



A FLIGHT PROGRAMS AND PROJECTS DIRECTORATE QUARTERLY PUBLICATION
A Newsletter Published for Code 400 Employees

INSIDE THIS ISSUE:	
MAP, GOES, QUIKTOMS & TIMED	Page 1
TDRS-I Launch	Page 1
Code 400 Web-Based Library	Page 2
Cultural Tidbits	Page 2
Tintypes	Page 3
Feedback	Page 3
Mentoring Update	Page 5
Things You Should Know	Page 6
Logo Contest Status	Page 9
Lessons Learned Video Streaming	Page 10
Kudos for The Critical Path	Page 11
Take a Bow	Page 12
Quotes of the Quarter	Page 13
Balloon Launches	Page 14
Social News	Page 14
Peer Awards/Picnic/All Hands	Page 15
Honor Awards	Page 16
Diversity	Page 18
Abe Silverstein	Page 19
Future Launches	Page 20

*- MAP & GOES-M FLYING HIGH -
 QUIKTOMS & TIMED TO FOLLOW*

*A Successful Launch for the
 Microwave Anisotropy Probe
 (MAP)*

On June 30 at 3:46 p.m. EST, MAP lifted off on schedule aboard a Delta II rocket from Pad B at Space Launch Complex 17, Cape Canaveral Air Force Station, Florida. As scheduled, 90 minutes after launch, MAP separated from the Delta II third stage, deployed its solar arrays and began its journey to L2 where it will begin recording microwave light from the early universe to answer fundamental questions about the history, content, shape and fate of the universe.

The spacecraft has been performing in an outstanding manner and completed its third and final perigee maneuver on July 26. Orbit determination data indicates that the performance was very good and that MAP is right on its planned trajectory. MAP achieved a successful lu-

nar swingby on July 30 and a small mid-course correction maneuver is planned for later in August. By October 1 MAP should be at L2 and can begin the process of col-
(MAP Continued on page 4)

*TDRS-I
 READIES FOR
 OCTOBER 29 LAUNCH*

*TDRS: Ushering In The Next Era
 Of Space Communications*

TDRS Project (Code 454) personnel are focused on final testing and launch preparations for TDRS-I, which is scheduled for a nighttime launch, October 29, 2001 from Cape Canaveral, FL, onboard an Atlas IIA rocket. Soon, the TDRS Project team will escalate final testing activities for TDRS-J, and prepare the spacecraft for storage in
(TDRS-I Continued on page 8)

Flight Programs and Projects Directorate Web-Based Library

Code 400 will soon be launching its web-enabled project library to all GSFC Intranet users. The Code 400 library will house electronic documents for users to view—such as MSR and GPMC presentation packages, and will offer immediate and secure on-line access to both development and archived project documentation. The future goal of the library is to house documents after a project has launched.

Special features of the Directorate library include a “Key Documents” page with direct links to individual electronic project MSRs; a “Resources and Links” page with direct URL links to NASA GSFC project libraries, project home pages, and project org charts. The “Bulletin Board” page will contain current action items, FAQs, and the latest version of “Campbell’s Soup”. The Code 400 library database will require all users to apply for a password, and is intended to be user friendly. Look for a direct link to the library from the FPPD homepage within the next few months!!

Katy Mortimer, Code 400 Librarian

“Cultural Tidbits”

Did you know ...

...that in Japanese, the words corresponding to "yes" and "no" do not translate exactly to the English meanings? In Japanese culture, when two people are having a discussion, the word for "yes" may be used to convey that the person understands what the other person said, but doesn't necessarily mean that there is agreement about what was said. Also, in certain circumstances, "yes" may be said to be polite, when the actual answer is "no" (and vice versa) and the expectation is for the person on the receiving end to understand the difference between an actual "yes" and a polite "yes".

Understanding that the meanings associated with certain words can vary from one culture to another can help clear communication barriers. When we learn to communicate clearly with people different from ourselves, we avail ourselves to what they have to contribute.

Do you have a cultural tidbit to share? Send it to the Code 400 Diversity Council c/o Andrea Razzaghi @ andrea.i.razzaghi@gsfc.nasa.gov and we'll publish it in a future issue.

Andrea Razzaghi,/Code 424



PERSONALITY TINTYPES



Harry McCain

Harry McCain is the Program Manager for the Polar-Orbiting Operational Environmental Satellites Program (POES), Code 480. Harry has been the POES Program Manager since 1994. The POES Program builds the polar-orbiting weather satellites for NOAA and all funding for the program comes from NOAA. POES, previously known as TIROS, has been around in various incarnations for 40 years. The last of the series are NOAA-KN'. NOAA-K was launched in 1998, NOAA-L in 2000, and NOAA-M is currently scheduled for March 2002. NOAA-N is on tap for 2004 and NOAA-N' is not scheduled until 2008.



Born: Charlotte, North Carolina

Education: Bachelor of Electrical Engineering, University of Maryland.

On Family: Harry, his wife Jody and their black Lab, Louie live in Gaithersburg, MD. They have two daughters, Jennifer, formerly a fifth grade school teacher in Montgomery County MD and currently a full time mother and Erin, a mechanical engineer working in Pasadena, MD. They have two grandchildren, Zachery, age 3, and Kara, 4 months.

