Jet Propulsion Laboratory



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ELACHI'S STATE OF THE LAB TALK ADDRESSES THE BUDGET OUTLOOK AND THE BUSY YEAR COMING UP.

Looking By Mark Whalen

Inspired by the achievements over the past year of JPL's successful operation of 16 spacecraft, two Mars rovers, seven science instruments and three Earth orbiters, Lab Director Charles Elachi told employees in an Oct. 9 address of his confidence in the Lab's coming year and foreseeable future.

"You should feel tremendously proud of what you have done," he told the audience. "We can truly say that the universe is effectively our backyard, our workplace, our playground."

The director also noted his hope for a positive fiscal year 2007 budget for NASA and JPL. NASA's proposed budget, normally passed by early October, is still being considered by both houses of Congress. "The House version includes specific language supporting a number of JPL's missions; the Senate Appropriations Committee also passed the president's budget with slight modifications and included an amendment to add \$1 billion to the NASA budget," he said. A joint House/Senate version of the budget bill is expected to be worked out shortly after the November elections, or the NASA bill may be included in a broader "omnibus appropriations bill" covering many government programs and agencies.

Elachi added that JPL's Space Interferometry Mission (SIM) represents the only area of uncertainty in the proposed budget. "Part of the reason is that NASA decided to fund the airborne observatory SOFIA (Stratospheric Observatory for Infrared Astronomy), which was not in the budget before," he said. "After reviews and further discussion, NASA decided to support SOFIA, which was rated just above SIM in the National Academy of Sciences' academy decadal survey."

Elachi emphasized that NASA has "full intent of continuing with SIM technology development and risk reduction; it is just a question of time and budget to move into implementation. I think this is one of the most important projects for us over the next decade. In my mind, one of the best legacies we can give to the next generation is to be able to say with scientific confidence that there are Earth-like planets around neighboring stars, we can eventually measure their mass and their orbits, and prepare the groundwork for actually imaging them."

The final outcome will have "effectively no negative impact on employment at JPL," Elachi said, noting NASA Administrator Mike Griffin's commitment to 10 healthy field centers. He said NASA Headquarters has indicated that to offset any reductions in the budget, other work would be assigned to JPL, if necessary, to keep it at a stable level of about 5,000 full-time employees.

Further on JPL's budget, Elachi said the burden rate has been increased by 1/2 percent for FY '07, a policy that will be revisited by the end of the calendar year, depending on the final budget. On the other hand, he noted, due to the "very tight management of JPL's institutional and burden budget funds in FY '06," about \$15 million will be rebated to flight projects and other areas, which will more than counterbalance the FY '07 increase.

"We want to make sure our investment in our infrastructure and research and technology development stay at least at the same level as last year," Elachi said. "Last year we had about \$95 million in total investment; in fiscal 2007 we plan for \$97 million.

"All in all, the health of the Lab is in pretty good shape," Elachi said.

Public engagement has always been and continues to be a key part of JPL's work, and Elachi expressed pride in prime coverage of the Lab's recent successes in major newspapers and magazines, the Internet, television broadcasts and other outlets. "The media believes readers are excited and interested in the kinds of things that are done at JPL and NASA. The public loves and values this kind of stuff."

Looking forward to upcoming missions, JPL is preparing for the projected launches of Dawn and Phoenix next summer. Dawn, a NASA Discovery mission scheduled to launch June 20, will investigate Ceres and Vesta, two of the largest asteroids in the solar system. Phoenix is the first mission chosen for NASA's Scout program for smaller, lower-cost, competed spacecraft. It will land on Mars' icy north pole in 2008.

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The director also congratulated the staff of the Deep Space Network for achieving a data return rate of approximately 99 percent. "It's amazing," he said, "considering that NASA said 95 percent coverage would be considered excellent." *Continued on page 4* 





Human Resources Director Cozette Hart discusses the upcoming 9/80 alternate work schedule, which is planned to debut Oct. 30.

How did the 9/80 Alternate Work Schedule come about?

Our 2005 employee survey results showed that employees preferred the 9/80 alternate work schedule option by about four to one over the next top choice of perquisites that potentially could be offered. That was a resound-ing cry for us to explore the possibility of adding more flexibility to the regular work schedules of JPL.

How tough was this to get done? Do you feel it's been tested and is ready now?

