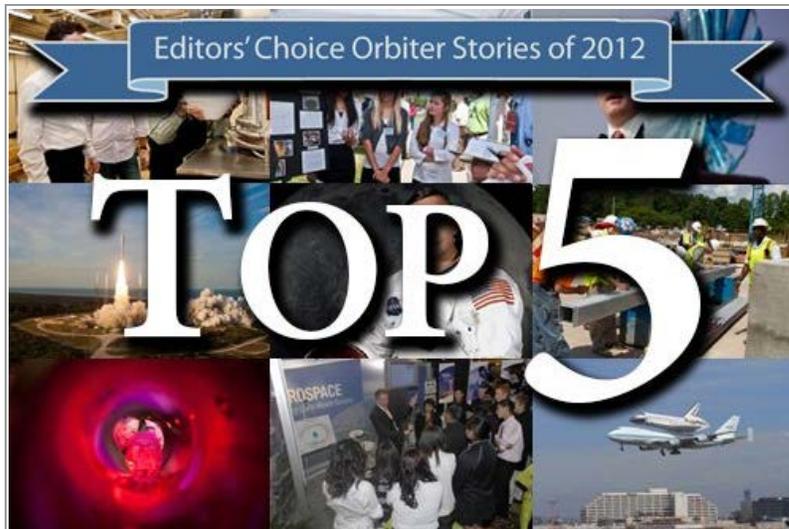


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Editors' Choice: Top 5 Stories of the Year



Graphic by Joseph Hidalgo

Posted Dec. 24, 2012 · Feature

As the year comes to its end, the Orbiter editors came up with a list of their favorite stories of 2012.

We hope you enjoy this end-of-year reading, and if you have other favorites from 2012, please leave your choice in the comments section below.



Engineer Studies Advanced Propulsion Systems -- Posted Feb. 13

<http://www.aerospace.org/2012/02/13/engineer-studies-advanced-propulsion-systems/>



Doing the Heavy Lifting – Posted Feb. 21

<http://www.aerospace.org/2012/02/21/doing-the-heavy-lifting/>



Aerospace Plays Big Role with Small Satellites – Posted March 15

<http://www.aerospace.org/2012/03/15/aerospace-plays-big-role-with-small-satellites/>



Shocking Skulls in the Aerospace Labs – Posted March 23

<http://www.aerospace.org/2012/03/23/shocking-skulls-in-the-aerospace-labs/>

Aerospace Checks Out Electric Car Power – Posted April 20

<http://www.aerospace.org/2012/04/20/aerospace-checks-out-electric-car-power/>



Austin Discusses Launches, Raises, and Reclassifications



Elisa Haber

Dr. Wanda Austin previewed the upcoming year at her quarterly CEO's Report to Employees.

stage. Austin said that Aerospace is working with United Launch Alliance and the Air Force on a rigorous and disciplined investigation to determine the underlying cause of the anomaly.

Looking ahead to calendar year 2013, Austin previewed a busy launch schedule that comprises nine Department of Defense launches, including WGS-5 and -6, SBIRS GEO-2, and AEHF-3. In addition, Aerospace, through Civil and Commercial Operations, is involved with launch certification processes for SpaceX and Orbital Sciences Corporation.

NASA's Kennedy Space Center has asked Aerospace to support the certification review for the JASON-3 mission, which will be the first NASA mission satellite to fly on the Space X Falcon 9 vehicle. Aerospace is helping to develop data-sharing arrangements between the Air Force, NASA, and SpaceX that would facilitate certification assessment for the mission.

Aerospace has also been supporting Orbital Sciences' development of its Antares rocket, which will be powered by two refurbished 40-year-old Soviet-era rocket engines. Aerospace recently completed independent assessment of three perceived risks associated with the analysis processes used for Antares. Orbital has a contract with NASA to provide resupply services to the International Space Station, and hopes to become certified to launch DOD satellites. Space X is also looking to achieve the same certification.

On the matter of pay raises, Austin said the board of trustees approved a merit pool for fiscal year 2013. The merit pay raises — emphasizing pay for performance — will be distributed in mid-February using salary increases and/or lump-sum payments. More details will be announced early next year. The plan Austin outlined does not apply to nonsupervisory MTS, since merit increases must be bargained with the union. "As soon as the negotiations with the union have been completed," Austin said, "we will notify the affected employees."

