

TRA's
No Name

GAZETTE

For Northrop Grumman & TRW Legacy Retirees

VOL. XXXIV NO. 3

Our 34th Year

May/June 2022

Make Your Reservations for the TRA Summer Reunion

Come join your fellow TRA members at our 2022 Summer Reunion! As it has been over two years since TRA sponsored an in-person get together, we're planning a purely social event. This is a great chance to catch up with your fellow retirees in a casual environment. We will be located in the Marmalade Cafe outdoor tent with room to mingle, chat, and enjoy a summer lunch.

The 2022 Reunion will be at:

Marmalade Cafe
2014 East Park Place
El Segundo, CA 90245
Wednesday, June 29, 11:00 AM to 2:00 PM

For lunch we will have a choice of: **Chinese Chicken Salad**, with umami soy roasted chicken thinly sliced and tossed with napa cabbage, sugar snap peas, edamame, scallions, oranges, roasted cashews, crispy rice noodles, cilantro and sesame ginger vinaigrette; the **Half Pound Cafe Burger** on a brioche bun, with lettuce and tomato, cheddar cheese, red onion on request, served with french fries; **Salmon and Asparagus Farfalle** pasta with pieces of tender Atlantic salmon, asparagus tips and sweet onions in lemon Chardonnay cream and Parmesan cheese; **Roasted Turkey and Italian Veggie Wrap**, with thin-sliced turkey breast, roasted peppers, cucumbers, tomatoes, avocado, shredded lettuce and ranch dressing, wrapped in a flour tortilla and served with french fries; or **Cheese Ravioli** (vegetarian) made with ricotta, parmesan and mozzarella cheeses with herbs and tossed in a Yolo valley tomato cream sauce.

There is no need to decide now. You will order once you are seated. A non-alcoholic beverage is included in the price. The Cafe

has a no-host bar if you would like beer, wine, or a cocktail with your meal. If you have a dietary restriction, give us a call at 310-701-2706, leave a message, and we will make arrangements. Or, email us at tra@tra-spacepark.org.

The price for the Summer Reunion is only \$33 per person. There is plenty of free parking available.

To reserve your spot, go to www.tra-spacepark.org (if you're not already registered for access to the web site take a few minutes to register,) and pay with a credit card through PayPal. Or, you can mail in your reservation with your payment using the form below.

Please be sure to postmark by June 15. Space is limited and we won't be able to accept walk-ins at the door.

We hope to see you there!

New TRA Members

Susan Draus	Playa Del Rey, CA
Tom Hollemann	West End, NC
David Lee	Torrance, CA
Janis Macrae	Long Beach, CA
Milt Schrader	Torrance, CA
Nanci Shawger	Rancho Palos Verdes, CA
Douglass Wilson	Redlands, CA

We hope these new members will send a note to us at mailpouch@tra-spacepark.org telling us a little about themselves and where they worked at Northrop Grumman/TRW.

SUMMER REUNION RESERVATION FORM

Mail-In Reservation Deadline: Postmark by June 15

Member Name: _____

Street Address: _____

City: _____ State: _____ Zip: _____

Membership No. (from mailing label): _____ Phone: _____

Guest Name(s): _____

Total Attending: _____ at \$33 each = \$ _____

Go on-line to www.tra-spacepark.org and make your reservations and pay using PayPal.

Or, mail with a check payable to "TRA" to the following address: TRA, P.O. Box 1276, Redondo Beach, CA 90278

TRA for Northrop Grumman Retirees

The Retirees Association (TRA) welcomes the retirees and the spouses of retirees of Northrop Grumman and TRW.

2022 Officers

Dena Bouskos	President
Mary Ann Chory	Vice President
Pam Overton	Secretary
Joyce Komatsu	Treasurer

2022 Directors-at-Large

Charles Clendening, Bob Doll, Marcy Morrison,
Michael Narigon, Jim Nelson, Carol Schamp,
Steve Smith, Stephanie Sundius, Jack Trost

Archives Coordinator: Robert Doll

Facebook Coordinator: Stephanie Sundius

Membership Coordinator: Stephanie Sundius

Website Coordinator: Steve Smith

The No Name Gazette is the official publication of TRA. It is published six times a year.

Publication Staff

Editor: Michael Narigon

Contributor: Pam Overton

Copy Editors: Kim Lewis, Carol Schamp

Contacting TRA

By Email:

TRA@tra-spacepark.org - Your email questions will be routed to the appropriate source. Also, if we have your e-mail address, we can notify you of information of interest to our TRA members. Send us an email to get added to the TRA email list.

