



Volume 30, Issue 3
July 2014

Sponsored by LOCKHEED MARTIN

MARS STAR



MARS Activities This Quarter:

Annual Picnic @ Clement Park

September 3, 2014

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Bridge	Dave & Kathy Martz	303-683-9524
Dinner	Dave & Carol Zeller	303-971-0158
Golf	Bob Snodgress	303-660-8408
Hiking	Sue Janssen	303-936-8339
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REMINDER:

If you move, please give the membership VP a change of address. Also, if you are a snowbird, let us know when you are leaving and when you plan to return so your MARS STAR can be sent to you. It costs us 70 cents for each STAR package returned.

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DIRECTORS

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IMPORTANT PHONE NUMBERS

LM Employee Service Center	1-866-562-2363
CitiStreet 401K Hotline	1-800-444-4015
Aetna Plans	1-888-562-8111
Anthem BlueAdvantage HMO	1-866-863-0484
CIGNA Point of Service (POS) (Hourly Only)	1-800-832-3211/ 1-800-244-6224
CIGNA Healthcare of Colorado for Seniors	303-782-9662
CitiStreet (PSP-SSP-CAP)	1-800-444-4015
Medicare Plus (Aetna)	1-888-562-8111
PacificCare Secure Horizons	1-800-771-4347
CVS Caremark Prescription Drugs	1-888-562-3784
Vision Service Plan, Rancho Cordova, CA	1-800-877-7195
Kaiser Permanente	303-338-3800
United Dental Health	1-800-545-3260/ 303-425-1537

MARS Associates

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MARS Website: <http://www.marsretirees.org>

Cover:

L: As part of a week long, mini-program concentrated on aerospace science, students selected and built model aircraft of their choice and flew them outside the school building. See the Historian's Corner.

Three-four-zero-five

R: Lockheed Martin employees work on DMSP-19 during final integration at Vandenberg Air Force Base, Calif. The satellite was launched April 3, continuing a 50-year weather program for the Department of Defense. See ULA article for details of DMSP being the 80th successful launch.



President's Corner

By Duane Del Duca
(ddelduca@comcast.net)

It is with great sadness that I have to report that your President Elect, Lonnie Farmer, had to resign his position because of medical reasons. His health took a severe negative turn in late June and he needs to dedicate his full time to getting better. I for one will truly miss his enthusiasm and the profound interest in the well-being of your MARS club. Let's all remember him and his medical staff in our prayers and let us all wish him well on his path to a speedy recovery and good health.

Lonnie and I attended the spring get together of the Colorado Springs Retirees Group early last May. As usual it was well attended with approximately 80 persons. A gentleman by the name of Doug Tomerlin is the glue that keeps the organization together. I asked him if he would be able to prepare an article for this issue of the STAR and he has agreed to do so. The group is made up of retirees from several Aerospace Companies such as Ford Aerospace and Loral Corporation that were merged into Lockheed Martin's IS&GS Division.

In the last STAR I stated how important it is to have a Great staff supporting the operation of MARS Associates. I also understand that as time moves on changes take place, especially in a volunteer organization such as MARS. In the last month, we received notice from Roy Kannady that he will no longer be central point of contact for the **MARS Associates in Memoriam**, and that Carol Zeller is planning to leave her position with the **Dinner Club**, at the end of the year because of health reasons. I want to thank Carol and Roy for the outstanding job they have done. It will not be easy to replace either of you.

It is time for the Boys of Summer and our Colorado Rockies are hanging in there -- in spite of injuries to several key players. Our MARS Day at the Rockies was another huge success; there were over 100 of us who attended the game. I believe everyone who attended had a great time, I for one sure did.

Thanks to Bob Lines and Linda Stearns for putting this event together. There are some snapshots included at the end of this issue; maybe you can spot and recognize someone in their purple outfit. We tried to capture a few of the name tags and I hope this will help identify the individuals.

Our next event in July was the Senior Lunch, held on the 9th for MARS members in a senior status. The event was held at The Inverness Hotel. There are some fun snapshots of members of this group included at the end of the STAR.

We have been in communication with Armando Castorena's staff regarding help in integrating the more than 700 transfers from Newtown, PA into our community. The Company and we, the MARS organization, are still bouncing ideas back and forth. The Company has plans in place for housing, real estate, etc., but is still open to other suggestions. If any of you have experienced a transfer and have some suggestions, please get in contact with me or any other officer or board member and share your ideas with us. The effort the Company is most interested in is connecting these new people with local community groups. Who the groups are and the how to connect with them could be our mission in this effort.

We seem to be having a very difficult time giving away MARS dues for one year free. Look at last April's STAR page 6 between MARS Membership Renewal and MARS Membership Unit and you will find, "*Three Seven One Eight.*" This is the membership number of Brian Pias who could have been the winner had he called one of the Officers or Board Member. As you can see, the member number is not hidden very well because we really do want you to find them. So remember, read the STAR and maybe your member number is in this issue.

The next event we are planning is the annual picnic. As in the past, it will be held at Clement Park on September 3, 2014. Look for the flyer and mark your calendar. As usual Bob Lines has planned an excellent experience. Also, look to see if there is a Dinner Club event scheduled that piques your interest. Carol and her husband would love to have you join them for a lunch or dinner.





Next Up!!!

By Lonnie Farmer
(lcfarmer@juno.com)

Unfortunately there is no report in this issue of the STAR. What I ask from all members is to keep Lonnie in your thoughts and prayers.

From the Editor's Desk

Tom Pighetti (tjpighetti@q.com)
Linda Shupe (shupel@comcast.net)

If you come across an error when studying your STARS, please contact us so corrective action can be taken. Send an e-mail to Tom and Linda or snail mail to MARS Associates, Attn: Editor, P.O. Box 1128, Littleton, CO 80160-1128. Thanks in advance.



Activities Updates

By Bob Lines
(robtlines@hotmail.com)

ROCKIES

Our Rockies picnic and game event was almost a Grand Slam! We started out with a maximum of 100 seats — but only three weeks into the reservation period more than 80 people had already signed up. Linda negotiated with the Rockies for twelve more seats and reservations closed at 105. There were a few cancellations after the deadline (due to illness) but had just enough people on the waiting list to take their spaces. We gathered at

11:30 in the Platte River Picnic area for hot dogs and brats with the fixings; pasta salad, chips and cookies—and our choice of soft drinks and a cash bar. June 25 was a sunny, warm day, so our seats in the shade were welcome. Most were in section 146 with a few in accessible seating in sections 144 and 145. The game had its moments but the St. Louis Cardinals held on for the win. Look for some pictures in the back of this issue!

SENIOR LUNCHEON

This year's Senior Luncheon was held at the Inverness Hotel on July 9th. The event was enjoyed by 210 hungry seniors. How great it is to see and talk to old friends and acquaintances.

We were all very happy to see Lonnie Farmer and his wife. He has lost a few pounds and has some bad days because of the doses of strong medicine he is on, but his spirits are very good.

There are also several pictures in the back of this issue!

PICNIC

The annual picnic will be held at Clement Park on September 3rd. Look for the flyer in this mailing.

HOLIDAY CELEBRATION

This event will be at the Pinehurst Country Club on December 3rd.



Senior Fare

By William Schrott
(wmschrott@msn.com)

No article submitted this quarter.



Membership

By Barb Espinoza
(barb.j.espinoza@comcast.net)

MEMBERSHIP STATISTICS

As of June 23, 2014 MARS Associates' active membership is 1,475 which includes 876 seniors. These numbers reflect a decrease of 104 members who failed to renew their membership and an increase of 26 new members.

