



# Lockheed Martin Management Association Retirees Newsletter

*Looking Forward Towards A Wonderful Retiree Future!*

FEBRUARY 2016

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**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@gmail.com](mailto:jerry.allan.vaughan@gmail.com).

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

### Needed: Staff Help

LMMAR needs volunteers to help keep LMMAR going. We have several vacancies on the Board and we particularly need a secretary and a newsletter editor. If you think you can help please contact:

Norm Dhom, Membership Chair – (408) 732-2742

Jerry Vaughan, Treasurer – (408) 985-2708

### Free Educational Workshops at Star One Credit Union

Star One's workshops will help you navigate the sometimes-difficult decisions associated with managing and building a strong financial base of knowledge!

**RSVPs Required.** Please call (866) 543-5202 toll free, visit a Branch, or register online at- [www.starone.org](http://www.starone.org). Workshops are free to members and non-members.

#### Solving the Mystery of Credit Reporting

February 24, 2016

5:30 – 7:00 pm

Star One Administration Building  
1306 Bordeaux Drive, Sunnyvale, CA

June 8, 2016

6:00 – 7:30 pm

#### Blossom Hill Branch

1090 Blossom Hill Road, San Jose, CA

Credit reports and credit scores, as well as the rights and responsibilities that accompany them, are a concern to many consumers. This workshop provides an overview of credit bureaus, credit scoring and the Fair Credit Reporting Act as well as specific guidance on disputing inaccuracies, improving credit score and dealing with identity theft and fraud.

#### Next-Generation Refining and Chemical Facility Automation System Contract

SPRING, TX – Jan. 14, 2016

ExxonMobil Research and Engineering Company (EMRE) has awarded Lockheed Martin a contract to serve as the systems integrator in the early stage

development of a next-generation open and secure automation system for process industries. Lockheed Martin will be responsible for the advanced processing architecture working with EMRE in this pre-development phase. As part of this research phase, Lockheed Martin will be conducting an Industry Day on Jan. 26, 2016 and will solicit Requests for Information (RFIs) from industry in support of the new system.

“We continue to challenge ourselves by looking at existing processes and finding new and more innovative ways of working using both internal and external ideas,” said Vijay Swarup, vice president of Research and Development at ExxonMobil Research and Engineering Company. “This breakthrough initiative could help transform refining and chemical manufacturing through the use of high-speed computational components, modular software, open standards, and the use of autonomous tools.”

Working with Lockheed Martin, ExxonMobil’s goal is to design a new architecture that will control and optimize refining and chemical manufacturing facilities while enabling future equipment and information services such as preventative maintenance and fleet optimization. The design and implementation is based on architecture standards that will ensure modularity, interoperability, extensibility, reuse, portability, and scalability of the new system.

“Lockheed Martin is a leader in provid-

ing open architecture and secure processing solutions for our customers,” said Paula Hartley, vice president of Advanced Product Solutions for Lockheed Martin Mission Systems and Training. “The advantages of our secure commercial processing experience combined with the expertise in applying open architecture standards provides a low risk solution for the ExxonMobil process control requirements.”

The automation platform will provide several sources of value for industrial manufacturers. The platform can be designed with intrinsic cybersecurity protection that is adaptable to emerging threats. The architecture will also promote competition and innovation in the marketplace. Lastly, interoperability, modularity and adherence to industry standards will lower the cost of integrating new system components or replacing legacy platforms.

**Lockheed Martin to Separate and Combine IT and Technical Services Businesses with Leidos**

BETHESDA, Md., Jan. 26, 2016 – Lockheed Martin (NYSE: LMT) has entered into a definitive agreement to separate and combine its realigned Information Systems & Global Solutions (IS&GS) business segment with Leidos Holdings, Inc. (NYSE: LDOS) in a tax-efficient Reverse Morris Trust transaction, unlocking \$5 billion in estimated enterprise value for Lockheed Martin stockholders.