By Web:

Our website is at www.tra-spacepark.org. It is an excellent source for the latest news, lists of the new retirees, travel details, party photos (more than get into the NNG), forms of all sorts, personal photographs, and much more.

By Mail:

TRA, P.O. Box 1276, Redondo Beach, CA 90278

By Phone:

The pandemic has limited our office hours and email is the best way to reach us. If you need to phone, call 310-813-7745 to reach our voice mail.

For Membership:

TRA Membership is open to Northrop Grumman and TRW-legacy retirees at \$10 per calendar year. The application is available on the website.

TRW/NG Retirees Meetings Around the U.S.

As everyone knows by now, Covid-19 protocols have affected in-person meetings. E-mail or call the contact to make sure the event is occurring before you go. Changes from last issue are marked in **bold**.

If you have a group that you would like to have listed here, please contact us by email at tra@tra-spacepark.org.

GROUP	MEETING LOCATION	DATE & TIME	OTHER INFO	CONTACT
TRA Board Meeting	Zoom	3rd Wednesday, 9:30 AM, Monthly except December	Decisions, planning and actions on archives, events, NNG, coordination with NG	All members welcome. Contact TRA to receive meeting link
ATD Friends & Colleagues	Send ideas for meeting location	1 November 2022, 11:00 AM	Social, Nostalgia, Lunch	Jack Trost, Dena Bouskos, Cindy McCully 310-377-2194 cschamp@aol.com
Beach Cities Get-together	Grunions Restaurant, 1501 N Sepulveda Blvd, MB, CA	Last Monday, Even months, 11 AM to 2 PM	Social	Allen Parker 310-780-0712 777allendsp@gmail.com
Brevard Retirees	Various Locations in Brevard, NC	1st Wednesday, 8 AM 3rd Wednesday, 5:30 PM	Social	Tom and Vicki Moore 828-808-0457 seneca75@verizon.net, thistle33@verizon.net
Central Coast Chapter	Various Locations in the Central Coast Area	Various days: contact Zaiser for details	Social	George Zaiser 805-473-2105 gzais34@icloud.com
Houston Chapter	Baybrook Denny's, 19212 Gulf Fwy, Friendswood, TX	3rd Tuesday, 8:30 AM	Social	Gary Dinsmore 281-461-6270 samngary@att.net
Huntsville Chapter	Red Lobster	2nd Tuesday, 11:30 AM	Lunch and Social	Jim Troy 850-797-0044 jtroy28x@gmail.com
Northern Virginia	Zoom	3rd Friday, 11:30 AM	Social	Jim Miller 703-483-5448 jmiller158@gmail.com
Utah	Layton Cracker Barrel	1st Thursday, 8:30 AM	Breakfast Social	Charles Vono 801-745-5879 charlesvono@comcast.net
San Diego Chapter	Event Dependent	3rd Tuesday, Alternate Months	Social or Board Meeting	http://sandiego.tra-spacepark.org Jim Denton 858-385-0150 JWDenton@san.rr.com
Temecula Valley	Various Locations	2nd Wednesday, 11:30 AM	Social	Sue Marbut 951-723-1157 dnsmar@verizon.net
The Mountain Folks	On hold due to Covid-19		"We do have fun!"	Carl Winkelman 303-693-0034 winkelman@att.net
TRIN	Zoom	2nd Thursday, 1:00 PM, Optional lunch at 12:30	Investment info based on monthly newsletter reviews	Bob Eshbaugh 310-376-5880 eshonnet@yahoo.com
Ventura Romeos	Mimi's Cafe Thousand Oaks	1st Tuesday, Lunch	Social	Frank Yunger 805-444-1541, Harry Stroud 805-653-5117

JWST Completes Optical Alignment

After a full review of the alignment data, JWST has been confirmed to be capable of capturing crisp, well-focused images with each of its four powerful on-board science instruments. Upon completing the final stage of telescope alignment, the team held a set of key decision meetings and unanimously agreed that JWST is ready to move forward to science instrument commissioning. This final calibration process will take about two months before scientific operations begin in the summer.

The alignment of the telescope across all of Webb's instruments can be seen in a series of images that captures the observatory's full field of view.

