SANDIA LABNEWS
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Sandia's half-life: A photo retrospective **Page 6-7**

Nuclear waste storage canisters put to the test

Sandia researchers will explore science of cracks caused by corrosion

By ***Kristen Meub***

Sandia is outfitting three 22.5-ton, 16.5-foot-long stainless-steel storage canisters with heaters and instrumentation to simulate nuclear waste so researchers can study their durability.

The three canisters, which arrived in mid-November and have never contained any nuclear materials, will be used to study how much salt gathers on canisters over time. Sandia will also study the potential for cracks caused by salt- and stress-induced corrosion with additional canisters that will be delivered during the next stage of the project.

Currently, the U.S. does not have an operating geologic repository for the permanent disposal of spent nuclear fuel. As a result, spent fuel is being stored at commercial nuclear power plants in both storage pools and dry storage canisters. The storage canisters holding the spent nuclear fuel were designed to have a useful life of a few decades, but will now likely need to be used longer than planned, said Tito Bonano, Sandia's nuclear energy fuel cycle senior manager.

Data is urgently needed to validate and guide how industry should manage storage canisters for longer than originally anticipated, he said.

"Salt can be present in the ambient air and environment anywhere, not just near the ocean. We need to be able to plan for extended long-term storage of spent nuclear fuel at nuclear power plants for the foreseeable future — it's a national reality."

The researchers expect the project could have long-reaching implications for public health and safety, industry practices, regulatory framework and defining future research paths, Tito said.

The three-year project is funded by DOE's Nuclear Energy office. Overall, 15 never-used, never-irradiated, DOE-owned canisters are being distributed for large-scale testing to Sandia and two other national laboratories, an industry research institute and an independent storage facility at an existing nuclear power plant.

Nuclear power plants use uranium pellets inside a metal-clad tube, called a fuel rod, to power reactors to create the heat needed to make electricity. When the fuel rods can no longer be used in the reactor, they need to be stored on-site until they are transported off-site to another facility and, eventually, permanently disposed because they will be radioactive for a long time, said Samuel Durbin, a mechanical engineer and Sandia's canister project lead.

"When fuel is removed from a reactor, it's very hot, both in temperature and radioactivity," Samuel said. "The utility loads it into a pool for about five years to cool down. After that, the spent fuel can be offloaded into a dry storage canister."

— CONTINUED ON PAGE 3

BIG DELIVERY — Sandia is putting nuclear waste storage canisters to the test during a multiyear DOE-funded project.
Photo by Randy Montoya

VIRTUAL TALK — Laboratories Director James Peery gave his 2020 State of the Labs address from the Steve Schiff Auditorium without an audience. The event was livestreamed to the workforce. "This was an amazing year despite the challenges we faced," he said.
Photo by Lonnie Anderson

State of the Labs 2020

In a year marked by a pandemic, fires and other hurdles, Sandians rose to every challenge

By ***Nancy Salem***

Laboratories Director James Peery had nothing but praise for Sandia's workforce as he looked back on a year filled with unimaginable crises and impressive successes. "Even without the challenges we faced, this has been a phenomenal year," he said at his Nov. 16 State of the Labs address. "We have a lot to be proud of."

James said the accomplishments came against a backdrop of the COVID-19 pandemic, deadly wildfires in California, extensive telecommuting, greater parenting demands, a presidential election and the daily effort to keep homes supplied and families safe. He said Sandians across every division rose to the challenges and kept the Labs on track and meeting critical national security deliverables. "Everyone did their part and it was extraordinary," he said. "You were firing on all cylinders."

The successes began in March with the Labs' response to COVID-19, which had roots in a pandemic response plan drawn up in 2010. "We were as ready as we could be," James said.

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Lab News: A history in print

— Pages 4-5

A lifetime of service

Weapons engineer Dan Summers retires after 53 years in nuclear arena

By ***Stephanie Holinka***

Sandia weaponeer Dan Summers retired this fall, after 36 years at the Labs and more than 53 years in nuclear weapons-related jobs. Dan's career at Sandia and elsewhere has spanned much of the research, development and stockpile modernization and surveillance activities of the nation's nuclear weapons programs.

Dan is best known at Sandia and around the world for his weapons systems engineering and safety work. Dan is still an active member of NNSA's Accident Response Group, which responds to nuclear weapons-related concerns and emergencies all over the world.

"Dan's unwavering support of the U.S. stockpile mission was evident in his knowledge and contributions in the areas of nuclear and nuclear explosive safety, and in his membership in several different skill sets and participation in numerous drills and exercises in the Accident Response Group," said fellow ARG member Wendy Baca. "In these roles, he served as instructor, mentor, colleague and friend to many that came and went during his 36-year career in the Nuclear Security Enterprise."

Dan appeared in the 2011 Sandia documentary **Always/Never: The Quest for Safety, Control & Survivability**, which uses historical footage and interviews to describe how national security laboratories improved the safety and security of nuclear weapons through the end of the Cold War.

Dan hosted author Eric Schlosser as part of Sandia's National Security Speakers Series in 2014, and gave him the "Burned Board" presentation, which Eric references in his 2013 book Command and Control: Nuclear Weapons, the Damascus Accident, and the Illusion of Safety, about nuclear weapons systems in the United States.

Destined for a nuclear career

Prior to his time at Sandia, Dan worked as a draftsman and electromechanical technician while he went to night school at the University of New Mexico. During this 10-year period, Dan created detailed drawings of ready-safe switches and aircraft monitor and control systems for Sandia. Dan also investigated electromagnetic pulse radiation at various test sites for the U.S. Air Force on Kirtland Air Force Base.

After receiving his bachelor's degree in mechanical engineering from UNM, Dan relocated to Torrance, California, and worked for Garrett AiResearch, where he worked on forensic engineering and failure analysis for programs such as the SR-71 Blackbird, the space shuttle, and on gas centrifuges for uranium enrichment. At the same time, he earned his master's degree at California State University, Long Beach.

Dan joined Sandia in 1984 as an employee in Sandia's component group, where he helped design rolamites, trajectory sensing signal generators and stronglinks. He also continued teaching as an adjunct professor at UNM. Since 1987, Dan has been a member of the nuclear weapon detonation safety organization at Sandia.

"Some of my components are still in the field," he said.

Dan was born in 1948 to C.K. (Kelly) and Mary Summers. His father was a U.S. Navy pilot during World War II and then worked for 35 years in nuclear weapon development and production for the Atomic Energy Commission, Energy Research and Development Administration and DOE. His mother was a Navy nurse during WWII, where she aided survivors of the Bataan Death March.

Dan graduated from Sandia High School in Albuquerque, and soon afterward married his high school sweetheart, Lindia S. Chadwick. They have been married for 53 years. Their daughter Danelle was born shortly afterward, followed by their son Sean three years later. Dan's children have grown up, gone to college, married and started families.

In his spare time, Dan continues to develop new biomedical devices, several of which have been patented, and he enjoys restoring old cars. His wife, Lindia, now retired, had a career much like Dan's, working for the USAF Nuclear Weapons Center.

After retirement, Dan is considering many options to keep himself busy, including teaching. He's proud of his service to Sandia and to the nation.

"In my 36 years at Sandia, a lot of things have changed," he said. "The one thing that remained constant is the people and their dedication to do the job, which is so critical to our national security. And we do the job right."

NUCLEAR QUEST — This group of active and retired Sandia employees gathered in 2011 at the National Museum of Nuclear Science & History in Albuquerque, New Mexico, around two B28 gravity bombs recovered from a 1966 nuclear accident over Palomares, Spain. They are among the 42 people — including key policymakers, scientists and engineers — who appear in the Sandia video, Always/Never: The Quest for Safety, Control and Reliability. Looming overhead are U.S. Air Force emblems of the nuclear weapon systems deployed during the Cold War. Pictured, from left, Stan Spray, Leon Smith (who died in 2012), Dan Summers, Ray Reynolds, Bill Stevens and Bob Bradley. **Photo by Randy Montoya**

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Sandia National Laboratories

Albuquerque, New Mexico 87185-1468
Livermore, California 94550-0969
Tonopah, Nevada | Nevada National Security Site
Amarillo, Texas | Carlsbad, New Mexico | Washington, D.C.

Tim Deshler, Editor	505-844-2502
Taylor Henry, Production	505-373-0775
Angela Barr, Production	505-844-1388
Randy Montoya, Photographer	505-844-5605
Paul Rhien, California Site Contact	925-294-6452

CONTRIBUTORS

Michelle Fleming (ads, milepost photos, 505-844-4902), **Neal Singer** (505-846-7078), **Stephanie Holinka** (505-284-9227), **Kristen Meub** (505-845-7215), **Michael Baker** (505-284-1085), **Troy Rummler** (505-284-1056), **Manette Fisher** (505-844-1742), **Valerie Alba** (505-284-7879), **Meagan Brace** (505-844-0499), **Whitney Lacy** (505-284-8005), **Luke Frank** (505-844-2020), **Michael Langley** (925-294-1482), **Darrick Hurst, team lead** (505-844-8009), **Jim Danneskiold, manager** (505-844-0587)

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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.

Rodney Wilson receives NNSA Gold Award

Labs' former global security director recognized for leadership and service

By ***Kristen Meub***

Rodney Wilson, former director of Sandia's Center for Global Security and Cooperation, received the NNSA Administrator's Distinguished Service Gold Award this year in recognition of his leadership and service to advance NNSA programs.

The plaque, signed by former NNSA Administrator and DOE Under Secretary for Nuclear Security Lisa E. Gordon-Hagerty, recognized Rodney's contributions to programs focused on improving the security of the United States and creating a more peaceful international community and thanked him for his service to NNSA, DOE and the nation.