Please welcome the following new or reinstated (*) members:

Colorado

Aurora	Corey & Brenda Kroll
Castle Pines	Robin & Richard Valore
Castle Rock	William & Judith Bragg
Centennial	Patric & Ellen Albert Joseph Di Lella Layne & Tasha Weber
Cherry Hills Village	Bill & Marj Wise
Colorado Springs	Tuan & Oanh Nguyen
Denver	Gerald Barck & Barbara Ward
Englewood	Toni & Glen Romriell
Highlands Ranch	David & Jane Boggy
Lakewood	Brenda & Damon Oswald
Littleton	Mitchel Arnold & Susan Schwarz James & Sue Foley Helen Gorman Peter & Janet Gyza

Vivian Hermann
Joseph & Patricia McDermott
Donna Murphy
John & Susan Smith

Parker Kathleen & Jack Campbell
Barbara & Billy Daniel
Don & Linda Purkey

Other States

Santa Clara, CA James & Phonghiw Craft

Germantown, MD Nancy Laing

Laughlin, NV Ben & Marianne Rizzuto

MARS Membership Unit

MARS membership is defined in the policy manual as a family unit consisting of the retiree and spouse (or significant other), although the membership card and mailing data are in the retiree's name. In the event the retiree dies, the spouse becomes the member in his/her own name and may remain a MARS member by continuing to pay the annual dues. Senior membership status (age 75 and above) is based on the retiree's date of birth, even for the surviving spouse member.

Change of Address, email address or phone number?

Please remember to include the MARS membership team in your list of people to notify when you move. We are still experiencing a number of STAR packages being returned for incorrect addresses. The United States Post Office does not forward bulk mail and MARS is charged for all returned mail.

"Snow Bunnies" remember to let us know when you return home! Thanks.

In Memoriam Data

Please contact me with any information regarding the passing of a member or their spouse. We want to make sure their passing is acknowledged in the ***In Memoriam*** section of the STAR.

Please contact: Barb Espinoza,
VP, Membership, at: MARS Associates,

P.O. Box 1128, Littleton, CO, 80160-1128; Phone
303-338-0338; or email
barb.j.espinoza@comcast.net.

MARS Associates In Memoriam

By Roy Kannady
(kannadyR1@ASME.Org)

This is my last In Memoriam article for the *MARS Star*. If you are interested in taking over this effort, my contact information is on page 2 of the *MARS Star*.

Members

Bullard, Spencer A. (D: May 2014)
(Survived by Mary L.)
Lakewood, CO
[HTTP://TINYURL.COM/MARS-0572A](http://TINYURL.COM/MARS-0572A)

Byal, Edwin T. (D: May 2014)
(Survived by Alberta L.)
Pasadena, TX
No Obituary Published

Cassidy, Thomas J. "Tom" (D: May 2014)
Centennial, CO
[HTTP://TINYURL.COM/PETX68G](http://TINYURL.COM/PETX68G)

Daniels, Tommy E. (D: Apr 2014)
(Survived by Pauline V.)
Henderson, CO
[HTTP://TINYURL.COM/L4555L5](http://TINYURL.COM/L4555L5)

Eggleston, Robert E. "Bob" (D: May 2014)
(Survived by Patricia E.)
Littleton, CO
[HTTP://TINYURL.COM/LVKZQ9L](http://TINYURL.COM/LVKZQ9L)

Grubbs, Jimmy R. (D: Apr 2014)
(Survived by Rosemary)
Lakewood, CO
[HTTP://TINYURL.COM/KNYT7CW](http://TINYURL.COM/KNYT7CW)

Hall, Roy W. Jr (D: Apr 2014)
(Preceded by Nancy (D: Jun 2005))
St Pete Beach, FL
[HTTP://TINYURL.COM/LZD7LXZ](http://TINYURL.COM/LZD7LXZ)

Huber, Patricia D. (D: Apr 2014)
(Survived by Ronnie F.)
Lone Tree, CO
[HTTP://TINYURL.COM/LNGF698](http://TINYURL.COM/LNGF698)

Hudak, Charles A. "Chuck" (D: Feb 2014)
(Survived by Jean)
Parker, CO
[HTTP://TINYURL.COM/K2KW9SD](http://TINYURL.COM/K2KW9SD)

Knox, Marilyn L. (D: Aug 2013)
(Survived by Robin B.)
Littleton, CO
[HTTP://TINYURL.COM/L7JGNLH](http://TINYURL.COM/L7JGNLH)

Linenberger, Kenneth J. (D: Mar 2014)
(Survived by Ritha)
Lakewood, CO
[HTTP://TINYURL.COM/KXHFVNH](http://TINYURL.COM/KXHFVNH)

Mathias, Robert G. (D: Sep 2013)
(Survived by Marcia C.)
Aurora, CO
[HTTP://TINYURL.COM/LG49N6T](http://TINYURL.COM/LG49N6T)

Mossman, John M. (D: Mar 2014)
(Survived by Bettie C.)
Littleton, CO
[HTTP://TINYURL.COM/N65YMMMD](http://TINYURL.COM/N65YMMMD)

Obrecht, James "Jim" (D: Oct 2013)
(Survived by Geraldine I. "Gerri")
Parker, CO
[HTTP://TINYURL.COM/KCDJTC9](http://TINYURL.COM/KCDJTC9)

Turcheck, John J. (D: May 2014)
(Survived by Audrey J.)
Littleton, CO
No Obituary Published

Urban, Eugene J. "Bud" (D: May 2014)
(Survived by Colleen M.)
Denver, CO
[HTTP://TINYURL.COM/M39R38Q](http://TINYURL.COM/M39R38Q)

Waples, James R. "Jim" (D: Jan 2014)
(Survived by Obie Jean)
Littleton, CO
[HTTP://TINYURL.COM/KX6VYA8](http://TINYURL.COM/KX6VYA8)

Wehling, Colleen J. "Connie" (D: May 2014)
(Preceded by Werner F. "Dutch")
Centennial, CO
[HTTP://TINYURL.COM/M6MYEHG](http://TINYURL.COM/M6MYEHG)

Wintheiser, Harold D. (D: Mar 2014)
(Survived by Ardelle C.)
Englewood, CO
[HTTP://TINYURL.COM/KZ7C97P](http://TINYURL.COM/KZ7C97P)

Non-Members

Kline, Richard Lee "Dick" (D: Mar 2014)
(Survived by Lesta)
Lompoc, CA
[HTTP://TINYURL.COM/LOWYSOQ](http://TINYURL.COM/LOWYSOQ)

Faber, Wayne (D: Jan 2014)
Golden, CO
[HTTP://TINYURL.COM/Q99UGP](http://TINYURL.COM/Q99UGP)

Historian's Corner

Ray Ziehm (POC)
(rzandmm@comcast.net)

NOTE: We would like to invite retirees from all Lockheed Martin divisions to consider writing a short article for the Historian's Corner telling about your activities in any of the current member companies. The aerospace industry was in its infancy when many of us entered our careers, and many things were so different from the normal technical, environmental, manufacturing, and financial challenges we faced in previous activities that entirely new perspective and tools were required. As a result, most everyone has had an interesting, or even exciting, event or time that others would enjoy hearing about. After my recent STAR article, I enjoyed hearing from many of my old friends and coworkers who remembered those days - it was great to hear from every one of them. Please share your experiences with us. We will help you put it into final form if you wish. Photos are also desirable.

Ray Ziehm

Keeping Rockets Alive: Two Phases of My Aerospace History By Joseph Keeley

Phase 1: As a newly hired ex-Army solid rocket test engineer, I began my Martin Co. (MMC) career at Denver/ Waterton in January, 1957 in the partially completed two-story Engineering Building south of the new Titan missile factory. The million=gallon water tank stood high atop the western ridge ready for the massive rocket test facilities down in the valley.

John Youngquist, the Propulsion Manager, introduced me to Titan Pressurization, Propellant Feed, and Design leads for the mighty Titan I two-stage rocket propulsion systems. My engineering task assignment on the Engine Integration team was to assure the second stage Aerojet General XLR-91 rocket engine worked seamlessly with the other propulsion and flight systems.



Wings Over the Rockies Aerojet XLR91 Titan Missile Rocket Engine

The engine, built by Aerojet General Corporation (AGC), burned RP1 and liquid oxygen and produced 90,000 lbs. thrust at altitude. The integrated engine systems had to meet all USAF BSD mission requirements and fit/work both at ground level and thru entire two stage powered flight. Tom Jenkins was the XLR-87 stage 1 engine integration engineer. I soon met our 2nd Floor Final Assembly factory team starting with Doug Kellogg, rocket engine specialist, our Aerojet interface specialist, Joe Dougherty, who

was co-located with us in Colorado. I journeyed to the D-1 Battleship test stand, where propulsion engineers Bob Sheffer and Earl Cook were starting to get the engine, test stand, and blockhouse equipment delivered, installed, and wrung out.