Life on POES: In the almost eight years that Harry has been managing the POES Program he has not been bored for a microsecond. With five satellites to build, each with a complex payload of ten scientific instruments, there is an incredible amount of flight hardware to develop and test. Additionally, the POES Program has the responsibility to launch and check-out the satellites once on orbit. POES also builds instruments for the European MetOp Program that will complement the POES satellite constellation on orbit. This European component of the program adds considerable work and complexity but also a lot of variety and interesting technical challenges and

(Tintype Continued on page 5)

Terri Yancy

Terri joined the Flight Programs and Projects Directorate on June 4, 2001 as Assistant to the Director for Professional Development.

Education: Terri has a Bachelor of Science degree from Howard University and is currently working on a Master of Science degree at the American University.



On Family: Terri and her husband Keith live in Bowie, MD. They have 2 daughters, Erika, age 18 and Briana, age 4. Other members of the family include 2 dogs, 1 cat, 1 gerbil, 2 hamsters and an assortment of fish.

Life in FPPD: Although Terri just recently started working in FPPD, she is excited about the opportunity to participate in the Directorate's efforts toward enhancing Career Development and Diversity. She is looking forward to working with the Program and Project Offices on identifying options for achieving the Directorates' goals and vision with respect to helping each individual reach their full potential and infusing diversity into everyday business practices and policies.

Life before FPPD: Terri has worked at Goddard for 11 years in the Office of Human Resources. While in OHR, Terri served as a Human Resources Management Specialist supporting the Management Operations Directorate and the Flight Projects Directorate. Terri also served as a Team Leader and for the past 5 years as the Deputy Chief, Human Resources Operations Office. Terri has also worked at the Environmental Protection Agency, the General Accounting Office, the Department of the Navy and the Public Health Service in policy and operation positions.

Hobbies: Terri enjoys reading mysteries, working on puzzles, walking and spending time with her family.

FEEDBACK

GSFC Resident Office at KSC

- GSFC had two successful payload launches this quarter. Microwave Anisotropy Probe (MAP) from Cape Canaveral Air Force Station (CCAFS) Delta Pad 17 on June 30, 2001 and Geostationary Operational Environmental Satellite (GOES-M) also from CCAFS Atlas Pad 36 on July 23, 2001. MAP is designed to capture the afterglow of the Big Bang, which comes to us from a time well before there were any stars, galaxies or quasars. GOES-M on the other hand is an advanced environmental satellite equipped with instruments to monitor Earth's weather.
- OAO ODIN has installed new telephones in the GSFC Resident Office at the Operations and Control Building (O & C) here at Kennedy Space Center (KSC). Single line service is a big change to us since we have been accustomed to one number rolling over to several different numbers. New phone numbers have been assigned to the following: H. Robert Spiess (321-861-8422), Creighton A "Terry" Terhune (321-867-4874), Mary Halverstadt (321-867-4863) and Kris Nighswonger (321-867-4873).
- Badging preparations are being made for TDRS-I arrival in September. TDRS will be processed in Spacecraft Assembly and Encapsulation Facility (SAEF-II) then transported to CCAFS Atlas PAD 36 for launch. October 29, 2001 is the scheduled launch date for TDRS-I.
- Several "Small Payloads" have been badged and trained for payload processing in the Multiple Payload Processing Facility (MPPF) and Space Station Payload Facility (SSPF). These payloads are scheduled for STS-105 and STS-108. STS-105 has a launch date of August 9, 2001 (launched 8-10) and STS-108 launch is scheduled for November 29, 2001.
- The KSC Web site has been expanded for launch coverage to include downloadable video of launch-related activities. Video

(MAP Continued from page 1)

lecting and analyzing the data.

Heather Keller, MAP Business Mgr/Code 410.2

GOES-M Also Successfully Launched

At 3:23 in the morning on July 23 GOES-M was successfully launched from Cape Canaveral Air Force Station, Florida aboard a Lockheed-Martin Atlas IIA rocket. On August 12, the solar array and magnetometer boom were successfully deployed.

An advanced environmental satellite equipped with instruments to monitor Earth's weather and a telescope to detect solar storms, GOES-M will monitor hurricanes, severe thunderstorms and other extreme weather conditions. A Solar X-ray imager will be used for the first time to forecast weather due to solar activity. GOES-M will provide a fully capable spacecraft in on-orbit storage, which can be activated on short notice to assure continuity of services from a two-spacecraft constellation. The spacecraft was built and launched for NOAA under technical guidance and project management by the GOES-M Project, Goddard's Flight Programs and Projects Directorate.

QuikTOMS Set for a September Launch

Mission background and scientific objectives of QuikToms were extensively presented in the most recent edition of The Critical Path in preparation for a then-planned July launch from Vandenberg Air Force Base, California. An orbital Taurus 2110 Launch Vehicle will carry one primary payload (Orbview-4 spacecraft) and a secondary payload (QuikTOMS).

The QuikTOMS mission, now scheduled for a September 15th (no earlier than) launch, is to continue to collect global ozone data which began in 1978 with the Nimbus-7 TOMS instrument. Con-

tinuous observation of global ozone past the year 2000 is critical to monitor the expected recovery of ozone as levels of chlorofluorocarbons decrease from their current maximum as a result of the Montreal Protocol limits.

Primary scientific objectives of the TOMS instrument are to determine long term changes in the global distribution of atmospheric ozone, understand the processes related to the "ozone hole" formation, and improve understanding of processes that govern the generation, depletion, and distribution of global total ozone.

