



Focused and fast



QUALITY CHECK — Members of the Agile Productions Team check a shipment as a representative from the U.S. Air Force, center, checks paperwork. **Photo by Craig Fritz**

Enhanced surety program meets urgent request

By Jennifer Awe

In response to an urgent DOD request, multidisciplinary teams across Sandia delivered in a big way for international security.

The Nuclear Deterrence Futures Office provided design and system integrator oversight to deliver an enhanced surety — safety plus security — program on an accelerated schedule of 30 months from answering the call to delivery. The program had a highly successful year, culminating in full-system qualification and delivery to

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The women in charge

By Maggie Krajewski

In a 1958 Lab News story about women in supervisor roles, the lead sentence read: “Blond or brunette, single or grandmother, high school graduate or holder of a college degree, the women pictured here have one thing in common — they’re among Sandia Corporation’s 20 women supervisors.”

In the last 66 years, Sandia has made progress. First, Lab News no longer refers to women’s hair color or marital status when focusing on their professional accomplishments. Second, the number of women in the workforce and in management has increased over the last several decades. Today, 32% of Labs managers are women.

Moving up the ladder

The 20 women supervisors featured in the 1958 story were section supervisors, which was the lowest level of management at the time. Of those, only two were in technical positions; the rest

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1958 WOMEN SUPERVISORS — A group of Sandia’s supervisors in 1958, including, seated from left, Oleta Morris, Winifred Fellows, Evelyn Garman, Wynne Cox, Claudine Sproul, and standing from left, Irene Palmer, Ilva Baldwin, Lila Ness, Beulah Sutherland, Kathleen Sadler, Martha Tuffs, Bertha Allen, Frances Hale and Patricia Farley. **Photo from the Lab News archives**

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Goal Getters event



TWO BIG GOALS — Gen. Kevin Chilton, astronaut and former commander of U.S. Strategic Command, delivers the keynote speech during the Goal Getters event on May 7, before leaving the stage to a standing ovation. The event also featured staff who shared stories that demonstrate Sandia's **two big goals**. Staff can watch a recording of the **event** in the Digital Media Library. **Photo by Craig Fritz**



CUTTING RED TAPE — From left, design engineering senior manager Carl Rhinehart speaks about achieving excellence through iteration with hosts Kim Vallez Quintana and Myles Copeland during the Goal Getters event. **Photo by Craig Fritz**

Enhanced surety

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“It’s an impressive example of our in-house design and production teams partnering to apply the expertise needed from concept to installation,” ND Futures Office Director Ernie Wilson said. “Delivering on time demanded the full support and dedication of teams across Sandia, from quality to security to cyber to procurement. It also required trust-based relationships built over generations of partnering with NNSA and the Air Force.”

While the core team comprised about 50 people, hundreds of Sandians worked on the project over the past two years. In addition to cross-site collaboration, strong partnerships with Los Alamos National Laboratory and the Air Force Nuclear Weapons Center were critical. The Air Force Nuclear Weapons Center was responsible for defining, maintaining and ensuring project management standards across the Air Force, NNSA and Sandia.

“Sandia’s component production team met numerous milestones, managing high-risk supply chain challenges, and applying rapid prototyping to production cycles,”



READY TO SHIP — A technologist helps prepare a shipment from Sandia Labs Agile Productions Team for the Enhanced Surety team to use in the field.

Photo by Craig Fritz

Sandia systems engineering manager Brad Norman said. “Weapons and Force Protection partners provided the assembly and installation expertise we could not have found anywhere else. This knowledge in one place was an enabling factor.”

There were several design agencies across Sandia, with multiple teams

working together and partnering with the production side.

“When we began it was a blank slate — there was no design and no production capability,” manager Mike Sabo said. “Through close partnering, we were able to develop and deliver a fully realized, qualified design and qualified testers and a streamlined production floor. Our Surety and Weapons Quality partners met or exceeded weapon product requirements, resulting in the release of component, tester- and system-level quality engineering reports.”

For perspective, a typical weapons modernization program takes more than a decade from design to delivery. While this small-scale surety project is not a typical program, an accelerated design and delivery schedule is no small feat in the national security realm.

Elements of success

“Paramount to success were our people and their proficiency,” Brad said. “The collocation of design and production in-house at Sandia also meant if we had a problem, someone could come and look at it that day. This hands-on problem solving allowed us to resolve things quickly.”

“This type of collocation works well for one-off productions, which may not be



TASK REVIEW — Engineers go over tasks to execute in the field for an enhanced surety system installation. The Enhanced Surety team is responsible for verifying performance and asserting readiness for every system installed.

Photo by Craig Fritz

scalable at a larger level,” Mike said. “It made sense for us to manage from start to finish for this scope of project.”