"Rodney Wilson is so deserving of this award," said Gary Laughlin, director of asset security and WMD response at Sandia. "It's a recognition of his intellect applied to, and for, NNSA's broad missions underpinned by a well-managed career in which he materially contributed to nuclear weapons, independent analysis, nuclear emergency response, nuclear security, defense nuclear nonproliferation, nuclear policy and engineering sciences — all while working at Sandia. His is an example of the opportunity available to all Sandia employees, whether they choose to focus deeply in a given area or to contribute by integrating across multiple programs and disciplines for an entire career."

Labs Director James Peery virtually presented the award to Rodney during Sandia's Fall Leadership session.

"It was unexpected, wonderful, really rewarding for me and humbling," Rodney said. "I want to share my thanks with those responsible for the nomination and the many people I've had the privilege to work with during my 40-year career."

As the director of Sandia's Center for Global Security and Cooperation, Rodney led work to develop systems engineering and technology solutions for government agencies responsible for nonproliferation and arms control, cooperative threat reduction and international security. He was responsible for conducting independent studies and analyses of issues affecting U.S. security, and for providing strategic program integration, decision making and other technical support to NNSA's Defense Programs leadership.

Defining moments

Rodney said one of the defining moments of his career came in 2001 when NNSA was created. He was asked, along with representatives from Los Alamos and Lawrence Livermore national laboratories, to help shape what NNSA would become.

"We were led by John Harvey, and the four of us, from day one, were providing the first briefing for NNSA Administrator John Gordon to take to the president," Rodney said. "Our organization also created the first five-year budget for NNSA and helped set things in motion. It was a really exciting time."

LEADERSHIP AND SERVICE — Rodney Wilson, former director of Sandia's Center for Global Security and Cooperation, received the NNSA Administrator's Distinguished Service Gold Award this year in recognition of his leadership and service to advance NNSA programs focused on improving the security of the United States and creating a more peaceful international community. **Photos by Bret Latter**

Another highlight, Rodney said, was working with (former Sandia vice presidents) Steve Rottler and Mike Hazen to help define what leadership should look like at Sandia. In essence, he said, it comes down to three things:

1. A personal commitment to national service, something Rodney said he has felt strongly about throughout his career and has come from his heart.
2. Sandia's reputation for delivering results.
3. Relationships built on trust.

These three attributes, Rodney said, helped guide his career. He advised the next generation of Sandia employees to focus on partnerships and teamwork to help grow their careers.

"I can't think of many accomplishments I achieved by myself during my career. Most of what we do at Sandia is not done by single individuals; it's a partnership between Sandia employees, people at other labs and our sponsors," Rodney said. "Those partnerships are so powerful. You can get so much done if you think about how to strengthen your relationships with others, and that is where trust is crucial."

Rodney retired in March and hopes to be able to come back to Sandia in the future, to mentor new employees.

GOLD AWARD — The award, signed by former NNSA Administrator Lisa E. Gordon-Hagerty, thanks Rodney for his service to NNSA, DOE and the nation.

Nuclear waste storage

CONTINUED FROM PAGE 1

A storage canister starts as a flat piece of stainless steel that is rolled into a cylinder and then welded where the seams come together. The heat from the welding creates heat-affected zones in the seams of the canister that experience tensile, or pulling, stress. This stress makes these areas around the welds more susceptible to corrosion from salt over time, Samuel said.

Testing salt deposits over time

Sandia received three canisters on Nov. 13. The research team will outfit each of them with 32 electrical heaters to simulate the decay heat, which is heat released as a result of radioactive decay, from the 32 spent fuel assemblies that would typically be stored in this type of canister. No radioactive materials will be used in the testing, Samuel said.

Thermocouples, which measure temperature, and other sensors for diagnostic testing and surface sampling also will be added, he said.

Once the outfitted canisters have been tested and repacked for transport at Sandia, the team plans to move them to a storage pad at an independent spent fuel storage installation on the West Coast, where they will experience the same real-life conditions of in-use canisters. The Sandia team, led by managers Sylvia Saltzstein and Geoff Freeze, Samuel and chemists/corrosion scientists Charles Bryan and Rebecca Schaller, along with partners from other national laboratories, will monitor the test canisters and record surface deposits, especially chloride-bearing salts, for three to more than 10 years, depending on how much the data varies over time.

"Sodium-chloride, or salt, that settles on the surface of spent nuclear-fuel canisters can lead to chloride-induced stress corrosion cracking, and right now there is inadequate data on these surface deposits," Samuel said.

In real-life storage of nuclear waste, the decay heat from the spent fuel creates natural convection around the storage canisters, causing outside air to be drawn over the canister surface, Samuel said. This process helps cool the spent fuel over time. As ambient air is drawn in, salt and other particulates in the air are drawn in as well and can settle on the canister surface. During the test, the electrical heaters installed inside the canisters at Sandia will replicate this decay-heat-driven convection without using nuclear materials.

In hot, dry conditions, Samuel said salt deposits alone don't cause any issues, but over time, as the decay heat decreases and the canister cools, water can condense on the canister surface and a brine can form.

"These conditions can occur nationwide and are seen as precursors to chloride-induced, stress-corrosion cracking. Back when these canisters were being designed, people weren't thinking about this as an issue because we had a plan for permanent disposal. The current national nuclear waste situation forces canisters to be stored on-site for the foreseeable future, which could be 100 years or longer, so stress corrosion cracking becomes more of a concern," he said.

In addition to the long-term heating and surface deposition test, Sandia will use up to another three canisters for laboratory-based tests to conduct fundamental research on cracking caused by salt and stress, especially on the welded seams and intersections of the canisters. Researchers will measure the effectiveness of commercially available crack repair and mitigation coatings.

To test these seams, the team will cut the canisters into small segments and test pieces with and without welded seams to study the precursor conditions for salt and stress to cause the corrosion that leads to cracks, he said.

T-BIRD TRIBUTE — The first issue of 1956 incorporated the Thunderbird logo into the masthead design, along with Building 800, which was still the Lab's main entrance then.

Images courtesy of Sandia National Laboratories historical archives

Lab News: A history in print

How Sandia's paper of record evolved from employee bulletin to professional news publication

By ***Rebecca Ullrich,*** *Sandia historian*

Sandia Laboratory was still a branch of Los Alamos in November 1948 when a mimeographed newsletter identified as the Sandia Bulletin was launched. Edited by Jackie Downing, the issue did some ribbing of people — haircuts, hunting skills and dating prospects — before going on to welcome new hires, cover sports and present a small classified ad section. Much has changed in the world, at Sandia and within our communications in the succeeding seven decades, but the *Lab News* still publishes classified ads.

The second issue came out seven months later, identified as the Sandia Laboratory Weekly Bulletin. It had an editorial board, and publication was consistent from that point on — although it became the biweekly Sandia Bulletin in May 1950.

The Bulletin covered basic communication — the planning and eventual opening of the now-defunct Coronado Club, emergency preparedness, announcements, new hire welcomes — as well as news from around the departments, maintaining the light teasing of the first issue. The classified ad section grew.

After the first few issues, Felix Padilla's cartoons filled the cover. Dec. 8, 1950, was the last mimeographed issue; two weeks later, the issue was professionally printed, and color appeared for the first time. The teasing tone evaporated, and the focus shifted toward professional achievements.

Introducing the *Lab News*

On Jan. 1, 1954, the *Lab News* replaced the Bulletin. The name change was primarily driven by a need to distinguish Sandia Lab from Sandia Base and this publication from other bulletins within and outside the Lab. Its focus remained on the employees — their activities and information directed at them. It has never covered news beyond the Labs, except insofar as external news intersects with Sandia and its work.

The appearance of the paper has changed over time. The image of Building 800 in the masthead from the first 1954 issue was redrawn and supplemented with the new Thunderbird logo in 1956. That design continued to change over the years, and the typeface has transformed to stay current. The use of color was intermittent until December 2000; since then all issues have been in color. Each redesign looked surprisingly new and fresh in its turn.

BYE BYE BULLETIN — The first Sandia *Lab News* appeared on Jan. 1, 1954.

The ***Lab News*** joined the digital world in 1997, when some articles from each issue began appearing online. And beginning in December 2000, Sandia began publishing the full issues both online and on paper. Readers can still view the first digital issues in the ***Lab News*** **archives**.

Expansion and evolution

Inclusive of all Sandia work, the *Lab News* highlighted new locations as Sandia expanded in the 1950s and 1960s. After the Atomic Energy Commission decided Sandia would serve as the ordnance engineering lab supporting the University of California Radiation Laboratory, Livermore (now Lawrence Livermore National Laboratory), designs in 1956, the *Lab News* included Sandia Livermore's work and human-interest stories in every issue. In 1965, Livermore News became a regular section of the paper, starting on page 3; it was re-designated Sandia California News in the 1990s.

On **Aug. 17, 2007**, the *Lab News* published its first issue entirely dedicated to the work and people at Sandia's California Lab. The California Edition became an annual tradition that continues today.

The *Lab News* content also evolved with a quickly growing focus on technical work — always presenting the members of the workforce and their achievements, usually in photos with the tech. Photographing technology is not easy, but the *Lab News* has always had excellent photographers (see highlights from Randy Montoya's brilliant career starting on **page 6**).

SAFETY FIRST — The last of Felix Padilla's cover car-toons appeared on Dec. 8, 1950. We're a little better at lock-out/tag-out now.

READ ALL OVER — The Dec. 22, 1950, issue was the first printed Sandia Bulletin and first to use color. The holiday greeting from Lab Director George Landry and safety message are familiar, though the emphasis on Christmas would not appear in the current *Lab News*.

COVER ART — The final Christmas issue was published on Dec. 23, 1988. Sandia artist Faith Perry designed the cover, "Moonlight Sonata."

Sandia LAB NEWS

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Vol. VI, No. 12 ALBUQUERQUE, NEW MEXICO JUNE 4, 1954

AFTER 27 MONTHS of torture and solitary confinement, Lt. Col. Thomas Harrison steps from a North Korean truck to freedom.

