VOLUME NINETEEN ISSUE TWO ▪ 2014

Rockwell Collins

horizons

The Perfect Fit

F-35 Gen III HMDS

What sets Rockwell Collins apart

Kelly Ortberg
CEO & President

One of the qualities that sets Rockwell Collins apart from others is our ability to solve complex problems and develop innovative solutions. Not many companies have the technical diversity that we do. We continue to be a pioneer in our industry because our employees are constantly finding ways to turn ideas into valuable solutions and make leaps in technology.

While our industry respects tradition, it values innovation. We know our growth is dependent on satisfying customer needs and wants – both now and in the future.

This issue of *Horizons* magazine includes several stories that illustrate this.

In the cover story, you'll read how more than 140 employees from a number of technical domains were challenged to design and develop what will be the Gen III Helmet Mounted Display System (HMDS) for the F-35 Lightning II jet fighter – the United States' most advanced tactical aircraft. This futuristic helmet system will be the first to provide full flight and mission capability day and night. You'll learn more about the outstanding technical achievements in this program. For instance, you'll find out why our integrated digital night vision solution is a real differentiator for us.

More examples of how we're making leaps in technology to meet customer needs are found in the article, "A Legacy in the making." Employees from the United States and Brazil worked together to provide Embraer with a state-of-the-art flight deck for its mid-light Legacy 450 and mid-size 500 business jets. The result is a Pro Line Fusion® cockpit featuring our HGS-3500 compact head-up guidance system (HGS™), which is capable of presenting synthetic and new multi-spectral enhanced vision system (EVS) imagery. This new situational awareness technology has never before been available in the mid-light and mid-size business jet segments.

I was actively part of the Legacy program while leading Commercial Systems and the F-35 HMDS program while leading Government Systems, so both of these stories bring back strong memories of what can be accomplished when teams work together and focus on a winning solution.

The best ideas and results are truly created when people work together. I'm a big believer in the power of teamwork, as I know it will help us stay at the forefront of innovation, and I'm proud of all the employees who are working together to make Rockwell Collins successful.

IN THIS ISSUE

4

6


12

On the cover

Rockwell Collins and Elbit Systems of America designed and developed the advanced technology of the Gen III Helmet-Mounted Display System for the F-35 Lightning II jet fighter.

On the back

This ad — which highlights our safety-enhancing situational awareness technology — recently appeared in *Flying Magazine* and *Professional Pilot Magazine.*

horizons
A magazine for the employees and friends of Rockwell Collins

Publisher: David Yeoman

Editorial director: Cindy Dietz

Managing editor: Cindy Adkins

Editor: Annette Busbee

Creative direction: Rick Kaufman

Copy editors:
Karen Steggall
Joan Schaffer

Staff writers:
Crystal Hardinger
Megan Strader
Colleen Scholer
Jill Wojciechowski

Photography:
Steve Allen, Winter Park, Florida, page 14
David Branco, São José dos Campos, Brazil, page 20
Bombardier, page 2
Nelson Chenault III, Little Rock, Arkansas, pages 17, 18
Embraer, pages 12, 15
Randy Epperly, Eglin AFB, Florida, page 7
Samuel King Jr., Department of Defense, page 6
Lockheed Martin, page 10
Northrop Grumman, page 10
Sikorsky Aircraft, page 2
Mark Tade, Iowa City, Iowa, pages 13, 22
John C. Thomas, Hiawatha, Iowa, cover, pages 8, 9

Design:
WDG Communications Inc.

How to contact us:
Email: empcomm@rockwellcollins.com
Horizons
Rockwell Collins
MS 124-302
400 Collins Road NE
Cedar Rapids, IA 52498-0001
Phone: +1.319.295.1000
Fax: +1.319.295.9374

How to contact the Ombudsman:
Phone: +1.866.224.8137 or +1.319.295.7714
Email: ombudsman@rockwellcollins.com

The following articles may contain forward-looking statements including statements about the company's business prospects. Actual results may differ materially from those projected, as a result of certain risks and uncertainties, including but not limited to those detailed from time to time in our earnings press releases and Securities and Exchange Commission filings.

New CH-53K helicopter includes Rockwell Collins' digital glass cockpit

Sikorsky Aircraft Corp.'s new CH-53K Heavy Lift Replacement helicopter – equipped with our company's Avionics Management System (AMS) – was officially unveiled during a special event on May 5 in West Palm Beach, Florida.

Touted by Sikorsky as the world's premier heavy lift helicopter, the CH-53K helicopter is an all-new aircraft built to thrive in the modern battlefield. It boasts more than three times the lifting capability of the aircraft it will replace and features a Rockwell Collins digital glass cockpit with mission management system that incorporates fully integrated flight and navigation displays.

The CH-53K helicopter will have the means to move troops and equipment from ship to shore and to higher altitude terrain more quickly and effectively than ever before. The U.S. Marine Corps, which has named the new aircraft the "King Stallion," expects to begin operational service in 2019.

"It's exciting to finally see this aircraft assembled and ready for flight test," said Kelley Kirtz, principal program manager for the CH-53K program at Rockwell Collins. "This aircraft has existed only on paper for such a long time, so it's nice to see it become a reality. Our employees have worked long and hard on this effort and will continue to do so in the months and years ahead." ▪

Bombardier's Learjet 85 takes flight with Pro Line Fusion® avionics

Rockwell Collins' Pro Line Fusion® avionics suite and horizontal stabilizer trim system (HSTS) were on board the Bombardier Learjet 85 aircraft when it completed a successful first flight on April 9 in Wichita, Kansas. Rockwell Collins was awarded the Learjet 85 contract in 2008, marking a milestone six years in the making.

Ryan Mans, a systems engineer at Rockwell Collins, has spent the past two years on-site at Bombardier's facility in Wichita providing engineering support for the Learjet 85. During that time, he experienced a perspective that most people don't have a chance to see.

"Working with Learjet and the Rockwell Collins team to resolve issues and see the aircraft build progression made the first flight that much more exciting," said Mans.

Craig Olson, vice president and general manager for Business and Regional Systems at Rockwell Collins, said Pro Line Fusion's breadth of mission capabilities and the ingenuity of the HSTS is a "perfect match" for the next-generation performance and technology this clean-sheet aircraft brings. ▪

Rockwell Collins CEO and President Kelly Ortberg and Nan Mattai, senior vice president of Engineering and Technology, talk with a member of the Dark Matter FTC team during the 2014 *FIRST*® World Championship.

Spreading the innovation message at *FIRST*® World Championship

Rockwell Collins once again played a key role in bringing together the world's next generation of engineers and innovators for four days of competition at the 2014 *FIRST*® World Championship in St. Louis, Missouri.

This annual event is a culmination of the season for *FIRST* – For Inspiration and Recognition of Science and Technology – and was held April 23-26. It brings together students from the *FIRST* Robotics Competition (FRC®), the *FIRST* Tech Challenge (FTC®) and the *FIRST* LEGO® League (FLL®) programs.

Rockwell Collins has been supporting *FIRST* for more than a decade and providing the not-for-profit organization with $1 million annually since 2007. The partnership serves as the main component of our company's Engineering Experiences initiative to promote science, technology, engineering and math (STEM) education.

CEO and President Kelly Ortberg and Nan Mattai, senior vice president of Engineering and Technology, attended the event for the second consecutive year. Ortberg is a member of the *FIRST* Board of Directors. He and Mattai watched the competition and visited with students, and Mattai also spoke at the FTC closing ceremonies. ▪

Rockwell Collins part of Collier Award-winning X-47B UCAS-D team

Accepting the Collier Award on behalf of Rockwell Collins were (from left) Rob Hughes, LeAnn Ridgeway, Eileen Leonhardy, Jody Wilkerson and Rick Tomy.

The National Aeronautic Association (NAA) presented aviation's highest honor to the X-47B Unmanned Combat Air System Demonstration (UCAS-D) Joint Industry Team – which includes Rockwell Collins – during a special ceremony on May 29 in Orlando, Florida.

The NAA voting committee recognized the U.S. Navy, Northrop Grumman and industry partners with its 2013 Robert J. Collier Trophy for "developing and demonstrating the first unmanned, autonomous air system operating from an aircraft carrier."

Rockwell Collins supplied the Northrop Grumman-built aircraft the advanced data link – Tactical Targeting Network Technology (TTNT) – used to support autonomous control in the historic catapult launch and capture of the UCAS-D on the aircraft carrier U.S.S. George H.W. Bush in the summer of 2013. ▪

Keeping passengers moving

Rockwell Collins' ARINC airport solutions make passenger processing quicker, easier and safer.

You've arrived at the airport to travel to an important business meeting or to a favorite location for a well-earned vacation.

You've checked in for your flight at a self-service kiosk, had your luggage tagged, passed through security and are now checking the status of your flight on the information display.

Many of the services you just experienced were likely provided by Rockwell Collins' Information Management Services (IMS) business. IMS provides passenger processing products and services at more than 130 airports around the world, including many of the key international airline hubs.

With global airline passenger traffic projected to rise an average of 5 percent a year over the next two decades, airport operations constantly face the challenge of moving people as efficiently and seamlessly as possible, according to Chris Forrest, staff vice president of Global Airports for Rockwell Collins.

"With the number of travelers increasing every year and changing security requirements, efficient passenger processing is more crucial than ever," Forrest explained. "The solutions we provide to airport operations ensure there is proper passenger flow. And our solutions can be fully integrated and are easily adaptable to evolving needs of airport operations."

Under a new five-year agreement announced in March, our company's latest ARINC vMUSE™ Common Use Passenger Processing System (CUPPS) will soon be placed in all four common-use terminals at London Heathrow Airport — one of the largest airports in the world.

According to Forrest, this is just one example of how Rockwell Collins continually innovates to provide customers with state-of-the-art, cost-effective solutions within the aviation industry. To meet passengers' expectations to navigate throughout airport touch-points with their mobile devices, our company also offers mobile solutions for check-in, flight information, security and boarding.

"We are in a key position to keep airports on the leading edge of technology and efficiency," Forrest said. "We're constantly looking for new ways to improve passenger processing, while saving airports and airlines money as well." ▪

By Megan Strader

1 *Check-in*
Whether checking in via a mobile device, personal computer, self-service kiosk or airline counter, our company helps airports streamline this process through our innovative solutions. Sixty percent of the common-use self-service kiosks in airports worldwide are ARINC kiosks, accounting for more than 80 percent of flight check-ins. Our company contracts with a third party for the production of the kiosks and then ties our technology into the IT network of an airport.

2 *Security*
One of the growing components in Rockwell Collins' airport product portfolio includes our security technology. To optimize passenger flow at security checkpoints, we have solutions to efficiently screen both passengers and crew members. Our Crew Personnel Advanced Screening System (CrewPASS℠) technology expedites the security clearance for airline crew members, while enhancing security and keeping the screening process moving. New technology with this system includes state-of-the-art fingerprint biometrics.

3 *Information Displays*
Our multimedia airport flight information displays let passengers view real-time flight information in the airport or from mobile devices, keeping them up to date on their flights. Similar to the self-service check-in kiosks, our company uses a third party to develop the displays and then works hand in hand with airports configuring the technology into our IT network.

4 *Baggage*
Our baggage solutions cover luggage check-in from off-site, curbside, at the counter or at the kiosk. Passengers also can print out bag tags right at the kiosk and leave their bags at nearby designated drop locations, reducing lines at the counter. In addition, our BagMatch™ solution provides airlines and airports with bag management technology that tracks luggage from curbside to the aircraft and final destination.

Department of Defense photo by Samuel King Jr.

The Perfect Fit

Rockwell Collins' unique expertise differentiates us for the F-35 Gen III Helmet Mounted Display System.

The F-35 Lightning II jet fighter is the United States' most advanced tactical aircraft. It has supersonic speed, radar-evading stealth, the ability to hover and a powerful integrated sensor package. One of the critical components that enables realization of the full capabilities of this fighter is the Helmet Mounted Display System (HMDS) designed and developed by Rockwell Collins and our joint venture partner, Elbit Systems of America (ESA).

Our state-of-the-art HMDS provides a virtual Head Up Display (HUD) and other critical flight information directly onto the visor of the helmet. It features a bi-ocular, 40x30 field of view, high brightness, high resolution display, with integrated digital night vision. When fully integrated with the aircraft sensors and systems, the HMDS provides the F-35 pilot with unparalleled situational awareness. That includes the Distributed Aperture System (DAS) from Northrop Grumman, which gives pilots the ability to see through the structure of the aircraft for a 360-degree view as well as a direct picture of the ground beneath them.

Custom fit to fly

Only two people in the world are currently authorized to assemble and custom-fit a helmet to an F-35 pilot, enabling the pilot to fly the Lightning II aircraft and execute missions. They are Rockwell Collins employees, Dan Kalsow, a senior systems engineer, and Rodney Breuer, a senior customer support manager, both in the F-35 HMDS program.

The two began fitting pilots in the Pilot Fitting Facility (PFF) at Eglin Air Force Base near Ft. Walton Beach, Florida, in the fall of 2011. Since that time, they've fit over 120 pilots from the United States Air Force and Navy, in addition to three foreign national pilots from the Netherlands.

According to Kalsow, each fitting presents its own unique challenges.

