inside

Data Comm
Universal's Hangar Team
Regional Airline Industry
Aftermarket Support
I’d like to start this issue by thanking all of you that sent in positive feedback after the first issue of our redesigned Universal Flyer was released. It’s interactions with our customers, dealers/integrators, and partners that inspire our best writing. If there’s anything you’d ever like to see included in this publication, please don’t hesitate to send us your ideas.

First in this issue, you’ll see that we tried to hit on a hot topic that has everyone in the industry talking; Data Communications (Data Comm) / Controller-Pilot Data Link Communications (CPDLC) Departure Clearances (DCL). We were very fortunate to speak with Doug Cummins, Captain for KaiserAir, and Owen Watkins, COO with General Transervice, to hear about their personal experience and perspectives with CPDLC DCL; thank you gentlemen for your insights.

Also, a big thanks to Amy Trevilion with the FAA and Steve Buhr with Horizon Airlines for their contributions to our regional airline focused article, “Regional Airlines: Not a Niche Market.” In this piece, you’ll see why competitive advantages through investments in new technology like Satellite-Based Augmentation System (SBAS) are so important to this market.

Lastly, we wanted to spotlight a couple departments that are vital to our organization; Hangar Operations and Aircraft Maintenance, and Support teams. We hope you enjoy this inside look at these operations.

As a reminder, be sure to subscribe to our UA Blog and monthly UA eNews customer email through our Hub, uasc.com/Hub.

Cheers!

Stacy Honda
Managing Editor

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First in Line with Data Comm
How certain operators are getting ahead.

Regional Airlines: Not a Niche Market
Short haul carriers lead the way with RNP.

Aftermarket Support: Going Above & Beyond
Continual support is the keystone to Universal Avionics’ service philosophy.

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In the two years since CPDLC and PDC (pre-departure clearances) were rolled-out by the FAA as part of the Data Comm program, adoption has been slow among operators. But that is about to change, as avionics manufacturers have released equipment and software to support the technology, and as first adopters have been praising its benefits. True to the FAA’s “best equipped, best served” philosophy, the ATC is responding to and clearing DCL-equipped aircraft before others. As these operators can attest, there’s nothing better than being first in line.

“Departing from DFW, it took us less than 10 seconds to pick up our DCL clearance and acknowledge it, with the clearance itself just being a text message version of the verbal clearance we’re all used to. The departure process itself was simpler than our departures out of Tucson, which is fairly typical with multiple controllers and ground personnel to communicate with. The taxi clearance was the most complex element of the trip, taking us across the field with a 25 minute taxi to the active runways. Upon clearance for takeoff, we had a total of three clearance changes by voice with ATC, 1) cleared for takeoff, climb via the assigned SID, 2) Climb to your final altitude of FL370, and 3) descend via the assigned STAR. That’s it, other than a couple of frequency changes.”

– Paul Damschen
Universal Avionics Chief Pilot describing how quick the departure process is out of Dallas with DCL on our Data Comm-equipped Cessna Citation VII (N650UA)

“Kaiser Air Charter Fleet: Gulfstream GIVSP

“We’ve been able to take advantage of multiple CPDLC Departure Clearances, particularly out of KOAK. It’s a handy capability to have and makes the pilot’s job a little easier, especially since you don’t have to worry about writing the clearance down or any associated human errors – everything is displayed for you to see right on the FMS. It’s a nice feature not to be put on “standby” on the radio and to have the ability to receive revised clearance right up to departure time without having to talk on the radio or interrupt the normal checklist routine by copying clearances by hand! It does feel like aircraft equipped for CPDLC Departure Clearances are seeing preferential treatment.”

– Doug Cummins, Captain

“General Transservice: Bombardier Learjet 60

“General Transservice operates the first Lear 60 in the world to have FANS L+ CPDLC capability. Recently, I’ve had the opportunity to utilize DCL services at KTEB, KMIA, and KDAL. Before upgrading to CPDLC capability, I was relying on PDC messages for my clearance. I have found the DCL capability to be much more robust and have already received revised clearances and EDCT revisions all without talking to clearance delivery. The data link process is becoming routine... Enter the flight plan recall number, request ATIS, and logon to ATC for DCL – all without turning on the radios.”

– Owen Watkins, Chief Operating Officer

What other operators are saying
Among all of Universal’s distinctive attributes, one we value most is being able to perform installations and modifications in-house for our company flight test aircraft. Our hangar crew not only performs required aircraft inspections and maintains the company aircraft in ready status, but they also support our engineering, manufacturing, and even marketing needs, in addition to the flight test and certification departments.

Business as Usual

If you pop over to the hangar, you’ll often see the team busy installing Universal Avionics prototype and production avionics to support activities such as research and development, market survey, and certification project efforts. When not performing a specific project installation, the team completes daily and weekly aircraft pre- and post-flight checks and maintenance. In addition, they update aircraft records and maintain shop equipment as required.

Collaboration Is Key

Interdepartmental support is key to our company’s success. The hangar team builds and fabricates many of our own parts for mock-up displays to use at industry events and trade shows. In addition, the hangar team supports the building of harnesses used in manufacturing, our repair station, and off-site repair stations.

