## Pack Big Value, Options, Flexibility

Wi-Fi, Broadband Internet, iPod Docks Give Customers What They Want

BY CHRISTINE KNAUER

n 2009, the avionics industry enjoyed a wave of new products that offer Wi-Fi capability, Internet access, interactive touch-screens, and iPod connectivity. For the cockpit, companies rolled out localizer performance with vertical guidance (LPV) solutions as well as easy retrofits with more capabilities and more value. From glass instrumentation for smaller aircraft to all-in-one communications boxes, most new products underscored the importance of affordable pricing and extended features.

Component manufacturers supported the electronics wizardry with sophisticated receivers and card assemblies. Plus, several test sets debuted for the first time, including a wireless version, offering technicians new tools.

For a sneak peek at these and other new products, industry insiders attended the annual Aircraft Electronics Association's International Convention & Trade Show in April, in Dallas. Here's a roundup of what companies brought to the show.

#### ACCORD TECHNOLOGY LLC

Accord Technology of Eagle, Idaho, announced its NexNav mini, a GPS-SBAS (satellite-based augmentation system) receiver.

The low-power, credit card-size circuit card assembly can be embedded in

host avionics or in the company's NexNav LRU for stand-alone GPS applications with general

cations with general aviation or ARINC interfaces.

It serves as key

Accord Technology's NexNav mini

enabling technology for several applications, including primary means of navigation; oceanic, en-route, terminal and LNAV-approach phases of flight; ADS-B; constant descent approach; highly accurate moving maps; inertial aiding; current and advanced TAWS; and advanced air traffic management. The sensor meets TSO-C145c standards for GPS/WAAS Class Beta-1. The GPS/WAAS receiver is compatible with other SBAS solutions, such as EGNOS in Europe, MTSAT in Japan, and GAGAN in India.

For more information, visit www.accord-technology.com.

#### **AEROSPACE OPTICS**

Lighted pushbutton switch manufacturer Aerospace Optics of Fort Worth, Texas, introduced its new

Vivisun Logic Series switch. The Logic Series allows a single switch to employ



multiple operational modes controlled by discrete inputs. With an integral solid-state circuit, the same switch can be locally or remotely set and reset.

This new switch also includes electromechanical momentary or alternate action switching functions, simplifying complex relay circuits while reducing the number of controls for easier use. The switch fits the same panel cutout and uses a solderless connector plug as the company's standard product. The Logic Series switch is able to reset or turn itself off when power is removed, assuring controls are always in a "safe mode" on power up. It also can interface with external sensors, allowing conditional switching or "lockout" modes. Common applications include intercom, speaker mute and caution advisory functions. Blinking capability also was added.

For more information, visit www.vivisun.com.

#### **AEROSPACE INSTRUMENT SUPPORT**

Aerospace Instrument Support of Denton, Texas, unveiled its new wireless RVSM test set, the industry's first. The APE-8000 precision airdata test equipment is designed specifically for performing RVSM tests and certifications.

The APE-8000 utilizes a rugged, wireless

Windows-based PC tablet with a sunlight-readable display to remotely control the test set. The tablet offers a touch-screen user interface, and custom software graphics dynamically depict the altimeter, airspeed and vertical speed indicators.



Aerospace Instrument Support's APE-8000

The Model 8000 has the ability to generate custom correction cards

that can be stored digitally on any local computer and printed for inclusion in the aircraft files. Presets allow for quick aircraft certifications or the pre-programmed 91.411 preset can be used for certifying altitude-indicating systems.

For more information, visit www.ais-inst.com.

#### **AIRCELL**

Aircell, headquartered in Broomfield, Colo., exhibited the new ATG 4000 high-speed Internet system for business aviation aircraft, a modular add-on to the Aircell Axxess cabin system.

The one-box, one-LRU system weighs 11 pounds and is 3-MCU large. Powered by the Aircell network, the Aircell high-speed Internet system allows passengers and crews to use their own Wi-Fi-enabled devices, such as laptops, smartphones and PDAs to surf the Web, send and receive e-mails with attachments, instant message, and access corporate VPN



Aircell's high-speed Internet system at work in a business jet cabin.

in-flight. The Aircell network utilizes the 3G mobile wireless technology, operating in the U.S. over a network of ground stations and Aircell's own broadband air-to-ground spectrum.

