



# Lockheed Martin Management Association Retirees Newsletter

*Looking Forward Towards A Wonderful Retiree Future!*

DECEMBER 2016

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Happy  
Holidays



**Your Story** We need your input. Have you done anything exciting lately? Do you have any news that might be of interest



to our members? Your story and photo is welcome! Email it to:  
jerry.allan.vaughan@gmailcom

**Sunshine** If a member knows of anyone ill or grieving, please send an email to Karen Stayrook at: karenstayrook@comcast.net or call (408) 622-5539

### **AirLift Services for Cancer-Stricken Mom and Children**

WAPPINGERS FALLS, N.Y., Nov. 28, 2016 /PRNewswire/ – Associated Aircraft Group (AAG), a Sikorsky company, and Patient AirLift Services (PALS), a nonprofit organization that arranges for free volunteer aircraft flights for medical patients throughout the Northeast, completed round-trip helicopter flights for Tammy Malangone, a 45-year-old mom with bone cancer, and her two young teenagers to attend the KiDS NEED M♥RE's 2016 Campsgiving event on Shelter Island, N.Y. Sikorsky is a Lockheed Martin company (NYSE: LMT).

"To know that there are people that will take us to Campsgiving on their own time, pay for the gas, donate their resources, it means a lot," said Tam-

my. "We otherwise wouldn't be able to go, and we look forward to these trips because it gets us away from everything that is going on here. We are grateful. It's good to know that there are good people."

AAG has joined with PALS this year to donate helicopter transportation to medical treatment for ambulatory individuals who cannot afford or are otherwise unable to fly commercially in the Northeast. Transportation is also arranged by PALS to assist military personnel and their families with free flights to aid in recovery and rehabilitation for wounded veterans. AAG conducted its first flight in the joint effort on May 31 using an AAG Sikorsky S-76® helicopter. To date, AAG has flown 14 of these missions.

AAG is well recognized for its long his-

tory of owning and operating Sikorsky S-76 helicopters in the Northeast. AAG is "Platinum" rated by ARG/U.S. International, is Wyvern Recommended, and recently achieved 50,000 safe flying hours in the S-76 helicopter. AAG provides VIP helicopter transportation in the Washington D.C., Philadelphia, New York City, Hartford, and Boston markets.

Patient AirLift Services (PALS) is a 501(c)(3) non-profit that arranges free flights through its volunteer pilot network for individuals requiring medical diagnosis, treatment or follow-up, for military personnel and their families, or for other compassionate humanitarian purposes. PALS is located in Farmingdale, N.Y., and has arranged over 11,000 flights to date.

KiDS NEED M♥RE is a 501(c)(3) non-profit charitable organization dedicated to enhancing the lives of children, families and young adults coping with cancer and other life-threatening illness. KiDS NEED M♥RE offers programs designed to further the healing and coping process of children diagnosed with or affected by life threatening illness.

### Republic of Korea Air Force Contract

FORT WORTH, Texas, Nov. 21, 2016 / PRNewswire/ – Lockheed Martin (NYSE: LMT) was awarded a \$1.2 billion contract to upgrade 134 F-16 aircraft for the Republic of Korea Air Force (ROKAF).

The upgrades are based on the advanced F-16V configuration. Among the enhancements are an Active Electronically Scanned Array (AESA) radar, a modern commercial off-the-shelf (COTS)-based avionics subsystem, a large-format, high-resolution center pedestal display and a high-volume and high-speed data bus.



"We truly appreciate the trust and confidence the Republic of Korea has placed in us with this contract," said Susan Ouzts, vice president of Lockheed Martin's F-16 program. "These upgrades are a critical piece of South Korea's national defense and highlight Lockheed Martin's commitment to the full lifecycle of the F-16, from production to through-life sustainment."

The contract for the ROKAF upgrade is a foreign military sales contract issued by the U.S. Air Force. As Original Equipment Manufacturer (OEM) and design authority of the F-16, Lockheed Martin is uniquely qualified to design, engineer, develop, integrate and sustain a complete F-16 weapons system solution tailored to customer requirements.

