SANDIA LABNEWS
PUBLISHED SINCE 1949

Vol. 72, No. 2, January 17, 2020

Peery looks to the future

New Labs Director shares his plans and priorities with Labs workforce

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Economic Impact: Sandia Labs spends $3.68B

Small businesses, new hires are major players in FY2019 economic impact

TAKING CARE OF BUSINESS — From left, Sandia Infrastructure Services Director Lynnwood Dukes meets with nStone President Donald Lincoln and nStone project manager Munene Kasina to discuss work the Albuquerque-based small business is performing with Sandia. **Photo by Lonnie Anderson**

By **Michael J. Baker**

Sandia pumped an all-time high of nearly $3.68 billion into the economy in fiscal year 2019 by spending on goods, services, payroll, taxes and other payments, Labs Director James Peery announced during a news conference on Jan. 15.

"Sandia is proud of the past success but will not rest," James said. "We will keep building on these successes and seeking partnerships with highly qualified, diverse suppliers that can contribute to Sandia's national security mission and spur economic growth in New Mexico and across the country."

A big part of the spending impact included $1.54 billion in payroll. Sandia added more than 1,100 new positions last year, helping to raise the number of Sandia employees above 14,000 for the first time.

The more than $1.41 billion spent to purchase goods and services from suppliers in fiscal year 2019 also played a significant role in the overall

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A peek inside a working battery

Thin radio-frequency detectors monitor capacity of commercial lithium-ion batteries

By **Melissae Fellet**

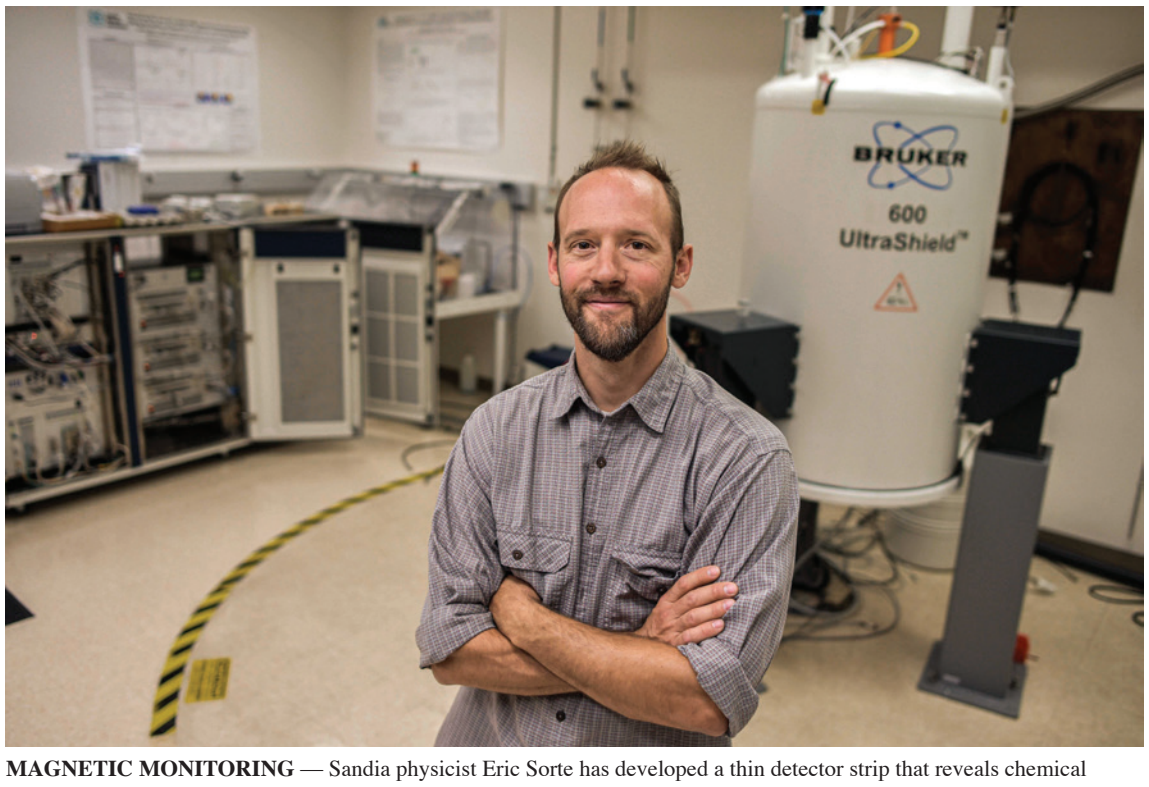
A new paper-thin radio-frequency detector designed to work inside a lithium-ion battery provides information about the battery's health while charging and discharging.

"It could enable researchers to check a battery's function and capacity after years of storage without destroying it," said Sandia physicist Eric Sorte.

The work, funded by Sandia's Laboratory Directed Research and Development program, will help researchers better understand and characterize batteries to improve them for renewable energy storage and national security applications. Manufacturers also might use this one day to run diagnostic tests, Eric said.

Inner workings

As a lithium-ion battery powers an electronic device and then recharges, chemical and physical changes happen inside that reduce its function over time. Molecular side products form as lithium ions nestle into and leave each electrode. These molecules can consume the active lithium and reduce a battery's capacity. Electrodes also can undergo unwanted chemical changes, reducing their ability to stay charged. Microscopic spikes of lithium can grow from an electrode surface, consuming key charge-carrying ions and creating potentially flammable conditions.