Implementing 9/80 has not been as easy as we thought it would be, with the multiple systems that are impacted by it. While it seems simple to allow one day off in each two-week pay period, this effort has required tremendous interaction between Finance, Project Accounting, Payroll, NBS/ Oracle, Human Resources and the Office of the General Counsel. It's been a real team effort in order to make this happen. I want to take this opportunity to specifically commend the NBS team dedicated to this project.

We hope to launch on Oct. 30, although there could still be systems interface issues that surface. Anytime you're making changes to a large Oracle accounting and financial system it isn't an easy task to do. If we have to delay it a pay period to make sure the interfaces work correctly, we will do so. But we are working very hard to make that date.

I have heard that some employees have concerns about how the Regular Day Off (RDO) will work and if we really are serious about allowing employees to have that day off. They think that even though they're on 9/80 they're going to have to come in and work the RDO anyway. It really is our desire that only those projects on mission-critical status, those that are in jeopardy of meeting schedule or projects in assembly, test and launch operations, have people come in and work on the RDO Friday. We don't want people to have to come in as a regular course of business. The director and the Executive Council are fully committed to implementing 9/80, and it is our hope that we can change our work practices so that employees on 9/80 can enjoy the benefit of that alternate Friday off as often as possible.

Non-exempt employees just completed an election that decided their preference for their work groups to participate in 9/80. How did that turn out?

This was a major milestone in the process, where two-thirds of the nonexempt employees in affected units needed to vote in favor of 9/80 for their work group's participation. I'm pleased to report that all units did pass that threshold. The next step in the process is to collect from the directorates each individual employee's work schedule – those who are allowed to work the 9/80 alternate work schedule versus those staying on 5/40.

Although at this point we don't know exactly how many people will be taking advantage of 9/80, all indications are that an overwhelming percentage of the JPL population will do so. We will need to monitor the trend over time as this represents a real change in how we behave and accomplish work.

## If someone who switches to 9/80 finds it doesn't work for them, can they change back to 5/40?

Yes. We are asking that people commit to the switch to 9/80 for at least six months. We don't expect a lot of people to be switching on and off, but we understand that people do have circumstances that would require them to make that change. They will have to submit an Employee Change Information form to Human Resources to be able to change schedules. This can be done fairly quickly, to take effect the following pay period.



Do JPL contractors have the option to participate in 9/80?

No. Our 9/80 plan is for JPL employees only. Contracting companies would have to institute 9/80 on their own.

On the RDO, what about services that may or may not be operating at full strength, such as Security, Facilities, the cafeterias, the JPL Store and others? How is that being decided?

Before we make any final decisions we first have to know how many employees elect to remain on the 5/40 schedule. We will then see how many employees will be required to be here due to business reasons. Once we understand the average employee population on that RDO, we will look to see if we need to adjust the service levels in these areas.

We'll know the initial count by Oct. 16, but we also anticipate that through the holidays we may have different behavior than what we'll have at the beginning of calendar year 2007. After that we should see the work flow settle out to determine what the level of activity on any given RDO will be.

Will there be a potential benefit to JPL, such as reduced utility costs?

It's possible that we will see savings from lower levels of service, but we didn't go into this with the thought of lowering costs. JPL is not shutting down on the RDO. We will always have 24/7 operations and projects that could be in the final stages of delivery. We will evaluate where it might make sense to have reduced services that could result in a savings to JPL but we're not prepared to quantify that at this phase of implementation.

How have alternate work schedules such as 9/80 worked for other companies you have benchmarked?

Some companies offer more flexibility, such as allowing for rotating days off, but we didn't feel this would work for us. We made the decision based on the requirements of our flight projects that we needed to know when people would be here and when they wouldn't be here. So we felt we had a greater chance of success with 9/80 by having a common RDO.

Many companies have found this to be a great retention tool for them. It's a great benefit, as commutes get longer and gas prices remain high, and as people want to spend more time with their families. It's a benefit that appeals to the next generation of workers, in that they have more flexibility with their time while still meeting performance expectations.

There have been numerous demonstrations and classes offered on the new timekeeping system that comes with 9/80. How is that going? Have you found that most people have a good understanding of the new system?

We're very pleased with the high turnout of people who are availing themselves of the training offered on the new timekeeping system as well as the 9/80 policy. We recognize that implementing a new timekeeping system is a big change, and change is difficult. We expect to have some initial bumps, but NBS has trained more than 200 subject matter experts throughout the Lab to help troubleshoot during those initial weeks.

Since 9/80 represents a two-week period of time, will participating employees still be required to submit a timecard every week?