The F-16 Fighting Falcon is the world's most successful, combat-proven multi-role fighter with more than 4,570 F-

16s delivered. The F-16 currently serves as the workhorse of the fighter fleet for 25 nations around the world.

### Weather Satellite Launch

CAPE CANAVERAL AIR FORCE STATION, Fla., Nov. 19, 2016 / PRNewswire/ – NOAA's GOES-R weather satellite, built by Lockheed Martin (NYSE: LMT), was successfully launched today at 6:42 p.m. ET from Cape Canaveral Air Force Station, Florida, aboard a United Launch Alliance Atlas V 541 rocket. The spacecraft successfully deployed its large solar array, which provides its electrical power, and established communications with mission operators.



The first of four next-generation geostationary weather satellites, the Geostationary Operational Environmental Satellite R-Series, or GOES-R, will provide a major improvement in quality, quantity and timeliness of weather data collected over the Western Hemisphere. This accurate real-time data will be used to provide short-term forecasts, severe storm warnings, maritime forecasts, seasonal predictions and space weather alerts.

"GOES-R will substantially improve our nation's weather and space weather prediction capability," said Tim Gaspar-

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rini, GOES-R vice president and program manager at Lockheed Martin Space Systems. "This is a prime example of how our expertise in spacecraft development, earth instruments and space-science instruments can combine to save lives and property."

Lockheed Martin designed, built and tested the satellite at its Space Systems facility near Denver. In addition to the four GOES-R Series satellites (R, S, T and U), Lockheed Martin designed and built the Solar Ultraviolet Imager (SUVI) and the Geostationary Lightning Mapper (GLM) instruments that will fly aboard each spacecraft. Those instruments were built at the company's Advanced Technology Center in Palo Alto, California.

"Our nation now has a new weather sentinel, and the data it will produce will soon be vital to our severe storm prediction and warnings," said Lisa Callahan, vice president and general manager of Civil Space at Lockheed Martin Space Systems. "The data will not only keep our citizens out of harm's way but will also be used across the Americas."

NOAA funds, manages and will operate the GOES-R Series satellites. NASA oversees the acquisition and development of the GOES-R spacecraft, instruments and launch vehicle. The program is co-located at NASA's Goddard Space Flight Center in Greenbelt, Maryland.

### New College at Onizuka Station

By VICTORIA KEZRA September 28

Where the intimidating four-story, windowless "Blue Cube" once dealt with the most secretive of top secrets, today sits a college building ready and willing to dispense information freely to attentive students.

It's now called the Foothill Sunnyvale College Center, and on Sept. 26 it is scheduled to open to more than 1,600 students. The old Onizuka Air Force Station has been transformed into a campus of the Foothill-De Anza Community College District.



Although the building—which is painted bright blue on the side facing the street—is new, the school pays homage to the history of the Onizuka Air Force Station at every turn. The station was built in 1960 as the Air Force Satellite Test Center and in 1994 was named after astronaut Ellison Onizuka, who died in the Challenger space shuttle disaster.

The station, which was involved in various aerospace projects and tracked satellites during the Cold War, became famous in the region for its fortress-like blue building, accessible to only those with special clearance. Though officially called Building 1003, Bay Area residents long knew it as the "Blue Cube." In 2010 the station was closed and the cube was demolished four years lat-

er.

The walkways leading from the parking lot to the campus are speckled with flecks of blue paint harvested from the cube. Once inside, there is the Onizuka Cafe for hungry students and the Satellite Lounge next door for relaxation and study.

Two murals that previously had been inside the cube are now hung in campus hallways. One features the Challenger shuttle with a memorial poem. The other is signed by many former employees of the Onizuka Air Force Station and coincidentally features a large owl—Foothill's mascot—with a lightning bolt in its talons.

"It was meant to be," said Andrea Hanstein, director of marketing and public relations for Foothill College.

According to Hanstein, college and air station staff members went on a tour of the facility prior to the cube's demolition and pointed out items to save. Artifacts taken from the cube, including aerospace models and signs, will be displayed on the second floor in glass cases.

