Sandia prepares for federally directed shutdown

Paul Hommert briefs Labs staff at all-hands on plan for orderly transition to ‘warm standby’ status

By Bill Murphy
Note: At press time, there still appeared to be a strong possibility that the budget impasse in Washington would not be resolved before Sandia was obligated to comply with a government-directed shutdown to take effect at close of business on Oct. 21.

In an unprecedented development in its 64-year history, the Labs at press time was preparing for the orderly shutdown of virtually all operations effective at the end of the workday on Monday, Oct. 21. The shutdown order came from Secretary of Energy Ernest Moniz and NNSA Acting Administrator Bruce Held. It was prompted by the impasse in Congress over matters related to the federal budget and the nation’s debt ceiling.

In an all-hands meeting discussing the situation, Sandia President and Labs Director Paul Hommert said, “First of all, I hope we don’t have to do any of this; that is my fervent, fervent hope. But we need a plan and we need to communicate it to you.”

He said he wanted to use the occasion of the all-hands to walk Sandia staff through the rationale of the plan developed by the Labs leadership team, a plan that he believes is sound given the circumstances.

Paul set the stage by noting that, because Congress has not passed an FY14 budget or a continuing resolution to fund the government in the absence of a budget, the Labs is operating on carryover funds from the previous fiscal year. Those funds are limited, however, he said, stating that since the beginning of the fiscal year on Sept. 21, “we have been running on fumes.”

Paul said the leadership’s intent has been to use the carryover funds to keep the entire Labs operational.

“What I don’t want,” Paul said, is for the Labs to send some people home while others continue to work, depending on the specific amount of carryover funds in their particular projects.

“We’re trying to keep the enterprise as whole as possible for as long as possible; we’re all in this together.”

Should the shutdown occur, beginning Oct. 22, non-represented employees will take directed vacation for the remainder of the workweek. Management has proposed this same approach with our represented labor leaders under the Collective Bargaining Agreements. In cases where an employee is on a preapproved leave, they would continue to charge the appropriate time away from work. TRC for the remainder of the Oct. 18 workweek.

Given the nature of the discussion in Washington, there is no clear sense of when a shutdown might end, that would depend on the outcome of the ongoing debate in Congress. Paul has told our congressional delegation that 10,000 people on unpaid leave will have an enormous impact on the economy of this city and this state. “We understand that. And they understand it.

If the Labs goes into shutdown, Paul said, “We will go into what will look like our holiday shutdown status; we’ll use some of our facilities to what we call ‘warm standby,’ which is essentially the minimum safe and secure posture for the Labs and its facilities.

The baseline,” he said, is that there will be no programmatic work after Oct. 21, there will be some very few exceptions to that rule, he noted, in sensitive work related to national security. Additionally, Paul said, a small number of staff, termed minimum essential personnel, needed to maintain the “warm standby” mode will continue to work through any shutdown.

Paul emphasized several points:
• Employees cannot and must not work from home, per federal labor law. All will be asked to leave any Labs-owned work tools (laptops, iPhones, Blackberrys, iPads, etc.) secured in their offices at work.
• Employees should not base any planning on an assumption that there will be retroactive pay for days not worked.
• Sandia’s intention is to continue to cover employee medical benefits during any furlough period lasting about a month.

Paul said that the Labs shutdown plan is based on an assumption that Congress votes to extend the nation’s debt ceiling.

“If the debt ceiling is not extended, we don’t yet understand what the implications would be. The department doesn’t know exactly; there’s no specific guidance from Treasury on that at this time. Everything I’ve talked about here presumably they’ve extended the debt ceiling but need more time to negotiate the CR.”

Before taking questions from the audience [see FAQs on page 4] Paul said, “You have to have faith in our country ultimately sorting its way through this. In our history we’ve sorted through some pretty tough challenges.”

Keeping informed during a shutdown
In the event of a shutdown, members of the workforce should monitor the operational status of the Labs via alert banners found on Sandia’s external homepage (www.sandia.gov), and news coverage through local television and radio stations. A reopening of Sandia following the resolution of a shutdown will also be communicated to the media by news release (https://share.sandia.gov/news/resources/news_releases/).

Labs brings home a record five regional tech transfer awards

Sandia won five regional awards from the Federal Laboratory Consortium (FLC) for its work to develop and commercialize innovative technologies. It was the most FLC regional awards Sandia has won at one time.

The FLC’s Far West/Mid-Continent regions recognized the Labs’ SpinDX, Sandia Cooler, and Self-Assembled Multifunctional Optical Coatings (SAMOC) with Outstanding and Notable Technology Development awards. Outstanding Regional Partnership awards were also earned by the Labs’ Tritium Recovery Consortium (TRC) for the remainder of the Oct. 18 workweek.

(Continued on page 5)

Plasmonic crystal alters to match light source

GREG DYER (1118) is co-principal investigator of a Sandia-led team that has created a plasmonic, or plasma-containing, crystal that is tunable by adjusting the voltage applied to it. The technology potentially could increase the bandwidth of high-speed communication networks. Read the story on page 5.