"These remarkable test images from a successfully aligned telescope demonstrate what people across countries and continents can achieve when there is a bold scientific vision to explore the universe," said Lee Feinberg, JWST optical telescope element manager at NASA's Goddard Space Flight Center.

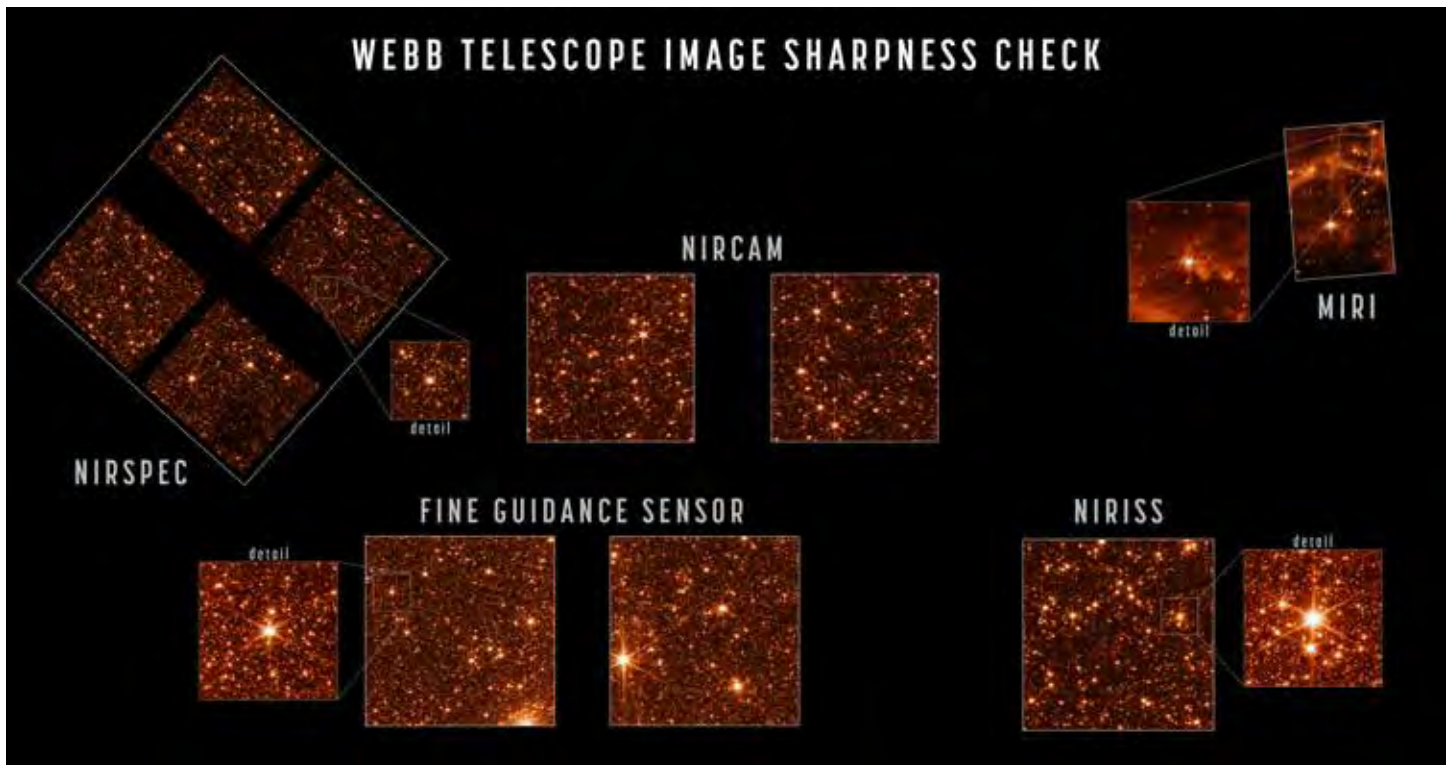
The optical performance of the telescope continues to be better than the engineering team's most optimistic predictions. The mirrors are now directing fully focused light into each instrument. The image quality delivered to all instruments is "diffraction-limited," meaning that the fineness of detail that can be seen is as good as physically possible given the size of the telescope. From this point forward the only changes to the mirrors will be very

small, periodic adjustments to the primary mirror segments.

"With the completion of telescope alignment and half a lifetime's worth of effort, my role on the James Webb Space Telescope mission has come to an end," said Scott Acton, JWST wavefront sensing and controls scientist, Ball Aerospace. "These images have profoundly changed the way I see the universe. We are surrounded by a symphony of creation; there are galaxies everywhere! It is my hope that everyone in the world can see them."