Teams applied modern engineering methods to help expedite the design and production process, including rapid prototyping for advanced manufacturing.

“Production strategies for rapid design and manufacturability also meant 3D printing for test parts to design and test fit within just a few hours to test early, which allows you to shorten design


cycles,” Mike said.

The team worked closely with NNSA’s Sandia Field Office to apply a flexible and tailored approach to weapons quality requirements and reduce the number of design reviews to meet the aggressive schedule.

“The production team faced challenging supply chain issues, engineered creative solutions and communicated those to the field office to assure we’d done our due diligence,” Mike

said. “Those frequent interactions with decision-makers helped move things along.”

Prior success on urgent programs helped pave the way for this effort, giving Sandians confidence that they could work fast.

“All team members shared the same motivation and emphasis on delivery,” Ernie said. “It was all hands on deck working toward a common goal for the nation, and that’s where Sandia really shines.” 

Women in charge

CONTINUED FROM PAGE 1

worked in general or administrative roles. This was on par with the times, as most women working in that era were employed in clerical, teaching and sales jobs.

There were exceptions of course, even at the Labs, which employed a handful of women scientists. However, it wasn’t until 1972, that one of those scientists worked their way up to management.

Ruth Whan worked at the Labs for 10 years as a physicist in radiation and rad hardening before she was promoted to supervisor of the Materials Analysis Division. She was the first female to be named division supervisor, which was a level above section supervisor. Six years



FIRST WOMAN DIVISION SUPERVISOR — In a 1967 photo, physicist Ruth Whan attaches thermocouple wires to monitor sample temperatures during irradiation. In 1972, Whan would become the first woman as a division supervisor.

Photo from the Lab News archives

later, Whan would be promoted to department manager of the Chemistry and Materials Characterization Department.

Women rising to power

In 1981, Sandia California saw its first female division supervisor when Carol Verity was named supervisor of the Benefits, Medical and EEO Division. The following year, Joan Woodard was promoted to supervisor of the Solar Programs Division, also based in Livermore.

Woodard moved to Albuquerque in 1988. Two years later, she would become the first woman in a center director role when she was named director of Environmental and Manufacturing R&D Programs.

“Joan pushed hard to elevate women in the workforce and in management,” Labs historian Rebecca Ullrich said. “Dori Ellis, who came up behind Joan in management, was also a big advocate.”

Together, Woodard and Ellis focused their efforts on improving working conditions for women at Sandia as well as recruiting women engineers to join the Labs.

In 1999, Woodard made history again after she became the first female executive vice president of the Labs, a role now known as associate Labs director.

Women in Technical Management Project

As more women were promoted, the voices calling out issues that women were facing grew louder.

“Something is going on, making it difficult for many women to be successful in



JOAN WOODARD — Woodard would be a steadfast advocate for women at the Labs throughout her history-making career. Here, she speaks at a nuclear weapons all hands meeting in 2008.

Photo from the Lab News archives

management positions,” read a Lab News article [published in March 2000](#).

The article focused on the findings of the Women in Technical Management Project, an initiative launched two years earlier by Woodard and Ombuds Wendall Jones.

Not surprisingly, the project found that female managers who had been mentored and coached in a supportive environment were able to thrive, while those without similar support reported several problems and many would eventually step down. Women at that time were reclassified out of management at four times the rate of men.

The project also revealed that salaries of female technical managers and female technical staff were “slightly below their male counterparts.”



FIRST WOMAN TO LEAD SANDIA — Jill Hruby would be the first woman to lead a national security lab and the first woman to be president and director of Sandia.

Photo by Randy Montoya

According to the article, Labs leadership “didn’t have a sense of the magnitude of the problem” until Woodard and the team presented the project’s findings.

These findings prompted the Labs to increase coaching and mentorship available

to female managers and organize various networking workshops and conferences geared toward women in management.

In February 2010, Woodard announced her retirement. In a [Lab News article celebrating her career](#), she spoke of the Labs efforts to improve conditions for working women, specifically policies that support working mothers. Of particular concern were child care, increased time off after childbirth, and accommodating part-time hours and telecommuting as alternatives for mothers.

Woodard also raised the importance of having women in management as it “helps provide alternative viewpoints in solving problems and an understanding ear to the problems of women and minorities.”



THE WOMEN IN CHARGE OF WEAPONS — From left, Michelle Stevens, Rita Gonzales and Laura McGill present at the 2022 nuclear deterrence all hands meeting
Photo by Lonnie Anderson

first to hire a female director. I am thankful to the leaders who gave me a chance.”