Wide World Photo

Communists Called Him Incorrigible; Ex-Prisoner Is Now Sandia Engineer

One of the highest ranking officers of Operation "Big Switch," prisoner exchange at the uneasy end of the Korean War, was a one-legged lieutenant colonel named Tom Harrison.

This Harrison was incorrigible, the Communists claimed. They said he was intractable, arrogant, incited other prisoners to revolt.

27 Months a Prisoner

Soft-spoken Tom Harrison, newly-hired employee of the Sandia Corporation, has crowded a lot of living into 32 years. Temporarily located in the Personnel Bldg. he is a husky, round-faced man whose youthful appearance belies 27 months of torture behind the Bamboo Curtain.

In the early days of the Korean "incident", Tom Harrison was a squadron commander with the 51st Interceptor Wing, flying F-84 Shooting Star jet aircraft. His plane, hit by Communist flak during a strafing run over Sinanju on May 21, 1951, began to disintegrate in the air. When the seat ejector mechanism failed to work, Harrison reached for the manual release. Seconds later, the plane exploded.

Leg Amputated

He does not recall his long fall to earth. He believes today that the blast which destroyed his plane also blew open his parachute. When he came to on the ground, he was surrounded by Manchu soldiers.

Tom Harrison —survived water "cure"—

was brought about by truce arrangements signed by Lt. Gen.

Sandian Retires After 12 Years Work in Program

Manuel D. Garcia, a veteran of six years service with Sandia Laboratory and nearly 12 years with the atomic energy program, retired last week on his 70th birthday.

A member of organization 2419, he has worked here since October, 1948. Prior to that Manuel worked at Los Alamos Scientific Laboratory. Starting there in January, 1943, he first served as a security guard and later worked in other jobs throughout the Laboratory.

Manuel D. Garcia —12 years with atomic program—

A-Bomb Certificate

A native of Clayton, N. M., he is one of the proud owners of a certificate signed by Secretary of War Henry L. Stimson which reads in part that he "has participated in work essential to the production of the Atomic Bomb, thereby contributing to the successful conclusion of World War II." The certificate was presented to him in October, 1945.

Manuel owns a home in Albuquerque and a daughter lives there with him and his wife. One other daughter lives in Clayton.

Plans to Work

Prior to 1945 he was in the mercantile business in Santa Fe and Clayton and was employed by one Clayton store for 25 years.

Coronado Club Annual Election of Directors, Officers Set for June 14

Coronado Club members will hold their fifth annual election of directors and officers at the Club, Monday, June 14, at 7:30 p.m. Eight directors will be elected for one-year terms and two will be elected for two-year terms.

Nominating committee members, appointed by Al Gruer, president of the Coronado Club, will present a slate of candidates and further nominations will be solicited from the floor.

The nominating committee is headed by Eugene K. Baker, and has Stuart C. Hight, John Gray, and Walter Treibel as members.

Ballots Furnished

All active, paid-up members are entitled to vote and to make nominations from the floor. Associate members are not eligible to vote.

Printed ballots will be furnished and they will contain the names of the committee's nominations and with spaces for names of those nominated at the meeting.

Membership and voting qualification will be checked at the door.

"Coronado Club members are urged to attend this meeting," says President Gruer, "for the more voters present the more representative will be the directors chosen."

A quorum for the election consists of 100 members. The meeting will be called to order as soon after 7:30 p.m. as a quorum is on hand.

Officers Elected

Following election of the Board of Directors, club officers will be elected from the slate of directors. They will fill the offices of president, vice president, secretary and treasurer.

Two members of the board are not elected but are appointed to represent Sandia Corporation and the Atomic Energy Commission.

Members will have the opportunity to bring up any points of business after the election is finished. Free beer will be served during the evening.

SLATE OF NOMINEES

One-Year Term	
Eugene R. Butler	AEC
William E. Caldes	1513
Robert M. Chesnut	1911
Allan P. Gruer	5210
Lessel E. Lamkin	1280
Robert S. Lemm	2113
Jane Moore	4222
Douglas H. Sampson	2310
Two-Year Term	
Eugene K. Baker	1931
Robert L. Culley	5215

IRE Nuclear Group Will Meet June 8

First meeting of the newly-organized nuclear professional group of the Albuquerque chapter of the Institute of Radio Engineers will be held June 8 at 8 p.m.

Room 119 of Mitchell Hall on the University of New Mexico campus has been chosen as the meeting place.

Special speaker for the evening will be Barney J. Carr, 5414, who will speak on the "Detection of Radioactive Materials Using Scintillators and Geiger Counters."

All interested Sandians are invited to attend.

ASTE Plans a Picnic In Sandia Mountains

The annual picnic for members of the Albuquerque chapter of the American Society of Tool Engineers and their families will be held June 19 in the mountains east of Albuquerque, Ole Nerhus, 1281, program chairman, said today.

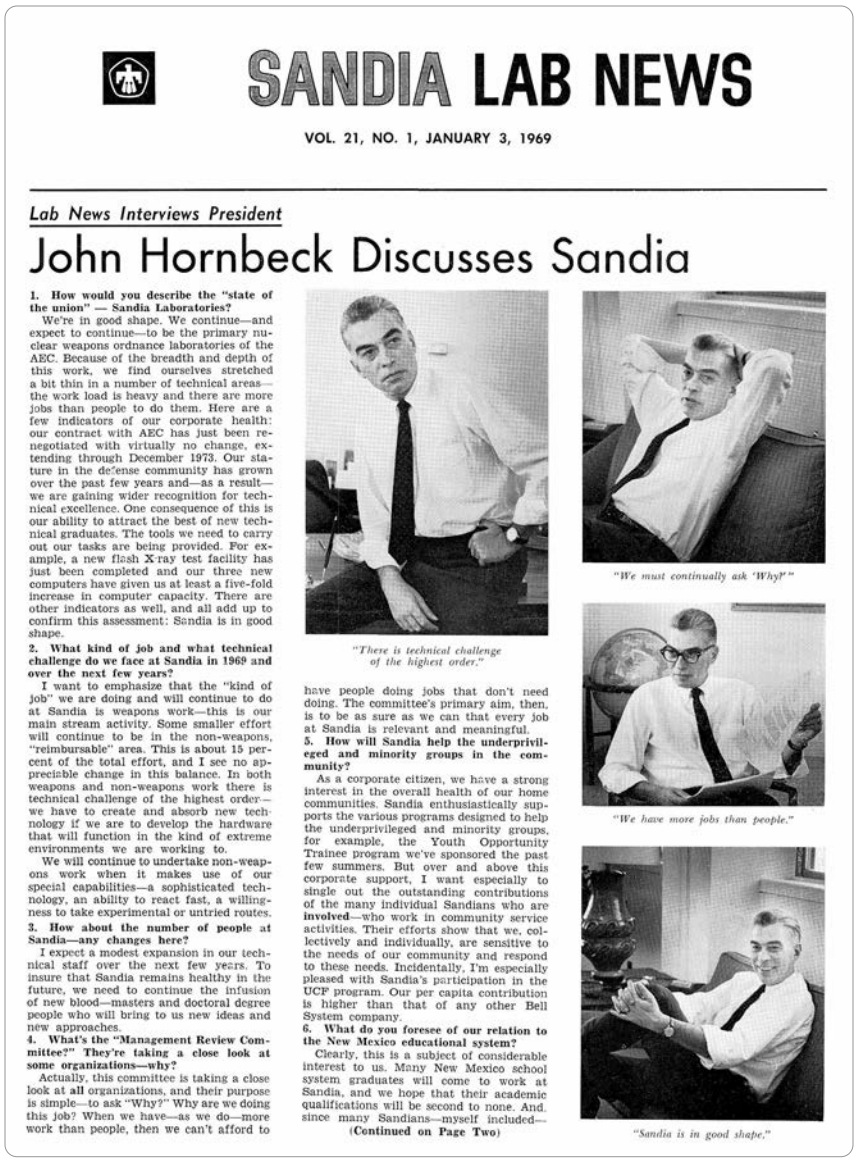
Each family will bring its own lunch, Nerhus said. The Chapter will supply refreshments.

Further information may be obtained by contacting Nerhus at ext. 23145.

Bice to Head Field Testing

BIG NEWS — The June 4, 1954, issue looks different than the current *Lab News*, but some of the coverage feels familiar.

REPORTING FOR LUNCH — In this 1960 photo, *Lab News* reporters gather for a luncheon at the Livermore site.



SANDIA LAB NEWS

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Lab News Interviews President

John Hornbeck Discusses Sandia

1. How would you describe the "state of the union" — Sandia Laboratories?

We're in good shape. We continue—and expect to continue—to be the primary nuclear weapons ordnance laboratories of the AEC. Because of the breadth and depth of this work, we find ourselves stretched a bit thin in a number of technical areas—the work load is heavy and there are more jobs than people to do them. Here are a few indicators of our corporate health: our contract with AEC has just been renegotiated with virtually no change, extending through December 1973. Our stature in the defense community has grown over the past few years and—as a result—we are gaining wider recognition for technical excellence. One consequence of this is our ability to attract the best of new technical graduates. The tools we need to carry out our tasks are being provided. For example, a new flash X-ray test facility has just been completed and our three new computers have given us at least a five-fold increase in computer capacity. There are other indicators as well, and all add up to confirm this assessment: Sandia is in good shape.

"There is technical challenge of the highest order."

"We must continually ask 'Why?'"

2. What kind of job and what technical challenge do we face at Sandia in 1969 and over the next few years?

I want to emphasize that the "kind of job" we are doing and will continue to do at Sandia is weapons work—this is our main stream activity. Some smaller effort will continue to be in the non-weapons, "reimbursable" area. This is about 15 percent of the total effort, and I see no appreciable change in this balance. In both weapons and non-weapons work there is technical challenge of the highest order—we have to create and absorb new technology if we are to develop the hardware that will function in the kind of extreme environments we are working to.

