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legacy  
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## B61-12 pairs with F-15E Strike Eagle

Successful flight tests show Sandia's design works with U.S. Air Force's primary fighter jet



**ALL SYSTEMS GO** — A U.S. Air Force F-15E Strike Eagle drops a mock B61-12 on Tonopah Test Range as part of a full-weapon system demonstration. **Images courtesy of Sandia National Laboratories**

By **Michael J. Baker**

**D**ropped from above 25,000 feet, the mock B61-12 nuclear gravity bomb was in the air for approximately 55 seconds before hitting and embedding in the lakebed, splashing a 40- to 50-foot puff of desert dust from the designated impact area at Sandia's Tonopah Test Range in Nevada.

That strike was the last in a series of flight tests designed to demonstrate the refurbished B61-12's compatibility with the U.S. Air Force's **F-15E Strike Eagle** jet fighter. The successful full-weapon system demonstration of the bomb's compatibility with the jet increases confidence that it will always work when called upon by the president and never under any other circumstances.



**SLED TRACK TEST** — Ground testing, such as at the sled track, is instrumental in compatibility testing to verify readiness.



**COMPATIBILITY MATCHED** — Two flight tests occurred at Sandia's Tonopah Test Range in Nevada to demonstrate the compatibility of the B61-12 nuclear gravity bomb with the F-15E Strike Eagle jet fighter.

"Sandia National Laboratories and the Air Force conducted the full-weapon system demonstration under a full end-to-end test scenario, demonstrating operational crews, representative carriage, release conditions and weapon functionality," said Steven Samuels, a manager with Sandia's B61-12 system team.

— CONTINUED ON PAGE 5



**CLEAN ROOM** — Sandia custodian Veronica Duran and her co-workers are cleaning and disinfecting high-touch areas around the Labs up to six times per day. **Photo by Randy Montoya**

## Mission forward

Sandia prepares for gradual return to normal operations

By **Meagan Brace**

**S**andia is using a phased approach to return to normal operations over the coming months, while continuing maximum telework as much as possible.

The initial phase of the plan, announced by Labs Director James S. Peery on May 21, will begin with updated guidance and training to ensure employees on-site remain safe, and that employees who return to the site after teleworking since mid-March have a common understanding of the guidelines and protective measures.

Any employee who can continue to work from home will do so, and no employee will return to on-site work without manager authorization.

Each of the three phases requires a minimum of 14 days of negative COVID-19 growth in surrounding communities and approval from NNSA before the Labs will move to the next phase.

As more people return, Sandia has implemented several layers of protection to ensure safe, continuous work activities and facility operations.

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 LABNEWS Notes

# A Sandian's experience with COVID-19

By **Don Lifke**

**O**n Sunday night, March 15, Sandia emergency operations sent out an advisory that told employees, “If you can work from home, we want you to.” This notice came just in the nick of time for me. Although I felt fine, I started working from home the next day, Monday, March 16.

By Tuesday evening, I began experiencing symptoms that had been associated with COVID-19. It started with shivering and chills. A fever followed. The muscle aches became extreme. Wednesday morning, I reported my daily status to my manager as required: “Working, but don’t feel so great.”

On Thursday morning, I emailed my manager with a new status report: “I’m sick in bed with the flu. I have a fever, but no dry cough yet. If I get worse, the doc will order COVID-19 testing, but he thinks I’m not high risk at this point.”

I had a fever and severe muscle aches for about eight days. I knew this was either the worst flu I’ve ever had, or it was COVID-19. I was fairly certain it was not just another flu; however, I never developed a cough or difficulty breathing, so I wasn’t tested for COVID-19. The tests, still scarce at that point, were reserved for those who had all the symptoms, not just a subset.

## Tracing the path

It all started with a ski trip with my girlfriend Claire to Telluride, Colorado, March 12-14. We drove to Colorado on Thursday and enjoyed the slopes and the shops in town on Friday and Saturday. While at dinner Saturday night, we heard that Colorado had just closed all ski areas. We had planned to head home the next morning anyway, so we didn’t think much of it other than, “That seems pretty extreme.”

The advisory came Sunday night and I worked from home Monday. That night, Sandia



**GIVING BACK** — Sandian Don Lifke recovered from COVID-19 earlier this spring. After testing positive for the antibodies, he is donating convalescent plasma in honor of his brother and former Sandian, Joe Lifke.

Photos courtesy of Don Lifke

Communications sent a special announcement email to the workforce expanding the initial guidance: “All Sandia employees — regardless of their worksites — should work from home as much as their job allows for at least the next three weeks, or until Sandia provides updated guidance.”

The new guidance continued with the retroactive requirement, “Kirtland Air Force Base and the Sandia Field Office are asking members of the Sandia workforce who have been out of New Mexico on personal travel on or after Saturday, March 14, to not return to KAFB until 14 days after their return to the state.”

It was clear I would be working from home for at least a couple weeks. I also had plans to travel to New York City with my daughter over her spring break at the end of March for a tour of the New York University campus. Naturally, that trip was canceled.

In early April, Claire, a hospital pharmacist, was informed that an ill co-worker had tested positive for COVID-19. She and her co-workers were instructed to get tested, and although she had no symptoms, she was tested Friday, April 3. We hung out all weekend as we normally do, thinking nothing of her pending test result.