Yes. Nonexempt employees are still expected to record their time daily. For those on 9/80, the pay period ends at noon on Friday. Non-exempt employees will have to manage their time so that they are only working four hours before noon on Friday or it will result in overtime. The time worked after noon will fall into the next 9/80 alternate work schedule week.

Where can employees go for more information on 9/80 and the new timekeeping system?

Employees can direct all timekeeping and payroll questions to 4-HELP, option 2. Also, there is a hotline at ext. 3-1115 for specific questions about 9/80. Online, look for the document "Getting Started with JPL's New Timekeeping System," available at *https://nbs.jpl.nasa.gov:8020/weblogon/tool\_support/tk\_getting\_started.pdf* as well as at the new NBS timekeeping application through Oracle.

A list of frequently asked questions is available at *http://hr.jpl.nasa. gov/emprel\_980aws.html*, and there will also be an online tutorial available at the timekeeping site when 9/80 debuts.





Charles Elachi honors Ken Wolfenbarger for his heroism aboard a Washington D.C.-bound flight last month.







### In other institutional issues:

- JPL is the first NASA center to have passed initial validation of the Earned Value Management System (EVM); official certification is expected soon. "We want to not only pass certification, but to apply EVM in our work to make sure we manage our costs and schedules in an efficient manner," Elachi said.
- Chief Information Officer Jim Rinaldi has recommended both organizational and process changes to help JPL capitalize on recent innovations in information technology. Challenges over the coming year include the desktop and network services contract.
- Elachi was "delighted" that JPL hosted 500 students this summer. "We should all be proud. Part of our job is to make sure that the next generation is being prepared to continue our quest of exploration."
- The 9/80 alternate work schedule is set to debut Oct. 30, with the first Friday off on Nov. 10. [Please see the interview with Human Resources Director Cozette Hart on page 2.] He particularly acknowledged the effort of the team that is working on putting this in place.
- A new pay grade structure is being considered for JPL. Monica Garcia and her team in the Compensation Group will present findings to the Executive Council next month, and a decision will be made early in 2007.
- Groundbreaking is scheduled for May 2007 for the new flight projects building, which will include office space for 500 to 600 people. Occupancy is set for late 2008. As part of the project, some trees need to be taken out, but Elachi pledged to have five new trees planted for every tree cut down.
- Heritage Day activities in 2007 will include funding for access for families of JPL staff.
- During the week of Oct. 23 the Lab will celebrate the 70th anniversary of the rocket firing in the Arroyo that led to the development of JPL. [Please see article on page 8.]

Elachi noted that over the next six years JPL will see between 10 and 13 launches. Announcements on the next Discovery Program missions are expected imminently, he said. The Scout selection will come in a few months.

"The next six years will be as exciting and as challenging as the last six years," he told employees. "That's going to require innovation, boldness, excellence, determination, integrity and teamwork. And I just described each and every one of you."

In a special ceremony, Elachi awarded Ken Wolfenbarger of the Commercial Program Office the NASA Exceptional Bravery Medal for Wolfenbarger's courageous actions onboard a Sept. 12 flight from Los Angeles to Washington, D.C. When an unruly passenger tried to open a door inside the plane, Wolfenbarger intervened to subdue the man until federal air marshals stepped in.

In addition to the NASA honor, Wolfenbarger also received commendations from the Department of Homeland Security's Transportation Security Administration and the FBI. "If not for Dr. Wolfenbarger's actions, we would have been dealing with a much worse crime by one individual," said J. Stephen Tidwell, assistant director of the FBI's Los Angeles office. "It is particularly noteworthy, because among the federal air marshals, and even those of us who travel armed on aircraft in case things like this happen, none of us will break cover until we are certain this isn't a ruse to draw us out. That requires folks like this gentleman to be able to decide if they're going to do something and take action."







### Sengupta named engineer of the year

JPL engineer Anita Sengupta has been named Woman Engineer of the Year by the Southern California chapter of the American Society of Engineers of Indian Origin.

Sengupta received the honor at the organization's national convention in September. The award, part of the society's Corporate Excellence Recognition Program, recognizes achievements, innovation, leadership, teamwork, integrity, community involvement and service to professional societies. Applicants come from NASA, academia and industry. A five-vear JPL employee. Sengupta works in the Entry,

Descent and Landing Group in the Mechanical Systems Section. She serves as the contract technical manager and cognizant engineer for the Mars Science Laboratory parachute decelerator system and is responsible for managing parachute system design, fabrication, computational fluid dynamics, and supersonic and subsonic wind tunnel test programs.

