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JPL spared in foothill fires

By Mark Whalen

Photo courtesy of Robert Koukol

The Station Fire that ravaged the San Gabriel Mountains came periously close to JPL. As a precaution, the Lab was closed Aug. 29-31.

Good fortune, solid preparedness and a lot of help from both inside and outside the Laboratory spared both JPL and JPLers from major damage from the Station Fire that ravaged the Angeles National Forest from Aug. 26 into early September.

The largest fire in Los Angeles County history, the blaze scorched more than 150,000 acres and came perilously close to JPL — within about one-eighth of a mile of the Laboratory's mesa in the northern hills, said Joe Courtney, deputy manager of the Office of Protective Services. Although flames never reached Laboratory buildings, smoke in the area closed JPL Aug. 29-31.

Emergency assistance was offered to JPL employees and their families who live within the fire zone. Richard Roessler, deputy manager of human resources, said approximately 1,200 employees who live in areas stretching from Altadena on the east side of the Lab to Sunland on the west were contacted to see whether they needed help with housing and other areas.

Roessler said 140 employees replied that they had evacuated from their homes. Seven JPL families took advantage of an offer to temporarily stay at housing owned by Caltech near the campus. Caltech also offered displaced employees the opportunity to park their extra cars containing personal belongings in the campus' Holliston Avenue garage.

"People were appreciative and very grateful that the communication went out to inform them of the help available from the campus," Roessler said.

Off-duty members of the JPL Fire Department were recalled and were joined by about 40 members of the Lab's Urban Search and Rescue Team for the emergency. JPL also supported helicopter operations on the mesa conducted by the U.S. Forest Service, Bureau of Land Management and Los Angeles County Fire Dept., as about 200 sorties were performed to drop water on the fire and help protect nearby homes, Courtney said.

Dudley Killam of the Office of the Management System said outdoor air quality as monitored by JPL's Brushfire Airborne Hazards Monitoring System, combined with in-building air-quality verification by an occupational health team from JPL's Environmental Health and Safety Program Office, "provided the environmental insight and monitoring needed for the reopening of the Lab to JPL personnel on Sept. 1."

In addition, air-quality verifications, visual inspections and surface sampling to identify potential brushfire contamination were performed in cleanrooms across the Lab, said Phil Carey of the Technical Facilities Management Section (3762). "Overall, we've found that the impact on our cleanrooms has been fairly manageable," he said, adding that high-efficiency particulate air (or HEPA) filtration was very effective at protecting facilities and hardware therein from airborne particulates. "Testing and analysis of air quality, surface cleanliness, filter efficiency/

Continued on page 2

Thom Wynne / JPL Photo Lab

Lori Garver addresses JPL managers.

Garver visits Lab

NASA's new deputy adminstrator discusses the agency's future directions

By Mark Whalen

JPL welcomed new NASA Deputy Administrator Lori Garver last month in her first visit since she and Administrator Charles Bolden were confirmed to lead the agency.

Bolden was to join Garver for the Aug. 28 visit but instead awaited the launch of Space Shuttle Discovery, which had been delayed for several days. Discovery finally launched later that evening.

In an address to JPL managers that was broadcast Labwide, Garver said Bolden regretted postponing his visit but noted he is "a huge proponent of the science" JPL does and takes "great pride in what you all do here."

While acknowledging that the Obama administration and Congress have expressed an appreciation for the importance of the space program to the nation, Garver noted that throughout the agency, "Everyone recognizes that our future in space can be even better than in the past. We talked about that with the president in the Oval Office, as well as on the campaign."

Garver addressed several key issues in response to audience questions. Among the highlights:

• The acceleration of Earth science missions that track climate change is a "high priority" for the nation. "We have an absolutely critical role to play," she said. "With that could certainly come funding, but we're going to need some creativity to get it done as well." She suggested considering combining instruments, working more with

Continued on page 2

Fire *Continued from page 1*

remaining life and smoke constituents will continue for the next several weeks to extract as much useful data as possible," he added.