MAGNETIC MONITORING — Sandia physicist Eric Sorte has developed a thin detector strip that reveals chemical changes happening inside a lithium-ion battery as it charges and discharges. **Photo by Randy Montoya**

As researchers work to improve the performance of lithium-ion batteries, they tweak a battery's chemical components and cycle the system through many charges and discharges. Then they open the battery and examine the materials under a microscope to see how their structure and composition have changed.

Researchers could get that information much faster if they could monitor conditions inside a battery as it charges and discharges. One way they currently do that is with a technique that uses

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LABNEWS Notes

Education With Industry officer joins Sandia

Labs hosts its first participant from U.S. Air Force program

By ***Michael J. Baker***

For the first time, Sandia is hosting a student in the prestigious U.S. Air Force Education With Industry program, a highly selective program that pairs participants with industry leaders in their career field.

Sandia's Military Liaison group is sponsoring Capt. Antonio Gallop, also the Air Force's first 21M Munitions Missile Maintenance officer ever selected for the program.

"Understanding the Department of Energy acquisition and the lifecycle management process of the deterrence mission of the nuclear weapons enterprise is phenomenal," Antonio said. "It's invaluable to understand how the industry works and how I can bring that knowledge back to the Air Force."

Antonio has led logistics and maintenance technicians on three different continents, with assignments in North Dakota, South Korea and the United Kingdom. His last assignment before joining Sandia was as a Major Command-level evaluator on the United States Air Forces in Europe Inspector General team stationed in Germany.

"We are very fortunate to have Capt. Gallop and want to welcome him to the Sandia team," said systems engineer Mark Meyer with Sandia's Military Liaison group.

Antonio has been in the Air Force for just over eight years, joining after graduating from the University of Florida with a history degree and commissioning in 2011.

"I was in ROTC at UF, then went active duty a couple months later after graduation," said Antonio, who grew up in Durham, North Carolina.

IMMERSED IN INDUSTRY — U.S. Air Force Capt. Antonio Gallop is the first Education With Industry student hosted at Sandia. **Photo by Randy Montoya**

Understanding industry

Education With Industry is administered by the Air Force Institute of Technology on behalf of the Secretary of the Air Force, Acquisition. The program sends Air Force officers and enlisted personnel on a 10-month career-broadening tour with a selected company to learn leading-edge technology and innovative management processes. The program started in 1947, the same year the Air Force was established.

In this 72nd Education With Industry class, 45 companies — including Boeing Co., Delta Air Lines Inc. and Google — will support 74 students selected by a personnel board in a competitive process. Through the program, participants develop a more thorough understanding of commercial industry and are better able to interpret Air Force needs in industry terms. The intent is to broaden and expose selected personnel to the commercial logistics, system design, engineering and industrial maintenance experience. Graduates will return to the Air Force and provide first-hand knowledge of how leading firms are accomplishing best commercial practices to help establish more effective and efficient maintenance processes within the Air Force.

During Antonio's first weeks, he gained hands-on experience with a B83-1 Type 3 trainer, assisted with facilitating and training more than 500 students from all over the U.S. nuclear enterprise and took the lead to conduct nuclear stockpile orientation training for the new commander of the 377 Air Base Wing at Kirtland Air Force Base.

"Our goal is to immerse Antonio into a wide range of Sandia mission areas such as stockpile sustainment and annual assessment, as well as research and development for life extension programs here and at other locations such as Pantex and Kansas City National Security Campus," Mark said. "When he returns to the USAF after 10 months, Antonio will have a much better understanding of how his military requirements for weapons, test gear, handling gear and publications are translated into operational stockpile systems."

As a 21M Munitions Missile Maintenance leader, he will use this Education With Industry experience to enhance mission readiness and combat capability for the land-based intercontinental ballistic missiles and air delivered systems, which is two-thirds of the U.S. nuclear triad deterrent mission, Mark said.

Sandia employees wishing to help with Antonio's training can locate him through the Labs' employee directory.

SANDIA LABNEWS
PUBLISHED SINCE 1949

Managed by NTESS LLC for the National Nuclear Security Administration

Sandia National Laboratories

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Sandia National Laboratories is a multimission laboratory managed and operated by National Technology & Engineering Solutions of Sandia, LLC, a wholly owned subsidiary of Honeywell International Inc., for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-NA0003525.

Published on alternate Fridays by Internal, Digital and Executive Communications, MS 1468

LAB NEWS ONLINE: sandia.gov/LabNews

LABNEWS Notes

EDITOR'S NOTE: Lab News welcomes guest columnists who wish to tell their own "Sandia story" or offer their observations on life at the Labs or on science and technology in the news. If you have a column (500-800 words) or an idea to submit, contact Lab News editor Tim Deshler at tadeshl@sandia.gov.

Peery's vision for Labs' future

New Labs Director addresses workforce in New Mexico, California

PASSING THE BATON — Incoming Labs Director James S. Peery, left, works closely with outgoing Labs Director Steve Younger to ensure a smooth leadership transition. **Photo by Randy Montoya**

By ***Michael Ellis Langley***

In his first week on the job, Labs Director James S. Peery told all-hands meetings in New Mexico and California about his initial priorities, "enormous passion" for national security and commitment to a diverse, inclusive workforce.