We will continue to undertake non-weapons work when it makes use of our special capabilities—a sophisticated technology, an ability to react fast, a willingness to take experimental or untried routes.

3. How about the number of people at Sandia—any changes here?

I expect a modest expansion in our technical staff over the next few years. To insure that Sandia remains healthy in the future, we need to continue the infusion of new blood—masters and doctoral degree people who will bring to us new ideas and new approaches.

4. What's the "Management Review Committee?" They're taking a close look at some organizations—why?

Actually, this committee is taking a close look at **all** organizations, and their purpose is simple—to ask "Why?" Why are we doing this job? When we have—as we do—more work than people, then we can't afford to have people doing jobs that don't need doing. The committee's primary aim, then, is to be as sure as we can that every job at Sandia is relevant and meaningful.

5. How will Sandia help the underprivileged and minority groups in the community?

As a corporate citizen, we have a strong interest in the overall health of our home communities. Sandia enthusiastically supports the various programs designed to help the underprivileged and minority groups, for example, the Youth Opportunity Trainee program we've sponsored the past few summers. But over and above this corporate support, I want especially to single out the outstanding contributions of the many individual Sandians who are **involved**—who work in community service activities. Their efforts show that we, collectively and individually, are sensitive to the needs of our community and respond to these needs. Incidentally, I'm especially pleased with Sandia's participation in the UCF program. Our per capita contribution is higher than that of any other Bell System company.

6. What do you foresee of our relation to the New Mexico educational system?

Clearly, this is a subject of considerable interest to us. Many New Mexico school system graduates will come to work at Sandia, and we hope that their academic qualifications will be second to none. And, since many Sandians—myself included—

(Continued on Page Two)

"We have more jobs than people."

"Sandia is in good shape."

STEADY STATE — The first State of the Labs interview, with Labs Director John Hornbeck, was published Jan. 3, 1969. The annual interview evolved into the SOTL events we have today.

In the first few decades of the *Lab News*, employees' hobbies, travels and sports teams were thoroughly covered. And, as long as the Coronado Club was open, events were advertised and covered as well. But these kinds of features gradually began to take up less space in the 1980s as Sandia undertook more unclassified work that could be openly discussed, and the Labs' work took more of the focus.

Changing with the times

Since its beginnings, *Lab News* coverage has reflected the cultural assumptions of the period. For example, from 1953 (when it was still the Bulletin) through 1988, one of the December issues celebrated Christmas — the covers frequently featuring art by Sandia artists. In 1989, that practice stopped, reflecting an understanding of the various religious beliefs within the workforce.

Similarly, from 1958 through January 1969, the *Lab News* included a safety campaign called Take a Memo, Please, in which a short safety warning — be courteous when driving in parking lots, wear your safety goggles — was printed below a photo of a woman employee with a steno pad sitting on a stool, legs crossed at the ankle. For years, announcements of the Coronado Club's pool opening included photos of women employees in swimsuits, and in later years, men in swimsuits were included in the photos in response to women employees' complaints. The *Lab News* has long since become more attentive to presenting women as professionals in all types of careers.

As much as it has changed, however, *Lab News* coverage also remains consistent in some ways — patents awarded, individual awards and recognition from professional societies, successful weapons tests, new leadership stepping into place, new facilities under construction while old ones are renovated.

Strikingly consistent is the coverage of veterans entering the Sandia workforce — it goes back to the beginning, when World War II and Korean War vets joined the Lab, and echoes through the decades to recent articles on veterans from the conflicts in Afghanistan and Iraq.

Features become traditions

The *Lab News* also introduced practices that we now take for granted as traditions. In January 1970, editor John Shunny interviewed Labs Director John Hornbeck. The opening question was "How would you describe the 'state of the union' — Sandia Laboratories?" This proved the start of the annual State of the Labs, which has remained an interview of the top executives while also evolving into a presentation by the Labs Director providing an overview of what has gone well for Sandia over the preceding year, and where its challenges lie.

While the gentle ribbing of individual employees in the very early years of the publication evaporated in the face of more professional journalistic approaches, various editors maintained a sort of reflections column in which they commented on some Labs practices as well as the persistent belief outside of New Mexico that the state is not within the U.S.

Never overtly critical, beginning with John Shunny's Afterthoughts in 1982, through Bruce Hawkinson's Antojitos, Larry Perrine's This & That, Ken Frazier's What's What, and Bill Murphy's That's That, the columns were an opportunity for reflection and a bit of poking fun at us watermelons.

The Sandia *Lab News* began as a community newsletter and evolved into a significant source for informing and reflecting the Sandia community. More celebratory than introspective, the *Lab News* consciously places the Labs workforce at the center of every article. Its appearance, coverage and tone have evolved, reflecting changes in the workforce and its culture. Now, in 2020, the pandemic has pushed more of our work and communication online; the *Lab News* is coming right along with us.

Lab News editors

1948	Jacqueline Downing
1949	Editorial Board: R. B. Powell, J. L. Hickey, S. Langenstein, V. Harris, W. Bramlett
1949-1951	Jacqueline Downing
1951-1965	Robert Gillespie
1965-1967	Bob Colgan
1967-1968	Thomas Heaphy
1968-1982	John Shunny
1982-1989	Bruce Hawkinson
1989-1995	Larry Perrine
1995-2006	Ken Frazier
2006-2018	Bill Murphy
2018-2019	Jim Danneskiold
2019-2020	Tim Deshler

Sandia Corporation

LAB NEWS

ALBUQUERQUE, N. MEX. • LIVERMORE, CALIF.

VOL. 12, NO. 12 Published every other Friday for the employees of Sandia Corporation, contractor to the Atomic Energy Commission JUNE 10, 1960

PART OF THE TEAM — The *Lab News* masthead changed again in June 1960 to include the Livermore site.

WARM WELCOME — This photo was part of a two-page spread in the March 23, 1956, issue, featuring the new Livermore, California, site.

Sandia's half-life
A photo retrospective

Story and photos by ***Randy Montoya***

The Sandia *Lab News* has been a mirror to our Labs and co-workers since its inception as the Sandia Bulletin in 1948. It has allowed us to see parts of our Labs that we have not actually experienced.

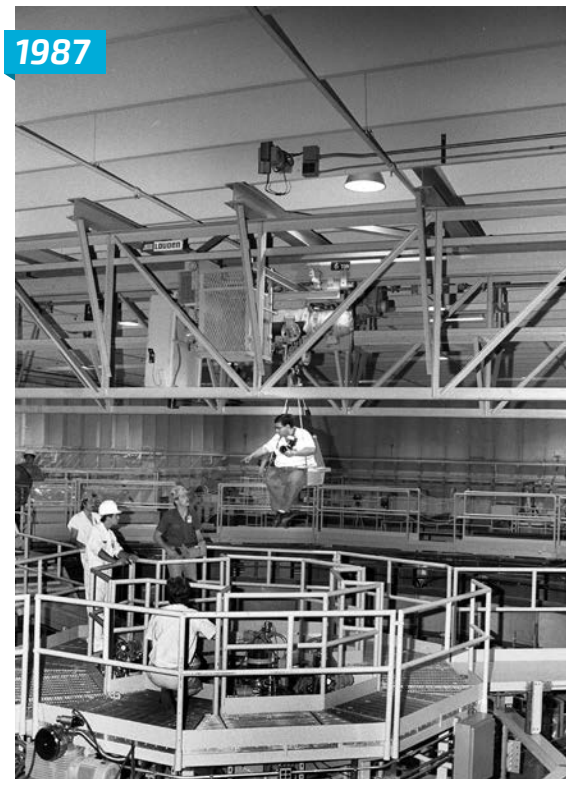
Visually recording history is as old as the ancient petroglyphs and cave drawings. It started as someone's desire to show others the life of their people. Since I began at Sandia on Jan. 13, 1986, I have been privileged to photograph half of the Labs' life, using a camera to tell your story rather than scratching images into rock. The images, I believe, may be nearly as indelible, not because of me but because of the story they tell — your story. Your work impressed me as quite remarkable when I arrived, and I soon began calling it our work.

Much like the military, Sandia does not leave anyone behind, even photographers. The new generation's work is still quite remarkable, and as testament to the Labs, there is often a proud parent or relative working across the tech area from a younger Sandian. I am one of those proud parents — my daughter Laura began her Sandia career a few years ago.

We are always eager and proud to talk about the work we do at Sandia, and I have appreciated the simple explanations you have crafted for me. I met the soon-to-be victors of the Cold War when I arrived, many who were already war veterans themselves. Now we have a new generation of veterans at the Labs continuing that legacy.

Looking back at this tiny photo sample of some my fortunate experiences at our Labs, I hope you realize that you are on a national stage when you come to work each day. Your work at Sandia has been and will continue to be part of American history.

1987



1987 — *Lab News* photojournalist Randy Montoya is suspended from a crane so he can photograph the construction of Sandia's Saturn accelerator.

1988

1988 — Sen. John Glenn discusses treaty verification with Sandia Executive Vice President Orval Jones.