The campus building is two stories tall and houses 23 classrooms, a small library, admissions services, counseling and tutoring. The school is partnering with nearby tech companies such as Google, Juniper Networks and Seagate Technologies to provide internships and work experience for students.

A number of general education classes will be offered, along with classes on

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biomedical devices and 3D printing. In addition, two programs will be offered only at the Sunnyvale location: child-care development and a paramedical/EMT program. Several classrooms are outfitted with laptops and computers at every seat and have built-in ceiling projectors.

"Because we serve all students, we're open access, and a lot of our students don't have the technology we're used to having. The fact that they can come here and use this [technology] is awesome," Hanstein said.

The school also offers a geographic information system laboratory where students can work toward a GIS program certificate.

"In layman's terms that's...the tech that makes your Google Maps work," Hanstein said. "Think of any app you use, it's using location services."

The campus replaces Foothill's former satellite at Palo Alto's Cubberley Community Center, which was leased for 20 years. The new campus sits on nine acres given to the college for free through a public benefit conveyance program.

College district officials think the location of the new campus will be helpful for students.

"Since we're on the 280 highway corridor and our sister college De Anza is too, it was strategic to put it here because we're along the 101 [highway] corridor. We're really trying to make it that you can be here; you don't have to traipse across town to be on campus,"

said Hanstein.

### F-22 Sustainment Contract

FORT WORTH, Texas, Nov. 16, 2016 – Lockheed Martin Corp. (NYSE: LMT) has received a \$536 million contract modification from the U.S. Air Force for sustainment of the F-22 Raptor. The funding is part of a Performance-Based Logistics (PBL) contract providing weapon systems sustainment of the F-22 fleet at all operational bases for the 2017 calendar year.



Lockheed Martin provides sustainment services to the F-22 fleet through a U.S. Air Force-awarded PBL contract and a comprehensive weapons management program called Follow-on Agile Sustainment for the Raptor (FASTeR).

As the original equipment manufacturer and support integrator for the F-22 Raptor, Lockheed Martin works closely with the U.S. Air Force to integrate a total life-cycle systems management process to ensure that the Raptor fleet is ready to perform its mission.

"This contract is a vital part of keeping the combat Raptor [F-22] fleet in fighting form," said Ken Merchant, vice president of Lockheed Martin's F-22 Program. "Our collaborative partnership with the Air Force and our industry partners ensures that our warfight-

ers get the critical capabilities they need to accomplish their missions."

The U.S. has deployed F-22s to Asia and Europe to reinforce security commitments and bolster strategic partnerships with allies. F-22s are also currently deployed to the Middle East where they are supporting Operation Inherent Resolve.

The F-22 Raptor defines air dominance. The 5th Generation F-22's unique combination of stealth, speed, agility, and situational awareness, combined with lethal long-range air-to-air and air-to-ground weaponry, makes it the best air dominance fighter in the world.

### Human-Machine Teams

ROME, N.Y., Nov. 15, 2016 / PRNewswire/ – Lockheed Martin (NYSE: LMT) demonstrated for the first time how its suite of optionally-piloted helicopters and small unmanned aerial systems can work together to successfully locate and extinguish fires, pinpoint the location of a missing person, and bring that person to safety.

"When lives are at risk, advanced human-machine teams can complete dangerous missions without putting others in harm's way," said Dan Spoor, vice president, unmanned systems.

"The advances that Lockheed Martin is pioneering in autonomous and unmanned technologies will lead to improved safety and efficiency for humanitarian aid, first response and other civil, commercial and military operations in the air, on land and undersea."

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During this demonstration, the optionally piloted Kaman K-MAX™ and the Sikorsky Autonomy Research Aircraft (SARA) engaged in collaborative firefighting and search-and-rescue with the Indago quadrotor and Desert Hawk 3.1 fixed wing unmanned aircraft system (UAS) providing information, surveillance and reconnaissance.

Also during the demonstration, the Indago identified hot spots and relayed that information to an operator who directed the K-MAX to autonomously retrieve water from a nearby pond and drop it onto the fire, thus extinguishing the flames.