The women in charge of weapons

In 2022, Rebecca was watching a nuclear deterrence all hands meeting. “I was multitasking, emailing, doing whatever else at the same time, and suddenly I noticed it was three women on stage,” Rebecca said.

Rebecca has been at the Labs since 1994, working through an evolving landscape of women in the workforce. Through ups and downs, steps forward and steps back, the work is far from complete, but what Rebecca saw on stage stopped her in her tracks.

“I’m looking at my screen and see Michelle Stevens, who was standing in for Steve Girrens; Rita Gonzales; and Laura McGill on stage and I had to take a screenshot,” Rebecca said. “I’m thinking to myself, ‘Whoa. It’s all women in charge of weapons.’ It was just so striking in that moment. It felt huge.”

“When you think of women as blondes or brunettes, you may not be able to see past that to their technical capabilities, but what I saw on that stage was proof of how far we’ve come, and I think it takes us to a place today where there is strong encouragement for moving forward.”



9.7.24 NEW MEXICO ❤️ 9.21.24 CALIFORNIA

Sandia's first female Labs director

Five years after Woodard retired, Jill Hruby would make history as the first woman to be named Labs director, as well as the first woman ever to head a U.S. nuclear weapons lab.

During a news conference with local media, Jill told reporters, “Sandia started on this path a long time ago. The Labs has long welcomed diversity and inclusion and has been a leader in hiring and developing diverse talent. That paid off for Sandia being the

Environmental awards recognize groundwater protection, waste reduction effort

By **Dan Ware**

Sandia’s commitment to the environment goes beyond just ensuring that our impact on natural resources is as minimal as possible. Sandia strives to look at environmental stewardship in new and innovative ways as well. As a part of Sandia’s celebration of Earth Day in April, two teams were recognized during the annual Environmental Excellence Awards for their work to manage environmental risks and improve our processes for dealing with waste. Sponsored by Environment, Safety and Health’s Environmental Management System, the awards recognize the accomplishments of members of the workforce who help the Labs reduce its impact on natural resources and show Sandia’s commitment to environmental stewardship.

For 2023, projects and activities were awarded in two categories: Above and Beyond and Grassroots.

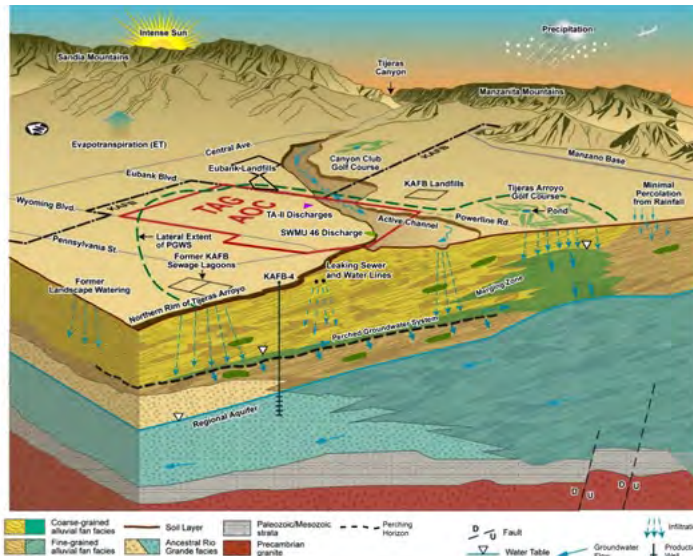
Above and Beyond: Tijeras Arroyo Groundwater Corrective Measures Implementation Plan

What can be done when your efforts to improve the environment also have undesirable impacts on natural resources? Sandia’s Environmental Restoration and Stewardship Team, led by John Copland, thought about this question and identified a method for contaminated groundwater remediation that is less environmentally impactful and more sustainable.

“The team’s use of the monitored natural attenuation remedial method creates a far smaller environmental footprint, unlike alternative methods,” awards program lead Ben Henning said. “This method greatly reduces greenhouse gas and vehicle emissions by thousands of tons and poses the lowest safety risk to site workers.”

The Tijeras Arroyo monitored natural attenuation method will also save Sandia

\$150,000 a year due to a reduced frequency of groundwater sampling and analytical effort. Because it uses the existing network of groundwater monitoring wells, the cost over a 30-year duration will only be \$8 million. Alternative methods carry projected costs of between \$62 to \$173 million because they would require the installation of extraction and injection wells, and increased sampling.