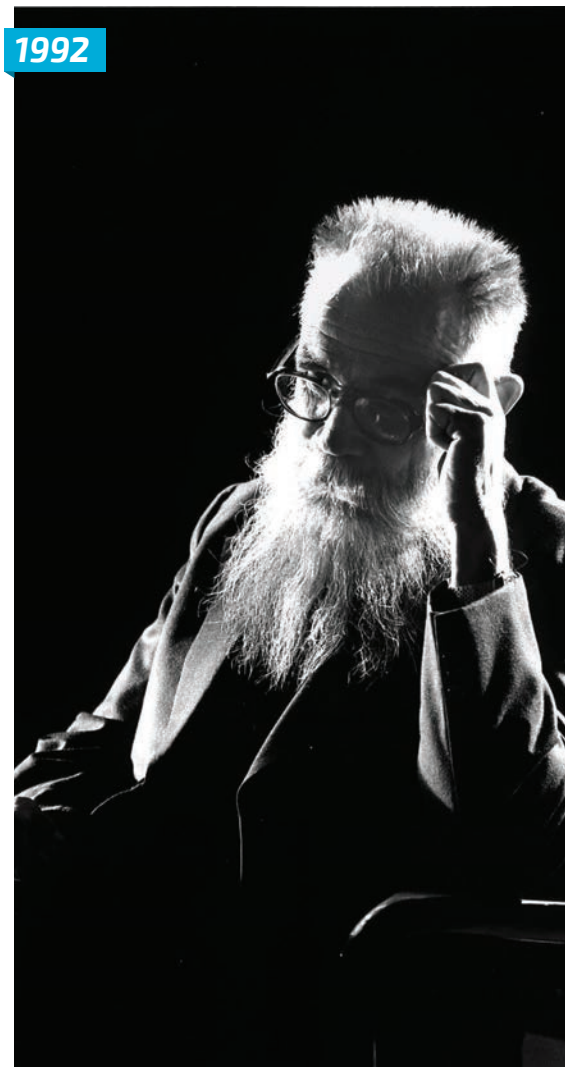
1989

1989 — Rappelling face forward, known as an "Australian," Special Response Team Lieutenants Ray Page and Pablo Montoya train in intrusion detection response.

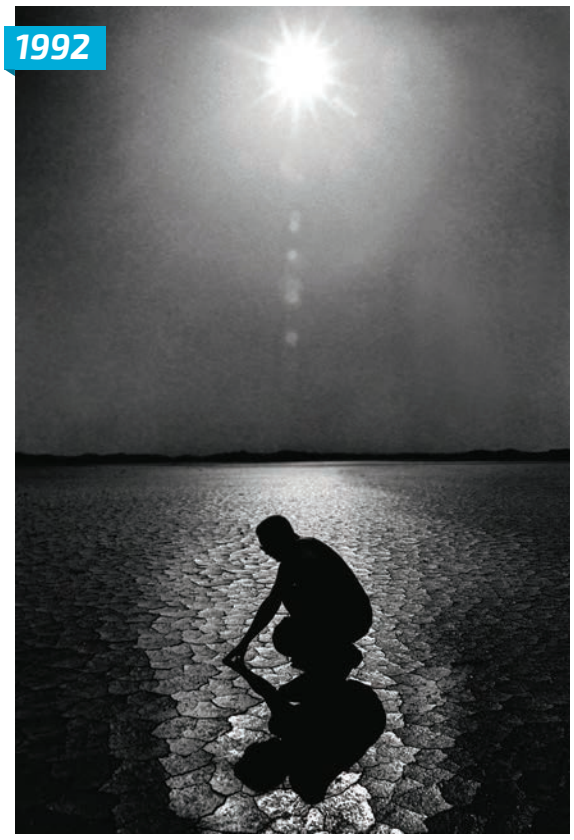
1991

1991 — Glen Seaborg, left, who discovered plutonium, and Clyde Tombaugh, who discovered Pluto, finally meet each other at a Sandia conference on science. The Nobel Laureate named the newly discovered element in 1940 after the planet, discovered in 1930.

1992

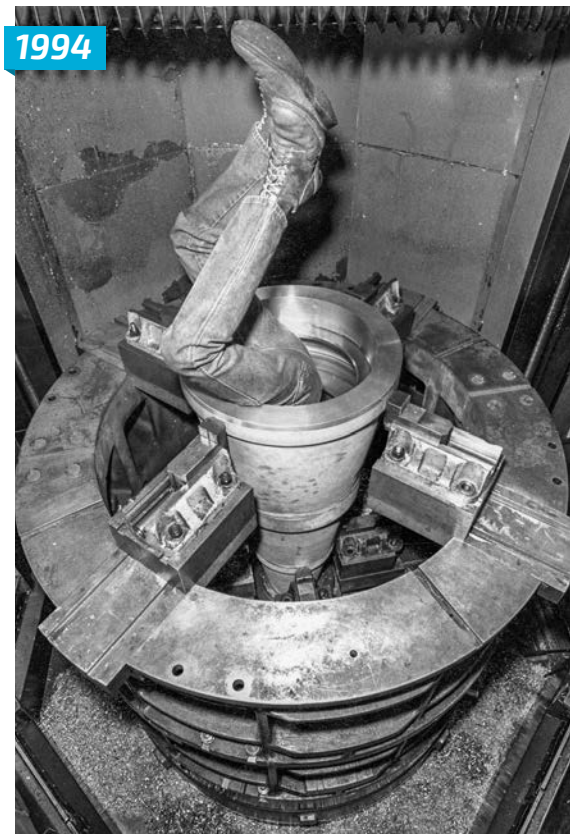


1992 — Sandia Senior Fellow Gus Simmons, cryptologist and mathematician, wins the E.O. Lawrence Award in the field of authentication in command and control.



1992 — Tonopah Test Range "old timer" Lloyd Young examines a dry lakebed before a test. He had worked at the test site since 1957.

1993 — Technicians prepare for a test at Hermes III, High Energy Radiation Megavolt Electron Source, the world's most powerful gamma simulator.



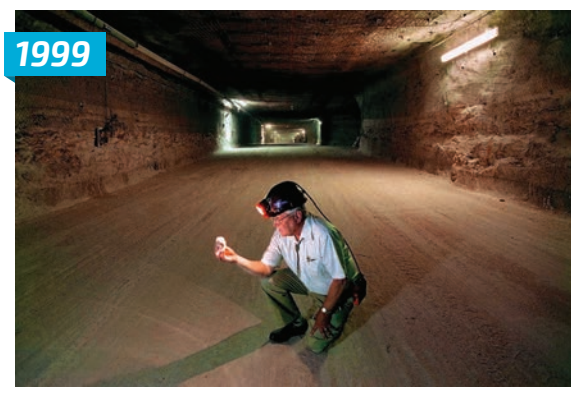
1994 — A machinist in the Bldg. 840 Big Shop checks the interior angles of a part.

1995 — Willis Whitfield, retired Sandian and inventor of the clean room in 1962, visits the radiation-hardened integrated circuit lab.

1996 — Bomb dismantlement experts Rod Owenby, left, and Chris Cherry practice using PAN disrupters to disarm a dummy bomb. They disarmed the Unabomber cabin for the FBI.

1997 — Pam Ward examines a glowing plasma created by an electric field passing through a nitrogen-oxygen gas, ensuring peak plasma performance in etching microprocessor circuits.

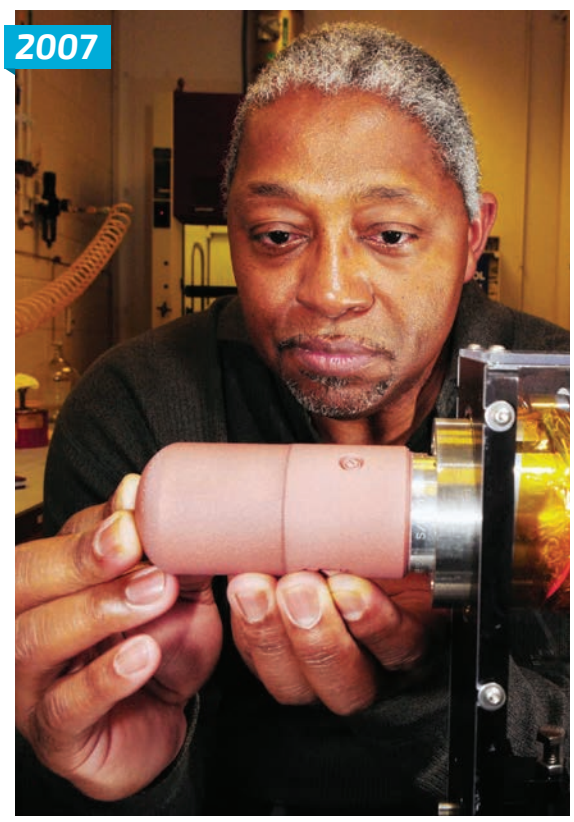
2004 — A rocket sled test comes to a splashing stop at the 10,000-foot sled track in a remote part of Sandia's Albuquerque site.



1999 — Wendell Weart examines a salt structure sample at the Waste Isolation Pilot Plant in Carlsbad, New Mexico, prior to its opening. He was instrumental in selection of the site.

2000 — A young girl waits expectantly to try on the new shoes she received during Sandia's annual Shoes for Kids campaign, a Sandia tradition since 1956.

2005 — President George W. Bush, looking up, gets a briefing at the National Solar Thermal Test Complex. He signed a sweeping national energy bill at the Labs.



2007 — Moses Jones inspects a neutron generator tube.

Signing the memory page

Farewells from some of the folks who brought you the Lab News print

What's black and white and red all over?

After this issue, not the *Lab News*. Many of the ink-stained wretches who have put their hearts and souls into this unique community newspaper offered celebrations of their years holding up a printed mirror to our storied institution. We hope our loyal readers enjoy this glimpse behind the printing presses. Thanks for reading *Lab News*, and stay with us as we continue reporting in the digital world.

Sandia *Lab News* was our paper social media

By ***Randy Montoya***
Photojournalist, 1986-present

The *Lab News* was our social media outlet when I came to the lab in 1986. Like trying to explain the musical impact of the Beatles in the '60s, it's hard to explain the communication impact of the *Lab News* in today's multifaceted digital world. It helped form the community of a super-secret laboratory in the midst of the Cold War.