Austin said there will be some changes in 2013 to the retiree casual program, which was recently reviewed in order to comply with IRS guidelines relating to the pension plan. The changes will take effect May 1 and will be fully described later in a corporate bulletin.

A review of EIS job classifications was conducted as a result of input from an employee engagement survey conducted in late 2011 by the Hay Group, Austin said. One of the items employees commented on was the need to have a strong and consistent connection between pay and performance.

Aerospace management undertook an evaluation process earlier this year that included survey data on pay and performance, benchmarking against other companies, job audits of each EIS employee, and a review of all 194 EIS jobs. One outcome of the job classification review is that a number of EIS employees changed from exempt to nonexempt status. Austin emphasized that the change to nonexempt status reflected legal definitions and not the value of the work being performed. There were no layoffs or displacements resulting from the process, she said, and noted that the same type of review may be done with other groups within the company in the future.

Posted Dec. 19, 2012 · Feature · By Lindsay Chaney

In her first CEO's Report to Employees for fiscal year 2013, Dr. Wanda Austin summarized launch support for the past quarter and previewed a busy schedule for the coming year.

She also announced that merit pay raises will be distributed in mid-February, discussed new job classifications within Enterprise Information Services, gave a heads-up on new rules for retiree casuals, and introduced the winners of the first Aerospace Team of the Year award.

Austin noted that last week's board of trustees meeting was the last for retiring vice chair Thomas Moorman, who first joined the board in 1998. He will be replaced as vice chair by former U.S. ambassador to Finland and Aerospace board member Barbara Barrett.

During the past quarter, there was only one launch for which Aerospace was accountable — the Oct. 4 Delta IV launch of the GPS IIF-3 spacecraft from Cape Canaveral. The satellite was successfully placed into its proper orbit, and it is performing well, but there was a significant performance anomaly in the second

Before announcing the winner of the first Aerospace Team of the Year award, Austin noted that a total of eight teams had been nominated — "all of them performed exemplary work, making the selection very difficult," she said. The



Eric Hamburg

Members of the CHIRP team were recognized for winning the first Aerospace Team of the Year award.

winner is the Commercially Hosted Infrared Payload (CHIRP) team. Austin read off the names of all team members and explained that CHIRP was the first Air Force payload hosted on a commercial satellite and demonstrated impressive infrared capabilities. An award presentation ceremony will be held in January, with full coverage in the Orbiter.

Although only one question was asked following Austin's speech, many others were submitted ahead of time to AskTheCEO. Those questions and answers are in a separate posting, which is [linked here](#).

[Click below to view a video of the complete CEO's Report to Employees.](#)

CEO Report Q and A's

Posted Dec. 19, 2012 · Article

[Following are questions submitted ahead of time to AskTheCEO. One question was asked live following the Dec. 18 CEO's Report to Employees.](#)

[Click here](#) to read about the CEO's Report.

Based on the timing of the approval of the defense budget or sequestration results, what is the earliest date we could be expecting raises?

The current merit cycle is planned for mid-February.

Wouldn't it be possible to reduce cost, with minimal risk, by once again eliminating the 24-hour guard at the street entrance to D8?

The safety of our employees is of paramount importance to the corporation. Entrance to the A buildings is handled in the same manner as D8. D9 has a building security officer in the lobby who also conducts patrols; our employees on the 5th floor are behind locked access doors with 100 percent badge swipe requirements. D10 has a security officer in the lobby from 7-4 plus 100 percent badge swipe requirements. For these reasons, the 24-hour guard will remain at D8.

In 2009, Dr. Austin announced there would be an effort to reduce the number of general managers throughout the corporation. However, it seems like promotions to general manager are announced at every CEO's report. How has the general manager population changed since 2009?

Since October 2009, there has been a 22 percent reduction in the number of general managers. The number of general managers fluctuates due to positions being added for succession planning purposes. If we include the two associate general managers, there is a 16 percent reduction.

If Congress and the president fail to reach an agreement and the nation does go over the "fiscal cliff," what will be the effect on the corporation and employment at Aerospace?

In the event of a fiscal cliff, we are well-positioned to meet anticipated cost limitations. The current population and capabilities should allow us to manage our costs across a range of potential delivery scenarios.

If sequestration happens, does it look like layoffs will be needed?

In FY12, Aerospace leadership looked ahead and planned for FY13 as well, taking into account the most likely cutback scenarios. Therefore, Aerospace does not anticipate needing another round of layoffs. However, if there are unexpected major cutbacks, we will have to relook at the current plan. All in all, Aerospace is in a strong financial position.