"I am a Sandian. I think I know what makes this laboratory tick," he told the crowd in California. "I want to thank you and your families for all the sacrifices you make to keep this nation secure."

James called inclusion and diversity a business imperative. He told the audiences that studies show diverse teams are more innovative and higher performing. "We're in the innovation business. Why wouldn't we want diverse teams?" he said.

He asked his audiences to cast aside the traditional distinction between mission enabling and mission delivery organizations, which can create barriers and make people believe they aren't contributing equally to Sandia's mission. He said his goal is to remove barriers. "We're all in the fight together," he said.

Innovation race

James in both talks pointed to a variety of global threats, saying that the U.S. is in an innovation race with many countries, but significantly with China, to advance technology. He said bureaucracy in research and development has grown and is creating real hurdles to discovery. Sandia's leaders must not be afraid to dive into the crucible of scientific discovery and take technical risks, he said.

"Another angle of this that really worries me is our fear of failure," James said. "Today, there is little tolerance with failure. One of the ways we learn is through making mistakes. Much of science progresses through trial and error."

That fear of failure was one issue James said he raised when he was interviewed for the Labs' top spot. He told the panel he would try to change some of the institutional impediments to risk and innovation.

Top priorities

James said he is joining the existing leadership team and looking ahead, not back. "Based on my experiences at Sandia and other national labs, I want to apply best practices to key areas," he said.

In addition to accelerating innovation, creating more inclusion and advancing operational excellence, James said his top six priorities for the next three months are the W80-4 schedule, increasing trust across the Labs, benefits and compensation, the efficacy of tier accountability, hiring the new associate Labs director for Infrastructure Operations, and listening and learning from the workforce.

James took time in both addresses to encourage everyone to feel pride in the accomplishments of all Sandians. "I think that's something we need to work on at Sandia. I think we need to celebrate our innovation," he told both audiences. "I'm really excited to be here. What you're doing is absolutely amazing and I am glad to be a part of it again."

James joined Sandia as a researcher in 1990, worked at Los Alamos National Laboratory from 2002 to 2007, returned to Sandia until 2017 and spent the past two and a half years as associate director for national security programs at Oak Ridge National Laboratory. His complete biography is available on sandia.gov/about/leadership.

Employees can watch the recorded New Mexico or California all-hands meetings on Sandia's internal digital streaming library.

LABS VISION — New Labs Director James S. Peery introduced himself and shared his plans for the Labs' future with the workforce at two all-hands events last week. **Photo by Randy Montoya**

WARM WELCOME — Audiences filled auditoriums in New Mexico and California last week to meet new Labs Director James S. Peery. **Photo by Lonnie Anderson**

Inside a working battery

CONTINUED FROM PAGE 1

the same principles as magnetic-resonance imaging in hospitals. This method provides clues to a molecule's structure and environment by looking at signals from a specific element in that molecule.

Here's how it works: First, the instrument sends a pulse of radio waves tailored to interact with a specific atomic nucleus in elements such as lithium, sulfur or hydrogen. As a nucleus settles back to its original state, it gives off a signal that changes predictably depending on an atom's surroundings.

Researchers have used this technique to look at chemical changes in batteries before, but they had to modify battery components in ways that don't exist in working batteries. This new detector, created by Eric and his colleagues, is designed to work in batteries as they are made for everyday use.

Thinner than a sheet of paper, the detector strip can be made to fit inside a battery of any shape. The researchers have already slipped one inside a commercially available battery. They imagine one day inserting detector strips into batteries during manufacturing so they already contain the component needed for a quick health check.

Unique signal indicators

Using the detector, Eric and his colleagues can see unique signals for lithium ions as they interact with the material in each electrode. This enables them to track how much charge a battery holds throughout repeated charging and discharging cycles; declining capacity is a sign that a battery is dying.

The researchers can also see unique signals from molecules produced during side reactions as a battery operates. They can monitor these molecular side products and then tweak a battery's chemical components to reduce undesirable reactions. These changes can help them improve batteries to have properties needed for applications such as large-scale renewable energy storage. Manufacturers also could use this device one day to run diagnostic tests on batteries, Eric said.

The same approach and detector strip could be used to look at the inner workings of vanadium flow batteries and other chemistries too, he added. Eric also is working on monitoring the inner life of batteries using the electrodes already present, so that no additional components would be needed.

Economic Impact

CONTINUED FROM PAGE 1

spending impact, said Scott Aeilts, associate Labs director for Mission Services, referencing the newly released 2019 Sandia Economic Impact Brochure. Nearly $522 million was spent on New Mexico businesses, and the state's small businesses received nearly $364 million in subcontract payments.

"These numbers continue to trend upward on a yearly basis and show Sandia's continued commitment to small businesses and New Mexico," Scott said. "As Sandia grows, we are able to return investment into the communities, the states and the country that we serve."

Other economic impact highlights, based on data reflecting actual payments made during Sandia's fiscal year from Oct. 1, 2018, to Sept. 30, 2019, include:

- Sandia's close to $3.68 billion in spending was an increase of nearly $363.5 million compared to fiscal year 2018.
- The more than $1.41 billion spent on goods and services — about $1.32 billion in subcontract payments and roughly $90.2 million in procurement-card purchases — was up about $140.7 million from the previous year.
- Sandia paid about $98.1 million in corporate taxes.
- The Labs spent nearly $2.17 billion on labor (including payroll) and other non-subcontract related payments, up about $221.6 million from fiscal year 2018.