Sunday afternoon, Claire received a call notifying her that her test was positive. At that point I thought, “I probably had it and gave it to her, or I’m about to get really sick again.” The New Mexico Department of Health called me directly and instructed me to get tested the next day. I did, and my test was negative.

## Antibody testing

I did not get sick again, and actually felt the best I’ve felt in years. At that point, I was fairly certain I had had COVID-19 in March



**POSITIVE IMPACT** — Don’s girlfriend Claire also tested positive for COVID-19 and is donating convalescent plasmas to help ease the suffering of others. They encourage anyone who has recovered to consider donating plasma as well.

and was now immune. I couldn’t wait for the antibody tests to become available so I would know with more certainty. I also was excited about the potential to help others by donating convalescent plasma.

On May 5, I was finally able to get the antibody test. Two days later, I received a call from the chief medical officer at the clinic, who said, “You’re positive for COVID-19 (antibodies). Tell me more!”

I told him I had been fairly certain the test would come back positive. I told him my story, and he told me that the median time from contraction to symptoms is 5.1 days, which means I likely contracted the virus on or about Friday, March 13, when I was in Telluride. The area was a hot spot at the time, and he was confident that’s where I contracted it.

On June 1, I donated [convalescent plasma](#) to help others suffering from this painful disease. If my donation can help even one person suffer less, this will have all been worth it.

I believe I was given this opportunity because my brother and best friend Joe Lifke, a former Sandian, has a terminal illness that I cannot help him with. I desperately needed a way to get through the feeling of helplessness, and COVID-19 came along and gave me an opportunity to at least help others. I would volunteer to contract the disease and suffer through it again, just to have another opportunity to donate plasma in my brother’s honor. 



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 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](mailto:tadeshl@sandia.gov).

# Chuck Loeber's legacy

Retired Sandian's popular nuclear weapons history still taught at the Labs



**MAKING HISTORY** — Chuck Loeber pauses to inspect a display during a July 2013 visit to the National Museum of Nuclear Science and History. He was the project manager in charge of building the museum, which opened in its current location in 2009. **Photo by Randy Montoya**

By **Rebecca Ullrich**

Charles R. Loeber spent 50 years working in the nuclear weapons complex, with the last 20 as an employee and consultant at Sandia. He helped stand up neutron generator manufacturing in the 1990s. After that, he oriented a generation of new hires in nuclear weapons to Sandia and its responsibilities.

In that role, he taught a lot of us the history and importance of the nuclear weapons complex. We knew him as Chuck, and he was forever smiling as he went through his slides, each iteration as fresh as if he had just created it.

Chuck arrived at Sandia with an entire career in the civil service behind him. He was deeply familiar with the operations of DOE's nuclear weapons plants and laboratories. He was gracious, generous and persistent, and he got things done. He didn't bother arguing — just kept moving forward and explaining in patient tones why and how they needed to be done.

At the Albuquerque Operations Office since 1978, Chuck retired from DOE in 1994 and moved over to Sandia. His most recent assignments at DOE had been first to lead a study of how best to reduce the size of the nuclear weapons complex at the end of the Cold War, and then to do so. He oversaw the closure of Rocky Flats,

Mound and Pinellas. He segued into the outcome from that effort at Sandia, working on the new neutron generator production assignment inherited from Pinellas.

When the nuclear weapons program launched a new hire orientation program, Chuck took a lead role, bringing in subject matter experts from across Sandia to discuss their fields. The program covered everything from the Labs' history to its role in stockpile stewardship. He provided his speakers with feedback to ensure continuous improvement — he was both generous and crisp in his suggestions.

### Retired but not resting

In 2005, Chuck retired from Sandia, but continued as a consultant. He also continued his lifetime of practical service, volunteering with the National Atomic Museum Foundation and serving as its president. Most notably, he was project manager to build the new National Museum of Nuclear Science and History, which opened at its current location in 2009. It is a fine legacy, but not his only one.

Chuck was best known and is probably most extensively remembered within Sandia for his presentations on the history of the nuclear weapons complex. Repeatedly invited to sites throughout the complex to share his presentation, he was always

delighted to travel, meet new groups and tell them how this set of institutions came to be, what they do, why they matter.

As others convinced him of the value of his knowledge and the particular way he presented it, Chuck decided to capture it all in a book. He carved out personal time to translate his slides and lecture materials into *Building the Bombs: A History of the Nuclear Weapons Complex*. First published in 2002, the book is now in its third edition and has seen multiple printings. It is widely used as a solid introduction to the origins and functions of the Nuclear Security Enterprise.

After retiring from Sandia, Chuck continued to give his presentations to monthly audiences of new hires and old hands. He was a charming lecturer, reeling audiences in with humor and humility, letting the feats of history stand on their own while he gently nudged listeners along the path to knowledge.

Eventually, his health left him exhausted after a full day of presenting, and he stopped coming in. The course he started is still offered and well presented by knowledgeable Sandians, but it is clear that its foundation was poured by Chuck and his slides. Because of him, the course will endure, offering enlightenment on the history of the Nuclear Security Enterprise.

On May 10, [Chuck left us](#) and the rest of the world to continue on without him. 