“This strategic transaction is an important milestone in the portfolio reshaping strategy we announced in July 2015 and allows us to focus on our

core business in aerospace and defense,” said Lockheed Martin Chairman, President and CEO Marillyn Hewson. “The combination of our proven IT and technical services businesses with Leidos will create a new leader in the government IT sector with a diversified portfolio, greater scale and improved efficiency. The new business will be positioned for growth while unlocking value for our stockholders.”

The agreement aligns IS&GS’s business with an industry leader in government IT and technical services, creating an enterprise capable of providing unparalleled solutions in industries from national security to health and life sciences. The complementary portfolios of both companies will enable synergies, creating additional value for stockholders. IS&GS’s world-class expertise, reputation and global reach will enable Leidos to offer a broader portfolio of mission-critical IT solutions and services to support customers across the globe.

Subject to regulatory approvals, the \$5 billion transaction includes a \$1.8 billion one-time special cash payment to Lockheed Martin, which the Corporation intends to use to repay debt, pay dividends, and/or repurchase its stock. The cash payment is subject to adjustment on the terms set forth in the transaction documents. Lockheed Martin stockholders will receive approximately 50.5 percent (approximately 77 million shares) of the outstanding equity of Leidos on a fully diluted basis with an estimated value of \$3.2 billion. Leidos’ existing shareholders will con-

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tinue to hold the remaining approximately 49.5 percent of the outstanding shares of Leidos. The transaction structure, which is subject to market conditions, is currently contemplated to be a tax-efficient split-off transaction, which would result in a decrease in Lockheed Martin share count.

The transaction is also subject to Leidos shareholder approval and completion of customary conditions, including receipt of opinions of tax counsel. The transaction is expected to close in the third or fourth quarter of 2016. Until closing, IS&GS will continue to operate as a business segment of the Corporation.

**Transaction Anticipated to Unlock \$5 billion in Value for Lockheed Martin Stockholders**

- Lockheed Martin to receive one-time special cash payment of \$1.8 billion
  - Lockheed Martin stockholders to receive 50.5 percent equity in Leidos, worth approximately \$3.2 billion
  - Transaction is highly complementary to strategic objectives of both corporations with substantial synergies and potential to enhance value for both sets of stockholders
- Tax-efficient Reverse Morris Trust transaction completes portfolio re-shaping efforts announced July 2015

**Thermal Vacuum Test Validates Lockheed Martin's GPS III Satellite Design**

DENVER, Feb. 3, 2016 – Engineers at Lockheed Martin (NYSE: LMT) recently proved their design for the world's most powerful Global Positioning System (GPS) satellite can operate in and

withstand the harsh conditions it will experience on orbit.



*The first GPS III satellite recently completed system-level Thermal Vacuum testing, validating Lockheed Martin's design for the next generation of more powerful GPS satellites.*

On December 23, Lockheed Martin's first GPS III satellite for the U.S. Air Force completed system-level Thermal Vacuum (TVAC) testing, validating the design of the entire assembled satellite. TVAC is a rigorous test designed to prove a satellite's integrity and operational capabilities by subjecting it to prolonged cycles of simulated space temperature extremes in a special depressurized chamber.

"TVAC is the most comprehensive and perceptive test performed at the spacecraft level. If there is an issue with your design or production processes, you are going to find it here," said Mark Stewart, vice president of Lockheed Martin's Navigation Systems mission area. "Successful completion of this significant test validates the thermal design of the spacecraft and verifies that all spacecraft components and interfaces operate at the temperature extremes of the space environment. We credit this performance to the Back to Basics work we performed earlier and the program's unique GPS III Non-flight Satellite Testbed."

TVAC is the latest in a string of milestones for the first GPS III satellite. Last spring, the satellite's major functional components were successfully integrated to form the first complete satellite. Last fall, the new satellite also successfully completed acoustic testing, where it was pounded with sound waves to simulate the vibrations it will endure during its launch.

With eight satellites under contract, the production line is now on a steady tempo at Lockheed Martin's GPS III Processing Facility outside of Denver. The first four GPS III satellites are in various stages of assembly and test with most major components – including their structure and propulsion systems, solar arrays, and antennas – already delivered. This spring, with Harris Corporation's delivery of its second navigation payload, the second GPS III satellite is expected to be integrated and begin environmental testing.