The topic of company-paid holidays has come up frequently among my colleagues. The federal government gets 10 paid holidays, most of the major contractors offer the day after Thanksgiving and a year-end shutdown, totaling 12 paid holidays, yet we only get 7 paid holidays and one floating holiday. Can we look at increasing the number of Aerospace paid holidays (or increase the number of floating paid holidays) to equal what our counterparts and customers are enjoying?

Adding a holiday or additional day off is an additional significant cost to the corporation and is not something we can do at this time. While we may have fewer paid holidays than some companies, vacation and sick leave are also taken into consideration when looking at paid time-off policies. When looking at all paid time-off benefits, we are competitive with other organizations.

Can the corporation save some money by removing the branded sign on the outside of D9 that faces the old location of LAAFB?

The cost of the D9 sign was approximately \$16k. We spend less than \$100 per year on maintenance for the D9 sign. We have no immediate intention to remove the sign as the sign serves a very important branding purpose as it welcomes employees, recruits, and customers as they drive west along El Segundo Blvd.

I have noticed how hard it is to get things done on Fridays due to so many people being on RDO schedules. Can the company institute a back-up system to ensure business can be efficiently accomplished on Fridays?

It is important that Aerospace provide services to their customers in a timely manner. We will remind management to ensure that a backup is available when the primary person responsible is not here. Please feel free to call the management of any organization from which you are not getting proper assistance.

At my previous employer, the performance appraisal process for managers included input from their employees. Why doesn't Aerospace do something like this?

The company is under obligation to negotiate this feature with APSA for the MTS nonsupervisory employees and has chosen not to make employee input regarding their manager a part of the process at this time. We may consider it as a possible addition to the process at a future time.

With the current push to save paper and printing costs, why do employees continue to receive corporation-wide hard copy print-outs of notifications that could be sent electronically?

The corporation has dramatically reduced the number of printed communications distributed in the last year. However, there are still messages we are legally required to distribute through multiple channels, including print and electronic forms. Some of those required communications cover wages and hours, taxes, benefits, and health and safety measures. We continue to look for opportunities to reduce the number of printed materials.

Calculating Risk and Cost for Mission Assurance



Jessica Phung

Rick Ambrose, center, vice president of Lockheed Martin Space Systems Company, makes a point during the Mission Assurance Summit industry panel discussion, while Gwynne Shotwell, president of SpaceX, and Michael Gass, president and CEO of

Posted Dec. 13, 2012 · Feature

Top space industry and government leaders met in Chantilly on Dec. 6 for the fifth U.S. Space Enterprise Mission Assurance Summit — an annual event organized by The Aerospace Corporation.

The focus of this year's summit was on how best to balance the goal of mission success with the issues of affordability and how much risk to take.

Attendees included senior executives from Ball Aerospace, Lockheed Martin, Northrop Grumman, Orbital Sciences, SpaceX, and United Launch Alliance, as well as executive government leaders from NASA, the Air Force Space and Missile Systems Center, and other space-related agencies.

During the summit's inaugural industry panel, participants discussed risks and space systems acquisition success. They also provided insight into how the government could assist industry in managing risk to ensure mission success, as well as how they intend to assist their government customers in maximizing buying power, while continuing to provide the best possible opportunities

United Launch Alliance, listen intently.

for 100% mission success.



Jessica Phung

From left to right, Robert Strain, chief operating officer, Ball Aerospace; Michael Gass, president and CEO, United Launch Alliance; Jeff Grant, sector vice president and general manager, Space Systems, Northrop Grumman Aerospace Systems; Rick Ambrose, vice president, Lockheed Martin Space Systems Company; David Thompson, chairman and CEO, Orbital Sciences Corp.; and Gwynne Shotwell, president of SpaceX.

During the panel discussion, Michael Gass, president and CEO of United Launch Alliance, explained that it is important “to get the right level of affordability and the right level of risk.” Gwynne Shotwell, president of SpaceX, noted that mission assurance is a process that should begin “at the start of a program,” but cautioned that “there is no process that can compensate for poor workmanship.”

Lt. Gen. Ellen Pawlikowski, commander, Space and Missile Systems Center, United States Air Force, was the keynote speaker for this year’s summit. During her address, Pawlikowski commented that “We need to start calculating our risk.” She explained that “over the next five years there are expected to be [more than 100] launches ... They all have to be successful. No one is going to remember that we saved \$10 million on a mission if it isn’t successful.”