For more information, visit www.aircell.com.

#### **ASPEN AVIONICS**

Aspen Avionics of Albuquerque, N.M., exhibited its EFD1000 multi-function display and the

EFD500 multi-function display. The MFDs are part of Aspen Avionics' Evolution flight display system, which uses a patented modular approach to bring glass cockpit capabilities to GA aircraft.

The EFD1000 MFD combines moving maps, data-link weather and traffic interfaces, a built-in terrain awareness database, flight information pages and other tools with a duplicate set of air-data, attitude and heading sensors. The EFD500 MFD



Aspen Avionics' EFD1000 multifunction display

is a lower-cost version providing moving maps, hazard awareness displays and flight-plan information without the added expense of an additional ADAHRS set.

For more information, visit www.aspenavionics.com.

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### NEW PRODUCTS Continued from page 17



The Avidyne
MLX780 provides
data-link graphical weather and
airborne telephone capability for EX500- and
Entegra-equipped
aircraft.

#### AVIDYNE CORP.

Avidyne, headquartered in Lincoln, Mass., introduced its new MLX780 Iridium-based transceiver, which provides worldwide airborne telephone and two-way data-link weather capability.

Designed for cabin and cockpit use, the MLX780 features an industry-standard handset and third-party dialer interfaces, plus an industry-standard audio panel interface that allows pilots to communicate directly through their headset.

Avidyne also announced the company's CMax electronic approach chart software with Jeppesen's worldwide coverage of airport diagrams now is standard on all new EX500 and EX5000 multi-function displays. A CMax upgrade option is available for current EX500 and EX5000 MFD customers.

In addition, Avidyne introduced its new TAS600A Series of ADS-B-capable traffic advisory systems and an upgrade path to add ADS-B capability to existing TAS600 Series systems.

For more information, visit www.avidyne.com.

#### **CAPITAL AVIONICS**

Capital Avionics of Tallahassee, Fla., displayed its new CA-5000S automatic test equipment, which offers increased versatility in speed, signal generation and measurement.

Combining the best aspects of the previous design and legacy systems with new technology, the CA-5000S uses two basic methods of providing for tests—PXI with PCI eXtensions for instrumentation and LXI, which is a local area network eXtension for instrumentation.

The CA-5000S is capable of manual, computer-assisted and fully automatic tests, and can

generate and measure a full suite of signals, including complex RF schemes.
Utilizing open source hardware and software, the CA-5000S offers a flexible, versatile test solution that is also expandable.



In cooperation with Honeywell, the company also developed all-new, updated test procedures.

For more information, visit www.capitalavionics.com.

#### **CROSSBOW TECHNOLOGY**

Crossbow Technology of San Jose, Calif., exhibited its new AHC525 attitude heading reference card. The company expects DO-178B Level A approval fourth quarter 2009.

The AHC525 Level A-certified attitude heading reference card is a high-performance, embedded AHRS specifically designed for integration within glass cockpit systems, flight management systems and standby attitude indicators. Integrating the AHC525 inside the avionics system enclosure provides significant reductions



Crossbow Technology's AHC525 attitude heading reference card

in overall cost, size, weight and power, according to Crossbow.

> Crossbow's AHC525 offers 0.5 deg accu-

racy, and it meets the AHRS TSO performance requirements without external aiding. A flexible architecture includes expansion options allowing for customer-specific features and/or interfaces.

For more information, visit www.xbow.com.

#### **DPI LABS**

DPI Labs of La Verne, Calif., launched an auto-switching iPod cradle with A/V input that integrates a 30-pin connector and RCA audio/video inputs in a single, slim 1-inch x 4.8-inch assembly. The aluminum cradle's internal circuitry allows for iPod charging from standard aircraft power and is compatible with nearly all iPod models.



DPI Labs' auto-switching iPod cradle

When docked, the audio and video source is automatically derived from the iPod. When undocked, the RCA connectors provide input from other media devices, such as a Zune, iPod Nano, cam-

corder or portable DVD player.

Left- and right-hand models with and without lids are available and typically can be installed in a side ledge or compartment. Each model features a removable upper bezel, which can be plated to customer specification.

For more information, visit www.dpilabs.com.