Frank Mortelliti, manager of the Environmental, Health and Safety Program Office, said that both JPL and Healthy Building International, a consultant, independently confirmed that the air quality inside mission-critical buildings, as well as other highly populated buildings, was well within established guidelines for the parameters measured for personnel health.

The only reported measurable damage occurred about 1 kilometer away from the Lab, where on Saturday, Aug. 29 fire ravaged a tower supporting antennas that transmit test signals toward the Mesa Antenna Measurement Facility, said Ronald Pogorzelski, supervisor of the Spacecraft Antenna Research Group. In anticipation of the fire, the tower's electronic equipment was removed on Friday afternoon, but the flames destroyed cabling and connectors, probably damaging three antennas and three positioners that control the polarization of the test signals, he said. Three of the 12 measurement facilities on the mesa are supported by the transmit site that was damaged, he said, adding that the positioners and antennas will be tested for damage and possibly replaced or refurbished.

After staff members returned to work, Cynthia Cooper of JPL's Employee Assistance Program hosted two briefings for personnel impacted by the fires. The program also provided additional information for those who need help adjusting to and recovering from the traumatic events.

Fire reaches a tower on the mesa that supports antenna testing; some damage was reported.

JPL firefighters assist a U.S. Forest Service helicopter crew in gathering water on the mesa Aug. 31.

Photos courtesy of Joe Courtney

As damage control picked up on the ground, JPL instruments on NASA satellites surveyed the situation from above. The Multi-angle Imaging SpectroRadiometer onboard the Terra satellite on Aug. 30 captured an image of smoke plumes from the Station and other wildfires in Southern California, while JPL's Atmospheric Infrared Sounder instrument onboard the Aqua satellite observed carbon monoxide in the smoke from the fire, which was lofted as high as 8.3 kilometers (27,000 feet) into the atmosphere.

For historical purposes, JPL's Office of Communications and Education is archiving movies of the Station Fire made by JPLers. If you have a video to contribute, please contact Henry Kline, *henry.kline@jpl.nasa.gov* or ext. 3-2336.

Garver *Continued from page 1*

international and industrial partners and multiple purchases of spacecraft buses to save money.

• A national Earth science climate agency is being considered. "What we need to do should be for the planet, not just the nation," Garver said. "Hopefully we can take the particular expertise of the agency and work with not only the rest of the country but the rest of the world to get this done, and you guys are a big part of it."

Top: Lori Garver meets with Mars Science Laboratory Project Manager Pete Theisinger; bottom: Garver shares a laugh with Mars rover engineer Jaime Waydo.

• A reflight of JPL's Orbiting Carbon Observatory mission is "a huge priority but marrying that with the budget is the only challenge," Garver said." It's a major goal for us to get this done as quickly as we can."

• In the wake of a briefing on a future flagship mission to Jupiter's moon Europa, Garver expressed disappointment that discoveries there date back to the 1990s "but we won't get there until 2020 at best." She said NASA's budget submission for 2011 will include a Europa funding request "and at what level is to be determined within the set of priorities."

• NASA's Office of Science and Technology Planning is "very interested" in extrasolar data. "New knowledge is the thing we tell the public, over and over again, that's what they're getting from NASA. … It's one of those really exciting areas I think the public wants to do more of, and that should translate into more political support as well."

• Funding for technology development is expected to increase to about $1.5 billion a year in the next couple of years, based on an option suggested by the federal panel chaired by former Lockheed Martin chairman Norman Augustine that is deliberating NASA's future direction. "We see this as the very underpinnings of the nation's research and development efforts," Garver said. "We are still discussing how it should be managed. Lots of folks don't want to see a new Code R—one organization that does technology—it should be embedded in not only in our programs, but also in our divisions."

NASA is anxiously awaiting a report by Augustine's committee, which is expected by mid-September. "They are tasked not with making recommendations, but with providing options," Garver noted. "The moon and Mars, near-Earth objects and the moons of Mars are all fabulous places we need to go, and it's just a question of getting the program together that can get us there in a way that ties in with what the nation needs NASA, and our partners around the world, to be doing."

