

A FLIGHT PROGRAMS AND PROJECTS DIRECTORATE QUARTERLY PUBLICATION

A Newsletter Published for Code 400 Employees

# INSIDE THIS ISSUE:

NPOESS (NPP)	Page 1
Project Management Challenge	Page 1
Message From The Director Of	Page 2
Tintypes	Page 3
Feedback	Page 3
Technology Corner	Page 6
Quotes of the Quarter	Page 7
Project Management Letters	Page 9
Project Management Champions	Page 10
RSDO Office	Page 12
E-Payroll	Page 13
FYO4 Financial Audit	Page 15
Gold Standard	Page 15
MESSENGER to Mercury	Page 16
PMDE	Page 16
Please Stand Up	Page 17
Awards	Page 18
Public Service	Page 20
Diversity Activities	Page 21
Cultural Tidbits	Page 22
Comings & Goings	Page 23
Social News	Page 23
Launches	Page 24
Peer Awards	Page 24

# The NPOESS Preparatory Project (NPP)

NPP is different. We don't fit the standard Goddard project management approach. We're an inter-agency partnership with no senior partner. We don't even have a slick NASA acronym for a project name. N-P-P; each letter pronounced separately. Formal correspondence and presentations spell it out: the National Polar-orbiting Operational Satellite System (NPOESS) Preparatory Project. No one on the project can say it without thinking through each word; it just doesn't roll off the tongue. The name is descriptive, but certainly not sexy.

(NPP Continued on page 4)

# "Meeting the Project Management Challenge"

The First Annual NASA Project Management (PM) Conference: "Meeting the Project Management Challenge", hosted by GSFC and sponsored by Academy of Program and Project Leadership (APPL), was a resounding success by all accounts. If you were not able to make it to the PM Conference at the University of Maryland University College Inn and Conference Center on March 30-31, 2004, you missed an excellent event (ask anyone of the 700 attendees). This conference was conceived, initiated and co-chaired by Dorothy Tiffany, SEU/NMP Program Business Man-

(PM Challenge Continued on page 8)

Page 2 The Critical Path

# Message from the Director Of

When the last TCP was published, we had just learned about the President's announcement of the new exploration vision for NASA. Since then, the bold framework for exploring the solar system has been described in a brochure, The Vision for Space Exploration, that you all should have received. I urge you to read it, if you have not already. It lays out our guiding principles, as well as a roadmap for exploration. It speaks, too, to the transformation that we must undergo as an Agency to achieve the new vision.

At Goddard, we are participating in the exploration vision in numerous ways. Prominent among them is our leadership of the Robotic Lunar Exploration Program, where we are mapping out the overall architecture for the lunar robotic program, and developing plans for the earliest reconnaissance mission to the moon. An AO for instruments for this first mission is expected very soon, and our science and engineering communities will engage in developing proposals for this exciting opportunity.

We have also been asked to look at the feasibility of robotically servicing the HST. If approved, this mission will extend the life and further the scientific discovery of the HST - a prospect that I find very compelling. It will also serve technology needs of the exploration program, as we develop tools and techniques that advance the state of practice for remote robotic activities, including enabling humans to do complex tasks in harsh space environments through telerobotics.

We have also established a exploration coordination task group at GSFC, led by John Campbell and populated by people from a variety of disciplines. They have developed an integrated map showing how GSFC engineering, scientific and management competencies can support the exploration initiative. Through their efforts, Goddard people are increasingly involving themselves in creating the exploration path forward. Any of you are welcome to submit ideas to this group for their consideration.

On Monday, April 26, we briefed the President's Commission on Implementation of U.S. Space Exploration Policy on our many exploration activities and capabilities. Our presentations were well-received, and the commissioners engaged in much conversation with the presenters and, at breaks, with others who attended the meeting and tour.

Altogether, Goddard is playing a significant role in implementing the new Vision for Space Exploration. Without a doubt, our ability to do this stems from our past successes and our recognized, unstinting efforts to meet our current commitments. We have and will continue to enable exciting and unexpected scientific discovery in all of our activities, and to inspire generations of explorers to come.

Dolly

Page 3 The Critical Path

# PERSONALITY TINTYPES



### David Mitchell

Since 1997, I have been working on the

GOES Program in a series of positions, most recently as the GOES N Series Project Manager and the GOES Deputy Program Manager.



Every day on the job brings a new challenge, particularly working under a fixed price contract on such a complex spacecraft system. With launch coming up in December 2004, we are in the midst of a very active phase on the program (GOES N is in thermal vacuum test, GOES O is just starting system-level environmental tests, and GOES P is in the process of being assembled). My other hat as GOES Deputy Program Manager brings with it the GOES R procurement elements (new spacecraft and instrument designs with first launch planned for 2012). GOES mission is an extremely gratifying one in that you see the fruits of your labor every day in the news as the spacecraft provides information that ultimately saves lives.

Born: Dayton, Ohio (Wright-Patterson Air Force Base).

Education: Bachelor's degree in Mechanical Engineering from the State University of New York at Buffalo and a Master's degree in Engineering Administration from the George Washington University.

Family: My wife Madeline and I reside in Alexandria, Virginia. Madeline scaled back from corporate accounting when our kids came along and now does part time work managing the financial books for Gadsby's Tavern in Old Town Alexandria. We have a daughter, Juliana, who is 6 and a son, Alex, who is 3. We also have two beagles which make for a noisy house-

(Mitchell Tintype Continued on page 20)

### Carmen St. Paul

Carmen St. Paul is the Deputy Project Manager Resources (DPMR) for the Space

Technology 5 (ST-5) project, Code 495

Born: St. Louis, Missouri

Education: Bachelor of

Science, and Masters of Business Administration, Howard University

Family: Carmen is married to Roland St. Paul, a corporate attorney from Grenada, West Indies. They live in Bowie, MD with their two children, Marcus, age 7, and Simone, age 5. Marcus plays soccer and baseball. Simone plays soccer and dances, although Carmen hopes she follows in her footsteps and plays field hockey. Roland, a soccer player in high school, practices with the children. The family enjoys spending their weekends together bicycling, skating, shooting basketball, and playing board and table games.