A message that resonated across the space community, where mission assurance remains vital to achieving mission success, is that despite fiscal constraints, balancing affordability with efficiency and thoughtful risk management is essential.



Jessica Phung

From left to right, Maj. Gen. Sue Mashiko, deputy director, National Reconnaissance Office; Maj. Gen. Samuel Greaves, deputy director, Missile Defense Agency; Robert Lightfoot, associate administrator, NASA; Dr. Wanda Austin, president and CEO, The Aerospace Corporation; Lt. Gen. Ellen Pawlikowski, commander, Space and Missile Systems Center; and Betty Sapp, director, National Reconnaissance Office.

In her introductory remarks for the government panel discussion, Dr. Wanda Austin, president and CEO of The Aerospace Corporation, said, “We have had 12 successful launches over the past two years. We have also had two near failures that remind us that building space systems is a very

complex, and often risky endeavor. Our challenge looking forward is evident — we must reduce the cost and still attain mission success.”

Albuquerque Office Reaches Out to Community



Photo by Ryan Angell

Eleni Sims speaks with children in the Jackson Middle School AVID program.

Posted Dec. 12, 2012 · Feature

Aerospace staff members in the Albuquerque office have been active throughout the year in activities within the surrounding community to promote science, technology, engineering, and mathematics (STEM) education.

Earlier this year, staff visited middle-school students from the Pueblo of Laguna Middle School (LMS) as part of the STEM initiative and outreach objectives for the Aerospace Women’s Committee and the Aerospace American-Indian and Alaskan-Native Council. This was the second outreach activity with the LMS students as Aerospace personnel spoke with them about the space and missile industry and local area career opportunities as they progress through their college curriculum and beyond. More than 120 LMS students listened to discussions by Aerospace volunteers and watched videos from the Kodiak Launch Complex Space Test Program’s S-26 mission.

Last month, Eleni “Sam” Sims talked with students in the Jackson Middle School Advancement Via Individual Determination (AVID) classes. AVID is a national program that is open to all students,

but was created specifically to promote college to students who are in the “academic middle,” and who may have never thought about attending college.

Many, if not most, of the AVID students at Jackson Middle School would be the first in their families to attend a college or university. Sims talked with them about her job and what she did in high school, college, and graduate school that paved the way for her current position.

See <http://pages.aero.org/csr/> for more information about Aerospace’s corporate social responsibility activities.

Duggan Promoted to Associate GM



John Duggan

Posted Dec. 10, 2012 · Article

John Duggan has been promoted to associate general manager, Systems Engineering and Ground Division, within the National Systems Group (NSG).

In his new position, Duggan will provide direct support to the director of systems engineering for the National Reconnaissance Office (NRO). He will also serve as the deputy to the general manager of the Systems Engineering and Ground Division. In this capacity he will manage a broad range of Aerospace support to the NRO including enterprise systems engineering and ground engineering.

Duggan, who joined The Aerospace Corporation in 1985 as a member of the technical staff with the Western Range Directorate, most recently was assistant general manager for the Systems Engineering and Ground Division within NSG.

Aerospace Presents at AGU Fall Meeting



(C) Gary Wagner Photos, courtesy of the American Geophysical Union

Dr. James Clemmons prepares to introduce a speaker in this photo montage from the AGU fall meeting, where Aerospace was heavily represented.

“Characterizing the space environment is essential for ensuring that our customers have the right requirements” for the systems they build, said Dr. Sherrie Zacharius, vice president, Technology and Laboratory Operations.

On Nov. 29 six of the AGU poster session presenters delivered a run-through of their various projects in the A6 interaction area. Most of the attendees were scientists from Aerospace’s Physical Sciences Laboratories, along with representatives from the Research Program Development Office and the office of the vice president, Technology and Laboratory Operations.

The presenters spoke individually to a rotating group of peers who shifted from poster to poster. Dr. James H. Hecht’s project (“The Lifecycle of

Posted Dec. 7, 2012 · Feature · By Matthew Kivel

Aerospace’s Space Science Applications Laboratory (SSAL) was represented in force at the American Geophysical Union (AGU) fall meeting, which took place in San Francisco from Dec. 3 to Dec. 7.

The AGU meeting is a prestigious, large-scale conference attracting close to 20,000 educators, Earth and space scientists, students, and policy makers from across the globe. At the conference, Aerospace scientists delivered seven formal presentations and an equal number of poster sessions. The poster sessions are, as the title implies, conversational presentations given in front of a large poster-board filled with graphics, data and various summary sections.