A big part of that, she said, is the need to show that "we can tie in what we do with where we're headed as a country, and provide better value for the tax dollar. And you guys can help us with that. You do this better than a lot of folks in government so we want to take those lessons learned and translate them to what we can do more broadly."

Along those lines, Garver lauded JPL's public engagement efforts and said they could be used as a model throughout the agency.

In particular, she noted the effectiveness of the JPL-led Solar System Ambassador Program, which oversees about 500 volunteers nationwide who help spread the word about JPL space exploration. "There are so many people out there who are touched by this who wouldn't mind—given the resources—going to community groups, schools and after-school programs." She suggested joining with private groups such as the Planetary Society to create an even larger outreach network. "They are looking for the right resources and tools to channel their energies in a way that can be productive for us all," she said.

Garver's visit also included a meeting with the Executive Council, a tour of the Microdevices Lab, a presentation on JPL's Phaeton Program for early career hires, and briefings on JPL's work in Earth science, planetary exploration, astrophysics and the Mars Program. Her address is archived at JPL TV, *http://jpltv,* in the asset library.

Tom Wynne / JPL Photo Lab

Leading the way forward

By Mark Whalen

The new leader of the Engineering and Science Directorate, 25-year JPL veteran Leslie Livesay, brings to the job a solid and varied background that includes stints as group supervisor, division manager, project manager and deputy directorate leader. Universe caught up with Livesay for her impressions so far.

YOU'VE BEEN ON THE JOB ABOUT FIVE MONTHS NOW. HOW IS THE EXPERIENCE THUS FAR?

I'm really enjoying this job. It's a huge challenge and it's fun. Some people thought I was strictly a project person, and wondered whether coming back to line management would be interesting for me, but it's been a good, positive change.

WHAT LED YOU TO TAKE ON THE HUGE NEW RESPONSIBILITY?

Prior to this, as the deputy director for Astronomy and Physics, I was focused on getting Kepler through the launch readiness process. Kepler was successfully launched in March of this year. At around that time the decision was made to delay Mars Science Laboratory's launch from 2009 to 2011 and for Pete Theisinger to join the MSL project. I knew that was going to be a very challenging time for ESD, and I told Dr. Elachi that I would help in any way I could with that transition.

WHAT OTHER JPL EXPERIENCES WILL YOU DRAW ON?

Well, being here for 25 years gives me the perspective of walking in the shoes of a lot of the people I'm now working with. This has been very helpful to me.

Budget negotiation is a good example. I know what it's like to be the project manager who is trying to get everything to fit within budget constraints. I've been a project element manager, trying to make a commitment to deliver on schedule, performance and cost. I also have a good understanding of the line side, where the risk of deviating from our established processes is balanced with the cost and schedule pressures.

DO YOU BRING A PARTICULAR POINT OF VIEW TO THE JOB?

My philosophy is that it isn't about procedures and processes; it's really all about people. My job as a leader and a manager is to facilitate people being able to get their jobs done.

We have about 3,500 people in the directorate, seven divisions and more than 30 sections, with several hundred groups within them, but I know I can't lead them all myself. I want to make sure that we have the right people in the leadership positions. It's also critical for us as managers to understand and address the impediments and roadblocks that are keeping people from doing their jobs effectively.

WHERE DO YOU SEE OPPORTUNITIES FOR PROGRESS?

There were several key initiatives started by Pete that I consider very important. These include the hiring, mentoring and training of new engineers and researchers—these new employees bring a different perspective and new ideas—and reaching out to organizations such as technical societies, where engineers from all types of companies and universities come together. This way we can be exposed to different approaches and new ideas to get us out of our JPL comfort zone. Now, a lot of our engineers do this anyway because they work on large system contracts where it's easier to get that kind of exposure, but for those who work primarily on in-house developments, it's good to see how things are done outside the Lab.

Another key area is improving our ability to do cost and schedule estimation. We had trouble with this on Mars Science Laboratory so having the correct tools, training and assessment methods to provide estimates and then manage through the development is very important.