The first hot firing tests in Waterton were for the Stage I XLR-87 rocket engines mounted on heavy steel "battleship tanks" on the D-1 stand.

Program priorities dictated major early emphasis on completion of the 300,000 lb. thrust Stage I engines to meet the tight static testing and flight preparations schedules. This allowed additional time for 2nd stage design engineers and technicians along with factory and test personnel to work closely as a team to make our challenging early firing tests successful.

Summer 1957

I was selected to be on the first MMC team going to the AGC Sacramento, CA., facility for two months of "hands-on" training and test participation on the XLR-91. They welcomed us with intensive engine overviews. Classes were conducted by key Aerojet designers, the XLR-87 Engine program manager Dan Price, and XLR-91 program lead, Louis Wilson. Key AGC technical experts covered overall Engine design, thrust chamber, turbopump, gas generator, valves, controls and piping, manufacturing, instrumentation, electrical and controls, ground support equipment, safety, test stand operations, and much more. With less than seven months at Waterton, I relished the upcoming challenges as did all our team. I witnessed dozens of cryogenic cold flow and hot firing test stand ops including both successful and unsuccessful firing attempts. The complicated second stage firing sequence consisted of over 80 hot firings to successfully complete and prove out the total in-flight operations. The Martin engine trainees returned back to their jobs at Waterton and Cape Canaveral eager to begin the pressurization and propellant system tests before we attempted full stage two system hot firings.

My hands-on AGC hardware experience paid back quickly as I checked the initial second stage flight article completing assembly on the 2nd floor factory. The complete Aerojet engine assembly was installed and mated with our Martin pressurization and propellant feed system components. I noticed an auxiliary pump lox valve was installed backward and I discussed the problem with the factory floor propulsion lead. We found a drawing error and had the responsible designer join us; he generated a

Drawing Change Notice quickly and avoided future time delays, system malfunctions, and potential damage. Our propulsion team tracked the factory completed stage 2 (with engine installed) through the Vertical Test Facility until electrical and sequence tests were completed. The stage was then delivered to Denver D-2 test stand with Ray Ziehm and many more test specialists for captive missile individual and sequenced side-by-side engine firings. These Titan Night firings lit up the sky and were easily visible and audible from South Santa Fe.

I was included in a group of Denver engineers that Dewey Rinehart took to NASA MSFC (formerly ABMA-Army Ballistic Missile Agency) to support consideration of Titan as a candidate for the planned Saturn family of space boosters. There we witnessed a full diameter (partially full fuel tank) slosh test using a small railroad car with adjustable dynamic parameters for eccentric loading. The Jupiter IRBM insulation and structure penalties for the "sealed can" booster engine compartment caused us to recommend and implement a ventilated stage 1 engine compartment for the Titan. Vanguard's proven "Fire in the Hole" staging to ignite the upper stage rocket engine prior to stage 1 separation was later incorporated into Titan II to eliminate the separation rockets used on Titan I.

Our nation needed a more rapid launch response with increased payload capability that required higher performance and advanced technologies.



USAF Museum Dayton Titans I & II with Peacekeeper, Thor & Minuteman 3

Increasing world tensions led to the Titan II Storable Propellant missile system concept using hypergolic storable propellants providing a 60-second launch response. The new design also increased payload lift and accuracy capability, simpler systems, autonomous guidance and propulsion systems. In Systems Engineering, we jointly created the Titan 2 Design Criteria with the sub-system designers to configure the entire vehicle and ground system.

NASA HQ teams were working many options for post Apollo Missions, focusing on usage of unassigned manned Apollo flight hardware, Saturn I and V boosters and KSC processing and launch facilities. The chosen mission was the first manned space station, the Skylab Orbital Workshop, consisting of a stripped-down S-IV B stage, outfitted for three crewmen living and working for many months supported by crew rotation and consumables resupply launches.



Skylab on orbit

The SL-1 Skylab module, 32Ft in diameter, with the attached Multiple Docking Adapter (MDA) and Apollo Telescope Mount (ATM) would be launched as a single combined payload atop a 7.5 million lb. thrust Saturn V booster with an operating S-2 second stage delivering the unmanned Skylab module mounting dual extendible solar panels to orbit.

These programs illustrate the varied experience most of us had in the early days of the space era. Most Martin retirees were involved in these and many other programs that required a broad spectrum of unique skills and dedication.

I feel very fortunate to have shared part of this era with all of you. We were all involved and made a difference in so many exciting and critical programs.

We retirees can do a great service to our country and our students to impart some of our lessons learned, and have fun doing it.

Phase 2: At retirement, the challenges and euphoria experienced at successful test or flight while working in the aerospace industry came to a sudden end. I and others who participated in these great advances of the aerospace industry, which moved at such a fast pace, found that we missed the technical cooperation shared during our Martin careers, the excitement of responding to new requirements and challenges every new program encountered. Each new program seemed to bring on bigger, faster, higher, hotter, colder, more costly, more dangerous, and more exciting issues than the last one. The thrill of planning and accomplishing things that had never been done before was gone. We now interface mostly with folks involved with more conventional industries and realize how fortunate we are to have been a part of this phenomenon. We gained knowledge and experience that very few people in the world can even imagine. This background is a valuable resource to students, industry, and the country. We should strive to forward it, if we can, to avoid new personnel having to "re-invent the wheel".

Now retired, as I spoke with old friends and extended family, particularly elementary through high school youngsters, one of the questions was "What did you do at the Martin Waterton plant when you were there?" Consider their ages and remember that today's sixth grader was born in 2004 and twelfth grade seniors, in Y2K -2000.

I looked to "try giving back to the new generations", the helpful guidance assistance from parents, my job bosses, associates, high school, college and opportunity school technical teachers, machinists, construction craftsmen and several WWII foreign mechanic refugees who helped me learn my skills.

In 1995, after my first five retirement years, an opportunity emerged to use some of the lessons learned in the industry and to engage youth. My high school's new science teacher sought alumni to develop and provide a week long, mini-program concentrated on aerospace science using experienced, Denver area rocket and aircraft engineers and technicians. They were to lead and conduct sessions in class rooms, labs and facility tours for high school students. These students were not even born when many of the

major aerospace advances were made and they were not aware of the significance of major events in the world theater such as WWII, Korea, Vietnam, the cold war ICBM standoff with USSR, Cuba crises, and Iraq's Desert Storm. They know very little of programs like Titan, Skylab, Apollo, Viking, and Shuttle. Most of the retirees I know have had some interface with these programs, and could impart significant information beyond what students will learn in school or see on TV.

I contacted fellow Martin retirees Bill Marcy, an Experimental Aircraft Association (EAA) leader & member and long-time veteran of the joint USAF/NASA X-aircraft programs at Edwards Air Force Base, and other retirees Kent Paser and Kent O'Kelly to conduct a week-long series of interactive lectures, using 1995 vintage visuals and overheads, VCR tapes and movies with presentation techniques from our Martin careers. We added our hands-on model and test flight skills and full-scale aircraft building background. A visit to the Martin Waterton second floor Titan factory was arranged (with eager parent guides) to see, talk and touch real rockets in their final build and test cycle and talk directly to the shift floor supervisors and local MMC factory veterans. The impact on students and parents was really great. The MMC factory and test personnel dramatically emphasized that senior students need to learn their math and science, and to be real craftsmen since the rockets must be a success from liftoff through mission completion since there is no further system tweaking after they leave the launch pad. In addition, for manned flights, safety is paramount.

Bill Marcy's chalk talk classes on "Aerodynamics Theory- How Propellers and Wings Work" presentations challenged many students and led into my "scratch-built" model airplane build sessions. Students selected and built model aircraft of their choice from hobby shop materials either as gliders, or "fish pole power control line" models with designs scaled up/down with manual grid or enlarger using WWII aircraft spotter photos, recent model and EAA magazines, and catalogs provided ideas for their projects. Each student made their own balsa WWII fighter with Duco cement and spray paints and flew them outside the school building, learning about center of gravity, center of lift, and control mechanisms.