Previously, she worked in the Advanced Propulsion Technology Group in the Propulsion and Materials Engineering Section. Her responsibilities included managing the Deep Space 1 flight spare ion thruster extended life test program, the Nexis ion thruster technology program and the Prometheus 1 ion thruster risk reduction program.

Before joining JPL she worked for Boeing Space and Communications and Satellite Systems. She earned a bachelor's degree in aerospace engineering from Boston University, and master's and doctorate degrees in the same discipline from USC.

## Lopes-Gautier honored by Women at Work

Rosaly Lopes-Gautier, a planetary geologist and volcanologist and supervisor of the Geophysics and Planetary Geosciences Group, has been selected as the JPL recipient for this year's Women at Work Medal of Excellence Award. Women at Work is a Pasadena-based non-profit orga-

nization whose primary focus is to provide a resource for women to learn about new or alternative career opportunities and to help women advance their careers. The Medal of Excellence recognizes women who have distinguished themselves in their careers and the impacts within their community.

Lopes-Gautier's specialty is volcanism on Jupiter's moon lo and the analysis of geologic features on Titan using the Cassini radar mapper, with emphasis on cryovolcanic features.

Among her published works, she co-authored the undergraduate book Volcanic Worlds: Exploring the Solar System Volcanoes (2004), including a chapter titled "Io, a World of Great Volcanoes." Astronaut Sally Ride noted that the book is the first on planetary geology written solely by women. In addition, Lopes is credited in the 2006 Guinness Book of World Records as the discoverer of the greatest number of active volcanoes, including 71 volcanoes on Io.

Lopes-Gautier's honor also recognizes her efforts as a role model to encourage women and minorities in science, and incorporating the full range of skills and talents of a diverse team that is drawn from women and men from many different cultural, economic, racial and ethnic backgrounds.

### **Calling Mariner Mars veterans**



JPLers who worked on Mariner Mars 1971, the United States' first orbiter of another planet, will gather for a reunion to commemorate the mission's 35th anniversary on Friday, Nov. 17. An informal gathering of those who worked on the mission will be held from 4 to 9 p.m. at the American Legion Hall, 179 N. Vinedo Ave., Pasadena. Heavy hors d'oeuvres will be served

throughout the evening and a full, no-host bar will be available. The cost is 22 per person.

Anyone associated with Mariner '71 in any way is invited, and spouses and guests are welcomed. Reservations are requested by Nov. 7. Make checks payable to W.J. O'Neil, 2081 Liliano Dr., Sierra Madre, CA 91024-1532. To RSVP and for more information, contact Bill O'Neil at 626-664-2027 or woneil4488@earthlink.net.

### NASA safety audit in November

NASA will conduct a safety audit of JPL from Nov. 13 to 17. This is a new NASA independent audit and a first for JPL.

The purpose of the audit is to verify that federal and state regulations and NASA requirements are implemented and documented at each NASA center. This is a comprehensive safety audit that includes areas such as facilities, fire protection, fire life/safety, emergency preparedness, pressure vessels/systems, mishaps, lifting devices and electrical safety.

NASA will conduct such audits at all centers over the next two years and, thereafter, once every three years at each center.

The Occupational Safety Program Office urges staff members to help prepare for the audit by ensuring good housekeeping practices within their work areas, that all employees have the appropriate safety training required for their jobs, and that signage is correct and up-to-date in all work locations.

For more information, call the Occupational Safety Program Office, ext. 4-0280.

### Service awards bestowed

Editor's note: Due to a production error, this article was not published as originally intended in an earlier issue of Universe.

For the period of January through April 2006, the following JPL recipients celebrated 25 or more years of service and were invited to attend a luncheon and ceremony in their honor on April 12.

45 years: Kathleen Myers.

40 years: Thomas Duxbury, Gloria Lawler.

- **35 years:** James Alexander, John Beckman, Margery Fea, Raymond Frauenholz, Donna Hoffmann, Laura Hollis, William Irace, Deanna Rowe.
- **30 years:** Richard Benson, Jeffrey Cornish, Michael Girard, Charles Greenhall, Ming-Taun Leu, Eleanor Manning, Merle McKenzie, Timothy O'Donnell, David Rennels, Sharon Valentine, Bobbie Woo, Donald Yeomans.
- 25 years: Beatriz Abu-Ata, James Border, Peggy Borzage, Robert Brooks, Lamont Burgess, Kumar Chandra, Stephen Dawson, David Diner, Richard Doyle, Thomas Fouser, Mark Gatti, Johanna Gunn, Mark James, Charles Keith, Shankar Keni, Gail Klein, Jack Mallory, Jacob Matijevic, Iain McDermid, Ronald Morrillo, Patrick Murphy, David Nichols, Hope Norton, Don Potter, Thomas Runge, Linda Scott, Roy Scrivner, Elsa Waters, Steve Wells.