Each instrument is a highly sophisticated set of detectors equipped with unique lenses, masks, filters, and customized equipment that helps it perform the science it was designed to achieve. The specialized characteristics of these instruments will be configured and operated in various combinations during the instrument commissioning phase to fully confirm their readiness for science.

Though telescope alignment is complete, some telescope calibration activities remain: As part of scientific instrument commissioning, the telescope will be commanded to point to different areas in the sky where the total amount of solar radiation hitting the observatory will vary to confirm thermal stability when changing targets. Furthermore, ongoing maintenance observations every two days will monitor the mirror alignment and, when needed, apply corrections to keep the mirrors in their aligned locations.



Engineering images of sharply focused stars in the field of view of each instrument demonstrate that the telescope is fully aligned and in focus. For this test, JWST pointed at part of the Large Magellanic Cloud, providing a dense field of hundreds of thousands of stars across all the observatory's sensors. The sizes and positions of the images shown here depict the relative arrangement of each of Webb's instruments in the telescope's focal plane. The three imaging instruments are NIRCam (shown here at a wavelength of 2 microns with a field of view of 2.2 by 2.2 arcmin), NIRISS (1.5 microns), and MIRI (7.7 microns, revealing emission from interstellar clouds as well as starlight). NIRSpec is a spectrograph but can take images, such as the 1.1 micron image shown here, for calibration and target acquisition. The dark regions visible in parts of the NIRSpec data are due to structures of its microshutter array, which has several hundred thousand controllable shutters that can be opened or shut to select which light is sent into the spectrograph. Lastly, the Fine Guidance Sensor tracks guide stars to point the observatory; its two sensors are not generally used for scientific imaging but can take calibration images such as those shown here. Credit: NASA/STScI

HAPPENINGS AT NORTHROP GRUMMAN

Northrop Grumman Building Six B-21 Raiders for U.S. Air Force

Last year, Secretary of the Air Force Frank Kendall announced that work had begun on five Northrop Grumman B-21 Raider bombers. Progress has moved steadily along, with Air Force Magazine reporting that work has now begun on a sixth airframe. With six Raiders now in various stages of production, the B-21 has been described as a “model” program for the United States Air Force.

It was also reported that some of the advanced software that was developed for the new stealth bomber has already been validated through digital testing.

Maj. Gen. Jason R. Armagost, director of strategic plans, programs, and requirements at Air Force Global Strike Command, said during the 2022 Nuclear Deterrence Summit that the bomber is still on track to make its debut flight this year. Other Air Force officials have confirmed that time line.

“The B-21, going into the future, is going to be our penetrating, get inside the anti-access, area of denial, dual-capable aircraft,” said Armagost, according to Air Force Magazine. “There are now six of those in existence. The roll out will probably be sometime this year. I’m not at liberty to give the likely date of that, but [it will be] quickly followed by first flight.”

The development of the cutting-edge bomber has been sped up by the utilization of advanced technologies.

“We are capitalizing on the revolution in digital models-based systems engineering, open mission systems architecture software,” Armagost said. “As an example, the software for the fuel control system, which is a pretty complex thing, is completely done on an aircraft that hasn’t even flown yet as a test article, because of how we’re able to do models-based systems engineering. And they actually built a fuel systems model and tested the software, and the software is ready to go.”

Development of the B-21 Raider - which will complement and eventually replace the Rockwell B-1 Lancer, Northrop Grumman

Benefit Contacts for Retirees

The Northrop Grumman Benefit Center (NGBC) is where you can report a change of address, report a death, or apply for a pension. See the “myRetirement” menu item on the NGBC home page for retiree services.

Northrop Grumman Benefits Center (NGBC)

www.benefits.northropgrumman.com

Phone: 800-894-4194

Fidelity administers pension payments and the Northrop Grumman savings plan.

Fidelity NetBenefits

www.netbenefits.com/northropgrumman

Via Benefits handles Medicare supplemental insurance and open enrollment.

Via Benefits (a Tower Watson Company)

www.viabenefits.com

Phone: 855-832-0976 (M-F 8AM-9PM Eastern)

A small number of TRW retirees receive their medical benefits through the Northrop Grumman Benefits *Service* Center. This center is staffed by Benefits Outsourcing Solutions, Inc. Their number is 800-410-6605.

