



Volume 30, Issue 4
October 2014

Sponsored by LOCKHEED MARTIN

MARS STAR



MARS Activities This Quarter:

Holiday Celebration

December 3, 2014

OFFICERS

President	Duane Del Duca	303-904-9530
President-Elect	Robin Valore	303-941-6662
VP Activities	Bob Lines	303-973-8838
VP Business	Bill Schrott	303-683-9566
VP Communication	Bob Snodgress	303-660-8408
VP Membership	Barb Espinoza	303-338-0338
Treasurer	Larry Stearns	303-797-3557
Secretary	Linda Stearns	303-797-3557
Historian POC	Ray Ziehm	303-794-1413

MARS STAR

Co-Editor	Linda Shupe	303-697-2633 (Unl)
Co-Editor	Tom Pighetti	303-979-7933
Photographer	Theodore Bornhoeft	303-933-9730
Memorials	Bev Baugher	303-978-0371
Webmaster	Jim Kummer	303-986-3966
Volunteers	Judy Nielson	303-979-6772
<u>Reporting:</u>		
Baltimore	Dottie Ruth	410-665-3207
Cape Canav	Dick Olson	321-452-4015
Colo Springs	Doug Tomerlin	719-594-6392
Orlando	Andrea Lawrence	407-340-8602
ULA	Christa Bell	303-269-5551
Vandenberg	Charlie Radaz	805-733-2051

CLUB CONTACTS

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
Photography	John Chapter (Pres)	303-986-8277
Computer Discovery	John Flater	303-794-6250

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.

(Published quarterly by MARS Associates, Retirees of Lockheed Martin Corporation and United Launch Alliance, Denver, CO)

DIRECTORS

Director	Larry Major (Chairman)	303-904-0439
Director	Dan Ellerhorst	303-794-0750
Director	Bo Rodriguez	303-798-9157
Director	Al Nemes	303-972-1800
Director	Dick Sosnay	303-972-9209
Director	Terrie Hamen	303-840-5426
Director	Allen Sanders	303-973-4173

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
PacifiCare 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

P. O. Box 1128

Littleton, CO 80160-1128

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

Cover:

L: Delta IV AFSPC-4 - A United Launch Alliance (ULA) Delta IV rocket successfully launched the AFSPC-4 mission for the U.S. Air Force on July 28 at 7:28 p.m. EDT from Space Launch Complex-37. This is ULA's eighth launch in 2014 and the 85th successful launch since the company was formed in December 2006. The twin Geosynchronous Space Situational Awareness Program (GSSAP) spacecraft will support U.S. Strategic Command space surveillance operations as a dedicated Space Surveillance Network sensor.

R: Navy's Surface Electronic Warfare Improvement Program (SEWIP) - The U.S. Navy awarded Lockheed Martin an additional \$147 million contract to upgrade the fleet's electronic warfare defenses against evolving threats, such as anti-ship missiles. Under this low-rate initial production contract for Block 2 of the SEWIP, Lockheed Martin will provide 14 systems to upgrade the AN/SLQ-32(V)2 system on all U.S. aircraft carriers, cruisers, destroyers, and other warships with key capabilities to determine if the electronic sensors of potential foes are tracking the ship.



President's Corner

By Duane Del Duca
(ddelduca@comcast.net)

I have good news for the membership. We have filled two of the three openings I spoke about last quarter. We have a new President Elect, Robin Valore and a new central point of contact for "**MARS Associates in Memoriam**", Bev Baugher. Robin will tell you a little about herself in the Next Up article, but I must tell you we are indeed fortunate to have her become an officer of the MARS organization. Bev has jumped into her new role with both feet. After some interchange with Roy Kannady, the retired point of contact, she assumed her new position and seems to be getting very comfortable. We are indeed very happy to add these two individuals as part of the Officers team and MARS STAR staff. The only other worry we have and I am sure many of you feel the same is; who is going to run the Dinner Club. We, along with Carol and Dave Zeller, have been actively looking for replacements. Carol and Dave plan to end their leadership role by the end of December, so I hope to have their replacement in place before then. Again I extend this offer to all members, if you and your spouse or perhaps another couple would be interested in discussing what it takes to lead this very important function, please contact Carol and/or Dave Zeller, Robin Valore, or myself and we will certainly discuss what is involved. Our contact information is shown under the front cover, page 2.

I hope everyone in the immediate area that could attend the **Summer Picnic** was able to do so. Bob Lines organized a noteworthy event that included great weather, a very enjoyable entertainment group, and some good food. I know many of you stood in line for a long time before being served and I apologize for that. I believe the caterer wound up short on staff and as an option requested that they start serving a half hour earlier than planned. Had I not been so dense, I would have recognized this and requested that each pavilion be served before the next stood up. In that way we would have been able to sit in the shade until it was time to be served. What would a picnic be without a few ants? Be sure to look in the back of the STAR for a few candid pictures taken at the picnic. We

were all very pleased to see Lonnie Farmer and his wife at the picnic. I know all who could wish him well.

We had a winner in the July **Hidden Number Contest**. Congratulations to Lee Hendrick, who found the hidden number -- his next year's dues will be paid. This, however, will be the last issue where we hold the Hidden Number Contest. At the last two Officers and Board meetings, it was decided that we need to refresh or eliminate the contest. There were only three winners over the period we ran the contest (approximately four years) and we felt that it was time drop the contest. Watch for future STAR issues because there will be more to come.

As we move into the first full month of fall I am reminded of how fast the summer passed. There were many events and fund raisers held that involved MARS members that we do not hear about. I received a call from one of our members telling me about one called the "Tour de Cure." This is a bicycle tour of varying distances; 100 miles, 100K, 50K, and 20K. Their purpose is to raise funds for the *American Diabetes Association*. It was held on August 16 and started at the Boulder County Fairgrounds in Longmont. What was special to me about this one was not only were there 96 participants from Lockheed Martin, but there were also MARS members that participated. They raised over \$35,000. The attached photo shows some of the participants including MARS member Paul Boykin and his wife Lorna.



If you know of other volunteer events that our members have participated in, let me know and we will let the other members know.

Our next planned event is the **Holiday Celebration, Dinner** at the Pinehurst Country Club on December 3, 2014. I hope all that can, will attend, and use this opportunity to meet many old friends and to wish each other a Grand Holiday Season and Merry Christmas.



Next Up!!!

By Robin Valore
(rvalore@gmail.com)

Let me say right off the bat, what an honor it is to have been chosen as the President Elect for the MARS organization. I am excited to serve in this capacity and look forward to meeting you all in the near future. My thanks and gratitude to Lonnie Farmer, who previously held this position. I would ask that you all keep Lonnie in your prayers as he continues to recover from his health condition.

