

# THE UNIVERSAL<sup>®</sup> FLYER

## Redesigned Website Unveiled

We recently rolled out a redesigned and improved version of our website, [www.uasc.com](http://www.uasc.com). The new website not only has a fresh, updated look, but it also provides many new and helpful features:

- Images of Universal Avionics flight deck packages installed in customer aircraft. See what your next flight deck will look like!
- NextGen Technologies; information and our solutions for the future of aviation.
- Training information with location and contact details.
- Search STCs completed by our Authorized Dealer Network. An existing STC completed by an experienced installer paves the way for less certification work for your aircraft.
- Active incentive program information such as our Flight Management System (FMS) and Data Link Upgrade Incentive Programs, and our Automatic Dependent Surveillance–Broadcast (ADS–B) Out Package Program.
- Customer and Product Support FAQs.
- Interactive Authorized Dealer locator.
- Library including newsletters, press releases, brochures, white papers, images, videos and scheduled events.
- Mobile and tablet friendly.
- Ability to easily share content via email and social media platforms from every page.

We have focused efforts to improve your experience with [uasc.com](http://uasc.com), and to make it easier for you to contact our knowledgeable and experienced sales and support team.

Check out these new features plus more today!

## Product News and Company Highlights

Matching Advanced Avionics to Customer Needs

### FlightReview™ Version 2.0 Now Released

Version 2.0 of the FlightReview FMS Flight Data Reduction and Playback Software is now released. New features of Version 2.0 include:

- Controls are compatible with the FMS Trainer (FMST) v3.0 (Contact your Universal Avionics Regional Sales Manager to learn more)
- Vertical deviation and scaling added to HSI control
- Lateral scaling added to HSI
- When creating a flight path segment, a kml file is also created for that segment
- Scroll bars added to the primary view to support small displays

FlightReview is a valuable analysis tool providing easy access and review of past flights and approaches. It combines FMS action sequences with 3D rendering of the flight plan over Google Earth™ for a virtual view from the pilot's seat of any previously recorded flight. Simply take the flight data recorded by the FMS Internal Flight Data Recorder (IFDR) and upload it to the FlightReview program on a PC to "fly" the latest flight plan.

FlightReview is useful for demonstrations, training, Flight Operations Quality Assurance (FOQA) and analysis of flight test results. To learn more, visit: [www.uasc.com/home/shop/avionics/flightreview](http://www.uasc.com/home/shop/avionics/flightreview).

### UniLink® Customer Database Customization

The UniLink UL-800/801 Communications Management Unit's (CMU) customer database driven user-interface and message set can be customized to match your operational requirements. The UniLink Customer Databases can be engineered to:

- Tailor the UniLink Control Display Unit (CDU) page layouts so you may choose what the pages look like (i.e. moving functions around to eliminate key presses)
- Hide and unhide (enable/disable) functionalities (i.e. removing the ability to enter the COMM CONTROL MENU from the COMM STATUS page)
- Modify the content of downlinked and uplinked message formats (i.e. coordinates, altitude, aircraft identifiers, etc. for military and special mission operations)

Helpful in streamlining operations, customizing your UniLink Customer Database can also keep you updated and remaining current with changing industry requirements and mandates.

Please contact your Universal Avionics Regional Sales Manager to learn more.

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## Jeppesen Changes Affect ASU/UCD

Effective December 31, 2015, Jeppesen will no longer provide DVD distribution services of JeppView™ used by the Application Server Unit (ASU)/Universal Cockpit Display (UCD). Operators of these units with the Jeppesen chart databases should have received notification via mail or email in September.

We have coordinated with Jeppesen to develop and deliver JeppView for the ASU/UCD via the Jeppesen Data Manager (JDM) for Windows application. The app provides numerous features and benefits but above all, downloading the JeppView database provides flexibility to aircraft operators that cannot be achieved with physical media shipments.

JDM for Windows is now available for download. For more information or to establish a username and password, please contact your Jeppesen account manager or the Jeppesen customer service team.