"We have to fit a helmet to an asymmetrical human head so the optics package on the display visor is within two millimeters of exact center of each of the pupils," he explained.

The process takes approximately four hours per helmet and involves two contact days with each pilot. On the first contact day, precise measurements are taken of the pilot's head, including a 3D head scan and the use of a pupilometer to measure the distance between the pupils.

Once Kalsow and Breuer have the measurements and the helmet components – most of which are produced at our company's facility in Wilsonville, Oregon – they begin assembling the helmet. This process includes custom-milling each helmet liner so the helmet fits the individual's head comfortably and maintains its stability under high gravity (G) maneuvers.

"Our helmet liner must stand up to the pressure of high G manuevers so the optics package remains aligned with the pilot's field of view," Kalsow noted.

When the helmet is assembled, the pilot comes in for a fitting during the second contact day. It's at this time that the optics package is aligned to the pilot's pupils and the display visor is custom contoured – a process that must be done precisely so the pilot has a single focused image at infinity.

Pilot safety is the priority

Kalsow and Breuer's job doesn't end with the fitting of the helmet. Each has nearly 30 years of experience fitting helmets in the U.S. Air Force. They use that knowledge to help the F-35 pilots understand how the HMDS works and gain their trust in the new technology.

"A lot of these pilots are used to having the HUD system on the aircraft," Breuer said. "When they see the virtual HUD symbology for the first time on their helmet visor, we talk them through it and help them get comfortable with what they're seeing."

As part of the helmet-fitting process, Dan Kalsow (back) and Rodney Breuer (front) test to ensure the pilot's pupils are within 2 millimeters of exact center to be properly aligned with the optics package on the HMDS.

As the face of Rockwell Collins to the end users of our helmet product, Breuer and Kalsow sometimes find themselves at what they describe as the "pointy end of the spear" with pilots. It requires them to think outside the box to resolve any challenges the pilots are having with the helmet.

"The pilot's life may depend on the HMDS and what he or she sees or doesn't see," Kalsow said. "It's critical that Rodney and I respond to pilots' concerns so they are happy and confident in our product. We're passionate about keeping pilots safe."

Keeping pilots safe is one of the primary purposes of all the advanced technology of the helmet and the F-35 Lightning II aircraft.

When pilots began reporting a number of issues with the Gen II HMDS, the Department of Defense (DoD) identified it as one of several F-35 program risks in 2011. Problems included inadequate night vision acuity, jitter and latency of the DAS imagery displayed on the visor. The issues resulted in a loss of confidence from our customer and prime contractor on the F-35 program, Lockheed

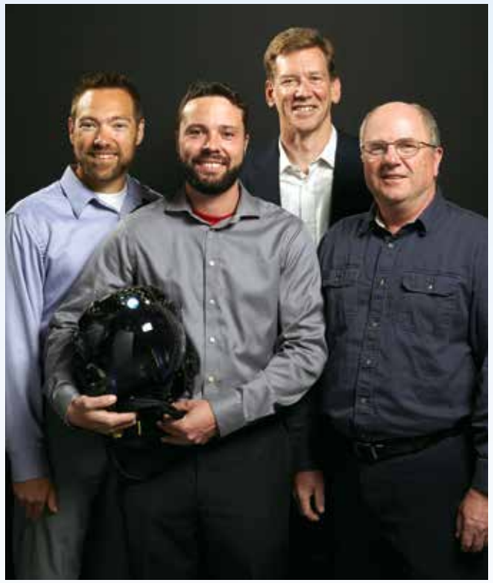
Martin, who subsequently awarded a contract to BAE Systems to develop an alternate helmet.

Keeping it sold

To address the issues with the Gen II HMDS and regain customer confidence, the joint venture with partner ESA was restructured, and Rockwell Collins was positioned as the lead for the F-35 HMDS program.

A core team of approximately 24 systems engineers from Rockwell Collins facilities in Cedar Rapids, Iowa, and Wilsonville, and ESA locations in Merrimack, New Hampshire, and Haifa, Israel, was formed to tackle the "Big 5" technical issues affecting the resolution of the data displayed on the helmet visor. Led by John Lewis, senior engineering manager in the F-35 HMDS program in Cedar Rapids, the team developed solutions for each issue before the HMDS Critical Design Review (CDR) in October 2012.

"The goal we had as a company was to not lose this program to BAE Systems," Lewis said. "Our team had a 'Keep it sold' chart to mark our progress during the time leading up to the CDR."



John Lewis, Tony Ball, Rob McKillip and Bob Foote were part of the F-35 core team whose work resulted in our company and ESA being down-selected as sole source provider of the F-35 HMDS.

The team addressed each of the Big 5 technical issues utilizing the Lean Electronics℠ 8-Step Problem Solving Process. The team also leveraged experts from throughout the Rockwell Collins enterprise and ESA to assist in resolving the technical problems.

Our engineers in Warrenton, Virginia, who work on unmanned aircraft system flight controls, were called on to validate software algorithms to solve the readability problem known as jitter — a symptom of the aircraft shake generated during a high G turn. Knowledge from engineers in our Head Down Display Center in Cedar Rapids was used to fix the display contrast issues. Expertise from our Advanced Technology Center was leveraged to take on the complex math to resolve the alignment problem relating to the accuracy of the targeting information displayed on the visor.

There also was the issue of affordability. We had to meet cost targets set by the Department of Defense (DoD), and our facility at Wilsonville took the lead in ensuring those targets were met.

According to John Kahle, programs manager in Airborne Solutions F-35 Products in Wilsonville, those cost requirements were broken down across the various components that make up the HMDS.

"We worked both within our factory and our suppliers' factories to identify ways to lower our costs to meet the government's cost targets," Kahle said.

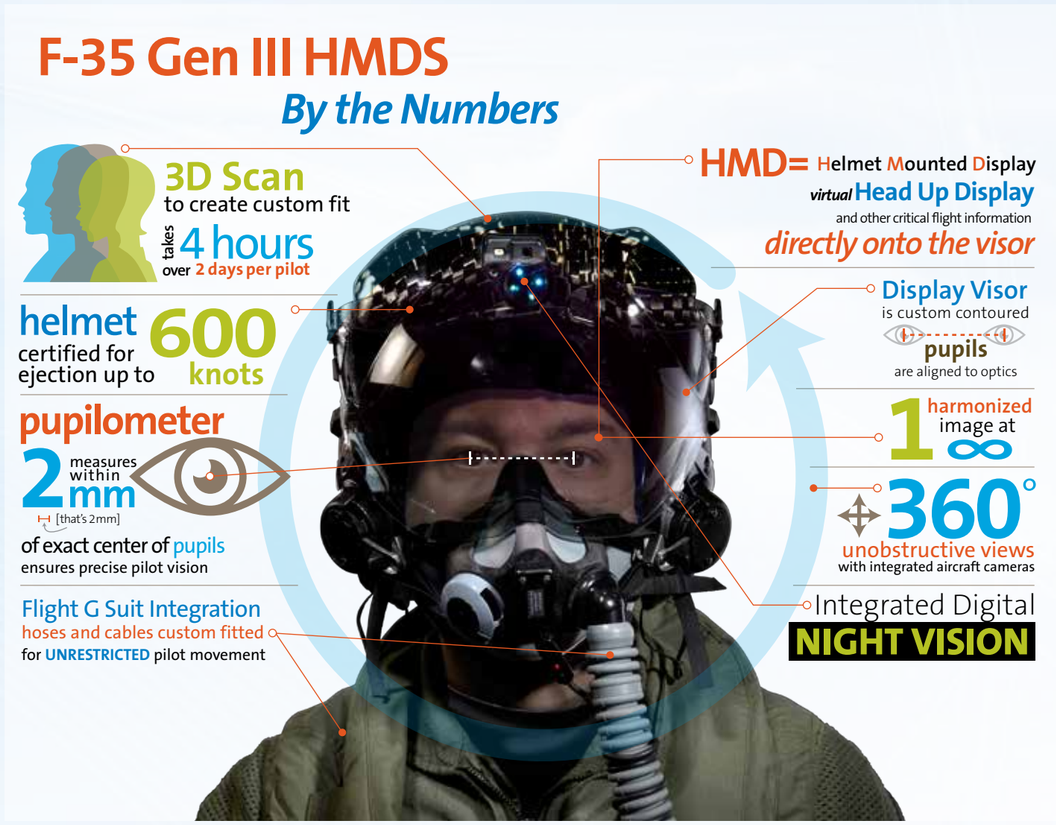
Regaining customer confidence

After working many long days and leveraging the expertise of more than 140 Rockwell Collins employees from around the world, the F-35 HMDS program team came away from the CDR with only three action items. Following four successful night flight demonstrations of our digital integrated night vision solution in 2013, the joint venture team of Rockwell Collins and ESA was named the sole source provider of the F-35 helmet on Oct. 10, 2013.

"We had clear goals on what we had to do to win," Lewis said. "Our colleagues from throughout the enterprise stepped up to work with our team to take on tough technical challenges with innovative thinking."

Production of the Gen III HMDS with our latest state-of-the-art technology is scheduled to begin in mid-2015.

According to Rob McKillip, senior director of F-35 programs in Cedar Rapids, being down-selected as the sole source provider of the F-35 HMDS was a huge vote of confidence for Rockwell Collins and ESA. The F-35 aircraft will replace virtually all jet fighters in the U.S. military and is expected to enter into service in 2015. The aircraft also is being purchased by U.S. allied countries.



"It's a multi-billion dollar program including Global Service and Support," McKillip noted. "Plus, the program award shows confidence from our customer that Rockwell Collins and ESA have the best technology for helmet systems in the world."

Expanding our footprint

Kalsow and Breuer are looking forward to fitting and training pilots on the new Gen III HMDS. Their expertise will soon have to be replicated, however, as more PFFs come on line.

Rockwell Collins recently was awarded a contract to stand up another PFF at Luke Air Force Base near Phoenix, Arizona. We expect to receive word later this year about a contract for a third facility at the Marine Corps Air Station in Beaufort, South Carolina.

McKillip noted that our work is really just beginning with this program as it expands domestically and internationally. Rockwell Collins and ESA are monitoring trends with our HMDS technology in the field and are focused on continuous improvement.

"Fighter programs last a long time, and this one is just getting started," McKillip said. "To continue to differentiate ourselves from the competition, we must keep innovating solutions and providing our customer with exceptional customer service."▪

By Annette Busbee

Proving our night vision solution

Engineering problem-solving and improvisation are key to demonstrating our latest night vision technology.

The question facing the F-35 Helmet Mounted Display System (HMDS) engineering team at Rockwell Collins and our joint venture partner Elbit Systems of America (ESA) was: How do we demonstrate our latest integrated digital night vision solution for the Gen III F-35 HMDS, when this next generation helmet won't be ready for months?

It turned out the answer involved an F-35 test pilot and a twin-propeller Cessna airplane.

According to John Lewis, senior engineering manager in the F-35 HMDS program in Cedar Rapids, Iowa, the customers – Lockheed Martin and the F-35 Joint Program Office (JPO) – felt there were weaknesses in our night vision technology on the Gen II HMDS.

The halo effect, acuity, contrast and brightness of images coming through our night cameras were being contrasted with the resolution in analog night vision goggles – a solution being offered by our competition for the F-35 helmet program, BAE Systems.

"We believed our latest solution using the ISIE 11 sensor would match, if not exceed, what the competition's analog goggles offered," Lewis said. "We wanted to demonstrate this technology to government test pilots as soon as possible to show that it would provide them with the high resolution capability they require to complete night missions."

Northrop Grumman

(Above) When integrated with the Distributed Aperture System from Northrop Grumman, the F-35 HMDS gives pilots a 360-degree view of what is going on around the aircraft, as well as a direct picture of the ground beneath them.

An F-35 test pilot from Lockheed Martin participates in one of the April 2013 flight demonstrations of our integrated digital night vision solution.

Planning and improvising

Engineers on the HMDS team tackled the issue like any other engineering problem to systematically figure out how to do that. And they improvised.

On the F-35 Lightning II jet fighter, an ISIE 11 night sensor would be mounted on the glare shield at the front of the aircraft and another on the pilot's HMDS. For the demonstration flight, engineers determined the sensor could be mounted on the front of ESA's Cessna, and the pilot's HMDS could be modified to receive the output from the sensor.

Engineers had to think outside the box to come up with a method for demonstrating our latest night vision technology. Their solution involved placing the ISIE 11 sensor on the front of a twin-propeller Cessna aircraft and modifying the pilot's F-35 HMDS to receive output from the sensor.

Next came the exhaustive planning to address all the logistics and hurdles to ensure each of the four demonstration flights – two in April and two in June 2013 – were successful. The results of these demonstrations were being watched closely by both Lockheed Martin and the F-35 JPO.

"The test pilots wanted to see laser spotting, they wanted to look at runway lights, they wanted to look at water versus tree lines," Lewis said. "Flight test cards were built to include all the pilots' specific requests – just like we would have done for an actual test flight."

No detail was overlooked, and the team received outstanding support from the Rockwell Collins enterprise, ESA, Lockheed Martin and the F-35 JPO in the planning and execution of the demonstration flights.

Executing the demonstrations

At approximately 11:15 p.m. on April 15, 2013, the Cessna aircraft took off for the first demonstration flight from St. Mary's County Regional Airport in Maryland, located near the Patuxent River Naval Air Station.