Committed to small business

The data released in January also showcases Sandia's commitment to small businesses, which received nearly $784.2 million, roughly 59% of the more than $1.32 billion spent on subcontract awards in fiscal year 2019.

New Mexico businesses received more than $509.4 million in subcontracts, about 39% of the total subcontracting amount. New Mexico small businesses received nearly $364 million, about 71% of subcontract payments to New Mexico companies.

Compared with fiscal year 2018, subcontract spending was up about $47.2 million with New Mexico businesses, with much of that increase coming from the state's small companies. Total U.S. small business spending for fiscal year 2019 increased by nearly $127.9 million from the previous year.

"Small businesses are essential to Sandia's success in accomplishing our national security mission," said Delfinia Salazar, senior manager of supply chain integration. "We will continue to focus on developing those relationships in an effort to support economic growth in New Mexico and the nation."

SMALL-BUSINESS SUBCONTRACT PAYMENTS

	FY19 OVERALL	INCREASE FROM FY18
Total small-business payments	**$784,153,000**	**$127,932,000**
Disadvantaged	$202,531,000	$29,139,000
Woman-owned	$152,043,000	$19,892,000
Veteran-owned	$143,735,000	$36,982,000
Service-disabled veteran-owned	$107,004,000	$28,457,000
HUBZone	$71,694,000	$3,071,000
Small business (Not counted under a category above)	$348,129,000	$55,030,000

NOTE: A subcontract for one business can be counted in multiple categories.

SMALL-BIZ FORWARD — nStone project manager Munene Kasina, left, and nStone President Donald Lincoln discuss a new hot water pump the small Albuquerque-based business helped install at Sandia. **Photo by Lonnie Anderson**

Symbiotic relationships

One New Mexico company benefiting from Sandia's maintained focus on small businesses is Albuquerque-based nStone Corp., a consulting engineering firm that has supported Sandia since 2011.

"We've had a great continued relationship with Sandia," said nStone President Donald Lincoln. "Sandia is very easy to work with. They bend over backward to be helpful, and they want us to be successful."

nStone provides engineering services in the areas of facility maintenance management, environmental safety and health operations, construction projects, project management, quality assurance, real property maintenance and management and several other areas.

"Our team has a strong history of support with Sandia and understands the challenges of working at both the New Mexico campus and the remote locations," Lincoln said. "We are proud to support Sandia's critical national defense mission now and in the future."

Small and diverse suppliers

Sandia seeks out small businesses like nStone through a variety of programs, as well as hosting public forums with suppliers and civic leaders to discuss subcontracting opportunities and listing opportunities on its iSupplier Portal. The Labs launched a 5% pricing preference for New Mexico small businesses in fiscal year 2018 and developed a mentor-protégé program based on the DOE model for small businesses in fiscal year 2019.

"Small businesses, especially those right here in New Mexico, are what makes Sandia's mission a success year after year," said Paul Sedillo, Sandia's small-business program manager. "Sandia recognizes the value of small, local and diverse businesses and continues to make a conscious effort to meet with local suppliers and increase spending in New Mexico."

ECONOMIC BOOM — The Labs' fiscal year 2019 Economic Impact brochure breaks down Sandia's spending and spotlights its role in local and national economies. **Cover design by Lloyd Wilson**

For the past three years, Sandia has hosted small-business open houses to meet with business owners and representatives. In fiscal year 2019, Sandia hosted eight such events attended by 431 companies who met with subcontract professionals, supplier diversity advocates and other Sandia personnel, and learned about the New Mexico Procurement Technical Assistance Center, a free New Mexico small business resource center.

In fiscal year 2019, Sandia added more than 537 new small businesses to its supplier base. In all, small businesses represent 65% of Sandia suppliers.

Subcontract-related payments were up across multiple federal small business categories, including small disadvantaged, women-owned, veteran-owned, service-disabled veteran-owned and small businesses in impoverished, HUBZone areas.

"The Sandia small business team partners with a variety of agencies and national labs across the country to provide education on opportunities for local businesses to grow at Sandia, as well as within the industry as a whole," Paul said. "Sandia had a lot of great opportunities in 2019 for small and diverse suppliers. Expect to see more great opportunities in 2020."

SASE honors Alan Mar

By **Troy Rummler**

When nuclear radiation hits electronics, it cuts through semiconductors, leaving scars of charged particles that can flip computing bits and corrupt memory circuits, potentially disabling devices or causing erratic errors.

Experts like engineer Alan Mar ensure components made for the U.S. nuclear stockpile pass stringent standards to resist radiation and remain safe and reliable in extremely harsh environments. Alan, who has worked at the Labs for 25 years, has been honored by the Society of Asian Scientists and Engineers with a 2019 Professional Achievement Award.

The society recognized Alan as someone who "has made significant discoveries, made important advances in his or her chosen career path and is acknowledged as a leader of large initiatives."

Former Labs Director Steve Younger said Alan "has approached his remarkable career with a sense of continuous growth. The depth and breadth of knowledge he has gained in diverse research and technical areas makes him both an invaluable contributor to our national security mission and an important mentor to the next generation of scientists and engineers."

Jason Shelton, Alan's manager, added: "I've come to appreciate his dedication to the work and to Sandia's national security mission."