## Retiree Deaths

Dec. 6-31, 2019

Roy Hamil (age 76)	Dec. 6
Maureen Barrett (84)	Dec. 10
Donald Harrison (89)	Dec. 12
Harry Rouckus (90)	Dec. 15
Joseph Muench (98)	Dec. 20
Robert Johnston (74)	Dec. 20
Irene Thurston (83)	Dec. 21
W. Sue Williams (81)	Dec. 25
Gerald Strandin (86)	Dec. 26

W. Morehouse (98) Dec. 28

Jan. 1-March 6, 2020

James Malloch (83)	Jan. 3
Billie Kazmierczak (75)	Jan. 4
Lyle Edward Hake (97)	Jan. 7
Deborah Matlock (72)	Jan. 8
Raymaynard Davis (67)	Jan. 8
Carl Scheiber (99)	Jan. 10
Garth Fahrback (87)	Jan. 13
James Dunn (81)	Jan. 17
Magdelene Lucero (69)	Jan. 18
John Kirkland (72)	Jan. 20

John Irwin (98) Jan. 21

Lawrence Hill (78) Jan. 22

Paul Heppner (86) Jan. 23

James Borders (78) Jan. 27

Billy Thompson (88) Jan. 31

M. Helen Richardson (85) Feb. 1

William Gibson (85) Feb. 16

D. Michael Spencer (75) Feb. 17

Gary Chemistruck (66) Feb. 18

William H. Jackson (92) Feb. 24

Maxine Koester (76) Feb. 24

Tess Reis (94) Feb. 26

Roy Lambert (91) March 6

## Mission forward

CONTINUED FROM PAGE 1



### Preventing asymptomatic spread

“Changes to the way Sandians work that have been in effect since the pandemic are measures that aim to improve social distancing and keep exposure to a minimum,” said Johnathon Huff, director of Environment, Safety and Health. “Employees are encouraged to maintain six feet of distance from others where possible, just as in other places of business.”

Many workspaces have been rearranged to maximize distance between workers wherever possible through consultations with members of Sandia’s social distance committee, an interdisciplinary team of subject matter experts from Employee Health Services, ES&H, and Global Chemical and Biological Security. Managers also have staggered shift times and work locations to minimize the number of workers in a facility at any given time.

Beginning April 22 at Sandia/California and May 16 at Sandia/New Mexico, face coverings are mandatory for employees, subcontractors and visitors in common areas where 6 feet of distance from others cannot be maintained.

“People are wearing face coverings in common areas and when others are present or likely to be, such as in hallways, bathrooms, stairways, breakrooms, elevators and conference rooms,” Johnathon said.



### Screening for COVID-19 risk factors

As more workforce members resume on-site work, Sandia’s new **Health Check system** will help reduce the risk of COVID-19 in the workplace.

The Health Check system, which screens individuals for symptom- and behavior-based risk factors of COVID-19, is based on recommendations from the U.S. Centers for Disease Control and Prevention and requirements outlined in the state of New Mexico’s COVID-safe practices for employers. Employees and contractors are encouraged to complete a daily health check via a desktop or mobile app or in person at designated locations on-site before accessing any Sandia facility.

“The health check can be considered a habit-forming behavioral tool to help us all deliberately stop each day to assess how we are feeling, tune in and identify any changes in our health or new symptoms of COVID-19 — something we haven’t needed or was necessarily our thought process habit prior to the pandemic,” said Renee Holland, director of Employee Health Services.

“Our workforce has always been dedicated to our mission and committed to above-and-beyond performance to get the job done, pushing out of mind any physical symptoms. Now more than ever, though, we need to be especially mindful of our health for our own safety and the safety of our co-workers.”

The app allows individuals to conveniently enter their temperature and answer a series of questions related to symptoms, travel history and contact with a known COVID-19 case. Then, based on their responses, they either will be allowed to access Sandia facilities or asked to stay at home for the day. Those who are told to stay home may be instructed to contact a healthcare provider or Sandia Medical Clinic for further evaluation. In some cases, Sandia Medical may contact employees to get more information about specific symptoms or exposure to better determine risk level.

Those who lack access to the app can get in-person screenings with a contactless temperature check and verbal questionnaire at key technical area access gates, badge offices and remote sites.



### Keeping facilities clean

Custodial Services, staffed with 89 custodians, has changed its processes over the past two months and is now cleaning and disinfecting areas that most people touch frequently — doorknobs, counter surfaces, elevator controls, etc. — up to six times a day. They also are filling and distributing bottles of hand sanitizer on-site.



**SETTING THE STANDARD** — Labs Director James S. Peery wears a face mask while working on-site to protect himself and others in the area. **Photo by Lonnie Anderson**



**WELL EQUIPPED** — Sandian medical team member Reece Ponicki wears personal protective equipment during site operations. **Photo by Lonnie Anderson**



**HANDS OFF** — Security Police Officer Robert DeLaO uses a contactless badge reader to check badges at a Sandia gate. **Photo by Randy Montoya**



**STOP SIGN** — Signs around Sandia’s campus remind employees to take preventive measures to stop the spread of COVID-19. **Photo by Lonnie Anderson**

“To further help prevent the spread, facilities organizations have increased fresh air circulation and reduced recirculated air across most buildings, depending on weather and equipment,” said Anthony Chavez, senior manager of Facilities.