The Aerospace presentations dealt with understanding the space environment through measurement and modeling. One of the missions of the SSAL is to understand the space environment and its effects on space systems.

Instability Features over Cerro Pachon) analyzes images of nightglow in the sky over Cerro Pachon mountain in Chile. The nightglow contains structure and turbulence that are a source of unwanted clutter in images taken by overhead assets. Dr. Hecht's research seeks to understand these features in order to help identify and mitigate their effects on end-user products.

Striving to update an existing mathematical model, Dr. Colby Lemon's project "Simulating Ring Current Electrons During a Magnetic Storm with the RCM-E" succeeds in providing a more accurate method of simulating the behavior of ring current electrons during a magnetic storm. Ring current electrons are a practical concern for satellite manufacturers, as these fast energetic particles can affect electronics and other materials used on space vehicles. Lemon's work allows for a better understanding of charged particle behavior and can be utilized to protect satellites better in the future. The four other presenters pursued similarly deep topics in space weather.

At the AGU conference, not only does Aerospace share key research results with the scientific community, but the scientists of SSAL stay abreast of the state of current research in their respective areas.

GPS for Humanity



Eric Hamburg

Dr. Bradford Parkinson regaled audience members with fascinating applications of GPS.

Posted Dec. 6, 2012 · Feature · By Laura Johnson

Practically everyone knows what GPS is these days, but probably not everyone is aware that it can be used to help in the fight against malaria, to track an endangered fish, or even to help deliver concrete to a construction site.

"GPS has many applications for worldwide benefit, some of which we anticipated, and others, frankly, were very surprising," said Dr. Bradford Parkinson, former chair of Aerospace's board of trustees and one of the principal developers of GPS.

Parkinson gave a presentation, which he dedicated to Aerospace engineers and supporters, called "GPS for Humanity" on Nov. 30 on the Los Angeles Air Force Base.

Audience members enjoyed the whirlwind talk in which Parkinson focused on applications of GPS, while also reviewing the history of the program, recognizing many individuals who made it possible, pointing out some key innovations and challenges, and just for good measure, throwing in a look at the future of GPS.

Parkinson started off by talking about the history of GPS, giving a nod to former Aerospace president Dr. Ivan Getting and other Aerospace employees who were involved.

In 1973, the DOD gave the green light to the program, but there were some major technical challenges to overcome, as well as political ones, such as the fact that the Air Force was not enthusiastic about the program in the early days.

Nonetheless, the team was successful, and according to Parkinson, GPS has become a system for humanity. It has a free signal, is available all over the world, and is very accurate. It is used not only by the military, and not just for navigation. The public also uses it to enhance productivity, to increase safety, and just to have fun.

Parkinson zipped through examples of all kinds of GPS applications, stopping to highlight a few.

"You've all heard the lady say 'If possible, make a legal U-turn' so I won't talk about that one," he said.

One example he gave is in the area of aviation. Parkinson said they expected to be able to use GPS for airplane navigation, but they were surprised to find out they could use it for hands-off landing as well.

They expected to be able to use GPS for land navigation, but in 1996 they found they could also use it to automatically steer a tractor to an accuracy of one inch.

In the past, a farmer might use a tractor to deposit fertilizer in rows. Naturally, there was some overlap in the rows, and therefore some wasted fertilizer. Now farmers can ensure that the tractor goes exactly where they want it to, and does not deposit any extra fertilizer. Parkinson said this results in a potential savings of about 8-10 percent.

"The economic value is very compelling," he said.

10 Major GPS Applications

1. Aviation
2. Emergency Services
3. Timing
4. Agriculture
5. Rescue
6. Recreational and Automotive
7. Tracking
8. Scientific
9. Military
10. Robotics

On the subject of dirt, GPS has also been used to survey to an accuracy of one millimeter. “It’s vastly increasing our understanding of crustal motion and earthquakes,” Parkinson said.

Another area in which GPS is employed is in emergency beacons, which signal rescuers where to find a person or people in trouble.

In September 2009, a large ferry was caught on a reef in the Philippines with unfavorable weather approaching. Because of GPS, rescuers were able to arrive quickly and save all but 10 of the almost 1,000 people onboard.

