

THE UNIVERSAL[®] FLYER

The FMS You Need for ADS-B Out

Automatic Dependent Surveillance-Broadcast (ADS-B) Out mandates are being planned and implemented worldwide, affecting almost all aircraft operators. You will be affected if you fly in any of these regions: Canada, USA, Europe, Australia, Singapore, Vietnam, Hong Kong and Taiwan.

In the National Airspace System (NAS), the FAA has mandated ADS-B Out by January 1, 2020. Deployment in Europe is underway via the Single European Sky (SES) initiative. In other airspace regions like Asia, Australia, Eurocontrol Region and Canada, it may be mandated even earlier.

Universal Avionics Satellite-Based Augmentation System (SBAS)-Flight Management System (FMS) is TSO-C146c approved and therefore, qualifies as the ARINC 743A position source required for ADS-B Out compliance.

While serving as the required navigation component of the ADS-B solution, the SBAS-FMS has extensive interface capability. It easily interfaces with existing and newly installed ADS-B transponders including the popular Honeywell RCZ-8XX Series and Rockwell Collins TDR-94D.

Your ADS-B solution includes:

- Universal Avionics SBAS-FMS
- Extended Squitter Mode S Transponder (choose from several on the market today)
- System Failure Annunciations (may require a RCU software upgrade to SCN 1016.0.7)

To learn more about ADS-B Out and how to comply with regulatory requirements around the world, visit:

www.uasc.com/ads-b.



UNS-1Ew SBAS-FMS

Product News and Company Highlights

Matching Advanced Avionics to Customer Needs

Sign-up for Pilot Training Today

Did you know that we provide hands-on training?

Our formal classroom training utilizes an iPad simulation of the Flat Panel Control Display Unit (FPCDU) and a computer-based simulation program specific to your Software Control Number (SCN).

Courses offered include:

- FMS Pilot Operational (complimentary for up to two pilots with every new FMS installation and major hardware upgrade)
- Custom FMS Operational
- Terrain Awareness and Warning System (TAWS) Operational
- FMS Maintenance
- UniLink[®] Installation and Maintenance
- UniLink Operational
- EFI-890R Advanced Flight Display Operational (on-site)

Training courses are available at one of two locations, in Tucson, Arizona USA and Wichita, Kansas USA. Custom and on-site training courses may also be arranged. To schedule training, please call (520) 295-2341 • (800) 595-5906 for the Tucson Training Center, or (316) 524-9500 • (800) 255-0282 for the Wichita Training Center.

Support Ratings Continue to Increase

We would like to thank all of our loyal customers as we have once again received high praise from you in Professional Pilot Magazine's 2015 Avionics Product Support Survey.

We are pleased to see that our overall score increased for the second consecutive year, with improvement in Product Reliability, Cost of Parts, Manuals or CDs, and Support from Manufacturer. We are even happier to have earned first place in Tech Reps and Speed in AOG Service. As always, these improvements and consistency in overall ranking reflects our commitment to providing stellar product and customer support services. We look forward to another great year of serving you.



"Such a great unit! We have the Universal UNS-1Espw and it's one of the best aviation investments we've made to allow more flexibility and visit more places with our Citation Excel. Making GPS precision approaches with the WAAS-LPV is wonderful and it has opened up airports in remote locations that we could not possibly have visited only a few years ago." – Alan Dusman, Aviation Department Manager, Hanover Foods, Citation Excel

"We're using the Universal UNS-1Ew installed in our Learjet 45 for worldwide operations. And we find this Flight Management System to be excellent as well as the backup support received from Universal Avionics." – Paul Damours, Chief Pilot, Skyservice Lifeguard, Learjet 45

THE UNIVERSAL FLYER

Dealer Spotlight: Clay Lacy Aviation



Brian Kirkdoffer, President and CEO of Clay Lacy Aviation (left) and Clay Lacy, Founder and Chairman of Clay Lacy Aviation

Clay Lacy Aviation is the only global aircraft charter and management company founded by an aviation icon. In 1964, Clay Lacy landed the first Learjet at Van Nuys Airport, introducing business aviation to Los Angeles. Four years later, he founded Clay Lacy Aviation as the first aircraft charter company west of the Mississippi, pioneering a new private jet era.

