database-driven terrain advisory



*Garmin's Aera 560*

feature offers TAWS-like color coding and pop-up alerts for possible obstructions or ground-proximity conflicts.

On the ground, Aera offers GPS capability and preloaded City Navigator NT street mapping. Operating much like Garmin’s Nüvi line of touch-screen auto navigators, the Aera 500 offers voice-guided, turn-by-turn directions with

text-to-speech audio technology that calls out streets by name.

The built-in Bluetooth supports wireless hands-free calling with compatible mobile phones. The Aera’s built-in “points of interest” database identifies motels, restaurants, gas stations, ATMs and local attractions.

The Aera 510, 550 and 560 add more features, from Nexrad imaging support and XM WX satellite weather capabilities to higher-resolution displays, Garmin SafeTaxi charts and more.

Garmin’s family of ADS-B-enhanced traffic advisory systems and traffic collision avoidance systems, the GTS 800, 820 and 850, currently are shipping, said Jim Alpiser, director of aviation aftermarket sales for Garmin.

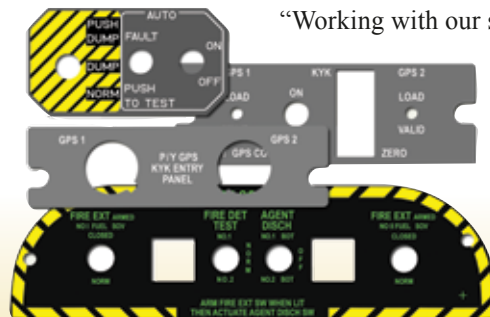
The company’s G500/G600 PC training software also is now available for no charge at [www.garmin.com](http://www.garmin.com). The software, which includes synthetic vision technology and FliteCharts, is designed to help customers gain familiarity with their avionics before take-off.

For more information, visit [www.garmin.com](http://www.garmin.com) or call 913-397-8200.

**GLOBAL AVIATION TECHNOLOGIES**

Global Aviation Technologies (GAT) of Wichita, Kan., introduced the Xcelight Series 2 overlay panel. Designed to meet the needs of single-engine pistons to heavy business jets to transport category aircraft, the Xcelight Series 2 overlay panel offers a more durable, reliable, longer-lasting and cost-effective alternative to OEM replacement panels, said Woody Cottner, vice president of engineering for GAT.

“The original equipment overlay panels are prone to warping, text fading due to normal wear, and scratches, which emit unwanted light during nighttime flight operations,” Cottner said.



*Global Aviation Technologies' Xcelight Series 2 overlay panel*

“Working with our supplier, we are bringing to market a direct OEM-replacement overlay panel, which is scratch-resistant, more

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“durable and will not exhibit color or text fading over time,” he said.

The Xcelight Series 2 overlay panel utilizes a patent-pending process that allows all text and panel color to be placed under the surface, making the panels easy to clean and maintain, as well as resistant to fading.

The Xcelight Series 2 overlay panels can be configured with an internal or external lighting source and are compatible with 5 VDC, 28 VDC or 115 VAC power. The panels are a plug-and-play replacement for existing OEM overlay panels, simplifying the installation process.

Initial certification of the new overlay panels will be for the Learjet 30 series aircraft. The Approved Model List STC will be expanded to incorporate additional aircraft models in the future.

For more information, visit [www.globalaviationtechnologies.com](http://www.globalaviationtechnologies.com) or call 316-425-0999.

## HONEYWELL

Honeywell introduced an LCD display upgrade for the Primus Elite designed for legacy aircraft equipped with 8-inch by 7-inch or 8-inch by 8-inch cathode ray tube displays. The new upgrade saves seven pounds per older display.

“It essentially doubles the reliability of those displays and enhances the safety and reliability of the aircraft, and provides operators an upgrade path for future capabilities,” said Roger Dykmann, director of program management for Honeywell.

