

# TRA's

No Name

# GAZETTE

**For Northrop Grumman & TRW Legacy Retirees**

VOL. XXVII NO. 1 Renew

January/February 2015

## Your TRA Membership Has Expired

### HAPPENINGS AT NORTHROP GRUMMAN

#### Aerospace Systems Sector (NGAS)

- REDONDO BEACH, CA — The tennis-court-sized sunshield for the James Webb Space Telescope (JWST) was successfully deployed in a Space Park clean room, allowing the tech staff to examine all steps in the lengthy deployment process. The three day test took place in July, taking about 20 hours to complete. In flight, the sunshield will be deployed in a zero gravity field, but for this test, the



By Frank Warren

engineers had to create a framework to hold the five thin membrane layers. During launch, the sunshield will be folded up tightly around the JWST's mirrors and instruments. When the JWST reaches its orbit point about 1 million miles from earth, the sunshield will be deployed in this zero gravity field and used to shield the on-board instrumentation from the radiation from the sun. To view a time-lapse video of the test deployment, go to [youtube.com/watch?v=PVAe9Ovca5Q](http://youtube.com/watch?v=PVAe9Ovca5Q).

- REDONDO BEACH, CA — The steady production of the fourth Advanced Extremely High Frequency (AEHF) protected military communications satellite continues on track with NGAS delivery of the fourth payload to AEHF prime contractor Lockheed Martin 4½ months early. The payload's phased array, nulling and advanced v-band crosslink antennas were integrated and tested with the payload module that NGAS shipped earlier this year. The module contains the processing, routing and

### Please Renew Today!

Our records indicate that your membership expired in 2014.

TRA membership is a real bargain at just \$10.00 per year! The NNG will keep you informed about news from Northrop Grumman, Space Park; Medical Information updates; the informative and humorous Mail Pouch with information about our members; the Spring Fling; the Annual Membership Meeting (June); and the Holiday Party (December).

To renew, just submit the attached form with your check. The renewal form can also be downloaded from our web page: [www.tra-spacepark.org](http://www.tra-spacepark.org). One year renewals are welcome as are renewals for more than one year, which reduces our in-house paper shuffle. A return envelope is included for your renewal convenience.

### Membership Renewal 2015

(and beyond)

Name: \_\_\_\_\_

Address: \_\_\_\_\_ Tel: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

E-mail address (please print legibly) \_\_\_\_\_

Membership No: \_\_\_\_\_

From mailing label on back page

Annual dues are \$ 10.00 per year. I would like to renew for:

☐ \$10 for 1 yr. ☐ \$20 for 2 yrs. ☐ \$30 for 3 yrs. ☐ \$40 for 4 yrs..

Signature: \_\_\_\_\_ Date \_\_\_\_\_

Please mail with your check to:

TRA PO Box 1276 Redondo Beach, CA 90278

**And, please, include a note for the Mail Pouch about yourself, your family, and your doings!**

*Continued on Page 8*

## TRA for Northrop Grumman Retirees

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

### 2015 OFFICERS

|                 |                          |
|-----------------|--------------------------|
| Dena Bouskos    | President                |
| Jack Trost      | Vice President           |
| Bob Doll        | Treasurer                |
| Jay Seidman     | Secretary                |
| Darrell Aushman | Immediate Past President |

### 2015 DIRECTORS-AT-LARGE

Mary Ann Chory, Charles Clendening, Ira Green, Marcy Morrison, Carol Schamp, and Jack Williams.

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

### Publication Staff:

Al Hausrath, Editor; Frank Warren, Contributing Editor; Tom Carroll, Kathy Hanken, Roger Harmon, Mary Holcomb, Del Suarez, and Jack Trost, Photographers; Carol Schamp and Karin Petersen, Copy Editors.

## Contacting TRA

### By Mail:

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

### By Phone:

310-833-5827

### By Email:

[TRA@tra-spacepark.org](mailto:TRA@tra-spacepark.org) Your emails will be routed to the appropriate source. And, if we have your e-mail address on file, we send out special alerts to TRA members at infrequent intervals. To get on the TRA email list, just send us a brief email requesting to be added to it.

### By Web Page:

Our web page is at [www.tra-spacepark.org](http://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. Log on and browse.