TIMED Scheduled for a December Liftoff

The first mission in NASA's Solar Terrestrial Probes Program (STP), TIMED (Thermosphere, Ionosphere, Mesosphere, Energetics and Dynamics) is part of NASA's initiative to provide more frequent access to space to systematically study the sun-Earth system while also lowering mission costs. A two-year mission, TIMED will study the effects of the sun and human-induced activities on the Mesosphere and Lower Thermosphere/Ionosphere - a gateway between Earth's environment and space. It will focus on a portion of this atmospheric region located approximately 40-110 miles above Earth's surface, studying its basic structure and how energy is transferred into and out of the area.

Applied Physics Laboratory designed and built TIMED and will operate the spacecraft as well as lead the project's science effort. The mission is sponsored by the Office of Space Science and is managed by Goddard's Flight Programs and Projects Directorate (Code 460 - STP Program).

TIMED was recently shipped from APL in Laurel, MD to Vandenberg Air Force Base, California where it will be launched aboard a Delta 7920-10 from the Western Test Range.

The Editor

Mentoring Update

On Thursday, August 9, the Directorate met to conduct a six-month evaluation of the Mentoring for Success Program. The purpose of the meeting was to gain some insight from the participants perspective as to what is working and what is not with respect to the program and to obtain suggestions and recommendations for doing things differently.

Attendees were asked to break into small groups and brainstorm suggestions and ideas around 6 areas: the matching process; follow-up training/education activities; improving communication; aspects of the program that are working and should continue; aspects of the program that could be improved; and what a successful mentoring program would look like to the participants.

Many good ideas and recommendations were shared with the entire group. These recommendations will be summarized and shared with everyone in the Directorate in the near future. If you were unable to attend the meeting, but have some thoughts about the Program that you would like to share, please contact Terri Yancy at X5566.

Terri Yancy, Assistant to the Director
(400) for Professional Development

(TinTypes Continued from page 3)

people interfaces. Harry feels very privileged to be responsible for the POES satellites because of their importance to the nation in forecasting the weather and averting disasters. This is also a great source pride and satisfaction for him. He feels very privileged to have a truly outstanding team of competent individuals working with him on POES. From resources to technical everyone is top notch.

Life before POES: Harry's GSFC career began as a contract employee in 1967. He joined NASA in 1968 working for one of the nicest guys ever, Roland VanAllen in Code 720 of the Engineering Directorate. Harry designed command and data handling system hardware for the IMP and Small Scientific Satellite (S³) Projects. A highlight during this early part of Harry's career was the launch of the S³ Satellite from the San Marco Platform off the coast of Kenya, Africa in 1971. Harry eventually moved from building flight data systems to electrical systems and integration and test work in Code 730. He was the Electrical Systems Manager for the OSS-1 payload on the third flight of the Space Shuttle. This was in the very early days of the Shuttle and it was very exciting for him to physically integrate control panels for the GSFC payload into the Aft Flight Deck of the Shuttle and to train the two-man crew on the operation of the hardware. In 1982 Harry left GSFC and took a position at the National Bureau of Standards (now NIST) as a Group leader doing research in robotics. This was extremely interesting work and gave Harry the opportunity to learn about robotics, the world of manufacturing and what life is like in a pure research environment. In 1987 GSFC got the Flight Telerobotic System (FTS) project and Harry saw an opportunity to combine his newly acquired knowledge of robotics with his previous knowledge of spaceflight hardware. He came back to GSFC as DPM for FTS and became the project manager in 1989. Unfortunately, FTS was not completed due to Space Station funding limitations (sound familiar?). Harry went from there to managing the TIMED Project and then to POES in 1994.

Fun: Harry enjoys reading, listening to jazz, traveling with his wife Jody and boating. He had a sailboat for 18 years and now bums rides on other people's boats as often as possible. He is a great lover of the Chesapeake Bay and hopes to do some volunteer work to help preserve the Bay when he retires.





Things You Should Know About

NEBA Does It Again!

For the fourth straight year the NEBA Board of Directors has voted for another return of premium (basic life/spouse) in the amount of nine pay periods (34%). To be eligible members would have to be in the plan for at least one year as of May 31, 2001. NEBA, (NASA Employees Benefit Association) is NASA's own insurance program and predates the Federal government's FEGLI by two years. Next year's Board of Directors annual meeting will also mark the 50th anniversary of this outstanding insurance plan.

NEBA offers basic life/double indemnity/dismemberment insurance for all NASA civil servants (including part time and co-op employees) as well as spouse and children (free under age 19) coverage. Also available is additional optional insurance and a travel/accident (24-hour coverage) plan. You may join NEBA at any time during the year; there is no specific open season

NEBA was established in 1952 "for the sole purpose of providing low-cost group insurance to NASA employees and conducts its business for the mutual benefit of its members and their beneficiaries and not for profit."

For more information on NEBA you may call any of the following officers at Goddard:

Secretary Treasurer - Mary Eileen Leszcz (Code 403) 6-8254

Vice President - Khrista White (Code 113) 6-8208

President - Howard Ottenstein (Code 403) 6-8583

At Wallops please call:

President - Lisa Johnson (Code 120W) 1410

Vice President - Evoralyn Thomas (Code 157W) - 1054

Howard Ottenstein/Editor

President/Goddard NEBA Chapter

"TIME TO STOP THE ABUSE"

"No One Deserves to be Abused" is the title of a small brochure prepared by the Goddard Committee for Working to End Domestic and Family Violence. Their contention, as is mine, and most other people is that it is "Time to Stop the Abuse." Problem is, the only ones who don't agree with these feelings are the abusers themselves. The brochure describes domestic (or family) violence and specifically points out that it is a workplace issue too, and no longer just a private one. It describes the many symptoms/actions of abuse and tells you categorically how to protect yourself both at home and at work. The brochure also tells you who to contact for help. It offers pointers to employees as to how to help someone who is being abused and ways to offer support in the workplace as well as things not to do. Call the Employee Assistance Program at 301-286-4600 for a copy of the brochure and for additional information and/or assistance.