(Continued on page 5)
That's that

As I write this, we've been informed the Labs should be prepared to shut down operations on Oct. 1. But the current budget impasse in Washington hasn't resolved. No one knows what will transpire over the next few days but I'm operating on the premise that, come the 21st, I'll be somewhere besides this office. As at this point in time, I'm sure that, for all your grouding and grumbling (which are, after all, fundamental rights granted to American workers in the Constitution), you'd really rather come to work than not. When you finally hang it up, you want it to be on your own terms. I'm frustrated and admit to being a bit unsettled about this. Who wants to lose a paycheck or two (or more)? Who can afford it? None of us. On the other hand, we will see an end to the stalemate and return to work, hopefully sooner rather than later. It could be a lot worse – for us, I mean. Think about the folks we help out through our EGP contributions. Folks who don't have a home to return to. Let alone a job. I suspect I sound like a goody two-shoes; if so, then be it, but I do feel that I'm a lucky man to work at Sandia. And I'll be glad to report back to work at the earliest possible date. In the meantime, preoccupied as we may be with our own situations, let's not forget about our neighbors; the annual EGP campaign drive has been extended to Nov. 8 and there are plenty of people – too many – who need our help.

Events like this looming furlough, unsettling as they are, do often end up inspiring a sort of ironic, gallows humor. I've seen it many times over the years. In the situation at hand, not long after we got the word that we might be going home on the 21st, I overheard a conversation around the watercooler. Nearing the end of a long and demanding day – our team has been in the thick of things dealing with the complex communication issues related to the shutdown – a colleague looked at his watch and said, “How long till I go home?” Quick as a flash, another colleague looked at his own watch and said “About a week.” Wise guy.

Hey! Have you used the new voice-to-text feature in our upgraded phone system? It's a neat concept: If someone leaves you a voicemail, the system uses voice recognition software to convert the spoken message into text that it then forwards to your email inbox. The benefits are obvious: You get all your messages in one place.

The most interesting feature about the new system is that it was apparently implemented by a team of Sandia cryptographers: ‘The voice messages come through as text, all right, but text written in an almost impenetrable code. The clever and helpful. And the voicemail team that's introducing these new capabilities is to be thanked for introducing tools to make us more effective and productive in our work. One day – and my bet would be that day isn't too far off – the bugs will be worked out of this system and we'll wonder how we ever got along without it. We work. One day – and my bet would be that day isn't too far off – the bugs will be worked out of this system and we'll wonder how we ever got along without it. We work.

Okay, I've gotten my cheap laugh, such as it is, but text written in an almost impenetrable code. The clever and helpful. And the voicemail team that's introducing these new capabilities is to be thanked for introducing tools to make us more effective and productive in our work. One day – and my bet would be that day isn't too far off – the bugs will be worked out of this system and we'll wonder how we ever got along without it. We work. One day – and my bet would be that day isn't too far off – the bugs will be worked out of this system and we'll wonder how we ever got along without it. We work.

See you next time (whenever that may be)

— Bill Murphy (505-845-0845, M0148, wtmurph@sandia.gov)
Summer interns research commercialization avenues for RapTOR

By Patti Koning

In terms of commercialization, the individual components of RapTOR (Rapid Threat Organism Recognition) might not be valuable as the device as a whole — and one of the best applications for RapTOR down the road may be in aquaculture testing. Those were two of the recommendations made by students from the University of Oklahoma’s Center for the Creation of Economic Wealth (CCEW).

Three of the CCEW students — Susan Moring, Sam Parrill, and Carl Szumtko — spent the summer at Sandia studying commercial markets and commercialization strategies for RapTOR. They were mentored by Todd Lane (8623), Keni Patel (8125), Bianca Thayer (8539), and Victoria Vanderoot (8621) and monitored by CCEW Advisor Robert Free.

In their 8-week stay at Sandia, the students’ work was driven by three questions: what strategy should Sandia adopt to get RapTOR system commercially produced and made available for homeland security use in the near future; what future commercial potential exists for the RapTOR system; and what next steps should Sandia take to act on these recommendations?

“Our first approach of considering the RapTOR system as a whole really didn’t work,” says Sam. “We couldn’t find any viable near-term commercial markets for the composite system. But when we considered the different components, we found specific value for individual markets and were able to identify potential commercial partners.”

The three essential components are the DMF (digital micro fluidics) Hub, which automates and integrates microfluidic devices into systems; R2PCR — rotate zone polymerase chain reaction (PCR) — which provides rapid, fieldable PCR thermocycling for small throughput assays; and Multi-HAC, which non-destructively analyzes and diagnoses genetic material for sequencing. In their report, the students found that the unique characteristics of the RapTOR components drove the need for individualized commercialization approaches.

The students researched companies to partner with for each component, looking at the markets served by each company, ability to manufacture, potential use in the near future; what future commercial potential each component represents, and the team’s perspective and a unique dimension to Sandia’s national security mission.

“The CCEW students did a great job in capturing the heart of the RapTOR technology and our objectives in such a short time,” says Ken. “The conclusions and findings the team summarized are quite insightful, and it will benefit our commercialization efforts. The CCEW students bring a fresh perspective and a unique dimension to Sandia’s internship program.”

