

ICG LINK

SUMMER, 2010 | VOLUME V

IN THIS ISSUE:

IN FOCUS	1
HR NEWS	2
IN THE NEWS	3-5
TIP OF THE QUARTER	6
EMPLOYEE OF THE QUARTER	8
VISIT ICG	9



OpenLink

IN FOCUS:

ICG FOCUSES ON OPENLINK CONCEPT

ICG has evolved a concept that we refer to as *OpenLink*. The concept is to provide a total and open-architecture solution for aircraft communications requirements to focus on three primary areas of communications: Flight Deck voice and data, Cabin voice and Cabin/Flight Deck data to include ancillary communications such as Blackberry and iPhone e-mail services. Essentially nose to tail communications systems from a single vendor. Traditionally, multiple vendors supported a single system approach where the products were unique and often proprietary to a single application and would not integrate well with other systems or had no forward growth plan, or support for emerging networks.

ICG's concept is to provide a flexible, building block approach that can be configured for any aircraft model and provides an open architecture compatible with any communications device or system available today as well as emerging communications networks. In this manner, the addition,

removal or replacement of communications systems will not require a cabin change out or change in the communications infrastructure on the aircraft thus saving the operator considerable expense.

The ICG systems have the following primary design considerations:

1. Circuit Compatibility: Non-proprietary, standard and conventional circuits and protocols supporting all aircraft communications systems and requirements. The circuits comply with the following standards: CCITT, ITU, ARINC, RTCA, IP and IEEE.

2. Form Factor: The devices are Line Replacement Units (LRUs) and have either an Arinc 600 size 1 or size 2 connector and are secured in a 2MCU tray. The devices are designed for a quick change out and return to service within the 15 minute maximum interval mandated by air transport and OEM customers.



Armin Jabs
Chief Operations Officer, ICG

- continued on page 2

2ND QUARTER HR NEWS

We welcome Christi Allen back to ICG...by way of Dallas!

Christi has been pursuing her degree in Marketing since we were last in touch with her and is excited about the new challenges in Sales at ICG. She will be transitioning from her previous position as Marketing Coordinator to her new role as OEM Sales Administrator, performing a wide variety of administrative and creative duties in the TX office.

Christi's pre-ICG experience includes retail and work as a sales coordinator for Burlington Medical Supplies in Newport News. In 2006, she received her B.A. in Journalism with a Minor in Business Management from University of Dayton.

We look forward to interacting with Christi again and wish her much success in the Texas office!

Here at ICG we have some sad news to report.

We lost a well respected employee of ICG. Gary Krause, our Quality Manager/Chief Inspector passed away on June 19th. He is survived by his wife, Fran. Gary was with us for only six months, but within that short period of time, he made a big impact on this company.

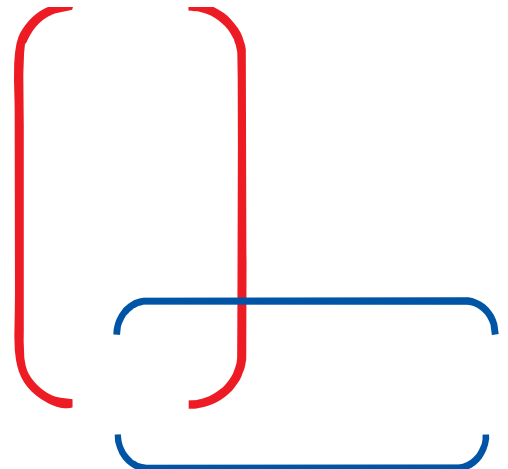
Gary and his family will always be in our thoughts.

OPENLINK CONTINUED:

3. **Building Block:** The devices must support the "building block" approach and provide a solution for any aircraft requirements, work with any communications system, yet be scalable to provide a total communications solution for any size airframe. Each device will be able to provide a stand alone baseline solution for any specific requirement but can interoperate to provide enhanced and optional solutions whether installed at production or later in an after-market refit.