Identity Theft: Don't Be A Victim

What have you done lately to protect your identity? Today, more and more people are falling victim to a new sort of crime, identity theft, and if it happens to you it could affect your family, your job, even your health.

Here is important information to help you protect your identity, particularly your Social Security number.

(Identity Theft Continued on page 7)



Things You Should Know About

(Identity Theft Continued from page 6)

If you think someone is misusing your Social Security number, call Social Security's Fraud Hotline at 1-800-269-0271. Also file a report with the Federal Trade Commission (FTC) Identity Theft Hotline by calling 1-877-IDTHEFT (1-877-438-4338). The FTC tracks complaints and will refer your complaint to the appropriate law enforcement agency to investigate and prosecute the identity thief.

In addition to the help you'll get by contacting the fraud hotlines, Social Security can:

- Help you correct your earnings records, if it is compromised,
- Issue a replacement card, if your Social Security card was stolen,
- Determine whether you need a new Social Security number, and
- Give you information on how to contact each credit bureau and creditor to remove incorrect information from your credit record. Social Security cannot fix your credit records.

You can help prevent identity theft by keeping your Social Security number and card in a safe place. Do not carry your Social Security card with you.

You can get information about identity theft and what you need to do from the leaflet "Social Security - When Someone Misuses Your Number" (Pub. No. 05-10064). You can get a copy at www.ssa.gov/pubs/#SSN or by calling 1-800-772-1213.

"For Women" now on line

Calling all women! Social Security now has a new website aimed exclusively at women of all ages. Although Social Security benefits are the same for both men and women, there are some situations that women are more likely to encounter because of their different work patterns and lifestyles.

At the "For Women" website, you'll find basic program facts about how retirement, survivors, and disability insurance, Supplemental Security Income, and Medicare benefits can help you or a person you are caring for. Also, by simply selecting one or more categories that best describe your stage in life - a new mother, working woman, divorcee, bride, widow, beneficiary, or caregiver - you can find specific information that affects you. There are also resources available on topics such as -

- Your rights as a divorced wife
- How marriage affects your benefits
- Your family protection
- Special employment situations
- What happens when your marital status changes
- How to change your name, and
- Baby's first number - a Social Security number

"For Women" also provides links to other Federal agency websites for women such as the Department of Labor's "Women's Bureau," the Department of Health and Human Service's "Women's Health," and the Department of Justice's "Violence Against Women Office."

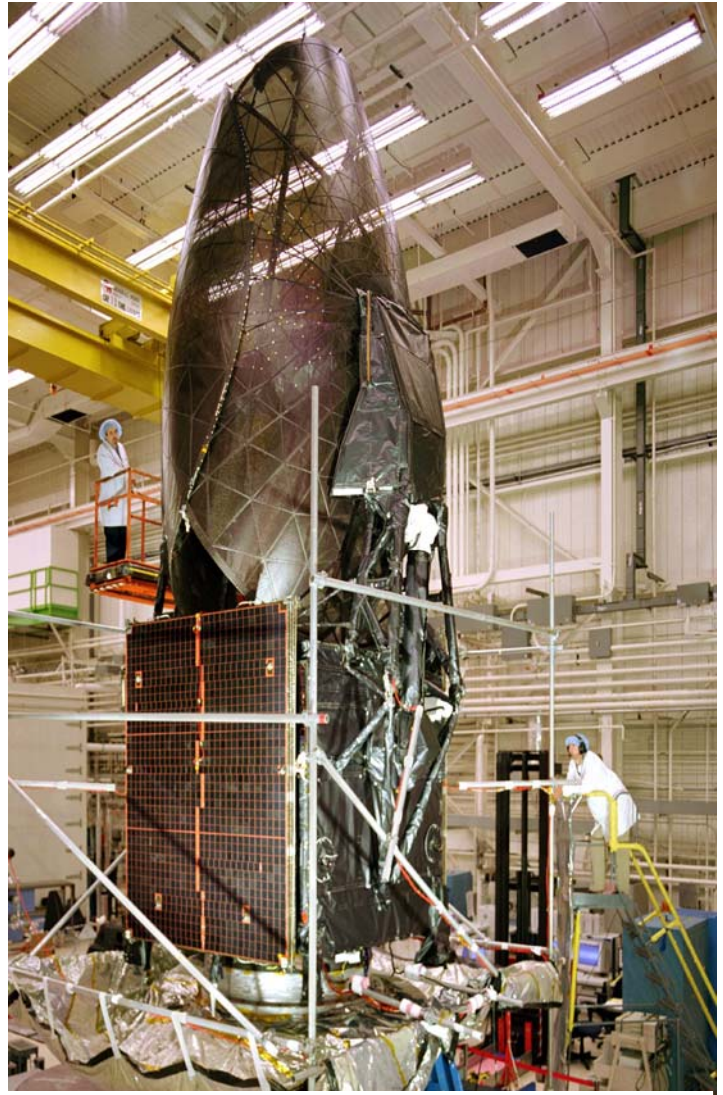
So, whether you are young, middle-aged, or elderly, whether you work now, have worked in the past, or never worked at all, be sure to visit "For Women" at www.ssa.gov/women. And, remember, how much you know about Social Security now can make a big difference in your financial security in later years.