A little background on myself.... I just "officially" retired from Lockheed Martin in May of this year, although I have been gone from the company for over a year now. I was the HR Director for Space Systems Company and reported to Armando Castorena, VP of Human Resources. I know many of you have heard his name from previous MARS STAR articles. I had a wonderful 28-year career with Lockheed Martin; many of those years on TITAN, so many of you I already know and have worked with over the years. My husband is also a Lockheed Martin transplant to United Launch Alliance who also just recently retired. While we loved our jobs with both Lockheed Martin and ULA – I must say retirement is quite nice and we haven't looked back.

Now to a little business. I have been busy working closely with Duane Del Duca coming up to speed on the scope of this job. I have been in contact with almost all of the Club Presidents to determine their membership needs. Many of you have already heard we are in desperate need of a volunteer to take over the President's position for the Dinner Club. Hopefully, by the time of this reading, we will have a new volunteer to announce. While I am on this subject, one conclusion I have quickly come to is that these volunteer jobs are not easy. They all take a lot of time and dedication and my thanks and appreciation to everyone who currently volunteers to support the MARS organization.

Duane and I met with Eric Anderson, VP of Human Resources for ULA on Monday, September 8 for an informative meeting; we discussed several agenda items with Eric, including how we as a MARS membership could be of assistance to the ULA community. We will be discussing some of those potential opportunities at our next Officers meeting – so more to come on that subject. By the way, Eric is a big supporter of the MARS organization. He has assigned a dedicated HR point of contact in order to help us increase the publicity of the MARS organization to retiring ULA members. We are tentatively on the calendar to meet with Armando Castorena, VP of HR for Lockheed Martin, during the first part of October.

On to the Annual Picnic. This was my first attendance at one of the four annual MARS events. What an incredible turnout. I was able to rekindle some old friendships with colleagues from my past and make new friends with some of you I did not know, but hardly came close to shaking the hands or talking to the over 350 people that attended. My congratulations to Bob Lines and MARS volunteers that put in the time and energy to pull off this successful event. My congratulations also to those of you who were lucky enough to win one of the many raffle prizes given away. I thoroughly enjoyed myself and am looking forward to the December Holiday Celebration.

In closing, let me repeat that I am super excited about the opportunity to serve in this capacity. I have to be honest here – I was looking for opportunities where I would be able to give back, but never in a million years did I expect this to be the path of my volunteer future, but it just feels so right! Two areas of focus for me over the next year are to stimulate new growth for the organization and to reinvigorate the interest of our current membership. I know there are many retirees out there from LMC/ULA that may not even know we exist. Thank you again for putting your trust in me to do my best for this organization.

Lastly, do not forget about the MARS website for recent news items. It has a wealth of information for your use. I am also available if you want to shoot me an email or give me a call with any suggestions (positive or negative) you may want to share. My email and phone number are on the website. Until next time – take care and see you at the Holiday Celebration!!

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)

What a glorious day! Sunshine, no rain, nice breeze, and no flooding up North. It was a great day for a picnic and we did it! There were 347 of us at Clement Park on Wednesday, September 3rd and we enjoyed it all. There was good food, bluegrass music, camaraderie, and a door prize drawing. The prize winners were as follows:

Door prize, Donor	Winner
Brunch or Dinner Gift Certificate Inverness Hotel Restaurant	Barb Espinoza
\$50 cash MARS Associates	Dick Seeley
Gift Card - \$25 Angie's Italian Restaurant	Deanna Dahl
\$50 cash MARS Associates	Vincent Conca
Gift Card - \$25 Panera Restaurant Peliton	Livie Grogan
\$50 cash MARS Associates	Gary Warren
Gift Card - \$25 Hacienda Real Restaurant	James Ball
Gift Card - \$25 Panera Restaurant Peliton	Ardy Baker
\$50 cash MARS Associates	Carolyn Malady

Gift Card - \$25 Angie's Italian Restaurant	Pat Albert
\$50 cash MARS Associates	Gene Cody
Gift Card - \$25 Hacienda Real Restaurant	Joe Marcus
\$50 cash MARS Associates	Hedley Smith
Gift Card - \$25 Red Robin Restaurant	Rex Reed
\$50 cash MARS Associates	Barb Del Duca
Gift Card - \$25 Red Robin Restaurant	Bob Richardson
\$50 cash MARS Associates	Yvonne Martin
\$100 cash MARS Associates	Buck Reynolds
\$50 cash MARS Associates	Damon Ostrander
\$100 cash MARS Associates	Lew Moyer
\$50 cash MARS Associates	Roy Kannady
\$300 cash MARS Associates	John Denny

A good time was had by all, and there are pictures at the end of the STAR to help prove it.

The next MARS event is the Holiday Celebration at the Pinehurst Country Club. It will be held on Wednesday, December 3rd and the flyer is included in this mailing. I hope to see you there.

Two-Three-Zero-Eight



Senior Fare

By William Schrott
 (wmschrott@msn.com)

I do not know about you, but I feel that the summer went by at the speed of light. I thought that I

unpacked my summer clothes only a month ago. Oh well time must go on.

With the change in the time and weather, I realized that new officers and directors have to be voted on. There is a limit of two terms per office and directors and we have five positions up for election, two directors, and three officers.

The directors are charged with overseeing the operation of the MARS associates operations and activities of the officers. They also research possible changes in the way we do business. The directors meet every two months.

The three officer positions that are open are: Vice President of Business, Vice President of Communications, and Vice President of Membership. Officers meet every month that includes a joint meeting with directors every two months. Officers plan all of the events, publish the STAR newsletter, budget finances, and seek out discounts for members.

I found out when I was nominated for the Vice President of Business, there was no pay, but the rewards are great. We are all volunteers. We are focused on providing great experiences at social events like Rockies games and lunch celebrations.

As I said, these jobs are all volunteer positions. We look to our members to fill these positions. We ask all members to think about supporting the MARS Associates with service as an officer or director. The continued success of MARS Associates depends on its members like you to volunteer for these leadership positions. Call any director or officer to tell them you want to throw your hat into the ring and serve in one of these positions.

A lot of you participate in the VSP vision program. They provide coverage for eye exams, new lenses, and frames every year, otherwise known as the 12, 12, 12 program. VSP is proposing an increase in cost to maintain the same benefit. The change in the cost would be an increase of 10.1%.

VSP offered an option to maintain cost at the 2014 level. They suggest that we change the program to 12, 12, 24, meaning that frames would be covered every two years. This change in the coverage of the 12, 12, 24 program were presented at the last officers meeting. The officers voted to take this option and keep the cost at the 2014 level.