Life at Goddard: Carmen came to Goddard as a Professional Student Intern (PSI) 16 years ago. She has worked as a resource analyst on the following projects: Satellite Servicing Project (SSP), the former Earth Observing System (EOS) PM project, the Global Geospace Science (GGS) project, and the POES project. She moved on to become a program analyst with the now dissolved Earth Science Systems Program Office (ESSPO). After ESSPO Carmen became a mission business manager with the Earth Systems Science Pathfinder (ESSP) project where she started working part-time. After three years on ESSP, she accepted a financial manager position with the NPOESS Preparatory Project (NPP). A year later, Carmen was offered her current position as DPMR for ST-5. She is a recent graduate of the Project Management Development Emprise (PMDE) program to which she gives much credit, along with

(St. Paul Tintype Continued on page 20)



GSFC Resident Office at KSC

- SWIFT Ground Operations Working Group (GOWG) met on May 6, 2004. Payload and processing teams will arrive at Cape Canaveral Air Force Station (CCAFS) in July. Hanger AE on CCAFS is the payload processing facility and launch is scheduled for early September.
- Earth Orbiting System (EOS) Aura Pre-ship Review was attended by Terry Terhune in El Segundo, California. Arrival of the Aura payload and payload processing teams at Vandenberg Air Force Base was supported by Mary Halverstadt. The Aura payload is scheduled for launch in June, 2004.
- Attended and participated in the STEREO payload Mis-Working sion Integration Group (MIWG) meetings here at KSC. Presented a GSFC Resident Office presentation identifying the services provided for payload teams coming to KSC.
- CALIPSO (Cloud Aerosol Lidar Infrared Pathfinder Satellite Observation) Mission Integration Working Group (MIWG) was held at KSC. KSC was selected for this meeting because of it's more convenient location to all of the companies and foreign

(FeedBack Continued on page 20)

Page 4 The Critical Path

(NPP Continued from page 1)



Understanding NPP can't occur without a general understanding of the "N" in the project's name. NPOESS was conceived during the early years of the Clinton administration, when someone made the astute observation that the Federal Government was building and operating two separate systems to take low-earth orbit weather measurements, and that money would be saved by "converging" them into a single system. NOAA's POES series of meteorological satellites (which Goddard has built for years) and DoD's Defense Meteorological Satellite Program (DMSP) were initially identified to converge into the new system. Along the way, NASA's EOS system was brought into the mix, so that a single national system would be used for all polarorbiting environmental satellite observations for short-term weather forecasting and long-term climate research. The convergence signaled the beginning of the end for the EOS, POES, and DMSP programs.

Since NPOESS would meet the needs of all three agencies, a new organization was established to develop and operate the system. The NPOESS Integrated Program Office (IPO) was created as an administrative entity of NOAA, but working with a significant amount of independence to meet the varied needs of NASA, DoD, and NOAA. All

three agencies furnished staffing to the IPO, but funding is only provided by DoD and NOAA on a 50-50 basis. All three agencies provided requirements for the new system, and after a great deal of negotiation, the basic requirements for NPOESS emerged. Technology requirements, schedules, and budgets were developed, and the acquisition process began.

NPP was actually an afterthought in the planning for It was conceived in 1998 when both NASA and the IPO recognized that there would be a significant benefit to both organizations by flying several critical NPOESS instruments prior to completion of the operational system. For NASA, NPP would fill a significant gap in data acquisition between the expected end of life for the Terra and Aqua satellites and the first operational NPOESS satellite. This gap would disrupt the collection of the planned long-term data set for climate research. The IPO saw an opportunity for pre-operational risk reduction by building and testing most of its critical NPOESS instruments, science algorithms, and related ground processing systems while predecessor NOAA and DoD systems were still operational. As the result of this mutual interest, a joint feasibility study began in November, 1998, and Mission Formulation was approved a year later.

Neither organization could afford to fund NPP independently, so a unique partnership was established. Each partner would contribute portions of the mission "in-kind", with no exchange of funds. The IPO would provide three of the four NPP instruments, satellite control and data processing systems, and operations. NASA would provide the fourth instrument, the spacecraft bus, launch services, and overall spacecraft and system integration. NASA would also provide any additional science data processing capabilities required for its unique climate research requirements. We would each fund and manage our own contracts for providing these components. Essentially, each partner would get the benefit of a bil-

(NPP Continued on page 5)

Page 5 The Critical Path

#### (NPP Continued from page 4)

lion-dollar system for approximately half that cost. The arrangement is very simple to describe, yet very difficult to manage.

Goddard's typical management model for supporting NOAA activities has been the GOES and POES programs, where NOAA is the customer and provides the requirements and funding, and Goddard builds and delivers the product. It involves plenty of customer/supplier dissension, but the roles are generally understood. Those of us in NPP management view that model with considerable envy. Although NASA is the designated mission integrator, we don't have overall project management authority. Major NPP decisions are made in conjunction with the IPO, since most of these decisions will impact the operational NPOESS satellites and ground systems as well as NPP. What's best for NPP might not be best for NPOESS (and vice versa), and the overall impact to the government must be considered in all decisions. Although we're equal partners, the relationship can be likened to dancing with an 800 pound gorilla: we can lead all we want, but it works best if our partner wants to go in the same direction we do.

Given the need for concurrent engineering and management between the organizations, day-to-day project activities can be a real challenge. We're integrating cultures from two very different government organizations and multiple contractors. The effort frequently involves a great deal of aggravated discussion and finger pointing, but hasn't vet resulted in punching, biting or scratching. Despite this, a heroic amount of cooperation and common sense eventually prevails, and real progress is being made. All parties recognize that any one of us can be responsible for a mission delay or failure, but only all of us working together can assure mission success. Joint project management is a lot like making laws and sausages-it's better not to know too many of the details about how it's accomplished.

### Now for the facts and figures:

NPP will carry four instruments: the Visible Infrared Imager Radiometer Suite (VIIRS), which will provide global observations of land, ocean, and atmospheric parameters; the Cross-track Infrared Sounder (CrIS) and the Advanced Technology Microwave Sounder (ATMS), which will combine infrared and microwave data to measure atmospheric temperature, moisture, and pressure profiles; and the Ozone Mapper/Profiler Suite (OMPS), which will monitor global ozone levels. The IPO will provide VIIRS, CrIS, and OMPS, and NASA will provide ATMS. NASA also provides the spacecraft bus, the launch vehicle, a Science Data Segment, and overall mission integration. Other IPO contributions include the ground-based flight control system, an Interface Data Processing Segment, and mission operations. NOAA/NESDIS will provide an archive capability for all NPP and eventually NPOESS data.

NPP was "confirmed" by the NASA Program Management Council in November, 2003, and is now officially in its implementation phase. All instruments have completed CDR, and are well into building and testing their Engineering Development Units. The spacecraft bus is being fabricated, and will be ready to start instrument integration at the beginning of 2005. Launch is planned for the fourth quarter of 2006. The NPP satellite will have a mass of 1976 kg, and be launched into a 824 km sun-synchronous polar orbit by a Delta 7920 launch vehicle. Data downlink will be to an IPO polar ground station at Svalbard. Ken Schwer is Goddard's NPP Project Manager, and Bryan Fafaul is his Deputy.

George Barth
Deputy Project Manager/Resources/429

Page 6 The Critical Path



# Technology Corner



# WORKING TOWARD AUTONOMOUS, SCIENCE-DRIVEN CAPABILITIES

Increases in spacecraft onboard processing and storage capabilities, as well as increases in data accumulation rates, are inspiring NASA operations staff and scientists to re-evaluate the idea that all science must be done entirely on the ground.