(TDRS-I Continued from page 1)

anticipation of its launch in October 2002. TDRS Project is responsible for the development of three replenishment satellites designed to augment the fleet of TDRS spacecraft currently supplying many of NASA's space communications requirements. These new satellites, termed TDRS H, I, and J, are being produced in a multi-phased effort. After a successful launch in June 2000, the TDRS-H satellite underwent extended on-orbit spacecraft testing and checkout, which was completed in the late spring of 2001. NASA and Boeing Satellite Systems, Inc. (formerly Hughes Space and Communications) are currently working to reach a final acceptance disposition of TDRS-H. In parallel with the on-orbit checkout of TDRS-H, Code 454 staff have been overseeing the development of TDRS-I and -J. Project members learned much from the TDRS-H launch and on-orbit checkout processes, and are applying these lessons to subsequent phases of the TDRS Replenishment Program. For example, engineers have made minor modifications to the TDRS-I and -J spacecraft that will improve system performance. Although the TDRS H, I, J Replenishment Program is in its prime, NASA has already begun thinking about the need for additional data relay spacecraft to maintain the Space Network even further in the future—from 2010 and beyond. For additional information, please visit our web site at <http://tdrs.gsfc.nasa.gov/Tdrsproject/>, or contact Robert W. Jenkins via email at rjenkins@pop400.gsfc.nasa.gov, or by telephone at (301) 286-8520.

TDRS-I Spacecraft Undergoes Final Testing and Launch Preparation

The TDRS-I spacecraft is currently located at the Boeing facilities in El Segundo, CA, and is being prepared for the October 2001 launch. Recently, Boeing engineers successfully completed a set of en-



TDRS-I Spacecraft on the Vibration Table at the Boeing Facility in El Segundo, CA, Photo courtesy of Boeing Satellite System, Inc.

vironmental tests (thermal vacuum, vibration, and acoustic tests) on the spacecraft. TDRS-I is now undergoing Final Integration System Testing (FIST), which should be completed at time of publication. After FIST, the spacecraft will undergo the flight finalization process, where the spacecraft is mechanically configured for launch. During this process, grounding checks are performed, flight ordnance is installed, and the thermal blankets are properly attached to ensure they do not interfere with deployables such as the Single Access Antenna
(TDRS-I Continued on page 9)

(TDRS-I Continued from page 8)

nas (SAA). The solar wings, which were removed after vibration testing to allow for deployment tests of the Space-Ground Link (SGL) and Forward Omni antennas, will be re-installed, and electrical verification tests and squib continuity tests will be performed. Engineers will determine the mass properties of TDRS-I, and "spin balance" the spacecraft. Finally, in late September, TDRS-I is scheduled for shipment to Kennedy Space Center for launch on an Atlas Centaur IIA.

Like its sister satellites TDRS-H (launched in June 2000) and TDRS-J (launch date currently October 2002), TDRS-I incorporates new features that will enhance the aging TDRS constellation already in existence. The TDRS-H, I, J spacecraft make use of an innovative SAA reflector design. The two large SAAs are folded like a taco for launch, and then unfurled early in the geosynchronous transfer orbit to prevent them from taking a set. This cost effective "spring back" antenna design successfully enabled the replenishment TDRS to incorporate antennas with the specifications required to support Ka-band communications, offering customers a significant increase in the available throughput.

The single access reflectors on TDRS H have been successfully tested on-orbit, and fully meet the specifications for Ka-band operations. The Ka-band frequency is also compatible with the frequencies utilized by many Japanese and European spacecraft; therefore the MSP will have the opportunity to expand its customer base with this new capability.

TDRS-I differs from its predecessor TDRS H in one respect—engineers have modified the sun shield that protects the multiple access phased array antenna elements. This new design has been verified to assure that the sun shield will provide the necessary thermal and electrostatic discharge protection.

As the launch date for TDRS-I rapidly approaches, both Boeing and NASA staff continue to work to

ensure the spacecraft is ready to launch.

For more information, contact Jeff Gramling via telephone at (301) 286-6652, or by email at jgramlin@pop400.gsfc.nasa.gov.

Lyle Tiffany, DPM/R, Code 454



June 2000 launch of the TDRS-H Spacecraft

Logo Contest Status

The proposals are all in for the Code 400 new logo contest. A call for judges was released and oversubscribed within a few hours of its issue on August 8. Initial meeting of the panel will take place later in August. The name of the winning artist and a picture of his/her logo will appear in the next issue of The Critical Path.

Video Streaming on Lessons Learned Segments Now On Code 400's Career Development Web Site

A series of "lessons learned" video segments are now on the Code 400 Web Site under the URL: <http://fpd.gsfc.nasa.gov/cd/video.html>.

These segments come from a series of NASA's Program/Project Management Initiative videos featuring key GSFC Project Management personnel involved in specific GSFC missions. NASA Headquarters created these videos for training purposes.

Even though the subjects of these videos deal with lessons learned from past GSFC projects, the information imparted is relevant now and may remain so in the future.

Through these "lessons learned and experiences shared" videos, some of GSFC's most successful Project Management personnel have left NASA with a valuable legacy of knowledge, insights, and experiences. The series of GSFC Program/Project Management lessons learned videos includes:

Profile of a Project Manager, features *Jerry Madden*.

