Orbiter NEWS
July 2016

Just Another Day at the Office

by **Randy Kendall**
July 28, 2016

An Atlas V rocket lifts off from Cape Canaveral's Space Launch Complex-41. (Photo: United Launch Alliance, LLC)

An Atlas V rocket lit up Florida's space coast Thursday morning with another successful national security launch. The mission, utilizing a four-meter payload fairing and two strap-on solid rocket motors, lifted off at the beginning of the window at 8:37 a.m. ET from Cape Canaveral's Space Launch Complex-41. This was another very uneventful countdown operation (boring is good!), resulting in an extremely accurate final orbit injection.

But as is often the case in launch, a smooth countdown is the result of a lot of hard work and dedication by a large number of people in the days and months leading up to launch. For this mission, a great example was provided when an issue surfaced at one of the final preflight readiness reviews last Saturday, only five days before launch.

A combined contractor/government/Aerospace team quickly formed to address a potential problem with the pogo accumulator system on the Atlas V (pogo is a structural-propulsic dynamic interaction that can literally tear the rocket apart). This complex system requires multidisciplinary analysis and Aerospace brought resources to bear from the program office and multiple departments in the Engineering and Technology Group (ETG) including Structural Dynamics, Propulsion, Fluids, and Thermal. The team was able to assess flight data from past missions, review hardware pedigree data, and worked overnight to perform an Aerospace-unique pogo stability analysis to support a senior leadership decision to proceed, just hours before the start of the countdown operation.

At the postflight quick-look review, Sterling Mueller, Aerospace's Atlas V chief engineer, paid tribute to the entire team – "we had the right people and tools in ETG, and the right folks at the launch site to be able to quickly and thoroughly analyze the situation, and give the leadership team the confidence needed to proceed with today's launch."

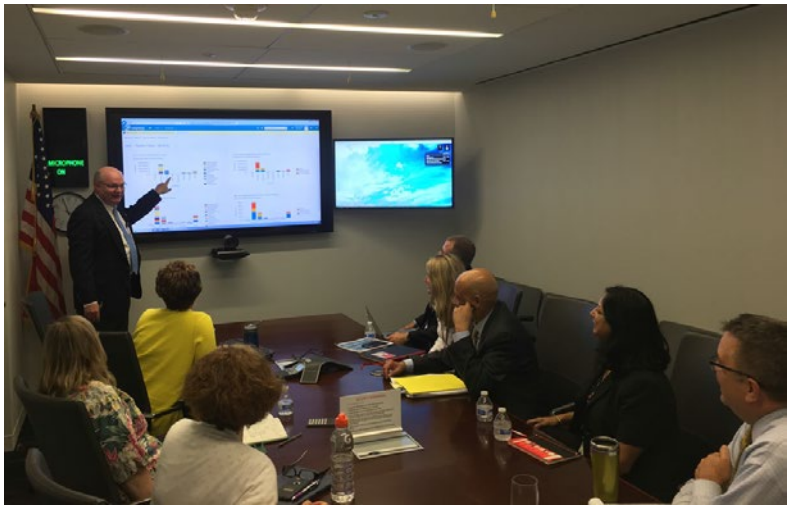
Just another day at the office for a world-class launch team …

Editor's Note: Randy Kendall is Aerospace vice president of Space Launch Operations.

Vaeros Implements Process to Track New Business Opportunities

by **Kimberly Locke**
July 15, 2016

When Aerospace announced launch of its new division, Vaeros, in July 2015, it signaled the beginning of a new phase for the corporation in terms of providing value to a broader set of customers.



Ed Swallow discusses the Customer Relationship Management system with Vaeros staff. (Photo: Nicole LaBier)

To bring that value to the customers, Vaeros needed to reinvent its core business development process, identify areas where it could streamline its efforts, and reduce the cost of going to market. The Vaeros leadership team developed a long-term strategy to more closely align with the core business of Aerospace. Vaeros then revised its business processes to help it identify, track, and investigate new areas of business aligned to its four lines of business for NASA and Civil Space, NOAA (National Oceanic and Atmospheric Administration) Programs, Federal Civil and Homeland Security, and Commercial.

Once the strategy and organizational alignment occurred, Vaeros needed to standardize its go-to-market processes. The core of that process is automated in the Customer Relationship Management (CRM) system, now fully in place. CRM helps Aerospace interact with current and future customers and manage, track, record, and store customer information related to the new business capture process, while providing an end-to-end workflow tool to speed the decision-making and increase accountability for resources spent.

CRM's main components are building and managing customer relationships through analyzing markets, developing relationships as they mature through distinct phases, and managing the process at each stage, automating where possible.

"Quite simply, this tool gives all Vaeros'employees who are directly involved with the pursuit, capture, and management of non-federally funded research and development center business opportunities a step-by-step tracking or work-flow system from business lead or idea to agreement to pursue the venture to awarding a contract," said Cindy Holsclaw, business administrative specialist, Business Development, Vaeros.