“For instance, we have routinely increased air circulation in office buildings. However, we work closely with those working in laboratory spaces to avoid recirculating air with potentially hazardous substances.”

Should an employee or contractor with a confirmed case of COVID-19 report that they had spent time in a Sandia building, the Labs would follow its disinfection plan. Sandia’s ES&H team works with a subcontractor, **Advanced Environmental Solutions**, to disinfect affected buildings, following a scoping visit by diverse subject matter experts from across the Labs, including Sandia Medical, ES&H, the building or space owner and Labs leadership.



### Providing access to COVID-19 testing

Sandia stood up the first testing site at a national lab on April 8 and began



**WELL CHECK** — Sandia nurse practitioner Guy Goodness performs a COVID-19 test on an employee at the Labs’ drive-through testing site. **Photo by Randy Montoya**

providing appointment-only drive-up screening for Sandia employees and subcontractors who were referred by Sandia Medical. Referrals were determined using a risk-based screening approach, informed by the CDC and **New Mexico Department of Health guidelines**.

On May 18, the Labs expanded testing criteria to include any employee, subcontractor or local NNSA employee who wanted to be tested, consistent with guidance from New Mexico Gov. Michelle Lujan Grisham. By the end of May, more than 900 had been tested, Renee said.

“Initial testing prioritized healthcare workers and symptomatic personnel, followed by return-to-duty evaluations for mission essential personnel in quarantine, either because of travel or close contact with a COVID-19 case, then additional mission essential personnel. We now offer COVID-19 testing (by appointment) to any member of our workforce who volunteers or requests it,” said Renee.

Sandia is also conducting a review of research on antibody testing and will expand the testing program once research supports its efficacy and role in clinical decision making. 

## B61-12 compatible

CONTINUED FROM PAGE 1

“We were able to test the B61-12 through all operational phases, and we have extremely high confidence the B61-12 is compatible with the F-15E Strike Eagle,” he said. “The results speak for themselves — the tests met all requirements, both in performance and safety. It was delivered with precision accuracy; it worked, and it worked well.”

Sandia is the design and engineering lab for non-nuclear components of the nation’s nuclear stockpile, including the B61-12. In addition to non-nuclear component development, Sandia serves as the technical integrator for the complete weapon, ensuring that the system meets requirements as a full-weapon system.

### Tests show real-world capability

The early March demonstration of the fully functional weapon — containing non-nuclear and mock nuclear components — began with loading the weapon onto the fighter jet at Nellis Air Force Base near Las Vegas and ended with two flight tests at **Tonopah Test Range**. Initial data from the demonstration is consistent with the F-15E being fully certified to carry the refurbished bomb. The demonstration was possible with coordination among Sandia, Los Alamos National Laboratory, the Kansas City National Security Campus, NNSA and the Air Force.

“This is a full demonstration of a B61-12 delivery on an F-15E — verifying compatibility in real pre-flight and flight environments,” Steven said. “This is the real deal, minus the nuclear package. This test brought together years of planning, design, analysis, test and qualification to fully demonstrate the B61-12 on the F-15E Strike Eagle.”

On March 9, Air Force airmen used a mobile lift to raise and attach the inert B61-12 to the F-15E jet fighter. Mechanical connections and umbilical interface cables were verified to ensure the mock weapon was secure and digital and analog interfaces were properly configured and communicating between the aircraft and weapon.

The lower-altitude flight test took place at Tonopah Test Range, about 160 miles northwest of Las Vegas, on March 12. Flying at about 1,000 feet and at nearly the speed of sound, an F-15E released the mock weapon. The inert B61-12 struck the desert floor in the designated area about 35 seconds later.

A higher-altitude test occurred next, when an F-15E, again flying near Mach 1, released an inert B61-12 from above 25,000 feet. About 55 seconds later, the mock weapon embedded in the desert soil, again within the designated area.

“It was a successful test from our standpoint at the range. The forensic analysis of the test data is pending,” said Brian Adkins, manager at Tonopah Test Range. “We successfully executed the test within the parameters specified, and both jets returned home.”

### Sandia design, engineering integral to B61-12 program

The full-weapon system demonstration coordinated with Sandia’s partners included final flight tests — the fifth and sixth overall — showing the compatibility of the B61-12 and F-15E, the first aircraft to complete the series of compatibility flights.

The compatibility testing is an essential part of the **B61-12 Life Extension Program** to refurbish, reuse or replace all components; extend the bomb’s service life by at least 20 years; and improve its safety, security and effectiveness. As part of the DOE/NNSA network of laboratories, Sandia is responsible for the design and engineering of non-nuclear components and production of custom electronics and is the technical integrator for the complete weapon. Los Alamos is responsible for production of detonators and other components.

A **life extension program** allows scientists and engineers to address the aging of nuclear weapons components. Some components are reused by being requalified to go back into a weapon without change. Others that have aged are remanufactured using the original specifications. Sometimes the original technology is no longer available, and Sandia redesigns those parts using modern technology.