Tony Ball, a senior customer service engineer in International and Service Solutions and former Navy avionics technician, sat next to the test pilot pointing out various terrain and asking him to describe what he was seeing.

Throughout the 60-minute flight, Sam Hinckley, a lead optical engineer with ESA, captured the imagery from the night sensor and recorded the pilot's comments.

During subsequent flights, the pilots were able to compare the ISIE 11 sensor with the analog ANVIS 9 goggles in real time.

"We were able to demonstrate that the ISIE 11 digital night vision met or exceeded the capability of the analog goggles," Lewis said. "And the pilots concluded that our sensor technology met their mission objectives."

Pilots rely on high resolution night vision capability to fly night missions. And because they can be up in the air for hours, they need that acuity at close range when hooking into the probe of a refueling tanker.

"There's no room for error in that," Lewis said.

In October 2013, Lockheed Martin named Rockwell Collins and our joint venture partner, ESA, sole source provider of the F-35 HMDS. Production of the Gen III helmet is scheduled to begin in 2015.

According to Rob McKillip, senior director of F-35 programs in Cedar Rapids, our integrated digital night vision solution is an important technical achievement which differentiates Rockwell Collins and ESA.

"Pilots can automatically switch to night vision mode on their helmets without the need to put on bulky goggles," McKillip said. "It's the first helmet system that provides full capability day and night." ▪

By Annette Busbee

A Legacy in the making

Embraer wanted a flight deck so advanced, it can see into the future. Working in sync with the Brazilian original equipment manufacturer, our company developed one that met their tough specifications – and more. Introducing the Rockwell Collins Pro Line Fusion® flight deck on the Legacy 450/500.

Embraer's Legacy 500 featuring Rockwell Collins' Pro Line Fusion® flight deck includes a number of options that helps differentiate it in the marketplace.

A journey to the heart of Embraer's flight testing facility in Gavião Peixoto, Brazil, reveals the first fully integrated Rockwell Collins Pro Line Fusion® flight decks for the Legacy 450/500 program. On any given day here, you're likely to meet Rockwell Collins employees working next to Embraer employees as the Legacy 500 aircraft prototypes undergo final testing for certification.

"The relationship between Embraer and Rockwell Collins is very strong," said Senior Engineering Manager Marco Silveira, a native Brazilian who has worked on commercial aviation programs at our company for nearly 10 years. "We have a good group of experts supporting Embraer, and that group has built a lot of trust between the two companies. Pro Line Fusion plays an important role in Embraer's success."

Seven years ago, Embraer approached several companies, including Rockwell Collins, to develop an avionics system for its mid-light Legacy 450 and mid-size Legacy 500 business jets. Back then, the Brazilian original equipment manufacturer was looking for a flight deck that would help differentiate these twin jets in the marketplace.

Our company was confident that our brand-new Pro Line Fusion cockpit was the right fit to set future standards for capability, value and reliability. Embraer agreed.

"Embraer looked to Rockwell Collins for our overall avionics expertise to deliver a state-of-the-art solution that met their aircraft goals," said Dan Gienger, Rockwell Collins' principal program manager for the Legacy 450/500. "But they also made it clear that maturity was a key component of their strategy. They want a smooth entry into service. Throughout the program, we've worked collaboratively with Embraer to ensure our system meets operational intent and can support their customers' needs in the end."

New safety-enhancing technology

The Legacy 500 will soon be the third platform in the world certified with the Rockwell Collins Pro Line Fusion integrated avionics system. And while the aircraft includes all of the system's advanced features – including the large, high-resolution displays – the flight deck also was designed with Embraer's vision of the future in mind.

For starters, it was created as its smaller twin – the Legacy 450 – on the same development track, which means the avionics software applications are identical for both aircraft.

"All of the technology we're integrating into the Legacy 500 will apply to the Legacy 450, and any new functionality we add to the Legacy 450 over the next year will be available in the Legacy 500 as well," said Gienger, explaining that the Legacy 500 will enter into service this year, and the Legacy 450 is expected to follow some time next year. "There are some configuration changes that we do for each aircraft, so Embraer will have to integrate the functionality on both airplanes and flight test. But anything new we deliver only has to be tested once."

One example of this type of commonality is the Rockwell Collins HGS-3500 compact head-up guidance system (HGS™), capable of presenting synthetic and new multi-spectral enhanced vision system (EVS) imagery to improve safety and access to airports during low-visibility conditions. This technology has never before been available in mid-light and mid-size business jet segments. The compact HGS and EVS solution, once available in 2015, will be fully integrated on both the Legacy 450 and the Legacy 500.

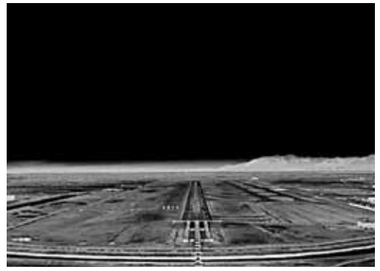
"Embraer employees often voice their excitement at bringing this new situational awareness technology to this market segment," said Susan Schnapp, principal program manager for the HGS/EVS in Wilsonville, Oregon. "Embraer always sets the bar really high, but they're very good partners in overcoming aggressive challenges. They want the Legacy 450/500 to be the best in class. Our compact HUD will only make the aircraft better."

Another Pro Line Fusion feature that will be available first in the marketplace on the Legacy 450/500 program is a safety-enhancing Airport Moving Map application. This functionality was not part of the original scope of the program, and Gienger remembers being somewhat skeptical about adding it.

"Anytime you add new functions that need to be certified, there's a risk," said Gienger. "We felt the risk was manageable, and we made Embraer very happy because the development team did a fantastic job delivering a quality product. They hit every one of their milestones."

Rockwell Collins employees in the United States and Brazil worked closely with Embraer to meet the customer's unique goals. Members of the Cedar Rapids, Iowa, team included (from left) Chuck Wood, Coen Van Der Linden, Luis Martinez and Dale McPherson.

Rockwell Collins' HGS 3500 compact head-up guidance system.



Our customer, Embraer, was impressed by this flight test video showing the capability of our new EVS technology.

Automatic flight control

The $18 million Legacy 500 and $16 million Legacy 450 are also the first two business jets under $50 million to use fly-by-wire flight controls, which provide weight savings and greater precision in flying compared to conventional manual flight controls. Pro Line Fusion communicates with the fly-by-wire system to provide automatic flight control.

"Our flight controls team took algorithms that were tried and tested through years of experience and applied them to Embraer's fly-by-wire system," explained Gienger. "Yet, since we were working with brand-new fly-by-wire technology, it required close collaboration with Embraer and their simulation capabilities to understand how the systems interact in flight and what changes were needed."

Coen Van Der Linden, a flight test engineer and control law analyst within the Rockwell Collins Flight Controls department, began working with Embraer three years ago on the requirements for flight testing the controllers for the flight director and autothrottle functions. About a year ago, Van Der Linden began participating in the flight test on the Legacy 500 and shortly after that, the team started talking about the certification test plan.

"We exercised all the various modes on the autopilot system to see how it was working and to see how the autothrottle was behaving," he said. "Embraer has a very accurate simulation model, but the best simulator is always the airplane itself."

In recent months, he's been providing support for the last phase in the certification process.

"For me, what will be the most exciting thing is to see the airplane in service and be able to say I was there with the authorities, and I helped certify it," said Van Der Linden.

Smooth ride

The one word that Van Der Linden and other Rockwell Collins engineers involved in flight testing have used over and over again when describing the Legacy 500 is "smooth."

"If you push the throttles up, there is hardly any noise from the engines. A little bit of back pressure on the stick, and it pitches up. If you center the stick, it holds exactly where it was left because of the fly-by-wire system," said Dale McPherson, our company's chief systems engineer for the program who trained Embraer's test pilots on how to use our avionics system. "The aircraft is just smooth. Very comfortable.

"Embraer has taken great pains to make the Legacy 500 flight deck beautiful," continued McPherson, who used to work as a corporate pilot and aircraft maintenance technician. "When you run your finger across the front panel, everything is flush. More importantly, information is presented really well. It's clean. It's simple. It's truly beautiful to look at."

Embraer's manufacturing facility is located a few miles from our Melbourne, Florida, facility. Operations employees in Melbourne who worked closely with the customer on quality planning and metrics included (from left) Renee Acosta, Roy Hoaraeu, Jason Dever, Wilfredo Rivera and Rudy Luchsinger.

During the early stages of flight deck development, Embraer put a lot of focus on minimizing clutter and anything that might cause pilot confusion, according to McPherson.

"Working together with the customer, we really brought a more advanced and easier-to-use interface to Pro Line Fusion," he said. "To meet Embraer's vision for this flight deck, we included things like automatic focus motion, automatic cursor motion, cursor tabbing. We also completely redesigned the track ball and the track ball software."

Focused on quality

Seven years ago, Luis Martinez started on the Legacy 450/500 program as a project engineer. Today, he's a senior engineering manager. He, along with the rest of the Rockwell Collins engineering team, has developed close, personal relationships with their Embraer counterparts. They talk at least once a week; more often, it's two or three times a week.

"We're very much one team. Embraer wants to reach the end state together," said Martinez, who is based in Cedar Rapids, Iowa. "During formal testing, Embraer engineers have come here and have tested alongside us. They weren't here just to look over our shoulders to make sure we're doing things right, either. They were here to talk through solutions and come to an agreement together in order to get the best product out there."

Our customer quality engineer for the Legacy 450/500 program at our facility in Melbourne, Florida, Jason Dever, began working with Embraer about a year and a half ago when his Operations leadership asked him to help develop a tool that would provide better insight into quality metrics. This tool allowed the Rockwell Collins team to better engage with the Embraer team on any early design issues or areas where processes needed to be more robust.

"One of the Embraer executives told us that any returns or failures during the development phases are really gifts, and we should view them as that because it's a chance to address any weaknesses early in the program," said Dever, who works just a few miles down the road from Embraer's manufacturing facility in Melbourne.

Embraer Legacy 500

"Embraer is incredibly thorough and very focused on advanced quality planning."

An example of this, according to Dever, is the four-day product and process maturity review the customer held at our Melbourne facility, where our company produces the majority of the Pro Line Fusion products for the Legacy 450/500 aircraft.

"During this event, we looked at 19 different factors to show full compliance to their requirements," he said. "This was the first time we had ever done anything like this for any Business and Regional Systems customer. We weren't quite sure what to expect, but it turned out to be a big success for us."

Challenging program, important work

Roberto Figueiredo, a Rockwell Collins senior systems engineer based in Gavião Peixoto, has 30 years of avionics experience in Brazil. Along with Rogério Ribeiro, who is also a senior systems engineer for our company, his role is to support Embraer's Legacy ground and flight test campaign.

Figueiredo has participated in several tests, and it's an everyday occurrence for him to see Legacy aircraft take off and land. Still, he'll never forget the first time the Legacy 500 prototype No. 1 landed in Gavião Peixoto in November of 2012. He even has a photo standing in front of the aircraft with Ribeiro to remember the day.

"I'm so proud to be working on a program like the Legacy 450/500 because it has an amazing avionics system; it's state of the art," said Figueiredo. "I believe as others around the world experience the technology, they will also be in awe of our work on this challenging program." ▪

By Crystal Hardinger

Aviation aftermarket service is flying high

Rockwell Collins is poised to take advantage of a growing aftermarket service business.

Inside an airplane hangar, about 45 minutes outside Little Rock, Arkansas, Jimmy Jones watches as a crew from CAVU Aerospace dismantles a retired ATR-72 turboprop airplane. On this day, he's overseeing the final parts being taken off the aircraft – Intertrade's 15th purchase in just the last five years.

"It's hard work," Jones noted. "They start with the avionics and flight controls and, within a few weeks, we're down to just landing gear. As they pull the plane apart, I'm helping get the pieces sorted, boxed up and sent off to one of our warehouses."

Jones, based out of Memphis, Tennessee, is a senior quality assurance technician for Intertrade – a Rockwell Collins company and a global leader in providing new and recertified airframe, avionics and engine parts for commercial, regional, business and military aircraft.

Jones, along with Raven Wells, senior quality assurance technician, and Daniel Canizaro, quality assurance technician – also based in Memphis – have inventoried approximately 750 parts from this turboprop airplane for recertification and resale by Intertrade.

"Like most things, as aircraft get older they are retired," Jones said. "But just because a plane is taken out of service doesn't mean there aren't plenty of great parts on it that can be used again."

The parts from this aircraft will be sold by Intertrade, which is just one part of Rockwell Collins' Service Solutions business. Through Service Solutions, Rockwell Collins is working to capitalize on a growing aviation service aftermarket, valued at over $2 billion in 2013, according to Bob Haag, senior director of Global Service Business Development.

"Aftermarket is essentially everything we do from the time the new product is delivered until the time it's obsolete or no longer being used by the customer," Haag explained. "It's the support and services that keep planes in the air."

At Rockwell Collins, that support comes through five areas within Service Solutions: Maintenance, Repair and Overhaul (MRO) – the basic repair and upkeep of products; Field Services – which provides product support and training primarily to Government Systems customers; New Part Sales – to allow customers, including government militaries, to be self-sustaining and do basic repairs themselves; Global Asset Management – the rental or leasing of products to commercial airline and business aviation customers; and Intertrade – the selling of used aircraft components and management of our customers' Rockwell Collins and non-Rockwell Collins equipment repairs.