5th grade students check CG balance for proper flight preparation

The best flyers were the Mustang P-51, and ME109 Spitfire. I flew my scratch built 20-inch British Mosquito bomber on a 10-foot fishing pole using one-hand elevator control lines for up/down control to fly the airplane. The Mosquito still flies after surviving control flights by 84 high school students and teachers (about 30 seniors each year during consecutive program years).

This mini-course, with a mix of volunteer teachers/craftsmen, provided open discussion, student hands-on build and test flying. Joint visits to our Martin factory employee meetings were a success for students and parents by showing the school's faculty interest and desire, active senior student participation, and eager, competent, and strong parental participation.

An opportunity came when NASA sponsored a SPACE ART display in 2000 using three converted Pullman railroad cars outfitted as art exhibits with rocket- and spacecraft-related art including drawings and paintings by some of the astronauts. The railcar was on an Arvada siding off the main track to Coors Golden. A fifth grade teacher friend asked me to join their 20-student class on a guided tour; I volunteered and suggested library sources for the young students to read in order to participate and gain the most benefit from dialogs with the NASA staff. As the tour progressed, some of these 11-year-olds showed their interest, and desire to learn more. I was pleasantly surprised by their knowledge, preparation, and genuine enthusiasm for space subjects. One former student is currently pursuing an aerospace engineering BS degree and is aspiring to be an astronaut, even with the

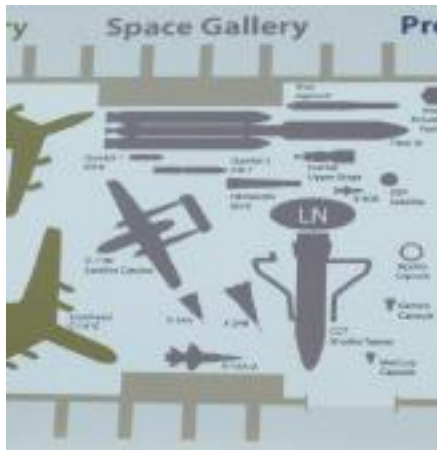
uncertainty of new astronaut program opportunities.

During 2 years of active rehab, from an accident with broken knees. I checked our regional and local library for availability of books, magazines & videos that I could recommend for student references. In 1994, I surveyed Denver & Jefferson county library bibliographies and found 56 books that I reviewed and recommended to my high school senior attendees. Eighteen years later in 2012, I made the same check of Jefferson, Denver and Prospector listings. After personal visits to 4 Jeffco libraries, only 4 books were found. The false assumption is that the written page has been replaced by the internet mouse certainly emphasizes the importance of programs like ours.

A major benefit from this Phase 2 activity is to expand your outreach and your mind. Joint participation with younger people transfers their youthful enthusiasm and appreciation into older folks that get involved. It's a win-win situation for all. The physical and mental rewards contribute to improved elderly health.

Here are a few tips if you find this an interesting challenge:

- Leave your *Legacy* Soon!
- Visit our Aerospace Museums soon to see your contribution to these aircraft & space flight pioneers and gain knowledge and interest for your future participation!



USAF's Museum's new wing will feature complete Titan IV and payloads with X-24A & X-24B in the Space Gallery

- Get involved with groups:-kids, adults and retirees by locating prospective organizations. Contact their meeting/program leaders and offer to prepare and

participate at sessions designed to interest and motivate their audience.

- Prepare to share ideas, inspire future actions, creating and delivering innovative sessions that inspire audience participation through concept, design, fabrication, then testing to enjoy success, survive failure and fixing first hand to feel real pride in accomplishment.
- Seniors/retiree groups especially need help to sustain a positive mental attitude and can help others by sharing their life experiences.

If you'd consider a similar effort, I am eager to discuss any ideas you might like to try, or help you initiate a new program of your own.



Wings in the air on a beautiful morning at Arvada Hackberry Elementary

Bridge Club

By Dave & Kathy Martz
(martz20@comcast.net)
Mind-Booster: Bridge

Despite all the medications doctors prescribe, the best way to save your brain is to use it! According to a study by the University of California, Berkeley, bridge has been found to measurably strengthen the immune system by producing more white blood cells that fight disease. So, for your health, have fun and play bridge!

Come join us at our monthly get together! All MARS members and their guest are welcome. We play on the **3rd Friday of each month at the Buck Community Recreation Center (Littleton) from 10 AM to 2 PM** (pack your lunch). The club provides the cards and all requirements for the games as well as coffee, tea, and hot water for your enjoyment.

We have couples, as well as singles, playing. If you don't have a bridge partner, the club can assist in finding one for you, if you let us know in advance.

If you have any questions, please contact any of the following Bridge Club Officers:

Presidents:

Dave & Kathy Martz, 303-683-9524

Vice-President:

Bill Kacena, 303-973-2685

Secretary:

Theodore Bornhoeft, 303-933-9730

The 2nd Quarter 2014 winners are as follows:

April 18 (4 1/2 tables)

1st – Joe Pohlen & Maurice Larue

2nd – Dick & Madeline Maginn

3rd - Theodore Bornhoeft & Nica Romero

4th – Dave & Kathy Martz

May 16 (4 tables)

1st – Curt & Phyllis Brudos

2nd – Dick & Madeline Maginn

3rd – Joe Pohlen & Nica Romero

4th – Fred & Mary Ems

June 20 (3 tables)

1st – Dick & Madeline Maginn

2nd – Theodore Bornhoeft & Trudy White

Dinner Club

By Dave & Carol Zeller
(nana_x8@q.com)

The Dinner Club has been enjoying excellent participation each month, and we look forward to continued success. We're also receiving suggestions from members for new venues to try out. We really appreciate and encourage your input.

Activities booked for fall:

- July 16 **Mt. Vernon Country Club**, luncheon
- AUGUST NO ACTIVITIES
- September 17 **Pappadeaux's**, luncheon
- October 13 **Angie's Italian Restaurant**, luncheon
- November 12 **Brio Tuscan Grill**, luncheon
- DECEMBER NO ACTIVITIES

PLEASE TAKE NOTE

Carol and David are, regretfully, going to have to pass the baton on to another individual/couple. We did not anticipate having to leave the leadership role for the Dinner Club so soon, but we need to do so. It has been a wonderful two years!

We are actively looking for someone to begin effective January 2015. While it sounds like the timeline is really down the road a bit, it will be here before we know it.

We will continue to book monthly dining events into 2015, of course, but we need our replacement(s) identified as soon as possible in order to have a smooth transition. We will, of course, work with the new leader(s) as long as is necessary.

So, please give this some thought! We made the announcement at our June luncheon, so don't be surprised if you hear from us to talk about this transition!

Please remember that it is preferred that you send a single check to simultaneously reserve spaces for multiple Dinner Club events. Please do not combine Dinner Club events with other MARS events; those go to a different address. Also, **please remember to include the name(s) of guest(s) on the reservation slips.** This will greatly simplify preparation for your events.

We are very conscientious about taking and returning phone calls from all members concerning any questions, problems or issues. However, you may get our voice mail for any call that comes in "blocked call" or "private caller." We will always respond to your messages promptly, so **do leave a message.**

Golf League

By Bob Snodgrass
(tallhorsebob@aol.com)

We are continuing to have good luck with the weather. We are still having new players join the group, which we welcome, and can use more; however, we are not having any luck with the ladies joining the MARS league. When one of

you join -- others will follow. We will continue to play into the fall so lots of good golf days are left.

Please call Bob Snodgrass for information on joining the league. His number is on page 2 (inside the front cover) of the MARS STAR.