For information about the programs and services offered by Compensation, Rewards and Recognition, visit *http://hr/esr*.



From left: Sabrina Kemeny, Robert Nixon, Eric Fossum, Thomas Cunningham, Bedabrata Pain, Bruce Hancock, Chao Sun, Larry Gilbert. Royalties also distributed to the following inventors who were unable to attend the event: Guang Yang, Junichi Nakamura, Orly Yadid-Pecht, Sunetra Mendis and Zhimin Zbou.

### Kudos to sensor technologists

JPL technologists who invented and developed the active pixel sensor technology that resulted in the Complementary Metal Oxide Semiconductor Imager were recently honored at a Caltech reception.

JPL inventors received 25 percent of net licensing revenues, and in the case of this successful technology, the checks were significant, according to Carla Bagdasaryan of the

Innovative Technology Assets Management Office. This technology formed the basis for one of the most successful startup companies based on JPL technology.

The company, Photobit, has since been acquired by a larger company, she said, and the technology continues to make its way into a number of consumer products such as cell phones, digital cameras and commercial imaging devices. Photobit is one of 80 startups generated by the Office of Technology Transfer's efforts since 1995.

## **Everyone's Bottom Line**

DALE JOHNSON, JPL'S ASSOCIATE DIRECTOR, CHIEF FINANCIAL OFFICER AND DIRECTOR FOR BUSINESS OPERATIONS, AND JEAN MILBRANDT, MANAGER OF THE FINANCE AND CONTRACT MANAGEMENT DIVISION, DISCUSS THE PUBLICATION OF A REQUIREMENT TITLED "MANAGING COSTS WITHIN AUTHORIZED FUNDING."

## Q: WHAT IS THIS REQUIREMENT ALL ABOUT AND WHY DID YOU FEEL IT WAS AN IMPORTANT DOCUMENT TO PUBLISH IN JPL RULES?

Johnson: It is all about defining a clear set of roles and responsibilities regarding the use and management of sponsor funding and holding ourselves accountable to these requirements. Lab management and our NASA customers place a heavy emphasis on effective life-cycle cost management on our projects. This includes managing costs within authorized funding.

I felt it was important to publish this requirement after extensive meetings with stakeholders indicated that the specific responsibility for managing costs within authorized funding lacked clarity. I viewed that as a critical missing component in JPL's ability to successfully minimize or eliminate the occurrence of project (task order) overruns.

### Q: WHAT DO YOU MEAN BY AUTHORIZED FUNDING?

Milbrandt: Authorized funding is the amount of sponsor funds placed on contract. This is the amount of funds associated with a given task order and is easily viewed and verified in the NBS Cost & Funds Management Report tool.

### Q: WHAT ESTABLISHES AUTHORIZED FUNDING ON A JPL PROJECT?

Milbrandt: A task order issued by the NASA Management Office and signed by the NASA Contracting Officer is the only officially recognized authority to spend sponsor funds. Each task order references the associated task plan and includes the statement of work, estimated cost, authorized funds, and period of performance. It is important to note that the estimated cost in the task order may be greater than the authorized funding. However, it is the authorized funding (also known as funds on contract) that establishes the limit as to what can be spent.

#### Q: WHAT HAPPENS IF COSTS EXCEED AUTHORIZED FUNDING?

Johnson: When costs exceed authorized task order funding, the task order is considered to be in an unauthorized overrun condition. Since JPL cannot charge sponsors for costs incurred over authorized funding, these overrun costs are covered with "borrowed" money from campus until the overrun is resolved. This is a very costly and risky proposition for Caltech and one that must be avoided. In addition, our NASA and non-NASA sponsors do not look favorably at task order overruns. They expect JPL to be a good steward of their money. Sound business practices, reliable business systems and processes, and diligence on the part of the task order manager each play an important role in managing project costs within authorized funding levels.



Dale Johnson, left, and Jean Milbrandt.

Q: WHAT PREVENTIVE MEASURES HAVE BEEN PUT IN PLACE TO HELP ENSURE OVER-RUNS DO NOT OCCUR?