HOW DO YOU VIEW JPL'S MIX OF VETERAN ENGINEERS AND NEW HIRES? IS THERE A GOOD BALANCE ON THE ENGINEERING STAFF?

We do have a lot of early career hires at the Lab right now; we also have some of the best-experienced engineers and researchers in the world, frankly. Wherever possible we need to pair experienced employees with the new hires. We also need to make sure management sets aside time to steer employees in the right direction and provide the right mentoring.

IS MENTORING FOR EVERYONE?

It's a requirement for a principal at JPL to mentor; our principals are our technical experts. I'm mentoring three people right now, and have mentored most of my career. I think it's important to lead by example.

ARE THERE ANY JPLERS YOU'VE KNOWN WHO HAVE BEEN A HELPFUL MENTOR OR PROVIDED PARTICULARLY VALUABLE ADVICE?

One of my first mentors was Jerry Abraham in Division 33, who, sadly, passed away earlier this year. Jerry taught me how to effectively manage technical work. My first real management job at JPL was on the NASA Scatterometer, and Jerry provided me guidance on how to prioritize, how to delegate, how to keep things in perspective, how to calmly manage things. That stuck with me.

And of course, I can't leave out Tom Gavin. I first worked with Tom on Cassini, where I was supervisor of the Radio Frequency Subsystems Group. And I probably worked with him on every job I've had since then.

CAN YOU LOOK AHEAD TO THE JPL OF FIVE OR 10 YEARS FROM NOW?

For the future, I want to make sure that ESD is positioned for the work we want to do. But we need to ask ourselves a few things: Are we investing in the right talent? Are we making sure that in five or 10 years we'll be doing the cutting-edge elements of robotic space exploration, not the things we did last year? What are the emerging technologies and how can they be used in our missions? Are we doing the difficult, challenging things to maintain that type of focus for a longer vision? And what do we need to do in terms of our technical, research and engineering staff to enable that?

THE NUMBER OF WOMEN ENGINEERS AT JPL, AND WOMEN IN MANAGEMENT, HAS GROWN SIGNIFICANTLY IN RECENT YEARS. HAVE JPL WOMEN BROKEN THROUGH THE "GLASS CEILING"?

From my career perspective, I don't think I ever bumped up against the glass ceiling. I've consistently been able to take on jobs of more management complexity and have never felt that I've been held back because I'm a woman.

Things have changed quite a bit. When I started here in 1985, I was one of only two women in my section.

Certainly, we are still in the minority. Overall, at JPL women in engineering and research are at about 18 percent. However, those numbers are growing.

And what's encouraging for us is that more than 30 percent of the engineers and scientists we hired last year are women. That outpaces the current engineering/science university enrollment rate of about 25 percent women.

I think it's great. We have some very impressive younger women engineers, including two who are managing Phaeton projects right now. We're always striving to increase the numbers of underrepresented minorities and females at JPL, and that's a healthy thing for the organization.

DO HAVE ANY HOBBIES OR ACTIVITIES TO GET AWAY FROM WORK?

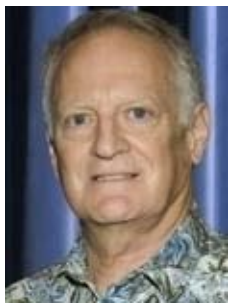
Yes. It's extremely important to have a life outside of the Lab, to take vacation and get away. One of the great and unique things about JPL is that we sit at the foothills of the San Gabriel Mountains. Throughout my time here, I've taken advantage of that; one or both days of every weekend and several days during the week in summer I enjoy going out on the trails with my dogs. It's great to get away, put your thoughts in order and clear your head.

HOW ARE YOU PREPARED FOR HANDLING THE PRESSURES OF THE JOB?

All of us operate in a very demanding, fast-paced environment, working on projects that in some cases have planetary windows to satisfy, are under schedule and financial constraints and are technically challenging.