There, we celebrated our family's births and mourned deaths in our colleagues' families. We smirked at the photos of the new hires and watched each other age on the mileposts page. We saw people who look like us and, more importantly, got exposed to people who looked different than us. Diversity seemed more visual since our common work ethic and purpose made everyone seem so similar. We saw custodians and security officers playing softball with physicists and engineers.

The paper's ink let us watch the Berlin Wall tumble and see the labs adapt to that success. Weapons scientists from the former Soviet Union visited Sandia to develop treaty verification strategies in 1988, unthinkable only a few years prior.

We looked at photos of our Senators Domenici and Bingaman collaborating across the political aisle to support and expand the Labs. The first American to orbit the Earth, then Senator John Glenn, took time to make Sandia one his destinations.

Lab News was a portal into impressive images of field tests and showed Sandia's integrity when admitting setbacks. We watched that integrity with the USS Iowa investigation. I watched our readers carrying copies of *Lab News* in the hallways, talking about Chris Cherry's and Rod Owenby's nighttime F-16 flight to disarm the booby-trapped Unabomber's cabin without destroying it.

Over the years, I have seen copies of the *Lab News* in Senate chambers in Washington, D.C., at a shoeshine stand in Los Angeles, in a bar in Tonopah, a surf shop in San Diego, and in numerous universities and airlines. The digital publication will still be viewed in all those places, but on screens. The staff of *Lab News* has always focused on one thing, helping others learn about your exceptional work.

Exit trees, stage left

By ***Neal Singer***
Science writer, 1995-present

For years, we writers insisted that the paper *Lab News*, like a small-town newspaper, helped give Sandia a feeling of community. If a digital paper were enough, why didn't publications that lived or died by their readership — the New York Times, Harpers, the Albuquerque Journal — abandon paper and present solely through electrons?

There was even a big argument at Sandia years ago — covered in the *Lab News* — as to whether the Technical Library was worth keeping as a paper institution, paying to display paper editions of technical journals of limited readership and soaring costs.

The paper "side" understood the cost but, among other benefits, felt that it stimulated creativity to unavoidably brush up against articles they knew little about. Randomness stimulated investigations.

The much cheaper alternative was to receive papers electronically; search engines could easily interrogate the research universe to track down pretty much whatever subject the investigator chose.

Despite the logic of digital, I remember flying out of Albuquerque once and, finally having time to open the latest *Lab News* on my lap, had the strong impression that my unknown seatmate was reading over my shoulder. I tolerated that for a minute or so — after all, *Lab News* is a public document— but when I turned slightly to confront the word sponger, he said, "Sorry, I'm from Los Alamos. We dropped our printed paper some time ago, and I really miss it."

I wonder how he feels now, years later.

A place of connection

By ***Michelle Fleming***
Administrator and photographer, 2001-present

I have been at Sandia for 20 years and have spent my entire career working on the *Lab News*. I took the Milepost photos, which allowed me to interact with employees and retirees, and handled subscriber lists and other things that help the paper get to the readers.

Having their photos in the paper, whether for an anniversary or retirement, seemed to make people happy. It was a point of pride to say, I've been here for 15, 30, even 50 years or more.

I've seen what the *Lab News* means to those who spent a good portion of their lives here. When they retired, they wanted to see their photo in the paper. They wanted to make sure they continued to get the paper sent to their homes. Not only to keep up with the science and the work their groups were doing to meet mission goals, but to keep up with friends and co-workers — to have a real connection with a place that still meant something to them. So, my hope is that the *Lab News* is remembered by those who worked here as a place of connection.

Remembrance of *Lab News*

By ***Ken Frazier***
Editor and science writer, 1983-2006

I was fortunate during my tenure as *Lab News* editor, 1995-2006. I inherited the long *Lab News* tradition of responsible, serious (with a dollop of humor), in-depth employee journalism from previous editors John Shunny, Bruce Hawkinson and Larry Perrine. I had experience as a *Lab News* science writer and Sandia communicator since 1983.

We had a full staff of absolutely superb writers — too many to name here — covering all the important news of the lab, its scientific and technological research and human-interest stories. We all took pride in doing a solid job of reporting, writing and storytelling. We had the brilliant photographer Randy Montoya. And I always felt we had full support from management. We adhered to high standards. I think we were respected by Sandians at all levels. We won external awards.

I always thought the *Lab News* had a human personality, almost a soul, as expressed in the personal columns Larry Perrine, then Howard Kercheval, then Bill Murphy wrote over the decades from the 1980s until quite recently. It was always a pleasure to read their observations on matters large and small, their humor, their sometimes-poignant stories. I even wrote a few of my own. I praise Sandia for allowing that practice.

Many Sandia scientists and administrators like Pace VanDevender and Sandia President Paul Robinson deserve thanks for their many kindnesses to the *Lab News*, our people and me personally during those years. It was a pleasure and an honor to help guide the *Lab News*, but it was an easy task, given our creative staff and the broad support we enjoyed.

And when it was time for me to go, I had Bill Murphy, our most prolific writer and a trusted *Lab News* colleague, to turn the newspaper over to as editor. He more than capably continued the *Lab News* legacy until he retired a couple years ago.

I think Sandia Labs has benefited in untold ways from having a first-class printed employee newspaper all these decades. I hope that is appreciated. Digital publication will be the future, but I'll never forget the smell of fresh ink on newly printed pages and the crisp crackle when turning the pages of a real newspaper. A part of me will always be somewhere in those pages of the Sandia *Lab News*.

Riding the chariot of anachronism

By ***Bill Murphy***
Editor and science writer, 1995-2018

When I was named editor of the *Lab News* in 2006, I fully understood that it was something of an anachronism. By the first decade of this century, after all, it was clear that the era of printed newspapers was drawing to a close, and doing so with alarming speed.

During my 12-year tenure at the helm of the *Lab News*, there was always at the back of my mind the conviction that surely, surely, this year the powers that be would decide to pull the plug.

Indeed, at one point, it took the intervention of an executive VP to "save" the *Lab News* after a director had decided it had outlived its usefulness. I'm not sure my director was totally wrong on the merits, but I was grateful for the reprieve. And I can own up now to the fact that my gratitude was almost — not entirely, but almost — totally selfish in nature.

Long after most of labs in the DOE complex had moved their in-house communications to a strictly digital world, the *Lab News* was a biweekly affirmation that we were different, that a record of our work — at least the work we could write about — was worth presenting formally in print, as well as through the pixels on a screen. (Yes, yes, I know: Once on the web, everything lives forever, but you don't linger over a Randy Montoya photo online the way you do when you can hold it in your hands. At least I don't.)

I was grateful, then, that we continued to print the paper as a differentiating statement about the Labs, but grateful, too, for a baser reason: I loved the job and didn't want to do anything else at Sandia. I loved the collaborative process of putting the paper together, loved holding the final product in my hands, loved the creative opportunities, loved the chance to "talk" directly to the community through my biweekly column.

So, yeah, I knew from the git-go the trajectory we must follow, that time must thrust us inexorably toward an end I only hoped would come after my own departure. It did. I left in 2018. And if, near the end, as Andrew Marvel wrote, I heard "time's wingèd chariot hurrying near" I recalled, too, the lines from Dylan Thomas: "Time held me green and dying/Though I sang in my chains like the sea."

Memories are made of this

By ***Iris Aboytes***
Feature writer, 1998-2011

Many have accused me of being Sandia's cheerleader. Each of my stories celebrated Sandians, their accomplishments, generosity and determination.

Shoes for Kids, United Way and Christmas Giving gave me a sense of pride as Sandia attempted to be an equalizer in our community. We

provided Cinderella slippers, became Santa's secret elf and had an open-door policy for our community. What is needed? Call Sandia.

One of my first stories was about a Sandian whose weight loss was not a result of diet. His hard-fought battle proved no match for his powerful adversary: cancer. Remember the fit Sandian who lost his leg to the same powerful enemy? With his loving heart and steadfast determination, he was able to walk his daughter down the aisle on her wedding day.

I remember one VP relating how he taught his daughter how to drive a stick shift going downhill. It was love and laughter at its finest.

"Buy me a rose," . . . call me from work, sang Kenny Rogers. Another VP and his wife enjoyed dancing to its melody

And then there was the awe of a Sandia soldier, returned home, who could not sleep because the ground beneath him was not shaking. His tattered diaries described the chilling reality of war. Thank you for your service, my friend.

Remember how Betty Boop encouraged you to exercise your gunga dins (triceps). Gone are the days when chasing the last hen into the chicken coop gave you the desired cardio, even if the party girl outran you.

I remember the director who did not speak a word of English on his first day of kindergarten. He closes his eyes and can see his mother's mournful look as she silently walks away.

There was the Sandian who was paralyzed as a result of a ranch accident. He credits his faith in God and the love of his family as he runs again.

My friend, a Sandia engineer, was born with only one hand. Imagine tying your shoes as a kid. He is a champion golfer. Yes, I can. Yes, I can. And Yes, I can.

My passion for writing about Sandians came to me as a gift in a small imaginary Christmas box. It was wrapped in burlap with a wire bow. It wasn't shiny or especially beautiful. Once opened, it spewed the heart and soul of Sandians. Inside the splintered box was stamped: "only for Iris Aboytes."

What happens to the hole?

*By **Howard Kercheval***
Reporter and columnist, 1992-2009

There's a guy who frequently offers information and opinions on an RV website whose sign-off is "What happens to the hole when the cheese is gone?" Searching my 78-year-old memory for fun, funny or other interesting reminiscences from my *Lab News* days, I think I stumbled across the answer to that: The hole showed up in my memory bank!

But among the memories rattling around that hole is a story I did about Creve Maples' virtual computing work. I called him one day for some bit of information and asked off-handedly what he'd been up to. He answered wryly that he'd been out flying around Jupiter or some other planets. In most of the journalism world, that answer would likely prompt a narrowing of eyes and skeptical head tilt. But at Sandia, it merely prompted me to lede the story with Frank Sinatra's, "Fly me to the moon, and let me play among the stars."