During their time at Sandia, the students also found time to experience much of the San Francisco Bay Area. They toured the headquarters of Google and Facebook, went sailing on the bay, and hiked Muir Woods.

The students created several tools to help move the commercialization process forward: a formal project report, tech briefs on RapTOR components, write-ups of each considered market, a spreadsheet of potential component partner companies, and a list of applicable aquaculture grants.

The relationship with CCEW originated with i-GATE, the Innovation for Green Advanced Transportation Excellence. The city of Livermore is the coordinator of i-GATE and Sandia is the program lead; other partners include Lawrence Livermore National Laboratory, two University of California campuses (Davis and Berkeley), Cal State East Bay, Las Positas College, the Livermore Chamber of Commerce, and the cities of Pleasanton, Dublin, San Ramon, and Tracy.

This is the third year that a team from CCEW has partnered with i-GATE and one of the Livermore national laboratories on a project. In 2011, CCEW students worked on a research project about how to expand i-GATE’s influence in the Tri-Valley. In 2012, CCEW students spent five weeks researching the potential commercialization of an LLNL clean combustion engine technology.

“This was the longest internship period — at eight weeks — and the most ambitious so far,” says Bianca. “I plan to use the results of the CCEW students’ analysis to guide commercialization of the RapTOR components next year.”

Memorial Plaque dedication

Div. 8000 VP Steve Rottler (photo at top right) recently dedicated a new memorial plaque honoring Sandians who died during active employment at the California site. The plaque was moved into the General Access Area in the Livermore Valley Open Campus to allow greater access by members of the workforce and the families and friends of those honored on the plaque. The dedication was an emotional event for many in attendance. In the photo at lower right, Jim Lund (8130), Carole Le Gall (8005), David Chandler (8350), and Sarah Allendorf (8650) pay their respects to the memories of deceased coworkers and friends.

(Sources: Dino Vournas)
**Retirees:** Pension payments from Prudential to continue as usual. See item on page 2.

**Unemployment benefits** in the state where they work. The Federal Labor's website provides links to individual state offices at http://www.service locator.org/UnsLinks.aspx.

**Miscellaneous**

- How will employees in special degree programs be impacted by a shutdown?
- If you are on unpaid leave, can I work on "my own time" for Sandia?
- What about those on Sandia travel?

**Working' during a shutdown**

- Can I take another job while I am on unpaid leave?
- What about those on Sandia travel?
Crystals are noted for the beauty of the light that passes through them. But the atomic arrangements of gems permanently fix the frequencies that are permitted passage.

Now a Sandia-led team has created a plasmonic, or plasma-containing, crystal that is tunable by adjusting the voltage applied to it. Because the crystal is agile in its ability to transmit and reflect particular wavelengths, it can engage as a photonic crystal, but smaller and tunable.

**Device created by Sandia-led team is like a photonic crystal, but smaller and tunable**

By Neal Singer

Photonic crystals are artificially constructed crystals built to allow transmission of particular wavelengths. Metamaterials require micron- or nano-sized bumps to interact between manmade structures and light. The plasmonic crystal, with its ability to direct light like a photonic crystal, along with its sub-wavelength, metamaterial-like size, in effect hybridizes the two concepts. Its methods could be used to shrink the size of photonic crystals and to develop tunable metamaterials.

The crystal’s electronic plasma forms naturally at the interface of semiconductors with a vacuum, a phenomenon required by most crystal buyers. The transmitted light is in the terahertz range, unobservable by human vision. And its output is electronically tunable by precisely tweaking a two-dimensional electron gas, a capability not required by most casual crystal buyers.

**Prototype device**

The paper is titled “Induced transparency by coupling of Tamm and defect states in tunable terahertz plasmonic crystals.” Other paper authors are Sandians co-p.i. Eric Shaner, Albert D. Grine, Don Bethke (all 1118), and John L. Reno (1111); Gregory R. Aizin of the City University of New York, and S. James Allen of the Institute for Terahertz Science and Technology, UC Santa Barbara.

The work was supported by the DOE Office of Basic Energy Sciences and performed in part at the Center for Integrated Nanotechnologies, a user facility of DOE.

**Protocell research is a joint effort of Sandia and UNM**

Protocell is a novel nanoparticle delivery vehicle that can be used as a Trojan horse to deliver drugs, antibiotics, and vaccines while reducing side effects. Protocell has been shown in vitro to make use of an enzyme specific to cancer and cell killing.

“Experimental is more than a curiosity precisely because our plasma resonances are permitted passage,” says Greg Dyer (1118), co-primary investigator of the paper published online Sept. 29 by Nature Photonics and expected in print in November. “Usually, electromagnetically induced transparency in more widely known systems like photonic crystals and metamaterials require tuning a laser’s frequencies to match a physical system. Here, we tune our system to match the radiation source. It’s invert- ing the problem, in a sense.”

Phononic crystals are artificially constructed crystals built to allow transmission of particular wavelengths. Metamaterials require micron- or nano-sized bumps to interact between manmade structures and light. The plasmonic crystal, with its ability to direct light like a photonic crystal, along with its sub-wavelength, metamaterial-like size, in effect hybridizes the two concepts. Its methods could be used to shrink the size of photonic crystals and to develop tunable metamaterials.