NASA's science missions have traditionally operated by managing scheduled priorities and scientific processing from the ground – with significant human interaction – and by downloading and archiving all gathered scientific data, regardless of its scientific value. Enabling instruments to make "decisions" when presented with interesting or anomalous science situations could increase science return and open new possibilities for streamlining data-gathering.

However, before this could become possible, some obstacles needed to be addressed. These included being able to schedule observations flexibly, including enabling an observatory to adapt dynamically and autonomously to a changing schedule or set of observing priorities. And from a new technology standpoint, it also meant capturing science goals in a machine-interpretable format that would enable instruments and observatories to react – to essentially make their own, event-driven decisions.

### Science Goal Monitor (SGM)

Toward this goal, a team at Goddard's Advanced Architectures and Automation Group (Code 588) is developing the Science Goal Monitor or SGM – a prototype software tool for implementing science goal driven automation in missions.

SGM is a tool set that captures the underlying science goals of an observation and translates those goals into a machine-interpretable format which can be appropriately and autonomously acted upon by the observatory. SGM is adaptable to many types of phenomena that can require rapid response to temporal events, including, but not necessarily limited to, gamma ray bursts, forest fires, floods and volcanic eruptions.

#### Collaborations

To prototype and test SGM's dynamic scheduling capabilities, the Goddard team is collaborating with Yale University's Small and Moderate Aperture Research Telescope System (SMARTS), a ground-based consortium. This partnership has enabled the team to model initial scenarios. The next step is to consider the problem of dynamically scheduling an observatory's observing plan. NASA's ASPEN scheduling system (Chien et al. 1999) developed at NASA's Jet Propulsion Laboratory will be used to generate the observing plan.

The SGM team also recently completed a series of prototype Earth science demonstration tests using NASA's EO-1 satellite and Aqua/Terra's MODIS instrument. In a forest fire demonstration, SGM served both as a science analyzer and as a multi-mission coordinator. SGM monitored active priority fires from the Remote Sensing Applications Center in Utah. When a fire in the scientist's specified region of interest was detected, SGM analyzed the recent history of the fire from the MODIS Rapid Fire data to isolate the latest center of activity. SGM then coordinated with the EO-1 planning systems to request and monitor a high-priority high-resolution image of the fire.

(Tech Corner Continued on page 7)

Page 7 The Critical Path

(Tech Corner Continued from page 6)

SGM's coordination and analysis provided new data to the US Forestry Service within 48 hours, compared to a typical lead-time of up to 14 days for preplanned observations.

#### Conclusion

Developing a tool that enables NASA spacecraft to achieve flexible scheduling and autonomously react to science-driven events is not just a leap forward in automation, but a change in paradigm. If you would like to learn more about SGM, or if you would like to take the leap forward and incorporate SGM into your program, please contact team representative Sandy Grosvenor at 301 286-6676, or by email, sgrosven@pop500.gsfc.nasa.gov.

#### For More Information

To view a list of recent accomplishments, and to learn still more about SGM, please visit the SGM web site: <a href="http://aaaprod.gsfc.nasa.gov/sgm/index.html">http://aaaprod.gsfc.nasa.gov/sgm/index.html</a>

### To Learn More About:

SMARTS, go to: http://www.astro.yale.edu/smarts/

E0-1, go to: <a href="http://eo1.gsfc.nasa.gov">http://eo1.gsfc.nasa.gov</a>

MODIS, go to: <a href="http://modis.gsfc.nasa.gov">http://modis.gsfc.nasa.gov</a>

Remote Sensing Applications Center in Utah, go to: <a href="http://www.fs.fed.us/eng/rsac">http://www.fs.fed.us/eng/rsac</a>

Lisa Callahan/Deputy Chief/Code 502

# Quotes of the Quarter

"I have witnessed a whole succession of technological revolutions. But none of them has done away with the need for character in the individual or the ability to think."

- Bernard Baruch, Advisor to Presidents (1870—1965) -

"Probable impossibilities are to be preferred to improbable possibilities."

- Arístotle (384—322 B.C.) -

"It takes a long while to grow young."
- Pablo Picasso (1881—1973) -

"I am a marvelous housekeeper. Every time I leave a man, I keep his house." - Zsa Zsa Gabor (1917 - ) -

"Th' safest way 't double your money is t' fold it over once an' put it in your pocket." - Abe Martin (a cartoon character [1905-30] created by Kin Hubbard) -



Page 8 The Critical Path

(PM Challenge Continued from page 1)

ager (Code 490) and Walt Majerowicz, Integrated Program Team Lead (IPTL) on the Program Analysis and



**PMC COMMITTEE** 

Back (Left to Right): Steve Xander (Code 490), Lynn Wyatt (Code 460 / CSC), Leslie Allen (Code 490 / SGT), Dorothy Tiffany (Code 490), Walt Majerowicz (Code 490 / CSC), Kevin Miller (Code 493)
Front (Left to Right): Colleen Rapp (Code 442 / SGT), Trish Johnson (Code 490 / SGT), Sandy Adorney (Code 490 / SGT), Diane Trakas (Code 490 / SGT), Marge Rich (Code 490)

Control (PAAC) contract. They were ably assisted by a dynamic group of Goddard employees, both civil servant and contractor (for further details see the article on page 10.)

There were a number of reasons why Dorothy and Walt proposed the initial concept of the conference to Center management. The NASA Project Management community has experienced a rapid growth in the number and variety of projects managed, while at the same time facing the challenges of an aging and reduced workforce. The

NASA Strategic Human Capital Plan refers to the rising demand for experienced talent and a decreasing number of people to fill key positions. The Columbia Accident Investigation Board (CAIB) report cites the lack of integrated management across program elements. This conference was developed to allow an intensive examination of current trends as well as to provide a forum for knowledge sharing and exchange of lessons learned. By attracting attendees from all experience levels of our civil service and contractor workforce, it establishes an important link between NASA's world class experts and our emerging leaders for tomorrow. The word got out! More than 700 employees from each of the NASA field centers (including JPL), NASA HQ, other government agencies and the private sector flocked to the conference.

### Conference goals were to:

Enhance understanding of the integration of the cost, schedule, risk, safety, and technical aspects of projects; Introduce the latest project management tools and techniques;

Provide a team building forum for learning;

Promote professionalism in project management;

Hear expert speakers from government and industry, and

Address management implications of the CAIB Report.

### The workshop consisted of:

Seven tracks with a wide variety of topics including international project management, risk management, earned value principles, cost and schedule analysis, full cost, and more.

(PM Challenge Continued on page 9)

Page 9 The Critical Path

#### (PM Challenge Continued from page 8)

Keynote speakers included: Mr. A. Thomas Young, former GSFC Center Director and former President and COO of Martin Marietta; Dr. Michael Greenfield, Associate Deputy Administrator for Technical Programs @ NASA HQ; and Mr. Doug Cooke, Deputy Associate Administrator, Exploration Systems Office, NASA HQ.