As another option, we recommend customers to upgrade to the Solid-State Data Transfer Unit (SSDTU). The SSDTU supports USB and SD media, representing the next generation of data upload and download equipment for your aircraft. Interfacing with up to eight Universal Avionics Line Replaceable Units (LRU), the SSDTU creates a centralized uploading/downloading center for charts, checklists and E-DOCS for the ASU and UCD.

## Managing Old Media Technology

We recommend customers to begin considering upgrading devices using old technologies when planning for 2016 avionics updates. Currently, we are evaluating our ability to continue to support 3.5" floppy disks, used to contain navigation databases for Software Control Number (SCN) 601 and 604 customers (UNS-1C, UNS-1K and UNS-1D FMS). This is yet another reason why we recommend for customers to upgrade to the SSDTU and/or the SBAS-FMS. Learn more at: [www.uasc.com/home/shop/avionics/ssdtu](http://www.uasc.com/home/shop/avionics/ssdtu).

## Above & Beyond

*"In an era that is increasingly focused on efficiency, often at the expense of relationship, I recently enjoyed both qualities to a great degree when I called Universal Avionics to obtain extra supporting publications. I had the pleasure of speaking with Mary Waters, who proved to be not only knowledgeable, capable and timely; but most refreshing of all – one of the nicest people I have interacted with in a long time. By the time we got off the phone, I felt as though I not only had support at Universal, but a friend as well. I have a very strong sense that I can rely on Universal not only for a reliable and user friendly product, but for superlative service as well."*

– Joe Lempa, Pilot, Heartland Aviation, Citation 650 Fleet Operator



Mary Waters

## We'll See You at NBAA2015!

We can't wait to see you at NBAA2015. Be sure to stop by our Booth No. 5733 in the North Hall of the Las Vegas Convention Center to learn more about our NextGen solutions for ADS-B, Performance-Based Navigation (PBN)/Localizer Performance with Vertical Guidance (LPV)/Satellite-Based Augmentation System (SBAS), Controller-Pilot Data Link Communications (CPDLC), Future Air Navigation System (FANS) and more.

We'll also have in-booth demonstrations available for InSight™, the Falcon 900B Upgrade Program, FANS/CPDLC and Special Missions.

In addition, we'll have a demonstration of the upcoming SCN 31.0 for UniLink, along with exclusive demos of the soon-to-release UniLink Trainer Desktop Software Program featuring FANS training and familiarization. You won't want to miss it!

Also, make sure to schedule time to visit our Citation VII with the InSight Integrated Flight Deck on Static Display at Henderson Executive Airport in Space No. 800.

We'll see you there!



### 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](mailto:universalflyer@uasc.com).

### Update

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

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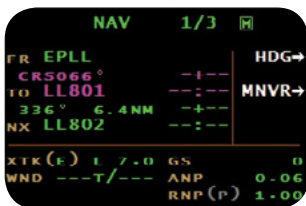
## From the Flight Deck

Discussing RNP Default Values with Universal Avionics Pilot Instructor – Customer Training

The Required Navigation Performance (RNP) default values for the four phases of flight have been available for display on the FMS since the introduction of SCN 603 in 1999. Those values are shown in the following table:

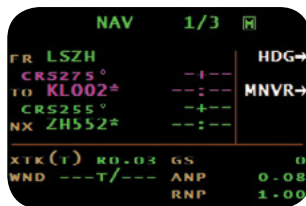
SCN ↓ / Flt. Phase →	ENROUTE	OCEANIC	TERMINAL	APPROACH
1001/1000	2.00nm	4.00nm	1.00nm	0.30nm*
80X	2.80nm	6.00nm	1.00nm	0.50nm
604/603**	2.80nm	6.00nm	1.00nm	0.50nm
Pre-603***	Q=28	Q=60	Q=10	Q=5

\*This value will be expressed in meters when Levels of Service are annunciated in SBAS areas of coverage. \*\*While display of ANP/RNP was a configuration option, most installations defaulted to Q Factor. \*\*\*Not capable of displaying ANP/RNP values, but Q Factor equivalents (i.e. Q of 28 = 2.80 NM) have the same significance.