#### **EMS SATCOM**

EMS Satcom, a division of EMS Technologies, displayed its next-generation eNfusion AMT-700 high-gain antenna.

Mechanically steered and designed for aircraft tail-mounting, the

AMT-700 HGA is a small high-performance solution ideal for smaller aircraft.

Composed of two LRUs, the AMT-700 features lower power consumption, higher gain and a small footprint. It is specifically designed to meet or exceed



EMS Satcom's eNfusion AMT-700 high-gain antenna

SwiftBroadband requirements.

The new antenna is lighter and offers equal or better performance than the AMT-50 HGA, according to EMS Satcom. The antenna control functions have been integrated into the antenna package, offering more flexible installation.

The new tail-mounted satcom antenna offers multi-channel capability and is compatible with most satcom systems on the market. The first variant will be DC-powered with an AC model to follow.

For more information, visit www.ems-t.com.



EMS Sky Connect's MMU-II satellite communications interface

#### **EMS SKY CONNECT**

EMS Sky Connect introduced its MMU-II, a satellite communications interface that includes Wi-Fi capability and a full-function keyboard for text messaging and dialing phone numbers. The Dzus rail-mounted, second-generation mission management unit includes a phone directory with specialized categories, pre-stored text messages, quick-fill forms and short message service-type entry. Built-in Wi-Fi enables a PDA, smart phone or laptop to generate and receive typical e-mails wirelessly.

The system is part of the company's Forté architecture, which includes a cordless phone with intercom function between the cabin and the cockpit. It can handle four simultaneous handsets and multiple-line calling.

An optional tracking function enables the aircraft to be tracked anywhere in the world using the Iridium short-burst, data-transmission scheme.

For more information, visit www.skyconnect. aero.

#### **EMTEO**

EMTEQ of New Berlin, Wis., introduced SkyPro, an all-digital cabin management system providing entertainment, productivity and networking tools for passengers. Partnering with Custom Control Concepts, EMTEQ utilizes a series of customizable modular units paired with equipment such as a Blu-ray player, CD player, iPod dock and others to create a truly customized fit for corporate business aircraft.



EMTEQ's new SkyPro is an all-digital cabin management system.

SkyPro's typical office productivity capabilities include video conferencing, teleconferencing, text messages, e-mailing, faxing, printing and scanning. The high-definition audio/video

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distribution network is compatible with any satcom system from any provider. Touch-screen control graphics are customizable and provide passengers with full control over aircraft cabin functions at their seat.

EMTEQ also displayed its new ELW90 LED wash lighting product, which incorporates RS485 and digital control.

For more information, visit www.emteq.com/skypro.

#### **FLIGHT DISPLAY SYSTEMS**

Flight Display Systems of Alpharetta, Ga., introduced several new products, including the FD932DVD-BLU, its new Blu-ray and DVD player; the FD800JBOX Jet Jukebox; an iPod



Flight Display Systems' Select CMS

docking station; and Select CMS, a new cabin management system.

Select CMS allows passengers to manage audio, high-definition video, window shades, lighting, temperature and other cabin amenities with a touch-screen interface. The system supports retrofit projects of all sizes, from

smaller turboprop aircraft and helicopters to wide-body airliners.

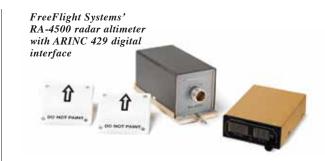
Flight Display's FD932DVD-BLU supports traditional DVDs and includes both HDMI and composite (NTSC) output, making it backward compatible with older LCD and plasma monitors.

Capable of storing 100 DVD movies or 500GB of MP3 music, the Jet JukeBox is a high-definition media server allowing passengers access to a digital library of DVDs, CDs and images.

For more information, visit www.flightdisplay.com.

#### FREEFLIGHT SYSTEMS

FreeFlight Systems displayed its TSO-certified, RA-4500 radar altimeter with ARINC 429 digital interface. Compatible with most electronic flight instrument systems, the altimeter is designed to enhance operational safety for



pilots flying approaches at night or over irregular terrain.

Consisting of a remote unit and dual antennas for increased accuracy, the RA-4500 provides precise altitude above-ground-level information from 0 to 2,000 feet. The unit weighs 1.9 pounds and is about half the price of comparable systems, according to FreeFlight Systems. It comes with an optional RAD-40 panel-mount indicator, providing height-above-ground level to the pilot on a bright LED read-out.