Milbrandt: We have instituted several electronic alerts that are sent to cognizant technical, program, and business administrative personnel when task order funds are running low. In addition, the task order administrators and project resource analysts are contacting task order managers frequently to determine funding needs and/or task plan changes as far in advance as possible. This is very important because changing the task plan and/or obtaining sponsor funding can, in some cases, take several months.

Q: WHO IS RESPONSIBLE FOR ENSURING COSTS DO NOT EXCEED APPROVED FUNDING?

Johnson: Although managing costs within authorized task order funding consists of activities that involve joint participation from various JPL organizations, the task order manager is ultimately responsible for ensuring that all costs incurred on the task order are within funding levels and that the task order is not placed in an overrun condition where costs and/or obligations exceed funding.

To further emphasize the role of the task order manager and the importance of funds management, we recently published a role statement for the task order manager (JPLRules! DocID 74132). This document, along with the newly published "Managing Costs Within Authorized Funding" requirement (JPLRules! DocID 74072), clarifies the roles and responsibilities for task order management—something which had been somewhat ambiguous in the past.

### Q: WHAT CAN BE DONE IF MORE FUNDING IS REQUIRED ON A TASK?

Milbrandt: Immediately engage the assistance of your task order contract administrator. The task order contract administrator works with the task order manager to determine if the task plan needs revision to accept more funding and contacts the sponsor to request the additional funds. Additionally, the task order contract administrator is JPL's official liaison with the NASA Management Office on all task order–related issues. As such, it is very important that the task order manager keep the task order contract administrator and project resource analyst informed on a frequent basis about anticipated funding needs and task plan changes.

The key here is to be proactive and always allow a long lead-time to receive additional funding. The time required from an initial funding request to placement of funds on contract can range from a few days to a few months.

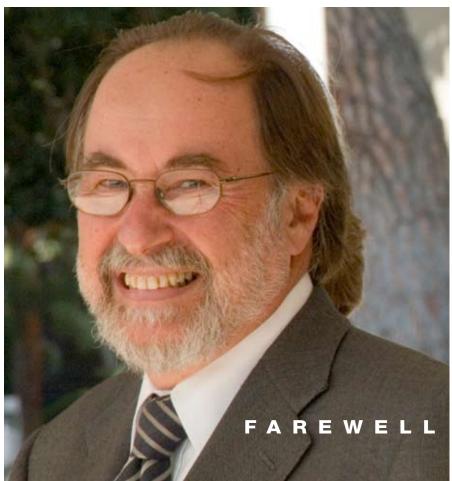
In some cases it may be necessary to perform work while waiting for sponsor funding. In these cases, Caltech may be requested to fund the effort until sponsor funding is placed on Task Order. This is known as campus risk funding, and is only granted in rare cases and only if the reason is extremely compelling and absolutely necessary. Contact the task order contract administrator regarding campus risk funding.

Q: ASSUME A TASK ORDER IS CLOSE TO EXHAUSTING ITS AUTHORIZED FUNDING. IF A TECHNICAL CONTACT AT NASA HEADQUARTERS INSTRUCTS THE PROJECT TEAM TO CONTINUE WORKING AND ASSURES THEM THAT THE FUNDING WILL EVENTUALLY CATCH UP, DOES THIS ESTABLISH LEGITIMATE AUTHORITY TO CONTINUE WORKING?

Johnson: No. The only authority for JPL to perform work comes from the NASA Management Office contracting officer under a task order issued by the NASA Management Office and signed by the NASA Management Office contracting officer. The task order contract administrator should be contacted immediately if direction is received through a source other than an approved task order.

Q: WHO CAN JPL PERSONNEL CONTACT IF THEY HAVE MORE QUESTIONS ABOUT THESE POLICIES?

Milbrandt: Any of the task order contract administrators in the Finance and Contract Management Division can provide additional assistance. The list of contacts can be found on the Finance and Contract Management Division website at http://fcmd.jpl. nasa.gov/TOA/toa\_Contacts.cfm. A list of contacts for specific projects can be found at http://boss/bin/ptocontact.pl.



DAVID BALTIMORE CALTECH PRESIDENT 1997-2006

# AREWELL GOOD FRIEND

BY MARK WHALEN

JPL EXPRESSED THANKS AND BID A FORMAL FAREWELL LAST MONTH TO DAVID BALTIMORE, WHO RETIRED AS PRESIDENT OF CALTECH.