Lessons Learned on the Solar Heliospheric Observatory (SOHO) Project

Interviewees:

- *Dino Machi, SOHO Deputy Project Manager*
- *Dr. Jan Gervin, SOHO Instrument Systems Manager*
- *Dario Galappo, SOHO Systems Manager*
- *Richard King, SOHO Deputy Project Manager, Resources*
- *Bill Worrall, SOHO Ground Segment Manager*
- *Dr. Art Poland, SOHO GSFC Project Scientist*

Lessons Learned on the International Ultraviolet Explorer (IUE) Project

Interviewees:

- *Gerry Longanecker, IUE Project Manager*
- *Charles Fuechsel, IUE Operations Manager*
- *Ken Sizemore, IUE Spacecraft Manager*
- *Dr. Al Boggess, IUE Project Scientist*


These "lessons learned/experiences shared" videos are broken into segment links each having a title and description. This way a viewer does not have to view the entire video to find a specific area of interest. Just click on the link of your choice and bring up the subject that you want to view.

To use this learning tool, your computer must have a *sound card/speakers* and a *video viewing application* such as *Windows Media Player*. To download a **free** copy of Windows Media Player bring up the URL: <http://www.microsoft.com/windows/windowsmedia/en/download/default.asp>.

Should these videos prove useful to Goddard employees, additional videos on GRO, UARS, ISEE-3, and ICE may be added to the web.

Judith Grady Hamburg, QSS/400

Kudos for The Critical Path



“I have meant to let you know how much I appreciate receiving your publication. It keeps me up on the news from GSFC & the status of the Projects. It reads well.”

**Thanks,
Jack Knox, POMD Division Chief,
Retired**




“I really appreciate getting “The Critical Path”. It’s great to get all the Project news.”

**Thanks,
Ron Muller, AMAO Group,
Retired**



“So that I can continue to enjoy the hot news from GSFC, please change my mailing address.”

**Thanks,
Jon Busse, Chief (former) Engineer-
ing Division, Retired**



“Enjoy The Critical Path. It provides a lot of information and a good way to keep up with both the people and programs/projects at Goddard. Thanks.”

**Ron Browning, Code 400 (PM)
Retired**

Take a Bow

"This letter is to extend my appreciation for the outstanding support provided by Mr. Michael L. Weiss to the ongoing IRRs of the ISS flights. Mike's expertise in the areas of system engineering and operations has greatly contributed to the success of the IRR team in providing a value-added review of the very ambitious and complex set of assembly missions that comprise Flights 3A through 7A.



Independent assessment is a key element in assuring mission success. In this case, the assessments provided by the IRR team have been especially important considering the intense operational tempo of the ISS Program. The assembly missions reviewed by the IRR team to date have been a resounding success. Mike's support has been a factor in ensuring these successes."

Congratulations to Mike for a job well done!"

Roy Watson, Acting Director, JSC to A. Diaz, Director

"I would like to take this opportunity to express my appreciation for the outstanding support provided by Mr. Robert Menrad to the ESSP3 Mission. As a way of introduction to the ESSP3 Mission, Mr. Menrad agreed to participate in the Ground Segment Technical Interchange Meeting (TIM) conducted at Langley Research Center June 19-22, 2001. His detailed knowledge of ground systems and mission operations from previous and current missions provided invaluable insight to aid in the development of the ESSP3 ground segment. He participated in discussions that ranged between high-level concept of operations, schedules, mission anomaly management, and documentation to more detailed technical discussions concerning the actual implementation of the design.

In addition to Mr. Menrad's strong technical expertise, his experience in working with international partners and sensitivity to their culture contributed significantly to the success of the TIM. Working with Centre National d'Etudes Spatiales (CNES) has proven to be a challenge, but Mr. Menrad's technical competence was quickly recognized by the entire team including the participants from CNES. This coupled with his obvious desire to help the mission be successful greatly enhanced his effectiveness. Also, his recommendations concerning staffing and other programmatic areas are being implemented.

Please pass on to Bob our sincere thanks for a job well done. We realize that he is very busy in his current assignment, but we would appreciate any assistance that he can provide in the future."

Jerry R. Newsom, Director Project Implementation Office, Langley Research Center, to John Campbell, Director, FPPD

(Take a Bow Continued on page 13)

(Take a Bow Continued from page 12)

Take a Bow

“I would like to take this opportunity to express my sincere thanks for your hosting the MSFC Cost Control team during their visit to GSFC in June. Upon returning to MSFC, both Frank Mayhall and Bill Simpson reported a number of ideas that have definite potential for application at MSFC.

The information that you and Karen Blynn shared with the team concerning GSFC’s business processes was extremely informative. Please convey my thanks to Nancy Rinker and Lisa Carroll for the logistics surrounding the coordination of the team’s transportation and lunch.

The Cost Control team will be presenting their recommendations to Center management in the near future. We will provide you with the results of MSFC initiatives that improve our cost control. Thank you again for sharing your business practices and processes with us.”

David K. Bates, Chief Financial Officer, MSFC, to Diane Williams, Deputy Director for Business Management, FPPD

Quotes of the Quarter



“We didn’t lose the game; we just ran out of time.”
-Vince Lombardi -



“Flattery is like a cigarette—it’s all right so as long as you don’t inhale.”
- Adlai Stevenson -

Balloon Launches Provide Value for Scientific Dollars

Congratulations to David Rust and his Johns Hopkins University Applied Physics Laboratory colleagues for their balloon launch of the Flare Genesis Telescope to study the sun ("Scientists open an eye on the sun," Jan 11).