Honeywell also announced it expects STC approval in late August 2010 for Ovation Select, the company’s cabin management system.

Scalable from general aviation aircraft through air transport category business, Ovation Select incorporates all the digital interfaces needed to connect high-speed satellite communications, as well as consumer electron-

ics, including iPods and other MP3 players, Apple TV and gaming systems. The modular, lightweight system distributes surround-sound audio, high-definition (1080p) video and digital communication throughout the cabin.

With an easy-to-use, icon-based touch screen, passengers are able to control lighting, seats, temperature and window-shade settings. The system’s media interface unit hosts the optional JetMap3HD moving map application with high-resolution, 3-D moving maps, news, weather, sports and business updates.

Ovation Select’s digital architecture features a robust Ethernet backbone, which reduces installation time and facilitates end-to-end self-diagnostic and troubleshooting capability. Honeywell developed Ovation Select in partnership with Rosen Aviation for widescreen HD display technology and Alto Aviation for audio technology.

For more information, visit [www.honeywell.com](http://www.honeywell.com) or call 602-365-3099.

## INTERNATIONAL COMMUNICATIONS GROUP (ICG)

International Communications Group (ICG) of Newport News, Va., announced that Sora, which provides Iridium and SwiftBroadband voice and data services for business aircraft, has received STC certification. ICG and Cobham jointly developed the Sora package, which integrates ICG’s NxtLink 220A Iridium communications system and NxtMail server with Cobham’s Inmarsat SwiftBroadband terminal.

“We wanted to blend the two networks, Iridium and Inmarsat, together to get that total, one perfect solution for the operator to satisfy the crew and the cabin,” said Jeff Saucedo, vice president of OEM sales for ICG.

The combination enables Wi-Fi devices, such as smart phones and laptops, to operate on the high-speed SwiftBroadband channel. The NxtMail server’s local wireless access point allows Wi-Fi-capable smart phones and other personal devices to send and receive e-mails and browse the Web.

With the system, everyone onboard has access to



*ICG's NxtLink 220A Iridium communications system*



*Honeywell announced it expects STC approval in late August 2010 for Ovation Select, the company's cabin management system.*

worldwide voice service. Additionally, the flight crew can utilize a dedicated Iridium channel for AFIS/ACARS safety messaging and also access a priority voice channel for air traffic management and flight operations personnel.

The package, which was first installed on a Gulfstream 200, began shipping to aircraft manufacturers last month. Deliveries to ICG dealers are expected later in the year.

For more information, visit [www.icg.aero](http://www.icg.aero) or call 757-947-1030.

## KANNAD

Kannad, based in Guidel, France, which designs and manufactures emergency locator transmitters, introduced two new personal locator beacons: the XS-4 GPS and the XS-ER GPS extended-range professional PLB. Both include built-in GPS for pinpoint locating during search-and-recovery efforts.

“These are the world’s smallest personal locator beacons,” said Floyd Roney, director of sales for Kannad North America.

The compact, palm-sized fourth-generation XS-4 GPS weighs one-third of a pound and features a 24-hour minimum operational life and flashing LED Morse SOS signal. The rugged XS-ER GPS extended-range professional has a 48-hour minimum operational life, is fully buoyant, and features a field-replaceable battery.

Both the XS-4 GPS and the XS-ER GPS comply with international standards and meet U.S. and European Union approvals. The units, which operate on the global Cospas Sarsat 406 MHz search-and-rescue satellite communications system, transmit two signals simultaneously: on the global 406 MHz satellite system and over 121.5 MHz.

Customer registration enables each PLB to broadcast a unique identification signal providing ID information about the pilot. A five-year warranty comes with each personal distress beacon.

For more information, visit [www.kannad.com](http://www.kannad.com) or call 509-468-1738.