One of the things I am working on is to provide more information to retirees to update them on where the law and retirement plans have changed. This would

be a series of classes on things like social security, Medicare, and long term care.

When I retired, the company provided a seven week long program where those planning to retire could find information to prepare for retirement and/or to just refresh or update retirees on government changes that would affect their retirement. There will be more information in the next STAR newsletter.



Membership

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

MEMBERSHIP STATISTICS

As of September 30, 2014 MARS Associates' active membership is 1,505 which includes 878 seniors.

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

Colorado

Aurora	Joe & Margaret Vellinga
Centennial Denver	David & Sandra Hillman Steve & Stephanie Prince Mary Stirling
Franktown Highlands Ranch	Paul & Lynn Bade Edward & Pamela Barnsley
Lakewood	Phyllis Sjogren Lee & Cathryn Terwilliger
Littleton	B.J. Anthony Tom & Andrea Archuleta Ronald & Alison Bjornseth Richard & Karla Brachtenbach Neal & Linda Eaton Clifford Gates Wayne Heideman Michael & Sueann Keckler Constance McCord

Tara O'Brien & Jerome Cockson
 Georgia Rowles

Morrison Marilyn Grafner
 Tom & Joan Oliver

Parker Chris & Suzanne Morasci

Sedalia Joyce & Dan Satchell

Other States

Greenfield, CA Paula Ray

Ponte Vedra, FL Jane Cass & Eugene Horn

Rockledge, FL Sharyn & Lance Vandenberg

Driggs, ID Ralph & Lynda Guidry

Beaufort, SC William & Laura Burcin

Box Elder, SD Bill & Bernice Ramsey

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 or Bev Baugher (bevbaugher@earthlink.net) 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.

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 Bev Baugher
bevbaugher@earthlink.net

Members

Armentrout, Ann B. (D: August 2014)
 Littleton, CO
[HTTP://TINYURL.COM/OBCXJ5J](http://TINYURL.COM/OBCXJ5J)

Bolin, Larry W. (D: August 2014)
 (Survived by Glenda)
 Arvada, CO
[HTTP://TINYURL.COM/LMZYLYK6](http://TINYURL.COM/LMZYLYK6)

Dabkowski, Leon S. "Dabby" (D: August 2014)
 (Survived by Dorothy)
 Highlands Ranch, CO
[HTTP://TINYURL.COM/OXU9WOJ](http://TINYURL.COM/OXU9WOJ)

Davis, Edith (D: June 2014)
 (Survived Michael)
 Littleton, CO
[HTTP://TINYURL.COM/N6T6M7T](http://TINYURL.COM/N6T6M7T)

Dole, Joseph C. (D: September 2014)
 (Survived by Paulene "Polly")
 Denver, CO
[HTTP://TINYURL.COM/M3JQ938](http://TINYURL.COM/M3JQ938)

Farley, Sylvia (D: April 2014)
 (Survived by Richard Becker)
 Centennial, CO
 No Obituary Published

Gardner, Raymond C. (D: September 2014)
 (Survived by Hazel)
 Wrentham, MA

Glover, Robert A. (D: June 2014)
 Littleton, CO

Larue, Maurice A. Jr. (D: July 2014)
(Survived by Charlotte)
Lakewood, CO
[HTTP://TINYURL.COM/QZH775A](http://TINYURL.COM/QZH775A)

Meno, Deanna R. (D: July 2014)
(Survived by Charles "Chuck")
Golden, CO
[HTTP://TINYURL.COM/K8B2QRS](http://TINYURL.COM/K8B2QRS)

Molloy, Robert J. (D: July 2014)
(Survived by Natli)
Greenwood Village, CO

Smith, Carol (D: August 2014)
(Survived by Hedley)
Lakewood, CO
[HTTP://TINYURL.COM/LUHVSJ8](http://TINYURL.COM/LUHVSJ8)

Stewart, John J. (Jack) (D: June 2014)
Littleton, CO

Walter, Ann M. (D: May 2014)
(Survived by Charles)
Lakewood, CO
No Obituary Published

Non-Members

Aldridge, Lou" (D: July 2014)
(Survived by Patsy)
Littleton, CO
[HTTP://TINYURL.COM/LEMDOEE](http://TINYURL.COM/LEMDOEE)

Chuhta, Edward (D: August 2014)
(Survived by Bette)
Littleton, CO
[HTTP://TINYURL.COM/KSGL7GE](http://TINYURL.COM/KSGL7GE)

Clark, Evelyn (D: July 2014)
(Survived by Charlie)
Denver, CO

Hinners, Noel (D: September 2014)
(Survived by Diana)
Littleton, CO
[HTTP://TINYURL.COM/K6Z24MZ](http://TINYURL.COM/K6Z24MZ)

Hoffman, Robert (D: July 2014)
(Survived by Fran)
Littleton, CO
[HTTP://TINYURL.COM/NJOFLYJ](http://TINYURL.COM/NJOFLYJ)

Martinez, Anthony "Marty" (D: April 2014)
(Survived by Lori)
Littleton, CO

Maupin, Dorothy (D: June 2014)
Mesa, AZ
[HTTP://TINYURL.COM/KJ73V82](http://TINYURL.COM/KJ73V82)

Morgenthaler, George (D: September 2014)
(Survived by Luella)
Denver, CO
[HTTP://TINYURL.COM/O6KKV4Y](http://TINYURL.COM/O6KKV4Y)

Tucker, Ted (D: May 2014)
(Survived by Barbara)
Santa Maria, CA

Valdez, Gilbert (D: July 2014)
(Survived by Maria)
Littleton, CO
[HTTP://TINYURL.COM/JWG7KPJ](http://TINYURL.COM/JWG7KPJ)

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

Dawn of a New Day - Process Improvements Arrive!