Holsclaw has served as project manager for CRM's implementation.

Users must provide information for each phase of a proposed project through a gated review process, answering questions along the way such as project description, customer needs, and points of contact for the particular company or entity involved, explained Holsclaw.

As the user completes each phase of the project, the system takes them to the next one following a decisional gate review. There are six phases to get through before an opportunity becomes a new contract. These phases are: Market Analysis, Opportunity Assessment, Capture Planning, Proposal Planning, Proposal, and Execution.

"The new system even allows for the Air Force, Aerospace's primary customer, to be notified when Vaeros is considering pursuing a particular business opportunity," she said. "This gives the Air Force the chance to review the information and determine if there are benefits to the DOD customer or any concerns with conflict of interest before we proceed."

"Although it takes some time and effort to get through the process, it's more cost effective to run through the evaluation before investing in a project only to have it prove to be misaligned with our business pursuits or not feasible for some other reason," said Ed Swallow, Vaeros Operations vice president. "This is a highly effective way to examine possible business opportunities before expending a lot of our resources on them," he added.

This system is part of the OurSpace environment and replaces the legacy databases — Civil and Commercial Projects Plans and Organizational Conflict of Interest, both hosted on Lotus Notes — that were used by Vaeros' predecessor, Civil and Commercial Operations.

The new CRM system provides the team with complete oversight into all that is happening within the Vaeros new business capture team. All project-related documents are kept in a SharePoint folder with permissions granted according to team assignments and corresponding responsibilities.

“Since implementation, we’ve been able to make significant progress in clearly mapping out a variety of possible business ventures. This is key to Vaeros’ business development and a positive step in the direction we need to be heading,” said Holsclaw.

The CRM system is just one example of using Enterprise Information Services capabilities to standardize, document, streamline, and automate processes for the most efficient way of deploying resources to bring in new work. It also provides the ability for everyone to see potential new business, collaborate on solutions, and identify new capabilities for existing customers.

“As the cost of winning business goes down, and our ability to expand business into areas of interest to our scientists and engineers go up, we will make Vaeros the engine for increasing our value to our core customers while improving the financial health of the corporation,” said Swallow.

Space Technology Goes to Sea Aboard a Fireboat

by **Heather Golden**
July 05, 2016

The Aerospace Corporation recently partnered with the Long Beach Fire Department for a project that has the potential to save lives and drastically improve public safety for the city’s residents.

Firefighter Chong Kim, Long Beach Fire Department, places the HAZMAT detection unit in its compartment aboard the LBFD’s new state-of-the-art fireboat. (Photo: Heather Golden)

The LBFD is the proud owner of a brand new, state-of-the-art fireboat, permanently docked at the firehouse in the Port of Long Beach. The job of the port’s station is to protect the immediate area from fires and to handle hazardous material incidents in the terminals.

In order to do that, the one-of-a-kind boat comes rigged out with a full CBRNE (chemical, biological, radiological, nuclear, and high yield explosives) detox area and detection system linked to a network shared by all emergency HAZMAT responders in the greater Los Angeles area. Through this network, all HAZMAT teams can see real-time updates of any incidents within their boundaries. The sensors housed on the boat allow the crew to detect and monitor incidents from a safe distance in order to avoid contamination and remain a viable source of help.

“Without these kinds of systems in place, there are enormous unknowns and safety risks to the public,” said Vaeros’ Matt Begert, who has coordinated all parties involved throughout this project.

While this particular detection system and network has been fully integrated with emergency responders for years, it has never been used off land. This is the aspect of the system that Aerospace was hired to verify in a first for both the company and the fire department. The Space Science Applications Lab (SSAL) was enlisted to apply their knowledge and experiences in surveillance technologies to this task, demonstrating how space technologies can be applied in other areas.

This verification process happened in two basic stages — testing the system within the Aerospace facilities to gain benchmark information, then confirming similar results when the boat was out at sea.

Research scientist Dr. Karl Westberg, Imaging Spectroscopy Department, SSAL, and other members of his team spent time with the system, which was developed by Safe Environment Engineering, in their labs. Once the fireboat arrived in port and the

Aerospace research scientist Dr. Karl Westberg, left, and David Lamensdorf, president, Safe Environment Engineering, confer over the strength of the HAZMAT detection network aboard the Long Beach Fire Department's newest fireboat. (Photo: Heather Golden)

sensors and network installed, Westberg joined Vaeros' Matt Begert, and David Lamensdorf, president, Safe Environment Engineering, aboard the boat for a test run out to sea.

"I was impressed with the versatility," Westberg said. "It didn't seem to matter what instrument you wanted to use, it would be adaptable to this system."

At more than two miles out, the network held strong, and the system received a green light from all parties.

This is not the end of the story for Aerospace, the LBFD or Safe Environment Engineering. A second boat is under construction and will be on its way to Long Beach sometime next year.