The Aircraft

Cessna Citation VII
- Operates approximately 80 flight hours / 60 flights per year
- Features the new InSight® display system

Hawker Beechcraft King Air 90
- Operates approximately 50 hours / 50 flights per year
- Fuel-efficient and high-utility aircraft
- Equipped with EFI-890R Advanced Flight Displays

Bombardier Challenger CL-601-3A
- Operated worldwide by UA President & Chairman of the Board, Ted Naimer
- Operates approximately 260 hours / 190 flights per year

To support intensive flight test activities, our hangar is located just 2 miles from our headquarters, at KTUS.
Short haul flights – less than 500 miles – connect small cities and towns, and are considered fill-in routes where service from major airline carriers don’t exist. The regional airline market has undergone a wave of restructuring where major carriers have created regional holding companies, code sharing agreements or acquired regional carriers to create an affiliated airline, in order to extend coverage for its existing customer base. Notably, the greatest number of these consolidations is in North America where 48% of all worldwide regional routes are operated. Independent regional carriers remain strong in Canada where longer routes are common. As expected, European regionals specialize in shorter haul flights – 300nm or less – which represent 45% of all scheduled departures. Although considered ‘small’ carriers, the regional airline industry is anything but a niche market. And when it comes to flight deck technology, regionals are leading the way with fleet upgrades. As highlighted on the adjacent page, Horizon Air saw big payoffs from upgrading its fleet of Dash 8 Q-Series for RNP.

Passengers:
- 100 or less

Average fleet flying hours:
- 4,000 - 5,000

Average passenger trip:
- less than 5,000 nm

44% percentage of total departures in North America made by regional carriers

50% percentage of total departures in Europe made by regional carriers

1676 number of regional jets in service in U.S. alone

In December 2016, just a few days before the Christmas holiday, the weather conditions were poor. Overcast (OVC) was 500 statute miles (SM) of visibility. Public published minimums were 1631’ height above touchdown (HAT), ½ SM. However, the RNP approach were 255 HAT and ¾ SM. Despite the severe conditions, Horizon Air’s subsidiary of Alaska Airlines flight QX2345 successfully touched down at Sun Valley, Idaho. Horizon gave its passengers what they wanted: an arrival just in time to get a few runs in on the slopes.

Horizon Air has employed its proprietary Required Navigation Performance (RNP) instrument approach procedure at 2 airports, Friedman Memorial at Sun Valley, Idaho and Mammoth Lakes, California. Since the ski season began, Horizon Airlines has benefited from over a dozen “saves,” preventing diversions and flight cancellations at these two airports by using the proprietary RNP approach procedures.

Cody Hargreaves, RNP engineer at Alaska Airlines, explains just what this means to Sun Valley: “Friedman Memorial Airport is located in a deep valley with surrounding mountain peaks. As a result, instrument approaches used by pilots are often hampered by low cloud ceiling and extensive visibility requirements, resulting in a higher than average percentage of flight cancellations or diversions. The RNP approach Horizon uses will increase safety in this challenging environment and will dramatically reduce the number of diversions.” The RNP effort has already started to pay off for Horizon Air and its customers.

Source: SatNav News, Volume 59, Fall/Winter 2017

Short-range regional jets and turboprops tend to be economical and high utility. These narrow-body airplanes are fuel efficient and have low operational costs.
Another key to providing excellent aftermarket support is to offer training that best fits our operators’ needs. We have training courses that are designed for pilots (operational), technicians (maintenance), and dealers/integrators (technical). Classroom training at either of our Tucson or Wichita Training Centers are available, in addition to on-site training. For student-led coursework, online familiarization modules are developed by our in-house behind-the-scenes coursework developer, Paul Carlin. These modules are available on the UniNet Online Service Center at uasc.com.

Whether learning something for the first time, enhancing understanding, or just refreshing your memory, we are proud to provide the best possible resources to help operators fly smart and land safe.

Bob Bruce
Pilot Instructor – Customer Training
Bob has been a key member to Universal’s training department for over 18 years. He currently holds an Air Transport Rating, and is a Certified Instructor – Multi-Engine and Instrument, and Certified Advanced Instrument Ground Instructor. Before joining Universal, Bob completed his private pilot license and multi-engine rating, then joined the U.S. Air Force where he was assigned to fly the C-141 Starlifter. After retiring from the Air Force, Bob became an instructor at Flight Safety and then a Captain with Global Aviation. Based out of our Tucson Training Center, Bob leads operational courses for the FMS, TAWS, Radio Control Unit, and end-user maintenance. When not instructing, Bob works on training materials such as operational training manuals and end-user training manuals.

Mike Michalski
Pilot Instructor – Customer Training
Mike first joined UA in November 1997, and now has over 45 years of experience working in the Aerospace industry. Prior to joining UA, Mike served 23 years as a U.S. Navy Pilot and worked 5 years as a Flight Safety Instructor. You’ll find Mike at our Wichita Training Center, where he develops courseware and conducts numerous FMS, EFIS and maintenance training sessions. When not instructing, Mike is providing customer support for operational questions, reviewing training manuals, and creating presentations for both classroom and conferences. Mike’s favorite aspect of his job is being able to create custom training courses to meet customers’ specific needs.

We are thankful to have been ranked first in Tech Reps in the most recent Avionics Product Support Surveys from both Professional Pilot Magazine and Aviation International News. These ratings reflect our commitment to providing leading product and technical support.

Over the past year, we’ve added technical support representatives in Singapore to support Asia and the western Pacific, and to our Switzerland office in Basle to support European customers. In addition to our Field Service Representatives, we also offer emergency AOG services 24/7 via our AOG Hotline.

Customer Service & Warranty
• Loaner, consignment and rental unit pool maintained at UA
• Loaners provided at no charge during warranty period
• Universal Avionics repair stations in Wichita, Kansas (USA) and Tucson, Arizona (USA)
• Authorized repair stations around the world
• Ongoing software refinement and maintenance for product improvements

We are committed to the value and efficiency of the support we provide. Our repair stations quote customers with a 7-day turn around time from receipt of the unit, which is 3-4 times faster than other avionics manufacturers in the industry.

– Robert Nierenhausen, Customer Service & Warranty Manager, Universal Avionics