NBAA 2014 Spotlight Announcements

New Product Announcement

Be sure to watch the National Business Aviation Association (NBAA) 2014 – Business Aviation Convention and Exhibition news to learn about an exciting press announcement from Universal Avionics.

Exclusively for our customer newsletter readers – to the right, see the sneak peak of our exciting new product that will be announced on the first day of the show.

Join us in our Booth, Number 273, on Tuesday, October 21st at 11:00 AM for the launch of this new product and learn more about how we are redefining the avionics landscape with this exciting announcement. Ted Naimer, Universal Avionics President and Chairman of the Board, will lead the unveiling and invite attendees to experience the new product at our in-booth demonstration. Demonstrations will be available after the unveiling during exhibit hall hours Tuesday, October 21st through Thursday, October 23rd.

Our Cessna Citation VII with this new product installed will also be at the Static Display of Aircraft, held at Orlando Executive Airport. Our Cessna Citation VII can be found in Space Number 440. Transportation to Static Display is accessible via the NBAA shuttle, available from the Orange County Convention Center (OCCC) on show days.

We’ll see in you in Orlando!

TSO Approval Imminent for SCN 1001 / 1101

Federal Aviation Administration (FAA) Technical Standard Order (TSO) approval for Universal Avionics Satellite-Based Augmentation System (SBAS)–Flight Management System / Multi-Missions Management System (FMS / MMMS) Software Control Number (SCN) 1001 / 1101 is imminent. This major software release includes several new features to enhance operational efficiency and support special mission operations. Some of the new features include:

- Flight Plan Wind upload from the UniLink® UL-800 / 801 Communications Management Unit (CMU)
- Maximum Indicated Airspeed (VMAX) display function
- Improved Selected Crosstrack (SXTK) function with offset waypoints created and displayed
- Improved user interface for activation and operation of search patterns
- Continuous updates for SBAS Level of Service (LOS)
- Direct To Operations (DTO) function that allows the pilot to choose the turn direction
- Magnetic Variation tables loaded with NAV Database updates when required
- Airdrop, an optional module for the MMMS that calculates an Air Release Point (ARP), and provides guidance and steering position offset where the delivery should exit the aircraft for a landing at the desired drop zone
- FlexPerf™ Trip Performance, an optional module for the SBAS–FMS and MMMS that provides advanced fuel saving predictions for aircraft performance in Climb, Cruise and Descent phases of flight

For more information, please contact a Universal Avionics Regional Sales Manager. To locate a Regional Sales Manager near you, visit [www.uasc.com/sales/reps.aspx](http://www.uasc.com/sales/reps.aspx) or call (520) 295-2300 • (800) 321-5253.
Falcon 900B Program Gains Momentum

Falcon 900B operators love flying the Universal Avionics flight deck upgrade. Come learn why – visit us at NBAA in Booth Number 273 and see an interactive demo. Find out how this established upgrade, including Future Air Navigation System (FANS) 1/A+ and Controller-Pilot Data Link Communications (CPDLC) technology, can benefit your operations. The Universal Avionics / Duncan Aviation upgrade program provides new technology that the Falcon 900B community has been asking for. It offers significant improvements beyond current new-production aircraft, and is specifically developed for minimal transitional flight crew training. It’s a reliable investment in proven technology. For more information, please contact a Universal Avionics Regional Sales Manager or Duncan Aviation, or visit www.uasc.com/Falcon900B.

GSA Announces Grant Money for SBAS Equipage

Equip with Universal Avionics EGNOS SBAS Solution Today

The European Global Navigation Satellite Systems Agency (GSA) knows the value of SBAS equipage for operators and air safety. The agency has recently announced grant money availability to encourage operators to equip with the satellite technology.

Benefits of European Geostationary Navigation Overlay Service (EGNOS) SBAS Equipage

- Reduction of delays and diversion
- Improved operational capability by providing backup to Instrument Landing System (ILS)
- Reduced fuel burn
- Access to new destinations served by Local Performance with Vertical Guidance (LPV) / Approach Procedure with Vertical Guidance (APV) approaches
- Improved safety – Precision navigation means lower probability of Controlled Flight Into Terrain (CFIT)

With over 79 airports participating so far, and an anticipated 400+ procedures expected by 2018, the number of SBAS-based procedures in Europe is growing at a record pace.