Photography Club

By John Flater
(jfflater@msn.com)

The MARS Photography Club meets the second Thursday of every other month at 1:30 PM in the Littleton Bemis Library meeting room. Sometimes room scheduling conflicts arise and the meeting date may change. The most current date can always be found on the main MARS website as explained at the end of this report. Normally scheduled meetings for the year are February, April, June, August, October, and December. Meetings always feature a program of projected images presented by members or invited guests. **Visitors are welcome even if they are *not* "photo geeks".**

At many meetings, the subject of **the presentation is a TRAVELOGUE** in which slides or video of a vacation are shown and the presenter adds narration. If you enjoy seeing images and hearing experiences from others' travel vacations, give the MARS Photo Club a try. After the program we have a coffee break during which members share travel and photography tips.

Some programs are related to photographic techniques and tools and are illustrated by slides, prints and/or equipment. **If you** and/or your significant other **are interested in film or digital photography** join us then for interesting programs, fascinating photos and an opportunity to upgrade technical and creative photographic skills by sharing knowledge and experiences. New members and guests are always welcome at our meetings, so bring a friend if you like. Ideas, comments and suggestions for programs are appreciated.

In addition to the presentation, our meetings usually include a competition of images taken by club participants. The image subject matter may be Open (any subject) or for some competitions a specific subject matter. The competition prints category may be in color and/or monochrome (usually black and white). A participant may submit up to three prints. Awards for 1st, 2nd, 3rd and Honorable Mention may be made depending on the

number of images entered. Detailed competition rules are in the **Photography Club** page (section) of the MARS web site - <http://www.marsretirees.org>. Entries are judged and critiqued by invited judges or club members. After each meeting competition, the **Photography Club** page is updated to show thumbnail images of the winning pictures and future meeting topics. Members of the club would appreciate any comments or questions viewers of the web site images may have (email to jfflater@msn.com (**club secretary**) or jkummer@comcast.net (**MARS webmaster**)).

Recent Meetings

Wednesday, April 9, 2014, at 1:30 PM in the Littleton Bemis Library meeting room. **John Chapter** presented "***A Photographic Celebration of Bridge Images by an Anonymous Photographer***". John obtained the images from a friend and edited the set to put together the presentation. The bridge images were primarily taken before 1980. Original slides were scanned and enhanced with PhotoShop. Some images of the possible photographer himself were included. The set made an interesting documentation of someone's specific hobby.

The club photo competition topic was **Open** but too few photos were entered for competitive judging. However the photos were shown for members' enjoyment and can be viewed on the **Photography Club** page (section) of the MARS web site.

Thursday, June 12, 2014, at 1:30 PM in the Littleton Bemis Library meeting room. Jim Kummer presented a TRAVELOGUE titled "Lake Powell, Utah: A Vacation Paradise". His photographic presentation showed many of the most scenic features of the shorelines and explained many details of how shared recreational houseboat ownership on the lake works. The club photo competition topic was **Abstract** but due to low attendance too few photos were entered for display and competitive judging.

Future Meetings

Thursday, August 14, 2014, at 1:30 PM in the Littleton Bemis Library meeting room. John Flater will present a TRAVELOGUE titled "**Where in the World are we now?**" It will consist of a sequence of numbered photos he has taken in

different states in the USA and in different countries of the world over many years. Each person present will be given a page with an entry for each of the numbered photos John will show. As John shows his travelogue photos, each person will be asked to write the name of the US state or the country where the photo was taken. The person(s) with the most correct answers may choose one of John's previous award winning photos from past club competitions as a prize.

Thursday October 9, 2014, at 1:30 PM in the Littleton Bemis Library meeting room. Program and photo competition subject are to be determined.

To verify future meeting dates, competition subject and **program** topic: go the main **MARS** web site <http://www.marsretirees.org>, then - click "**Photography**" on the Clubs button at the lower left to get the photo club's webpage. Here you'll see **Check the Meeting Schedule below**. If the Program has the word **TRAVELOGUE**, it's a vacation show-and-tell; the Competition topic is also listed. Come and enjoy both.

Competition reminder: Meeting photo competition entries may be prints as small as 4"x 6" to make it more practical for those using digital cameras to print images on their own printers. All submissions must be affixed to a mat board/cardboard or foam backing of at least 8"x10" or as large as 16"x20" for ease of handling and display.

Club Officers for the year are:

OFFICE	through JULY	AUG to YEAR END
President	John Chapter	TBD
Vice-President	Jim Kummer	TBD
Secretary	John Flater	TBD

EzyBytes/Computer Discovery

By John Flater
jfflater@msn.com

No article submitted this quarter.

Hiking Club

By Sue Janssen
susan.g.janssen@gmail.com

First a correction from the previous newsletter: I incorrectly identified Chuck and Cindy Hause. My apologies!



Chuck Hause (showing off his vintage snowshoes), Vicky Eberhardt (hiding in the back), Cindy Hause, Sue Janssen (aka Yoda), Glenn Gibson, Jill and Lenny Demchak and Lee Janssen.

April weather can vary from sunny days to wet snow so the April hike was a loop on the south side of Dawson Butte south of Castle Rock. Ten members of the hiking club participated in this 5 mile loop hike which had views of snow-covered Pikes Peak, Devils Head and Dawson Butte. Several Mule deer, various birds and some early wild flowers were seen along the trail. After the hike the group retired to Bud's Bar in Sedalia for burgers, chips and beer (still no fries - Dammit).



Lonny and Paul Jones, Vicky Eberhardt, ??, Linda Berry, Jill Demchak, Bob Berry, Al and Sally Sanders and Samson pause along the 5-mile loop around Dawson Butte. Photo by Lenny Demchak.

Here is a summary from our planning meeting on 30 April.

1. Hikes continue on third Wednesday of each month.

2. Club members are welcome to use the distribution list to invite members on other hikes.
3. Keep waivers on file for one year then discard.
4. Hikes generally will be 5 miles or less, depending on the elevation gain and altitude. Keeping hikes at easy to moderate level gives more members an opportunity to enjoy events.
5. Points of contact will decide when and where the group will meet to start the hike.

Thanks to all who provided ideas and volunteered to be POC for a hike. You make it so easy and enjoyable to be part of this group!



Bob Todd, Tom Pawlowski, Lenny and Jill Demchak, Sue Janssen, Linda and Bob Berry, Sally and Al Sanders are happy to have the summer hiking schedule completed.

And now for something completely different! Linda and Bob Berry organized the May hike to the Keenesburg Wild Animal Sanctuary. Due to sketchy weather, we had to reschedule the hike for Tuesday, May 27. The Wild Animal Sanctuary is one of the largest sanctuaries in the country and has been in operation for over 31 years. It is also one of the only places you can see prides of African lions and other large carnivores living freely in wide open spaces. The vast majority of the animals residing at the sanctuary were confiscated by law enforcement agencies after they were found being kept illegally in people's basements, apartments, garages, barns etc. The sanctuary has a mile-long elevated walkway from which you can view the various animals (African lions, tigers, bears, wolves, leopards, mountain lions, etc.). Here is the website for the sanctuary: <http://www.wildanimalsanctuary.org>. Check it out!



Bob and Linda Berry, Lonny and Paul Jones, Jan and Bob Todd cuddle up to a tiger.

The Hiking Club looped around Evergreen Mountain in the Jefferson County Open Space park of Alderfer/Three Sisters near Evergreen, CO: on June 18. We accessed Evergreen Mountain West trail via the Wild Iris loop, then connected to Evergreen Mountain East trail before returning to the trail head via Ranch View trail and Wild Iris Loop again. It was a beautiful day to be out in the fresh air of the foothills. Additionally, we were rewarded with many wildflowers in bloom along the 4.2 miles of trail. At one point just two or three feet off the trail, we came upon a fawn lying quietly in the meadow grass waiting for mama to come back. The fawn was keeping so still, some of the group walked right by it while it scarcely breathed to keep concealed, and we initially thought it was not alive. A small nose twitch and shallow breaths gave it away.



Vicky Eberhardt, Sally Sanders, Lenny Demchak, Ellen and Pat Albert, Dick Donovan, and Tom Pawlowski on Evergreen Mountain West trail. Bill McCandliss started the hike but had to turn back after a short distance. Photo by Allen Sanders.

Check out more photos of the hike and the fawn's portrait on the MARS web site. The group finished up the adventure with a lunch on the outdoor patio of Evergreen Golf Course overlooking the course and Evergreen Lake.