By Bill Cossaboom

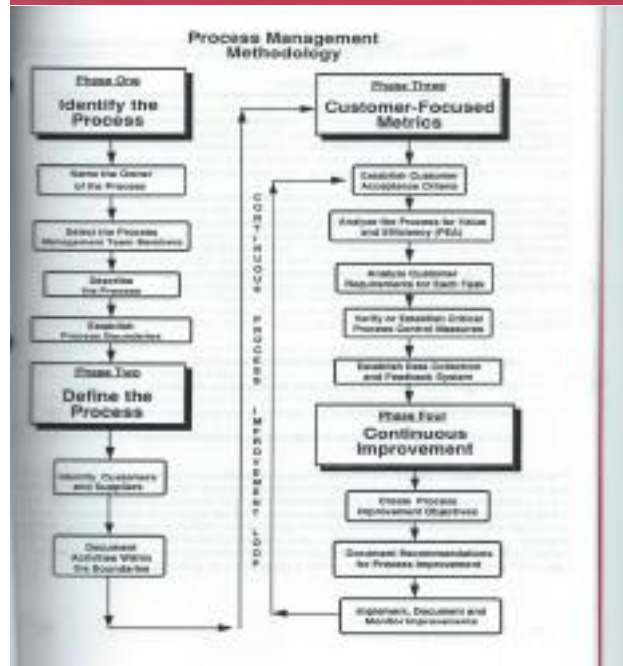
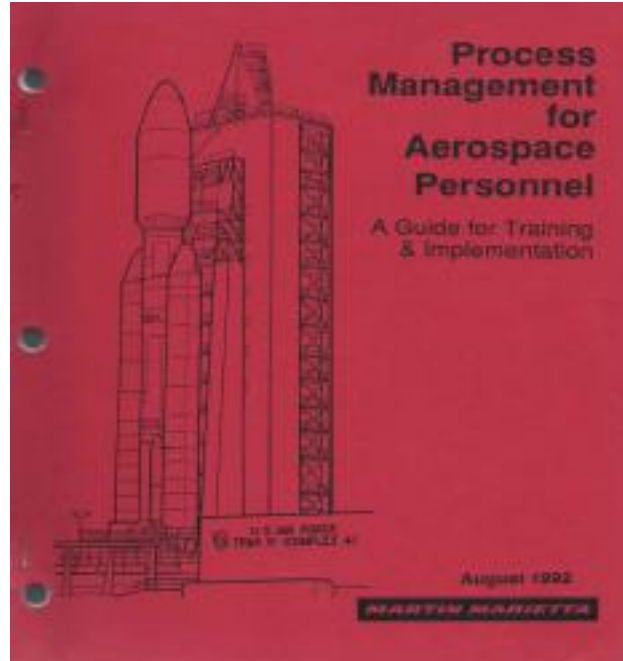
By the end of the 1980's, Space Launch Systems (SLS) was on the verge of entering the 21st Century, thanks to

a forward-looking strategic corporation. The embracing then (and now) of process improvement as an overall theme by the corporation has allowed Lockheed Martin to maintain and grow market share to this day - and improvement continues through Kaizen Events, Black belt / Greenbelt activities and other process improvement methodologies. While this article focuses on the beginnings of SLS Quality Assurance improvement activities in the late 1980's and early 1990's, remember that process improvement was embraced and practiced by all organizations within SLS.

At the conclusion of the 1980's, the Quality Assurance practices and processes for Production Operations (Prod. Ops.) were quite different from the organization I had hired into in 1981. I had joined Martin Marietta as an Electrical Inspector 4 in the Second Floor Factory - an area of rigid fixed processes- and by 1988 was an Electrical Quality Engineer (Q.E.). A large component of the change was cultural. The Quality of our goods and services (both external and internal) was no longer the sole 'responsibility' of the quality department, but of every department and employee inputting to the product or service. Organizations began working and communicating with each other real-time, as one common goal became the standard. Concurrent Engineering - the method of Q.E. and all associated departmental stakeholders, working with Engineering Design helped eliminate the 'pass over the wall' approval process for engineering drawings. In those few years, the High Performance Work Team (HPWT) concept and practice became integrated throughout SLS.

Those years, and especially the years 1988-1991 were truly years of re-organization and modernization of how processes were executed. I need also add here, that they were years of great excitement for a young Quality Engineer! We were on the verge of something great, and I hungered to be a contributing part of it. The first major successful thrust was the adoption in 1988 of a Total Quality Management (TQM) initiative, which focused on employee involvement in their tasks, development of autonomous work teams, continuous process improvement, and a committed management - all of which was measureable. Employees were introduced to the philosophies of such Quality pioneers as Juran, Crosby, and Deming; and introduced to tools such as the Process Flow Chart. Quality Engineers flocked to become members of the American Society for Quality Control (now the American Society for Quality). A notable SLS publication from that period is "Process Management for Aerospace Personnel" (commonly referred to as "The Red Book" - re-issued in 1992) by Martin Marietta's Training Department.

The building blocks contained within this manual are still utilized today - such as identifying internal and external customers, process 'owner', inputs, outputs, identifying process boundaries, documenting process improvement recommendations, creating objectives, and developing a method for measurement.



The "Red Book" cover and a "Red Book" Process Improvement Flow

One of more critical (and best from my point of view at the time) changes for Production Operations was the institution of the 'electronic' MARS (EMARS). MARS, an acronym for the Martin Automatic Reporting System

was a paper form (along with the Discrepancy Report) that was used to record hardware non-conformances and their dispositions. The MARS form had five copies. If processed correctly- each copy went *somewhere*, to *someone*, to *some other department!* I remember instructions on the form stated to press hard so that all copies would be legible and to use black ink. We were also instructed to put 'tails' on our S's so that they would not be mistaken for 5's. (I still do that to this day.) I remember getting a bit frustrated because when I pressed hard, the first two or three copies would rip through and the two bottom copies would be perfect! I finally figured out that the paper ripping was because I could only get fine point pens from the departmental cabinet! I started bringing in my own *medium point* pens and things went a lot better! I actually continued that practice until I retired, talk about sustainable process improvement! Although we met on the Factory Floor with some trepidation, all organizations supporting the factory were well trained, and the transition to EMARS really went rather smoothly. A month later, no one could have taken the EMARS away from us!

A significant improvement was made towards inspection requirements, which had at the beginning of the 1980's been focused on in-process manufacturing steps and now shifted to overall product requirements of the final article. For years, the culture had answered corrective actions for non-conformances: 'will add inspection point'.

In the late 1980's-early 1990's, non-valued or redundant inspections were eliminated, necessary inspections were consolidated (where possible) when more than one attribute could be verified by one inspection, inspections that could be verified by test methods were removed from work instructions. The SLS Quality Engineering group was at that time lead by Wendy Adams. Wendy would gather her team together to discuss improvement ideas and the team would adopt accordingly. I remember one Saturday we gathered at our Deer Creek facility with copies of our Manufacturing Processes and began a day's worth of evaluating just where Product Quality Verification Required points needed to be included for maximum product reliability and processing enhancements.

By 1989, Q.E.'s had three significant process improvement areas in their mindset: to provide necessary inspectability to our product, participate with Engineering Design in the establishment of critical characteristics and the dimensioning and tolerancing language which took us from two to three dimensional integrated manufacturing. The Quality Engineering visionary in the field of Geometric Tolerancing (GT)

was Dennis Little. Dennis brought the concept to Quality Engineering and conducted many training sessions for all Q.E.'s.