4. **No COTS:** All devices are designed using aeronautical standards to insure: quality, manufacturability and control of parts obsolescence without frequent recertification, a common problem when using COTS assemblies.

5. **Reduced Integration:** ICG has moved towards separation of primary functions to permit smaller, lighter and more specific solutions. The industry is moving towards more specific and diverse communications such as flight deck voice and Datalink services, cabin voice and transceiver management and flight deck EFB and cabin data services. With varying certification levels required for these services, restoration and spares provisioning become expensive and difficult.



IN THE NEWS

INTERNATIONAL COMMUNICATIONS GROUP (ICG) SIGNS CONTRACT TO INSTALL THE ICG NXTLINK 120A COMMUNICATION SYSTEM AND CONFIGURATION IDENTITY MODULES ON AEROMEXICO'S BOEING 767-300S

International Communications Group (ICG) has been selected by AeroMexico Airlines to install its NxtLink ICS-120A communications systems which offer flight deck voice and DataLink services over the Iridium satellite network on five of its Boeing 767-200 and 300 series aircraft. The ICG Iridium based systems have been tested and approved by ARINC and SITA and are compliant with the requirements for both AOC and ATS flight deck communications and support ACARS, CPDLC, ADS-C and other FANS1/A messaging. The agreement also covers the associated Configuration Identity Modules (CIM) and the Spectralux Avionics Dlink+ all-in-one ACARS system.

ICG holds Federal Aviation Administration (FAA) Parts Manufacturer Authority for the single channel NxtLink 120A and the CIM which means "AeroMexico can be fully confident in the quality, reliability and consistent performance of the ICG NxtLink system," said Carlos Monsalve, ICG's Vice President of Air Transport Sales. "In addition, this is a significant milestone for us since it signifies that now ICG has STC's for its NxtLink line of Iridium products on the B737, B747, B757, B767 and the B777."

"Our evaluation of this system concluded that it gives us the capabilities we require now, and the flexibility to configure for future needs as well. This system will keep our aircraft 100% connected to our Flight Operations Control Center" said Carlos Najera, AeroMexico's Director of Engineering.

ICG's NxtLink 120A device incorporates a single Iridium transceiver (LBT) for voice and circuit switched or Internet data as well as a Short Burst Data (SBD) modem dedicated to ACARS Datalink. The system provides connections to the flight deck avionics and systems providing global and reliable communications services via the Iridium network. It supports all Future Air Navigation System (FANS) and Controller Pilot Data Link Communications (CPDLC) as well as Aircraft Communications Addressing and Reporting System (ACARS) requirements. The external CIM module (Configuration Identification Module) provides a facility for storing any installation specific configuration parameters as well as the Iridium SIM Card(s). This insures that the Iridium SIM card and associated telephone number is assigned to the airframe making the LRU replacement, line maintenance and spares management a simple process.

Spectralux Avionics Dlink+ is designed to be flexible and customizable with a database that can be configured based on individual needs. It includes a Control Display Unit (CDU), VHF Digital Radio (VDL Mode 2), Communication Management Unit (CMU) and aircraft health monitoring in a single LRU.



L2 CONSULTING SERVICES, INC. RECEIVES TWO SUPPLEMENTAL TYPE CERTIFICATES FOR IRIDIUM SATCOM AND TERMINAL WIRELESS LAN ON BOEING 777 SERIES AIRCRAFT

L2 Consulting Services, Inc (L2) is pleased to announce that the Federal Aviation Administration has granted the company a Supplemental Type Certificate (STC) ST10972SC for the installation of an International Communications Group (ICG) NxtLink ICS-120A or ICS-220A Iridium satellite communication system and another STC (ST10974SC) for the installation of a VT Miltope Terminal Wireless Local Area Network (LAN) unit on Boeing 777 series aircraft. In conjunction with the STC, L2 has also been granted Parts Manufacturer Approval (PMA) for the installation kits. The systems were installed for ARINC on a Cathay Pacific Airways 777 and were accomplished in Hong Kong.