According to Haag, it's estimated that 80 percent of the money a customer spends throughout the life cycle of an aerospace product takes place after delivery. With the aftermarket outlook trending toward expansion, he said Rockwell Collins is positioning itself to capture an increased piece of that business.

Backlog and budget cuts

Fueling the growth in the service industry are two contradictory trends. One is the robust upturn in the air transport market, according to Thierry Tosi, vice president and general manager for Service Solutions.

More about Intertrade

- Intertrade was founded by two former Collins Radio Company employees in 1969 and purchased by Rockwell Collins in 1999.
- The company originally specialized only in Rockwell Collins avionics.
- Intertrade employs more than 50 people.
- With headquarters in Cedar Rapids, Iowa, Intertrade has distribution facilities in Memphis, Tennessee, London and Singapore.
- Intertrade maintains one of the largest used equipment inventories in the industry.
- International sales account for about 40 percent of Intertrade's business.

Intertrade employees (from left) Jimmy Jones, Raven Wells and Daniel Canizaro supervised the disassembly of this ATR-72 turboprop airplane in Stuttgart, Arkansas.

For instance, two major Original Equipment Manufacturers (OEMs) – Boeing and Airbus – are currently at historically high production rates with backlogs of seven to nine years, depending on the platform. At the start of 2014, Boeing reported a backlog of 5,070 commercial airplanes. As of March 31, the Airbus backlog stood at 5,521 aircraft.

"Rockwell Collins has a large amount of content on those aircraft alone," Tosi said. "Because those are long-cycle platforms that typically come with four-year warranties, those aircraft will be in need of support over the next 10 to 20 years."

As an example of how our company supports our commercial air transport customers, a number of our Boeing 787 customers are employing our Global Asset Management (GAM) programs to assure needed spare equipment is in the right place at the right time. These customers leverage Rockwell Collins' global asset pools to improve their fleet availability while also reducing overall life cycle costs.

While commercial aircraft production is on the rise, the same cannot be said for the number of new government aircraft entering into service. As a result of budget cuts to military programs around the globe, those numbers are trending flat.

"If a government can't afford to buy new aircraft, they will have to continue to upgrade and maintain the ones they have," he said. "That will also create a service growth area for Rockwell Collins."

Diversified for growth

To capitalize on the increasing aftermarket opportunity, Service Solutions' business development strategy calls for capturing a larger share of the product repair market;

Jones, Canizaro and Wells cataloged approximately 750 parts off the turboprop plan for recertification and resale by Intertrade.

being more competitive in seeking out and capturing new business in select global markets such as Europe, South America, the Middle East and Asia; and finding new channels to our markets. A complementary strategy involves leveraging our partnerships and relationships in regions around the globe to identify additional opportunities.

As part of the plan to capture new business, Rockwell Collins is looking to expand several current strategies. One of them, specifically on the government side, is centered around Repair Chain Management (RCM), in which Rockwell Collins would contract with a customer to repair and sustain not just avionics, but other parts, whether made by us or other companies. For example, governments could drastically cut the cost of repair contracts for their military aircraft if Rockwell Collins serviced all the avionics, hydraulics and landing gear. In addition to being more streamlined for the customer, this also would increase revenue for Rockwell Collins.

Another avenue for growth is in the business jet market with the potential expansion of our company's Corporate Aircraft Service Program (CASP). CASP is essentially an insurance policy for business jet or private plane owners. Since the owners of those aircraft typically don't have a dedicated service shop with spare parts readily available, repairs can be lengthy and expensive. Rockwell Collins can insure all of our products through CASP for a set amount of time — allowing customers to receive new parts in a very timely manner, without hassle. With several world events, such as the World Cup and the 2016 Olympics, Service Solutions expects to see an increase in business jet usage and an increase in those taking advantage of the CASP program.

Intertrade expansion

Intertrade also is playing an important role in growing Rockwell Collins' service business as the demand for used parts increases. According to the aviation consultancy firm ICF SH&E, the air transport serviceable parts market made up about 11 percent of the parts market in 2001. In 2013, that number grew to 18 percent. And it could climb to 20 percent of a $15 billion parts market by 2015.

Shawn Bergquist, director of Intertrade, said the company will continue to expand and evolve to meet the needs of its growing global customer base. Over the next five years, Intertrade's revenue is expected to increase proportionately as it further expands its offering of parts from multiple manufacturers. One step in that expansion includes an engine division in Boca Raton, Florida, added in October 2013.

"Engines make up approximately 65 percent of the surplus market spending," Bergquist noted. "We'll continue to study the trends and make smart acquisitions so we remain a full service, used components supplier to our customers."

To better serve customers in the Europe, Middle East and Africa (EuMEA) region, Intertrade opened a new distribution center in March near London Heathrow Airport. The distribution center primarily houses high in-demand avionics and next-generation Boeing 737, Airbus A320 and ATR-72 inventory.

Bergquist said the new warehouse will allow Intertrade to keep costs low for customers in EuMEA by providing increased parts availability and shortened lead times due to the closer proximity of parts.

All of this Service Solutions expansion aligns with our company's overall commitment to accelerating growth, as well as our focus on superior customer service, according to Tosi.

"The aftermarket is a big portion of our business, and we see a lot of opportunity right now," he said. "Plus, taking care of customers throughout the life cycles of their aircraft plays an important role in building an affinity and trust with them."

Intertrade's current success in the aftermarket is being noticed by others in the industry. Rockwell Collins and Intertrade received Aviation Week's 2014 MRO of the Year honor in the Innovative Suppliers/OEM services provider category. The award was presented in March at the MRO Americas conference in Phoenix, Arizona.

Back in Memphis, as Jones waits to help "part-out" Intertrade's next aircraft purchase, he's feeling positive about the direction of the company.

"I've been in the aviation industry for 30 years, and I know there will always be a demand for aftermarket services," he said. "I'm happy to be doing my part to ensure we have quality parts available for our customers." ▪

By Megan Strader and Annette Busbee

New commercial aircraft entry into service rates accelerating through 2019

Members of Rockwell Collins Brazil, along with their colleagues in Cedar Rapids, Iowa, and Blagnac, France, used Lean tools to find space at our facility in Brazil for production of the HF-9087D radio, as well as the HF tester and chamber. They are (from left) Mariana Santos, Cesar Esquin, Cristiano Carvalho, Walter Spinosa and Altemar Oliveira.

Lean roadmap leads to international success

Award-winning team's use of Lean Electronics℠ helped establish a Rockwell Collins brand presence in a key emerging market.

The HF-9087D Production Flow team received the 2014 Enterprise Lean Achievement Award for its use of Lean Electronics℠ tools to help meet a customer's offset requirements and grow our business in Brazil.

At the outset, the team's task seemed daunting. The challenges included developing a process for the establishment and ongoing production and service for our HF-9087D radio in Brazil, according to Leanne Killmeyer, manager of Business Intelligence and Analytics for International and Service Solutions (I&SS) and Lean team facilitator.

The customer had to meet offset requirements for the sale of 50 of its military helicopters in Brazil. An offset is a trade condition put on exporters to purchase products or help develop a foreign country's industry in order to open markets for the exporters' products and services.

Rockwell Collins has a number of products and platforms on this helicopter, including the HF radio and Pro Line 21™ avionics. To absorb our offset obligations as a result of the sale, our company proposed that the customer purchase an HF radio tester, and we would produce the 50 radios at our Rockwell Collins Brazil facility. The client agreed.

The HF-9087D Production Flow team had just 60 days to establish the testing and production process without having standards and processes in place at our facility in Brazil.

"At first look, the project was overwhelming and no one believed we could do it," Killmeyer recalled. "But we were determined to make this happen, so we pulled from our Lean toolbox and quickly got to work."

Lean tools for tough problems

One of the key tools used by the team was Value Stream Mapping (VSM), the process used to identify all actions and tasks required to bring a product from its inception to delivery.

"VSM was the roadmap that guided us and tied it all together from beginning to end," Killmeyer noted. "It put processes in place. And we combined long-term mapping with multiple Burst events and the 8-Step Problem Solving Process to define and propose the offset solution to our customer."

The project team included employees from Brazil, France and the United States, as well as customer representatives. According to Killmeyer, transferring framework contracts for the HF-9087D radio from Rockwell Collins France to Rockwell Collins Brazil and from the customer to its subsidiary in Brazil was complicated due to the multiple parties involved.

The team utilized the ADKAR (Awareness, Desire, Knowledge, Ability, Reinforcement) change management approach and DMAIC (Define, Measure, Analyze, Improve, Control) processes to drive their efforts. Killmeyer labeled the outcomes "extremely successful."

A second challenge involved finding the space to build the radio and set up the new HF tester and chamber at our Rockwell Collins Brazil facility. This had to be done without increasing the footprint or incurring additional cost. Once again, the team went to the Lean toolbox – this time using 5-S (Sort, Simplify, Systematic Clean, Standardize, Sustain) to establish production in our existing facility.

"In the end, the HF tester was manufactured and delivered on time, and the first radio was produced and delivered two weeks ahead of schedule – with all the offset requirements met," Killmeyer said. "I have never been so proud to be a part of Rockwell Collins."

Another benefit of our proven in-country production capability is the establishment of a strong Rockwell Collins brand within the region, according to Cristiano Carvalho, principal strategic development manager at Rockwell Collins Brazil.

"We positioned ourselves as a resourceful partner and built trust in Brazil," Carvalho said. "And the processes and sustainable production flow created here can now be replicated in any country. As an international company doing business in various multi-national programs, this helps position us for future growth." ▪

By Colleen Scholer

Lean Achievement Award Runner-up and Category Winners

Overall Runner-up:
The Master of All Plans (MOAP) project team delivered value throughout the supply chain by creating a leaner process with fewer touch points and better security, as well as creating a single enterprise standard process. Their results included the elimination of a root cause of customer escapes and increased supply chain effectiveness.

Best for Lean Six Sigma Tools:
The Airborne Application Lifecycle Management (ALM) Implementation team launched Lean activities that led to the revolutionary reinvention of engineering workflows in conjunction with the introduction of new Application Lifecycle Management and Mobility initiatives.

Best for Shareholder/ Stakeholder Benefits:
The KC-46 Boeing Defense Systems Hardware Development team utilized Design to Cost Plus (DTC+) process to drive significant improvements into New Product Introduction. This resulted in significant long-term hardware savings and product transition to the factory.

Best use of Rockwell Collins Employees:
The Air Transport Systems team realized increased margins for its Communication/Navigation/ Surveillance (CNS) 2100 Series by dramatically reducing the material and manual touch time product costs while simultaneously addressing obsolescence concerns.

Lean helps us become more efficient through the elimination of non-value added activities. *Employees can learn more about the Five Principles of Lean, which identify focus areas to achieve operational excellence, on the Lean Electronics page on Rockwell Collins Online.*

Career opportunities are looking up

Removing lateral transfer guidelines gives employees more prospects for career development and growth.

Michael Weber was in engineering project support in Commercial Systems in Cedar Rapids, Iowa, for nearly three years when an opening became available for a senior project manager in Operations. He felt he had the skill set to do the job and believed the promotion would be a good career development move for him.

However, corporate procedure at that time didn't allow employees to apply for a position posted internally that would result in a promotion. Weber felt stuck.

"I really enjoyed the work I was doing in engineering but, as a non-engineer, the potential for me to develop my career in that area was limited," he said. "I felt the position in Operations presented a great opportunity for me, but I was informed I wasn't eligible because of the lateral transfer practice."

Weber discussed his situation with a Human Resources contact and shared his view that the practice limited his career options.

He wasn't the only employee to express frustration with the guidelines. Other employees communicated via the 2013 Voice of the Employee (VOE) survey that they also had been restricted in their ability to be considered for promotional opportunities based on the company's lateral move guidelines and rigid promotion schedules.

Human Resources and engineering leaders listened to the feedback, and in September 2013 the practice was eliminated, giving employees the ability to apply for positions when they're ready – at any time throughout the year.

When another senior project manager position opened up in Operations, Weber applied for it and received the promotion. He began his new responsibilities in December 2013.

"It's been a great move," Weber said. "I'm taking an ownership role on advanced projects, I'm learning along the way, and I'm progressing in my career at Rockwell Collins."

Removing roadblocks

The ability to attract, engage and grow our talented employees at Rockwell Collins is a focus for Human Resources, according to Martha May, senior vice president of Human Resources.

"One of our highest priorities is to give our people a place to use their talents, to develop their skills and move ahead in their careers," May said. "While lateral transfers still provide important development options, we want to remove barriers to career enhancement. We want our people to apply for both lateral moves and promotional opportunities when they fit with their skills, experience and career goals."

According to May, the recent changes demonstrate our company's new approach to career development. Additional updates include eliminating the "minimum years of experience" requirement, allowing employees to add specific information about their roles or skill sets to their position title and updating the career path for engineers.

Focus on university recruiting

Along with removing barriers to career development, there also has been a shift to more robust university recruiting to fill entry-level positions left vacant from the progressive promotional changes.