Steven Samuels



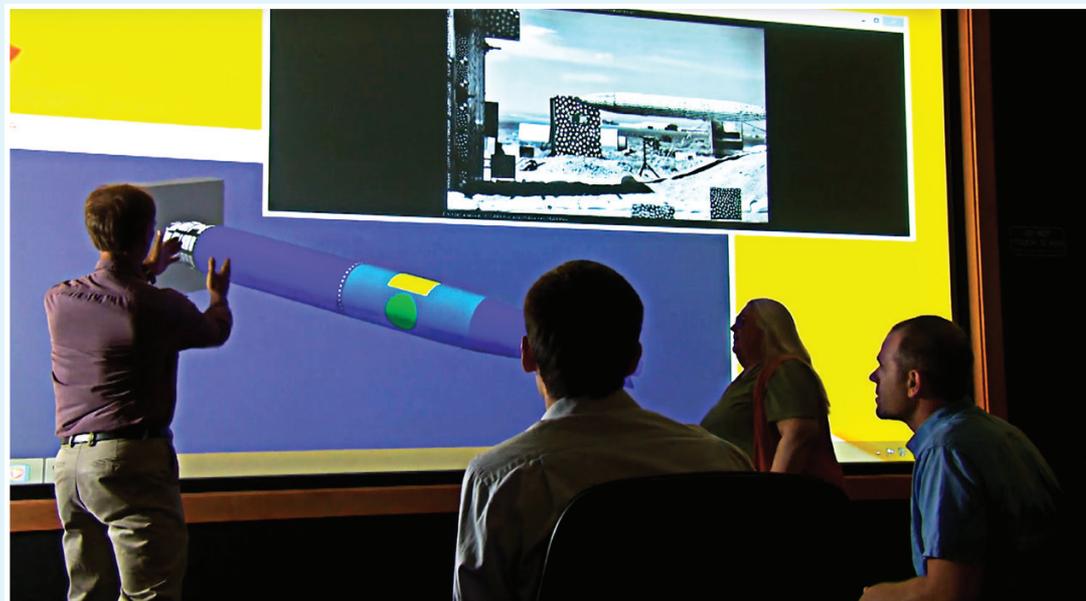
Ground tests

## LONG-TERM EFFORT

In early March at Sandia’s Tonopah Test Range, two flight tests were part of a full-weapon system demonstration to verify the refurbished B61-12’s compatibility with the U.S. Air Force’s F-15E Strike Eagle. The final compatibility test was a culmination of years of work that included ground testing and computer simulations as well as flight tests, said Steven Samuels, a manager with Sandia’s B61-12 system team.



Control center



Modeling simulation

The bomb, estimated at 12 feet long and weighing about 825 pounds, is being designed to be air delivered in either ballistic or guided-gravity drop modes. Along with the F-15E, the B61-12 will be certified for the Air Force’s **B-2 strategic bomber**, the dual capable **F-16C/D fighter** and, in the future, the fifth-generation **F-35 fighter**, as well as allies’ aircraft.

The first B61 entered service 50 years ago, and over the decades, numerous modifications have been made to increase safety and reliability. The

B61-12 consolidates and replaces most of the previous variants. The NNSA recently announced plans to manufacture the first refurbished B61-12 in fiscal year 2022.

A full-weapon system demonstration ensures the refurbished bomb will work with the various aircraft used for national security, Steven said.

“It’s representative of the environment for the weapon,” he said. “The flight test is really everything coming together to say we’re good.”

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# NM Capstone Challenge

New Mexico university teams complete multidisciplinary engineering design challenge



**CHALLENGE ACCEPTED** — Teams from the University of New Mexico, New Mexico State University and New Mexico Tech gathered for the NM Capstone Challenge kickoff last fall.

Photo by Natalie Pitcher

By Amy L. Treece

Three university teams from New Mexico experienced firsthand what it might be like to tackle a national security project at Sandia through the NM Capstone Challenge.

Last September, 21 undergraduate engineering students — one team each from the University of New Mexico, New Mexico State University and New Mexico Tech — were briefed on the mission, sponsored by Sandia’s Academic Alliance program and Diane Peebles, the Labs’ New Mexico partnerships manager.

The teams had six months to develop an integrated sensing device capable of monitoring multiple environmental conditions during ground transportation of an asset or payload, a problem inspired by Sandia engineer Karl Walczak, who works in reentry systems development.

In addition to measuring vibration, acceleration and temperature and determining signal processing approaches, the students needed to develop a communications app and innovatively incorporate proximity sensors to identify any nearby objects. Everything had to fit in a box no larger than 600 cubic centimeters (about half the size of a Girl Scout cookie box).

Throughout the project, Dennis Croessmann, Fernando Bitsie, Abby Carnali and the experimental mechanics and dynamics group provided technical support and guidance. The student work was monitored by engineering professors from the three universities.

In March, right before the state’s stay-at-home order, a student from each team brought their devices to Sandia’s Environmental Test Facility to see how their designs would measure and withstand extreme temperatures, intense vibrations and severe shock. The students used the data received from their device tests to identify design modifications they needed to make.

A Sandia road test was scheduled as part of the assurance and judging process, but was preempted by the pandemic. Two of the teams, however, were able to take their devices out on their own to see how they functioned.

Sandia mechanical engineer Abby Carnali, who works in vibrations and acoustics, said, “It’s wonderful that the students took it upon themselves to do their own road tests. This just demonstrates how engaged they were.”

## Showing their work

On April 24, the challenge culminated in a Skype meeting where each team presented an overview of



**EXPERIMENTAL MECHANICS** — Students participating in the NM Capstone Challenge were able to test their integrated sensing devices in Sandia’s Environmental Test Facility before the state’s stay-at-home orders went into effect.