Baltimore, who served nine years as the institute's president, was credited with playing a significant role in supporting JPL as a key member of the Caltech family. Hundreds of JPL employees crowded the mall to pay tribute to the former Nobel laureate, who will now join the Caltech faculty full time.

Baltimore and his wife, Alice Huang, were familiar figures at all of JPL's milestone events, such as the Mars Exploration Rover landings and Cassini's orbit insertion. "You could just see by the smile and excitement on his face that genuine passion for exploration and what we do," noted JPL Director Charles Elachi.

JPL Deputy Director Gene Tattini thanked Baltimore and Huang "for their support, vision, leadership and inspiration, when things went extremely well, but most especially for their inspiration and support when things didn't go quite as we planned them."

Sally Ride, who chairs the JPL committee on the Caltech Board of Trustees, praised Baltimore as a "tireless supporter of JPL," noting his numerous trips to Washington, D.C. to call on members of Congress. "He has done a wonderful job of leading Caltech into the 21st century." She thanked Baltimore, along with Elachi and former JPL Director Ed Stone, for bringing JPL and Caltech closer together.

"David loved JPL because it's an institution where innovation, passion for exploration, integrity and team effort are at the foundation of what we do here," Elachi said. "And these are the same values that David has demonstrated in everything he has done, so I think we had a perfect match."

"When I first came to JPL," Baltimore told the audience, "it was all foreign territory to me. And I said, 'who are all these people and what do they do?' So I had a nine-year education. And now I look out and see lots of people I know quite well—people I've seen very often, people whose work I can appreciate, whose contributions to space science are at the highest level.

"One of the most satisfying aspects of being president of Caltech has been to discover, to get to know, and to appreciate what you all do here and who you are," Baltimore told the gathering. "In the Caltech family, JPL is a key member—its strengths are complementary to the strengths of the rest of the



campus, so it really brings a special capability to Caltech that it could not otherwise have.

"The synergy between things that happen at the Lab and things that happen on campus are really very exciting—I particularly focus on the [Nobel Prize–winning] Cosmic Radiation Background Experiment, which really wouldn't have been possible without the extraordinary capabilities of JPL."

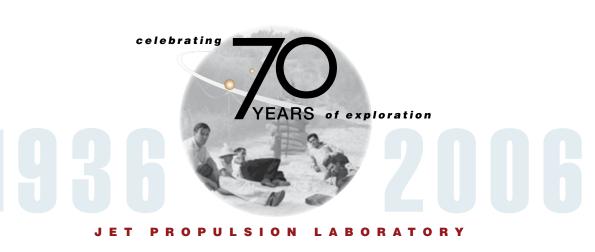
Baltimore noted that at the National Institutes of Health, which supported his research, "all you needed to do was to be good at what you did. You can be the best at JPL, and that's not enough. My tenure has covered three (NASA) administrators—very different people, with very different styles, each with their own priorities—and we've had to work with each, and establishing good relations has been key. And the message I have given to Jean Lou Chameau, who is taking over as Caltech president, is that he has to continue David Baltimore with Sally Ride, left, and wife Alice Huang.

Tom Wynne / JPL Photolab

to work hard to maintain the close relationships that characterize the process of evolution of the association of NASA and JPL."

As a parting tribute, Elachi said, JPL named asteroid 73079 for Baltimore. The body is in the main asteroid belt, with a diameter of 1 to 2 kilometers, and orbits the sun between Mars and Jupiter. Also, in Baltimore's honor, JPL has created a new distinguished visiting scientist appointment, one that will be awarded annually. The appointment "will focus on enhancing the collaboration between the JPL research community and the campus-a theme that is very close to David's heart." Elachi said. After consultation with Baltimore, Elachi said, the first appointee was to be named in a few weeks.

Baltimore was also given proclamations and thanks from Pasadena Mayor Bill Bogaard and La Cañada Flintridge Mayor Greg Brown.



### **70 Halloweens ago**

In the 1930s, Caltech Professor Theodore von Kármán conducted pioneering work in rocket propulsion. Von Kármán, head of the institute's Guggenheim Aeronautical Laboratory, progressed to the point when he gathered with several graduate students and a few local rocket enthusiasts to test a primitive rocket engine in a dry riverbed wilderness area known as the Arroyo Seco, just east of where JPL stands today. Their first rocket firing took place there on Oct. 31, 1936.