Summer/fall schedule and POC:

- July 16 – Chief Mountain, Bob and Jan Todd
- Aug 20 – Silver Dollar Lake, Tom Pawlowski and Gene Dionne
- Sept 17 – Golden Gate State Park, Jill and Lenny Demchak
- Oct 15 – Picketwire Canyon (Commanche National Grasslands), Sue and Lee Janssen
- Nov 19 – TBD near Monument or Colorado Springs, Glenn and Jane Gibson

The schedule of hikes is posted on the MARS website. If hikes are rescheduled or cancelled the website is promptly updated. Thank you Jim Kummer for keeping our webpage looking great! If you wish to join the MARS Hiking Club, contact Sue Janssen at susan.g.janssen@gmail.com who will add you to the club distribution list. Happy trails!

The MARS Associates Website

By Jim Kummer
(jkummer@comcast.net)

You may have seen diagrams like that below, and wondered what they were. These diagrams appear in magazines, newspapers, and on advertisement placards on buses and trucks. Most everyone is familiar with the bar code that appears on every product's package. This diagram is basically a two-dimensional bar code. It's called a "QR code", which is an abbreviation for "quick response code". It was first developed by the Japanese for use in tracking commercial vehicles and products in manufacture. Because it is two-dimensional, it can contain much more information than the one-dimensional bar code.



QR coded information can contain numbers, letters, and images. In placements intended for the public, most often the content of the QR code is a web address, i.e., a URL (uniform resource locator). The QR code

shown here has encoded the web address of the MARS website, www.marsretirees.org.

The original usage of the QR code required specialized scanners, but today every smart phone can acquire an 'app' that allows it to decode QR codes. QR codes appearing in magazines and newspapers direct the reader to more information regarding the article or advertisement. Scanning the QR code with the smart phone immediately takes the reader to the additional details on the web.

If encoded as pure text, the QR code can contain over 4,000 characters. Some people have encoded their entire resume into a QR code and put that code on their business card. The business card QR code can also contain a URL to the business' website.

If you have a smart phone and want to play with QR codes, you can. Just go to iTunes, Windows' Phone Store, Google Play, or where ever you acquire apps for your phone. Search there for "QR code scanner", and you'll find several. Some apps can create QR codes as well as reading them.

At the MARS website, we don't use QR codes, so don't worry if you can't read them. The MARS website contains text and images easily read without a QR app. At the website you'll see topical and timely information valuable to members. Each month, a Site of the Month is offered for members' education and enjoyment. Here are the monthly sites of the month from the last quarter.

April – See the 'Greatest' in Cinematic History at [American Movie Classics](#)

May – US News & World Report's money.usnews.com for Extensive Financial Information

June – All Sorts of Interesting Facts at www.factmonster.com

Your website committee members are: Linda Stearns, Paul Bingham, Bob Knickerbocker, Duane "Smitty" Smetana, and Jim Kummer (Webmaster).

IS&GS and Heritage Companies Retiree Group (Colorado Springs)

By Doug Tomerlin
(dougincs@aol.com)

The Colorado Springs Lockheed Martin IS&GS and Heritage Companies Retiree Group is comprised of retirees from the Lockheed Martin IS&GS and from heritage Loral, Ford Aerospace and Philco-Ford facilities in Colorado Springs, CO. The charter of the group is to:

1. Maintain contact between retirees via luncheons twice a year
2. Provide local retiree discounts, such as tickets to local activities.
3. Provide announcements of serious illnesses, deaths and/or services of fellow retirees and long term Lockheed Martin IS&GS employees.
4. Provide announcements of celebrations for new retirees at Colorado Springs Lockheed IS&GS.

The group has approximately 330 members and is coordinated by a volunteer, currently retiree Doug Tomerlin. If you would like more information about the group please contact Doug at dougincs@aol.com.

Our spring luncheon was a BBQ on Thursday May 15, 2014, at the Lockheed Martin IS&GS-D building 2 patio and cafeteria. Approximately 70 were in attendance and everyone had a great time with many retirees staying long after the meal was completed to visit with each other. Also a number of current Lockheed Martin employees visited with the retirees.

Duane Del Duca, president of MARS Associates, and Lonnie Farmer, President-elect, attended the luncheon. Duane spoke to the group about the benefits of joining MARS Associates. His speech was well received with many retirees requesting information about the group. Thanks to Lockheed Martin IS&GS-D for coordinating and setting up the luncheon, especially Bill Poulton, Nadine Veed, and all of the cafeteria staff.

The following new retirees joined the group since the last luncheon:

- Liz Brothertom

- Mel Koffman
- Joan Murphy
- Bernie Redlinger
- Bill Ramsey

Obituaries (since the November 2013)

- Barry Laurenzen
- Jim Ferguson
- Steve Mccammon
- Mike Hargrave

RAMM – Baltimore News

By Dottie Ruth
(dotruth725@comcast.net)

It is so nice to be outdoors enjoying the warm weather, sitting among the bright colored flowers and listening to the sounds of birds chirping in the trees. There was no pleasure, this past winter, when the snow and icy conditions kept us trapped indoors. I don't know how I will feel when the hot dry summer will turn the green grass brown and we become, once more, trapped indoors, this time by the summer heat. How did we survive, those many years ago, when there were no air conditioners?

The RAMMs had our Spring Fling in May and it was enjoyed by all. I noticed there was less attendees making it to the dance floor, but it was fun watching those who did.

We have about 50 members coming to our monthly meetings, talking old times and sharing years of memories. We are looking forward to the RAMM picnic later this month, munching on hot dogs and that summer treat of watermelon. Yes, this is the time of the year we RAMM retirees enjoy the most.

Until next time, may we all have a pleasant and healthy summer.

Cape Canaveral News

By Dick Olson
(Olsons5145@aol.com)

Luncheons:

Kind of a small turnout for the May luncheon, mostly regulars: Bill Rhode, Jerry Moskovitz,

Dave Kintigh, Abe Smith, Bill Masterson, Nick Geso, Don Anderson, Roger Wright, Dick Hinshaw, Walt Starkey, Hal Castleton, Joe Kiripolski, Jimmy Weddle, Bob Rodamer, Brooks Kilgore, Larry Gleason, and someone we haven't seen for a long time, Billy Graham down from Gainsville.

Today was Nick Geso's 86th birthday and we got to talking about ages. Turns out Larry Gleason is 87 and Billy Graham is also 86 and they are all doing great.

Want to thank everyone who sent me a copy of the Titan deceased list. It only went up to mid 2013 so now I need your help recalling the Titan people we lost since then. Here are the names I have for 2013 and 2014:

- 2013 - Harry Holmes, Bob Moore, Pete Kelleher, Rick Nichols, Claude Cornett, Ron Halcomb, Dale Henry, Bill Hendry, Ed Carpenter
- 2014 - Norm Penn, Lawson Vest, Eddie Roberts, Charlie Denman, Warren Hunt

I know we are missing several names so pass them on to me if they come to mind. Thanks,

Had a pretty good turnout for the June luncheon. Regulars: Joe Kiroolski, Jimmy Weddle, Nick Geso, Hal Castleton, Cal Moser, Dick Hinshaw, Larry Gleason, Dave Kintigh, Wendell McDaniels, Walt Starkey, Abe Smith, Don Anderson, Hank Ambrosch, Jerry Moskovitz, and Roy and Mike Hunter. Dave Bray made his first luncheon and some folks we haven't seen for a while, Vince Alderman, Ron Frisbee, and Sid Warren. Don Flemming was down from Denver and two other out of town visitors, Jim Fay from Tucson with his NASA friend Kelly Fiorentino and Roy Edwards from Spokane. Jim worked Titan I, II, and Gemini here at the Cape and Roy worked most everywhere there was Titan Activity, Cape, Denver, VAFB, and the hard sites. I think they had a good time renewing old acquaintances.

Various committees are off working the Titan anniversary get-together and about the only things firmed up are the date, May 2, 2015, and the location, KARS Park -- Will keep you posted.