Photo by Sheri Martinez

their project design, engineering approach, hurdles they encountered, any modifications they made to their devices after testing and final results.

The NM Capstone Challenge illustrated to students how their engineering education could be put to use and helped them gain other skills critical to job success.

“Both the competition aspect and the multidisciplinary challenge helped my students increase their project management and teaming skills, in addition to demonstrating their engineering capabilities,” said Ramiro Jordan, UNM professor and associate dean of engineering for international programs.

Curtis O’Malley, NMT assistant professor of mechanical engineering, said the Sandia Capstone teams made more progress and accomplished more on their projects than other capstone teams prior to the COVID-19 limitations.

Gabe Garcia, assistant dean of student success and experiential learning in the NMSU Department of Mechanical & Aerospace Engineering, agreed that the project provided an exceptional learning experience for all of the student teams.

“Growing the pipeline is about more than just recruiting,” said Ben Cook, Sandia senior manager of research and academic programs. “Through activities like this, we have the opportunity to grow students’ understanding of the type of work Sandia does for the nation every day.

“If we can help them appreciate the kind of national security technical challenges they can help solve after they graduate, then we’ve done a lot more than just highlight Sandia as a possible employer. We’ve helped the broader national security community.” 

# Mileposts



New Mexico photos by Michelle Fleming  
California photos by Randy Wong



Timothy Spears 40



Patsy Rowland 30



Bryan Sanchez 20



BJ Jaseph 15



Elizabeth Kivlighan 15



Bob Malone 15



Ben Mar 15



Tara Olivier 15



Keith Osenbaugh 15



Tracy Ray 15



Chris Walker 15

# Recent Retirees



New Mexico photos by Michelle Fleming  
California photos by Randy Wong



Max Decker 30



Bradley Hance 30



Roger Suppona 22

# SANDIA CLASSIFIED ADS

NOTE: The classified ad deadline for the June 19 Lab News is noon Friday, June 12.

## AD SUBMISSION GUIDELINES

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

Questions to Michelle Fleming at 505-844-4902.

Submit by one of the following methods:

- EMAIL: Michelle Fleming (classads@sandia.gov)
- FAX: 505-844-0645
- MAIL: MS1468 (Dept. 3651)

- INTERNAL WEB: Click on the News Tab at the top of the Techweb homepage. At the bottom of the NewsCenter page, click the "Submit a Classified Ad" button and complete the form.

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

## MISCELLANEOUS

OFF-ROAD WHEELS, for '20 Toyota 4Runner TRD, aluminum/black, very low miles, set of 4, \$425. Hennessey, 505-506-7936.

ACCENT CHAIRS, 2, \$25 ea.; 24-ft. extension ladder, \$150; Craftsman wet saw, \$150 OBO; counter-height table w/4 chairs, \$100; Mickey Mouse crib/toddler bed, brand new, \$300. North, 505-715-7430 or 505-514-7878, call or text.

SLEEPER COUCH, \$250; coffee table w/end tables, \$150; kitchen table, w/6 padded swivel chairs, \$275. Brewster, 505-238-4704.

INVERTER GENERATOR, Champion model, portable, 3,100-W, like new, in East Mountains, \$650. Willmas, djwillmas@gmail.com.

DINING ROOM SET, table & chairs, brass/glass; 2 curio cabinets; buffet cart; oriental area rug, \$5,300 OBO. Vianco, 505-275-1635.

ELECTRIC TYPEWRITER, vintage, Smith Corona DeVille 410, w/table, \$50 OBO. Colgan, 505-344-3776.

ROOFTOP TENT, Eezi Awn Series 3 1600, olive, like new, \$1,800. Foiles, mfoiles89@gmail.com.

QUEEN HEADBOARD, Pottery Barn Seagrass, gently used, excellent condition, dark Havana color, \$250. Hedrich, 505-298-9166.

PORCELAIN FIGURINE, Lladro 4808 Boda de Antano/Wedding, retired 2004, 7 1/2 in., perfect condition, original pkg., \$70. Jones, 505-550-1827.

PRECOR ELLIPTICAL, commercial grade, EFX5.23, 1 owner, excellent condition, \$700 OBO. Verley, 505-480-5109.

HEADPHONES, Beats Studio 3, wireless, black, new, in shrink-wrapped box, originally \$350, asking \$175 OBO. Buterbaugh, 615-945-5566.

ROLL-TOP DESK, antique, Oak Crest, w/lock, 8 small drawers, multiple slots & cubbies, 7 large drawers, 2 workspace extenders, \$400. Ortega, 505-301-9438.

RING VIDEO DOORBELL, 1st gen., unopened, in original pkg., \$50. Hall, 505-280-4344, text or call.

MACBOOKS, 2, older, ca. 2010, freshly wiped w/new installation of El Capitan, \$50 ea. OBO; email for more info. Trujillo, stetru@yahoo.com.

COMPOUND BOW, 019 PSE, Evoke RH-50-65#, 27-32" draw, 5-pin sight, drop rest, quiver, \$975/\$850 bare. Schroeder, 505-917-4516.

TRUCK TIRES, 4, Ironman RB-SUV, 275/65R18, like new (~2K miles), \$300 OBO. Fernandez, 505-280-6151.