GPS is used for all sorts of tracking jobs, including some lesser-known items. Parkinson gave the example of wet concrete, which needs to be delivered in a timely fashion or it loses strength. GPS is used to track the vehicles that transport concrete, determining how long they have been on the job.

“If you are on a construction job, what you want to know is: When was that loaded and when was it actually put on my slab or into my concrete column?” he said. “This gives you a way to do that.”

A fun example of a use of GPS is geocaching, essentially a treasure hunt game using GPS, in which five million people worldwide participate.



Dr. Wanda Austin greets Dr. Bradford Parkinson after the presentation. (Photo by Eric Hamburg)

GPS has even gotten involved in a situation involving the Atlantic bluefin tuna, a warm-blooded fish that is endangered due to overfishing. It was argued that the Eastern Atlantic and Western Atlantic populations could be managed separately. However, GPS was used to track the boats tracking the fish and it was discovered that “the migratory paths go all the way across the Atlantic,” Parkinson said.

In the medical area, GPS can also be used to help.

“HP has developed a really nifty app in which a nurse, as soon as she finds a malaria outbreak, can quickly upload it,” Parkinson said. “And as a result the doctors can find where they should concentrate their efforts to try to arrest that outbreak of malaria. A really nice humanity application.”

After discussing all these uses of GPS, Parkinson took a look at the future of the technology, talking about the research being done in the area of driverless cars.

“It is clear to me this is another biggie that we’re going to see very soon, and it’s frankly GPS enabled,” Parkinson said.

The biggest problem Parkinson sees for GPS in the future is spectrum interference, whether illegal or licensed. The most prominent example of this issue involves a company called LightSquared that proposes to use a block of frequencies near those used by the GPS system for a broadband communications network.

Despite this issue, Parkinson’s talk highlighted the amazing uses of this fascinating technology. Whether it’s helping a farmer increase productivity or a rescuer locate someone in trouble, GPS has had a significant impact throughout the world.

Later in the day Parkinson presented the 2012 Robert H. Goddard Memorial Trophy to Space and Missile Systems Center Commander Lt. Gen. Ellen Pawlikowski for display on the base. The trophy was given by the National Space Club this year to the “GPS Originators Team,” which included Parkinson and several Aerospace employees and former employees. See [previous Orbiter story](#) about the award.

For more information about GPS and Aerospace’s role in the program, read about an [Our Place in Space presentation](#) or a [50th anniversary article](#).

Leadership Series: Civil and Commercial Outlook

Posted Dec. 6, 2012 · Article

Randy Kendall, vice president of Civil and Commercial Operations, discusses his vision and plans for CCO in the coming year with Sabrina Steele, principal director, Corporate Communications Directorate.

Transcript

Sabrina Steele: Thank you for taking time to tune into the latest in our leadership webcast series. I’m Sabrina Steele; I’m principal director of corporate communications here at The Aerospace Corporation. And today we have with us Randy Kendall, vice president for Civil and Commercial Operations. He’s going to share with us some of his thoughts and vision for Civil and Commercial in the coming year. Welcome Randy.

Randy: Thanks, Sabrina.

Sabrina: And congratulations.

Randy: Thank you.

Sabrina: You've got, what, six weeks in as the new vice president of Civil and Commercial Operations?

Randy: That's right.

Sabrina: Not everyone here knows your background, so maybe you could start off our discussion with a little bit of your background and how you ended up here.

Randy: Sure. I started at Aerospace in 1988, and I've worked on a variety of spacecraft, launch vehicle, and missile defense programs over the years. And, in fact, I've worked in the Engineering and Technology Group, Space Launch Operations, Space Program Office, and National Systems Group, and now in CCO. So I've covered almost the entire waterfront and that gives me a really good perspective on how Aerospace operates and the kind of capabilities that we really can bring to bear in Civil and Commercial work. Most recently I was general manager of the Launch Systems Division where we supported a variety of programs (including EELV and SpaceX) and other new entrants. And that's where I first started getting involved with the new Civil and Commercial work, on Civil and Commercial launch projects. And so that of course led to my current job which is, without a doubt, one of the most diverse and exciting jobs in the company. Along the lines of excitement, I have recently relocated to Washington, D.C., and that's been quite an adventure for my family and I, after 24 years in Southern California, but we're really looking forward to enjoying all the new things they have on the East Coast.

Sabrina: So now that you are situated on the East Coast, can you tell us a little about your strategic plan and the strategy for FY13 for Civil and Commercial Operations?