L2 Engineering Manager Michael Eiras said, "Working with several industry suppliers, L2 successfully developed, managed and accomplished these two sophisticated avionics certification and engineering efforts in parallel with the recent Electronic Flight Bag STC issued for the Boeing 777 to L2 in April."

ARINC Program and Implementation Manager

for AeroConnx EFB and GateFusion products, Bob Lentz, stated, "L2's professionalism and engineering expertise stood out during this project." He added, "L2 successfully managed the certification of four parallel STCs, navigating a complex development cycle that included eight different hardware manufacturers, which in the end greatly pleased our customer."

Managing information such as content delivery, electronic charts, documents, real-time credit card authorizations and techlogs is a complex process for the airlines. The complete suite of Satcom, wireless LAN and electronic flight bag Supplemental Type Certificates offered by L2 on the 777 can help airlines manage flight deck and cabin operations in a cost effective and timely manner.

To learn more about the complete system installation, please visit the L2 web site at www.l2aviation.com.



IRIDIUM AIRSAFETY TRIALS NEAR COMPLETION

Iridium is conducting operational trials with airline partners to gain U.S. Federal Aviation Administration (FAA) certification for air safety communications on commercial transoceanic flights.

Overseen by the FAA, the onboard trials are the last step in a process Iridium began more than five years ago to offer Future Air Navigation System (FANS) satellite-communication services to air carriers that travel in high-traffic international air lanes.

The FANS over Iridium (FOI) trials are underway on Boeing 737-800 passenger jets operated by Continental Micronesia Inc. out of Guam, and on Boeing 747-400 freighters flown by Cargolux Airlines International, a cargo flight operator based in Luxembourg. The aircraft are using Iridium-based satellite data link units (SDU) supplied by Iridium partners Avionica and International Communications Group (ICG). Continental's jets are equipped with an Avionica satLINK system, while Cargolux is using an ICG ICS-220 system. Both of the compact SDU systems include an Iridium short-burst data (SBD) transceiver and a lightweight antenna.

The FOI trials began in earnest in December 2009 on six Continental Micronesia 737s, while Cargolux's entire fleet of 747 freighters got started in mid-March 2010. Expectations are that the trials will conclude by October 2010. Assuming tests are successful, it is anticipated that the FAA will issue FANS approval in the fourth quarter of 2010. Other Air Transportation Service Providers (ATSPs) that regulate oceanic air traffic are expected to follow the FAA's lead and certify Iridium's SBD satellite services for in-flight safety communications.

"That will be a major milestone for Iridium, our service partners and the world's aviation community," said Brian Pemberton, Iridium's director of product management for Aeronautical and Marine Products. "It will open an important new business market to support Iridium's long-term growth, as well as provide air carriers with a flexible, significantly improved, and lower-cost solution to take advantage of FANS technology



and meet international requirements for air safety communications."

Currently, Inmarsat is the only mobile satellite service (MSS) provider certified to offer FANS for transoceanic flights. Iridium, with its network of 66 cross-linked satellites, would offer airlines distinct advantages for FANS communications. Iridium is the only MSS with reliable global reach, including the polar routes which are increasingly used for long-haul flights.

Iridium equipment is less expensive and can be used on a wider variety of aircraft, according to Pemberton.

"The Iridium-based solution is optimized for narrow body aircraft that operate in remote areas and over the water because of its small antenna and the lightweight nature of the SDU itself," he said. "It is a huge paradigm shift for air carriers that previously could not make a business case for adopting FANS."

Aircraft that now fly oceanic routes without satellite air safety communications rely on HF radio for long-distance air safety communications with Air Traffic Controllers (ATCs). HF communications can offer poor quality and are too often unreliable. Over the past two decades, the international aviation community has moved to replace manual HF radio communications with highly automated satellite-based data links, including FANS, Controller Pilot Data Link Communications (CPDLC) and Automatic Dependant Surveillance (ADS), which permit more reliable, efficient communications with ATCs. That, in turn, can improve fuel efficiency by reducing required aircraft separation and providing more timely optimum route clearances.