The crystal’s electronic plasma forms naturally at the interface of semiconductors with a vacuum, a phenomenon required by most crystal buyers. The transmitted light is in the terahertz range, unobservable by human vision. And its output is electronically tunable by precisely tweaking a two-dimensional electron gas, a capability not required by most casual crystal buyers.

**Protocol: Breakthrough drug delivery**

Protocell research is a joint effort of Sandia and UNM HSC, which includes the UNM School of Medicine, the UNM Cancer Research and Treatment Center, the College of Pharmacy, the Center for Infectious Disease and Immunity, and various UNM hospitals. A protocol of this novel technology is being developed that may dramatically improve the efficiency of chemotherapy and cancer treatments.

**Logistics**

Cutting power consumption when we are recognized alongside our partners.”

**Funding**

In December 2012, the second in March 2013, and three more are being negotiated. Chung-Yan Koh (1000), Carlee Ashley (8622), and Eric Carnes (8635), has worked the past six years to develop the protocell technology and test its efficacy in vitro and in vivo cancer models, including leukemia and cancers of the ovary and liver.

The Sandia-UNM team is extending protocell technology to prevention and treatment of infectious disease, addressing national security needs.

**Cargo security**

In cargo research, Sandia has partnered with NCS and the Department of Homeland Security (DHS) to develop, test, evaluate, and transition new security technologies to meet specific DHS and Department of Navy needs. Since 2001, DHS has been required to secure the storage and transportation of cargo entering and traveling through the United States against terror attack, introduction of contraband cargo, and pollution. An aggressive National Agenda for cargo security of high-value cargo that it transports around the world on a 24-hour basis.

John Dillinger (6622) and Steve Morrison (6531) worked on the project for Sandia.

“We are thrilled to have won these two partnership awards,” Jaffe says. “Partnerships with academia, government, and industry are crucial to Sandia’s efforts to deploy technology for the public good.”

The FLC is a national lab with more than 300 domestic and international partners, and its success is the result of 300 members that provides the forum to develop strategies and opportunities for linking laboratory mission technologies and expertise with the marketplace.

The FLC Awards Program annually recognizes fed eral and industry partners for outstanding technology transfer efforts. Since its establishment in 1984 the FLC has presented awards to nearly 300 federal and corporate partners for outstanding technology transfer efforts. The most prestigious honors in technology transfer.
Sandia celebrates Hispanic culture at annual diversity event

S
etting a record for attendance, nearly 700 people came out to celebrate at this year’s Hispanic Heritage Month diversity event at Hardin Field on Sept. 26. The event featured keynote speaker New Mexico Lt. Gov. John Sanchez, as well as live entertainment and traditional Hispanic foods.

The festivities kicked off with judging for the annual Hispanic Foods contest, with entrants in five categories. This year’s dishes featured a notably New Mexican influence, says contest volunteer Kenneth Armijo (6112).

While attendees sampled the contest cuisine and enjoyed lunch from Garcia’s Kitchen, Hispanic Leadership Outreach Committee (HLOC) Chair Pat Sena (2110) welcomed the crowd and introduced the speakers and events.

Pam Hansen Hargan, VP of Human Resources and Communications Div. 3000 and HLOC executive sponsor, introduced Sanchez, noting that this year’s Hispanic Heritage Month theme, “Hispanics: Leading and Serving Our Nation with Pride and Honor,” ties in well with Sandia’s motto, “Exceptional Service in the National Interest.”

“Our state is one in which the past and the present are blended in our everyday lives,” Sanchez said, “reminding us of the rich cultural diversity that we are blessed to be part of here in the Land of Enchantment.” Sanchez encouraged attendees to join him in resolving to protect the values and qualities that make Hispanic heritage so unique, to preserve the vibrancy and beauty of the culture, and to inspire future generations.

Following his speech, the lieutenant governor presented certificates to the winners of the annual New Mexico Youth Art Contest, whose artwork was on display during the event. He also received a commemorative coin from Emilee Reinholz (2545), who designed the winning crest for the U.S.S. New Mexico last year.

Entertainment during the event included flamenco performances by the students from Tierra Amarilla Charter School, live music from the Abel Lucero Band, and a salsa dance fitness demonstration by the HBE fitness team.

“It was more than just Hispanic diversity,” says event organizer Valerie Salim-Meza (160). Valerie and co-leads Rebecca Lopez (4826) and Tito Inzarr (10625) attributed the success of the event to the contributions of all the individuals and groups involved.

“All of the cultural organizations, Facilities, HBE, the Zero Waste team, KAFB, everyone worked together to make the event a huge success,” Valerie says. “The event was about partnering and togetherness. It showed true Labs diversity.”
WINNERS of the annual New Mexico Youth Art Contest pose with Lt. Gov. Sanchez.

A STUDENT from Tierra Amarilla Charter School plays the guitar during a flamenco performance.

THE ABEL LUCERO Band performs.

NEW MEXICO YOUTH ART CONTEST winner swings at a piñata.
Harnessing the sun’s energy with tiny particles

By Stephanie Hobby

Sandia researchers, along with partner institutions Georgia Tech, Bucknell University, King Saud University, and the German Aerospace Center (DLR), are using a falling particle receiver to more efficiently convert the sun’s energy to electricity in large-scale, concentrating solar power plants.