### For Membership:

TRA Membership is open to all Northrop Grumman and TRW legacy retirees at \$10 per calendar year. First year free. Application on web page or call 310-833-5827.

## NG/TRW Retirees Meetings Around the U.S.

| GROUP                     | MEETING LOCATION                                                          | TIME & DATE                              | OTHER INFO                                                                                                   | CONTACT                                                                                                   |
|---------------------------|---------------------------------------------------------------------------|------------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| TRA                       | Bldg. S/Cafeteria, Space Park                                             | 3rd Thurs. Monthly                       | Business Meeting 1:30 p.m.                                                                                   | No reservations needed.<br>All Members Welcome                                                            |
| ATD Friends & Colleagues  | Palos Verdes Golf Club, 3301 Via Campesina, PVE, CA 90274, (310) 375-2533 | 1st Tuesday in Nov.<br>11 a.m. to 2 p.m. | Social, Nostalgia and Lunch<br>Res Deadline: Fri. 23 Oct. '15                                                | Don Reeves, Jack Trost, Carol Schamp<br><a href="mailto:cschamp@aol.com">cschamp@aol.com</a> 310-377-2194 |
| Brevard Retirees          | Various Locations in Brevard, N.C.                                        | 1st Wed. 8 a.m.<br>3rd Wed. 5 p.m.       | Social                                                                                                       | Al & Daughn Connarn 828-884-4993<br><a href="mailto:aconnarn@yahoo.com">aconnarn@yahoo.com</a>            |
| Central Coast Chapter     | Various Locations in the Central Coast Area                               | Various days: call<br>Zaiser for details | Social                                                                                                       | George Zaiser 805-343-2631<br><a href="mailto:gzaiss@msn.com">gzaiss@msn.com</a>                          |
| Beach Cities Get-together | Grunions Restaurant<br>1501 N. Sepulveda Blvd., M.B., CA                  | Last Mon., Even months.<br>June 30       | Social                                                                                                       | Allen Parker 310-780-0712<br><a href="mailto:777allendsp@gmail.com">777allendsp@gmail.com</a>             |
| Houston Chapter           | Baybrook Denny's, 19212 Gulf Fwy<br>Friendswood, Tex.                     | 3rd Tuesday<br>8:30 a.m.                 | Social                                                                                                       | Gary Dinsmore 281-461-6270<br><a href="mailto:samngary@att.net">samngary@att.net</a>                      |
| Huntsville Chapter        | Ryan's Buffet<br>1808 University Drive NW, Huntsville                     | 2nd Tuesday<br>11:30 a.m.                | Social                                                                                                       | Jim Troy 850-797-0044<br><a href="http://www.TRA-Huntsville.org">www.TRA-Huntsville.org</a>               |
| Las Vegas                 | Various Locations in Las Vegas Metro Area                                 | Last Tuesday<br>11:30 a.m.               | Social                                                                                                       | Carol Noblet 702-889-6773<br><a href="mailto:cannob70@gmail.com">cannob70@gmail.com</a>                   |
| Northern Virginia         | Old Brogue Pub<br>Great Falls, Va.                                        | 3rd Friday<br>11:30 a.m.                 | Social                                                                                                       | Bill Gehrke 703-759-0527<br><a href="mailto:wgehrke@att.net">wgehrke@att.net</a>                          |
| Ogden                     | Cracker Barrel Restaurant<br>Layton, Ut.                                  | 1st Thursday<br>Breakfast                | Social                                                                                                       | Charles Vono 801-745-5879<br><a href="mailto:charlesvono@comcast.net">charlesvono@comcast.net</a>         |
| San Diego Chapter         | Event Dependent                                                           | 3rd Tuesday<br>Alternate Months          | Social or Board Meeting<br><a href="http://sandiego.tra-spacepark.org">http://sandiego.tra-spacepark.org</a> | Jim Denton 858-385-0150<br><a href="mailto:JWDenton@san.rr.com">JWDenton@san.rr.com</a>                   |
| Temecula Valley           | Various Locations in the Temecula/Murrieta Area                           | 2nd Wednesday<br>Lunch                   | Social                                                                                                       | Maureen Locken 951-244-7654<br><a href="mailto:maureen_locken@yahoo.com">maureen_locken@yahoo.com</a>     |
| The Mountain Folks        | Various Locations in the Denver Area                                      | First week of each<br>quarter            | "We do have fun!"                                                                                            | Carl Winkelman 303-693-0034<br><a href="mailto:winkelman@att.net">winkelman@att.net</a>                   |
| TRIN                      | Community Room, WFCU<br>Western Way, Torrance, Calif.                     | 2nd Thursday<br>1:00 p.m.                | Investment Info based on<br>monthly newsletter reviews                                                       | Mike Pauls 310-379-2707<br><a href="mailto:lmikep@earthlink.net">lmikep@earthlink.net</a>                 |
| Ventura Romeos            | Mimi's Cafe<br>Thousand Oaks                                              | 1st Tuesday<br>Lunch                     | Social                                                                                                       | Fred Blaich 805-499-0012 or<br>Harry Stroud 805-653-5117                                                  |