Metlife administers your life insurance if, after you retired, you continued your coverage under the Northrop Grumman group plan.

Metlife

www.metlife.com

Phone: 800-638-6420

If you were employed by TRW and retired before January 1, 2006, you may be eligible for an insurance benefit, payable on your death.

B-2 Spirit and Boeing B-52 Stratofortress - began six years ago in February 2016 when Northrop Grumman initiated the design and build phase of the program.

Northrop Grumman said that its highly skilled workforce has been able to leverage cutting-edge technologies. These include the



From Charles Vono - Our Utah retirees are excited to get back to their regular monthly breakfasts. From left to right: Tom Lear (Chuck Lear's son), Stu Flood, Walt Gould, Leo Seeber, Roger Fanetti, Kathy Fanetti, Toni Martinez, Sue Flood, Terry Luzitano, Bob Luzitano, Charlie Vono, and Chuck Lear.

use of highly-immersive virtual environments, as well as both augmented and virtual reality. This has driven innovation in digital engineering and advanced manufacturing to build the producible, sustainable and maintainable 21st-century bomber.

The result will be the most advanced bomber in the world, and “the B-21 Raider will be capable of penetrating the toughest defenses to deliver precision strikes anywhere in the world.”

Northrop Grumman selects Mynaric as ‘Strategic Supplier’ of Space Laser Communications

Mynaric, a manufacturer of laser communications equipment, announced it was selected by Northrop Grumman as a strategic supplier. The partnership with top Pentagon contractor Northrop Grumman is significant for Germany-based Mynaric, which has been making moves in the U.S. market, particularly in the government and defense sectors.

“The U.S. government is the driving force to deploy laser communication capabilities in space,” Mynaric CEO Bulent Altan, said in a statement.

The company said the agreement gives Northrop Grumman “assured and preferred access” to Mynaric products and services, and estimates Northrop Grumman will buy a minimum of \$35 million worth of equipment over five years.

Mynaric said Northrop Grumman will “kick-start the new relationship” by purchasing CONDOR Mk3 optical communications terminals for satellites that provide data rate speeds of 100 megabits per second to 100 gigabits per second.

Robert Fleming, vice president for strategic and business development at Northrop Grumman Space Systems, said laser communication is “becoming a strategic must-have for a wide array of government programs” as demand grows for secure space-based communications.

In the U.S. military market, Mynaric already has a foot in the door as its optical terminals were selected by Telesat for satellites that will be flown as part of the Defense Advanced Research Projects Agency’s Blackjack program.

Kathy Warden Projects Another Year of Double-Digit Growth for Northrop Grumman Space in 2022

The Space Systems segment reported \$2.9 billion in sales in Q1 of 2022, a 13% increase compared to the same quarter last year. Both the Launch & Strategic Missiles and Space business contributed to the increase.

Launch & Strategic Missiles sales saw a \$130 million increase on the Next Generation Interceptor program and a \$117 million increase on the Ground Based Strategic Deterrent program. Space sales were driven by higher volume on Commercial Resupply Service to the International Space Station and restricted programs, partially offset by lower volume on the James Webb Space Telescope after its successful launch in December 2021.

First quarter 2022 operating income decreased by 5% to \$261 million, due to a lower operating margin rate, partially offset by higher sales volume.

“Our space business continues to experience rapid growth as our customers re-architect their space-based capabilities,” CEO Kathy Warden said on the investor call. “This growth is in re-

IN MEMORIAM

Ken Dade, 78, February 28, 2022.

Irwin H. Gerst, 94, March 19, 2021.

Patrecia (Pat) Gregory Goldman, 80, May 14, 2021. After retirement, Pat lived in Estacada, OR. She started working at STL in 1958 as a receptionist and when the first seven astronauts had their press conference at STL in 1959, Pat was able to attend.

John Luedde, 90, March 26, 2022. John started in Requirements Analysis and worked at TRW from 1967 to 1991. He enjoyed his years at TRW, after which he traveled the world with his wife, Shirley, and cared for her during her untimely passing.

Ronald Rout, June 7, 2021. Ron worked for TRW for over 25 years.

Donald Charles Verrier, 91, March 28, 2022.

The first step in notifying Northrop Grumman of a retiree’s death is to call the Northrop Grumman Benefits Center. If the deceased was a member of TRA, please notify TRA whether you want the NNG continued or you want to be removed from future mailings.