CLAW FOOT TUB, white, w/brushed nickel floor mounted fixtures, w/handheld shower head, 60" x 32.2", immaculate, \$1,000. Green, 505-239-6914.

RECUMBENT STATIONARY BIKE, Schwinn SRB-1700, w/hc rate monitor, 2 extra LCD displays, excellent condition, \$175. Stevens, 505-908-6833.

## TRANSPORTATION

'12 HONDA CIVIC LX, sedan, silver, 43K miles, no issues, very clean, garage kept, \$9,350. Brizzee, 505-463-6668.

'66 AMC AMBASSADOR, 2-dr., 287 AMC motor, AT, clean fun driver, red, black rally stripes, \$10,900 OBO, partial trades. V. Duran, 505-313-5298.

'02 LEXUS SC 430, 2-dr., hardtop convertible, red, tan leather, 108K miles, \$13,500. Hernandez, 505-450-5556.

'12 BUICK ENCLAVE SUV, FWD, 3.6L V6, 19-in. alloy wheels, new Michelin tires & battery, 117K miles, \$8,200 OBO. Ulibarri, 505-459-3017.

'11 MINI COOPER S, 6-spd. MT, orange w/white roof, 48K miles, 1 owner, \$7,000 OBO. Antonich, 505-544-7310.

## RECREATION

'17 GRAND DESIGN REFLECTION TRAVEL TRAILER, 315RLTS, tons of extras, excellent condition, \$39,995. Wyatt, 505-363-8442.

'17 HONDA GROM 125, yellow, 12 miles, super fun, but have to sell, excellent condition, \$2,000. Duis, 775-830-6266.

'20 HONDA SUPER CUB, 125 cc. <25 miles, purchased March 2020, w/helmet, \$4,000. Melkey, 319-538-6152.

'02 KONA KING KIKAPU, 16-in. (good for 5'3"-5'8"), Chris King headset, Reba fork, SRAM X9, 3x9, 2 wheelsets, new tires, \$250. Wasiolek, 702-204-0529.

'11 HARLEY HERITAGE SOFT TAIL, w/reflective Harley vest & other acc., 14,094 miles, excellent condition, \$14,000 OBO. Chavez, 505-681-9191, call or text.

'03 SUZUKI JR80 DIRT BIKE, runs great, w/both stock & Fatty performance pipe, \$690. Moleres, 505-659-8081.

YAMAHA FZ-10 MOTORCYCLE, slip-on exhaust, fast & fun. Stamp, 505-304-4705.

'10 DUCATI MULTI-STRADA, red, factory hard bags, heated grips, bar risers, 14K miles, \$2,000 OBO. Strasburg, 505-459-2891.

## REAL ESTATE

3-BDR. HOME, 2-1/2 baths, ~2,686 sq. ft., Volterra, no PID, close to base, new carpet. Turner, 505-292-6819.

3-BDR. HOME, 2 baths, pitched roof, corner lot, single story, Academy Hills, Humphry/Eisers/LaCueva, near large park, FSBO \$440,000. Bentz, 505-449-7090.

ASPEN LOT, 1.6 acre building lot, gated community, national forest across the road, Conejos River close by, electricity/water to the lot line, \$45,000. Eanes, 505-331-3264.

## WANTED

VOLUNTEERS, Fabulous Felines needs help with rescued cats, fabulousfelines.org. Stubblefield, 505-263-3468.

USED CAR, Honda or Toyota, 4-dr. sedan, low miles, fair condition. Rhea, 505-227-4799, ask for Ron.

## AD RULES

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

USED CAR, for grand-kid's first car, will pick up in Albuquerque. Pundit, 505-821-3295 or 505-379-1901.

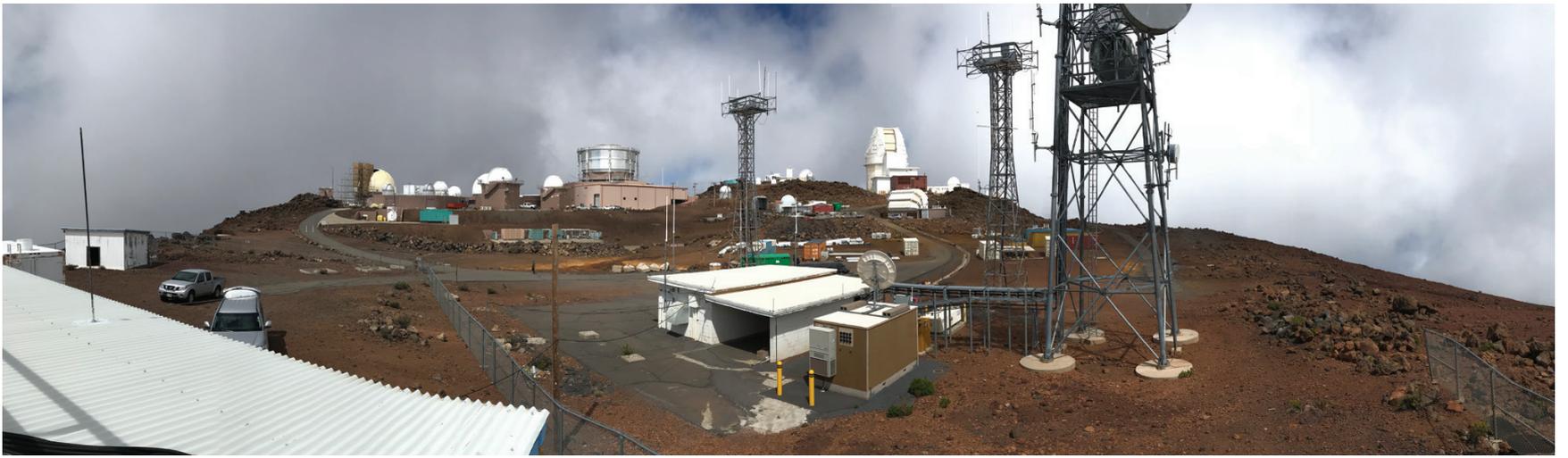
GOOD HOME, 2 dogs, female terrier mix, male lab-pit mix, must go together, previous owner passed, sweet dogs, need love & attention. Szarka, saraszarka@yahoo.com.