Thirty vendor/exhibitors including NASA APPL, Microsoft, Swales Aerospace, The Southwest Research Institute, The Project Management Institute, and Humphreys and Associates.

Panels consisting of four to five experts each, who spoke briefly about their experiences/views on a particular topic, then responded to questions and feedback from the attendees.

There was an enormous amount of energy throughout the event, enthusiasm abounded with the largest complaints being that there were too many choices and not enough time for many of the sessions (the organizers view these as positive complaints).

Congratulatory comments (see examples below) have been pouring into the Center's management and to the organizers themselves from all over the Agency. Feedback has been so positive that planning for the Second Annual NASA Project Management Conference has already been initiated at NASA HQ's.

For additional information please visit the conference's web site: http://pmchallenge.gsfc.nasa.gov.

Kevin N. Miller/DPMR, EO-1/LISA/Calipso Projects/Code 493

# Project Management Conference (Congratulatory Letters)\*

### Dolly Perkins, Director of Code 400 to Dorothy Tiffany, Code 490

"I can't tell you how many people have congratulated us on the project management conference. Herein is another one. You must be feeling extraordinarily proud, as you should. Congratulations, again, for a job so well done."

### William Townsend, Deputy Director of GSFC to Walter Majerowicz, Code 490

"I thought that it was a great conference and that you and Dorothy and your team did a great job of organizing and running it. FYI, I did the VITS this morning with NASA Senior Management and I highlighted the conference, citing it as a true "oneNASA" event and thanking some of the key senior folks that were involved. Looking forward to it again next year!"

### Kam Ghaffarian, Executive VP/COO, SGT, Inc. to Dorothy Tiffany, Code 490

"I am sending this email to commend you and your team for an extremely informative and well run conference. One of the best run conferences that I have attended. I am delighted that SGT and PAAC team could support you in this very successful project. I also enjoyed myself as a panel member and will be honored to participate in future years."

(PM Conference Letters Continued on page 10)

Page 10 The Critical Path

(PM Conference Letters Continued from page 9)

### Liam Sarsfield, Deputy Chief Engineer of NASA to Dorothy Tiffany, Code 490

"There would never have been the opportunity to chat about these issues openly unless you and Walt had taken the helm and moved the agenda forward. It was a terrific conference, the first of what I hope will become a key forum for NASA managers to speak to other NASA managers at all levels. Our Agency is heavily stovepiped and has so many different products that it's easy to get lost in the confusion..... Real improvement happens when managers and their working troops maintain an open dialog and don't shy away, at times, from confrontational issues. You've created a very effective forum and I think that everyone was pleased to have the chance to attend - they'll come back next year in large number!"

Jon (Mike) Smith, Space Operations Commercialization Manager-MM/Space Shuttle Business Office/JSC to Dorothy Tiffany, Code 490

"Outstanding conference. I stayed till the very end as new information was still forthcoming..... An amazing conference."

\* There were so many letters of applause for the PMC that the editor had to subjectively decide upon only a handful to publish. Incidentally, not one letter of criticism could be found among all those received.

# Meet the Project Management Champions

Those of you who attended "Meeting the Project Management Challenge" at the University of Maryland on March 30 & 31 probably saw a few frantic Goddard people with ribbons attached to their name tags. They were everywhere! You saw them introducing the conference speakers, handing out tokens of appreciation to panel members, collecting feedback cards, giving directions, answering questions, checking out audiovisual equipment, and in general doing the hundreds of things it takes to run a smooth conference. Those people were the conference team's track coordinators, panel moderators, and organizers. What you did not see was the hard work and time that these people put into preparing for the conference, in order to make sure that it would be a good experience for you.

When conference chairs Dorothy Tiffany and Walt Majerowicz started to put together the conference program, they naturally sought out speakers who were tested NASA veterans, consultants, and industry experts, people with long and distinguished histories who could share knowledge and lessons learned. Most of these people, it turned out, were of the NASA generation that is approaching the end of its government service. Dorothy and Walt wanted to make sure that the future generations of NASA played a role in the conference. That desire led to their selection of the members of the team.

Dorothy and Walt sought out people who were early in their careers, people who showed promise and who were representative of the generation that will lead NASA in the future. Dorothy and Walt saw the conference as an opportunity for these people to learn and grow professionally, while simultaneously demonstrating their ability and potential. They also made sure that these folks were fully prepared when the doors at the University of Maryland Conference Center swung open at 6:30 AM on March 30.

There were innumerable planning meetings in which team members were told what they were expected to

(PM Champions Continued on page 11)

Page 11 The Critical Path

#### (PM Champions Continued from page 10)

do, and how to find the means to do it. Every person clearly understood the vision of the conference, and their role in that vision. Every resource they needed to do a good job was identified and provided. For many of the track leaders and panel moderators, the prospect of speaking in front of a large group of people was the most intimidating aspect of their assignment.

Bill Gallagher, Debbie Dusterwald, and Jim Ronning of the GSFC Program Analysis and Control (PAAC) contract graciously offered the services of the PAAC Toastmasters group to help turn these folks into eloquent speakers. For several Fridays in a row, the team members and PAAC coaches met at lunch to practice, rehearse, and build confidence. The results were outstanding.

I asked some of the team members what the highlight of their experience was. Almost all commented on the opportunity to meet new people, to get to work with the distinguished speakers, and to become part of a team. One said that she had "developed lasting friendships". Another told me she "quickly felt part of something special, working with everyone on the team". One more felt honored "to be entrusted with such a big responsibility". My favorite comment was from the person who was happy to see the entire team "survive without drowning".

The public speaking requirement was what made most people apprehensive. One person told me she was "most nervous about screwing up my introductions". Someone else said "Thank goodness there was a podium so no one could see my knees knocking!" But it was clear that the practice sessions with our friends from PAAC had paid off. People told me that they were "anxious but not nervous", that "once up there, I was surprisingly comfortable", and one emphatically declared "We were prepared!" Another added "It was more nerve racking to practice to the Toastmasters than to do the introduction during the conference".

The team members also made it clear that this was a growth experience. They told me "I learned a lot and improved myself", "I faced my fears and overcame them", "It helped me get out of my comfort zone and refine my skills", and that "I am more confident now". One expressed that she felt that she "shared something special with a lot of good people". I was delighted that several times I heard the comment "I had a lot of fun!" Another person made the very true observation that "the success of an effort is based on teamwork". This group made a marvelous team, and the results showed.

Every single person expressed an interest in helping out again. Based on my personal knowledge of Dorothy and Walt, I expect that these offers will be accepted.

So if you if attended the conference and want to know who made it possible, look for the following people around the center: Dorothy Tiffany, Walt Majerowicz, Colleen Rapp, Marge Rich, Diane Trakas, Sandy Adorney, Steve Xander, Trish Johnson, Kevin Miller, Shanta Arur, Tony Cazeau, Jane Langan, Vickie Moran, Kim Tann, Jahi Wartts, John Baniszewski, Jennifer Dickens, Delontae Jenkins, Jane Liu, Tabitha Merchant, Linnette Morales, Sean Oneil, Tykeisha Rice, Jeanine Simpson, Jeff Slade, Carmen St. Paul, Mark Wu, Leslie Allen, Dwight Norwood, David Jacintho, and Lynn Wyatt.