With the release of SCN 802 in 2003, we provisioned for correctly indicating stated procedural chart RNP values when so encoded in the database. This is discussed in the FMS Operator's Manuals on page 5-41 for Report No. 2423sv802/902, and page 3-18 for

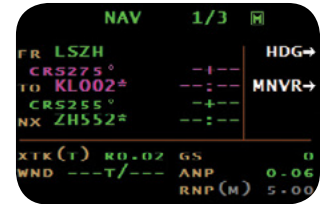
Report No. 2423sv803/903, 2423sv1000/1100 and 2423sv1001/1101. Until recently, there have been few, if any, of these procedures encoded as such, and therefore, have rarely appeared in the FMS. The screen capture above shows how such encoding will display – a (P) to the right of RNP – on NAV page 1 for the RNP-1 ADOXO 1S departure from Lodz, Poland (EPLL). As it turns out, the charted value is the same as what it would have defaulted to anyway, so it doesn't seem to make a difference whether it is displayed or not.



However, some charts may show a value different than the default, such as the charted RNP-5 DEGEG 2W departure from Zurich, Switzerland (LSZH). In this example to the left, we see for the Jeppesen database, since

the value of 5.00nm is not encoded, the default is 1.00nm. Obviously if the FMS maintains an Actual Navigation Performance (ANP) of less than 1.00 – much more accurate than the required 5.00nm – there will be no cause for concern. Should the ANP equal or exceed 1.00nm for some reason however, a POS annunciation and Position Uncertain message will be presented, yet technically, the aircraft is still within the defined parameters.

While chances of the ANP exceeding the displayed value are extremely rare, two courses of action are presented for your consideration in this scenario.



1. Monitor the ANP to ensure it doesn't approach or surpass the charted value; BUT, keep in mind, flying for more than a few minutes with Position Uncertain will result in the FMS going to Dead Reckoning mode; or,
2. Preferably, prior to departure, manually set the RNP value (press Line Select Key 5R) to the desired value – 5.00 miles as shown in the example above.

Remember, it is ultimately the responsibility of the crew to ensure the FMS is navigating within defined procedural limits and knowing what actions to take, if necessary, is paramount.



Mike Michalski, Pilot Instructor – Customer Training

### A Note from the Editor:

In the July 2015 issue of *The Universal Flyer*, we discussed Advanced Approaches and how certain installations may prevent the crew from Arming and Activating the approach. What was unintentionally omitted was this only applies to those FMS with SCN 802 or later installed. Databases for earlier SCNs do not flag an approach as being advanced.

## Recent Service Bulletins & Letters

Visit UniNet today at [www.uasc.com/UniNet](http://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.

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



SB / SL No.	Release Date	Title
SB3629	7/23/15	Installation of SCN 10.2 into the Multi-function Control Display Unit
SB3628	7/23/15	Introduction of Multi-function Control Display Unit Utilizing New Digital LCD Display (D-LCD)
SB3632	7/9/15	Announcement of the Availability Geographic Database UN104 for UniLink UL-80X
SB3625	6/17/15	Introduction of SCN 30.3 for UniLink® UL-800 and UL-801

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## Share Your Experience for a Chance to Win!

From now through November 23, 2015, share your experience and send a testimonial to [testimonials@uasc.com](mailto:testimonials@uasc.com) to be entered for a chance to win a Universal Avionics poker set. Submissions after November 23rd are appreciated, but won't be entered into the contest.

Testimonials should be your own words, describing your experience with Universal Avionics products. There is no length requirement, so please send as little or as many words as you'd like.

To qualify, along with your testimonial, please include:

1. Your name, job title and company
2. Aircraft make/s and model/s
3. Aircraft Serial Number/s
4. Universal Avionics equipment installed

5. At least one high-resolution picture of the aircraft's flight deck or exterior, and/or a photo of yourself
6. Permission to use your testimonial on our website and other potential materials

One winner will be announced in the January 1<sup>st</sup> issue of *The Universal Flyer*, and will be contacted shortly thereafter. Good luck!



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