If you know of a person that should be included in the “In Memoriam” column, please inform us by either email or mail to the TRA office. As a minimum, we request the name of the deceased, date of death, and the name of the person submitting the information. If more information is available and desired, include age, position and years at NG/TRW, any notable programs, and special skills.

sponse to adversaries developing more sophisticated weapons, the need for more capable missile defense warning systems, as well as the migration of some airborne missions to the space domain.”

Warden said the company expects to see double-digit growth in the Space Segment again this year, and that Northrop Grumman is expecting a \$2 billion award in the second quarter from United Launch Alliance to provide GEM 63 rocket motors to support launches for Amazon’s Project Kuiper.

Warden highlighted contract wins in the quarter including a nearly \$700 million award for 42 satellites in Low-Earth Orbit for the Space Development Agency’s Transport Layer, and a \$340 million contract for Deep Space Advanced Radar Capability (DARC) to improve situational awareness in Geosynchronous Orbit.

The Space Systems segment continues to lead Northrop Grumman’s growth. In 2021, Space Systems grew sales 21% from the 2020 total. Sales for the segment in 2020 were up 18% compared to 2019.

Space Systems was the only segment to see sales growth in Q1 2022. Defense Systems was down 18%, Aeronautics Systems down 10%, and Mission Systems down 4% compared to the same time period in 2021.

Overall, Northrop Grumman reported \$8.8 billion in sales in Q1, down 4% compared to the same time last year. The company cited a \$162 million reduction in sales related to the IT services divestiture, and said Q1 organic sales “reflect the continuation from 2021 of a tightened labor market as well as some temporal COVID-19-related headwinds early in the quarter related to supply chain and labor disruption.”



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The next NNG will be
mailed in July.

THE MAIL POUCH

By Pam Overton

◆◆◆ From **Lourdes Monzon** - Hello, my TRA friends. It has been a year since I moved to Marin County, north of San Francisco. I'm happy to be here as I had the opportunity to sell my home in Long Beach and bought a home next door to my daughter and family. We are literally next door, we share the backyard fence and **Kaitlyn**, 17, and **Gabriel**, 15, want to remove it so that we share the backyards. Now that COVID-19 is kind of going away, I've been able to take some classes (for seniors) at the College of Marin, which is one half mile away from my home. I've been able to get to know some people my age and at the same time learn new subjects to keep my brain active, heh heh. I miss you all and the TRA events. Sending my best to all. ◆◆◆ From **Sandy Cash** - Just wanted to share my adventure with everyone. I was able to check off Alaska from my bucket list. It is a marvelous state. I took this trip with my 2 daughters and my youngest sister. The people of Fairbanks are very friendly and accommodating. Alaska does many things for the enrichment of the other 49 states. We had a very knowledgeable shuttle driver who shared so much history with us. They grow their own vegetables and flowers in an environmentally conscious manner. Because of the many hours of daylight in summer, they grow cabbages as large as 35 pounds. They ship a couple of flower varieties to other states. While there we saw the ice sculptures, went snow machining (as the Alaskans call what we call snowmobiling), went to the North Pole and visit-

ed Santa and his reindeer, enjoyed relaxing in Chena Hot Springs in zero degree weather, and toured the Museum of the North at the college (so much history). Along the route to the hot springs, we saw a couple of moose. We found out that the Aurora Borealis is active only about 100 days a year. Sadly we did not get up close and personal this trip. We plan to go back to catch it and take a train ride into Denali National Park. If you haven't been to Alaska, I highly recommend this adventure. ◆◆◆ From **Raymond (Ray) Renken** - I now have been retired for 28 years, although I did come back for 11 years as a consultant. Prior to working at TRW I started my career at Grumman in Hicksville, Long Island. It has been quite a journey working on airplanes to working on spacecraft. This past year has been memorable in that my wife, **Barbara**, and I celebrated our 65th wedding anniversary and to top that we have been blessed with a great-grandson. ◆◆◆ From **June Halstead** - Just to let my friends in the South Bay know, since I love the beach areas so much, I recently moved to Cambria on the Central Coast. Beautiful country and lots of hiking and beach walking. Of course, Bass Lake is still my "go to" place. ◆◆◆

Mail Pouch Items

Let us know what you are up to by e-mailing the Mail Pouch at mailpouch@tra-spacepark.org or by mail to Mail Pouch, P.O. Box 1276, Redondo Beach, CA 90278.