Randy: Sure. First and foremost, what I want to do is build upon the success that we've already had in Civil and Commercial. Over the last several years, the Civil and Commercial organization has done a great job of making Civil and Commercial work at Aerospace not just beneficial to Aerospace, but really essential to, and integral to, the whole corporation.

So, having said that, one of the challenges that we face in the Civil and Commercial realm is similar to the same challenges that the rest of the company is facing, which is, particularly on the civil side, [we] are subject to the same types of uncertainty in the budgets and pending sequestration. So what do we do about that? The good news is I think there are lots of opportunities out there. Primarily, what we need to do is look for things where we can de-couple ourselves from the similar business cycles, and so that would include things like broadening the aperture on our work in the public interest, and also renewing our development in the commercial and international arenas.

Sabrina: So you mentioned "in the public interest." That's a phrase we haven't heard a lot here at Aerospace. Typically I hear things about how we support "national security space" or the "space enterprise," so can you talk to us a little about public interest and how that applies to what you're doing and the general thrust for the company?

Randy: Sure, and it really goes back to our original charter in 1960, where we were chartered to serve as a corporation in the public interest. Now, the FFRDC, of course, is sponsored by the Air Force to support defense space programs, but it was recognized, even from the beginning, that in order for us to sustain our capability to perform that mission, that we really had to engage in a much broader variety of things so that ... would complement our space expertise. And the kind of things I'm talking about here are things like the work we just completed for the city of San Jose, where we actually used our space architecting expertise to look at the potential implementation of an automated transportation network for them. And so this was a really interesting effort because it allowed us to take that space-related expertise and apply it to a ground-based but still very complex system and apply it to something that was in the public interest, that gave our engineers and scientists something interesting and different to work on; hopefully we'll learn some things we can then apply to other customers in the future.

Sabrina: Haven't we always had some customers that are outside of the space arena? I'm thinking that—haven't we done some work over time for the FBI?

Randy: Well, sure, so that's another area where we have recently made some really significant contributions. Many of you may recall that a few years ago, the FBI was having problems with their Sentinel online case filing system. They were several years behind schedule and several tens of millions of dollars over budget, and so Aerospace came in, and we helped them get that system working online. And in fact it just went live this past summer and has been performing quite effectively, so that's another area where we're taking things that are not mainline space programs and able to bring to bear some of the software systems engineering and architecting skills that we have to complement that.

Sabrina: So, we're all looking at being cost-effective, operating in a cost-constrained environment, Randy. What kinds of things are you doing in Civil and Commercial that can actually help the company, but also that we should be mindful of—you know, what are you doing to pitch in there?

Randy: Sure, and this is actually an area where Civil and Commercial is a really powerful contributor to the corporation because we've all heard about the financial benefits of Civil and Commercial work; it allows us to borrow more money to build new facilities, it allows us to broaden our overhead and lower costs for all customers, but that's actually not what gets me really excited about Civil and Commercial work. What gets me excited is that the Civil and Commercial work makes Aerospace a stronger corporation — it allows us to develop skills and capabilities for one customer that then we can go back and apply to some of our other customers. A great example of this occurred just a couple of weeks ago; I attended an all-hands that Bernard Chau was having for some of his NSG folks who were working on non-NRO work. And [Bernard] invited one of his customers to come speak, and this was the head of the Cost Analysis for the ODNI, the Office of the Director for National Intelligence—he was praising Aerospace for the work that we had done helping him in portfolio management, utilizing a sand chart tool that we had developed for our support to NASA. So here's a great unsolicited testimony for a case where Civil and Commercial work has allowed us to provide exceptional support

at great value to the customer, and we've been able to use tools we developed for one customer to support another customer.

Sabrina: So, speaking of people talent, we have lots of great people who work here at Aerospace. How are folks who are maybe not currently doing Civil and Commercial work helping you and your mission, and how do they plug in?

Randy: That's a great question, and that's one of the things I really want to emphasize in this coming year is how we can collaborate better across all the different organizations — not just ETG, but Space Systems Group, National Systems Group, and SPEQ. We really need to leverage the entire strength of the corporation to maximize our value to our customers.

So how does that start? It starts, I think, first just with awareness — you know, people really need to be ... everyone in the corporation needs to be thinking about "How I can help with Civil and Commercial work. Am I doing something that might be of value?" You know, we recognize there are a lot of skills and capabilities all over the company that people in CCO don't necessarily have an awareness of, and conversely, we are working with a lot of customers that might be able to benefit from those skills, and the people who possess them are not aware of that.