It was a pleasure for me to be a part of the team. I had a ball.

John Baniszewski/Code 490

Page 12 The Critical Path

### THE RAPID SPACECRAFT DEVELOPMENT OFFICE

The Rapid Spacecraft Development Office (RSDO), Code 406, is a flight mission support office at the God-



dard Space Flight Center. The RSDO is unique in that it is a government-wide agent for the rapid procurement of pre-qualified domestic and foreign commercial spacecraft. Any government agency/department or non-government organization working in conjunction with the U.S. Government, such as a university science instrument team, can take advantage of the RSDO contracts and processes. The RSDO significantly reduces the spacecraft procurement time and mission implementation risk. The RSDO spacecraft are made available under Indefinite Delivery Indefinite Quantity (IDIQ) firm fixed price core contracts and are purchased via Delivery Orders to the core contracts.

The core contract terms and conditions are modifiable and can be flexibly tailored to meet customers' needs.

The RSDO maintains a catalog of the available spacecraft. The catalog currently includes 21 spacecraft from 8 aerospace companies: Astrium; Ball; Lockheed-Martin; Northrop-Grumman; Orbital Sciences Corporation; Spectrum Astro; Surrey Satellite Technology Limited, and Swales. Collectively they have a payload mass and power capability ranging from 10 kg/10 W to approximately 800 kg/800 W. To be placed in the catalog, all spacecraft designs must have been built, tested and, at a minimum, successfully mated and interface tested with a launch vehicle. Currently, all catalog spacecraft have successfully performed on orbit. The catalog includes pre-priced options for design capability and services enhancements. In addition to the fixed-price options, all 21 spacecraft designs are modifiable to meet mission specific requirements.

The spacecraft procurement from the release of the final Request for Offer to the signing of the Delivery Order can be completed in 60 to 90 days. All spacecraft delivery orders include full prime contractor services including program and quality management, systems engineering, spacecraft build and test, interface integration and ICD development, payload integration and test support, observatory testing, delivery to launch site, launch vehicle integration support, and on-orbit checkout. In addition to a spacecraft, the contract provides for the procurement of payload accommodation studies, mission operations support, launch vehicle/launch services, sustaining engineering, and spacecraft components/subsystems. Spacecraft design studies can be particularly useful to the customer who wants to find the best payload accommodation or is in need of solidifying mission and interface requirements prior to release of a spacecraft contract.

Major missions that have developed via RSDO delivery orders include: QuikToms; QuikScat; ICESat; Coriolis; SWIFT; GLAST, and NPP. Additional information can be found on the RSDO web site, <a href="http://rsdo.gsfc.nasa.gov">http://rsdo.gsfc.nasa.gov</a>.

Gregory F. Smith/Chief/RSDO/Code 406 Arthur M. Unger/Acting Associate Chief/RSDO/Code 593 Page 13 The Critical Path





# e-Payroll Is Appearing on the Horizon

### What is e-Payroll?

NASA has partnered with Department of the Interior's (DOI) National Business Center (NBC) to provide the Agency with an integrated personnel/payroll system, and has initiated an Agency-wide e-Payroll Project to work with NBC to transition from NASA's current personnel and payroll system to the DOI system. The transition is scheduled to take place in early August 2004.

### Why is NASA implementing e-Payroll?

The President's February 2002 budget submission to Congress outlined a management agenda for making government more focused on citizens and results, which includes expanding Electronic Government or e-Government.

The e-Government Strategy includes several high-payoff, government-wide initiatives to integrate agency operations and information technology investments. One of these initiatives is the e-Payroll Project. It involves selecting the four biggest payroll providers from among the current 22 provider agencies and moving all agencies to the four providers for cross servicing.

The four provider agencies are:

Department of Defense, Defense Finance and Accounting Service (DFAS)

General Services Administration (GSA)

Department of Agriculture, National Finance Center (NFC)

Department of Interior, National Business Center (NBC)

NASA selected the Department of Interior, (NBC), as its provider due to its advanced capabilities and anticipated ease of migration from the NASA Personnel and Payroll System (NPPS). Unlike other providers, DOI offers an excellent personnel system that is integrated with its payroll system, so NASA will be replacing NPPS in its entirety.

### What Are The Benefits?

NASA believes this new integrated system will provide improved efficiencies to not only the Agency, but the government community at large. The ability to consolidate and standardize payroll data across the Federal government will establish a standard, integrated HR/Payroll architecture that will:

(e-Payroll Continued on page 14)

Page 14 The Critical Path

(e-Payroll Continued from page 13)

Eliminate redundancies in payroll processing;

Reduce costs (estimated \$995 million in savings), and

Develop a solid foundation for achieving visions outlined in President's e-Government strategy.

### How Does e-Payroll Impact You?

Transition to the DOI system will impact mainly OHR and Payroll personnel who have to change systems, processes, and even job roles as a result of this implementation; however there will be some aspects that will affect NASA employees:

Leave & Earnings Statement will be in DOI's format and mailed to your home or you can view it online at <a href="https://www.employeeexpress.com">www.employeeexpress.com</a>;

Mandatory use of Employee Express to view/change payroll and personnel data;

Online Completion of SF52/50 Actions by Managers/Administrative Staff;

Employment verifications should be initiated by the employee directly through the TALX Work Number website, (<a href="https://www.worknumber.com">www.worknumber.com</a>) or via Employee Express;

Tight Integration of FPPS with WebTADS, NASA's time and attendance tool, and

Employees will receive two W2s the first year, one from FPPS and one from NPPS.

## When Will e-Payroll Changes Take Effect?

Core FPPS system and mandatory use of Employee Express is expected to be implemented at GSFC on August 08, 2004

After January 2005, the automated SF52 process will be incrementally rolled out to managers and their support staff within the directorates.

### **How Do I Found Out More?**

You can receive more information about the e-Payroll rollout at GSFC in the following ways:

Please email all questions and/or comments to the e-Payroll Project Team at epayroll\_smes@listserv.gsfc.nasa.gov, and

Visit the GSFC e-Payroll website at <a href="http://ifmp.gsfc.nasa.gov">http://ifmp.gsfc.nasa.gov</a>, then Click on "e-Payroll Website".

Contact Felicia M. White, GSFC e-Payroll Change Manager, at ext. 4-6964.

Page 15 The Critical Path

# GSFC Prepares for FY04 Financial Statement Audit

As Goddard gears up for the upcoming financial statement audit, you can assist in numerous ways. The GSFC audit liaison team, consisting of Jon Wolz, Susan Trelease, Betty Pyles-Harris and Michelle Thomas will be contacting key people in the directorates, asking for points of contact in procurement, logistics and the resources community.