According to Bonnie Knittel, manager of College Relations at Rockwell Collins, we are being more intentional about expanding our student outreach beyond the typical career fair. The new approach focuses on proactively building long-term relationships with students, university faculty and staff early in the college education process, while also using social media to stay in contact with quality candidates throughout the recruiting cycle.

"We're also enhancing our Intern and Co-op programs to provide more exposure to career development opportunities so these students will want to come back and work at Rockwell Collins," Knittel said.

Weber concurs that the removal of the promotional restrictions has made it easier for him to remain at Rockwell Collins, rather than seeking a new job at a different company.

"It's been positive for me," he said. "It's opened up more options that will allow me to grow and develop my career here." ▪

By Colleen Scholer

Service anniversaries

Rockwell Collins offers congratulations to employees who have marked significant service award milestones in recent months.

45 YEARS

APRIL

Mae Webb

JUNE

Steven L. Reece
Leona M. Wauters
Earl J. White
Kathleen A. Welsh
Terry L. Young
Robert L. Zapf
Edward J. Zilka

MAY

David L. Black
Mary J. Cook

CELEBRATING 45 YEARS

Steve Reece

Cedar Rapids, Iowa

Start date: September 1969

Original position: Printed Circuit Draftsman

Current position: Principle Logistics Solutions Manager

What piece of advice do you have for new employees? Be patient. You don't learn everything overnight. Build a strong network of people from various functional groups because you will need to tap into these resources at some point in time

40 YEARS

MARCH

Joan C. Hanel
Scott E. Howe
Karole L. Jonas
Carolyn M. Seeliger
Thomas M. Tucker

APRIL

Dean M. Gross
Brian L. Hanel
Deborah J. Law
Rodney D. Merta
Glen A. Schwartz
Roger W. Soukup
Mary A. Duggan
Vickie K. Eilers
Sarah E. Griffith
Lillian J. Kemmerer
Diana J. Kinion
Dale G. March
William A. Perkins
Merlin K. Pertzsch
James S. Pruitt
Vicki L. Shifflett
Deborah L. Sindelar
Michael P. Stadtmueller
Grant J. Straub
Diane K. Tucker
Robert W. Wendel

JUNE

Gary L. Anderson
Kathy J. Bazal
Charles W. Case
Joyce V. Cerny
David H. Church
Donald R. Detwiler
Gary D. Druse
Mary A. Duffy
Rosemary L. Glubka
Dwayne D. Grote
Richard D. Hanson
Wade E. Ireland
Raymond E. Knoff
Gary D. Krause
John E. Langfitt
Steven K. Lee
Randy L. Lindsey
Richard J. Lyons
John H. Mohr
Cathleen E. Moore
Karen M. Quint
Katheryn A. Rutherford
Dennis E. Sanner
Duane A. Smith
James D. Stone
George D. Weihrauch
Jayne F. Williams

35 YEARS

MARCH

Terry J. Alef
Ronald W. Aull
Connie L. Basil
Ruth A. Burtis
Thomas J. Cleveland
Patricia M. Clynch
Rhonda B. Edwards
Connie A. Elgin
Anthony L. Gaitor
Kathy A. Hunt
Shawnna M. Larison
Kevin J. McKenna
Debra K. Rassman
Dan L. Samuelson

APRIL

Robert L. Bodine, Jr.
Geirun B. Giza
Renata A. Loth
Sherry L. Myhlhousen

CELEBRATING 40 YEARS

Gary L. Anderson

Cedar Rapids, Iowa

Start date: June 1974

Original position: Engineering Lab Technician, Test Equipment Engineering

Current position: Sr. Electronics Technician, GS Sensor & Airborne Labs

What was your most challenging project? Helping to develop and test the microelectronics for the EKV program.

CELEBRATING 40 YEARS

Charlie Case

Cedar Rapids, Iowa

Start date: June 1974

Original position: Engineer, General Aviation Flight Control

Current position: Pr. Systems Engineer, Fusion Systems & RMS Engineering

What is your proudest accomplishment at Rockwell Collins? I played a key role in winning our first position with Bombardier on the Canadair Regional Jet.

Nancy J. O'Connell
David W. Robinson
Patty E. Serovy
Robert J. Snow

MAY

Henry C. Barbre
Kim L. Cargill
Gerald E. Chetwynd
Dawn D. Connell
Michele M. Frett
John K. Gee
Kathy A. Gourley
Robert H. Hendricks
Lori J. Huff
Carol J. Kendle
Gretchen M. Lickiss
Kurt N. Livingston
Debbie A. Malamphy
Alan V. Merrill
John W. Pomeroy
Jeffrey S. Reynolds
Timothy R. Soukup
Shelli J. Wilcox

JUNE

Todd A. Biegler
Josef F. Bielefeld
Marlene T. Bohach
Joleen K. Brady
Randall A. Buck
Terry W. Crist
Linda M. Farrell
Danny T. Fields
Jon K. Gehman
David C. Haerther
Roger D. Hatcher
Kathryn R. Hausmann
Susan L. Hendley
Marsha D. Henning
Curtis F. Johnson
Daniel K. Kaspari
Lisa J. Lower
Daniel W. Lyttle
Timothy J. Madden
Donald L. Michaels
Pamela M. O'Neill
Stephen K. Overbeck
Cynthia J. Paulsen
Ronald R. Pratt
Robert A. Ramsey
Gary R. Reimer
Michael A. Richardson

CELEBRATING 40 YEARS

Joyce V. Cerny

Cedar Rapids, Iowa

Start date: June 1974

Original position: Planar Operator, Avionics

Current position: Sr. Manufacturing Production Control Specialist, Data Links

What piece of advice do you have for new employees? Don't be afraid to ask questions and keep asking until you're satisfied.

Brian K. Smith
Andrew R. Spencer
Cheryl A. Starr
Jacqueline R. Steffen
June M. Stepanek
Sung S. Stultz
Catherine M. Thomas
Cindy S. Usher
Linda L. Warring
Scott K. Watson
Gary A. Weber
Kirk L. Weber
Bruce W. Winter
Dale E. Wulf
Marc W. Ziegler

30 YEARS

MARCH

Mary F. Burke
Annette O. Burkett
Marcia J. Floy
Debra R. Grotegut
Teresita P. Hermosura
Donna M. Hotvedt
Roslyn Jones
Bonnie M. Kraus
Lisa M. Kuester
Christine L. Moellers
Ann M. Murphy
Wendy E. Nelson
Irma Yolanda Osuna Gomez
Ann M. Peyton
Susan Pope
Karen J. Rogers
Sherry L. Taylor

APRIL

Mark H. Carlson
Delphine Cobb
Mary J. Coonce
Randall E. Davis
Randy R. Gouge
Kathleen K. Henry
Paul L. Isaacson
Ricky A. James
Richard C. Jean
Bryan L. Jurgensen
Cary D. Loehr
Rosa Maria Medina
Paul R. Nemeth
Joel Roumegoux
Peggy S. Sproston
Terry A. Zimmerman

MAY

John S. Alexander
Victoria A. Au
Kenneth J. Beyer

CELEBRATING 40 YEARS

Mary Ann Duffy

Cedar Rapids, Iowa

Start date: June 1974

Original position: Composer, Graphics Services

Current position: Technical Writer, Publications & Training Solution

What is your favorite aspect of your current position? My favorite aspect is going to the labs to see our equipment that will go on airplanes, and watching the latest developments in electronics and software applications.

Dennis H. Brunache
Tamam Gharib
Mark R. Hanneman
D'Arlene Hinton-Lindenberg
Natalie D. Joens
Mary L. Lensing
Juana Angelica Leon Moreno
James L. Lorenz
Robin R. Love
Patricia M. Osborne
Julia K. Peacock
Dirk O. Peterjohn
Craig K. Robinson
Shalain D. Sisco
Barbara J. Thrasher
John T. Walborn

JUNE

Michael R. Ament
Michelle A. Bickerton
Karen A. Crank
Don H. Eldredge, Jr.
Gregory A. Eulberg
Jane A. Howes
Todd E. Hutcheson
David A. Kegel
Kathy B. Kraft
Thomas E. Laing

Kathy Meehan (right), mayor of Melbourne, Florida, presented Jeanne Boland, senior director of Operations at Rockwell Collins in Melbourne, with the proclamation she read in commemoration of the facility's 40th anniversary.

Rockwell Collins celebrates 40 years in Melbourne, Florida

More than 1,400 employees at Rockwell Collins in Melbourne, Florida, were joined by several state and local officials and community leaders on April 10 to celebrate the facility's 40th anniversary. Lee Smith, who began his career with our company about two months after the facility opened in September 1974, was one of the employees in attendance.

"I never imagined Rockwell Collins would impact my life the way it has," said Smith, a senior manufacturing production control specialist. "I'm very proud of everything we've accomplished."

In addition to Jeanne Boland, senior director of Melbourne Operations, company executives like Bruce King, senior vice president of Operations, and Craig Olson, vice president and general manager of Business and Regional Systems, attended the celebration and reflected on our company's rich heritage.

Melbourne Mayor Kathy Meehan also was in attendance and read a proclamation in commemoration of the milestone. ▪

CELEBRATING 40 YEARS

Sarah E. Griffith

Annapolis, Maryland

Start date: May 1974

Original position: Engineering Secretary, Telecommunications Systems Program of ARINC Research

Current position: Staff Analyst, GLOBALink Voice Services

What piece of advice do you have for new employees? Please know that you are joining a wonderful family and your individual efforts are very important to the overall success of Rockwell Collins.

Terrence L. Leier
Ronald J. Mikkola, Jr.
Mark M. Mulbrook
Debbie K. Poulson
Kathy A. Robertson
Kelly J. Sagert
Michael C. Sanders
Randal A. Schons
Jeffrey M. Skeie
Damita R. Wash

25 YEARS

MARCH

Frank Amini
Kevin L. Ash
Dominique Baudet
Jacalyn H. Bauer
Benjamin P. Benito
Jo L. Bentz
Cristie L. Bolton Severson
Kara M. Burmeister
Susan L. Debner
Kevin E. Gilbertson
Colleen M. Godar
Daniel L. Griggs
Timothy M. Grimm
Frank E. Gusta
Michael D. Hertle
Mary J. Jahn
Harold D. Jesse
Douglas C. Krumm
Bruce E. Hall, Jr.
Steve D. Hamilton
Cherie L. Hammerand
Evangelina Hernandez Quezada
Debra A. Herrmann
Jean A. Knockel
Bret A. Kohl
Linda L. Michels
Alain Mouls
Janet M. Primmer

CELEBRATING 40 YEARS

Brian L. Hanel

Cedar Rapids, Iowa

Start date: April 1974

Original position: Test Technician, ARC-159/ARC-171

Current position: Senior Systems Engineer, Advanced Data Links

What was your most challenging project? The EKV Program – initially as the Software Project Engineer, and subsequently as one of the Systems Engineers – as quality of the product is crucial in protecting millions of lives.

CELEBRATING 40 YEARS

Diana Kinion

Cedar Rapids, Iowa

Start Date: May 1974

Original position: Planar Assembly Line Operator

Current position: Engineer Lab Assistant

What is your favorite aspect of your current position? Working with the engineers and other team members, and the challenge of learning new designs.

Montine A. Leach
Janice M. Mullan
Gary J. Novak
Kristin K. Pfeifer
Robert W. Ramey
Timothy K. Ryan
Scott M. Schadle
Jeffrey A. Svoboda
Timothy C. Talbert
Maria Juana Vazquez Aceves
David J. Wilkinson

APRIL

Ruth A. Allen
Teresa M. Allison
Wendy J. Brody
Sheri M. Burns
Karen K. Carpenter
Bruno Chauchard
Susan J. Clasen
William G. Doyen
Monique Escalette
Nicole Garrigues
Beth R. Geguzis
David M. Rackow
Kevin J. Rife
William D. Robinson
Tammy M. Sargent
Dave L. Severson
Derick W. Tigs
Susan K. Viall
Debie M. Vorwald

MAY

Nathan D. Adams
Michael C. Anna
Leopold Araneta
Eric D. Baldwin
Joey R. Barker
Kimberly J. Beckman
Mark A. Bentley
Neal J. Bohnenkamp
Yves Boiffier
Steven J. Brecht
Anne E. Chesmore
Lynn R. Christopher
Barbara J. Christopher
Thomas G. Coyle

CELEBRATING 40 YEARS

Dale G. March

Cedar Rapids, Iowa

Start date: May 1974

Original position: Work Internship Program/Co-Op CS Flight Controls

Current position: Principal Systems Engineer, Process Development and Deployment, E&T

What piece of advice do you have for new employees? Take this job seriously. You are a small but critically important part of one of the safest ways to travel throughout the world. Your attention to process, requirements, design and verification details will ensure that safe commercial travel will forever be something we can all enjoy.

Kathy J. Downey
Lyndon L. Dunbar
Amin M. Esmail
David V. Fenske
Heather A. Fratena
Terry L. Gerleman
Luann Gottschalk
Karen L. Hale
Diane E. Harms
Mark D. Heffernen

CELEBRATING 40 YEARS

Jim Pruitt

Cedar Rapids, Iowa

Start date: May 1974

Original position: Electrical Engineer, Cockpit Management Systems

Current position: Principal System Engineer, Head Down Display Center

What was your most challenging project? My most challenging project was designing the power conditioning and distribution subsystem for the High Speed Photometer instrument on NASA's Hubble Space Telescope.