GT in the early 90s described engineering parts and assemblies that accurately expressed the 3-d feature in measurable terms that have a *common definition*. GT continues to be practiced and enhanced as Lockheed Martin currently adapts this valuable tool to interact with 21st Century design methods.

Quality Engineering Material Review Board members began to work with Manufacturing in a program meant to reduce "use as is" and "repair" hardware dispositions, neither disposition contributing to hardware quality or cost effectiveness. This program was successful and was recognized by the customer. In this time period some of the other savings and process streamlining accomplishments were noted:

- Improvement to Wire Line Crimping process,
- Selective inspection of machined barrel sections on the 1st Floor,
- Reduction of heat treat cycle time,
- Coordinated Measuring Machines for 1st Floor Factory.

These were exciting times, as stated previously. I was part of the original HPWT training, which took place in Portland, Oregon. The Wireline team was sent for a week of intensive education in which we gained improvement process skills. I have included a photo of just a few of the process players involved. I can no means mention everyone, but everyone and every discipline was very critical and important in the development of our particular process improvements.



A sampling of Wireline process experts circa 1989.
Back Left to Right: Quality Engineering: The Author, Manufacturing Engineering: Matt Boehm, Wireline Supervisor: John Heslop, Industrial Engineering: Dennis Rushing.

Front Left to Right Technician: unidentified, Technician: Mary Ann Getyl, Technician: Bea Gutierrez, Test: Tammy McCormick.

I am privileged to have been a part of that 'first graduating class and privileged to have worked either for or with real SLS process improvement pioneers.

This article is dedicated to all of you who could open eyes, open minds, and open opportunities during this exciting period: Karen, Dave, Ed, Matt, Irene, Wendy, George, Art, Don, John, Kevin, Cliff, and Dennis. You all know who you are, and all the others who are too numerous to mention.

Thanks for the vision.

Bridge Club

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

Did you know that there is some great advice available from the Western TV series, Gunsmoke? A cowboy in one of the episodes remarked, "A man shouldn't oughtta open his mouth unless he got a hand to back it up." Amazing how those words can apply to the game of bridge too! How many times do we overbid our hand and then, essentially prove it, when we have to put it on the table?"

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. There is a small fee to the Buck Center and a small fee to the club to aid with supplies and the party in December.

This quarter, we welcomed eight new members and guests into the club: Bart & Diane Wright, Jill & Lenny Demchak, Margo Breen, Skip & Pam Hull, and Mary Stirling. We are sad to announce that we also lost a long-time player, Maurice Larue who went on to play in the Bridge Clouds.

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 3rd Quarter 2014 winners are as follows:

July 18 was not held due to members being on vacation

August 15 (5 1/2 tables)

N/S 1st – Ernie & Cecile Berliner

2nd – Theodore Bornhoeft & Trudy White

E/W 1st – Joe Pohlen & Mike Davis

2nd – Dave & Kathy Martz

September 19 (3 1/2 tables)

N/S 1st – Theodore Bornhoeft & Trudy White

2nd – Loman & Pat Park

E/W 1st – Dave & Kathy Martz

2nd – Paul & Maria Staton

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.

Activities booked for Fall:

- October 13 - **Angie's Italian Restaurant**, luncheon
- November 12 - **Brio Tuscan Grill**, luncheon
- DECEMBER - **NO ACTIVITIES** (MARS Holiday Luncheon prevails)

PLEASE TAKE NOTE

Regretfully, this is our last newsletter, as we will be ending our two year role as co-Presidents of the Dinner Club, effective December. We have so enjoyed this experience of working with a wonderful group of people and had great times dining together.

While we have been working for several months trying to get either a couple or an individual to

take over the helm of the Dinner Club, we have thus far been unsuccessful. So our luncheon in November will be the last for the group and the Dinner Club will be suspended until new leadership is established.

Our best wishes to all, and we are certain the Dinner Club will be up and running again soon.

Please contact either Duane Del Duca or us if you feel the Dinner Club is something you would enjoy taking on. We will be pleased to work with the incoming leader(s) to provide all the information necessary to take over the reins.

Best wishes to all!

Golf League

By Bob Snodgrass
(tallhorsebob@aol.com)

The Golf league is coming to the end of this season. We encourage all present members to play in the 2015 season. We need new members and the dates for our kick off meeting will be in a future STAR or you may call me anytime at 303-660-8408.

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 have to be changed. The most current date can always be found on the main MARS web site 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**, then join us 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

Thursday, August 14, 2014 at 1:30 PM in the Littleton Bemis Library meeting room. John Flater presented a TRAVELOGUE titled "**Where in the World are we now?**" It consisted of a sequence of numbered photos he took over many years in different states of the USA and in different countries of the world. Each person was given a page with a numbers list for each of the numbered photos. As John showed his travelogue photos each person was to write the name of the US state or the name of the country where the person believed the photo was taken
Club Photo Competition Results: See images **Photography Club** pages of the MARS web site

First Place	"Career Position" - Jack Rombach
Second Place	"Glass Shrimp" - Sue Janssen
Third Place	"Canoes at Emerald Lake" - Larry Stearns
Honorable Mention	"Darwin Remembers WWII" - John

Flater
Honorable Mention "Cappadocia Apartments" - Jack Rombach

Future Meetings

Thursday October 9, 2014 at 1:30 PM in the Littleton Bemis Library meeting room. **John Chapter will present a TRAVELOGUE: Coe Estate, Stony Brook University, Carriage Museum, and Pollock/Krasner House.**

To verify future meeting dates, competition subject and **program** topics: go to 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	NAME
President	John Chapter
Vice-President	Jim Kummer
Secretary	John Flater

Computer Discovery (EzyBytes)

By John Flater
(jfflater@msn.com)

EzyBytes computer classes referenced in the MARS Retirees **website** were defunct as of the end of 2011 and are replaced by "**Computer Discovery**". As originally conceived in 1992, the South Suburban Parks and Recreation District staff recognized a need to help senior citizens with no prior computer (or even typing) experience learn the fundamental skills needed to use a personal computer. A group of Martin Marietta and later Lockheed/Martin retirees volunteered to meet these needs. The classes (taught in the district's Senior Citizens facility in Littleton) taught basics of word processing, file and folder management,

database usage, spreadsheet usage and email/internet methods. Because of their-"start from-scratch" level, most of these classes were two or three sessions and required lots of hands-on practice with over-the-shoulder instruction/coaching where each student and the lead instructor had a computer.