Alan said that a lot of the work Sandia does is invisible to the public.

"When we insert a new technology that makes us more confident that our stockpile systems are more reliable under storage over decades, I take satisfaction in that," Alan said. "And that's completely different than developing some new product that generates a billion-dollar business. I think they're both very worthy things to strive for, but this pride is something sort of special to Sandia in fulfilling our core mission."

State-of-the-art computer modeling

Alan is now leading a team of researchers to make a push over the next five years to reach a major accomplishment in his field.

Currently, the models Alan uses focus only on specific parts of a system because a comprehensive calculation could take months or longer to churn through, even on high-performance computing platforms. An integrated circuit — or chip — can have millions of transistors, each one requiring its own set of calculations. And that's just one small part of a whole component.

Using a Sandia-developed code sponsored by NNSA's Advanced Simulation and Computing program, Alan's team wants to build a computer model that can predict the radiation effects on a whole weapons component.

Advanced modeling speeds up weapons research, development and qualification. It also lets researchers model changes in experimental conditions that increase the total radiation dose, change how fast a device gets that dose and mix and match destructive elements like neutrons, energy and heat in environments that cannot be recreated in experimental facilities.

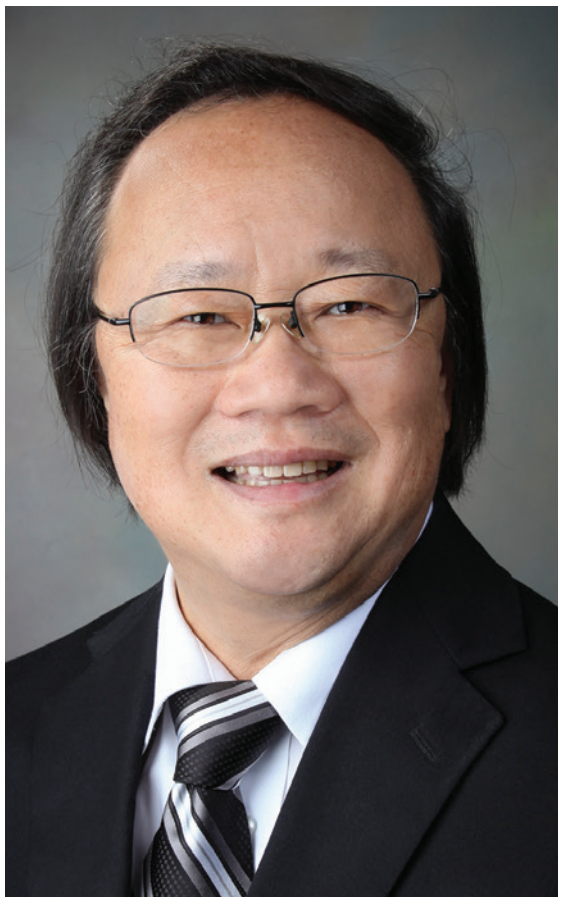
"We can't always replicate an environment that our systems may see," Jason said. "It may take years to build a facility, but with this modeling capability that's being established, sometimes you may be able to get an answer sooner by running a simulation."

Whole-model holy grail

The path to Alan's whole-model holy grail, he said, is largely marked by two goal posts.

The first goal is eliminating inefficiencies in the current code.

"We work very closely with the code developers and we show them the long poles in the tent when we see them, in terms of calculations that take a lot of time to run," Alan said. This feedback enables developers to improve the efficiency of their models.



MODEL ENGINEER — Sandia's Alan Mar was recognized this year by the Society of Asian Scientists and Engineers. **Photo by Lonnie Anderson**

The second goal is to lump together parts of a system into a kind of mathematical abstraction "that doesn't incorporate all the devices underneath, so that block runs a lot faster than if you did it brute-force with all the circuit elements that were originally there," he said.

The technique has already been shown to shrink computation times from weeks to minutes while maintaining an accurate estimation of a device's response to radiation, he said.

Jason said Alan works tirelessly to push the forefront of technology, especially in modeling.

"'How can we make the models run faster? How can we make them more accurate?' He's not happy with the status quo," Jason said. "He asks: 'What's next?'"

Spotlight on diversity

Labs' diversity efforts rank among top 15 companies worldwide

PROFILES IN DIVERSITY JOURNAL 2019 Innovations in Diversity AWARD

By **Luke Frank**

Sandia has been recognized by Profiles in Diversity Journal as a winner of the 16th annual Innovations in Diversity Awards, honoring corporations, organizations and institutions that have developed innovative solutions in workforce diversity, inclusion and human equity.

Sandia was named among 15 of the world's leading companies with programs and initiatives that are taking diversity and inclusion to a new level, according to the journal. Sandia earned the award for "Inclusive Leadership and Transformative Change" and is the only national laboratory recognized in this year's awards.

"Over the past five years, Sandia has focused its diversity and inclusion efforts on unconscious bias and engaging its majority-white population in creating a more diverse workforce," the announcement in the journal said. "In FY19, Sandia announced a bold initiative: the top two levels of management were asked to attend immersion training on bringing about change in behaviors of Sandia's majority-white male population. Leaders who attended the training reported a change in attitude and behaviors."

Sandia diversity workforce specialist Anelisa Simons said, "Sandia provides opportunities for employees to learn about the impact that unconscious bias may have on decision making and various processes within our organization. For example, in 2018 we trained 100% of managers in unconscious bias through workshops, ad-hoc learning sessions and online learning."