Falling particle receiver technology is attractive because it can cost-effectively capture and store heat at higher temperatures without breaking down, which is an issue for conventional molten salts. The falling particle receiver developed at Sandia drops sand-like ceramic particles through a beam of concentrated sunlight, and captures and stores the heated particles in an insulated container below. The technique enables operating temperatures of nearly 1,000 degrees Celsius. Such high temperatures translate into greater availability of energy and cheaper storage costs because at higher temperatures, less heat-transfer material is needed.

Central receiver systems use mirrors to concentrate sunlight on a target, typically a fluid, to generate heat, which powers a turbine and generator to produce electricity. Currently, such systems offer about 40 percent thermal-to-electric efficiency. The falling particle receiver enables higher temperatures and can work with higher-temperature power cycles that can achieve efficiencies of 50 percent or more.

“Our goal is to develop a prototype falling particle receiver to demonstrate the potential for greater than 90 percent thermal efficiency, achieve particle temperatures of at least 700 degrees Celsius, and be cost competitive,” says principal investigator Cliff Ho (6123). “The combination of these factors would dramatically improve the system performance and lower the cost of energy storage for large-scale electricity production.”

The project is funded up to $4 million by DOE’s SunShot Initiative, which aims to drive down solar energy production costs and pave the way to widespread use of concentrating solar power and photovoltaics.

Falling particle receiver technology was originally studied in the 1980s, and Sandia researchers are working to address challenges that hindered greater acceptance of the concept. Among the issues are mitigating particle loss, maintaining the stability of falling particles, increasing the residence time of the particles in the concentrated beam and reducing heat losses within the receiver cavity.

Cliff and his colleagues at Sandia have been working to address these issues by studying the effect of an added air curtain, created by a series of blower nozzles, to help particles fall in a stable pattern and reduce convective losses. Adjusting the particle size and how sand is dropped has also helped, ensuring more of the sand gets heated in a pass and makes it to the collection bin at the bottom. Researchers are also investigating the benefits of using an elevator to recirculate particles through the aperture a second time to increase their temperature.

“Given our unique facilities at the National Solar Thermal Test Facility, we have the capability of developing prototype hardware and testing the concepts we’ve simulated, which include innovations such as air recirculation and particle recirculation. Advanced computing lets us do complex simulations of the falling particle receiver to understand the critical processes and behavior,” Cliff says. “We’re very encouraged by our progress and look forward to further developing this enabling technology.”

Falling particle receiver technology could lead to power-tower systems capable of generating up to 100 megawatts of electricity. The project is in its first of three years, and a test-ready design is expected in 2015.
Connecting kids with the world . . .

One computer at a time

By Patti Koning

Computers and internet connectivity are some-thing we take for granted. Between work and home, many of us have more computers than we can count on one hand and we’ve come to expect internet access to be as reliable as electricity. But in developing coun-tries, computers and Internet access remain elusive. Rene Bierbaum (8225) and her husband Neal are working to change that, one school at a time, through their nonprofit organization Reneal International Education Outreach, appropriately named by combining their first names. Rene will retire in early November to dedicate herself fully to Reneal work — traveling to developing countries to install robust computer labs and train teachers on using computer resources.

The seeds for Reneal were planted back in 2006, when Rene and Neal served as Peace Corps volunteers in the Philippines (see the Aug. 14, 2009, issue of Sandia Lab News). They were assigned to Compostela National High School, where they developed a centralized file storage, personalized teacher accounts, and student accounts. He’s also spent a lot of time developing a simple and accessible user interface. He loads the server with standard application like picture editing, spreadsheets, and word processing, that can be run on any client computer. For the most recent Tanzania installations, he downloaded more than 4,000 Khan Academy videos, about 400 of which have been translated into Swahili by the Oakland-based nonprofit Anate as a

Rene made his first trip to Tanzania in 2010, after connecting with a nonprofit doing similar work in that country. He’s since been there three more times, most recently in August. Rene joined Neal on that trip, her second to Tanzania. They installed computer labs in three high schools. “It’s pretty exciting. As a result of that trip, 3,100 students and 85 teachers now have access to 51 computer

in their schools,” says Rene. “Most of the kids have never touched a computer before. Giving them the chance to use a computer prepares them so much for life after high school and for college. Computers and an internet connection open up so many worlds.”

She was quite moved at the official turnover cere-monies for the computer system at Mukulat Secondary School. “It was thrilling to hear the school board pres-

ident speak of the opportunities that computers could offer to the students at Mukulat, which is exactly the reason why Reneal IEO exists,” she says. “But then he went on to talk about how amazing it was to have a woman engineer (me) standing before them, some-thing that the girls may not have even known they could aspire to.”

Moving Forward

Reneal IEO incorporated in April 2012, becoming a 501(c)(3) tax exempt public charity in August of that year. Along the way, there have been plenty of lessons learned. One is to visit candidate schools to evaluate first-hand if they meet Reneal’s requirements: a dedi-cated computer room with tables and chairs, security, electricity, and an IT teacher and headmaster who will fully support the computer system. On his first trip to Tanzania, Neal went to an orphanage he thought was ready for a lab installation, only to find the site had no electricity.