Jeff M. Henry
Kenneth M. Hogan
Paula J. Holub
Amelia L. Huey
Lang Huynh
Diane L. Kilburg
Thomas P. Konoske
Jack D. Kopish
Jeff D. Kulper
Eric Lasserre
Peggy A. Macal
Susan M. Mackey
Troy J. Martin
Sharon K. McCarville
Ruby L. Montgomery
Steve L. Oehlert
William B. Perkins
Christopher B. Peters
Robin L. Podgorski
Calvin R. Potts
Mark A. Werstein
Michael J. Whetstone
Joyce D. Williams
Shirley E. Wilson
Mary Ann Wood
I. Sylwester Wytrychowski

JUNE

Robert J. Agnew
Lee A. Armstrong
Maria Porfiria Barrera Arce
Melvin R. Bender
Vickie L. Boettcher
Dean R. Breau
Katherine L. Brunssen
Franklin R. Caldwell
Thomas P. Clark
Julien De Pablo
Elaine C. Dillabough

CELEBRATING 40 YEARS

James Stone

Cedar Rapids, Iowa

Start date: June 1974

Original position: 270 Test Technician, Production Test

Current position: 170 Sr. Test Technician, Environmental Effects Engineering Dynamics Lab

What is your favorite aspect of your current position? I enjoy seeing the variety of products produced by Rockwell Collins as they are tested in the Environmental Effects Engineering Lab.

Sherri L. Rouse
Kenneth J. Ruddy
Paula M. Schropp
Donald B. Seymour
Jeffrey J. Sheetz
Michael C. Simoson
Ann M. Smith
Gwen E. Stanek
Charles F. Steffen
Stephen M. Steger
Curtis W. Talbott
Alan P. Tropf
Carlen R. Welty
Timothy J. Etherington
Patrick F. Felton
Bernard K. Fung
Steven R. Glanz
Afeworki G. Habte
Kevin M. Hackenmiller
Brent D. Hammes
Robert W. Haug
Karen D. Heagerty
Roberta L. Heitmann

CELEBRATING 40 YEARS

George (Dale) Weihrauch

Cedar Rapids, Iowa

Start date: June 1974

Original position: Test Technician, Receiving Inspection

Current position: Senior Technical Illustrator

What is your proudest accomplishment at Rockwell Collins? My proudest accomplishment was receiving my master's degree in Information Systems.

Christy A. Helmle
Mark E. Husmann
Tony L. Johnson
Douglas S. Kaestner
Lore B. Katz
David J. Key
Sandra K. Kilburg
Jeffrey S. Kremer
Scott A. Kremer
Lee S. Lang
Fred D. Mabe
Jeffrey A. Miller
Robert A. Miller
James E. Monagan
Robert L. Moore
Terry M. Moroney
Randy A. Naeve
Penny L. Nunemaker
David C. Payne
Julie A. Pleasant
Glenn R. Plummer
Gale J. Simon
Paul E. Slater
John R. Slusarek
Edward D. Sokoloski
Linda M. Sullivan
Sue A. Swanda
Deborah S. Templeton
Robert B. Van Dolah

CELEBRATING 35 YEARS

Henry "Hank" C. Barbre

Clarksville, Tennessee

Start date: May 1979

Original position: Technician, Calibration & Repair Section

Current position: Pr. Customer Service Engineer

What was your most challenging project? Communicating the various aspects of the systems to the customer.

Dianne J. Wiest
Georgia M. Winkfield
Jedediah E. Young
LeRoy F. Zmolek

20 YEARS

MARCH

Carlos Manuel Alcaraz Ruiz
Guillermo Avalos Sanchez
Sandra L. Knepper
Clive J. Littlechild
Maria De Jesus Macias Castro
Julio C. Medrano
Nguyet M. Nguyen
Don A. Potter
Antonia Preciado Peralta
Siavash Safari

CELEBRATING 35 YEARS

Randy Buck

Cedar Rapids, Iowa

Start date: June 1979

Original position: Reliability Engineer, General Aviation Division

Current position: Manager, Operations Product Transition, GS Manufacturing

What was your most challenging project? The space shuttle.

CELEBRATING 35 YEARS

Ruth Burtis

Annapolis, Maryland

Start date: March 1979

Original position: Clerk Typist, Business Operations

Current position: Financial Analyst/ Contract Billing, Business Operations

What was your most challenging project? The implementation and transitioning from paper time sheets to electronic timesheets was challenging.

Kathleen M. Bronner
Joan L. Decker
Preston J. Eiler
Pedro Gonzalez Soto
Susan J. Hovey
Laura Soto Camacho
Ricky J. Theriault
Maria Cecilia Vazquez Leyva

CELEBRATING 35 YEARS

Dawn Connell

Annapolis, Maryland

Start date: May 1979

Original position: Billing Clerk, Finance

Current position: Director, IMS Billing & Accounts Receivable/Business Operations

What was your most challenging project? Being a member of the implementation team for a new accounting system (Costpoint) in 1996, and the team lead for the implementation of a new billing system (RevChain) in 2003 and 2004.

CELEBRATING 35 YEARS

John Gee

Cedar Rapids, Iowa

Start date: May 1979

Original position: Engineer, Processor Technology, AT&E

Current position: Engineer, Embedded Information Systems, ATC, E&T

What is your proudest accomplishment at Rockwell Collins? Receiving the Engineer of the Year award.

APRIL

Aurea Patricia Delgado Godoy
Monica A. Dunbar
Debra D. Elledge
Keith G. Feldkamp
Mitsuaki Hagino
Clifford R. Klein
Lisa A. Prout
Alfredo Ramirez Delfin
Beronica Saveedra Ramirez
Christy S. Young

MAY

Steven L. Anthonisen
Layne J. Christensen
Jennifer L. Dang
Daniel D. Duling
Mark A. Ewert
Cheryl L. Frye
Grace E. Kelley
Andres Jucutan Manese
David A. Miller
Kevin J. Neigum
Debra J. Nugent
Russell A. Roling

Duane A. Sadler
Stephen J. Stramel, Jr.
Dennis V. Wagner
Philip J. Wiley

Kathy J. Meiborg
Huan T. Phan
Chad L. Raap
Todd A. Rosonke

CELEBRATING 35 YEARS

Kathy Gourley

Cedar Rapids, Iowa

Start date: May 1979

Original position: Secretary, Government Engineering

Current position: Sr. PP&C Analyst, GS

What is your proudest accomplishment at Rockwell Collins?

I worked on the F-22 Bidding Team in 1993 for which I was nominated for the Chairman's Team Award.

JUNE

Salvador Castro Castillo
Terrie S. Chalupsky
Manuel De Castro
Matilde Estrada Lugo
Jose Juan Antonio Gonzalez Rodriguez
Kendall L. Heckroth
Mary J. Huinker
Richard D. Jinkins

Courtney D. Smith
Richard S. Solar
James B. Tetrick

15 YEARS

MARCH

Sarah Barber
Ruth E. Benardo
Lanette S. Boots
Marie C. Chervek
Jay A. Doty

CELEBRATING 35 YEARS

David C. Haerther

Cedar Rapids, Iowa

Start date: June 1979

Original position: Engineering Administrator, Advanced Technology & Engineering

Current position: Primary Contract Manager, CS

What is your favorite aspect of your current position? Working with so many incredibly talented, dedicated and diverse individuals.

Reggie D. Drake
Robert F. Duwel
Wynema Earl
Ali R. Eshraghi

Bruce M. Kaiser
Mark R. Kirby
Diane M. Lotz
Jessica A. Macal

CELEBRATING 35 YEARS

Roger Hatcher

Cedar Rapids, Iowa

Start date: June 1979

Original position: Engineer/Scientist II, HF Product Engineering

Current position: Principal Electrical Engineer, GS Air/Ground Engineering

What is your favorite aspect of your current position? The daily possibility that I might be able to help any of the Rockwell Collins' divisions or our customers solve a problem.

CELEBRATING 35 YEARS

Susan Hendley

Melbourne, Florida

Start date: June 1979

Original position: Prewave Operator, DME, ADF

Current position: Sr. Configuration Coordinator, ESC MCAD

What piece of advice do you have for new employees? Always look on the bright side of every situation.

Timothy A. Fritz
Dean M. Galus
Matthew J. Garms
Matthew T. Gavin
Deborah L. Greenwald
Ricardo Gurrola Garcia
Carla A. Haverly
Gregory R. Hock
Matt P. Hute
Byung June Jeon
Craig L. Johnson

Bradley L. Marling
Mark S. McClurg
Scott T. McCoy
Michael T. McDowell
Mary C. McMullen
Veepul N. Mistry
Jean C. Morey
Alma Trinidad Munoz Lugo
Donato Oricchio
Stanley C. Parker
Maria Matilde Penuelas Inzunza

CELEBRATING 35 YEARS

Lori Huff

Cedar Rapids, Iowa

Start date: May 1979

Original position: Product Line Administrator, Marketing

Current position: Manager, Operations Consistent Process

What is your proudest accomplishment at Rockwell Collins? I am most proud of developing the first volunteer-based internal audit program and being a 1996 finalist for the Chairman's Team Award. I organized volunteers from cross-functional Iowa areas, created ISO Auditor training, conducted hands-on skill-based instruction, provided audit opportunities in a variety of areas and better prepared employees for surviving external audits in their own areas.

CELEBRATING 35 YEARS

Dan Kaspari

Cedar Rapids, Iowa

Start date: June 1979

Original position: Mechanical Engineer, General Aviation Division

Current position: Mechanical Engineering Manager, CS Systems Architectures Department

What piece of advice do you have for new employees? Don't forget the importance of the handshake when building your network.

Wilfredo D. Rivera
Lisa G. Rohret
Michael P. Rommes

Annette M. Rosendahl
Cruz Ruiz Zamudio
Rubin V. Sambajon

Fabien Samouillan
Bryce D. Schellhorn
Katherine L. Straub
Ronald W. Suttles
Joe M. Tryon
Brian C. Vitti
Brian D. Wiebke
James D. Wilson
Thomas D. Yakish
James A. Zelle

Barbara A. Klein
Pok Sing Lai
Bernardina Macias Alaniz
Dale W. Martin
Debra L. Maue
Ronald J. Morey
Michael D. Nelson
Dean R. Niemi
Jesus A. Ortega
John J. Packer

CELEBRATING 35 YEARS

Gretchen Lickiss

Cedar Rapids, Iowa

Start date: May 1979

Original position: Business Intern, Purchasing

Current position: Sr. Project Manager, Supplier Management Processes

What is your proudest accomplishment at Rockwell Collins? Establishing the Rockwell Collins Small Business Program after it was first federally mandated in the late 1970s. I managed a successful Small Business Program for 15 years.

APRIL

Arturo R. Acevedo
David E. Bever
Lilian Cahors
Gerald D. Campa
Jing Chen
Treadwell A. Christoffel
Jose A. Collaco
Olivier Durand
Arthur Fernandes
Scott G. Foster
William R. Frey
Juana Galindo Perez
Gloria Gameros Banuelos
Anabell Garcia Rocha
Anton Haddad
John R. Henning
Bruce D. Hufnagel
Daniel E. Jens
David W. Karrow

Bhupesh Patel
Minesh Patel
Julie A. Rosenbohm
Kirschen A. Seah
Charles D. Senters
Brian L. Sevart
Robert D. Silvey
Richard J. Sutton
Stephen J. Tremblay
Curt E. Voves
Charles C. Wade
Michael R. Wobbe
Scott S. Young

MAY

La Dena R. Anderson
Bobby J. Ascher
Randall K. Ashburn
Margaret M. Bailey
Jason D. Block
Kristina N. Bollinger
Beverly A. Bowen
Sarah E. Braun

Stephanie L. Chadwick
Kathy L. Clasen
Genevieve Conwell
Wanda J. Deweese
Kyle P. Dotson
Carol G. Faulkner
Deborah K. Fawcett
Thomas J. Gorman
Nathan J. Groth

Wendy G. Gutierrez
Christopher D. Haman
Donald J. Hatfield
Alan Howarth
Chad M. Huntington
Christophe Izallier
Nicholas M. Jaeger
Carolyn M. Johnston
Randy D. Jordan

CELEBRATING 35 YEARS

Daniel W. Lyttle

Cedar Rapids, Iowa

Start date: June 1979

Original position: Engineer/Scientist II, Advanced Technology & Engineering

Current position: Pr. Software Engineer, Modernized GPS User Equipment

What piece of advice do you have for new employees? Find a subject where you have aptitude and passion, become the expert and share your knowledge with others.

CELEBRATING 35 YEARS

Donald (Don) L. Michaels

Cedar Rapids, Iowa

Start date: June 1979

Original position: Mechanical Engineer, Collins General Aviation Division

Current position: Sr. Engineering Manager, GS Navigation Products

What is your proudest accomplishment at Rockwell Collins? My proudest accomplishment at Rockwell Collins was being awarded a patent for a hermetic seal design for a seal that improves with age.