The audit process will begin with an initial visit from the Ernst and Young (E&Y) auditors and folks from Headquarters Code B during the third week in May. During their day long visit, the auditors will meet with GSFC senior level executives Al Diaz, Center Director; Bill Townsend, Deputy Center Director; and Nancy Abell, Chief Financial Officer (CFO), taking a tour of GSFC and seeing all of the exciting work that GSFC does. Their objective is to meet and greet with GSFC senior execs and to better understand GSFC's mission.

After the initial meeting, the audit will begin in the Regional Finance Office (RFO). The full GSFC audit team will consist of the Center Director (or his representative), the CFO, Deputy Chief Financial Officers, RFO managers, and other managers from Procurement and Logistics, members of the Resources community, and representatives from HQ and NMO. After introductions, an overview of the audit process will be discussed as well as internal controls.

During their audit review many topics will be examined including Theme Assets (Assets in Space), Fund Balance with Treasury, performance measurements, budget, revenue, procurement, contracts, accounts receivable, accounts payable, cash receipts, cost, grants, property, travel and payroll.

Note that this year the audit is due by November 15, 2004 – two and a half months earlier than last year. What does that mean to GSFC? It means that we will need to use June 30<sup>th</sup> as the basis for the audit samples. We will begin pulling samples in July instead of late fall/early winter. The precise audit plan has not been released yet.

Impact to the resources community may include providing copies of reconciled records to the audit team, meeting with the auditors upon request and answering any questions. As always, there will be a short turnaround time. Your assistance and compliance to the auditor's requests will be much appreciated.

How can the resources community help?

Please make sure that your records and documentation to support the audit are in order (i.e. 533 reports).

Any costs over obligations are researched, reconciled, resolved and documented.

Attend the Audit workshops to be held in June.

If you are called upon by the audit team, please respond in a timely manner.

Should you have any questions, contact Susan Trelease (6-4404) or Betty Pyles-Harris (6-5512).

# A Gold Standard of Another Kind

In order to address Goddard Space Flight Center's (GSFC) critical reporting needs in the new IFM world, a Tiger Team consisting of GSFC's BW Report Team (Joleen Bottalico-Center Report Lead) and end-users from across the directorates (including program/project management representation) was established. Recognizing that many of the issues related to reporting dealt with the usability of Business Warehouse, the Tiger Team created GSFC's "Gold Standard Reports" website. This website contains 17 of the most frequently executed queries, including standardized Monthly Status Reporting and Full Cost reporting, with simplified instructions, links to job aids containing graphical and textual walkthrough information (i.e. filtering and exporting)

(Gold Standard Continued on page 16)

Page 16 The Critical Path

# **MESSENGER** to Mercury

NASA's MESSENGER (MErcury Surface, Space Environment, GEochemistry, and Ranging) Mercury orbiter spacecraft is undergoing final preparations for launch at the Kennedy Space Center (KSC). MESSENGER will be the first spacecraft to orbit Mercury. It presently is scheduled for a late July launch aboard a Boeing Delta 2 rocket.

Designed and built by the Johns Hopkins University's Applied Physics Laboratory (APL), the spacecraft is equipped with seven instruments intended to gather information on the composition and structure of Mercury's atmosphere, crust, core and poles. Goddard Space Flight Center is responsible for two of those instruments. Arlin Bartels (429) is instrument manager for the Mercury Laser Altimeter under the stewardship of code 500. Dave Smith (920) and Maria Zuber (MIT) are Principal Investigators.

Dr. Mario Acuna (695) is responsible for a small magnetometer. Mission PI is Dr. Sean Solomon, of the Carnegie Institute, Washington, DC.

The spacecraft will also make two flybys of Venus as well as three of Mercury prior to entering orbit around Mercury in 2011. Originally scheduled for launch in May 2004, the launch was delayed two months to conduct additional tests of the health monitoring software aboard the spacecraft.

## Five Graduate PMDE

At a brief ceremony on March 18 in the Code 400 suite, Dolly Perkins, Director of Code 400 presented graduation certificate/plaques to Carmen St. Paul (495), Caroline Massey (200), Mark Seidleck (492), and Ron Brade (210). Jaya Bajpayee (415) was unable to attend. Others present were Diane Williams (Director/200) and Krista Paquin (Deputy Director for Planning & Business Management/Code 400).

The five graduates join 33 others who have graduated from the Project Management Development Emprise (PMDE) program since its inception in 1990. There are currently 16 active participants. It is anticipated that a call for another class will be announced early in 2005.

### (Gold Standard Continued from page 15)

and a crosswalk between the Gold Standard Reports and its legacy equivalent (to enhance familiarization of the report contents). The Gold Standard Reports website was demonstrated at the Standard Management Reporting Team (SMRT) workshop in Huntsville that was held on March 9-11, 2004. A CD-ROM containing the Gold Standard Reports website was distributed to the Report Leads, who were in attendance at the SMRT workshop

The BW Reporting team has and will continue to conduct hands-on BW/SAP report training sessions and open houses. Commencing May 13; workshops will be scheduled the 2nd and 4th Thursday of the month in the Aerospace Building RM 914 (9:30-11:30). CFUpdate message will be forthcoming. See web-site at. http://ifmpbw.gsfc.nasa.gov to use the Gold Standard reports.

Page 17 The Critical Path

# Will The Real George Morrow Please Stand Up

Before After

Well as most of you might have surmised, both pictures show Code 400's Deputy Director George Morrow, albeit at different times during his career at Goddard Space Flight Center. Therefore, as George has never been accused of shyness, it is likely that in answer to the question posed above, both George Morrows would spring to their feet.

Desperate to fill space in this issue of The Critical Path, brought on by a few last minute cancellations of promised contributions (hazards of the business and quite understandable), the Editor theorized that perhaps a survey could be held. Both pictures of George recently crossed his desk, and being an aspiring editor of The New York Times, he had long since learned to keep every bit of information for a possible future news story. With that in mind the idea of a survey, or poll if you will, was conceived.

All code 400 employees, civil service, contractor, and co-located may enter. Simply inform the editor whether you prefer George with or without his mustache. Please identify yourself. Not because we'll tell George and bring your job into jeopardy, but merely to let us know that you only voted once. After all, this is a key vote, which could impact on George's career at the Center.

We will publish the results in the next issue of The Critical Path (approximately mid-August). However, knowing the keen interest in this matter, a special edition may be prepared shortly after the proposed cut-off date of responses (June 18).

George has straightforwardly acknowledged that if the vote favors 'no mustache", he will immediately implement the decision of the work force. However, if the vote goes the other way, he has indicated that no guarantee can be given at this time as to whether or not he will carry out this mandate.

Let's hear from you. Call (6-8583) or send an e-mail to Howard.K.Ottenstein@nasa.gov by June 18.

Page 18 The Critical Path



# Goddard Annual Awards April 28, 2004

### Code 400 Recipients

### Roberto Aleman/480

"For your outstanding service as the Polar Operational Environmental Satellites (POES) MetOp Manager."