But my experience—both inside and outside of JPL—is that those who are successful are those who can calmly wade though that and prioritize. The idea is to keep the team moving in the right direction.

News Briefs



Paul Stella

Danny Olivas

Stella earns honors

Paul Stella, principal engineer for spacecraft power systems at JPL, has won the American Institute of Aeronautics and Astronautics' 2009 Aerospace Power Systems Award.

Stella has more than 40 years of experience in space photovoltaics. He led the development of the Advanced Photovoltaic Solar Array, which was used as the design base for the current Earth Observing Satellite.

The award honors a significant contribution in the application of engineering sciences and systems engineering to the production, storage, distribution and processing of aerospace power. The citation on the 2009 award recognizes Stella for "a career of leadership and pioneering technical contributions to the advancement of the science and engineering of space photovoltaic power systems."

He received the award Aug. 5 at the International Energy Conversion Engineering Conference in Denver.

Olivas on second flight

Astronaut and former JPL employee John "Danny" Olivas is serving as a mission specialist on Space Shuttle Discovery, which launched from Kennedy Space Center Aug. 28.

Named an astronaut in 1998, Olivas is making his second shuttle flight, the first being in June 2007 aboard Atlantis. His assignment on Discovery includes three spacewalks. The 13-day flight will deliver science and storage racks, a freezer to store research samples, a new sleeping compartment and a treadmill named after comedian Stephen Colbert.

Olivas worked at JPL from 1996 to 1998, serving as a senior engineer in the Quality Assurance Section and as program element manager of the Advanced Interconnect and Manufacturing Assurance Program.

Cloud computing considered

JPL's Office of the CIO is investigating the potential of cloud computing, an emerging technology for provisioning computer capacity on demand while it is physically hosted elsewhere. Chief Information Officer Jim Rinaldi said the office foresees significant benefits for JPL since cloud computing could help address the Lab's limited on-site space, its need to effectively expand and manage computing capacity and its commitment to achieve cost and energy savings.

To explore these potential advantages, the Office of the CIO has hosted two IT Innovation Seminars this year on cloud computing and established a Cloud Computing Working Group sponsored by the CIO Technical Advisory Board. Brian Wood, manager of infrastructure engineering (1733), and Jeff Norris, supervisor of the Planning Software Systems Group (317F), co-lead the working group, coordinating closely with OCIO Chief Technology Officer Tom Soderstrom.

OCIO is working closely with JPL missions and partners to test and evaluate several cloud offerings so the benefits and risks of each can be determined. These include Private Clouds, Community Clouds, Public Clouds (such as Amazon's offerings) and Hybrid Clouds.

JPLers can provide feedback at *http://goto.jpl.nasa.gov/CloudWG* or post your comments on Rinaldi's blog at *http://ocio.jpl.nasa.gov/blogs/jrinaldi.*

WISE preps for Vandenberg launch

The JPL-managed Wide-field Infrared Survey Explorer, or WISE, is now at Vandenberg Air Force Base, preparing for its December launch.

WISE is an infrared space telescope like two currently orbiting missions, JPL's Spitzer Space Telescope and the Herschel Space Observatory, a European Space Agency mission with important NASA participation. But, unlike these missions, WISE will survey the entire sky. It is designed to cast a wide net to catch all sorts of unseen cosmic treasures. Millions of images from the survey will serve as rough maps for other observatories, such as Spitzer and NASA's upcoming James Webb Space Telescope, guiding them to intriguing targets.

At Vandenberg Air Force Base's processing facility, workers secure the Wide-field Infrared Survey Explorer spacecraft onto a work stand. At right is the fixed panel solar array.

Passings

Stanley Rumsey, 98, a retired instrument technician, died April 15.

Rumsey worked at the Lab from 1953 to 1973. His work included construction of thermocouple and connector systems for JPL's space simulators. He contributed to the Ranger, Surveyor, Mariner, Helios and Viking Orbiter missions.

Rumsey is survived by his wife, Margaret, daughter Patricia, stepson Gary, stepdaughters Barbara and Phyllis, nine grandchildren and 15 great grandchildren. Services were held in Filer, Idaho.