*The unmanned K-MAX drops water on a fire during a demonstration at Griffiss International Airport in Rome, New York. The Indago quadrotor identified hot spots and relayed that information to an operator who directed the K-MAX to autonomously retrieve water from a nearby pond and drop it onto the fire*

The Desert Hawk identified the location of a missing person and SARA, a modified S-76® commercial helicopter, conducted the search and directed the rescue. The Sikorsky MATRIX™

technology on SARA gives operators the confidence to fly large rotorcraft safely, reliably and affordably as autonomous or optionally piloted aircraft.

Lockheed Martin integrated the MATRIX technology with K-MAX so that SARA and K-MAX could communicate with each other during the demonstration. Using information provided by K-MAX, SARA autonomously scanned the area and found a safe place to land.

"Our goal is to support the integration of autonomy into aviation to improve the safety and capabilities for military and commercial missions. Utilizing MATRIX to support the mission in this demonstration highlights an example of the ability to reduce pilot workload and augment mission performance," said Mark Miller, vice president, engineering and technology, Sikorsky, a Lockheed Martin Company.

The New York UAS Test Site Operations Center at Griffiss International Airport also demonstrated progress toward UAS Traffic Management (UTM). The center uses radars and sensors to enable the tracking of manned, unmanned and optionally-piloted aircraft systems.

"UAS traffic management must keep pace with the technology innovations that are bringing helicopters to the sky with a laptop or tablet," said Lawrence Brinker, executive director & general counsel of the NUAIR Alliance. "The progress that has been made through the collaboration of federal agencies and companies like Lockheed Martin, will pave the way to help the Federal Aviation Administration safely manage

air traffic without on-board pilots."

Autonomous and unmanned systems are changing the way militaries operate and protect forces, the way first responders fight fires and how researchers explore the ocean terrains. Lockheed Martin is extending the capabilities of human-machine team to expand across air, land and sea domains.

### Self-Driving Shuttle

A self-driving shuttle will be available to transport students, staff, faculty and guests around Santa Clara University until Feb. 7, university officials said Monday.

The university launched the pilot program in partnership with local startup Auro Robotics.



"We believe this to be the first operating driverless shuttle on a university campus in the United States," university spokeswoman Tina Vossugh said in a statement. Officials said the shuttle will travel at 7 mph and is armed with sensors to avoid poles and students.

The shuttle can transport three passengers at a time, and will operate in a loop, making five stops on campus.

It will run from 8 a.m. to 11 a.m. and 1 p.m. to 5 p.m. Monday through Friday, and 9 a.m. to noon on Sundays.

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DECEMBER 2016

## Activity Calendar

- **LMMAR Executive Board Meeting.** First Monday of each month unless holiday conflict, then second Monday. 9:30 a.m. Star One Administration Building, 1306 Bordeaux Dr.— Members are welcome to attend. Call Norm Dhom to arrange attendance — (408) 732-2742.
- **LMMAR Newsletter Mailing Session.** Volunteers needed. Second Thursday of each month. 9:30 a.m. Star One Administration Building, 1306 Bordeaux Dr. — Call Norm Dhom to arrange attendance — (408) 732-2742.
- **LMMAR Bridge Card Players.** Join the fun! Every Tuesday and Thursday, 11:30 a.m. at the Willow Park Condominiums located at the NE corner of Moffet Blvd. and Middlefield Road in Mountain View. Entrance is from Moffet Blvd. Contact Dave Himmelblau, 'phone No. 650 968-1121.
- **Lockheed Martin Blood Bank Drive.** Second Wednesday of each month. 8:00 a.m.– 3:00 p.m. Bldg. 163. LMMAR Contact Norm Dhom (408) 732-2742.
- **Lockheed Martin Retirees Investment Group (LMRIG).** Meets last Thursday of each month, 1:00-3:00 p.m. Meet at Mitchell Park Library, 3700 Middlefield, Palo Alto Midtown Room – on the right, past the library entrance. Dues are \$2. Contact Don Kinell (650) 948-1520 or Martin Abelow (408) 253-6924.



For your financial needs, please contact Star One Credit Union at [www.starone.org](http://www.starone.org) or (866) 543-5202 toll free.

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