Kannad's XS-ER GPS

## MID-CONTINENT INSTRUMENTS

Mid-Continent Instruments announced it is now offering avionics and autopilot repair capabilities. The new service includes ship-in repair, overhaul and exchange for radios, nav/coms, transponders, DMEs, ADFs, autopilots and accessories.

Current capabilities cover Bendix/King KAP and KFC autopilots and accessories, ARC 400A/B autopilots and accessories, and most Collins Pro Line I and II avionics and accessories.

Mid-Continent Instruments also introduced the MD41-1048, an annunciation control unit specifically designed for the newly announced Garmin HTAWS function of the GNS 430W and GNS 530W navigator. The unit is TSO-approved and now shipping.

Mid-Continent Instruments also discussed its newest battery system, the MD420-1 emergency power supply. The 2.5 amp-hour battery, which powers electronic flight displays, standby instruments and other critical avionics systems, has been TSO-approved and is now shipping.

Mid-Continent's new lithium battery, the MD835 emergency power supply, recently received TSO certification from the FAA. Mid-Continent is partnering with AeroMech to seek an Approved Model List STC covering Part 23 aircraft. The Beechcraft King Air 200 will be used as the baseline certification aircraft.

“The MD835 is the industry’s first emergency power supply featuring lithium nanophosphate technology,” said Todd Winter, president and CEO of Mid-Continent Instruments, which operates facilities in Wichita, Kan., and Van Nuys, Calif.

The alternative cell chemistry reduces the battery’s weight to 4.8 pounds, reduces maintenance costs with a bi-annual capacity check rather than the traditional 12-month, and increases life expectancy to 10 years. The MD835 can be used as a direct replacement for older L-3 Avionics PS-835 units.

For more information, visit [www.mcico.com](http://www.mcico.com) or call 316-630-0101.



Mid-Continent Instruments' MD41-1048 annunciation control unit

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## NEW PRODUCTS

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### PS ENGINEERING

PS Engineering, which celebrates its 25th anniversary this year, announced an updated version of its PMA6000 audio selector panel, as well as a variety of improvements to its flagship audio panel, the PMA8000B.

Smaller and lighter than its predecessor, the PMA6000B uses a single, 44-pin connector for all aircraft and intercom interfacing, simplifying the installation. The unit uses PS Engineering's "Set-it and Forget-it" manual VOX circuits, with a single knob controlling four individually gated microphones, thereby keeping cabin noise to a minimum when any one person speaks.

For the PMA8000B, PS Engineering added a monitor mode, multiple music muting modes, user-selectable phone sidetone, and selectable music for the pilot while in ISO mode.

The monitor mode likely is the most significant product improvement made to the PMA8000B since its introduction three years ago, according to the Lenoir City, Tenn.-based company.

The new capability allows the pilot to designate one com radio as a primary audio source. When the primary radio becomes active, the secondary com radio temporarily mutes.

"When you are getting a recorded weather broadcast and ATC wants to speak with you, it is nice to have that less important audio drop off during the conversation," said Randy Beavers, general manager for PS Engineering.

The company's new PMA8000BT audio control panel adds Bluetooth connectivity to smart phones for streaming music to the audio panel for distribution to passengers. It also allows the pilot and anyone using the intercom to connect to the cellular phone from the audio panel. Deliveries are expected by third quarter 2010.

For more information, visit [www.ps-engineering.com](http://www.ps-engineering.com) or call 865-988-9800.



*PS Engineering's PMA6000B*



### ROCKWELL COLLINS

Rockwell Collins announced the Airshow 4000 with Version 2 software for business aircraft is now available. The company completely refreshed the look and feel of all the features and included updated graphical images.

"The Version 2 enhancements are the best we've had yet in terms of adding new customizable options and features that focus on information that is unique to the airborne experience," said Steve Timm, vice president and general manager of information management for Rockwell Collins. "We think our customers will truly be wowed by the new aspects of Airshow 4000's moving map capabilities."