Ali Safaeinili

Ali Safaeinili, 45, a radar scientist and electrical engineer, died July 29.

Safaeinili had worked at JPL since 1997. He participated in the design, development, testing and operation of the Mars Advanced Radar for Subsurface and Ionosphere Sounding operating on Mars Express, and also participated in the design and operation of the Shallow Subsurface Radar on Mars Reconnaissance Orbiter. He also served as the investigation scientist for radar investigations on both projects. In addition to earlier work on the Shuttle Radar Topography Mission, he led and contributed to efforts to develop new VHF and high-frequency radars for Earth observations and potential applications to Europa and other icy bodies.

Safaeinili is survived by his wife, Lisa, and daughters Nadia and Roya. A memorial was held Aug. 8 at JPL.

Warren Hodges

Warren Hodges, 77, a retired member of the technical staff, died July 20.

Hodges joined JPL in 1956 as a test engineer on the Mariner and Voyager programs. In 1988 he moved to at NASA Headquarters as a program operations specialist in the Microgravity Science Division. He retired in 1994.

Hodges is survived by his wife, Jean, son Mark, grandchildren Phillip and Yvonne, stepson John and stepdaughter Debbie.

Robert Hammer, 87, a retired expediter in the Photo Lab, died July 20.

Hammer worked at JPL from 1957 to 1987. He is survived by his partner, Chuck Squires. Services were private.

Letters

My family and I would like to thank JPL for all of your kindness and thoughtfulness on the passing of my husband, Bill Jensen. He was a great man and gave 47 happy years of his precious life to JPL. Also, we want to thank JPL ERC for the beautiful anthurium plant, which we will nurture as a living reminder of Bill. Always,

Kaaren Jensen, Danika and Derek

I am grateful for such considerate co-workers and for the plant from JPL ERC, all offering kind comfort after my father's death. I had told my dad I get to work with great teams, and you have added yet more evidence.

Guy Webster

My husband and I wish to acknowledge the many friends at JPL, including those in sections 343 and 341, who showed their support during the recent passing of my mother, Esther Goudsmid. The thoughtfulness and compassion shown by our co-workers has been tremendous. We received many kind e-mails and cards of condolence. The plant sent by JPL is beautiful and will be planted so we can continue to enjoy them. In addition, my family thanks all of you who made a donation to the Citrus Valley Hospice in honor of my mother. Please know that the thoughts and generous gestures were all appreciated and helped my family through a difficult time. On behalf of my father, we thank you all.

Elsa and John Waters

Many thanks to my JPL colleagues and friends for your sympathy and condolences on the passing of my sister Rose, who was very, very dear to me. The pink anthurium plant from JPL is beautiful and appreciated. Thanks to everyone for your understanding and support during this difficult time for me.

Mary Wong, Section 117

On behalf of my mother and myself, I would like to thank my colleagues at JPL for all their support and condolences during the illness and passing of my stepfather. My JPL family has been a great support system both professionally and emotionally. A special thank you to both Joe Artusio and Jim Prikosovits for their continued support during this trying time. Please accept my thanks for your sympathy as well as for the beautiful plant that my mother truly cherishes.

Rosemary Montoya

To my colleagues at JPL, I would like to thank you for all the condolences that I received at the passing of my father. Special thanks to the GRAIL team members for the beautiful orchids and to the JPL ERC for a wonderful plant.

David Lehman

Retirees

The following JPL employees retired in August:

Robert Mueller, 53 years, Section 3462; **James Young**, 47 years, Section 3201; **Robert Sniffin**, 40 years, Section 333F; **Harold Kirkham**, 30 years, Section 5133; **Dorothy Healy**, 17 years, Section 2620; **Gabrielle Magee**, 10 years, Section 2141; **John Magee**, 10 years, Section 2814.

JPL RETIREES:
FOR ACCESS TO CLASSIFIED ADS AT JPL'S ONLINE NEWS SOURCE
http://dailyplanet

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