Continental Micronesia, a wholly owned subsidiary of Houston-based Continental Airlines, approached Iridium several years ago about participating in the FANS trials, recognizing the potential for achieving more reliable, cost-efficient air safety communications.

- continue on page 7

TIP OF THE QUARTER

Many of you may already be familiar with our Customer Web Portal, myICG. We first launched the portal back in mid-2009 having recognized the need for Customers to gain 24/7 access to valuable resources including manuals, utilities and bulletins on their own schedule; well the aircraft schedule at least! The Portal has already become hugely popular and we have begun to expand the available resources to quick reference guides, frequently asked questions, on-line training and more. As we move through the remainder of 2010 and into 2011 we are committed to expanding this wealth of knowledge to ensure that all of our Customers are both familiar with our current products and ready for new and emerging services as well as exciting new products to come. Current members will receive e-mail notifications as we add to the site and I would encourage those reading who have not yet signed up to do so at the earliest opportunity in order to stay up to date.

I would like to thank all of you who have provided feedback to us over the past year. We listened to your ideas and I am pleased to say that we have implemented changes to make the site more user-

friendly and efficient. Those who have logged in to the Portal in the past couple of weeks will have noticed a change to the Portal home page and a reorganized menu structure. Our new easy access to manuals, bulletins and other resource sections from the home page with a simple click of the mouse has already proven popular and I encourage everyone to give it a try. You may even find something you hadn't realized was there before!

We always welcome feedback, comment and ideas that will help us to expand the site and look forward to hearing from you all.

As always, we are just a phone call or e-mail away!

ICG Customer Service & Technical Support – (800) 279-1991 Option 5 – +1 (757) 947-1060 Direct – techsupport@icg.aero or visit us on the web at www.icg.aero

Darren Emery

Manager, Customer Service, Support & Integration



INNOVATIVE COMMUNICATIONS. SUPERIOR TECHNOLOGY.

AIRSAFETY TRIALS CONTINUED...

“Continental is committed to exploring new technologies that will enhance communication, navigation and surveillance capabilities, as well as improve fuel efficiency and reduce carbon emissions,” said Dave Nichols, tech pilot for flight operations for Continental. “We have been very pleased with the service the Iridium network provides for voice communication and Airline Operational Control functions. Having the ability to use the Iridium satellite communications network for FANS capabilities will provide additional benefits.”

“The airline industry is a very competitive environment, and equipping aircraft with an Iridium-based system could represent significant cost savings over other satellite-based systems,” he added. “In the future, many regulatory agencies and ATC service providers may require FANS technology equipage in order to operate within their airspace. FANS over Iridium will offer airlines a safe, affordable system that meets these mandates.”

The FOI trials for both Continental Micronesia and Cargolux are being conducted within the FAA’s Oakland Flight Information Region (FIR), the largest oceanic FIR in the world. The area spans from Alaska and the Alaskan Islands west to near Japan and south to near Australia, covering around 70 percent of Pacific Ocean air space.

“The Oakland FIR is a pretty good candidate to run a trial, because it’s so large and so many carriers fly through it,” Pemberton said. “The remote routes that Continental Micronesia and Cargolux fly also will demonstrate the true global reach of Iridium’s network.”

The body charged with evaluating the FOI trials is the FAA-sponsored Performance-Based Operations Aviation Rulemaking Committee (PARC), comprised of members from the FAA and the aviation community. The PARC’s Communications Working Group (CWG), co-chaired by the FAA’s Tom Kraft, will develop recommendations to the FAA. In March, Kraft presented a paper to the Informal South Pacific ATS Coordinating Group, meeting in Australia, that discussed the status of the trials and noted that the PARC CWG takes on projects believed to be in the best interest

of the aviation community, focused on advancing communication technology that leverages existing capabilities to meet operational needs.