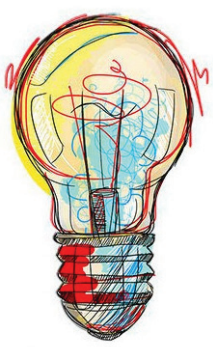
Sandia hosts several multiple-day learning labs that provide a safe place for dialogue where attendees realize their self-interest in being full partners in diversity-and-inclusion change efforts. Participants learn about partnerships by practicing them with each other.

"The training was worth it," Associate Labs Director Steve Girrens said about his experience attending a multi-day learning lab. "A big takeaway for me was that diversity and inclusion are part of our core work, and there are manageable, specific daily actions we can take to reverse our unconscious bias, which will benefit ourselves, our teams and our mission."

In 2019, Sandia launched a 30-minute unconscious bias refresher course to help interview teams engage in bias awareness dialogues. Employees also can find unconscious bias resources on the Inclusion, Diversity, EEO & AA SharePoint site.

"The result is real-time demonstration of leadership and partnership skills that participants can apply in the workplace," Anelisa said. "These learning labs have fundamentally transformed work partnerships for those who have attended. Competencies gained through experiential learning better equip leaders to create a culture of inclusion, which maximizes business results and provides a competitive advantage."

Profiles in Diversity Journal is a quarterly business-to-business magazine focusing on diversity, inclusion and human equity in business, government, nonprofit, higher education and military settings. The focus of the journal is senior leadership, best practices, workforce diversity and inclusion strategies and recognition of employee contributions.



INNOVATIONS IN DIVERSITY AWARDS

Images courtesy of the Profiles in Diversity Journal

Keith Matzen wins nuclear fusion award

Z SHOT — Sandia Fellow Keith Matzen takes a moment to survey the Z facility he helped create. He has been awarded the 2019 Distinguished Career Award by Fusion Power Associates for his achievements in nuclear fusion. **Photo by Randy Montoya**

By ***Neal Singer***

Sandia Fellow Keith Matzen has received the 2019 Distinguished Career Award from Fusion Power Associates, a national non-profit research and education foundation, for his many contributions to the Labs' development of nuclear fusion.

The foundation annually brings together senior U.S. and international fusion experts to review the status of fusion research and consider ways to move forward. Its goal is to provide timely information on the status of fusion development and other applications of plasma science. Keith was honored at the annual meeting in Washington, D.C., in December.

"For many years at Los Alamos, I knew the name Keith Matzen as being synonymous with pulsed power ICF (inertial confinement fusion). This honor is well deserved, given Keith's many years of contribution to both ICF and to Sandia," said Sandia Associate Labs Director and Chief Research Officer Susan Seestrom.

Inertial confinement fusion creates energy by rapidly heating and compressing a fuel target, typically in the form of a pellet that most often contains a mixture of deuterium and tritium.

Leading the way at Z

Among Keith's many achievements was his proposal and subsequent leadership in the mid-1990s to convert the Sandia particle-beam fusion accelerator known as PBFA-II to the pulsed-power machine now referred to worldwide as Z. Less than two months after the completed conversion in 1996, Z — which makes use of a powerful magnetic field that accompanies its large electrical current — established world record levels of X-ray energy and power during its nanoseconds-long implosions, called Z-pinches ("Z" because the implosion occurs along the length of the cylinder, which is the Z-axis).

Z experiments have provided insights into the properties of materials at extreme temperature and pressure conditions, the effects of intense radia-tion on materials and thermonuclear fusion in both national security applications and in astrophysics and planetary science. Z's efficient delivery of energy to fusion targets has made the method called "pulsed-power, magnetic direct drive" a strong candidate for ultimately achieving high-yield fusion in the laboratory, a goal of scientists worldwide.

While a manager at Z, Keith recruited and mentored scientists and encouraged them to innovate and take technical risks, which proved effective in stimulating new ideas. More than 90% of the experiments conducted on Z today were not envisioned when PBFA II was converted to Z.

As director of Sandia's pulsed-power sciences, Keith oversaw the refurbishment of Z, a $90 million project completed in 2007 on time and on budget.

Keith grew up in Nebraska and earned a doctorate in molecular kinetic theory from Iowa State University. He was elected a fellow of the American Physical Society in 1997. In 2011, he was presented with the Fusion Power Associates Leadership Award.

Keith was appointed Sandia Fellow in 2018. Only 15 Sandians have achieved that rank in the 70-year history of the Labs.

SANDIA CLASSIFIED ADS

***NOTE**: The classified ad deadline for the Jan. 31 Lab News is noon, Friday, Jan. 24.*

AD SUBMISSION GUIDELINES

AD SUBMISSION DEADLINE: Friday noon before the week of publication unless changed by holiday.

Questions to Michelle Fleming at 505-844-4902.

Due to space constraints, ads will be printed on a first-come, first-served basis.

Submit by one of the following methods:

- **EMAIL:** Michelle Fleming (classads@sandia.gov)
- **FAX:** 505-844-0645
- **MAIL:** MS1468 (Dept. 3651)
- **INTERNAL WEB:** Click on the News Tab at the top of the Techweb homepage. At the bottom of the NewsCenter page, click the **"Submit a Classified Ad"** button and complete the form.