Universal Avionics EGNOS SBAS Solution

- Proven retrofit on over 50 aircraft types
- Embedded EGNOS receiver in the FMS
- Three-dimensional coupled LPV approach
- Meets the sensor position and integrity requirements for Automatic Dependent Surveillance–Broadcast (ADS–B)
- Ensures compliance with Precision–Area Navigation (P–RNAV) requirements
- Easily upgradeable from existing Universal Avionics FMS installations
- Key element of Performance–Based Navigation (PBN) and Required Navigation Performance (RNP) / Area Navigation (RNAV)
- Compatible with the other regional SBAS around the world: Wide Area Augmentation System (WAAS), Multi-functional Satellite Augmentation System (MSAS) and GPS-Aided Geo-Augmented Navigation (GAGAN)

GSA Announces Grant Money for SBAS Equipage

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From the Flight Deck

Discussing FANS with Universal Avionics’ Manager of Airworthiness and Flight Operations

For this issue of The Universal Flyer, we asked Paul Damschen, Universal Avionics’ Manager of Airworthiness and Flight Operations, to discuss the Future Air Navigation System (FANS). Here’s what he had to say:

The Universal Flyer: What is FANS?
Paul: This is a big question and requires some background to address it. The Future Air Navigation System, or FANS, is the result of the need for better surveillance in the remote areas of the world. The International Civil Aviation Organization (ICAO) originally chartered a special committee on this subject as far back as 1983. This group issued a report, published in 1988, which created the basis for the elements necessary to support FANS.

The Universal Flyer: What are some FANS technologies?
Paul: The elements of FANS are composed of a satellite-based digital communications network known as Controller-Pilot Data Link Communications (CPDLC), and Automatic Dependent Surveillance (ADS). Many of us are now familiar with ADS–Broadcast (ADS–B) due to the impending requirements in 2020. However, for FANS we have a variant known as ADS–C, which stands for ADS–Contract. This largely works behind the scenes of FANS systems and allows the Air Traffic Controllers (ATC) to create a contract with the aircraft, transmitting data at a requested time interval.

The Universal Flyer: Can you tell us more about CPDLC?
Paul: The basic analogy for CPDLC is having a text messaging system integrated into your aircraft Flight Management / Data Link System. This system transmits both canned responses, such as “wilco” to a requested altitude clearance or route change, or a free text message to the controller which would be very similar to the text messaging on your smartphone. The data link can be either satellite-based communication, or by VHF if you are within coverage of a ground transceiver.

The Universal Flyer: What benefits does CPDLC offer?
Paul: Anyone who has flown in worldwide flight operations knows the difficulty of communication in remote areas. You have to deal with controllers who may not be as fluent in English as desired, communications may be poor in quality to the point of being unintelligible, or communications aren’t available at all. CPDLC eliminates all of these issues with clear, concise text messages that are reliably transmitted.

The Universal Flyer: Where is CPDLC currently being deployed?
Paul: There have been test areas in the Caribbean in the past, but primarily FANS / CPDLC has been implemented in the truly remote oceanic areas where chronic communications issues exist. This allows for improved surveillance of aircraft whereas only procedural control was available by radio before, which demanded large airspaces dedicated for aircraft given the vagaries of an aircraft’s actual location. With FANS and GPS, an aircraft’s actual position can be known anywhere in the world through ADS–C position transmissions.

The Universal Flyer: What equipment is required for installation approval of FANS?
Paul: The Universal Avionics package consists of an SBAS–FMS and UniLink® UL-800 / 801 CMU. An appropriate SATCOM approved for safety services is also required.

The Universal Flyer: How do you obtain FANS operational approval?
Paul: There is a defined process which is discussed at length in Universal Avionics’ “Understanding the Future Air Navigation System (FANS) 1/A Operations and Regulatory Requirements” White Paper. It outlines the need for flight crew training, and the requirements for submission to obtain a Letter of Authorization (LOA) from your local Flight Standards District Office (FSDO). A copy of the white paper is available at www.uasc.com/fans.

Look for more pilot tips, tricks and talk from Paul in future issues of The Universal Flyer. For a CPDLC demonstration, stop by our Booth, Number 273, at NBAA 2014 in Orlando, Florida.

Top Ratings Continue for Universal Avionics Support

Universal Avionics has once again ranked as one of the top cockpit avionics manufacturers, holding onto second place for the second year in a row in this years’ AIN Avionics Product Support Survey (September 2014 issue). Noticeable areas of improvement from AIN’s 2013 Avionics Product Support Survey included AOG Response, Warranty Fulfillment, Technical Manuals, Technical Reps and Overall Product Reliability. Our consistently high support ratings in industry publications prove our commitment to overall customer support, operation and reliability.

Thank you for your support; we look forward to another great year of serving you.

Source: AIN 2014 Product Support Survey
GSA Announces Grant Money for SBAS Equipage (continued)

Secure Your Money

From now through the end of October 2014, operators may submit a request to participate in the grant program, which provides funding to upgrade aircraft with SBAS equipment. Submit for your SBAS grants today to secure the longevity of your aircraft in the future.

Please Contact Your Regional Sales Manager for Details on How to Apply

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