Roll the calendar forward 20-years (one generation) and most of the typical computer users now have the multi-session fundamental skills EzyBytes was formed to teach. Also most users of personal computer devices (PC, Mac, tablet, reader, or smart phone) have the fundamental skills, but are now wondering if and how the new computer technology can be applied to their needs.

A number of former EzyBytes instructors have developed a series of tutorial sessions to help these individuals (including former EzyBytes students). The sessions are called "**Computer Discovery**". I note that only two active volunteer instructors from this group are current **MARS Associates**: (Susan Janssen and John Flater) and the "**Computer Discovery**" staff is always in need of presenters fresh with ideas/topics. Our numbers are dwindling and we could really use a few more folks who enjoy helping people learn how to use their personal computers. Contact Susan via email in the **MARS Associates** directory or John Flater @ 303-794-6250 for more details about volunteer information.

For more details about the program topics, you can go to this web site:

"Computer Discovery"
<https://sites.google.com/site/computerdiscoverysspr/>

These sessions are hosted by South Suburban Parks and Recreation at the [Buck Community and Recreation Center](#) in Littleton on the 2nd and 4th Friday's of the month at 1:00 pm. We offer personal computer technology based presentations with each topic in a one-hour session followed by an hour of one-on-one computer help from our group of volunteer computer experts. These volunteers enjoy sharing their knowledge with others and our program motto is "Seniors teaching Seniors".

Hiking Club

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

Where did the summer go? I hope you all were able to enjoy the out-of-doors

Our July hike was a lovely walk to the summit of Chief Mountain. This trail is very close to the Denver Metro

Area, so even on a Wednesday there are many hikers. Our group of eight, led by Bob Todd, strolled up the well-maintained trail, stopping often to enjoy the views of the foothills and Mt. Evans. We scrambled up to the summit and found comfortable boulders to enjoy our snacks while savoring the 360-degree views. Bob demonstrated the peak identification app on his iPad. After the hike, many of us continued along Squaw Pass Road into Idaho Springs to enjoy burgers and beers at Tommyknocker Brewery. As we chatted about beer making, we listened to the thunder of the typical afternoon Colorado rainstorm.



Tim Budzynski, Dick Donovan, Glenn Gibson, Lee Janssen (standing), Cindy and Chuck Hause, Sue Janssen and Bob Todd smile because we made it to the summit before the thunderstorm.

Speaking of Colorado weather.....

The August hike was cancelled at the last minute because of the predicted likelihood of severe thunderstorms. The Silver Dollar Lake trail starts at 11,200 feet and climbs to almost 12,000, so most of the hike is above tree line, therefore hikers should be cautious and aware of approaching storms and lightning. Four club members attempted the hike anyway and were rewarded with good weather! The hike organizer, Tom Pawlowski rescheduled the hike the following week, but again the weather was predicted to be bad (including possibility of snow). Maybe third time's the charm.



Pat and Joe McDermitt and Pat and Ellen Albert take a break near Silver Dollar Lake.

The club's September hike was around the Mount Galbraith loop near Golden. The trek was about four miles and seven members made the hike. The trail follows Cedar Gulch, then goes around the small summit of mount Galbraith. Great views of the Front Range south to Castle Rock and north to the mountains near Wyoming were seen from several vantage points along the trail. The group completed the outing with lunch in Golden along scenic Clear Creek watching some tubers float down the lazy stream.



Pat and Ellen Albert, Lenny and Jill Demchak, Glenn Gibson, Joe Mc Dermott and Tom Pawlowski resting on the Mount Galbraith loop before going to the summit.

We plan our hikes for the third Wednesday of each month (except December). The schedule of hikes is posted on the MARS website. If hikes are rescheduled or cancelled, members are notified directly and 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)

I encourage MARS members to visit the MARS website at least monthly, to see what's new. You should add www.marsretirees.org to your 'favorites' list. Every month a new website of the month is posted. Newsletters from other retiree organizations are posted, usually on a monthly basis. The Baltimore RAMM newsletter is always interesting reading. The Hiking Club has pictures posted from their hikes, and the Photo Club shows pictures from their competitions. Check the GOLF and BRIDGE pages for the latest results. Pictures from MARS events are posted as well. All the clubs have pages on the website, where the latest plans and events are listed.

On the main page, most recent announcements of MARS members' passing are listed to inform friends of scheduled services. The NEW MEMBERS and IN MEMORIAM pages list the most recent changes to our membership.

At the website, you'll see topical and timely information valuable to members. Here are the monthly websites of the month from the last quarter.

July – [Dumb Little Man](#) - Tips for Life
August – New and Emerging Technology
News at GizMag.com
September – For Free Great Books Online, Check
Out www.bartleby.com

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

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

By Doug Tomerlin
(douginc@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.

Our fall luncheon is tentatively planned to be a pre-Thanksgiving buffet in Mid-November at the Lockheed Martin IS&GS-D building 2 cafeteria.

Retirees who have passed away (since the June 2014)

- Joe Meiris
- Suzanne McCans Hergott (Suzanne Barker)

New retirees who have joined the group:

- Rocky Hudson
- Mike Faust
- Steve Castle
- David Bowman

If you would like more information about the group, please contact Doug Tomerlin at douginc@aol.com.

RAMM – Baltimore News

By Dottie Ruth
(dotruth725@comcast.net)

It has been a pretty exciting summer for the RAMMs and everyone here in Baltimore.

The RAMM had our June picnic and that was enjoyed by all – grilled hot dogs, salads, watermelon and ice cream – followed by a cake auction, soft crab raffle, and bingo.

This year is the 200th anniversary of our national anthem, the Star-Spangled Banner, written by Francis Scott Key. What a festive event that was! President Obama visited Fort McHenry; there were Tall Ships and Navy ships at our Inner Harbor, and Blue Angels performing over Fort McHenry and the Inner Harbor. What fantastic stunts those pilots can do with those planes. There were living historic demonstrations, re-enactments, patriotic concerts and fireworks that stretched from Fort McHenry to our Inner Harbor. Even our Orioles baseball team, on Sunday, September 14, in honor of this historical event, wore uniforms that had red, white, and blue stars and stripes. I love our anthem, especially the phrase, "that our flag was still there." I'm so proud of our flag.

And speaking of our Orioles, it was just two days later, on September 16 that the Baltimore Orioles clinched the division title and won the American League East Division. What excitement! Fans remained in the stands for an hour as the Orioles brought their celebration back to the playing field celebrating with the fans amid jet sprays of champagne. Yes, we RAMMs had a very enjoyable summer.