The maps offer greater details and more dynamic colors, as well as a realistic day and night view on all 3-D maps. Other feature updates include a 3-D time zone globe, 3-D relative location indicator and a redesigned flight instrument panel, ticker and videos.

New features provide a head-up display for the cabin, as well as location-triggered, point-of-interest panels with captions, images and stats for more than 300 cities.

Customers have three options for upgrading to Version 2: a service bulletin installation at a service center; an upgrade via rental or exchange; or trading in for a new unit.

For more information, visit [www.rockwellcollins.com](http://www.rockwellcollins.com) or call 319-295-1000.

### ROSEN AVIATION

Rosen Aviation of Eugene, Ore., highlighted several new products for business aviation, including a VIP controller, 5.8 GHz wireless headphones and transmitter, and a Blu-ray player.

The VIP controller, which allows operators to easily manage cabin functions, can be programmed to control source equipment, from maps and DVD players to cabin lighting and personal devices such as iPods.

To go along with the new controller, Rosen's Ultra-CMS cabin management and audio video entertainment system

Rosen  
Aviation's  
VIP controller



also received a new graphical user interface. The Ultra-CMS digitally distributes audio and video entertainment channels and cabin management controls throughout the aircraft via a high-speed data network. The fully customizable touch screens can be configured specifically to control the cabin equipment installed on the aircraft.

Rosen Aviation's new wireless headphones include three audio inputs and incorporate digital audio transmission. The transmitter weighs .53 pounds and offers a 65-foot operating range.

"We heard complaints about the performance of competing wireless headphone offerings so we developed a more sophisticated, multi-channel digital wireless version that's free of cross-channel interference, has improved transmitter mounting options, and offers a longer travel range," said Tim Lockerby, sales manager for Rosen Aviation.

Rosen Aviation also showed off the company's new slot-loading Blu-ray player, which can be mounted in a variety of orientations.

"Media content is remarkably clear when played through the Blu-ray player and displayed on one of our high-definition monitors," said Mark Cook, OEM sales manager for Rosen.

For more information, visit [www.rosenaviation.com](http://www.rosenaviation.com) or call 541-342-3802.

## SANDEL AVIONICS

Sandel Avionics of Vista, Calif., showed off its new ST3400H HeliTAWs, a Class A HTAWs and mission safety system. Designed to enhance rotorcraft safety beyond the requirements of FAA TSO C194 governing HTAWs, the 3-ATI Sandel HeliTAWs is a ruggedized, self-contained system developed specifically for helicopter use.

"HeliTAWs is more than HTAWs. It's a search-and-rescue EMS (emergency medical services) and special-missions device that gives operators a very precise and accurate view of the terrain and helps them fly those special missions," said William Elliott, Eastern sales manager for Sandel Avionics.

"It supports both Class A and B functionality. We can help you from the smallest aircraft up to a Part 29 aircraft."

Derived from Sandel's ST3400 Class A TAWs for fixed-wing aircraft, the new system incorporates an HTAWs computer, terrain and obstacle databases, nuisance-alert suppression and a high-resolution display in a single compact unit. The system adds special mission capabilities that enable pilots to approach terrain and obstacles with greater precision and confidence, enhancing helicopter special mission performance by freeing the crew from nuisance alerts. The Sandel HeliTAWs can replace an existing radar altimeter indicator, simplifying installation in both retrofit and forward-fit applications.

The new HeliTAWs incorporates a variety of helicopter-specific features, such as ultra-high, 3 arc-second (300-foot grid) terrain resolution, on-demand NVIS without affecting daylight visibility, radar altitude display, traffic display overlay and a comprehensive obstacle database. The system, which is Part 27- and Part 29-certified, meets DO-160F helicopter vibration standards and has a mean time between failure rate of more than 10,000 hours.

For more information, visit [www.sandel.com](http://www.sandel.com) or call 760-727-4900.

