



April 1, 2008

THE UNIVERSAL[®] FLYER

Volume I, Issue I



Welcome!

Universal Avionics is pleased to present the first edition of The Universal Flyer quarterly newsletter. In each issue, we will provide you the latest product support and marketing news from Universal, including up-to-date information about new products, software and hardware releases, product integration, product support features, and more.

We've committed over 25 years to designing and manufacturing the most advanced avionics products for the general aviation industry. As our product line has grown to meet the ever-changing needs of the aviation community, we have continually strived to provide our customers with the most comprehensive information about the

installation and use of our products. As such, we introduce this newsletter with the hope that you find it full of helpful product information and support tips.

Since this is the first edition, we would be grateful for your feedback on the content and style of the newsletter. If you have any comments or topic ideas for the next edition, please email us at: universalflyer@uasc.com.

How Should We Reach You?

Receive The Universal Flyer by mail or email. To update your mailing preferences, email us at universalflyer@uasc.com, or call 1-800-321-5253. Please include quantity when requesting newsletter by mail.

WAAS FMS STC'd for Part 25 Aircraft!

On February 1st, Universal's WAAS-FMS was certified by the FAA for use on Part 25 (transport category) aircraft. This approval opens the door for WAAS-FMS installation on the balance of the fleet with Maximum Takeoff Weight over 12,500 lbs. The STC for WAAS-FMS on Part 23 aircraft was awarded in late 2007.

The WAAS-FMS allows operators to fly high precision Lateral Precision with Vertical Guidance (LPV) approaches, using guidance from the Wide Area Augmented System (WAAS) - the FAA's Satellite-Based Augmentation System (SBAS). LPV approaches, referred to as RNAV (GPS) LPV approaches on the approach chart, are the fastest



growing type of GPS approach in the U.S. To date, 1,028 such approaches exist, and the FAA plans to add an additional 300 LPV approaches per year.

The recent launch of ground reference stations in Canada and Mexico now provides seamless WAAS coverage throughout North America. The WAAS FMS is also com-

patible with other SBAS systems, including EGNOS in Europe, MSAS in Japan and GAGAN in India.

Use of the WAAS-FMS for LPV approaches currently requires a dual FMS installation. The new LP/LPV Monitor, due out 2nd quarter 2008, will provide LPV approach guidance capabilities when installed with the WAAS-FMS in single installation configurations (details on Page 2). LNAV/VNAV and LNAV-only guidance capabilities require only a single WAAS-FMS installation.

The WAAS Part 25 STC includes Bombardier CL-600, CL-601 and CL-601-3R's. WAAS-FMS meets FAA TSO 146b Gamma-3 and DO-229D certification criteria.

Why WAAS?

- ILS-like minimums - as low as 200 ft with 1/2 mile visibility
...with no reliance on airport ILS capabilities
- RNP-like accuracy of 0.3 NM on approach
...with no special operational approval from the FAA
- LPV & LNAV/VNAV approaches...
...with no procedural notes regarding minimum temperature restrictions and remote altimeter settings
- GPS approaches
... with no RAIM prediction

New Product News



LPV Capability - Now in Single WAAS-FMS Installs!

Universal introduces the LPV/LPV Monitor - an add-on for the WAAS-FMS that provides LPV precision approach guidance in single WAAS-FMS installations.

The LPV/LPV Monitor is a stand-alone 2 MCU line replaceable unit, installed with the WAAS-FMS, designed to meet the safety requirements of RTCA DO-229D for LPV approach guidance. The unit part number will be P/N 3116-52-1110 and include introductory software Precision Approach Subsystem (PAS) SCN 10.1.

The LPV/LPV Monitor does not require a separate Control Display Unit (CDU), navigation database or configuration module. All configuration parameters will be automatically loaded from the guiding FMS.

Installation certification basis for the LPV/LPV Monitor, per AC20-138a, is the same as the WAAS-FMS. Approval will be made through an additional configuration to the MDL for the existing WAAS-FMS King Air STC, TSO-146b.

Look for the LPV/LPV Monitor 2nd quarter of this year!

Solid State DTU - It's Coming!

The introduction of a new Solid State Data Transfer Unit (SSDTU) is scheduled for 4th quarter of 2008. Used to upload and download data, the SSDTU will feature flash memory technology replacing the floppy and ZIP disk technology of the Data Transfer Unit (DTU) and DTU-100, as well as the CD/DVD-ROM technology of the Accessible Data Unit (ADU).

The unit will contain two user-accessible media ports supporting Universal Serial Bus (USB) and Secure Digital (SD) mass storage devices.

The SSDTU will be compatible with the following Universal products (minimum software): FMS (SCN 304.0), ASU, UCD (SCN 32.0), TAWS (SCN 10.5), UniLink 70X (SCN 20.0) and Vision-1[®].

Jeppesen Chart loads will be supported with a CD-ROM to USB adapter.

Stay tuned for details!



Universal Adds Marketing Representative for Canada



In January, Norm Matheis joined Universal as the Regional Marketing Manager of Canada. In this role, Norm will be responsible for the overall growth and development of Universal sales and support in Canada.

With over 30 years of aviation experience, Norm is well-suited for the challenging new role of providing dedicated support for Universal's Canadian customer base.

Norm can be contacted at (905) 715-7411 or (800) 321-5253.

Software and Hardware Updates

FMS

SCN 803.1/903.1 approved 2/20/08. This minor software change incorporates many product improvements. Refer to Service Bulletin No. 3285 for more details.

SCN 1000.1/1100.1 approved 2/11/08. A new CDU message, "LPV/LPV APPR INHIBITED", was added.

TAWS

SCN 11.4 expected 2nd quarter. Among other minor improvements, this software change adds an Alerts Inhibit option for Special Missions operators.