Kelly said that a group of NASA people meet once a month for breakfast in Rockledge and if anyone is interested drop him a line at kellyf2295@cfl.rri.com

Kind of a light turnout for the July luncheon, probably due to being the day before a holiday.

Barry House who we haven't seen for a while joined us and Wes Hutchinson made his first luncheon since he retired. Regulars included: Cal Moser, Bob Rodamer, Dick Hinshaw, Bill Rhode, Ron Frisby, Wendell McDaniels, Roger Wright, Walt Starkey, Larry Gleason, Don Anderson, Vince Aldermann, Jimmy Weddle, Joe Kiiripolski, Nick Geso, Jerry Moskovitz, Hal Castleman, and Bill Masterson made the scene.

Dick Hinshaw reported on the death of Bob McBryde, a former MDAC employee who worked Titan.

Nick Geso brought in a study reporting that drinking coffee significantly reduces your risk of dying from 6 to 12 percent, depending on how much you drink. Good news for most of us. Now if we can find a study with similar numbers for beer, whiskey and wine we can really be a happy and healthy bunch.

Had a short note from Jim Milby who was having his chemo port removed today and he is doing good.

Want to wish everyone a great Fourth of July and be safe.

Titan Anniversary Party

The planning group met and here is a recap of the meeting:

- The event will be held on Saturday May 2, 2015.
- With a large number of attendees expected, the event will be held at KARS Park on Merritt Island.
- Everyone who worked the Titan I, II, III, and IV Programs, CSD, ATK, Aerojet, Delco, Boeing, USAF, Range (PanAm, JC, RCA, etc) and of course Denver and VAFB troops will be invited.
- Food will be catered.
- \$25 per person is the target with a reduced price for children. This is driven by costs and will be firmed up as menu and caterer are determined. We are investigating ways to collect monies and gather the headcount on-line if possible.
- Looking at the possibility of holding a social event on Friday, Cape tours and a golf tournament on Sunday.

More information will follow as things are firmed up; please pass the word to Titan folks that we are not in contact with via e-mail.

Interesting News:

Larry Cuppett celebrated his 96th birthday

Obituaries:

Dean F. Buchanan, 77, of Merritt Island, died Saturday, May 9, 2014. "Buck" worked in Titan operations.

William L Perry Jr. (aka Bill) of Port St. John passed on May 22, 2014, at the age of 54.

John James "Jack" Stewart, 66, died suddenly, approximately June 6. He retired after 20+ years supporting the Titan Missile program.

REALM (Orlando News)

(realm.fl.news@gmail.com)

Andrea Lawrence (POC)

(andrea.j.lawrence@gmail.com)

No article submitted this quarter.

Martin Marietta Retiree's Club (Vandenberg News)

By Charlie Radaz

(fcmjradaz@aol.com)

The April 24th luncheon was held at the Historic Santa Maria Inn and our guest was Mr. Lee- Volker Cox, topic: 'Thule, Greenland'. Lee showed very professional photos he took while stationed in Greenland as Base Commander of Thule Air Base, some 750 miles inside the Arctic Circle at Pituffik. His talk was a wealth of information on the base, the natives, the significance of our presence there with Danish, Canadians and the Greenlandic peoples. We were happy to have 33 members and guests. The winner of the 50-50 drawing was spouse of Club Director Ralph Quinn.....Heather Quinn who received \$25.00!!

Sadly we lost another associate and friend - Emory S. Thompson (Buddy) who passed away on March 29th in Santa Maria. Emory worked with Martin

Marietta from 1959 to his retirement in 1987 as an Electrical Engineer, primarily on the Titan rocket systems. His always present smile and southern gentlemen's demeanor will be missed by all who knew him.

The May 29th luncheon was held at a new venue location for the club, the O'Cairn's Inn of Lompoc. Our guest speaker was Cindy Ransick, Curator - Santa Maria Valley Historical Society Museum. Cindy spoke and showed historical material on Santa Maria and the Ford Model A. We had 25 members and guests. The response from attendees was "thumbs-up" for the new venue and the food! Jeff Ensminger was the lucky recipient of \$20.00 from the 50-50 drawing.

Our June meeting will be held on the 26th at the Historic Santa Maria Inn. The speaker will be Jeffrey Gieger reviewing his most recent book, "Camp Cooke and Vandenberg Air Force Base, 1941-1966". Jeffrey served as the chief historian at Vandenberg for more that 32 years, documenting the installation's history in annual reports and managing extensive archives. Signed copies of his book will be available following his talk.

Our club normally meets the last Thursday of each month at noon. We rotate between Santa Maria, Lompoc, and Buellton. All former employees, their spouses, and associate contractors are welcome to attend, visit, and share informal stories.

Call Aubrey Collins (805) 937-8299 or Neil Baker (805) 733-1847 for location and reservations.

United Launch Alliance News

By Christa Bell

(christa.m.bell@ulalaunch.com)

United Launch Alliance Marks 80th Successful Launch by Delivering Air Force's Weather Satellite to Orbit

Vandenberg Air Force Base, Calif., (April 3, 2014)

– A United Launch Alliance (ULA) Atlas V rocket successfully launched the Air Force's Defense Meteorological Satellite Program (DMSP-19) payload at 7:46 a.m. PDT today from Space Launch Complex-3. This is the third mission of 15

scheduled for 2014 and the 80th mission since ULA was formed in December 2006

Congratulations to the Air Force and all of our mission partners on this morning's successful launch of DMSP-19! ULA takes tremendous pride in the national capabilities we place on orbit for our customers and in the critical information that satellites such as DMSP provide to military and civilian users worldwide," said Jim Spornick, ULA vice president, Atlas and Delta Programs. "Achieving on-time launches for our customer's missions with 100 percent mission success is a testament to this strong government and industry team being singularly focused on one launch at a time."

This mission was launched aboard an Atlas V 401 configuration vehicle, which includes a 4-meter diameter payload fairing. The Atlas booster for this mission was powered by the RD AMROSS RD-180 engine, and the Centaur upper stage was powered by a single Aerojet Rocketdyne RL10A-4 engine.

For the past 50 years, the DMSP satellites have fulfilled the military's most critical requirements for global atmospheric, oceanic, terrestrial and space environment information. Through these satellites, military users find, track and forecast weather systems over remote and hostile areas for deployed troops. Additionally, DMSP supports a broad range of civil users with sensing capabilities not provided by U.S. civil and foreign weather satellite systems.

United Launch Alliance Successfully Launches Second Mission in Just Seven Days

Cape Canaveral Air Force Station, Fla., (April 10, 2014) – A United Launch Alliance (ULA) Atlas V rocket carrying a payload for the National Reconnaissance Office (NRO) lifted off from Space Launch Complex-41 on April 10 at 1:45 p.m. EDT. Designated NROL-67, the mission is in support of national defense.

"We are honored to deliver this national security asset to orbit together with our customers the NRO Office of Space Launch and the Air Force," said Jim Spornick, ULA vice president, Atlas and Delta Programs. "Successfully launching two missions from two different coasts in just seven days is a testament to the team's one-launch-at-a-time focus and ULA's commitment to mission success and schedule reliability."

This mission was launched aboard an Atlas V Evolved Expendable Launch Vehicle (EELV) 541 configuration vehicle, which includes a 5-meter diameter payload fairing along with four Aerojet Rocketdyne solid rocket motors attached to the Atlas booster. The Atlas booster for this mission was powered by the RD AMROSS RD-180 engine, and the Centaur upper stage was powered by a single Aerojet Rocketdyne RL10A engine.

United Launch Alliance Successfully Launches Second Global Positioning System Satellite for the U.S. Air Force in Less Than Three Months

Cape Canaveral Air Force Station, Fla., (May 16, 2014) – A United Launch Alliance (ULA) Delta IV rocket successfully launched the sixth Global Positioning System (GPS) IIF-6 satellite for the U.S. Air Force at 8:03 p.m. EDT today from Space Launch Complex-37. This is ULA's fifth launch in 2014, and the 82nd successful launch since the company was formed in December 2006.