Components for the next four GPS III satellites are already being assembled, tested and delivered on schedule by more than 250 aerospace industry companies from 29 states.

"We have a world class industry team supporting the development and production of GPS III for the Air Force and our nation," continued Stewart. "I thank them for their excellent work and commitment to this program."

GPS III will deliver three times better accuracy, provide up to eight times improved anti-jamming capabilities and extend spacecraft life to 15 years,

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25 percent longer than the satellites launching today. GPS III's new L1C civil signal also will make it the first GPS satellite to be interoperable with other international global navigation satellite systems.

The GPS III team is led by the Global Positioning Systems Directorate at the U.S. Air Force Space and Missile Systems Center. Air Force Space Command's 2nd Space Operations Squadron (2SOPS), based at Schriever Air Force Base, Colorado, manages and operates the GPS constellation for both civil and military users.

**LMMAR Bridge**

Jan 5 - Individual Duplicate - 1st Place - Dave Topka, 2nd Place - Gary Bea, 3rd Place - Bob Vigeant, and 4th Place - Dave Himmelblau.

Jan 7 - Pairs Duplicate -1st Place - (tie) Roger Abegg & Doug Gordon and Dave Himmelblau & Dave Topka.

Jan 12 - Individual Duplicate - 1st Place - Bob Vigeant, 2nd Place - Dave Himmelblau, 3rd Place - Chuck Schmidt, and 4th Place - Gary Bea.

Jan 14 - Pairs Duplicate - 1st Place - Roger Abegg & Doug Gordon and 2nd Place -.Dave Himmelblau & Dave Topka.

Jan 19 - Individual Duplicate - 1st Place - Alex Fucile, 2nd Place - (tie) Chuck Schmidt, and Dave Topka, and 4th Place - Roger Abegg

Jan 21 - Pairs Duplicate - 1st Place - Dave Himmelblau & Dave Topka and 2nd Place - (tie) Roger Abegg & Doug

Gordon and Gary Bea & Chuck Schmidt.

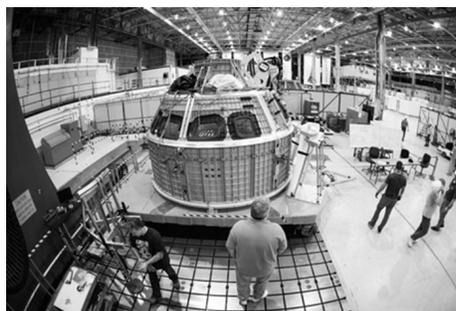
Jan 26 - Pairs Duplicate - 1st Place - Gary Bea & Chuck Schmidt and 2nd Place -. (Tie) Roger Abegg & Doug Gordon and Dave Himmelblau & Dave Topka.

Jan 28 - Pairs Duplicate - 1st Place - Angie Schynert & Bob Vigeant and 2nd Place - Gary Bea & Chuck Schmidt.

**New and Improved Orion Crew Module**

*Note: The Orion Multi-Purpose Crew Vehicle (Orion MPCV) is an American spacecraft Intended to carry a crew of four astronauts to destinations at or beyond low Earth orbit (LEO).*

The Lockheed Martin (NYSE: LMT) and NASA Orion team has secured the 2,700 lb. Exploration Mission-1 (EM-1) Orion crew module into its structural assembly tool, also known as the "birdcage." The crew module is the living quarters for astronauts and the backbone for many of Orion's systems such as propulsion, avionics and parachutes.



**On January 13, engineers at Michoud Assembly Facility in New Orleans finished welding together the primary structure of the Orion spacecraft's crew module. Photo credit: NASA**

"The structure shown here is 500

pounds lighter than its Exploration Flight Test-1 (EFT-1) counterpart," said Mike Hawes, Lockheed Martin Orion vice president and program manager. "Once the final structural components such as longerons, bolts and brackets are added, total crew module structural weight savings from EFT-1 to EM-1 will total 700 pounds."