Seventy years later, JPL prepares to celebrate the event the week of Oct. 23-27 with a series of lectures, films and an end-of-the-work-day/end-of-the-week rock concert on the mall on Friday afternoon.

These noontime events in von Kármán Auditorium begin on Monday, Oct. 23, when Executive Council member Blaine Baggett presents a lecture on the early beginnings of JPL.

On Tuesday, Oct. 24, a sneak preview of the soon-to-be-broadcast "Journey to Palomar," a documentary on one of Caltech's modern-day founders, George Ellery Hale, will be presented by the production team.

Wednesday, Oct. 25, will feature JPL Historian Erik Conway speaking on the rocket era at JPL.

Thursday, Oct. 26, features one of the earliest of the Laboratory's own film productions, the 1958 "JPL Story."

The week's noontime events culminate on Friday, Oct. 27, with the premiere of the Laboratory's new film for visitors, "Journey to the Planets and Beyond," narrated by Harrison Ford. All JPLers will be invited later that afternoon to celebrate with a rock concert on the mall featuring Jake and the Blasters.



**Karl Ekman, 78,** died Aug. 24. Ekman joined JPL in 1979 and retired in 1990. He is survived by his wife, Benita; daughters Betsy, Barbara and Patricia; and sons John and Tom.

**Steven Kamine, 51,** a production scheduler and machinist in Section 375, died Sept. 3. Kamine had worked at JPL since 2000. He is survived by stepsons Joshua and Caleb. Services were held at Saddleback Church in Lake Forest.

**Janet Musial, 82,** a retired personnel supervisor, died Sept. 7. She is survived by daughter Jean Quiat, son James Musial, six grandchildren and one great granddaughter.

**Eric Biefeld, 52,** a former JPL information technology engineer, died Sept. 20.

Biefeld, a JPL employee from 1984 to 1995, is credited with helping usher in the era of object- oriented design and programming for flight projects starting in the early 1980s. He was considered the father of the original Plan-IT planning and scheduling software, versions of which are still in flight project use today. He is survived by his wife. Rebecca, son Benjamin and daughter Chelsea. Services were held in Pittsburgh.



Thank you all for the cards, flowers and prayers, and for your generous contributions to my brother's family. Ned was a strength to his family and friends, and I am blessed to have had him in my life. Your thoughtfulness is extremely comforting. *Merideth Fiore* 

We would like to thank our friends at JPL for their thoughts, prayers and sympathy over the tragic passing of our son Nicholas. The kind words, cards and plants were greatly appreciated during a very difficult time. *Bryan and Michele Bell* 

I've always known that JPL is a very extraordinary place, but my family and I learned first-hand just how special all of you are during the recent hospitalization and passing of my husband Bill. Our hearts are full with all your expressions of love and sympathy through calls, cards, flowers, plants and for being there in so many ways. Our "thank yous" go far beyond what can be expressed in this message. *Judy Ryken and family* 

I would like to thank my friends and colleagues from 9x and 2x who offered kind words and prayers to my family and me after the recent passing of my mother. She lost a three-year bout with cancer but she was in her own home with her family when she passed. The cards and plants from all of you definitely made a very rough time much easier!

Mark Romejko and family

Thank you for sending me such a beautiful plant that will remind me of you all for my brother who passed away. He was 22 years old, loved so much by so many, a young man like no other, the true definition of God's blessing on Earth to everyone and anyone he ever met. Daniel fought a three-year battle with cancer with courage and determination to the end. He will never be forgotten because in our heart he is our "hero". Sincerely, *Carmen Dycus* 

I would like to thank my friends and co-workers at JPL for their understanding and support at the passing of my father. The cards full of sympathy notes and the lovely plant sent to my home are very much appreciated. Sincerely, Zoomie Doan

Over the course of 31 years at JPL, I have been privileged to associate with a number of truly outstanding people. To all who have contributed to making my time here rewarding and/or interesting, whether via a professional or a personal (or both) relationship, I wish to express my heartfelt appreciation. To the entire JPL community, I offer my sincere best wishes for continued exemplary achievements. *Peter M. Kobele* 



The following JPL employees retired in October:

Roland Taylor, 44 years; Ladislav Roth, 33 years, Section 3242; Peter Kobele, 31 years, Section 3131; Ralph Ridley, 29 years, Section 373; Robert Gaskell, 27 years, Section 343; Carl Kloss, 22 years, Section 313D; James Simmons, 21 years, Section 1820; Alan Nicholson, 19 years, Section 313; Gregory Pixler, 11 years, Section 345.

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