## How I Made It: Simon "Si" Ramo

By Melody Petersen, Los Angeles Times. Printed on November 23, 2014. Reprinted by permission of L.A.



Simon Ramo, 101, received Patent #8606170B2 at age 100 for a computer-based learning invention, becoming the oldest person ever to receive a patent. Photo by Mel Melcon, Los Angeles Times.

The gig: Simon "Si" Ramo helped lead the Cold War development of the intercontinental ballistic missile, which could send a nuclear warhead thousands of miles. The aerospace pioneer co-founded two Fortune 500 companies, including TRW Inc., for which he built a sprawling campus in Redondo Beach known as Space Park. There, engineers invented rocket-destroying lasers, a robotic space probe to Jupiter known as Pioneer 10, and engines for the Apollo moon-landing missions. Ramo has received dozens of awards, including the Presidential Medal of Freedom. His name appears on dozens of patents. Last year, at age 100, he received Patent #8606170B2 for a computer-based learning invention — becoming the oldest person ever to receive a patent.

### Excelling at time management

Even as a teen, Ramo had detailed goals. Yet he didn't have enough time to accomplish them. Besides hours of homework and his beloved violin lessons, he worked a couple of hours each day, and all day Saturday, at his father's store during the Depression. To reach his aspirations and still have time for music, every Sunday night Ramo made a list of his priorities for the week on a card that he kept in his pocket. "I had learned to use time to the greatest advantage," he explained. It worked so well that he graduated from high school at age 16, from the University of Utah at 20 and from Caltech with two doctoral degrees at 23.

### Learning business as a boy

His father's store in Salt Lake City sold overalls, gloves and other goods needed by carpenters and other working men in Salt Lake City. His father counted on Ramo not just to help him stock shelves but also to be the store's chief window dresser, accountant and writer of correspondence.

### Taking calculated risks

Ramo repeatedly made successful bets of his limited time and money. When he was 16 and already a high school senior, he didn't have the money to attend college. But he came up with a plan: He aimed to win a music contest whose prize was a full-ride scholarship to the University of Utah. To increase

his odds, Ramo spent the \$300 he had saved for college on a European violin. He won the prize, which allowed him to study whatever he desired. He chose engineering.

### Choosing the right friends

Ramo became friends with Dean Wooldridge, while the two were classmates at Caltech. "He could understand anything almost immediately, it seemed," Ramo said. "I was much more interested in new ideas. He was a master of old ideas. Between us we realized we were quite a pair." The two were soon working together at Howard Hughes' famed aviation company, and then walked out to start their own firm in a one-room Los Angeles office. Less than a year later, the Eisenhower administration bypassed established companies to give their tiny start-up a contract to develop the ICBM. In April 1957, the two men appeared on the cover of Time magazine. Their company, TRW Inc., grew to more than 100,000 employees before it was acquired by Northrop Grumman in 2002.

### Knowing when to resign

Hughes Aircraft Co. was flourishing in 1953 when Ramo and Wooldridge decided to leave. Ramo later wrote that he had become frustrated and concerned about Hughes' mental state, especially after an odd meeting with the tycoon at the Desert Inn in Las Vegas, where Hughes then lived. "He went on intermittently, haltingly, adding more personal information about what he called his missed life," Simon recounted in his book, *The Business of Science*. "He said, for instance, that he was terribly disturbed, and when disturbed, he could not eat. He said the only food he had had for several days was milk."