The Waco, Texas-based company also has several new products on the horizon, including a rugged mass memory unit, which attaches to the cockpit/exterior video recorder and a 978 MHz UAT ADS-B data-link.

For more information, visit www.freeflightsystems.com.

#### **GARMIN INTERNATIONAL**

Garmin showed off its portable GPSMAP 695 and GPSMAP 696, which

display airways, electronic charts and expanded weather. The GPSMAP 696 is an all-new, tablet-style device with a large, 7-inch screen. The GPSMAP 695 is similar to GPSMAP 696, minus XM WX satellite weather.

The Olathe, Kan.based company introduced its GDU 370 and



Garmin's GPSMAP 696

GDU 375 multi-function displays developed for the light-sport retrofit and experimental aircraft markets. The non-certified GDU 370 and GDU 375 are based on the GPSMAP 695/696 and designed to network with other Garmin products.

The non-certified GTX 330 and GTX 33 transponders with 1090 MHz extended squitter transmission capabilities were also on display at the show.

Garmin is offering the ES technology as a retrofit upgrade option for GTX 330 and GTX 33 units already in the field or as an optional upgrade on newly purchased GTX 330 and GTX 33 transponders.

For more information, visit www.garmin.com.

#### **GEOEYE**

GeoEye, which specializes in satellite imaging and airport mapping, announced it now offers civilian databases.

On Sept. 6, 2008, the Dulles, Va.-based company launched its new GeoEye-1 Earth-imaging satellite from Vandenberg Air Force Base in California, and it now is able to provide airport data maps for avionics manufacturers and other commercial vendors.

GeoEye-1 imagery products and solutions are available in half-, one-, two- and four-meter ground resolutions. Imagery products are available in color or black and white. Color imagery

comprises four bands: blue, green, red and near-infrared.

The company, which can deliver airport mapping for any airport in the world in 2-D or 3-D, also makes terrain databases for terrain awareness warning systems.

For more information, visit www.geoeye.com.

#### **GLOBAL JET SERVICES**

Global Jet Services, the Weatogue, Conn.-based company specializing in aviation maintenance and professional training, announced it is offering new Web-based training courses: three NCATT Aircraft Electronics Technician (AET) courses and the Barfield DPS-450 air-data test system training.

The fully interactive, eight-hour e-learning courses are FAA-compliant and approved inspection authorization online training.

The AET 1 course includes training on basic AC/DC currents and circuit theory calculations as well as on resistors and troubleshooting and repairing DC circuits. AET 2 offers training for

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intermediate electronics while AET 3 focuses on advanced electronics with training on digital conversions and more.

The Barfield DPS-450 training teaches students the fundamentals of the pitot-static system and how to use the test set to perform the required testing, including leak tests, on the system and its related components.

For more information, visit www.globaljetservices.com.

#### HONEYWELL AEROSPACE

Honeywell Aerospace exhibited its 6.1 software upgrade for the FMZ-2000 flight management system.

In addition to basic FMS improvements, the 6.1 software update enables required navigation performance approaches in SAAAR and non-SAAAR environments down to 0.1

nm during approach. It allows aircraft to receive and process GPS/WAAS signals to fly new LPV approaches.



Honeywell's Ovation Select 200C PCU for C-Series CMS

The upgrade

includes automatic dependent surveillance-contract and CPDLC software to meet the FANS 1/A requirements to fly the oceanic FANS 1/A routes.

Honeywell also displayed its new cup-holder media dock for C-Series CMS. The dock, which is available in single and dual cup holders, offers fully integrated iPod/MP3 audio/video distribution.

Also on exhibit, Honeywell's Ovation Select 200C PCU (Passenger Control Unit) for C-Series CMS features an intuitive graphical touch-screen interface with slide and select similar to Apple's iPod Touch and iPhone products.

For more information, visit www.honeywell. com.

#### INTERNATIONAL **COMMUNICATIONS GROUP (ICG)**

International Communications Group (ICG)

enhancements to NxtMail. announced enhancements to NxtMail, the Newport News, Va.based company's data-link communications system. It offers easier, more flexible installation in virtually any aircraft and can be interfaced with the Iridium satellite network and Inmarsat SwiftBroadband.