But congratulations are also due NASA's Goddard Space Flight Center in Greenbelt and their Balloon Project Office at Wallops Island, Va., for their successful lift and low-cost access to the edge of space.

Often unsung, the Balloon Project Office has developed the art of lofting scientific payloads by balloon for space observations at a fraction of the cost of satellite launches.

That's important for budget-hungry university programs, because balloons offer an opportunity to recover expensive research equipment so it can fly again.

The high-altitude balloon program is one of the lowest profile NASA missions, but, in terms of scientific returns, one of the best values for a taxpayer.

William Graham, Galena, 1/21/00

It is a rare day when a letter is printed in the Baltimore Sun about Goddard, unless it happens to be from the Editor of The Critical Path. As such, despite the fact that it was written last year,

Critical Path Social News

W edding

Nita Aandarud-Curry (Code 420) and David Jilek were married on the beach in St. Thomas, Virgin Islands, on May 14, 2001.



B irth

Maggie Hagen (Code 441) and husband, Kyle, became proud grandparents of their first grandson on March 27, 2001, at 3:58 p.m., Hunter Christopher Hagen.

Mother and son are doing great. He weighed in at 7 lbs. 12 ozs. And was 21 1/4 inches long. Hunter joins 2 older sisters, Summer 4, and Taylor 2 1/2.

Taylor is already trying to help mommy dress and feed her baby brother!



Kimberly Wilson (Code 480) would like to introduce you to her new baby boy. Jordan Tyler was born on Tuesday, July 17, 2001. He weighed 7 lbs. 8 1/2 oz., and was 20 inches long. Baby and Mom are doing fine.

Code 400 All Hands Meeting Peer Awards Picnic September 19th



Agenda:

- 1-3 All hands meeting with guest speaker Karen Stinson
Topic: Common Goals - Diverse Perspectives
- 3-4 Peer Awards Ceremony
- 4 Picnic

Tickets:

Dorene Honeycutt x 7003

Nancy Rinker x 5895

Picnic:

\$5.00/Person

Hamburgers, Hot-dogs,

Chicken, Beer, Sodas





NASA HONOR AWARDS HONOREES (CODE 400)



The 2001 NASA Honor Awards Ceremony was held at GSFC on August 8, 2001. Noted below are awards to Code 400 employees.

Group Achievement Award

Earth Observing System Terra Project/421

"In recognition of the Terra Project's exceptional performance in the development, launch and activation of the Terra Mission."

Rate Sensor Unit Development Team/442

"In recognition of your dedication and professionalism exhibited by the SM3A Rate Sensor Unit Development Team that resulted in an extremely successful HST servicing mission 3A."

Compton Gamma Ray Observatory Team/444

"In recognition of your exceptional skill in designing, planning and executing the successful ground controlled de-orbiting of the Compton Gamma Ray Observatory (CGRO)."

Tracking and Data Relay Satellite H Project Team/454

"In recognition of your dedication, professionalism, and outstanding efforts in the development and launch of the first replenishment TDRS."

Public Service Group Achievement Award

Earth Observing System AM Program Team/421

"In recognition of Lockheed Martin's outstanding performance in the development, launch and activation of the EOS Terra Observatory."

Hubble Space Telescope Pointing Control System Team/422

"In recognition of your outstanding achievement and extraordinary long hours in restructuring and executing the rendezvous HST servicing mission 3A directly contributing to the success of the mission."

Public Service Medal

Curtis C. Fatig/Orbital Sciences Corporation/441

"In recognition of your extraordinary support of the Hubble Space Telescope (HST) servicing mission test effort."



NASA HONOR AWARDS HONOREES (CODE 400)



Exceptional Achievement Medal

Raynor L. Taylor/420

"In recognition of your outstanding and exemplary leadership in the creation of the interagency NASA/NOAA/DOD NPOESS Preparatory Project, a joint mission for the benefit of the earth science community and civilian and military operational meteorological communities."

Anthony J. Gainsborough/441

"In recognition of your leadership in the vision 2000 reengineering of the Hubble Space Telescope, placing NASA at the forefront in ground systems and mission operations, and achieving significant cost savings."

Albert G. Vernacchio/441

"In recognition of your outstanding leadership and dedication in the operations development and mission execution of HST servicing mission 3A."

Outstanding Leadership Medal

Anthony B. Comberiate/410

"In recognition of your outstanding leadership resulting in the successful development and launch of the TDRS Mission."

Christopher J. Scolese/420

"In recognition of your outstanding leadership in guiding the development and recovery of the Earth Observing System to successful launches in 1999."

Dorothy C. Perkins/423

"In recognition of your outstanding leadership in recovering from the EOS ground system and its current successful implementation."

2000 Presidential Rank Recipients

The President of the United States of America has conferred on the following the rank of Meritorious Executive in Senior Executive Service for sustained superior accomplishments in the management of programs of the United States Government and for noteworthy achievement of quality and efficiency in the public service.

Christopher J. Scolese/420
Dorothy C. Perkins/423
Frank J. Cepollina, Sr./442

DIVERSITY—WHAT IT'S ALL ABOUT

Just what is diversity? We've been hearing about it a lot these days at Goddard. The Deputy Center Director, Bill Townsend has taken on the additional role of diversity champion and is meeting with supervisors around the Center to talk about the Business Case for Diversity and bringing his message of why it's important to Goddard. But more than just sharing his vision, Mr. Townsend holds a dialog where supervisors share their thoughts on diversity and discusses issues regarding the full utilization of our workforce. In his very first roundtable dialog with supervisors, Mr. Townsend met with over forty Code 400 supervisors. He has since met with cross-Center supervisors and continues to hold these roundtables in smaller groups of about twenty supervisors.