Sean Kenosian
Danny J. Koppes
Lynn R. Kruse
David L. Leedom
Benoit Lenormand
Alfred J. Lopes
Georges Macedo
Peter N. Margellos
Nathalie Maury
Kevin A. McCarron
Michael S. Orban
Angela Y. Parrish
Sharon K. Pillai
Scot W. Reed
Arfon H. Rees
Laura Rivera Robles
Joanne M. Robertson
Bret D. Schneider
Anthony W. Schoepske

CELEBRATING 35 YEARS

Pam O'Neill

Cedar Rapids, Iowa

Start date: June 1979

Original position: CPC

Current position: Sr. PC Designer

What is your favorite aspect of your current position? I have been blessed with a great group of co-workers in a great department.

CELEBRATING 35 YEARS

John Pomeroy

Cedar Rapids, Iowa

Start date: May 1979

Original position: Engineering Lab Technician, Air Transport

Current position: Sr. Electronics Technician, A-C Systems & Architecture Tech Support

What piece of advice do you have for new employees? Pursue, listen and learn from the vast pool of talented people at Rockwell Collins. Also, always remember to explore, learn and enjoy the technology being worked on.

Ronald J. McGowan
Todd E. Moyer
James C. Novitch
James R. Schreiber
James M. Shearer
William E. Simerly, Jr.
Pamela M. Smith

CELEBRATING 35 YEARS

Ronald Pratt

Cedar Rapids, Iowa

Start date: June 1979

Original position: Engineering Lab Technician, Air Transport

Current position: Pr. Software Engineer, Process Development & Deployment

What is your favorite aspect of your current position? I have the opportunity to meet and work with several wonderful employees across Rockwell Collins.

Terry L. Stephens
Gerald F. Thompson
Paul F. Thorpe
Marie-Pierre Tual
Helena M. Vanover
Dorla M. Voigt
Nancy K. Welsh
Bradley A. Weyer
Michelle A. Wharton
Karl G. Wild

JUNE

Floyd R. Adams
Marvin J. Anselm
Tate M. Bachmeier
Isaac A. Bachmeier
Brian Back
Philip H. Bates
Charles A. Beatty
Deborah A. Belew
James G. Bennett
Jason N. Betts
Brian L. Bidinger
Shirley E. Bigler
Eric J. Bong
Denis Bonnefille-Fourment
Keith R. Bornbach
Sandra L. Bryant
Wade A. Buck
Nathaniel Bussey
Eric Capdupuy
Anne M. Carreras
Scott D. Conrad
Michele L. Cooper
Ana J. Dalton
Mark J. Diede
Mary L. Donaldson
Paul E. Donnelly
Tom J. Easton
Haesook Edwards
Stephanie S. Ernsting
Scott A. Evers
Julia Felipe Maganda
Kevin L. Fink
Jennifer E. Fredin
Lenora M. Gehrls
Boen L. Go
Shalynn R. Goode
Michael J. Gough
Jeffrey R. Granger
Pamela J. Hilkin
Michael A. Hollingsworth
Christopher J. Hubbs
Lloyd D. Johnson
David R. Karpa
Kevin W. Keene
Jeremy K. Kinn
Amilee A. Laube
Ronald E. Luse
Andrew J. Lyle
Quinton W. Mach
Timothy F. McCrea
Michael J. Millett
Kirk D. Mosso
Luciano D. Mougenot
Philippe Mouquet
Jorge Enrique Navar Arizona
Byron E. Neal
Robert C. Neff
Joette D. Noonan
Frank M. Parise
Ronald J. Phister
Troy D. Raap
Albert A. Richard
Holly J. Rothenberger
Cheryl J. Schmaltz
Rodney A. Schmidt
Edgar R. Shen
Tim W. Shinneman
James A. Sibbing
Stephen M. Sikes
Rick A. Smith
Laurent Soyer
James H. Spillman
Richard C. Swank
Syed Ali Bin Syed Osman Almusayah
Benjamin G. Volkenant
James M. Bors
Holly B. Burns
Concepcion Erendira Carrillo Diaz
Nicholas J. Deitch
Daniel L. Dickerson
Janene C. Doolin
Douglas A. Doss
Ernesto Duarte Magana
Nathan E. Evenson
Shane A. Ewing
Elise A. Frank
Marieda S. Freese
Michelle L. Gourley
Vincent J. Grahs
Jeffrey M. Harlost
James D. Hartner
Chris J. Heid
Ana Lizette Hernandez Malacon
Darlene L. Johnson

CELEBRATING 35 YEARS

Michael A. Richardson

Cedar Rapids, Iowa

Start date: June 1979

Original position: Calibration/ Repair Technician

Current position: Sr. Calibration/ Repair Technician

What is your favorite aspect of your current position? The variety of equipment I work on and the people I work with each day.

Stefanie A. Wiese
Jeffery D. Willis
Larry W. Wright

10 YEARS

MARCH

Nicole A. Aab
Brian L. Aanderud
Jennifer S. Alarcon
Jacob M. Armstrong
Maria Angelica Beltran Soto
Francis Benjamin
Shakiba A. Bibeau
Reed I. Bleeker
Edward T. Joyce
David E. Kahler
Kristin M. King
Jennifer L. Lamparek
Ron Lewin
Carol A. Lewis
Jamie R. Lewis
Caroline C. Lim
Diana Lizeth Macias Ramirez
Samuel L. Mathias
Linda M. McKeown
Anthony J. Miller

Maria Eustolia G. Moran
Dawn R. Mullins
Sunao Okazaki
Alan Owen
Charles J. Power
Margaret M. Price
Scott S. Rediger
Brian C. Reynolds
Tim R. Russell
Alicia J. Schulte
Eduard Blasi Servitja
Yoel H. Sonera
Kurt D. Sprague
Russell C. Tawney
Linus EC Terh
Michelle R. Tidwell
Douglas L. Wickman

APRIL

Richard E. Adamek, Jr.
Ivan Palomino Amador
Nathan J. Anderson
Bradley E. Anderson
Scott M. Beecher
Margarita Lizeth Bernal Galvez
Petre C. Bosneanu
Chris J. Brzozowski
Roland A. Budine, Jr.
Nicolae P. Costescu
Nancy L. Daily
Etienne D'amour
Roger M. Duvall
Lori L. Edaburn
Jason M. Fiedler
Jon L. Floyd
Peter J. Flugstad
Tammy E. Garner
Deanna V. Grant
Eugene T. Grieshaber
Brian T. Grunewaldt
David E. Hagan
Robert J. Hansen
Rami J. Abu Hijleh
David E. Hill
Timothy M. Holivan
Leo G. Hower
Jeffry A. Howington
Justin G. Hunter
Matthew J. Juszczyk
Sheila L. Krouth
Debra E. Lawrence
Eric J. Lis
Cheryl J. McNamara
Youngyout Narongvate
Brent J. Nelson
Richard T. Nevitt
David G. Norman
Dale W. Potter
AnnaMarie B. Rudd
Sergey B. Shishlov
Karen M. Snakenberg
Charles M. Sowers
Cheri D. Spurgeon

CELEBRATING 35 YEARS

Brian K. Smith

Cedar Rapids, Iowa

Start date: June 1979

Original position: IE, Technician/ Production

Current position: Sr. Mechanical Engineer, Advanced Operations Engineering

What was your most challenging project? One of them was certainly the ELDEC High Volt Power Supply replacement project for the EDU. The team designed a HVPS to be built and potted in-house to replace a high failure rate purchased assembly.

CELEBRATING 35 YEARS

Andy Spencer

Cedar Rapids, Iowa

Start date: June 1979

Original position: Software Engineer, Receiving Inspection

Current position: Sr. Software Engineer, Common Hardware-Software Products

What is your favorite aspect of your current position? Handling project engineer responsibilities for a great group of systems and software engineers.

Sebastien Thellier
Neal Threets
Joseph C. Trepa
Brian J. Unruh
Kevin W. Wambsganz
Chasity S. Weakly
Stephen C. Wilkinson-Gruber

MAY

Carmina S. Baltazar
Jodee L. Barrios
Robert J. Beauchene
Nicolasa Benitez
Kevin D. Blanding
Diane S. Blodgett
Susan C. Brands
Andy Chau
Long C. Chau
Jaron J. Christoph
Duane L. Corpe
Josie D. de Guzman
Sherry C. DeFord
Lorena T. Deveau
Michael D. Dzado
Robert W. Erickson
Nathaniel T. Gould
Dave D. Graham
Edward M. Green
Ronald M. Hack
Matthew E. Haller
Matthew C. Harper
Simon L. Haumont
Debra A. Hicks
Sue A. Kelly
Dennis F. Kula, Jr.
Andrew J. Laird
Justin M. Lauer
Tuan H. Le
Tim Lovan
Randolph C. Matz
Christopher D. Mees
Esther M. Miller
Michael J. Myers
Joshua L. Nefzger
Nicholas J. Novotny
Eric J. Oberbroeckling
Weng Keong Ow
Jon M. Pals
Catherine D. Passmore
Daniel C. Paulsen
Robert L. Peffley
Geraldine L. Piccioni
Lynda E. Putnam
David A. Rafson
Cinthia Vlaney Ramirez Ortega
Philip T. Ridl
Alma Janeth M. Rodriguez
Ana P. Rodriguez
Christian P. Romandetti
Lesley A. Schieltz
Michael L. Schilling
Mark L. Shattuck
Paul C. Smith
Kirk A. Steffen
Gregg M. Strupek
Douglas J. Sweeney
Maria Cristina Valenzuela Ramirez
Amy E. van de Graaff
Michael J. Walla
Scott J. Wegener

JUNE

Argenis D. Acosta
Gerri C. Allen
Leroy G. Alonzo
Joseph W. Ampulski
Scott J. Arthur
Susan K. Bader
Tara L. Barnard
Carol M. Dracoules
Melissa L. Dressler
Anthony F. Fite
Travis J. Floyd
James Giel
Stephen M. Gilbert
Ricki Y. Gilland
Anthony J. Guadalupe
Glenn C. Guzman
David E. Harris
Reynaldo R. Hernandez

CELEBRATING 35 YEARS

Tim Soukup

Cedar Rapids, Iowa

Start date: May 1979

Original position: Expeditor for General Aviation

Current position: Senior Inventory Planner/Forecaster for I&SS

What is your proudest accomplishment at Rockwell Collins? There's been a member of my family employed here since the company opened in 1933 – totaling 80+ years of family service.

Anna Marie Q. Belarmino
Peter R. Bellows
Nicholas J. Berglund
Corrie E. Block
Jeffrey D. Bouis
Richard A. Burr
Clinton R. Carder
Sean P. Carroll
Luisa I. Cintron
Lourdes R. Cox
Lara B. Crane
Kristine S. Cross
Darlene S. Cumberland
Michael L. Deffenbaugh
Shanna A. Dill
Shamim H. Dhilawala
John J. Donaldson
Alissa L. Dorman
Joel Hernandez Villalobos
Lavelle M. House
Rahman B. Hudson
Nicholas E. Hulst
Paul R. Hunt
Irma yanet Iniguez Chavez
Billie J. Johnson
Dustin R. Johnson
Neil C. Johnson
Reginald T. Joseph
Carlos Alberto Juarez Corral
John A. Kehoe III
Christopher A. Kistler
Angela L. Knudson
Danielle M. Koob
Kathleen L. Korell
Lynn E. Kress-Swartz
Paul A. Langholz

Guadalupe Lara Canizalez
Beatriz Adriana Lizaola Barrera
Stefano C. Maestri
Juan Maldonado Ramos
Ronald J. McLaren
Bianca Hayde Mendoza Romero
Anais Anabel Mendoza Romero
Daniel E. Meyer
Phoebe A. Michener
Jason A. Miller
Joel J. Miller
Timothy R. Montoya
John M. Murray
Scott M. Nyberg
Sarah A. Nyberg
Kelly T. O'Brien
Andrew K. Ormsby
Justin H. Rogers
Tara J. Rose
Michael A. Schlabsz
Steven J. Schneider
Garry R. Schultz
Michelle Shaar
Janet E. Shaw
Ryan M. Simoens
Alan D. Slater
Jason E. Smithe
Cheryl M. Suhling
Bonnie J. Taylor
Bruce E. Taylor
Donald W. Turrentine
William V. Verdoorn
Nels D. Waineo
Yuting Wan
Robin E. Weaver
Chad M. Weldon
Victoria C. Wenger
Paul Wielgosz

CELEBRATING 35 YEARS

Scott K. Watson

Tianjin, China

Start date: June 1979

Original position: Technician, Chicago Service Center

Current position: General Manager, Rockwell Collins China JV "ACCEL"

What piece of advice do you have for new employees? Enjoy your work, participate with others in creating excellence, encourage others to do the same, and balance that with your personal goals and aspirations.

Wendy S. Osterhaus
Jacob C. Overath
Gregory L. Parker
Cynthia G. Pearson
Richard C. Peterson
James W. Plummer
Rebecca E. Poling
Jessica M. Ray
Mercer P. Richardson
Phyllis A. Rife
Jeffrey C. Robert
Christopher F. Roe

5 YEARS

MARCH

Vincent S. Allen
David M. Baird
Andrew Beynon
Sean Billings
Timothy C. Ceteras
Abhijeet Chanchal
Beiliang Chen
Christopher Cook
Michael G. Czernec
Kevin Daciek

CELEBRATING 35 YEARS

Bruce Winter

Cedar Rapids, Iowa

Start date: June 1979

Original position: Engineering Lab Technician, Component Test Lab

Current position: Sr. Manufacturing Engineer, CAMEL Lab

What is your favorite aspect of your current position? I always have something different to work on and great people to work with.