One challenge for Reneal is acquiring the computer hardware. The server costs about $500 with all of the components; other necessary items such as the network switch, Ethernet cable, surge protection, UPS, and server monitor add another $600. Ideally the client computers are older, donated machines. “Dis-carded hardware in the United States tends to be really nice and Reneal can transform it into opportunity for kids in developing countries,” says Rene.

Nine installations

A Bay Area company recently donated about 50 surplus laptops to Reneal with more expected to come, allowing Rene and Neal to plan nine installations in the Philippines and Tanzania in 2014. Early next year they will take a long trip to the Philip-pines to do six lab installations, follow up at sites of previous installations, scout potential new sites, and spend time with the friends they made living in the country as Peace Corps volun-teers. They plan to travel to Tan-zania to do the other three installations late in the year. Looking to the future, Rene and Neal plan to split their time between traveling abroad to do lab installations and scout potential school sites and, at home, working on strategy and vision at Reneal. Neal continues to refine a system administra-tor’s manual, written by a Reneal board member, to share his expertise with others.

“We need to think about what we want to do with the nonprofit moving forward,” says Rene. “If we can get more hardware, it then becomes a logis-tical issue of getting hardware from here in the US to the schools. Expansion — if we pursue it, how it would happen — will be an important topic at our board meeting in January.”

Rene has mixed emotions about her approaching retirement from Sandia. “I hate to leave Sandia because I really enjoy my work and colleagues. Sandia has been very good to me. But we may not be able to travel like this and work on lab installations forever, so we want to keep at it while we are physically able,” she says.

Learn more about Reneal at http://reneal.org/. Rene has a blog on the personal and non-profit lab installa-tion trips and other Reneal mission areas.

With a smile on her face, a student at Mukulat Secondary School in Tanzania looks at a donated laptop.

STUDENTS BEGIN USING DONATED LAPTOPS in the newly installed lab at Paroma Secondary School in Tanzania.

A STUDENT AT MUKULAT Secondary School in Tanzania helps assemble one of the computers.
Open Enrollment for Employees

Your 2014 Open Enrollment elections must be made online. The link will be provided on hbe.sandia.gov beginning Monday, October 28. If you wish to make your elections from home, you must log in using your Cryptonail.

- Enroll, disenroll, waive, or make changes to a medical plan.
- Enroll, disenroll, or waive dental and/or vision plan.
- Enroll in the healthcare or daycare flexible spending account.
- Enroll in the Vacation Buy Plan.

Important: Even if you are currently enrolled in the Health, Benefits, and Employee Services (HBE) plan, you must re-enroll to receive these benefits in 2014.

Detailed information on 2014 changes can be found in the 2014 Benefits Choices Open Enrollment Newsletter, which will be available on hbe.sandia.gov beginning Tuesday, October 15.

Retiring in 2013?

If you are retiring in 2013, you do not need to enroll for 2014 benefits through the Sandia HR Self Service application. Please contact Extend Health at 1-888-598-7809 or visit the Sandia HBE website at hbe.sandia.gov.

- Enroll, disenroll, or make changes to Medicare Premium Payment Plan.
- Enroll in the Dental Plan.
- Enroll in the Vision Plan.

Detailed information on 2014 changes can be found in the 2014 Benefits Choices Open Enrollment Newsletter, which will be available on hbe.sandia.gov beginning Tuesday, October 15.

Employee Benefits Fairs

This year, Health, Benefits, and Employee Services (HBE) will host several benefits fairs for employees. During the Open Enrollment Fairs you can meet with representatives from:

- Extend Health
- Davis Vision
- Lovelace Health Systems
- Delta Dental
- UnitedHealthcare
- Blue Cross Blue Shield of NM
- Kaiser Permanente
- Fidelity
- Express Scripts
- Workplace Options

Open Enrollment Fairs are open to Sandia PreMedicare retirees and their dependents. All fairs will be held at the UNM Continuing Education Conference Center, 1634 University Blvd. NE.

ALBUQUERQUE PreMedicare Open Enrollment Fairs

Fairs are open to Sandia PreMedicare retirees and their dependents. All fairs will be held at the UNM Continuing Education Conference Center, 1634 University Blvd. NE.

More information

For more information regarding Retiree Open Enrollment, contact Extend Health customer service at 888-598-7809 between 7 a.m. and 7 p.m. MT.