### Erik Andrews/492/Swales

"For sustained, outstanding technical and leadership contributions to the GLAST Project leading to extremely successful spacecraft to instrument interface development, instrument designs, spacecraft design and Mission design."

### Craig Bickford/452N/HSTI

"In recognition of your outstanding support to the Hubble Space Telescope Project through your work in the Simulations Operations Center."

### Tim Jacintho/441/LMSO

"In recognition of your outstanding leadership as the HST CCS Software Development Manager."

### Van Johnson/415/QSS

"In recognition of your outstanding contributions to the EMI/EMC testing of the GOES instruments and spacecraft that help to ensure the success of the GOES program."

#### Joseph LeBlanc/415

"In recognition of your constant vigilance and improvements on the factory floor to ensure successful delivery of the GOES N, O and P spacecraft."

#### Clelia Walker/415/210

"In recognition of your efforts in implementing significant contract/program improvements to the GOES N Series mission and the GOES R program."

### Dr. Arthur Whipple/492/J&T

"For sustained, outstanding technical and leadership contributions to the GLAST Project leading to extremely successful spacecraft to instrument interface development, instrument designs, spacecraft design and Mission design."

(Awards Continued on page 19)

Page 19 The Critical Path



(Awards Continued from page 18)

### Exceptional Achievement (Group)

### HST WFC3 Flight Software Development & Test Team/441

"For skillfully accomplishing the WFC3 Flight Software development and validation that facilitated cost savings, met all user's needs, and resulted in highly reliable instrument operations."

### JWST Microshutter Technology Development Team/443

"For significant progress in advancing MEMS technology towards spaceflight application."

### LPT CANDOS Team/450

"In recognition of your significant contributions to future NASA missions through the first time flight demonstration of new technologies with the Communications and Navigation Demonstration (CANDOS) experiment on STS-107."

#### WebTADS Implementation Team/405

"The WebTADS Team successfully migrated Goddard's employees to a new technology on the most aggressive schedule in GSFC history for a center-wide change, within one pay-period."

# **Outstanding Management**

#### Arlin Bartels/429

"In recognition of your exceptional leadership of the Mercury Laser Altimeter (MLA) Instrument Development Team."

#### Diane Bittner/405

"For excellent, above and beyond performance as Project Manager for the implementation of WebTADS."

### NASA and Northrup Grumman Receive National Space Club Award

Goddard Space Flight Center and Northrop Grumman Corporation's Space Technology Sector are recipients of the National Space Club's prestigious Nelson P. Jackson Aerospace Award, named in honor of one of the Space Club's founders and past presidents.

(Space Club Award Continued on page 22)

Page 20 The Critical Path

### (Mitchell TinType from page 3)

hold.

Life Before GOES: My love for the space business was nurtured early in that my father was an Air Force pilot and aeronautical engineer who worked with a number of future astronauts and mission controllers in the 1960's. Coming out of college, I started my career with the Navy Department testing solid rocket motors in Indian Head, Maryland. After 3 years I moved to Goddard in 1987 and have been here ever since. Some of my adventures before GOES included flying on an Air Force C-5 aircraft escorting the Cosmic Background Explorer spacecraft in 1989, and being on launch console for many of the Scout, Pegasus, Atlas, and Delta missions in the early/ mid-1990's, including the Mars Global Surveyor and the Mars Pathfinder missions (my personal highlights). I've had the pleasure and honor of working with many incredible people throughout the Agency and on the outside. Thus far, it has been a great ride.

<u>Hobbies</u>: In addition to just keeping up with the kids, some of my outside interests include snow skiing, biking, fishing, attending sporting events and concerts, and having dinner gatherings with family and friends. We also try to get down to the Outer Banks of North Carolina a couple times a year for a little R&R.

### (St. Paul TinType from page 3)

its Board members, for opportunities for personal and professional growth.

Carmen shares the following regarding her experience at Goddard: "My years at Goddard have been rewarding. I have worked with many wonderful people, several of whom I view as mentors. I will always respect and appreciate their guidance and leadership." Carmen strongly believes in helping others. She has adopted her father's philosophy of life summed up in this quote: "As day follows night so shall profit follow service."

<u>Hobbies:</u> Carmen enjoys relaxing, reading, cooking and exercising. Before having the children, she volunteered with the Washington, D.C. public school system. Carmen enjoys helping others and will resume her volunteer work once the children are older.

# Public Service Recognition Week

Public Service Recognition Week was celebrated throughout the nation May 3-9. This has been a time, set aside each year since 1985, to honor the men and women who serve America at Federal, State and local government levels. More than 100 Federal civilian and military agencies & programs were exhibited on the National Mall in Washington, D.C.

### (FeedBack Continued from page 3)

nationals that would be attending. CALIPSO is scheduled to be launched from Vandenberg Air Force Base, California, NET April 2005.

- The "Carrier" team from Orbital Science, SWALES and Associates, and GSFC/NASA attended meetings
  at KSC. Badging was accomplished and many stopped by the resident office while they were at the Center.
- Florida Governor Jeb Bush asked KSC to host the Florida's quarter "launching event" as the U. S. Mint placed Florida's quarter into official circulation. Florida was the 27<sup>th</sup> state to join in this series of collectible quarters. The guests joining the Governor and his wife, Columba, were Sean O'Keefe, NASA Administrator, Samuel Bodmon, Deputy Secretary of the Treasury, and Henrietta Holsman Fore, Director of the U.S. Mint. Approximately 4,000 people at our Visitor's Complex helped to celebrate the unveiling of the Florida quarter.
- Kris Nighswonger received an achievement medal award for her support of the successful flight of the TDRS launched last year. She also received "The Group Achievement Award for Exceptional Achievement on the Tracking and Data Relay Satellite (TDRS) Project Team", signed by Al Diaz.

Mary Halverstadt

Page 21

The Critical Path

\$\ddot{A} \diractarrow \dira

## **UPDATE ON DIVERSITY ACTIVITIES**

In the summer of 2003 a new Center-wide team was born---- the Goddard Diversity Action Team (GDAT). While reviewing the results of Celebrate Goddard Day 2003, the team responsible for this highly successful event was so enthusiastic that it committed to work to have special diversity activities throughout the year, not just on Celebrate Goddard Day---thus the birth of GDAT. Working under the guidance of Sharon Wong, Special Assistant for Diversity, this team devotes a great deal of energy toward the goal of making Goddard a more inclusive place to work.

On March 25, GDAT sponsored the first "Diversity Lunchtime Movie" for 2004. Approximately 70 employees participated in the viewing of the movie "Radio", followed by facilitated dialogue that allowed employees an opportunity to share their perspectives on the movie. Employees were also able to relate their own experiences relative to disabling conditions and how we treat people who are different from us. Given the success of this event, the committee plans to sponsor other diversity related movies on a quarterly basis.