There were lots of other stories over the years, but that one sticks in my mind — in the part surrounding the hole.

When I landed at the *Lab News*, we were in an old World War II building and the whole staff went to the printer just before the presses ran so we could read, re-read and re-re-read page proofs. In our new home, Bldg. 811, that proofreading function moved to page proofs on the wall lining the hallway outside our offices. Standing there reading page after page, it was always great fun to joust with editor Ken Frazier about serial commas, proper use of conjunctions, verb tenses and other writing trivia.

Sad to contemplate the demise of the paper copy, but printed media are shrinking or disappearing everywhere. We all know, of course, that if we're interested in an almost running account of what's going on in the wider world, we have only to check our phones — or tablets, or computers. Not as satisfying to some of us as rustling the paper, turning the pages or actually clipping out something to file and save. But it's reality.

Fare thee well, Kids' Bingo and 'Take a Memo'

*By **Julie Hall***
Reporter, 2005-present

Farewell, printed *Lab News*! This was not unexpected. For a dozen or so years, the printed edition has frequently been on the chopping block for budgetary reasons. But each time, it miraculously survived to live another fiscal year, and the writers breathed a sigh of relief.

But we knew the reprieve was temporary. Sandia and the *Lab News* are not immune to changes in how people consume information. And no one, of course, anticipated a pandemic that would lead to only a fraction of the workforce regularly coming on-site.

When I came to Sandia in 1990, the Laboratory was smaller but the newspaper was often bigger, sometimes swelling to 24 pages. *Lab News* published the names of new employees, birth and marriage announcements, and a "sympathy" section listing deaths of family members. I have a digital version (captured from a PDF years after actual publication) of my printed welcome. Even then, at two-thirds the size it is today, Sandia seemed like a huge place, yet this small gesture made it a tad less intimidating, more welcoming and homey.

If you go back further, the *Lab News* once published a sports page with softball, golf and bowling tournament outcomes. Together with stories on Sandia research and United Way drives were calendar listings for activities at the beloved Coronado Club: Kids' Bingo, Italian Night, the Sweetheart Dance.

The photos are precious, capturing the hairstyles, fashion and what was acceptable at the time. The ashtrays on desks, cheesecake photos of women in bathing suits lounging at the pool, and those "Take a Memo, Please" photos featuring secretaries posing for the camera with steno pad and pen in hand — all remind us how far we've come.

I'm glad I was there during the print-only days. Some of my best memories at Sandia revolve around the *Lab News* production process. Galleys were placed on a table in the hallway of Bldg. 811. It was all hands on deck as everyone who could spare a moment made their proofreading marks and signed their initials in different ink colors. After the first round of corrections, the pages were reprinted and posted in the hallway. The every-other-Wednesday morning ritual involved staff members doing the final proof while drinking coffee and shooting the breeze.

The *Lab News* will continue to capture Sandia life and news just as it always has. But like the Laboratory it represents, it, too, is evolving.

Secret super lab reveals bowling scores

(Labs Director George) Landry formed a public relations department under Ted Sherwin. To better inform employees, Sherwin began publication of a newsletter, replacing a mimeographed bulletin distributed in Larsen's days. It disconcerted Sherwin when Landry personally reviewed and revised each issue…

Circulated in house since 1951, the *Lab News* has gained a niche in employees' affections. As a company newspaper, it deals with a unique challenge: how do you talk about the company product when that product is a highly classified nuclear weapon.

Early editors — Bob Gillespie, Bob Colgan, Tom Heaphy — avoided the issue. By fiat. So sensitive was the subject in the 1950s that each issue was read aloud by Superintendent Harold Sharp to President Landry, cover to cover, bowling scores and all. "Strike that!" Landry would exclaim, and the reading continued. Under this regimen, the *Lab News* was long on news of employees' activities in the community, hobby stories and Coronado Club activities, but short on "hard" news of weapon programs.

— From *Sandia National Laboratories: A History of Exceptional Service in the National Interest*, by Leland Johnson (SAND97-1029)

Landry subscribed to the philosophy that the best public relations year is one in which the firm is not mentioned in the newspapers. If so, 1950 was a very good year. Although the New York Times briefly referred to Sandia in 1948 and 1949, it did not mention the Lab at all in 1950. This anonymity was reflected in the title of a Popular Mechanics article of 1969, which referred to Sandia as "The Super Lab That Nobody Knows"…

— From *Bridging the Cold War and the 21st Century: Chronicling the History of Sandia National Laboratories*, by Carl J. Mora (SAND97-0747C)

CORONADO CLUB KICKOFF — Sandia Corp. President George Landry and the Coronado Club Board of Directors attended the grand opening on June 9, 1950. Pictured, from left, are Pat O'Hara, Harold Sharp, Ted Sherwin, George Landry, Harold Gunn, Geneva Bishop (Atomic Energy Commission), Bob Roy and Bob Henderson.

Photo courtesy of *Lab News* archives

Women rank Sandia among best places to work

FORGING A PATH — Dori Ellis was named Deputy Labs Director in 2019, capping a career that began at Sandia more than 40 years ago. Sandia has ranked No. 11 among the Fairygodboss list of 2020 Best Companies Where CEOs Support Gender Diversity, earning a score of 93.2 out of 100. **Photo by Rebecca Gustaf**

By ***Meagan Brace***

Sandia was recognized recently by Fairygodboss, the largest career community for women, as one of the **Best Companies for Women 2020** and **Best Companies where CEOs Support Gender Diversity**. Released annually, the honors are based entirely on women's reviews left on a social and professional network that aims to provide free resources and a safe, inclusive environment for highly motivated women to connect with other career-minded individuals.

"It is such an honor to be recognized by Fairygodboss as a Best Company for Women AND Best Company Where CEOs Support Gender Diversity in 2020," said Sandia Chief Diversity Officer Esther Hernandez. "Inclusion and Diversity are strategic focus areas for the Labs, and our employees understand that inclusion and diversity are business imperatives that give Sandia a competitive advantage. Additionally, we all agree that it's just the right thing to do."

Companies with more than 30 anonymous reviews on Fairygodboss were eligible for the rankings. Scores for the Best Companies for Women category were determined by averaging responses to three questions related to overall job satisfaction, equality and whether they would recommend their employer to others. To determine the Best Companies Where CEOs Support Gender Diversity, companies were ranked based on average answers to the question, "Do you think your CEO supports gender diversity?"

Reviews laud flexibility, support

Over the past year, Sandia has received numerous reviews that laud the Labs' flexible work arrangements, supportive leadership, mentorship and networking opportunities, and fulfilling careers.

"Gender diversity is a critical component of our strategy that is championed by many," Esther said. "Strong commitment from the Laboratories leadership and collaboration with Employee Resource Groups, Talent Acquisition and Talent Management to take action in the areas of inclusion and diversity in recruiting, interviewing, hiring, developing talent and many other areas are moving us in the right direction."

NETWORKING IN THE PARK — Sandia welcomed interns at a 2019 summer reception at Hardin Field. **Photo by Lonnie Anderson**

KEEPING COOL — Sandia researchers conducted experiments in 2019 designed to help prevent the spread of radioactive contamination in the event of a nuclear reactor accident. **Photo by Randy Montoya**

IRON WOMAN — Sandia researcher Anastasia Ilgen runs an experiment to isolate iron from clay mineral structures. Sandia has ranked No. 11 among the Fairygodboss list of 2020 Best Companies for Women, earning a score of 93.5 out of 100. **Photo by Randy Montoya**

Sandia's recruiting team began its partnership with Fairygodboss in the beginning of 2020 to expand the Labs' reach and amplify Sandia's brand with professional women in STEM and non-STEM fields across the nation. **Sandia's company profile** highlights women in the workforce through employee bios and quarterly articles to bring more women to the Labs and build awareness around a Sandia career.

"An award like this only happens if we're all working to understand inclusion and diversity, as well as advancing the initiatives in our respective roles," Esther said. "To every Sandian who is championing inclusion and diversity in our day-to-day work, we thank you! This accomplishment belongs to each and every one of us!"

What women are saying about Sandia

The recognition earned from Fairygodboss was based 100% on anonymous reviews about Sandia. Below is just a sampling of experiences shared on the site.

"I never feel like my contributions are minimized or maximized as a woman at Sandia. I believe my work is valued on its merit. Even though the engineering field and Sandia are still male-dominated, Sandia does care about supporting its female engineers, as well as inspiring young women to work here or elsewhere as an engineer. I also have many female mentors to look up to in my current organization. One is a more senior engineer in my group, and at one point, both my Level 2 manager and center director were women!" — Anonymous review from Oct. 9, 2020

"Great opportunities to develop and grow your career. Staff can move around within the company to gain experience in a variety of technical and business areas. There is great work/life balance, and the company is supportive of flexible work arrangements to suit working parents, people with disabilities, etc." — Anonymous review from Oct. 6, 2020

"Sandia is an institution that supports working mothers, as exhibited by the way the executive leadership team has handled the demands of working from home during this very challenging pandemic. Policies were changed and managers were asked to work with their employees to ensure stress was reduced and families were able to function as normally as possible during this time." — Anonymous review from Aug. 18, 2020

"Sandia is a great place to work. You get the opportunity to do meaningful work and have a variety of projects to work on. Yet the people are a big factor of why people stay at Sandia. Sandia cares about its employees. Work-life balance isn't a slogan, it's embraced in the culture at all levels." — Anonymous review from Aug. 5, 2020

"Sandia helps empower women to grow and learn professionally and personally. I am beyond thankful to work for an employer that values me and views me as an asset to the company." — Anonymous review from March 27, 2020

Women and allies in Sandia's workforce are encouraged to make a profile, connect with the Fairygodboss community, and add their **anonymous review**.