## WORK WANTED

BABYSITTER AND/OR DOG WALKER, summer work, responsible 17-yr.-old, high school senior, w/own transportation. Viets, 505-382-3186.

# Aloha from Mount Haleakalā

Hawaii telemetry operations site retired, land returned to FAA



**PAU HANA** — Sandia used this site in Maui, Hawaii, for telemetry operations, including high-altitude tracking for tests conducted from the Labs' Kauai Test Facility. After nearly 60 years of service, the Maui site has been retired. **Photos by Max Saad**

By **Manette Newbold Fisher**

**A**fter nearly 60 years of service to DOE, NNSA and Sandia, a facility atop Mount Haleakalā on the island of Maui, Hawaii, has been retired. Crews completed demolition and clean-up activities at the facility in March, said Sandia facilities demolition project manager Max Saad.

"I don't know if many people realize that we had a site in Maui," Max said. "We still have our operations in Kauai, but this was a different operation."

Sandia personnel used the Mount Haleakalā facility, which sits at an elevation of 10,300 feet above sea level, for telemetry operations that provided high-altitude tracking for tests conducted from Sandia's [Kauai Test Facility](#). Now, he said, "telemetry monitoring is done differently."

In its prime, the site had a compound, and 15-20 workers would be stationed for several days at a time, Max said. The site had many tractor trailers, instrumentation and power provided by an electrical generator.

It has been about 20 years since Sandia had an active crew at the site to conduct telemetry work, Max said, and due to the complicated list of agencies involved at the site, it took about 15 years to complete the demolition project.

The Maui site where Sandians worked is owned by the U.S. Department of Transportation and run by the Federal Aviation Administration, Max said. DOE/NNSA leased the property from the DOT.

Property adjoining the site is owned by the U.S. Department of Defense for Air Force Research Laboratories, and the entire site is located on the Mount Haleakalā National Park, overseen by the U.S. Department of the Interior.

The U.S. Department of Justice also used a little bit of the site for radio support for the FBI. The property directly to the west of the site is owned by the state of Hawaii, and the road to the site passes through the University of Hawaii's Institute for Astronomy property.

"It might be easier to say which federal agency wasn't involved in this project," Max said.

## Physical challenges

Max said that while most employees might think working in Maui is paradise, the demolition project had many obstacles, making it a difficult assignment.



**MISTY MOUNTAIN** — Facilities demolition project manager Max Saad said the view from the Maui facility was magnificent, even though the trek to get there was challenging.

In addition to working with the many federal agencies, crews also had to contend with the challenge of traveling to the top of the mountain every day.

"It's no higher than the Sandia Mountains here in Albuquerque," Max said. "But say you use the tram here, you start at 5,000 feet. In Hawaii, you start from sea level and it takes about an hour and a half each way, so that adds three hours to your workday."

Max said the road to the site is full of switchbacks, and speed limits are a mere 15-20 miles per hour. Weather conditions can change dramatically during the drive as well.

"It snows on top of the mountains in Hawaii," Max said. "It sleets, it rains and the wind blows. We spent many days up there when it was 40 degrees with 25-30 mile-per-hour winds. You might be in paradise, but it's not really paradise at the site. You always look forward to coming down at the end of the day."

Max said Sandia also had cultural sensitivity experts on-site to make sure that digging and demolition projects did not disturb potential burial sites.

"Thank goodness we didn't have any issues," he said.

Max primarily managed the project from New Mexico, but he traveled to Hawaii a few times, and one of the visits unfortunately lined up with Hurricane Isaac in 2018.

"We kind of had it all on this project," he said, adding that the crew was fine, but had to wait out the storm for a few days before they could get off the island, and the project was delayed a few weeks.

The demolition and clean-up of the site required crews to remove the facilities Sandia built prior to returning the land back to the FAA.

When the project was complete, two concrete pads were left, along with a large structure that will be used by other agencies.

Even though the project had its challenges, Max said there were some highs, too — literally and figuratively.

"You don't realize how magnificent it is up there looking down at Maui, and looking down at the ocean," he said. "It's almost like the moon when you get to some parts, like wow, where is this?" 



**BEFORE AND AFTER** — Sandia demolished and cleaned up the main operations facilities on top of Mount Haleakalā, leaving behind two concrete slabs and a large structure that will be used by other agencies.