 $CG_{announced}$ 

The enhanced design includes an external remote antenna and an integrated Wi-Fi card that supports a variety of Wi-Fi-enabled devices, including the BlackBerry and iPhone.

The NxtMail server is now configured to connect to an Inmarsat SBB terminal as a complimentary installation, as well as to Iridium as a single radio, as before. The enhanced NxtMail server facilitates and manages communications and data routing, switching seamlessly between data-link providers.

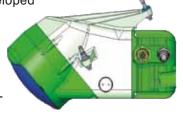
For more information, visit www.icg.aero.

#### **JETCRAFT AVIONICS**

Jetcraft Avionics showed off the new Kollsman advanced technology head-up display, a small, lightweight system designed for aftermarket business and corporate aircraft. The overhead unit is designed to be adapted for various cockpit types with minimal internal and external changes. According to the Augusta, Ga.-based company, this is the first HUD developed

to display its own enhanced vision system.

For the display, the product uses infrared technology, which is overlaid by flight information from the aircraft, and HUD symbology. The system con-



A side view of the new Kollsman advanced technology head-up display introduced by Jetcraft Avionics.

sists of a remote computer, overhead unit and combiner with built-in controls.

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The system is designed to meet current and future FAA and European Union Operations landing credit. Jetcraft is the only non-OEM distributor of EFVS for pre-owned and aftermarket business aircraft. The system is expected to be available first quarter 2010.

For more information, visit www.jetcraft.com.

#### **KANNAD**

Guidel, France-based Kannad, which designs

and manufactures emergency locator transmitters, introduced its new 406 AF-Compact extended range ELT; a newly designed universal mounting bracket; and the RC102 retrofit remote control switch.



Kannad's 406 AF-Compact features a new universal mount.

The 406 MHz

frequency ELT offers an extended temperature range of minus-40 degrees Celsius to 55 degrees Celsius; the only beacon on the market in the general aviation category to be certified to this temperature range.

In addition to the extended temperature range to meet Class 1 Cospas-Sarsat requirements, the ER version adds a two-wire, remote-control panel option, universal mounting bracket option and satellite status reporting with the "Manage Your Beacon" service.

The unit requires no aircraft power, and the required audible alarm is built into the ELT, thereby reducing installation labor. The new universal mounting bracket is compatible with all existing 121.5 MHz beacons on the market.

For more information, visit www.kannad.com.

#### L-3 AVIONICS SYSTEMS

L-3 Avionics Systems of Grand Rapids, Mich., exhibited its new Trilogy ESI-1000 electronic standby instrument.

Designed as a backup for glass cockpit avionics, Trilogy is the first solid-state integrated standby system created specifically for Part 23 aircraft.

Trilogy combines attitude, altitude, altitude, airspeed and optional heading data on a 3.7-inch diagonal active matrix LCD display. The



L-3 Avionics Systems' Trilogy ESI-1000

instrument fits into a standard 3-ATI mounting cutout.

With an integrated air-data computer, solidstate attitude sensor and optional external magnetometer, Trilogy presents accurate flight information independently of other systems. An ambient light sensor is integrated for automatic brightness control on both the screen and keyboard.

For more information, visit www.L-3Avionics. com.

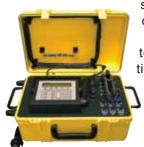
#### **LAVERSAB**

Laversab of Sugar Land, Texas, introduced two new products: the Model 6150 digital airdata and leak tester, and the Model 6600 pitot-

static tester with three outputs.

Designed for helicopters, small general aviation aircraft and for airline line maintenance, the 6150 is fully digital with integral pumps.

The highly accurate digital transducers make it suitable for performing leak checks on RVSM-



Laversab's Model 6600 pitot-static tester

capable aircraft. Built-in, high-capacity vacuum and pressure pumps allow leak checks on any type of aircraft. A battery-powered option is available.

Designed for aircraft with smart probes, the 6600 features one static output, one pitot output and a third differential output. Pre-set profiles make it easy to run a test by pressing a single key on the remote unit.

The 6600 meets RVSM requirements, and both testers require no maintenance and require calibration just once a year.

For more information, visit www.laversab.com.