GROUNDWATER SOLUTION — The Tijeras Arroyo Groundwater Corrective Measures Implementation Plan uses an existing network of groundwater monitoring wells to develop a method for contaminated ground water remediation, saving the Labs and taxpayer millions of dollars compared to alternative methods. **Graphic provided by John Copland**



PACK IT UP — Sandia’s Radiation Protection team in California partnered with the Logistics group to pioneer a process that reuses soft foam packing materials, greatly reducing the amount of waste generated by using new packing materials for each shipment. **Photo by Lexi Tucker**

Grassroots: Lab Packing Material Re-Use Initiative

Packing materials, while necessary to protect the important and often delicate equipment used at Sandia, pose a challenge when reducing waste generation. Sandia’s Radiation Protection team in California, working with the Labs’ Logistics group, have pioneered a new process to reuse soft foam packing materials for future shipments. Ben estimates the process will divert hundreds of cubic feet of foam from the landfill.

“By reusing this material, we are also reducing the amount of CO2 emitted in its production and we’re greatly reducing the cost of purchasing it new,” Ben said. “By taking the initiative and creating this process, the team’s work on this has potential Labswide impact and could serve as a model for other national labs to follow.”

Under Secretary discusses nonproliferation at speaker series event



DISTINGUISHED VISITOR — Cooperative Monitoring Center Director Amir Mohagheghi, right, discusses an arms control exhibit with Bonnie D. Jenkins, U.S. under secretary of State for Arms Control and International Security, during a tour of the Technology Training and Demonstration Area at Sandia's Center for Global Security and Cooperation on April 24. During her visit, Ambassador Jenkins also met with Sandia Global Security and NNSA leaders, participated in a roundtable with early-career staff, and gave a talk on current challenges to countries favoring arms control and the nonproliferation of weapons of mass destruction. The talk was the latest in the National Security Speaker Series, hosted by the Cooperative Monitoring Center.

Photo by Bret Latter



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FURTHERING GLOBAL SECURITY — Bonnie D. Jenkins, U.S. under secretary of State for Arms Control and International Security, left, takes questions from the audience following her seminar. She was joined on stage by Sandia's Global Security Associate Laboratories Director Justine Johannes.

Photo by Bret Latter

Asian American and Pacific Islander Heritage Festival delights

By **Luke Frank**

The Asian American Pacific Islander Heritage Festival, held May 4 at the National Museum of Nuclear Science & History, once again dazzled event-goers while sharing colorful cultures and traditions. Hosted by the Sandia Asian Leadership and Outreach Committee, the event drew hundreds of spectators from Sandia and the local community.

In addition to morning and afternoon live performances, the festival featured exhibits of regional origami, calligraphy and artwork, and within the museum itself, while wafts of delectable dishes from the Far East floated through the event. Sponsors included Talin Market, Kairos Power and New Mexico Operations/ Honeywell Federal Manufacturing & Technologies LLC. [fb](#)



FURTHERING GLOBAL SECURITY — Members of the Albuquerque Chinese Folk Dance Ensemble capture the attention of spectators during their festival performance. **Photo by Craig Fritz**



VISUALLY COMPELLING — Labs Director James Peery, seated left, and Chief Information Officer John Zepper enjoy the enchanting and graceful Happy Dancer Group at this year's festival. **Photo by Craig Fritz**



ENCHANTING ELEGANCE — Chinese American Citizens Alliance Youth Group members invigorate imaginations with colorful costumes and elegant movements at the festival. **Photo by Craig Fritz**

Mileposts



Doug Adams 40



Randy Peterson 35



Ted Salas 35



Lori Montano-Martinez 30



Jeffrey Robinson 30



David Chacon 25



Matthew Kerschen 25



Mo Lucero 25



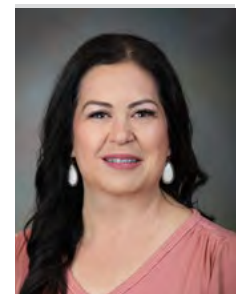
Karen Prinke 25



Jesse Roberts 25



Amber Romero 25



Tracy Sanchez 25



Jason Shepherd 25



Jimmie Wolf 25



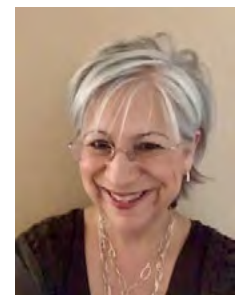
Irene Allen 20



Aaron Brundage 20



Melissa Creange 20



Corine Harvey 20



Rodney Keith 20



Stefani Olcott 20



Robin Reynolds 20



Ann Marie Ryder 20



Joey Sena 20



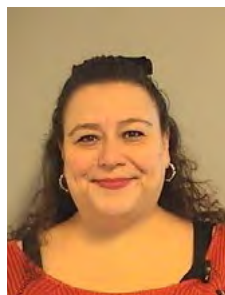
Eric Taylor 20



Eric Vugrin 20



Mellie Cannady 15



Veronica Maestas 15

Recent Retirees



Jim Stromberg 36



Tom Weber 34