Cape Canaveral News

By Dick Olson

(Olsons5145@aol.com)

Luncheons:

August - Another light turnout this month, but someone we haven't seen in ages made the scene. George Chambers from Aerojet and his son Michael joined us. Regulars Wendell McDaniels, Wes Hutchinsen, Bill Rhode, Hal Castleton, Abe Smith, Vince Alderman, Jimmy Weddle, Cal Moser, Roger Wright, Dave Kintigh, Dick Hinshaw, Larry Gleason, and Don Anderson were there. Bob Rodamer called and said he couldn't make it, but thought that maybe Jim and Lynda Millby might make it, but something must have come up. I haven't seen Jim since his surgery.

We had some discussion on the "Titan 10 year" party, but no new news. A golf tournament on Friday, a social hour Friday night, BBQ at KARS Park on Saturday, tee shirts, speakers, etc. are all in the talking stage yet. We plan to have a flyer out sometime near the end of the year or early next year.

September – We had a pretty good turnout for lunch, regulars Cal Moser, Roger Wright, Abe Smith, Nick Geso, Hal Castleton, Dick Hinshaw, Vince Alderman, Wes Hutchinson, Jimmy Weddle, Bill Masterson, Jerry Moskovitz, Hal Penley, Chris Hutchmacher, Bob Rodamer, Larry Gleason, Walt Starkey, Dave Kintigh, Bill Rhode, Bob Matschner, Roy and Mike Hunter and Frank Indihar from Aerojet joined us.

We announced that Bob Rodamer and I will host our "Old Car BBQ" the first Saturday in November, the 1st, at KARS Park and you are all invited.

Preparations for the Titan 10 year anniversary party are continuing. There will be a flyer out shortly, but so far they are planning a golf tourney on Friday May 1st, a social gathering on Friday evening at Beef O'Brady's on Merritt Island, and the picnic/BBQ at KARS Park on Saturday. Kay's BBQ will cater the event. There will be T-shirts available for sale (will have an order blank on the flyer), good food and drinks, and a good time had by all. If you know people that worked the Titan program (subs, assoc. cont., AF, etc.) make them a copy of the flyer when available as it will be open to everyone who worked the program. More to follow.

October – We had a pretty good turnout for the lunch: regulars Dick Hinshaw, Cal Moser, Wes Hutchinson, Don Anderson, Jimmy Weddle, Nick Geso, Dave Kintigh, Hal Castleton, Larry Gleason, Abe Smith, Bill Rhode, Wendell McDaniels, Walt Starkey, Chris

Hutchmacher, Vince Alderman, and Bill Masterson. Some folks we haven't seen for a while were Bob Anderson, Bob Matschner, Jim Cotton, Hank Ambrosh, Billy Graham, Roger Schmidt, and Cecil Snipes.

Cecil reported that he talked to Chuck Harris recently and he is doing pretty well for his 96 years of age.

I heard from Jim Milby and he and Linda are going on a road trip to Huntsville, the first in a couple years. They plan on making the BBQ on Nov. 1st.

Speaking of the BBQ, everyone is invited and if you know Titan folks that don't get these notes, please invite them to join us at KARS Park, Nov. 1st around 1:00. Bob and I hope to see you there.

The plans for the Titan Anniversary blast are continuing and we should have a flyer out soon.

Obituaries:

Brooks Kilgore passed away at age 90. Brooks retired back in 1987. He worked in the Tracking and Flight Safety and Airborne Instrumentation group.

John Coryell passed away at age 87. John was an engineer at the Cape in the early Titan days and was the Director of Canaveral Operations in the early 1970's before transferring to Denver where he retired.

Ken McGhee finally lost his battle with cancer, after six years. Ken supported the Atlas and Titan programs for many years.

Carl Welton's widow, Jackie, passed away September 10. In lieu of flowers, the family requested donations be made to Canine Companions for Independence, Southeast Regional Center, P.O. Box 680388, Orlando, FL, 32868.

REALM (Orlando News)

(realm.fl.news@gmail.com)

Andrea Lawrence (POC)

(andrea.j.lawrence@gmail.com)

Due to a lack of inputs from the POC for a year, we are going to drop the REALM (Orlando News) portion.

Martin Marietta Retiree's Club (Vandenberg News)

By Charlie Radaz
(fcmjradaz@aol.com)

No article submitted this quarter.

United Launch Alliance News

By Christa Bell
(christa.m.bell@ulalaunch.com)

United Launch Alliance Marks 85th Successful Launch by Delivering Three Satellites into Orbit for the U.S. Air Force

Cape Canaveral Air Force Station, FL, (July 29, 2014) – A United Launch Alliance (ULA) Delta IV rocket successfully launched the AFSPC-4 mission for the U.S. Air Force on July 28 at 7:28 p.m. EDT from Space Launch Complex-37. This is ULA's eighth launch in 2014 and the 85th successful launch since the company was formed in December 2006.

"The ULA team is proud to have delivered the twin Geosynchronous Space Situational Awareness Program (GSSAP) spacecraft to orbit today," said Jim Spornick, ULA vice president, Atlas and Delta Programs. "We are privileged to work with a top notch U.S. government and contractor mission team that is committed to mission success."

This mission was launched aboard a Delta IV Medium-plus (4,2) 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 4-meter-diameter composite payload fairing.

In addition to the two GSSAP satellites delivered to near-geosynchronous orbit, the secondary payload, Automated Navigation and Guidance Experiment for Local Space (ANGELS) satellite is managed by the Air Force Research Laboratory (AFRL).

"This launch marks the first EELV secondary payload adapter (ESPA) to launch on a Delta rocket," said Spornick. "This mission represents an excellent utilization of rideshare capabilities that has enabled a low-cost way for the AFRL ANGELS team to flight demonstrate future spacecraft technologies."

The twin GSSAP spacecraft will support U.S. Strategic Command space surveillance operations as a dedicated

Space Surveillance Network sensor. The GSSAP will also support Joint Functional Component Command for Space to collect space situational awareness data, allowing for more accurate tracking and characterization of man-made orbiting objects. ANGELS examines techniques for providing a clearer picture of the environment surrounding our nation's vital space assets. ULA's next launch is the Atlas V GPS IIF-7 mission for the Air Force scheduled for Aug. 1 from Space Launch Complex-41 at Cape Canaveral Air Force Station, FL.

United Launch Alliance Atlas V Launches WorldView-3 Satellite for DigitalGlobe

Tenth Successful ULA Launch of 2014

Vandenberg Air Force Base, CA, (Aug. 13, 2014) – A United Launch Alliance (ULA) Atlas V rocket carrying the WorldView-3 satellite for DigitalGlobe launched at 11:30 a.m. PDT from Space Launch Complex-3. Lockheed Martin Commercial Launch Services procured the Atlas V for this mission. This is the fourth successful launch in six weeks and the 87th successful mission since ULA was formed in December 2006.