A number of Air Navigation Service Providers are cooperating with the FAA in the trials, Kraft told the group. They include the South Pacific ANSPs, the Civil Aviation Bureau of Japan and some North Atlantic ANSPs, including Nav Canada, Isavia Iceland and United Kingdom National Air Traffic Services. With their cooperation, the PARC CWG is gathering a large sample of FANS data relayed from aircraft in the trials to ATC operators. That data will be analyzed against existing FANS benchmarks to determine acceptable performance, including transmission success rates and message-delivery latency.

Iridium officials said other airlines that operate within the Oakland FIR are welcome to join the FANS trials. According to the PARC CWG, Delta Air Lines and United Parcel Service have begun pre-FOI operational trials and are planning to participate in the trials in the near future.

“This is an exciting time for Iridium, and we are on track for full certification by the FAA and other national aviation service providers,” Pemberton said. “This would not be possible without the assistance of many parties, and we are grateful to the FAA, Avionica, Continental Micronesia, Cargolux, ICG, and the others involved for their participation and cooperation.”



(article compliments of [iridiumeverywhere](http://iridiumeverywhere.com))

EMPLOYEE OF THE QUARTER: OLGA DISKIN

SENIOR SOFTWARE ENGINEER

Olga Diskin celebrates both employee of the quarter and her 10 year anniversary with ICG. Olga is a senior software engineer at ICG and is unquestionably one of the of most hardworking and dedicated engineering team members. Olga is the principal software engineer for ICG's Aerocom 3000 product family but over her past 10 years has worked on numerous projects and products including the design and development of the Iridium Credit Card Platform, Iridium Billing and Reporting System (IBRS), and the configuration and monitoring tools for the AeroCom 1100, AeroCom 3000, ICS-200 and ICS-400 products.

Olga received her Master of Science degree in Applied Mathematics from the Tomsk State University in Russia. Prior to coming to ICG, Olga worked as a Software Engineer at Institute of Nuclear Power Engineering in Obninsk, Russia and at Gaya Software Industries, LTD in Israel specializing in telecommunication-related software projects such as billing systems, protocol emulation tools, software-based intelligent IP gateways and VoIP technology.

When asked about her experience at ICG Olga stated, "I enjoy my job because it provides me with motivations and opportunities to learn something new every day." "I highly value education and especially self-education. I believe that curiosity and education are keys for professional success."

Olga's co-workers also recognize her vast talents. "Her knowledge and willingness to cover all eventualities during development ultimately leaves us with a better product." "She takes great pride in what she does and is always ready to put in 150% effort to make things right and on schedule."

Among other successes that Olga has had in her life is her family. She has been happily married for 22 years and has 3 sons. She loves to travel with her family and to see new places.





VISIT ICG

SHOWS AND EVENTS

Please stop by and visit ICG at the following events:

August 5-6	ICG's Annual Flight Deck Communications Conference	
August 12-14	LABACE, Sao Paulo, Brazil	Booth 4015
Sept 29-Oct 1	AEA Regional US Central, Kansas City, MO	
Sept 30-Oct 1	PAMA Northeast Airworthiness Symposium	
October 19-21	63rd Annual NBAA Show, Atlanta, GA	Booth 4649
October 27-29	AEA Regional US West, Reno, NV	

INNOVATIVE COMMUNICATIONS. SUPERIOR TECHNOLOGY.

MAIN OFFICE:

230 Pickett's Line
Newport News, VA 23603 USA

(757) 947-1030
(800) 279-1991
(757) 947-1035 fax

www.icg.aero

SALES OFFICE:

4570 Westgrove Drive, Suite 270
Addison, TX 75001 USA

(214) 206-3434
(800) 787-2089

sales@icg.aero

MILITARY/GOVERNMENT:

230 Pickett's Line
Newport News, VA 23603 USA

(800) 279-1991 or (757) 947-1030
(757) 947-1035 fax

milgovsales@icg.aero