David G. Daley
Michael Dierkes
Andrew M. Dorman
Len E. Elam
Robert R. Esselborn
Carlos M. Fernandes
Michelle V. Geitzenauer
Jean E. Helmrich
Swapnil S. Jadhav
Venkatesh M. Jatla
Ian D. Knight
Tyler Z. Liechty
Michael E. Love
Krishnan Malini
Jeremy Moore
Magali Moreau
Jane F. Nichol
Norunn M. Nygard
Loc Nguyen
Rebecca S. Origer
Antoine F. Perez-Vernon
John A. Picciano
Marcus J. Pollard
Thayi Ramya
James J. Reese
Graham A. Rhodes
Vikas Saini
Tahir Hussain A. Sanglikar
Jason Vail
Jaime N. Villegas
Nikhil K. Vuradi
Ryan C. Wertz
Robert White

APRIL

Charles A. Adams
Rodney A. Anderson, Jr.
Carlos M. Arto
Daniel M. Barbieri
Wendy E. Beckley
David Begley
Rachel V. Chamley
Maryann P. Currie
Mudassar Dalvi
Mikael Enberg
Kevin Fortner
Irsan Halim
Lars-G Hansson
Christopher M. Harris
Taalon R. Huber
Kibyung Jang
Nancy J. Jordan
Srikanth G. Joshi
Yoshihiro Koyama
Ajit P. Kumar
Sanjeen Kumar
Mark A. Laliberte
Christophe Lempereur
Jarrod J. Lucero
Michael C. Mejia
Ram P. Nalluri
Nader Nejadhashemi
Koichi Oiwa
Brandon J. Pancost
James D. Powers
Phillip J. Rackstraw
Syed H. Rahman
Madhuri Reddy
Judith Sanchez
Eric J. Stammen
Robert A. Sturgell
Michael J. Sugars
Michiko Takada
Brad Vesely
Noah P. Wolf

MAY

Navneet S. Ahluwalia
Steven M. Baker
Balajee Balasubramanian
Christopher Barnes
Arvinder K. Bawa
Tommy Broback
Brian E. Brooks
Dana L. Dorman
Rachel A. Grinvalds
Stuart Harvey
Alex Hughes
Kelly J. Jameson
Jason H. Kelley, Jr.
Scott A. Klassen
Maanaskumar Kotha
James R. Lazell
John D. Lillas
Dale W. Maxedon
Lee J. Morris
Joel A. Neuendorf
James C. Olbrich
Sharanabasappa Sajjan
Steven V. Schatz
Konrad L. Slind
William D. Stanford
David B. Stranahan
Alice Y. Wang
Timothy W. Waters
Michael J. Wolf

JUNE

Jason T. Ash
Paul Bateman
Srinivas Boga
Charles A. Brown
Suman Chennoju
Daniel R. Chizek
Kevin Constable
Christophe David
Desmond Chuin Yang Goh
George R. Hall III
Donnie S. Hanke
Michael P. Hogue
Dawn L. Houtz
Robert W. Johnstone
Kamal Kahlaoui

CELEBRATING 35 YEARS

Dale E. Wulf

Cedar Rapids, Iowa

Start date: June 1979

Original position: Design Drafting Technician, Collins Government Avionics Division Mechanical Design

Current position: Manager, Mechanical Design Support

What is your proudest accomplishment at Rockwell Collins? Earning the respect and trust from talented individuals who worked to mentor and challenge me.

Mark A. Pape
Steven J. Parrish
Jerry Patterson
Danny W. Rhoades
Sebastien Rousseau
Nicholas A. Roy
Mithun Roy
Robert T. Killian
Chad R. Kubly
Peter B. Laird
Dorothee Laurent
Laci M. Lee
Morgan L. Less

Christopher J. Loewen
Rajesh Manem
Killy S. Morris
Prakash Natarajan
Jordan M. Overton
Shrinivas Pai
Daniel K. Papke
Daniel J. Perret
Denise R. Polansky
Anthony R. Pompo
Jennifer E. Pryor
Melissa S. Recker
Sonia Ruano
Karen A. Scheidt
Mark A. Schoelen
Michelle D. Schuler
David Sinshu
Steven J. Sulhoff
Kyle N. Thompson
Michael J. Vosatka
Gregory P. Zarse

Retirees

Rockwell Collins offers congratulations and best wishes to the following employees, who have recently announced their retirements.

Daniel J. Alfonzo
San Juan Capistrano, California

John E. Barker
Rowlett, Texas

Randall T. Becker
Dubuque, Iowa

Harlan D. Belden
Swisher, Iowa

Marshall L. Bjornsen
Urbana, Iowa

Delores M. Black
Marion, Iowa

Julie Booth
Palo, Iowa

Sherry A. Bouska
Ridgeway, Iowa

Lynn M. Bryant
Cedar Rapids, Iowa

Wanda L. Campbell
Cedar Rapids, Iowa

Paul W. Carlson
Cedar Rapids, Iowa

Anthony C. Cook
Cedar Rapids, Iowa

Donald G. Coon
Cedar Rapids, Iowa

Doris R. Denniston
Wyoming, Iowa

Patrick F. Didier
Marion, Iowa

William F. Dodrill
Frisco, Texas

Gary J. Driscoll
Cedar Rapids, Iowa

Candace K. Erickson
Mabel, Minnesota

Gustavo Estrada
Milpitas, California

Paul A. Fleuelling
Encinitas, California

David A. Forbes
Amana, Iowa

Constance M. Fox
Cedar Rapids, Iowa

Terry L. Gallion
Melbourne, Florida

David W. Graham
Cedar Rapids, Iowa

Thomas L. Heifner
Cedar Rapids, Iowa

Mary E. Heins
Center Point, Iowa

Dennis J. Hoelker
Cedar Rapids, Iowa

Roberta M. Horne
Indian Harbour Beach, Florida

Steven L. Horr
Millersville, Maryland

David M. House
Marion, Iowa

Peter W. Hurley
Newport Beach, California

Susan M. Jaeger
Monticello, Iowa

Richard C. Jean
Palm Bay, Florida

John H. Johnson
Cedar Rapids, Iowa

Robert J. Kirby
Plano, Texas

Patricia L. Knotts
Marion, Iowa

Martha M. Kolb
Cedar Rapids, Iowa

Martha J. Kolek
Shellsburg, Iowa

Gary E. Kolenut
Los Banos, California

Kathryn A. Lara
Cedar Rapids, Iowa

Manuel Lara
Cedar Rapids, Iowa

Philip D. Litzel
Plano, Texas

Robert A. Lorenz
Cedar Rapids, Iowa

Khuong Ly
San Jose, California

Laura Maldonado
Arlington, Texas

David H. McCormick
Shellsburg, Iowa

Sharry A. McFarlane
Lamont, Iowa

Robert E. Meikle
Cedar Rapids, Iowa

Janice H. Mishler
Tiffin, Iowa

David J. Morrissey
Severna Park, Maryland

Dale M. Nordby
Cedar Rapids, Iowa

Carl F. Novak
McKinney, Texas

Nancy A. Owens
Cedar Rapids, Iowa

Jaime L. Padilla
Miama, Florida

Kathy J. Pasker
Swisher, Iowa

Don J. Pearson
Vinton, Iowa

Patricia D. Ries
Bellevue, Iowa

Larry L. Robinson
Robins, Iowa

Linda S. Roseman
Malabar, Florida

Penny J. Rowland
Norway, Iowa

Robert H. Saffell
Melbourne, Florida

William D. Shanklin
Cedar Rapids, Iowa

Lyn E. Shannahan
Cedar Rapids, Iowa

Cecil R. Slach
Stanwood, Iowa

Kayla M. Sloan
Marion, Iowa

John V. Stith
Waco, Texas

Michael J. Smith
Iowa City, Iowa

William R. Smith
Cedar Rapids, Iowa

Gary A. Stultz
Cedar Rapids, Iowa

Judy A. Sweeney
Cedar Rapids, Iowa

Darwin D. Tecklenburg
Coralville, Iowa

Johnson Varghese
Covina, California

Karen E. Wadlington
Cedar Rapids, Iowa

E. Clayton Walley
Bedford, Texas

Frederick B. Weiland
Annapolis, Maryland

Julie K. Weiss
Decorah, Iowa

James Paul A. West
Marion, Iowa

Lynn White
Palm Bay, Florida

Denise K. Zakostelecky
Cedar Rapids, Iowa

In memoriam

Rockwell Collins offers condolences to the families and friends of the following employees and retirees, whose deaths were recently reported.

Joseph Anderson*
Palm City, Alabama
April 21, 2014

Robert L. Anderson*
Junction City, Ohio
March 11, 2014

Rhonda R. Baker*
Central City, Iowa
Feb. 26, 2014

William S. Blackburn*
Edgewater, Florida
April 17, 2014

Guy W. Boothe*
Merlin, Oregon
Feb. 13, 2014

Alan J. Brown*
Saint Augustine, Florida
March 13, 2014

Peter T. Cardamone*
Cupertino, California
Feb. 18, 2014

Michael P. Conley*
Cedar Rapids, Iowa
March 6, 2014

Lillian Corey*
Farmington Hill, Michigan
Feb. 1, 2014

Rex Darley*
Foley, Alabama
April 19, 2014

William D. Devary*
Winchester, Kentucky
March 28, 2014

Gary L. Dimmitt
Solon, Iowa
March 11, 2014

Stephen R. Eakin*
Grants Pass, Oregon
Feb. 14, 2014

Harry D. Eddleblute*
Belleview, Florida
March 19, 2014

Christophe W. English*
Hendersonville, North Carolina
March 3, 2014

Pasquale Falco*
Fresno, California
April 12, 2014

Gerald R. Fay*
Kenton, Ohio
Feb. 16, 2014

Laurence A. Ferguson*
Tustin, California
Jan. 31, 2014

Rebecca J. Flake*
Lone Tree, Iowa
March 8, 2014

Richard S. Glasson*
Gaylord, Michigan
March 6, 2014

James H. Grant*
Oshkosh, Wisconsin
Feb. 19, 2014

Donald L. Heisler*
Livermore, California
March 4, 2014

Paul K. Hofmeyer
West Des Moines, Iowa
April 11, 2014

Takeo Honda*
Honolulu, Hawaii
March 5, 2014

Betty L. Ingram*
Cincinnati, Ohio
April 8, 2014

Helen S. Leggett*
Melbourne Beach, Florida
March 12, 2014

Thomas E. Love*
Crooksville, Ohio
May 4, 2014

Scott A. Manley
Newport, North Carolina
March 1, 2014

Billye B. Massey*
Phoenix, Arizona
April 13, 2014

Irving L. Massicotte*
Hillsborough, North Carolina
Feb. 2, 2014

Donald B. McBain, Jr.*
Marion, Iowa
Feb. 1, 2014

Robert Medina*
Sun City Center, Florida
May 2, 2014

John L. Meyer*
Milton, Florida
April 18, 2014

Jerry D. Moore
Youngstown, Florida
April 26, 2014

Jack A. Morrey*
Huntington Beach, California
March 24, 2014

Michael D. Munro
Tulsa, Oklahoma
March 22, 2014

Luther O. Myers*
Bartlesville, Oklahoma
March 21, 2014

David G. Norman
Marion, Iowa
April 27, 2014

Peggy D. Palma*
Cedar Rapids, Iowa
Feb. 13, 2014

Michael J. Pins*
Cedar Rapids, Iowa
Feb. 7, 2014

Gary B. Recker*
Cedar Rapids, Iowa
Jan. 31, 2014

Michael P. Rozek*
Fountain Valley, California
May 15, 2014

Daniel D. Salazar*
Atoka, Oklahoma
April 14, 2014

Larry R. Schlehuber
Cedar Rapids, Iowa
April 28, 2014

Nigle L. Standley*
Bellefontaine, Ohio
March 18, 2014

Edward J. Stephens*
Temecula, California
Feb. 15, 2014

Edward J. Swierczewski*
Wyomissing, Pennsylvania
March 26, 2014

Curtis W. Talbott
Cedar Rapids, Iowa
May 20, 2014

Terry L. Varner*
Cedar Rapids, Iowa
April 20, 2014

George R. Vickers*
Dresden, Ohio
Feb. 4, 2014

Ursula G. Virgin*
Palm Bay, Florida
March 5, 2014

Patricia A. Winnett*
Palm Bay, Florida
Feb. 16, 2014

**Retiree*

You. Aware of everybody and everything. Every time.

Enjoy the enhanced safety of head-up, eyes-forward flying, with the right information where and when you need it. The award-winning Rockwell Collins Head-up Guidance System (HGS™) delivers essential flight information and guidance for greater situational awareness through all flight phases. Add our synthetic vision, enhanced vision, or our new head-up vision systems and you have the best situational tool ever created.

Lowest takeoff/landing minima

All-weather capability

TCAS and upset guidance

Scalable, from business jet to air transport aircraft

Rockwell Collins

Building trust every day

rockwellcollins.com/hgs