AD RULES

1. Limit 18 words, including last name and home phone (web or email address counts as two or three words, depending on length).
2. Include organization and full name with ad submission.
3. Submit ad in writing. No phone-ins.
4. Type or print ad legibly; use accepted abbreviations.
5. One ad per issue.
6. The same ad may not run more than twice.
7. No "for rent" ads except for employees on temporary assignment.
8. No commercial ads.
9. For active Sandia members of the workforce and retired Sandians only.
10. Housing listed for sale is available without regard to race, creed, color or national origin.
11. Work wanted ads are limited to student-aged children of employees.
12. We reserve the right not to publish any ad that may be considered offensive or in poor taste.

MISCELLANEOUS

REFRIGERATOR, Samsung model RT18M6215SG, 18-cu. ft., stainless steel black, new, still-in-box, $720. Grabowski, 505-340-1521.

SPEAKERS, Infinity RS 2000, excellent condition, $75/pair. Stubblefield, 505-263-3468.

TEMPURPEDIC KING, box spring (2 twin XL), $300 OBO/for set. North, 505-715-7430.

ELECTRIC STOVE, GE smooth surface, $125; GE Profile over-the-range microwave, $50. Simon, 505-508-5309.

TRACTOR, Craftsman GT5000, w/Kohler 25V TwinPro snowblower, price negotiable; porta-ble inverter generator, Champion model, 3100-W, used twice, $650. Willmas, djwillmas@gmail.com.

POWERED SUBWOOFER, 120VAC, JBL S120PII, 400-W, 12-in. speaker, per-fect condition, $350 OBO. Sarsfield, 505-294-2578.

RADIAL SAW, Sears Crafts-man, $250; Woodtek drill press, $250. Bachmann, 505-238-8056.

TRACFONE ZTE, Majesty ProPlus LTE phone, original box, never activated, w/ instructions, $15. Wagner, 505-504-8783.

ELLIPTICAL TRAINER, quality appropriate for household/personal use, used 4 times, paid $100, asking $20 OBO. Lauben, 505-980-2915.

TRANSPORTATION

'09 HONDA FIT, 113K miles, 2nd set of rims w/snow tires mounted, $5,000. Fellet, 314-761-1485, call or text.

'03 BUICK LeSABRE CUSTOM, metallic blue, 58K miles, very good condition, $2,800. Williams, 505-271-4902.

'16 CHALLENGER, Scat Pack, Shaker hood, 392 Hemi, 485-hp, manual transmission, all tech/ performance options, 6-yr. warranty, only 2,440 miles. Brown, 505-463-8902.

RECREATION

'19 CAN AM MAVERICK 800, 4x4, w/rear differential lock, eco & sport mode, windshield, 285 miles on 26 engine hrs., $12,500. Calzada, 505-401-0224.

'17 KEYSTONE COU-GAR X-LITE, 25RDB travel trailer, lightly used, very well maintained, $21,500 OBO. Douglas, 352-316-1561.

'07 CROSSROADS CRUIS-ER, 29Rk 5th wheel, 33-ft., 2 slides, hitch on rear for tandem pulling, every-thing works, $9,700 OBO. Fleming, 505-263-7570.

REAL ESTATE

CABIN & 1 ACRE, Blue Jay Lane, Brazos Lodge Estates, $75,000. Schwartz, 505-220-6301, ask for Barry.

EAST MOUNTAIN LAND, 25.5 acres, residential, Tijeras; 2.3 acres, commer-cial, Edgewood; 4.9 acres, Cibola National Forest, Tijeras; make offer. Dotson, loridotson@gmail.com.

3-BDR. HOME, 2 baths, 2-car garage, 1,461-sq. ft., Foot-hills, 14308 La Cueva Ave. NE, 87123, coming soon, MLS#960116, $255,000. Ramos, 972-951-0290.

Employees take steps to feed people in need

By ***Michael Ellis Langley***

Hundreds of Sandia workforce members in California and New Mexico took part in the "Health Living, Healthy Giving" Virgin Pulse challenge for 2019, raising $5,000 each for the Open Heart Kitchen in Livermore and The Community Pantry in Gallup.

Employees and their spouses registered at Virgin Pulse and had their steps monitored between Oct. 14 and Dec. 6. Participants took more than 400 million steps, earning the maximum $5,000 donation for each non-profit agency.

Open Heart Kitchen serves prepared, nutritious meals free of charge to the hungry people of the Tri-Valley region of the Bay Area — more than 328,000 last year alone.

"The holiday season is the busiest time of year for our hot meal program," said Open Heart Kitchen Executive Director Heather Greaux. "The donations will help us keep up with the higher demand for food during the winter. This time of year is especially difficult for our clients who are struggling with an illness, job loss or homelessness."

The Community Pantry serves people in northwestern New Mexico from their headquarters in Gallup, providing healthy food, fresh produce and nutrition education for people in need.

CHALLENGE SUCCESS — Denise Bridges of Open Heart Kitchen (left of check) in Livermore, California, accepts a $5,000 donation from Sandia participants in the 2019 "Healthy Living, Healthy Giving" Virgin Pulse challenge.

Photo by Michael Ellis Langley

"It's going to help all of the citizens of McKinley County," Executive Director Alice Perez said, adding that the entire grant will go to the purchase of food. "New Mexico is the No. 1 state in the nation for child hunger. McKinley County is the No. 1 county in the state (for child hunger). One in three children is at risk for food insecurity in this county. One in three."