## SHADIN AVIONICS

Shadin Avionics of St. Louis Park, Minn., introduced its new Avionics Interface System (AIS) Configurable Converter Platform (CCP).

Designed to provide easy systems integration and data conversion, the unit's flexible hardware and software platform modules offer a customizable solution with lower development costs and shorter lead times.



Shadin Avionics' new  
Avionics Interface  
System (AIS)  
Configurable Converter  
Platform (CCP)



Sandel Avionics' ST3400H HeliTAWs

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## NEW PRODUCTS

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“This is not an expensive universal converter box that can do everything,” said Brian McMillan, director of engineering and programs for Shadin. “The AIS CCP is a configurable ‘happy box’ that gives customers exactly what they need and no more — a real cost and integration advantage over other solutions on the market.”

Shadin Avionics, together with Technical Data Analysis of Falls Church, Va., also announced [www.flightframe.com](http://www.flightframe.com) is now online. The website allows general aviation operators to track flights, aircraft usage and airframe trend monitoring data, as well as analyze this data at [www.flightframe.net](http://www.flightframe.net).

When the TrendBox200 flight recorder is combined with [flightframe.net](http://flightframe.net)’s Web-based analysis capabilities, airframe trend monitoring can be used to assess the state of the airframe structure and prevent problems before they happen, according to Shadin Avionics. It also can help flag safety issues, tailor maintenance to actual usage, offer design enhancements based on known operation, and provide insight into in-service events. In addition to airframe trending, the system contains GPS capabilities to enable flight tracking.

“The amount of valuable information that can be obtained with the TrendBox200 and [flightframe](http://flightframe.net) system is amazing,” said Dan Nelson, CEO of Shadin Avionics. “We expect that demand for this product will grow rapidly as pilots and aircraft owners begin to recognize the financial and safety implications of having this information available.”

For more information, visit [www.shadin.com](http://www.shadin.com) or call 952-927-6500.

## SOUTHEAST AEROSPACE

Southeast Aerospace of Melbourne, Fla., the U.S. distributor for Trig Avionics, announced the release of Trig’s newest compact Mode S transponder: the TT22. The TT22 is a higher-powered version of Trig’s TT21 transponder.

According to Joe Braddock, vice president of sales and marketing for Southeast Aerospace, the world’s smallest



*Southeast Aerospace is now distributing Trig’s TT22 Mode S transponder.*

Mode S transponder now is available in a bigger engine option with 250-watt nominal output. Based on the design and technology of the previous model, the TT22 qualifies as a Class 1 Mode S transponder with FAA/EASA approval for IFR and VFR flight. The TT22 weighs just over one pound and can be installed in a standard 2 1/4-inch cut-out.

In addition to the release of the new transponder, traffic information service now is a standard feature on all Trig transponders. The traffic upgrade feature is compatible with most Garmin handheld GPS for display of the traffic information service. The TIS feature has been ground tested and real-time flight tested by Trig and Southeast Aerospace.

For more information, visit [www.seaerospace.com](http://www.seaerospace.com) or call 321-255-9877.

## TECHNISONIC INDUSTRIES LTD.

Technisonic Industries of Mississauga, Ontario, Canada, announced it is expanding its line of audio control products with the new A711L.

Optimized for communication-intensive situations, such as law enforcement, air ambulance, tactical fire coordination and similar missions, the fully illuminated unit features specially



*Technisonic Industries’ A711L*

designed, highly tactile controls with vertical alignment to improve night operations and “blind operation.”

The A711L matches the TDFM-7300 5-radio FM system from Techni-

sonic, and it provides five FM and two AM transmit positions, plus a PA system. Using the PA is easier with Technisonic’s “1-button” mode transfer, which easily toggles between PA and radio use, allowing preset simulcast sections to be undisturbed. The PA interface also works with the new remote Powersonix PA systems without any additional control units, further reducing panel space requirements. At only 2 5/8” of Dzus panel height, the A711L is compact.