So we want to bring those two together, and you know one of the ways we're going to do that is we're embarking on a road show, where some of our managers in CCO are going around to each of the organizations and talking to them about the types of customers we have and working with them to understand their skills and capabilities so that we can then bring those two together.

But beyond that, I would also encourage folks: Don't just wait for someone to come knocking on your door. If you've got a good idea or if you want to get involved, feel free to call contact myself or any other managers in CCO. Dave Bearden, in NASA Programs; Mark Rochlin in Commercial and International Homeland Security; Tim Hall in NOAA Programs. And you know we'd love to talk to you and hear your ideas at any time. The bottom line is this is some great work we're doing in CCO and, frankly, it's just not fair for us to keep all to ourselves.

Sabrina: Well, Randy, with that I want to thank you for taking the time to talk to us about the Civil and Commercial Operations and the strategy for FY13 and some of the things that you're looking forward to — and frankly some of the help you need to get it done, so thank you for taking time to be here; I know you're really busy.

Randy: We hope so. Thank you.

Sabrina: And I want to thank each and every one of you for taking time to tune in to the latest in our webcast series.

December Obituaries

Posted Dec. 1, 2012 · In Memoriam

Sincere sympathy is extended to the families of:

- **Saralie Briner**, office support, hired Sept. 12, 1960, retired Dec. 1, 1993, died Nov. 19.
- **Subrena Collins**, member of the technical staff, hired Sept. 23, 1985, died April 21, 2011.
- **Ruthe Feigh**, office support, hired Jan. 21, 1963, retired Feb. 1, 1994, died Sept. 5.
- **Oliver Glaze**, systems director, hired Sept. 14, 1981, retired March 1, 2000, died Nov. 22.
- **Tom Mori**, sr. research asc., hired March 8, 1963, retired Nov. 1, 1991, died Nov. 25.
- **William Nance**, member of the technical staff, hired May 21, 1962, retired Sept. 1, 1989, died Nov. 4.
- **Adrian Ricks**, project engineer, hired Jan. 16, 1978, retired Dec. 1, 1994, died Nov. 8.
- **Patricia Van Fossan**, business manager, hired Jan. 14, 1963, retired April 1, 2001, died Oct. 18.

To notify Aerospace of a death and have it included in the Orbiter, please contact Cynthia Evans in Human Resources at 310-336-5806.

December Notes

Posted Dec. 1, 2012 · In Appreciation

Notes of appreciation to fellow employees and Aerospace for thoughtfulness and sympathy have been received from:

- **Russell Kennedy**, for the recent passing of his father, Jimps Kennedy
- **Shirley Tanaka**, on the recent passing of her mother-in-law, Haruko Tanaka.

To submit a note of appreciation to Aerospace, please contact Valerie Jackson in Human Resources at 310-336-0891.

December Anniversaries

Posted Dec. 1, 2012 · Anniversaries

45 YEARS

Engineering and Technology Group: Sandra Barnes

30 YEARS

Engineering and Technology Group: Andrei Doran

25 YEARS

Engineering and Technology Group: Charles Lavine

Operations and Support Group: Shane Glaseman, Dahne Underhill

20 YEARS

Civil and Commercial Operations: Andrew Quintero

Engineering and Technology Group: James Nokes

National Systems Group: James Novak

Operations and Support Group: James Drew, Mary Greenelsh

Space Systems Group: Jeffrey Ansted, Michael Campbell

15 YEARS

Civil and Commercial Operations: Medi Neyestanki

Engineering and Technology Group: Jeffrey Stocker

National Systems Group: John Scarpulla

Operations and Support Group: Gary Gonser

Systems Planning, Engineering, and Quality: Charles Rowe

10 YEARS

Engineering and Technology Group: Lorretta Anderson, John Skinner

Space Systems Group: Douglas Buettner, Adrian Gomez

Systems Planning, Engineering, and Quality: Junious Harris, Anne Soukup, Jacqueline Wyrwitzke

5 YEARS

Engineering and Technology Group: John Chobany, Thomas Eden, Andrea Gilbert, Samuel Markand, Kathleen Niccum, Nicolette Werner

National Systems Group: Raymond Pretlor

Operations and Support Group: Dianne Kline

Space Systems Group: Frederic Bick, Eli Esser

Systems Planning, Engineering, and Quality: Jordan Denamur-Paul, Ricardo Espindola

End of Archive