### Helping others shine

Ramo said that at his first job at General Electric in the late 1930s and early 1940s he would help students with good ideas file applications for patents. But unlike other GE engineers working with students, Ramo would often decline to list his own name with that of the student on the patent. "The senior people would tell me that my name should go on this project," Ramo said. The gesture paid off. The best young engineers soon wanted to work for Ramo, helping his own projects stand out.

### Making people laugh

Ramo has long depended on his wit, especially when events go awry. In the 1950s, he attended a series of key ballistic missile experiments at Cape Canaveral, Fla., with Air Force Gen. Bernard Schriever. One after another, the test rockets kept exploding on their launch pads. When one missile finally rose six inches before toppling over and bursting into flames, Ramo reportedly beamed and said: "Well, Benny, now that we know the thing can fly, all we have to do is improve its range a bit." When things go wrong, Ramo explained today, "you need a sense of humor to see the possibilities that otherwise you would miss."

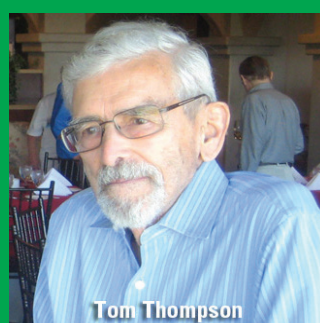
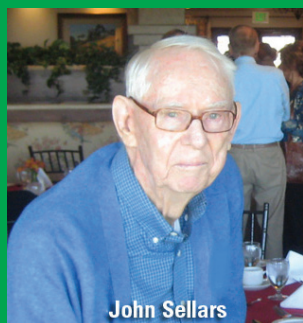
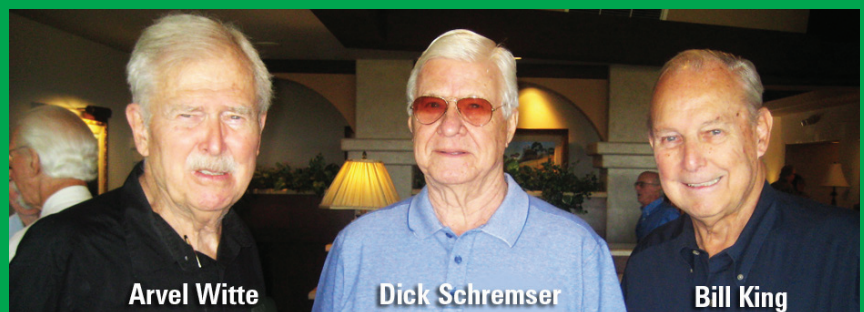
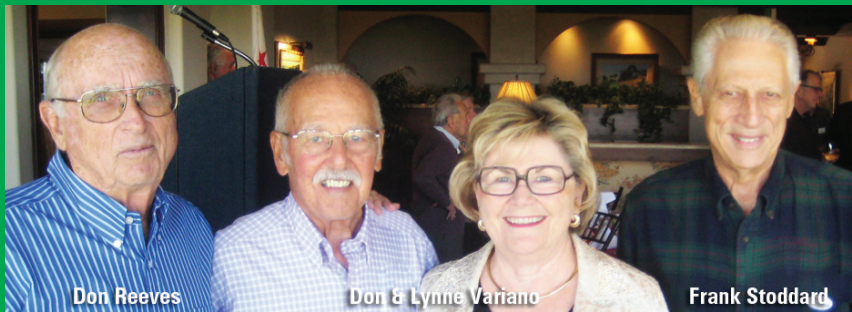
**Reserved for Centerfold**

**Reserved for Centerfold**



# Photos from the ATD Colleagues and Friends Luncheon

November 4, 2014 — Photos by Jack Trost





## Celebration of Four Spacecraft Anniversaries

The Space Systems Division of the Northrop Grumman Aerospace Sector hosted a celebration of on-orbit anniversaries of four TRW/NG built spacecraft. The events were held at the Aerospace Presentation Center at Space Park on December 2 and 3. Each of the 90 minute presentations included a guest speaker, former Program Managers, and a Q&A. Invited to these sessions were all NG employees, contractors, and retirees. TRA was notified of these meetings in mid-November, and sent email invitations to all its members with email addresses (~1800). Over 60 TRW/NG retirees and guests attended as a result of the extended invitations through TRA.