EFI-890R

SCN 1017.1.1 expected 2nd quarter. Includes changes to the EFI-890R MLSA depiction.

EFI

SCN 1010.2.5 for the EFI-550, EFI-600 and EFI-640 approved 2/7/08. Incorporates many product improvements. Refer to Service Bulletin No. 3289 for details.

ASU/UCD

ASU SCN 32.2 and Mod 2, expected 2nd quarter. Mod 2 replaces C and D drives

(256MB, 4GB respectively) with an 8GB compact flash. SCN 32.2 contains many miscellaneous software updates, most notably, improvement to the Charts function.

CCP Mod 1 approved 1/28/08. Improves overall cursor control by replacing the center joystick with a new inverted joystick.

Notes from Product Support

AC 90-100A: Answers to a few common questions...

What does Advisory Circular 90-100A apply to?

FAA Advisory Circular 90-100A, *U.S. Terminal and Enroute Area Navigation (RNAV) Operations*, provides operational and airworthiness guidance for conducting RNAV Standard Instrument Departure (SID) and Standard Terminal Arrival (STAR) procedures in the U.S. This AC modified the equipment code notes on RNAV SIDs and STARs to include references to Type A or Type B procedures. Note that the AC has no effect on non-RNAV operations.

How can I determine if my Universal FMS can fly AC 90-100A procedures?

Universal has issued Service Letter No. 2804 "UASC FMS Compliance with FAA Advisory Circular 90-100A" which provides a list of compliant FMS units. Universal has supplied this information to the FAA for inclusion in their list of

compliant equipment available on the AFS-410 website. FMSs operating SCN 80X/90X and later are compliant, as are most older versions. Refer to Service Letter No. 2804 for details.

Some FMS models such as the UNS-IM/IMsp aren't on the list of compliant equipment. How does this affect me?

The UNS-IM/IMsp isn't on the list because SID and STAR procedures aren't contained in the navigational database. This means that such equipment cannot be used to fly RNAV SID or STAR procedures in the U.S. RNAV routes can be flown without retrieving the entire route from a database provided the individual waypoints are retrieved from a database.

What are the specific operational requirements of AC 90-100A?

A GPS RAIM prediction for the entire procedure, or route is required if any GPS satellites are



Bob Raterink, Manager
Product Support.

Located at Corporate Headquarters in Tucson, AZ., our Product Support department supports day to day technical issues Monday through Friday 0600 to 1700 MST. Onsite support is available on a case by case basis and with prior scheduling approval and support personnel availability. For questions about any Universal product, please don't hesitate to call Product Support at 1-800-595-5906.

out of service. Type B procedures require a CDI and use of either a flight director or autopilot coupled to the FMS. The procedure may require following a specific flight path as low as 500 feet above the departure airport. Type B procedures can specify either RNP 1.0 or RNP 2.0.

How can I comply with the RAIM prediction requirements of AC 90-100A?

Universal provides RAIM prediction software available at no cost via download from the Universal website. The Universal Flight Planning (UFP) program

also allows offline GPS RAIM prediction. In addition, the FAA has developed a RAIM prediction website for general use by all FMS users. Website address: www.raimprediction.net.

Operators may also meet the RAIM prediction requirements by confirming approach RAIM availability at departure/arrival airports. Approach RAIM capability can also be verified by contacting Flight Service Stations.

Can I fly these procedures utilizing Universal FMS units without GPS?

No.

Service Bulletins and Letters

SB/SL No.	Release Date	Title
SL2813	1/31/08	TAWS Airport Databases
SB3287	2/12/08	Installation of CCP Mod I
SB3281	2/19/08	Installation of EFI-890R SCN 1017.1.0
SB3279	2/7/08	Installation of UniLink 701 SCN 22.2
SB3280	2/7/08	Installation of UniLink 700 SCN 22.2
SL2815	3/19/08	Installation Considerations for Universal's WAAS FMS



All Service Bulletins and Letters are available for download via the UniNet section of our website. Visit www.uasc.com for more information.

If you have questions or concerns about a specific publication, please email techpubs@uasc.com.

Universal Avionics Systems Corporation, with corporate offices located in Tucson, Arizona, employs 450 people worldwide. Our clean, modern state-of-the-art facilities are designed for research and development, manufacturing, and testing. Universal is committed to providing advanced avionics systems that meet or exceed emerging communications and navigation requirements.

Universal Avionics' products are used on a large number of aircraft types from helicopters to business turbine aircraft to large commercial airliners. We offer a complete line of avionics designed from the pilot's perspective, including flight management systems, cockpit instrument displays, a terrain awareness and warning system, a cockpit/ground communications datalink, navigation position sensors, and cockpit voice recorders.

Instrument Division has moved!



Universal Avionics' Instrument Division recently moved from Norcross to Duluth, Georgia. A larger facility was needed for the development and manufacture of our ever-increasing line of flat panel integrated display cockpit display products.

Inside this issue:

WAAS STC'd for Part 25 Aircraft	1
New Product News	2
Software and Hardware Updates	2
Notes from Product Support	3
Service Bulletins and Letters	3

© 2008 Universal Avionics Systems Corporation. All rights reserved. The Universal Flyer is intended for general information purposes only. Universal does not assume or accept responsibility for any use of such information. Universal technical manuals and operator's manuals take precedence over the content of this publication.



3260 E. Universal Way
Tucson, AZ 85706

**Corporate Offices
Marketing/Support**
3260 E. Universal Way
Tucson, AZ 85706 U.S.A.
Tel: (520) 295-2300
(800) 321-5253
Fax: (520) 295-2395

Internet
www.uasc.com
E-mail: info@uasc.com