An airline captain, military test pilot, air race champion, aviation record-setter and aerial cinematographer, Mr. Lacy has accumulated more hours flying jets than anyone on Earth. He has logged 50,000 flight hours in more than 300 aircraft types, set 29 world speed records and performed over 2,000 film missions.

Starting with a single Learjet in 1968, the company now offers a wide range of aviation services, operates a diverse fleet of more than 75 aircraft and employs over 300 highly skilled professionals. Distinguished as the most experienced operator of private jets in the world, it provides leading aircraft management, charter, sales, acquisitions, FBO, maintenance, avionics, interiors and aerial cinematography services.

Clay Lacy Aviation operates two full-service private jet facilities at Los Angeles' Van Nuys Airport and Seattle's Boeing Field, with regional offices and aircraft operations based at 10 additional U.S. cities. It is a Class 3 and 4 FAA part 145 Repair Station; an Embraer authorized service center for the Phenom 100 and 300; and a Quest Kodiak authorized dealer and service center for the seven western United States, British Columbia, Alberta, Yukon and the Northwest Territories.



The view from above Clay Lacy Aviation's facility at Boeing Field (BFI) in Seattle, Washington, USA

Clay Lacy Aviation is the recipient of numerous industry awards. Its experienced team has earned global recognition for providing aircraft owners and jet travelers unequalled safety, service and value.

Universal Avionics Authorized Dealer

Clay Lacy Aviation has been a Universal Avionics Authorized Dealer since the inception of Clay Lacy's Avionics shop in 2008.

We asked Jim Lauer, Director of Avionics for Clay Lacy Aviation, about some highlights of working with Universal Avionics over the years. Mr. Lauer noted the following:

- "The company has cutting-edge technology and state-of-the-art products."

- "Universal Avionics is consistently at the forefront of what's next, a true innovator in our industry."
- "Outstanding customer and product support."
- "The team at Universal Avionics is responsive and knowledgeable."
- "It's easy to reach the right person when we have a question or need support."

Current Projects

In March, Clay Lacy Aviation's FANS 1/A+ solution for the Gulfstream GIV and GIVSP received FAA Supplemental Type Certification (STC), utilizing Universal Avionics equipment. The company is also developing a STC for FANS 1/A+ on the Gulfstream GV and Challenger 601-3A/R.

The Gulfstream GIV, GIVSP and GV FANS solution includes installation of the UNS-1Espw SBAS-FMS installed as a third FMS, UniLink® UL-801 Communications Management Unit (CMU) and CVR-120R Cockpit Voice Recorder. The Challenger 601-3A/R includes dual UNS-1Fw SBAS-FMS, UniLink UL-801 CMU and CVR-120R, along with the TrueNorth TN1007 FANS-1/A Iridium Data Link Unit.

Clay Lacy Aviation will install and sell both STC solutions, and make it available to Universal Avionics Authorized Dealers.



UNS-1Espw SBAS-FMS and UniLink UL-800/801 CMU

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About

The Universal Flyer is a quarterly publication produced by Universal Avionics Systems Corporation. This newsletter provides information about Universal Avionics as a company, its products and services as well as regulatory and educational information relevant to the owners and operators of business, regional and air transport aircraft.

Feedback

Your feedback is appreciated. Email your comments to: universalflyer@uasc.com.

Update

Receive The Universal Flyer by mail or email. Email universalflyer@uasc.com or call the Marketing department at (800) 321-5253 or (520) 295-2300 to update your profile.

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From the Flight Deck

Discussing Approach Activation with Universal Avionics Pilot Instructor – Customer Training

For this issue of *The Universal Flyer*, we asked Mike Michalski, Universal Avionics Pilot Instructor – Customer Training, to discuss approach activation with Universal Avionics FMS. Mike explained that this is a subject that sometimes pops up during his FMS training courses at our Training Center in Wichita, Kansas USA. Often times, operators don't know whether to manually activate an approach or to let it activate automatically. Here's more of what Mike had to say:



Mike Michalski, Pilot Instructor – Customer Training

You have recently installed a Universal Avionics FMS and can't wait to do more than an Instrument Landing System (ILS) or visual approach, so you request the full Area Navigation (RNAV) procedure. If you are within 30 miles of the Missed Approach Point, the FMS has automatically armed the approach, a preliminary step prior to activation. But the 3rd Line Select Key (LSK) on the right side of NAV Page 1 or 2 has now changed to read "ACT APPR →". Very tempting to press that key, especially if you have been cleared for the approach.