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#### **MID-CONTINENT INSTRUMENTS**

Mid-Continent Instruments, based in Wichita, Kan., introduced the MD800 Series emergency power supply, the first with lithium nanophosphate technology.

MidContinent
Instruments'
MD800 Series
emergency power
supply

A direct replacement for older Goodrich PS-

835 units, the MD800 Series automatically provides power for standby equipment during aircraft power loss or interruption.

In addition to weighing less, the MD800 charges faster, costs less and is easier to maintain, according to Mid-Continent Instruments. The 4.6 amp-hour battery system uses the same mating connector and mounts in a standard 1/4 ATR rack.

Mid-Continent Instruments also announced the MD50 static inverter, which supplies power for cabin accessories, such as laptops, cell phones and mp3 music players. Producing 500 watts of AC power, the MD50 converts 28 volt DC input into 115 volt AC, 60 Hz with a true sine wave.

The unit is smaller than traditional inverters, but with the same connector and footprint of legacy designs.

For more information, visit www.mcico.com.

#### PWI INC.

PWI of Wichita, Kan., introduced its new Univolt, a power converter that can be utilized

in a variety of formats, from recreational vehicles and over-the-road trucks to watercraft and aircraft.

In airplanes, it is ideal as a converter for emergency lighting, capable of switching back and forth between main power and the battery backup without recon-



figuration. The Univolt automatically adjusts to the input power source whether it is regulated or not to maintain a constant light output.

The patented Univolt is an energy-efficient driver for cold cathode fluorescent lamps and LED lighting. It accepts a wide range of input voltages from 12 volts through 120 volts at frequencies from DC to KHz (AC) without the need for configuration. Univolt provides 40,000 hours of life on CCFL lights.

For more information, visit www.pwi-e.com.

#### **ROCKWELL COLLINS**

Rockwell Collins of Cedar Rapids, Iowa, announced it is rolling out 15 certified LPV solutions for business aircraft over the next year to allow operators to take advantage of WAAS.

Future solutions are slated for Cessna Citation jets, Hawker aircraft, the Beechjet 400A, and

several Falcons.

An update to Rockwell Collins' TDR-94/94D transponders



Rockwell Collins' WAAS LPV solution

— the TDR-94D-409, which is offered primarily as a retrofit solution — now is available to comply with the new ADS-B mandate in Australia, and the pending 2009 restrictions in the Hudson Bay.

Rockwell Collins also announced that Duncan Aviation completed the first Pro Line 4 to Pro Line 21 upgrade on a Falcon 50EX. The retrofit program uses existing Pro Line 4 equipment along with key Pro Line 21 equipment to provide the upgraded functionality.

For more information, visit www.rockwellcollins.com.

#### SANDEL AVIONICS

Sandel Avionics of Vista, Calif., displayed its new ST3400H helicopter terrain awareness and warning system, which meets the new FAA TSO-C194 governing HTAWS.

The 2.9-pound system integrates a built-in TAWS computer with an integrated LED-backlit display. The 3-ATI package can be installed in

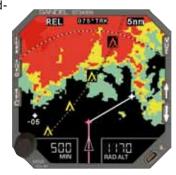
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place of an existing radar altimeter indicator, reducing the cost of installation and eliminating the need for a separate multi-function display

required with blindremote TAWS computers.

The ST3400H has the capability to overlay traffic from TCAS or TAS systems. The system is ruggedized for the helicopter environment. It meets DO-160F helicopter vibration standards and has



Sandel Avionics' ST3400H helicopter terrain awareness and warning system

an MTBF of more than 10,000 hours.

For operations with night-vision goggles, the ST3400H is available with Sandel's proprietary on-demand Class-B NVIS mode.

For more information, visit www.sandel.com.

#### **SOUTHEAST AEROSPACE**

Southeast Aerospace of Melbourne, Fla., has been appointed as the primary North American distributor for United Kingdom-based Trig Avionics, which recently announced two Mode S transponders now are available in the United States.

The systems are the TT21 and the newly TSO-certified TT31.

Already a widely used transponder in Europe, the TT31 is a solid-state, 240-watt digital transponder with timer, altitude display and 1090 ADS-B output. It is a plug-and-play replacement for Bendix/King KT-76A/C and KT-78A transponders.