Prior to the viewing of "Radio", Sharon V ang announced the winner of the diversity theme contest sponsored by GDAT. The winner was Code 400's own George Barth, whose winning theme, "Many Faces, Many Places, Many Voices: One Goddard" will be used on all GDAT materials and Celebrate Goddard Day festivities this year. Congratulations George!

GDAT is heavily involved in planning a variety of activities throughout the week of July 26 that lead up to CELE-BRATE GODDARD DAY ON JULY 29. More information will be coming, but here's a preview of what's in store for you:

July 27---GEWA Clubs and contractors will be on the mail along with some entertainment, food vendors, and crafts.

July 28---Drama Day

క్సం కస్పం కస్పం

July 29-- CELEBRATE GODDARD DAY mooths representing each directorate, will be featured on the mall along with many different entertainers, food vendors, and crafts throughout the morning and early afternoon.

्रिक्ष क्षेत्र क्

Karaoke competition among the directorates will take place in the afternoon. Criteria for the presentation will be issued soon, but in the meantime, start thinking of how Code 400 can present its diversity through song, skit, etc. This is always extremely challenging due to time constraints, but hopefully an early start will get our minds in motion

July 31---Community Day

You will be seeing more and more information related to this special week in July as we move closer to the date. Julia Knight, Code 403, serves as the Code 400 representative to the GDAT. She will be happy to relay any thoughts/ideas you have about various activities to the team. Also, please contact her if you have any ideas on how Code 400 can create and win the karaoke contest during the Celebrate Goddard Day competition.

Julia Knight/Code 403

Page 22 The Critical Path

(Space Club Award Continued from page 19)

The award is presented annually for exceptional teamwork between government and industry in the missile, aircraft and space fields. The 2004 award cites Goddard and Northrop Grumman's exceptional efforts in conceiving, developing and operating the original fleet of Tracking and Data Relay Satellites and associated ground control systems, which together comprise the Tracking and Data Relay Satellite System (TDRSS). The award citation includes a statement that reads, "TDRSS has profoundly altered the state of Earth-orbit communications."

The award was presented March 19 at the 47<sup>th</sup> Annual Goddard Memorial Dinner. Phil Liebrecht, Associate Director and Program Manager for Mission Services at Goddard and Deputy Program Manager Roger Flaherty were among more than 2,000 government officials, aerospace executives, space educators and guests in attendance. This is the 12<sup>th</sup> time that NASA has been selected for this distinguished award and the second year running that Goddard has been the recipient.

Accepting the award on behalf of Goddard, Liebrecht said he was absolutely thrilled for the TDRSS team. "This is a tremendous tribute to the hundreds of men and women who have worked for nearly 30 years to make this system a success," stated Liebrecht. Both Flaherty and Liebrecht have dedicated much of their careers to TDRSS and the space community which it serves.

The original TDRSS was comprised of six Northrop-built satellites and their associated ground control facilities. NASA has since built two new ground terminals, upgraded the original one, and procured three replenishment satellites from Boeing Satellite Systems. This sophisticated communications signal relay system transmits voice and television, as well as digital and analog data between user satellites and Earth-based control centers.

According to Flaherty, the service workload on the TDRSS continues to grow. "At this time we are fast approaching eight million minutes of support per year," Flaherty said. Noteworthy, considering that more than two decades later all of the original series spacecraft, with the exception of TDRS-2, which was lost aboard Challenger, are still on orbit and functioning.

"TDRSS is the envy of many agencies," said Flaherty. "Thirty years after its conception, TDRSS continues to be a state-of-the-art communications relay system that is key to enabling our nation's future human, space and earth science missions." TDRSS is "the" link between the Space Shuttle, International Space Station, robotic missions and the ground, providing 100 percent global coverage – anytime, anyplace.

Susan Hendrix, Code 130 (Goddard News March 2004)

## "Cultural Tidbits"

**Did you know** ... that twice as many Britons speak Urdu, Punjabi, or Gujarati as Welsh, the native language of Wales and the U.K.? Since World War II, millions of immigrants from a variety of countries have made the U.K. their home. In response to this trend, there has been an increased emphasis on cross-cultural training as part of U.K. management development.

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

Page 23 The Critical Path

# Comings & Goings

### Comings:

Barbara Patala joins 405/Integrated Financial Management Projects (IFMP) Office from 603 (on detail) Tamara Gordon joins 405/Integrated Financial Management Projects (IFMP) Office

Ron Williams joins 415/GOES Program Office

Joe LeBlanc joins 416/GOES-N Project Office

Nannette Rhoads joins 420/Earth Observing Systems (EOS) Program Office from 870

Doug Campbell joins 443/James Webb Space Telescope (JWST) Project office

Gerry J. Daelemans joins 460/Sun Earth Connection (SEC) Program Office from 870

Pam Trance joins 462/Solar Terrestrial Probes (STP) Program Office from 150

Brent P. Robertson joins 464/Solar Dynamics Observatory (SDO) Project Office from 591

### Goings:

Kimberly A. Brecker resigned from 460/Sun Earth Connection (SEC) Program Office John Robinson retired from 462/Living With A Star (LWS) Program Office Catherine Simkins retired from 427/LDCM Project Office

### Re-Organization:

450/Mission Services Program Office is now 450/Space Communications Program Office

### New Office:

455/MARS Laser Communications Demonstration (LCD) Project Office

# THE CRITICAL PATH SOCIAL NEWS

## **Congratulations**

Felicia Harrison (Resource Analyst in Code 443) was blessed with the birth of her daughter DaRae on March 6, 2004. She weighed 6 lbs, 7 oz., and was 19 inches long. Mother and daughter are both doing well. Congratulations Felicia!

Congratulations to Kellie Murray (Code 403), who was married to Mark Behrle on April 24, 2004, in Las Vegas, NV.

Best wishes to John Robinson (who retired on March 3). His daughter, Erin had a baby girl on April 21, which just happens to also be John's birthday. Meghan Marie weighed in at 6 1/2 lbs., and was 18 1/2" long. Mom, Dad, and big brother Connor (age 5) are all doing well.

Mindy Deyarmin's (Code 440) son and son-in-law have returned from Iraq. Her son, Niko returned to Fort Bragg on April 5th, but told Mindy that he would be returning in mid-May. He surprised her at her home in Bowie on April 22nd. Niko was stationed at an air strip in Habaniyah, just a few miles west of Fallujah. Son-in-law Bryan returned to Fort Hood on April 16th. Bryan's unit was stationed near Baqubah. They expect to redeploy within the next 6 months.

Page 24 The Critical Path



FUTURE LAUNCHES CALENDAR YEAR 2004	
AURA	JUNE
SWIFT	OCT
CINDI	DEC
GOES N	DEC

### PEER AWARDS

Be on the lookout for the first call for nominations for the 5th FPPD Annual Peer Awards program. Ceremony and picnic to be held in September.

# ATTENTION INTERNET BROWSERS:



### 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:

Howard.K.Ottenstein@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 July 30, 2004.