Participants in both states walked an average of 255,563 steps during the eight-week period to help provide money for both programs.

Sandia is planning more events for 2020 to help the Labs' communities in California and New Mexico. Employees can find opportunities for participation throughout the year at the Virgin Pulse and Community Involvement websites.

Mileposts

New Mexico photos by Michelle Fleming
California photos by Randy Wong


Terri Galpin 30


Michael Burroughs 20


Carlos Jove-Colon 20


Dan Morrow 20

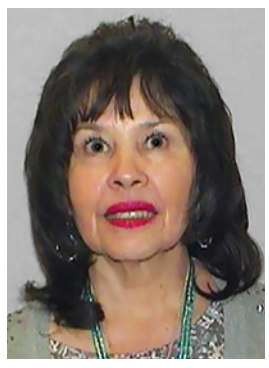

Steve Goodrich 15


Dave Hopman 15


Jason Rivera 15

Recent Retirees

New Mexico photos by Michelle Fleming
California photos by Randy Wong


Margie Box 49


Glenn Russell 40


Mike Rocco 39


Neil Lapetina 38


Bob McCornack 38


Robert Habbit 33


Kent Meeks 33


Beth Connors 31


Michael Russell 30


John Merson 29


Sheryl Vahle 29


Jeanette Orona 27


Marie Miller 26

Sandia: A tradition of giving

Sandia/New Mexico holiday gift drive goes digital

BRINGING JOY — Sandia Community Involvement team member Roberta Rivera collects donations for the annual holiday gift drive. **Photo by Randy Montoya**

Sandia/New Mexico's 15th annual Holiday Gift Drive to benefit Bernalillo County foster children went digital this year. The Labs' Community Involvement team set up a website to help givers choose appropriate items for about 800 of the children in foster care in the county. The team worked hard to track donations and ensure that each child received a gift. Employees responded, clearing the list and donating more than 2,000 gifts.

Sandia/California holiday gift drive helps families in need

GIVING THANKS — Sandia volunteers Julia Robinson, left, and Remick Lew organize gifts donated during the annual Holiday Spirit gift drive. **Photo by Randy Wong**

Sandia/California employees stepped up to help hundreds of families in Alameda and San Joaquin counties by participating in the campus' annual Holiday Spirit gift campaign. Participants chose from wish list cards and donated wrapped gifts that were then delivered to the supported organizations.

As a result of this year's campaign, more than 400 gifts were given to 205 children. The Boys and Girls Clubs of Tracy received 90 gifts, the Marylin Avenue Shelter in Livermore received 60 and First 5 of Alameda County received 55.

Weapons Evaluation Test Laboratory holds annual food drive

Sandia employees at the Weapons Evaluation Test Laboratory held a food drive throughout November to collect food and donations benefitting the High Plains Food Bank in Amarillo, Texas. Sandia doubled their donation from last year and gave $1,000 for the drive that benefits local communities throughout the Texas Panhandle. A celebration was held in Amarillo on Dec. 4, and the presentation of donations was covered by local news on Station KFDA.

DONATION STATION — Greg Welch, left, presents a check to High Plains Food Bank Executive Director Zach Wilson during a local news station broadcast. **Photo courtesy of Kathy Pehrson**

WETL WARRIORS — From left, Greg Welch, Jennifer Franklin, Mark Rosenthal, Ruckus the Sod Poodle (Amarillo baseball mascot), Suzanne Helfinstine and Kathy Pehrson. **Photo courtesy of Kathy Pehrson**

Toys for Tots donations help local communities

More than 30 buildings across Sandia's Albuquerque campus collected toys and donations to help fill boxes for the U.S. Marine Corps Reserve's annual Toys for Tots drive to benefit local communities.

Sandia volunteer Carl Unis reported that employees in Albuquerque provided 1,865 toys and more than $3,000 in monetary donations to the campaign, exceeding the 2018 campaign by about 850 toys and $1,000. "Our count keeps going up every year," Carl said. "This is our best year ever."

More than 2,000 families and 5,500 children in and around the Albuquerque community received gifts from the drive, and Sandia was the largest corporate donor in the city.

"Thanks again for your commitment to this great cause," Carl said in an email to the Labs. "The kids win!"

Sandia's Livermore campus also participated in the Toys for Tots drive for Alameda County, collecting 315 toys to benefit local children and families.

TOY BOXES — Donation boxes were filled in more than 30 buildings on Sandia's Albuquerque campus. **Photo courtesy of Carl Unis**

SANTA'S HELPERS — Albuquerque volunteers show off some of the donations collected during the 2019 Toys for Tots gift drive. **Photo by Randy Montoya**

SLEIGH FULL OF TOYS — Volunteers loaded more than 1,800 donated toys on trucks for delivery to Albuquerque families in need. **Photo courtesy of Carl Unis**

GRANTING WISHES — From left, officer John Brooks, Jamie Duranlea and officer Douglas Pruden place gifts donated during the 2019 Toys for Tots gift drive under the holiday tree in the Livermore campus café. **Photo by Michael Ellis Langley**

UNDER THE TREE — Employees at Sandia's Livermore campus donated 315 toys for the annual Toys for Tots gift drive. **Photo by Michael Ellis Langley**