Images courtesy of Fairygodboss

SANDIA CLASSIFIED ADS

Note: Lab News is discontinuing classified ads after this issue.

MISCELLANEOUS

BIKE RACK, hitch-mounted, gently used condition; stationary exercise bike, gently used condition. Rhea, 505-227-4799.

ELECTRIC TOOTHBRUSH, Philips Sonicare ProtectiveClean 4500/5100, black, w/3 new brush heads, $49. Wagner, 505-504-8783.

UPRIGHT FREEZER, Montgomery Ward, photo available, in East Mountains, $50. Willmas, djwillmas@gmail.com.

WINE REFRIGERATOR, Sub Zero, right hinge, 146-bottle, dual temperature zones, 15 racks, 30"W x 84"H x 24"D, $4,750 OBO. Bauer, 505-280-9426.

iMAC DESKTOP, 27-in., still-in-box, excellent, 1TB Fusion drive, 3 GHz 6 core, Intel Core i5 8GB, $1,200; series 5 Apple Watch, ladies, brand new, excellent condition, original packaging, $300. Duis, janiceduis29@icloud.com.

CLOTH FACE MASKS, different sizes & prints, can text photos, $5-$10. Murphy, 505-358-8349.

MINI REFRIGERATOR, Black & Decker, $35; 2 chicken nesting boxes, $25 ea.; Gaiam exercise ball chair, $50. Logan, 505-459-5164.

DECORATOR SILK FICUS TREE, 8-ft. tall, basket container, $100. Fenimore, 505-298-8052 or corliss@comcast.net.

REAL ESTATE

3-4 BDR. HOME, 2 baths, office space, eat-in kitchen, utility room, plenty of storage, close to uptown, KAFB. Talamantes, 505-227-1172.

2-ACRE LOT, East Mountains, gorgeous view, adjoins Cibola National Forest, gated community, all utilities, HOA/Clubhouse/trails, $189,000. Horton, 505-304-3700.

State of the Labs 2020

CONTINUED FROM PAGE 1

He said Sandia took a defense-in-depth approach centered on face coverings, social distancing, limited in-person meetings, contact tracing and regular communications that kept the workforce informed. "We have been able to keep the on-site workforce very healthy," he said.

James thanked the many people who must be at the Labs to do their jobs, including technicians, custodians, administrative assistants, design engineers, security professionals, the medical team and others. "We needed them here and they came," he said. "Many of them have been here every day since the pandemic started."

He also thanked parents for their dedication to Sandia as their child-care responsibilities grew. "I can't imagine how difficult it must be to do the work you do for us, for these many months, while taking care of families and educating children," he said.

Accomplishments across the board

James praised the teams that launched in-house COVID-19 testing and funded R&D projects that are making a difference in the nation's fight against the virus. And he said he was humbled by the generosity of Sandians who donated hundreds of thousands of dollars and countless volunteer hours to help people struggling during the pandemic. The United Way said the speed with which donations poured in from Sandia for the Need is Now Native American relief fund was the fastest it had ever seen in a 48-hour period – $250,000 was raised.

James singled out a long list of accomplishments across all divisions, including:

- Mission Enabling: Cost savings, security improvements, legal, communications and HR extraordinary efforts
- Science and Technology: A next-generation stockpile stewardship plan and plutonium experiments at Z
- DOE/DHS: Co-led one of five quantum institutes in DOE and breakthroughs at California's Combustion Research Facility
- Global Security: Advances in the Global Burst Detector and remote training of emergency responders
- National Security: Collaborated with the military and other partners on the historic Hypersonic Flight Exeriment-2 and played a critical role in an executive order aimed at securing the United States Bulk Power System
- Nuclear Deterrence: Met all critical milestones in multiple weapon programs, executed nine U.S. Air Force Initial Operational Test and Evaluation B61-12 surveillance tests at the Tonopah Test Range, and completed a full-scale crash test of the Mobile Guardian Transporter Prototype I at the Rocket Sled Track

"It was an amazing year for our missions with outstanding support from across the Labs — procurement, finance, HR, communications, legal — the list is long," James said. "I thank all of you for performing exceptional service in the national interest."

Twenty individual Sandians received national awards in 2020, six teams won R&D 100 Awards, and numerous other groups brought in Defense Program Awards of Excellence, the DOE Office of Intelligence and Counterintelligence Alsos Award, the Laser Focus World Innovators Award, three NNSA awards, and four national technology transfer awards. "Congratulations to all the winners," James said. "This is a lot of awards in a normal year; this year, it's exceptional."

Questions from the workforce

James answered several questions from members of the workforce. One involved the future of telecommuting, and he said there is a strategy to improve facilities if enough people are wanting and able to telecommute. But he cautioned against losing the creativity and innovation that come from teams working together on-site. "We have been effective working remotely," he said. "But a lot of creativity happens in the work environment. We are an organization funded to do innovation, and we need people to be creative. I want to be sure we don't lose that."

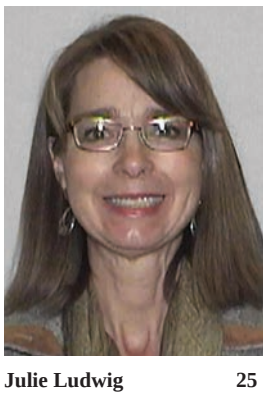
Addressing other questions, James said inclusion and diversity continue to be one of his top priorities and that Sandia is doing everything in its power to have a safe work environment. "I want to dispel the idea that coming on-site is unsafe compared to being in the community," he said. "The data doesn't support that. Only 5% of our COVID-19 cases have any possibility of having been contracted at work. At least 95% of infections occurred outside Sandia. It is not correct to assume our work environment is not safe."

In closing, James said Sandia has accomplished a lot during the pandemic. "Thank you to those who are coming on-site, thank you to those who are working from home," he said. "We are all making sacrifices. I appreciate your dedication to our national security mission."

Watch the 2020 State of the Labs

Employees who missed James Peery's State of the Labs can view the video on Sandia's internal Digital Media Library.

Mileposts



Julie Ludwig 25

Roger Vesey 25

Linda Bay Chu 20

Jesus Ontiveros 20

Delvin Wood 20

Recent Retirees

Patricio Abeita 42

Mark Rosenthal 38

Doretta Liyai 31

Elaine Hinman-Sweeney 19

Sandians stuff turkey donation bins

Birds abound through workforce generosity

BIN-TASTIC — Sandia's annual Take a Frozen Turkey to Work Day on Nov. 17 pulled in 250 frozen turkeys and more than $10,000. Sixty-five birds were donated on-site at the Labs, and another 185 turkeys were donated at various Sandia Laboratory Federal Credit Union locations in Albuquerque and surrounding communities. **Photos by Randy Montoya**

By ***Luke Frank***

In this unknown world of a pandemic sweeping through our communities, there's no shortage of hungry New Mexico families. But perhaps there's less of a shortage thanks to the giving spirit of Sandia's workforce.

The Labs, in partnership with Sandia Laboratory Federal Credit Union, Roadrunner Food Bank and other local pantries, hosted its annual Take a Frozen Turkey to Work Day on Nov. 17, to collect birds for the less fortunate.

Nine collection sites — two at Sandia and seven at credit union branches — pulled in 250 frozen turkeys and more than $10,000. Donations will be dispersed according to need in communities where drop boxes were located, as well as throughout the state.

Sandia employee Mardelle Morrow dropped off six birds in front of Bldg. 800. "My four sisters and brother pitched in," she said. "I bought the six biggest turkeys I could find. I feel like I can count my blessings, so I take this opportunity every year to give back." This is Mardelle's 17th year dropping off turkeys at Sandia.

Tradition with a twist

This year brought new challenges to the effort — a pandemic that has kept a majority of Sandia employees offsite teleworking, along with recently imposed restrictions on food shopping. Program organizer Katrina Wagner said changes were made this year to create more opportunities for the workforce to donate without unnecessarily coming on-site.

Partnering with Sandia Laboratory Federal Credit Union offered multiple off-site drop-off locations, including branches in Albuquerque, Los Lunas, Edgewood and Rio Rancho. "We had 185 turkeys dropped off at credit union sites," Katrina said. "Their 'all-in' support really made this year's drive a success."

This year's turkey drive also offered a fundraising component, so Sandians didn't have to worry about social distancing and waiting in line to purchase birds. "We wanted to make Take a Frozen Turkey to Work Day as safe and simple as possible for our colleagues," Katrina said. Off-site credit union drop-off locations also enabled Sandia retirees to participate.

"This is a wonderful tradition at Sandia that started years ago with a simple idea that originated in Community Involvement: 'We have Bring Your Daughter and Son to Work days.' Why not have a 'Bring a Turkey to Work Day?'" said Community Relations manager Amy Tapia.

Roadrunner Food Bank has been a partner in this effort for about 20 years. "My best guess is Sandia has donated at least 250 turkeys every year, certainly since I've been at Roadrunner," said communications officer Sonya Warwick. "But it didn't start with me. Sandia and Roadrunner have enjoyed this relationship for at least 15 years — maybe 20."

Twenty years of 250 turkeys a year amounts to at least 5,000 birds donated by Sandians and distributed by Roadrunner, predominantly in the Albuquerque metro area, but likely in all 33 New Mexico counties. At 15 pounds apiece, that's 75,000 pounds of healthy protein going to families in need of sustenance.

"These could be our friends, neighbors or members of our extended families," Amy said. "New Mexico has really high food insecurity that has been exacerbated by COVID. It's so important this year, and I couldn't be prouder to be a Sandian."

GOBBLER HAULER — Sandia employee Mardelle Morrow, right, has donated turkeys for the Labs' annual Take a Frozen Turkey to Work Day for the past 17 years. Sandia volunteer Chris Hulliger helped her unload the six birds she donated this year.