From experience gained by building test articles, building and flying EFT-1, and now building the EM-1 crew module, the Lockheed Martin team is learning how to shed weight, reduce costs and simplify the manufacturing process - all in an effort to improve the production time and cost of future Orions.



*On February 1, NASA's Super Guppy airplane transported the Orion crew module from Michoud Assembly Facility to Kennedy Space Center.*

"Our very talented team in Louisiana has manufactured a great product and now they have passed the baton to Florida," said Hawes. "This is where we assemble, test and launch, and the fun really begins."

At Kennedy Space Center, the crew module will undergo several tests to ensure the structure is perfectly sound before being integrated with other elements of the spacecraft. First it will

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undergo proof-pressure testing where the structural welds are stress tested to confirm it can withstand the environments it will experience in space. The team will then use phased array technology to inspect the welds to make sure there are no defects. Additional structural tests will follow including proof-pressure testing of the fluid system welds and subsequent x-ray inspections.

Once the crew module passes those tests it will undergo final assembly, integration and entire vehicle testing in order to prepare for EM-1, when Orion is launched atop NASA's Space Launch System (SLS) for the first time. The test flight will send Orion into lunar distant retrograde orbit – a wide orbit around the moon that is farther from Earth than any human-rated spacecraft has ever traveled. The mission will last about three weeks and will certify the design and safety of Orion and SLS for future human-rated exploration missions.

### **Solutionary Joins Lockheed Martin Cyber Security Alliance**

GAITHERSBURG, Md., Feb. 4, 2016 – Lockheed Martin (NYSE: LMT) announced the addition of Solutionary, a security services provider focused on delivering managed security services, professional security services and global threat intelligence, to the Lockheed Martin Cyber Security Alliance.

“Sharing best practices has proven to be an effective way of defending against cyberattacks,” said Angie Heise, vice president, Lockheed Martin

Commercial Cyber. “We have been working with Solutionary to do just that. Solutionary’s managed security services provider capabilities complement our service offerings, providing customers an even higher level of security. Now, we can formally welcome them into the alliance and take that relationship a step further.”

Formed to create an environment where leading technology providers can collaborate, combine strengths and share best practices, the Lockheed Martin Cyber Security Alliance identifies and implements solutions that help provide early threat detection and protection to solve customers’ growing cybersecurity needs and meet future challenges. The Alliance members engage in customer-focused scenarios, experiments and pilot programs that enable them to provide improved, more efficient and tested services.

Lockheed Martin Commercial Cyber is focused on developing, implementing, maintaining and securing critical infrastructures for Fortune 1000 and Global 1000 companies. The organization’s approach is based on an Intelligence Driven Defense® philosophy that focuses on harnessing information from those who seek to attack, and using it against them.

As a monitoring and security device management provider, Solutionary protects traditional and virtual IT infrastructures, cloud environments and mobile data.

“Being a part of the Lockheed Martin Cyber Security Alliance allows Solutionary to not only broaden its current

capabilities but to be part of an organization that aligns with the same ideology, one hundred percent focused on protecting our clients,” said Rob Kraus, director of Security Research and Strategy, Solutionary. “Collaborating with some of the world’s greatest security minds will help Solutionary continue to address threats with the latest methods and technology advances, resulting in a heightened capability to detect, deter and mitigate advanced attacks.”

### **JCSAT-17 Satellite Contract**

TOKYO, Feb. 3, 2016 – SKY Perfect JSAT Corporation (SJC) has awarded Lockheed Martin (NYSE: LMT) a contract for JCSAT-17, a satellite based on the A2100 common design.



“We’ve built a number of satellites for SJC and we’re honored that they have placed their trust in us again,” said Carl Marchetto, vice president and general manager of Commercial Space at Lockheed Martin Space Systems. “And with the sale of an additional A2100, it adds yet another satellite to our healthy backlog.”

JCSAT-17 is an S band satellite that will operate well in excess of 15 years. The satellite will include a flexible processor that will allow SJC to redirect capacity to concentrate on disaster

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relief efforts or other high-volume events.