Livermore, New Mexico

Sandia Benefits staff and your plan administrators (BCBSNM and UHC) will be available to answer questions about 2014 changes and provide explanations of the Sandia Total Health plan.
How to submit classified ads
DEADLINE: Friday noon before week of publication unless changed by holiday.
Submit by one of these methods:
• Mail: MS 1468 (Dept. 3651)
• Lab News, 18th floor, Livermore, CA 94550
• Ad rules.
• E-mail: classads@sandia.gov

The following representatives are available during the entire fair:
• Extend Health/Marsh
• Blue Cross Blue Shield of New Mexico
• UniHealthcare
• Kaiser Permanente
• Express Scripts
• Davis Vision
• Delta Dental

2014 Benefits Choices Open Enrollment

• Open enrollment for active employees: Oct. 28-Nov. 14
• Open enrollment for PreMedicare retirees: Oct. 15-Nov. 15
• Open enrollment for Medicare retirees: Oct. 15-Dec. 7

The Sandia Open Enrollment 2014 for Sandia retirees and surviving spouses will be held:

PreMedicare Retirees
Tuesday, Oct. 15-Friday, Nov. 15 (5 p.m. MT/4 p.m. PT)
Medicare retirees
Tuesday, Oct. 15- Saturday, Dec. 7 (5 p.m. MT/4 p.m. PT)

Extend Health manages Open Enrollment for Sandia's retirees, surviving spouses, and long-term disability terminees.
Extend Health offers personalized assistance through licensed benefit advisors to help you navigate through your health care options, evaluate, and select the option that is best for you. This service is provided at no cost to you and/or your spouse.
Detailed information on 2014 benefits changes will be posted on the 2014 Benefits Choices and Enrollment Guide sent from Extend Health to all participants' home addresses by October 14. Please review your 2014 Benefit Choices and Enrollment Guide for information on your 2014 premium rates and (Medicare) Your Spending Account (TSA) credits. If you have changed your mailing address in the last 6 months, log in to your enrollment, please contact Extend Health at 888-598-7807 to update your address.

More information for retirees
For more information regarding Retiree Open Enrollment, contact the Senior Life Health and Wellness office at 505-884-3613 or visit the Sandia HBE website at hbe.sandia.gov.

MOUNTAIN BIKE, Raleigh M-50, two 26" tires (clincher), excel- lent condition, upgraded seat. Priced $3,573.09-

REAL ESTATE

SANDIA PARK, gorgeous 4 acre homestead, level and square, fenced in well, electric, phone, ready-to-build, beautiful neighborhood, $50K, easy terms. Mihalik, 281-1306.

4 BOH: Home 2 Masters, 3 bath, tri- level, 2260 sq-ft., LR, DR, FR, 2 car garage, inground pool, new car- pet, cats, 55 appl. heights, $420K. Reeves, 505-884-579.

5 ACRES for sale, northwest corner of Belen, Alexander Municipal air- port, zoned commercial, great in- vestment, $39,900. Aragon, 888-1473.

SANDIA LAB NEWS    October 18, 2013    Page 11

LIVERRIDGE PreMedicare Open Enrollment Fair
This fair is open to Sandia PreMedicare retirees and their dependents and will be held at 7011 Ave. Bldg. 928, Livermore, Calif. Retirees and guests must register by calling 925-292-2161 or emailing saludca@sandia.gov by Nov. 1. Please provide both name and country of citizenship to be added into security gate list.

PREMEDITATION

2014 Benefits Choices Open Enrollment

• Open enrollment for active employees: Oct. 28-Nov. 14
• Open enrollment for PreMedicare retirees: Oct. 15-Nov. 15
• Open enrollment for Medicare retirees: Oct. 15-Dec. 7

The Sandia Open Enrollment 2014 for Sandia retirees and surviving spouses will be held:

PreMedicare Retirees
Tuesday, Oct. 15-Friday, Nov. 15 (5 p.m. MT/4 p.m. PT)
Medicare retirees
Tuesday, Oct. 15- Saturday, Dec. 7 (5 p.m. MT/4 p.m. PT)

2014 Benefits Choices Open Enrollment

• Open enrollment for active employees: Oct. 28-Nov. 14
• Open enrollment for PreMedicare retirees: Oct. 15-Nov. 15
• Open enrollment for Medicare retirees: Oct. 15-Dec. 7

The Sandia Open Enrollment 2014 for Sandia retirees and surviving spouses will be held:

PreMedicare Retirees
Tuesday, Oct. 15-Friday, Nov. 15 (5 p.m. MT/4 p.m. PT)
Medicare retirees
Tuesday, Oct. 15- Saturday, Dec. 7 (5 p.m. MT/4 p.m. PT)

Extend Health manages Open Enrollment for Sandia's retirees, surviving spouses, and long-term disability terminees.
Extend Health offers personalized assistance through licensed benefit advisors to help you navigate through your health care options, evaluate, and select the option that is best for you. This service is provided at no cost to you and/or your spouse.
Detailed information on 2014 benefits changes will be posted on the 2014 Benefits Choices and Enrollment Guide sent from Extend Health to all participants' home addresses by October 14. Please review your 2014 Benefit Choices and Enrollment Guide for information on your 2014 premium rates and (Medicare) Your Spending Account (TSA) credits. If you have changed your mailing address in the last 6 months, log in to your enrollment, please contact Extend Health at 888-598-7807 to update your address.

More information for retirees
For more information regarding Retiree Open Enrollment, contact the Senior Life Health and Wellness office at 505-884-3613 or visit the Sandia HBE website at hbe.sandia.gov.
A quiet campaign

ECP has a low-key, but vital, launch

By Nancy Salem

Sandia’s Employee Caring Program (ECP) is under- way with fewer supporting events but as strong as a philanthropic mission as ever.