The four Spacecraft Anniversaries were:

### **Chandra X-Ray Observatory**

The Chandra X-Ray Observatory was assembled and tested by TRW. It was launched in July 1999 by Space Shuttle *Columbia*, into an elliptical orbit, reaching one third of the way to the Moon's orbit at its farthest point. This eliminated the possibility of improvement or repair by the space shuttle but put the observatory above the Earth's radiation belts for most of its orbit. At 22,753 kilograms (50,162 lb.), it was the heaviest payload ever launched by the shuttle. Chandra's highly elliptical orbit allows it to observe continuously for up to 55 hours of its 65 hour orbital period. At its furthest orbital point from earth, Chandra is one of the most distant earth-orbiting satellites. This orbit takes it beyond the geostationary satellites and beyond the outer Van Allen belt. With an angular resolution of 0.5 arc second ( $2.4 \mu\text{rad}$ ), Chandra possesses a resolution over 1000 times better than that of the first orbiting X-ray telescope. Chandra was initially given an expected lifetime of 5 years, but it is still operational at 15 years.

### **Milstar-1 Payload**

Lockheed-Martin built and integrated the Milstar satellites. The Milstar-1 satellites were launched in 1994 and 1995. These first two flights, known collectively as Milstar I, house a TRW developed and built Low Data Rate (LDR) payload, serving core command and control activities. LDR offers secure, antijam, interoperable voice and data links to 240 Milstar satellites functioning as autonomous switchboards in space, that lets users communicate with each other anytime, anywhere in the world, at any level of conflict. With a projected 10-year life cycle, they are still operational at 20 years.

### **Space Tracking and Surveillance System – Demonstrators (STSS-D)**

Two NGAS-built SSTSS-D satellites were launched together on September 25, 2009. STSS is designed to be the low earth orbiter within the layered Ballistic Missile Defense System. It complements the geosynchronous Defense Support Program, the Space-Based Infrared System, and other Overhead Non-Imaging Infrared systems and provides tracking cues to systems on the surface. The STSS program is developed in phases, the first of which is the launch of these two demonstrator satellites. Both satellites fly and work in tandem as

a risk-reduction mission by the U.S. Missile Defense Agency (MDA), paving the way for an operational constellation.

### **Earth Observing System Aura**

The EOS satellite Aura is a NASA mission to study the Earth's ozone, air quality and climate. This satellite is based on NGAS's EOS Common Spacecraft, the same platform hosting NASA's EOS Aqua mission. The versatile spacecraft is modular with common subsystems and easily adapted to the mission-specific needs of EOS Aura, EOS Aqua and future earth observing missions. It was launched in 2004 and has 10 years in orbit, twice its design life.

### **Feedback**

It was wonderful that NG/Space Systems Division would hold these Anniversary Celebrations and invite its retirees to attend. It brought back many fond memories of those challenging projects of the past. Here is a first-hand report from Mike Pauls, who attended all four events with his wife. "It is remarkable to realize that I participated in similar activities so long ago (retired 1992). What really struck home is how many times I heard the word "team" and "teamwork". Looking back on the major achievements and successes, it became clear each program had significant hurdles to overcome, seemingly (at the time) almost insurmountable. Inordinate effort, dedication and "teamwork" made it all possible. Alice and I felt honored to have sat through those four presentations and witnessed the shared camaraderie shown by the program attendees and knowing we were among some of the most brilliant and smartest group of people gathered in one location at the same time. That speaks well for NG's culture and its future."