The advanced, third-generation analog technology in the A711L with fully floating inputs and outputs provides significant reductions in ground loop noise, often as much as 30 dB (1,000 times) over conventional systems.

Each control supports two crew members and four passengers, and systems can be chained together to form complex networks with multiple ICS loops. Internal optically coupled alerting provides three levels of tone alerting or an additional

floating direct alert input, for maximum installation flexibility. Lighting has been optimized to give the installer wide control over the final appearance, with remote day/night annunciator control, automatic dimming or no dimming, as preferred. An ANVIS/A NVG-compliant version is available. The unit is scheduled to deliver in mid-2010.

During the AEA convention, Walter Shawlee, senior audio designer for Technisonic, also mentioned the upcoming debut of the ARTS-100.

“We’ll also have coming shortly a new audio and radio test system, which is both a test and display system, which I think you’ll find fairly amazing,” Shawlee said.

For more information, visit [www.til.ca](http://www.til.ca) or call 905-890-2113.

### ULTRA ELECTRONICS FLIGHTLINE SYSTEMS

Ultra Electronics of Victor, N.Y., announced it has nearly completed the certification of the AuRACLE CRM2120, a digital engine power management system designed for the general aviation OEM and retrofit markets.

A glass-panel retrofit replacement for primary engine instrumentation, the AuRACLE CRM2120 will be certified as primary engine instrumentation and approved for use on light-twin aircraft. Installation will be based on an STC/AML for all Cessna, Piper and Beechcraft light-twins.

“The AuRACLE CRM2120 extends safe flight, lowers pilot workload and decreases annual operation and maintenance costs,” said Eric Hathaway, senior product manager of aircraft instruments for Ultra Electronics Flightline Systems.

The system features a patented dual-display that provides the pilot with all critical gauges at a glance on the upper screen; a fuel computer and unique fuel-leaning process that lowers average fuel costs by 25 percent; a data recorder; a redundant back-up monitoring system; and a patented engine interface unit, which can lower installation costs by installing on the hot or cold side of the nacelle firewall.

The system is expected to be available in late July 2010.

For more information, visit [www.ultra-fei.com](http://www.ultra-fei.com) or call 585-924-4000.



Ultra Electronics announced it has nearly completed the certification of the AuRACLE CRM2120.

### UNIVERSAL AVIONICS SYSTEMS CORP.

Universal Avionics of Tucson, Ariz., unveiled its new stand-alone AHS-525 attitude heading reference system. The solid-state AHS-525 provides stable and accurate aircraft analog and digital pitch, roll and heading measurements.

The AHS-525 incorporates microelectromechanical systems-based technology, a system that combines the computational ability of microelectronics with the acuity and control of microsensors and microaccelerometers.

This solid-state construction, with no internal movable parts, reduces downtime and increases the MTBF rate, according to Robert Clare, director of North American Marketing for Universal Avionics.

The system integrates with flight deck displays, flight control systems, flight management systems, weather radar, terrain awareness and warning system, flight data recorder and a host of additional avionics systems. When interfaced with Universal’s electronic flight information system, data display and control is managed directly through the EFI-

890R flat-panel displays, without the need for additional heading

control panels cluttering the flight deck. System installation components will include the attitude heading reference unit, configura-

tion module, external remote magnetometer and a mounting plate permanently



Universal Avionics’ AHS-525 attitude heading reference system

affixed to the aircraft. The fixed mounting plate allows the unit to be removed for service and replaced without repeated and time-consuming realignment of the system.

The unit’s compact size lends flexibility to installation with possible mounting locations in pressurized, non-pressurized, controlled and non-controlled temperature environments.

The AHS-525 features digital, analog, discrete and synchro inputs and outputs to support a variety of interfaces on Part 23 and Part 25 aircraft. FAA TSO is expected in October.

For more information, visit [www.uasc.com](http://www.uasc.com) or call 520-295-2300. □