So what is diversity? Diversity means bringing people with different racial, ethnic, cultural and other backgrounds to bear on a problem. These different perspectives result in new ways of viewing a problem and offer new solutions to the problem. When considered this way, diversity makes good management sense - making best use of available resources to achieve the goals and objectives of the organization. It is about constructively using those things that make us different and unique that reach far beyond generalized group descriptors such as age, sexual orientation, race, and gender and ability. At Goddard, we extend the definition to include secondary characteristics such as skill code, grade level, geographic location, military experience, income, first language, religion, family status, and education. It's definitely not Equal Employment Opportunity (EEO) or Affirmative Action. It is about looking for ways to include all employees where everyone is seen as an individual, rather than as a member of a specific group and everyone has access to the same resources to accomplish the Goddard mission.

Recent census data show the U.S. workforce is becoming more diverse. At Goddard, we recognize that to remain a world-class organization and communicate with and gain the commitment of diverse stakeholders in supporting NASA's mission, we must mirror the diversity of the population we serve.

Our commitment to diversity can be seen in the creation of the Diversity Council, chaired by Deputy Center Director Bill Townsend and whose membership includes the Deputy Directors of, and in the hiring of the Special Assistant for Diversity to focus diversity activities and strategies.

The Council has begun numerous initiatives at Goddard to attain our goal. They include:

- Development of a 3-year Strategic Plan for Diversity
- Development of a metric on the diversity of work teams in which Directors of will report on the diversity of work teams chartered by their directorate beginning in FY '02 to determine if and how we are utilizing our diverse workforce.
- Recent completion of Phase A of the Diversity Dialog Project (DDP), an innovative facilitated dialog program to increase employees understanding of diversity issues in which seventy employees participated. We are working with the facilitators to analyze major trends noted, discuss Lessons Learned and plan considerations for continued implementation.
- Integrating a Quality of Work Life (QWL) program to help employees handle work and family issues, develop a friendly workplace/work life, and provide for a well-balanced and stress-reduced environment.

(Diversity Continued on page 19)

(Diversity Continued from page 18)

- Implementing the recommendations from the Culture Survey Analysis Team (chartered to examine results from a diversity perspective).
- Improved communications through the development of a diversity website, reporting on diversity activities at the All Hands meetings, periodic reports in Goddard News, and through directorate Diversity Focus Groups.

Having a world-class work force is vital to the long-term survival of Goddard and diversity can enhance motivation by creating an atmosphere in which each employee is respected and their contributions are recognized. Most importantly, diversity brings together different experiences and perspectives that will churn up the innovation and productivity upon which Goddard's success depends on. Therefore we must embrace our differences and take the first step towards making Goddard an Employer of Choice.

You can read more about diversity at Goddard by visiting the diversity Website at <http://diversity.gsfc.nasa.gov/> or by contacting the Special Assistant for Diversity, Sharon Wong at 6-0475 or by email at Sharon.M.Wong.1@gsfc.nasa.gov.

Sharon Wong, Special Assistant for Diversity, Code 100
Bryan Lau, Code 100

Editor's Note: This article was recently published in the Goddard News. Nevertheless, the full article is printed here as a service to The Critical Path's many readers who may have missed this important message.

Abe Silverstein

Abe Silverstein, 92, a pioneer in space research who came up with the name Apollo for the missions that put the first man on the moon, died of congestive heart failure June 1 at his home in Fairview Park, Ohio, a Cleveland suburb.

Mr. Silverstein was director of the NASA Lewis Research Center in Cleveland from 1961 to 1969. He also directed efforts leading to the Mercury space flights while working for NASA's predecessor, the National Advisory Committee for Aeronautics (NACA).

"He was a man of vision and conviction," NASA Administrator Daniel S. Goldin said. "His effective leadership ... directly contributed to the ultimate success of America's unmanned and human space programs, and his innovative, pioneering spirit lives on in the work we do today."

Mr. Silverstein, who also helped establish Goddard Space Flight Center, was known to some as Goddard's "unofficial" first Center Director. As such, he participated in Goddard's 30th anniversary celebration with most of the other former GSFC Center Directors in 1989.



FUTURE LAUNCHES CALENDAR YEAR 2001	
QUIKTOMS *	SEPTEMBER
TDRS-I	OCTOBER
HESSI **	OCTOBER
GRACE	NOVEMBER
TIMED	DECEMBER

* Launch no earlier than 9-15-01

** Launch of HESSI on hold pending future review of Pegasus launch vehicle

ATTENTION INTERNET BROWSERS:

We're on the WEB
[http://fpd.gsfc.nasa.gov/
news.html](http://fpd.gsfc.nasa.gov/news.html)
 Or via the New "Code 400"
 Homepage
<http://fpd.gsfc.nasa.gov>

The Critical Path

Published Quarterly by the Flight Programs
and Projects Directorate

— In February, May, August,
and November —

Howard K. Ottenstein,
Editor

Nancy L. White,
Production Assistant

Paula L. Wood,
Editorial Assistant

If you have a story idea, news item, or letter for The Critical Path, please let us know about it. Send your note to Howard Ottenstein via Email: hottenst@pop400.gsfc.nasa.gov, Mail: Code 403, or Phone: 6-8583. Don't forget to include your name and telephone number. Deadline for the next issue is October 31, 2001.