ULA is honored to work with this world-class U.S. government and contractor mission team, and we are proud to contribute to the GPS capabilities that were delivered to orbit today," said Jim Spornick, ULA vice president, Atlas and Delta Programs. "Congratulations to the entire team on tonight's successful launch of the GPS IIF-6 satellite and the continued one-launch-at-a-time focus."

This mission was launched aboard a Delta IV Medium-plus configuration Evolved Expendable Launch Vehicle (EELV) using a single ULA common booster core powered by an Aerojet Rocketdyne RS-68 main engine, along with two ATK GEM-60 solid rocket motors. The upper stage was powered by an Aerojet Rocketdyne RL10B-2 engine with the satellite encapsulated in a four-meter-diameter composite payload fairing.

GPS IIF-6 is the sixth in a series of next generation GPS satellites and will join a worldwide timing and navigation system utilizing 24 satellites in six different planes, with a minimum of four satellites per plane positioned in orbit approximately 11,000 miles above the Earth's surface. The GPS IIF series provides improved accuracy and enhanced performance for GPS users.

United Launch Alliance Successfully Launches Four Missions in Just Seven Weeks

Cape Canaveral Air Force Station, Fla., (May 22, 2014) – A United Launch Alliance (ULA) Atlas V rocket carrying a payload for the National Reconnaissance Office (NRO) lifted off from Space Launch Complex-41 on May 22 at 9:09 a.m. EDT. Designated NROL-33, the mission is in support of national defense.

Congratulations to all of our mission partners on today's successful launch of the NROL-33 mission! The ULA team is honored to deliver another critical national security asset to orbit together with the NRO Office of Space Launch and the Air Force," said Jim Spornick, ULA vice president, Atlas and Delta Programs. "Today's launch occurred six days after last week's GPS IIF-6 launch – the second time this year that this team has launched back-to-back missions within a week. Successfully launching at this tempo is a testament to the team's focus on mission success, one-launch-at-a-time, and continuous improvement of our launch processes."

This mission was launched aboard an Atlas V Evolved Expendable Launch Vehicle (EELV) 401 configuration vehicle, which includes a 4-meter-diameter payload fairing. The Atlas booster for this mission was powered by the RD AMROSS RD-180 engine, and the Centaur upper stage was powered by a single Aerojet Rocketdyne RL10A engine.

ULA Signs Multiple Contracts for Next-Generation Propulsion Work

Centennial, Colo., (June 16, 2014) – United Launch Alliance (ULA) has signed commercial contracts with multiple American companies to investigate next-generation liquid oxygen/hydrocarbon first stage propulsion concepts. In collaboration with ULA, each company will conduct technical feasibility analysis, develop high fidelity plans, identify schedule, cost and technical risks, as well as cost estimates to meet aggressive recurring cost targets. All concepts will support a first launch by 2019.

As the nation's steward of the launch industrial base and the only company certified to launch our nation's most critical missions, it is incumbent upon ULA to bring forward the best solutions to preserve that capability for the future," said Michael Gass, ULA president and CEO.

ULA will continue to work with U.S.-based RD AMROSS (RDA), a joint venture of United Technologies (UTC) and NPO Energomash of Russia, to evaluate the long-term feasibility of the RD-180 in competition with the anticipated new engine. ULA and RDA are in continued discussions evaluating product improvements, U.S. production and other enhancements to enable its future viability.

ULA has a number of very promising alternatives and we are working with the very best propulsion companies in America," said Dr. George Sowers, ULA's vice president of Advanced Programs and lead for the propulsion study. "There are many exciting advanced technologies that are mature and can be used to enhance our capabilities and our competitiveness."

ULA expects to select its future concept and engine supplier by the fourth quarter of this year to enable initial launch capability by 2019 of the new system. ULA will bring its experience and a demonstrated track record of introducing new and improved products to deliver this engine on schedule. The company is evaluating the technical feasibility of these new engine concepts for both private investment and the potential for government-industry investment.

While the RD-180 has been a remarkable success, we believe now is the right time for American investment in a domestic engine," said Gass "At the same time, given that ULA is the only certified launch provider of our nation's most important satellites, it is critical that America preserve current capabilities and options while simultaneously pursuing this new engine."

For more information, visit the ULA website at www.ulalaunch.com, or call the ULA Launch Hotline at 1-877-ULA-4321 (852-4321). Join the conversation at www.facebook.com/ulalaunch and twitter.com/ulalaunch.



Following photos were taken at:

MARS Day at the Rockies – June 25, 2014

MARS Senior Luncheon – July 9, 2014

2014 MARS At the Rockies

June 25, 2014

Photos by: Duane Del Duca & Linda Stearns







*See More Rockies
Pictures
(Check for your Photo)
at
www.marsretirees.org*

MARS Senior Luncheon

July 9, 2014



MARS MEMBERS 85 AND OLDER

Back Row L to R

BILL RAYMOND, EV PALMER, BILL RICHARDSON, CLARK BRAKK, SAM LUKENS, MARK MUELLER, Jr., CAROLOS de MORAES, BOB RICHARDSON, LEW MOYER, JOE DOLE, GERALD HOBBS, GEORGE HEYLRGER, GEORGE ONDECK, BYRON BEATY

Front row L to R

WALT HEWITT, DICK MAGINN, JOE BORGERDING, JIM GREICHEN, KEN THOMPSON, PAUL BROWN, LES LIPPY, REID CLAUSEN, PAULINE DANIEL, HARRIETT STEARNS, BOOTS BOOTHROYD















***See More Senior
Luncheon Pictures***
(Check for your Photo)
at
www.marsretirees.org

MARS ASSOCIATES EVENT SCHEDULE

EVENT/MONTH	2014						2015					
	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Board of Directors	2		2		5		7		4		6	
Officers	2	6	2	1	5	2	7	4	4	1	6	3
Bridge	18	15	19	17	21	19	16	20	20	17	15	19
Dinner	16		17	13	12		TBD	TBD	TBD	TBD	TBD	TBD
Golf	Thur	Thur	Thur	Thur						Thur	Thur	Thur
Photo		14		9		11		12		9		11
Hiking Club	16	20	17	15	19	17	TBD	TBD	TBD	TBD	TBD	TBD
Computer Discovery	11&25	15&29	12&26	10&24	14&28	12&26	9&23	13&27	13&27	10&24	8&22	12&26
Web Committee	1	5		9/30	4	1	6	3	3	3/31	5	2
CO Rockies Game												
Sr. Luncheon	9											
Annual Picnic			3									
Holiday Celebration						3						
Annual Meeting									TBD			
Items due for MARS STAR			29				5		30			
STAR Repro. Deadline	21			13			19	TBD	TBD	TBD	TBD	TBD
STAR Mailing	30			22			22	TBD	TBD	TBD	TBD	TBD

DATED: AUG 2014

1. BOD meets the first Wednesday of every other month at The Egg & I near Southglenn at 09:30 am.
2. Officers meet the first Wednesday of every month at The Egg & I near Southglenn at 09:30 am.
3. Bridge Club meets the third Friday of every month at 10:00 am at Buck Recreation Center.
4. Dinner Club: Wind Crest, Lunch; 7/16/14-Mt. Vernon Country Club; Lunch; 9/17/14- Pappadeaux' Restaurant-Lunch; 10/13/14-Angies Italian Restaurant-Lunch; 11/12/14-Brio Tuscan Grill-Lunch
5. Golf meets every Thursday from April through Oct of each year
6. Photo Club meets the second Thursday of every other month at 1:30 pm at the Bemis Public Library in Littleton.
7. Hiking Club: Outings on third Wednesday of the month. Check the website for place and time.
8. Computer Discovery volunteers meet at 1:00 pm the 2nd and 4th Friday of the month -- all meetings at Buck Recreation Center.
9. Web Committee meets at Noon at Sweet Tomatoes on West Bowles, Littleton, on the Tuesday prior to BOD and/or Officers meeting
10. MARS Day at the Rockies, Wednesday, June 25, 2014.
11. 2014 Annual Picnic, September 3, 2014, at Clements Park
12. 2014 Holiday Celebration is December 3, 2014, at Pinehurst Country Club.

Please review dates and times and notify Duane Del Duca if there are changes or additions.