## **Recent New Members to TRA**

We welcome the following members since the last newsletter.

|                    |                           |
|--------------------|---------------------------|
| Victoria Bilinski  | Rancho Palos Verdes, CA   |
| Bernard Jackson    | Diamond Bar, CA           |
| Larry Jones        | Tucson, AZ                |
| Elvin P. Lowe      | Playa del Rey, CA         |
| Joy I. Mainwaring  | Redondo Beach, CA         |
| Michael L. Narigon | Manhattan Beach, CA       |
| Joyce Peyton       | Los Angeles, CA           |
| John E. Tabor      | Rolling Hills Estates, CA |
| Brian H. Ward      | San Pedro, CA             |

We hope these new members will send a note to us for the Mail Pouch, telling us a little about themselves and where they worked at Northrop Grumman. Send to [tra@tra-spacepark.org](mailto:tra@tra-spacepark.org) or to TRA, P.O. Box 1276, Redondo Beach, CA 90278.



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Redondo Beach, CA 90278

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The next NNG will be  
mailed in March

## THE MAIL POUCH

◆◆◆ Many of our members have told us of the pleasure they get from volunteer activities. Perhaps the champion volunteer is **Noble Smith**, who retired from TRW in '87. After his wife, **Margot**, died in '05, he became serious about donating his time. Noble lists the Redondo Beach Fire Department, Community Emergency Resource Team (CERT), Police Citizens Academy, Church of Spiritual Living, and the South Bay Health Fair. And, to stay in shape, he exercises five times/week◆◆◆ Another police volunteer is **Rendall McKechnie** (Rancho Cucamonga, CA). When not helping the police, he has been perusing the new TRA Directory. Looking over the names brought back memories of people and activities long past. *I was quite surprised to see how many people I knew and how they have moved (or not). It was like being in a time machine*◆◆◆ **Bill Daugherty** (San Marcus, CA) just returned from a WWII Honor Flight—San Diego. It was the most moving experience he's ever had. (The Honor Flights program treats WWII veterans to an all-expense-paid trip to Washington, D.C. where they are escorted by a personal guide to all the applicable historic sites in the area. Bill has promised TRA a full report on this program in a future issue of the NNG.) Earlier in the year, Bill and Catherine attended their granddaughter's graduation from boot camp at Great Lakes. On the way home they stopped off in Texas to visit their latest great-granddaughter. Bill's latest book, *Humor for Mature Minds*, is selling well◆◆◆ Can old guys learn new tricks? **Bob Baris** (Aiken, SC) wants to prove they can, so he got a new Windows 8.1 laptop. This was after four months of frustration with bugs, etc. on a Win 7 computer◆◆◆

### Upcoming TRA Events

**Alice Lord Spring Fling\*** April, 2015  
**Summer Meeting\*** June, 2015

\*Details to be provided in future NNGs

### IN MEMORIAM

**Albert Raymond Adduci**, November 6, 2014, 30 years at TRW

**Janice H. Dickert**, 72, October, 2013

**William C. Funkhouser**, 79, August 27, 2014

**Richard Klein**, 87, October 5, 2014, ESG Communication Systems Integration & Test Manager

**Donald Lee Martin**, 82, October 22, 2014, Alternative Energies at TRW

**Marshall W. Novick**, 81, November 24, 2014, 29 years at TRW, VP Director of Quality, S&TD

**Courtwright Allen Pierce**, ~92, 2012-13

**Stanford Roy Schubert**, 78, October 28, 2014, Chief Technologist, S&TD

**Thelma Shibata**, 85, December 4, 2014

**Douglas Alan Slater**, 64, August 3, 2014, 30 years at TRW/NG

**Carlos Steimer**, 65, October 18, 2014, Manager of the Insulation (MLI) Department

**Larry E. Stevens**, 78, May 16, 2014, Manager of Reprographic Services, 1965-94

**Gustave J. Szala**, 84, November 7, 2014, Retired 1991 with 28 years at TRW

**Linden I. Tomlinson**, 92, December 2, 2014, Retired 1995 with 25 years at TRW

The first step in notifying Northrop Grumman of a retiree's death is to call the NG Benefits Service Center at 800-894-4194. For many retirees, there is a Burial Benefit which will be paid to the beneficiary upon proper notification of death. The Benefits Center does NOT notify TRA of the death due to privacy laws.

If you know of a deceased retiree that should be included in the "In Memoriam" column in future NNGs, please inform us by either mail or email to the TRA office. As a minimum, we need 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, organization, position, years at NG/TRW, any notable programs, and special skills.