However, unless you are expecting (or are already on) vectors, manually activating the approach while on a leg of the approach transition can have potentially dire consequences due to the fact that in most installations, it will engage the Command Heading mode. Let's say you were in a turn when you pressed the key; it would level the wings to hold the heading at the moment of activation.



Also, the active (FR-TO) leg on the navigation page will change to: FR: INBOUND, TO: (typically) INTERMEDIATE FIX, thus removing the transition leg or reversal procedure from the NAV pages. In addition, you are locked onto present heading. This is not good if you were cleared for the full procedure. However, it is good if you were being vectored to final course.

Our strongest recommendation is to only activate the approach manually if you are being vectored. Otherwise, let the FMS automatically activate the approach at the proper point in the leg sequence, to continue to navigate to final.

For more information or to schedule a training class, please contact Katie Cornette at: (316) 524-9500 • (800) 255-0282 or kcornette@uasc.com. Look for Mike Michalski and Paul Damschen, Universal Avionics Manager of Airworthiness and Flight Operations, to provide unique pilot tips and tricks for Universal Avionics equipment in future issues of *The Universal Flyer*.

Recent Service Bulletins and Letters

Visit UniNet today at www.uasc.com/UniNet to download any of our Service Bulletins (SB) or Service Letters (SL), including the recently released ones listed to the right, from the Tech Pubs tab.

Service Bulletins are released for a number of reasons including software changes, modification status changes (hardware or software), and introduction of new products and software. Service Bulletins may also be used to alert the field of anything that Universal Avionics Engineering deems urgent through an Alert Service Bulletin.

Service Letters provide information discussing field issues, highlight information already or scheduled to be incorporated in existing documentation, notify operators of available or forthcoming vendor modifications, changes in material finishes, and more.

Be sure to check back in future issues of *The Universal Flyer* for new SB and SL releases.

SB / SL No.	Release Date	Title
SB3619	2/5/15	Installation of Software Control Number (SCN) 803.3/903.3 in the UNS-1C+, -1Csp+, -1D+, -1K+, -1E, -1Esp, -1F and -1K FMS/MMMS
SB3623	2/4/15	Installation of Mod 3 in the CVR-30
SB3622	2/4/15	Installation of Mod 2 in the CVR-30A
SB3624	1/27/15	Removal of Universal Flight Planning Software SCN 25.7 and Reinstall of SCN 25.6
SB3621	1/26/15	Installation of Mod 4 in the CVR-30B/120
SB3620	1/19/15	Installation of Mod 4 in the CVFDR, CVR and FDR
SB3562	1/14/15	Erroneous Guidance Caused by an Improperly Cancelled Holding Pattern



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Dealer Spotlight: Clay Lacy Aviation (continued)

To learn more about these FANS 1/A+ STCs, please contact your Universal Avionics Regional Sales Manager. To locate a Regional Sales Manager near you, visit: www.uasc.com/sales/rebs.aspx.

Additional information may be found at: www.claylacy.com/FANS.

Other News

Clay Lacy Aviation recently broke ground on a \$10 million, 6-acre expansion of their current headquarters facility at Van Nuys Airport. It is designed to be Los Angeles' most secure and private corporate aviation complex.

The South Campus is set to include 62,900 sq/ft of hangar, 20,562 sq/ft of office and 137,900 sq/ft of ramp.

An indoor event space will feature the display of Clay Lacy's iconic Lear 23.

More Information

Clay Lacy Aviation specializes in offering a comprehensive suite of aviation services for every stage of the ownership cycle from aircraft acquisition to upgrades, repair, management, charter and sales. As an owner and operator of business jets, the company has a thorough understanding of which upgrades provide the greatest return on investment for the aircraft owner either in the resale or charter market. For more information, visit: www.claylacy.com.

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