The compact remote-mount TT21 transponder



Southeast Aerospace is the primary North American distributor of the newly TSO-certified TT31.

weighs just over 1 pound and fits into a 2 1/4-inch instrument opening. The Level 2 Mode S transponder also includes a built-in, 30,000-feet encoder with about 5-watt power usage and 1090 ADS-B output.

For more information, visit www.seaerospace.com.

#### **TEAM AVIATION SALES**

Team Aviation Sales introduced DFW Instruments' new DPST-9200A automated RVSM pitot-static test set. In addition to testing the systems onboard aircraft, it also can be used in maintenance shops to calibrate air-data test sets.

A handheld remote terminal provides full control of test-set functions while observing aircraft instruments, such as altimeters, airspeeds/ Mach indicators and rate of climb indicators. The touch-screen display offers a graphical reproduction of all three primary instruments, as well as provides numerical data. The test set weighs 35 pounds, comes with a storm case with handle and wheels, and fits in an overhead storage compartment.

DFW
Instrument
Corp., an
FAA-certified
repair station
in Carrollton,
Texas, manufactures and
repairs RVSM
pitot-static
test equipment. Team
Aviation Sales.



Team Aviation Sales introduced DFW Instruments' new DPST-9200A.

an aircraft electronics and equipment reseller, is based in Crossroads, Texas.

For more information, visit www.dfwinstruments.com or www.teamaviationsales.com.

#### TRANS-CAL INDUSTRIES

Trans-Cal Industries of Van Nuys, Calif., debuted three new products: the SSD120-100N-SDR serial data repeater; SSD120-(XX) N-RS5 altitude digitizer; and the ADS-100 altitude data simulator.

The solid-state Model ADS-100 simulates the output of altitude encoders/digitizers in both parallel and serial (RS232) data formats.



Trans-Cal Industries' ADS-100 altitude data simulator.

Designed to substitute for an altitude encoder when testing and troubleshooting an aircraft's altitude reporting system, the ADS-100 provides two RS232-compliant outputs, in addition to the ICAO pressure altitude code in a single test box.

Model SSD120-100N-SDR serial data repeater is a solid-state serial data repeater that transmits serial data to multiple aircraft systems, driving up to 10 RS232 devices with one or two channels of input.

The SSD120-(XX)N-RS5 is a solid-state altitude encoder/digitizer capable of driving up to five RS232 devices with a single encoder.

The E models, which offer an extended operating temperature range down to minus-50 degrees Celsius, now have DO-160E Cat W water resistance.

For more information, visit www.trans-cal. com.

#### TRUENORTH AVIONICS

TrueNorth Avionics of Ottawa, Canada, exhibited its new Simphonē Global broadband (SGBB), a satellite-based, high-speed data system designed

for business aviation.

The compact, 20-pound system provides cabin broadband data throughout the flight, including on the ramp and



at altitudes below 10,000-foot AGL.

Compatible with the Simphone Chorus system, Simphone Global broadband offers initial service via Inmarsat Swift 64, eventually transitioning to Swift BroadBand.

TrueNorth also added a data router to the

company's Simphonē Chorus product, which is a worldwide telephone system and scalable, configurable cabin network.

Simphonē Duo now includes integrated Wi-Fi and supports the BlackBerry network over Iridium as a standard feature.

For more information, visit www.truenorthavionics.com.

#### UNIVERSAL AVIONICS SYSTEMS CORP.

Universal Avionics Systems Corp. of Tucson, Ariz., showed off its new cockpit voice and flight data recorder with internal recorder independent power supply capability.

The system includes five different models and offers customizable recording capabilities.

The CVFDR's internal recorder independent power supply option provides a backup power source in the event of a main power



failure, allowing data recording for up to 10 minutes afterward.

Universal's CVFDR meets the NTSB's recommendations as well as the FAA's recently released requirements for cockpit voice and flight data recording.

Universal Avionics also announced another approval for its WAAS/SBAS-capable flight management system.

An FAA STC was awarded to Duncan Aviation for a dual UNS-1Ew installation in the Lear 45 aircraft. The STC, which included LPV capability, covers Lear 40 and 45 models.

For more information, visit www.uasc.com.

For more information about about these AEA member companies, visit www.aea.net.