Cedric Mann Is Appointed PD, National Intelligence Division

July 20, 2016

Cedric Mann

Cedric Mann has been appointed principal director of the Office of the Director of National Intelligence (ODNI), National Intelligence Division, National Systems Group.

In this position, Mann provides technical leadership in support of the corporation's ODNI customer. Mann joined Aerospace in 2008 as a member of the technical staff in the Imagery Programs Division, Chantilly

Most recently, Mann held the position of department director, Radar Processing and Analysis Department, Engineering and Technology Group (ETG). He has more than 17 years of experience in systems engineering, product quality, algorithm development, signal processing, anomaly resolution, performance modeling, systems analysis, and engineering management, working both spaceborne and airborne systems.

While in ETG, Mann focused on developing the department's protection capability in modeling, algorithm development, product quality metrics, and technical management.

In 2015, he was the recipient of the 29th Annual Black Engineer of the Year Award from the National Society of Black Engineers and was recognized as a Modern Day Technology Leader.

He earned a masters of engineering management degree from George Washington University in Washington, D.C. and a bachelor of science in electrical engineering from Wayne State University in Detroit.

July 2016 Obituaries

by **Elaine Young**
July 01, 2016

Sincere sympathy is extended to the families of:

James Ashmore, member of technical staff, hired Jan. 16, 1961, retired April 1, 1984, died June 14, 2016.
Frederick Benedetti, member of technical staff, hired Feb. 4, 1964, retired July. 1, 1994, died June 22, 2016.
Barbara Dwyer, office of technical support, hired Oct. 3, 1960, retired Sept. 1, 1992, died June 10, 2016.
Bob Harwell, member of administration staff, hired May 24, 1971, died June 27, 2016.
Franklin Howard, member of technical staff, hired May 31, 1966, retired March 1, 1980, died June 9, 2016.
Rudy Mostajo, member of technical support, hired June 1, 1999, retired Jan. 1, 2000, died May 11, 2016.

Jeanne Sandstorm, member of technical staff, hired Nov. 20, 1973, retired Jan. 1, 2010, died June 13, 2016.
Bert Taylor, member of technical support, hired Nov. 19 , 1962, retired April. 1, 1979, died June 16, 2016.
Fred Wallraff, member of administration staff, hired Oct. 17, 1960, retired Sept. 1, 1996, died May 6, 2016.
Lawrence Zamos, member of technical staff, hired June 18, 1984, retired March 1, 2006, died May 6, 2016.

July 2016 Anniversaries

by **Elaine Young**
July 01, 2016

45 Years

Engineering and Technology Group

Joseph Fennell

35 Years

Engineering and Technology Group

Christopher Kobel, Cynthia Nixon, James Paget, Thomas Tsubota

Enterprise Information Services

Paulette Ginyard, Sandra Dennis

National Systems Group

Vincent Boles

Systems Planning, Engineering, & Quality

George Rock

30 Years

Engineering and Technology Group

Jeffrey Lollock

Enterprise Information Services

Sally Frazzetta

National Systems Group

Stephanie Danahy

Space Systems Group

Diana Dunlap

25 Years

Engineering and Technology Group

Ahmed Omar-Amrani, David Ksienski, Joseph Betser, Mark Dunbar, Mark Simpson,

Teresa Salcido

National Systems Group

John Ingram, Walter Chung

Operations and Support Group

Jo Ann Apostol

Space Systems Group

Andrew Schickling, Bruce Mau, Mary Rich

20 Years

Engineering and Technology Group

David Landis

Enterprise Information Services

Cynthia Holdsworth

Operations and Support Group

Karl Jacobs

Space Systems Group

James Anderson, Xuandzung Tran

Systems Planning, Engineering, & Quality

Thomas Oldenburg

15 Years

Engineering and Technology Group

James Hant

National Systems Group

Gregory Richardson, James Fishenden

Operations and Support Group

Jody Nishime, Regina Sadler

Space Systems Group

Charles Signorelli, Manorama Gollakota

10 Years

Engineering and Technology Group

Aaron Myrick, Adam Vore, Andrea Noguchi, Bonnie Keillor-Slaten, James Houchin,

John Chaney, Konstantin Tarasov, Wai Troyer

Enterprise Information Services

Benjamin Rubio, Jane Kirby

National Systems Group

Gerald Trombley, Timothy Graves

Operations and Support Group

Chippale Revell, Jeanna Harkenrider, Paul Ozaki

Space Systems Group

Garrett Teahan, Leon Lala Jr, Tien Nguyen, William Macaulay

Vaeros

Mark Sullivan

5 Years

Engineering and Technology Group

Ashley Moore Williams, Aura Labatete-Goeppinger, Fei Wang, Kyle Mckinney, Michael Mazon

National Systems Group

Glenn Yeakel

Operations and Support Group

Susan Tobias, Willie Wilson

Systems Planning, Engineering, & Quality

John Eichner

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