"Congratulations to our commercial mission partners Lockheed Martin Commercial Launch Services and Digital Globe for a spectacular launch of the Atlas V carrying the WorldView-3 satellite," said Jim Spornick, ULA vice president, Atlas and Delta Programs. "The team's dedication to mission success, one launch at a time, brought us to a successful launch, delivering WorldView-3 to provide the next generation in earth imaging capabilities for DigitalGlobe."

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 engine.

"This launch marks ULA's tenth successful launch of fifteen planned this year," said Spornick. "The ULA team remains focused on mission success and on-time deliveries for our customer's most valuable payloads."

WorldView-3 is the first multi-payload super-spectral, high resolution commercial satellite for earth observations and advanced geospatial solutions. This high spatial resolution multispectral satellite imagery is used for civil government mapping, land use planning, disaster relief, exploration, defense, intelligence, visualization, and simulation environments.

ULA's next launch is the Atlas V CLIO mission for the U.S. government from Space Launch Complex-41 at Cape Canaveral Air Force Station, FL.

United Launch Alliance Launches Its 60th Mission from Cape Canaveral

Cape Canaveral Air Force Station, FL, (Sept. 16, 2014) – A United Launch Alliance (ULA) Atlas V rocket carrying the CLIO mission for Lockheed Martin Space Systems Company launched at 8:10 p.m. EDT from Space Launch Complex-41.

"It is an honor to work with Lockheed Martin Space Systems Company and all of our mission partners to launch this very important satellite," said Jim Spornick, ULA vice president, Atlas and Delta Programs. "This launch marks ULA's 11th successful mission this year and the 88th successful mission."

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 engine.

"The ULA, Lockheed Martin, supplier, and government teams seamlessly integrated to ensure accurate delivery of the CLIO mission to orbit," said Spornick.

ULA's next launch is the Atlas V GPS IIF-8 mission for the United States Air Force scheduled for Oct. 29, from Space Launch Complex-41 at Cape Canaveral Air Force Station, FL.

With more than a century of combined heritage, United Launch Alliance is the nation's most experienced and reliable launch service provider. ULA has successfully delivered more than 85 satellites to orbit that provide critical capabilities for troops in the field, aid meteorologists in tracking severe weather, enable personal device-based GPS navigation, and unlock the mysteries of our solar system. ULA – Bringing rocket science down to Earth.

United Launch Alliance and Blue Origin Announce Partnership to Develop New American Rocket Engine

Centennial, CO and Kent, WA – Sept. 17, 2014 – United Launch Alliance (ULA), the nation's premier space launch company and Blue Origin, LLC, a privately-funded aerospace company owned by Amazon.com founder Jeff Bezos, announced today that they have entered into an agreement to jointly fund development of the new BE-4 rocket engine by Blue

Origin. This new collaboration will allow ULA to maintain the heritage, success, and reliability of its rocket families – Atlas and Delta – while addressing the long-term need for a new domestic engine.

"This agreement ensures ULA will remain the most cost-efficient, innovative, and reliable company launching the nation's most important national security, civil, human, and commercial missions," said Tory Bruno, president and chief executive officer of ULA. "Blue Origin has demonstrated its ability to develop high-performance rocket engines and we are excited to bring together the best minds in engineering, supply chain management, and commercial business practices to create an all-new affordable, reliable, American rocket engine that will create endless possibilities for the future of space launch."

"ULA has put a satellite into orbit almost every month for the past eight years – they're the most reliable launch provider in history and their record of success is astonishing," said Jeff Bezos, founder of Blue Origin. "The team at Blue Origin is methodically developing technologies to enable human access to space at dramatically lower cost and increased reliability and the BE-4 is a big step forward. With the new ULA partnership, we're accelerating commercial development of the next great US-made rocket engine."

The ULA/Blue Origin agreement allows for a four-year development process with full-scale testing in 2016 and first flight in 2019. The BE-4 will be available for use by ULA and Blue Origin for both companies' next generation launch systems.

The BE-4 is a liquid oxygen, liquefied natural gas (LNG) rocket engine that delivers 550,000-lbf of thrust at sea level. Two BE-4s will power each ULA booster, providing 1,100,000-lbf thrust at liftoff. ULA is investing in the engineering and development of the BE-4 to enable availability for national security, civil, human, and commercial missions. Development of the BE-4 engine has been underway for three years and testing of BE-4 components is ongoing at Blue Origin's test facilities in West Texas. Blue Origin recently commissioned a new large test facility for the BE-4 to support full engine testing.

For more information on ULA, 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 ASSOCIATES EVENT SCHEDULE

DATED: October 2014

EVENT/MONTH	2014			2015								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept
Board of Directors		5		7		4		6		1		2
Officers	1	5	2	7	4	4	1	6	3	1	5	2
Bridge	17	21	19	16	20	20	17	15	19	17	21	18
Dinner	13	12	NONE	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Golf	Thur						Thur	Thur	Thur	Thur	Thur	Thur
Photo	9		11		12		9		11		13	
Hiking Club	15	19	NONE	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Computer Discovery	10&24	14&28	12&26	9&23	13&27	13&27	9&23	14&28	12&26	10&24	14&28	11&25
Web Committee	9/30	4	1	6	3	3	3/31	5	2	6/30	4	1
CO Rockies Game									TBD			
Sr. Luncheon										8		
Annual Picnic												2
Holiday Celebration			3									
Annual Meeting						TBD						
Items due for MARS												
STAR				5	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
STAR Repro. Deadline	13			19	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
STAR Mailing	22			22	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

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: 10/13/2014-Angies Italian Restaurant-Lunch; 11/12/2014-Brio Tuscan Grill-Lunch.
 5. Golf meets every Thursday from April through Oct of each year.
 6. Photo Club meets the 2nd Thursday of every other month at 1:30 pm at the Bemis Public Library in Littleton.
 7. Hiking Club: Outings on 3rd 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. 2014 Holiday Celebration is December 3, 2014, at Pinehurst Country Club.
 11. **2015** MARS Annual Meeting - TBD.
 12. **2015** MARS Day at the Rockies - TBD.
 13. **2015** Sr. Luncheon - July 8.
 14. **2015** Annual Picnic- September 2.
 15. **2015** Holiday Celebration - December 2.
- Please review dates and times and notify **Robin Valore (rrvalore@gmail.com)**, if you have any changes or additions.