“The campaign is still very, very important,” says Kelly Westlake, manager of Business Operations Support Dept. 10586 and this year’s ECP campaign chair. “We’re not going to have the big promotional activities, but it is meaningful as ever and proceeding for success.”

With a Sandia shutdown looming due to a federal budget impasse on Capitol Hill, several ECP events were canceled or postponed as the campaign launched on Oct. 7. The deadline for donations was extended from Oct. 25 to Nov. 8 to give employees time to assess their personal situations in the event of a shut-down, Kelly says.

“I recognize the environment we’re in and the emotional distress people are facing, but hopefully when the federal government resolves this issue, Sandians will realize now is the time to help those most vulnerable,” Kelly says.

VP Pamela Hansen Hargen of Div. 3000 says difficult situations can create greater need. “With all the challenges our nation is facing today, including many of our own New Mexico residents, a greater number of people will have a need for continued services and may be seeking help from United Way for the first time,” she says. “Sandia has a long-standing reputation for giving back to our community. With your continuous contributions, either as an ongoing contributor or first-time giver, we can continue that legacy.”

Lab News press time, 56 percent of Sandians had pledged more than $4.2 million to the ECP through recurring donations and the give.sandia.gov website. “Even in a typical year this is what the first week looks like,” says Pam Catanach (3651), the Community Involvement specialist who coordinates ECP activities. “I am optimistic we will break the best part of our campaign in the weeks closer to Nov. 8.”

Last year Sandia became the first New Mexico company to top the $5 million mark in a single campaign when employees and retirees gave $5,508,717, a 17.1 percent boost over 2012.

This year’s ECP goals are:

• Donate at least $5.75 million, a 3 percent increase over last year.
• Raise participation rates in every division from the 2012 baseline of 75 percent, up from 73.6 percent last year.
• Continue to grow new employees (5+ years) in Sandia’s culture of giving by increasing their participation from 58.6 percent to at least 65 percent.
• Increase contributions to the Community Fund by at least 10 percent, or about $150,000. Last year 28 percent of Sandia donations went to the Community Fund.

Fundraising book fairs have been held since early October to support the campaign. A final book fair is scheduled for Oct. 22-24 in the IPOC second floor break room from 10 a.m.-2 p.m. Pam Catanach says ECP center representatives will reach out to people who do one-time donations instead of recurring, and newer employees who might not have signed up. There is also an active retiree campaign.

“Giving is a tradition that doesn’t stop when an employee leaves Sandia,” she says. Last year, retirees gave $750,000 to the ECP.

Donations can be directed to any nonprofit worldwide or to the Community Fund, which supports a range of agencies and programs addressing self-sufficiency, health, and education. All United Way of Central New Mexico (UWCMN) administrative expenses are covered by companies that direct their gifts to the Corporate Committed program, so 100 percent of employee donations go to the chosen nonprofits.

Employees can make changes to their donation online by Nov. 8. Later in the year using a paper form.

Since the ECP was launched in 1995, Sandia has been the single largest supporter of the UWCMN’s annual campaign, donating more than $76 million. Kelly says the ECP campaign will forge ahead and reach the ultimate goal helping those most vulnerable on the federal level in Albuquerque. “It’s at times like these that Sandians come through,” he says. “We really needed the most help in our community and continue to deliver.”

I give because . . .

By Nancy Salem

Dara Kaufman left behind a husband and three children when she died of cancer in 2007 at age 48.

The family was devastated. As her husband, Sandian Steve Kaufman (241), made funeral arrangements he saw they were not the only kids in the world who had lost a parent. “For my kids, seeing other people in the same situation was helpful to them,” he says. “They saw they were not the only kids in the world who had lost a parent.”

Steve says he has found memories of the program and the people. “It’s about talking it through. The facilitators are not psychologists. They’re not trying to fix you. They provide a safe place where kids and parents can talk to people who know what it’s like to lose a family member. And there’s an awful lot of power in that. It certainly helped us.”

The Children’s Grief Center is a nonprofit organization supported in part by the United Way of Central New Mexico. Its peer support groups, started in 2001, are offered due to change in grief children, teens, and adults for as long as needed.

The center, which receives no state or federal funding, has two locations, one in Albuquerque’s North Valley and the other in Rio Rancho. It served 429 people last year.

The program operates on four principles:

• Grief is a natural reaction to loss of a loved one for children and teens as well as adults.
• Within each individual is the natural capacity to heal oneself.
• The duration and intensity of grief are different for each individual.
• Caring and acceptance assist in the healing process.

“For the children, we do physical activities, board games, and crafts to help them continue as the person who is gone. We make memory boxes, memory candles, and stepping stones to help them talk,” says Kelly Geib-Eckenroth, senior program coordinator. “Our goal is to get children to express their feelings.”

More information is available on the group’s website, www.childrensgrief.org.

The Employees Caring Program provides a quick and easy way for me to support organizations that are making an impact in my community, my family, and my life.

— Tiffany Long (851)

“I give to ECP because it makes me feel good that I am able to help people and animals who are in need. Everyone deserves to have a helping hand when they need it and with ECP I am able to provide that for them.”

— Rachel Hurd (2128)