JCSAT-17 is the eighth satellite SJC has awarded to Lockheed Martin, beginning with NSAT-110, JCSAT-9 through JCSAT-13 and most recently JCSAT-110R. The satellite will be manufactured in Denver, Colorado and delivered in 2019.

The modernized A2100 is built on a flight-proven bus that is the foundation for more than 40 satellites in orbit today. Through an internally funded, multiyear modernization effort, Lockheed Martin enhanced the spacecraft's power, propulsion and electronics, while also adopting the latest advanced manufacturing techniques to decrease production costs and timelines.

**Power Energy Agreement**

BETHESDA, Md., Feb. 1, 2016 – Lockheed Martin [NYSE: LMT] has entered into a 17-year power purchase agreement for solar-generated electricity produced by Duke Energy Renewables. The renewable power purchase, which is expected to produce 30 megawatts (approximately 72,000 megawatt hours per year) of solar energy for the U.S. national grid, will provide clean energy across all Lockheed Martin domestic business segments.

The new solar facility, operated by Duke Energy Renewables in Conetoe, North Carolina, is currently the largest solar power generating facility east of the Mississippi River producing 80 megawatts of total energy. As part of

Lockheed Martin's comprehensive sustainability commitments, the corporation is focused on reducing overall energy consumption and greenhouse gas emissions through energy-efficiency measures as well as renewable energy projects.

"Signing this agreement for the acquisition of large-scale renewable power is a significant milestone towards our commitment to environmental stewardship and is one more step in the expansion of our Go Green program looking for operational efficiencies and best business value to our operations," said Lockheed Martin Vice President of Energy, Environment, Safety and Health Carol B. Cala. "We have a goal to reduce our greenhouse gas emissions by 35% by 2020 based on our 2010 emissions, and with this investment in renewables we are one step closer to achieving that goal."

"We commend Lockheed Martin for its progressive goals and are pleased to deliver a competitively-priced solar solution that helps the company move forward with its commitment to sustainable operations," said Greg Wolf, Duke Energy Commercial Portfolio president.

The U.S. Environmental Protection Agency listed Lockheed Martin as one of the top rated corporations on its 2015 ranking of the largest green power users. Lockheed Martin uses nearly 260,000 megawatt hours of green power annually including renewable energy credits, which is enough to meet 16 percent of the corporation's electricity use.

"We're demonstrating that investing in

large-scale renewable power that delivers cleaner electricity doesn't have to cost more," said Leo Mackay, Lockheed Martin vice president of Ethics & Sustainability.

Rocky Mountain Institute, an independent nonprofit focused on market-based clean energy solutions, commended Lockheed Martin for its commitment to renewable energy, "As one of the first corporations to announce a major renewable energy deal in 2016, we applaud Lockheed Martin for its clean energy leadership, not only in its sector but across the market broadly," said Hervé Touati, head of Rocky Mountain Institute's Business Renewables Center.

**Sad News – Thomas Slack**

Thomas slack passed away 14 December, 2015. He worked at Lockheed from 1960 until he retired in 1992



**Sad News – Dennis Wayne Rudy**

Dennis Rudy passed away 28 December, 2015.





LMMAR LUNCHEON



Let's Celebrate Spring

April 22, 2016

SAVE THE DATE

**Michael's at Shoreline  
2960 N. Shoreline Blvd.  
Mountain View, CA 94043**

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FEBRUARY 2016

## *Activity Calendar*

- **LMMAR Executive Board Meeting.** First Monday of each month unless holiday conflict, then second Monday. 9:30 a.m. Bldg. 157-Satellite Room (off the cafeteria).
- **LMMAR Newsletter Mailing Session.** Volunteers needed. Second Thursday of each month. 9:30 a.m. Bldg. 157-Litrium. Contact Norm Dhom (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, 1:00-2:00 p.m. in B163 at the corner of J Street and 1st Ave. (Employee Connection Building). Dues are \$2. Contact Don Kinell (650) 948-1520 or Martin Abelow (408) 253-6924. Join us for lunch in the B-157 cafeteria prior to the meeting between 11:40-12:40.

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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