

GOLD PAN

ALUMNI MAGAZINE • SUMMER 2023



IN THIS ISSUE

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Cover Photo: First telescope and enclosure on MROI array at night under the clear NM skies.
Photo credit: Colleen Gino

Back Cover Photo: First telescope and enclosure on MROI array at sunset looking out from the beam combining facility along the vacuum lines.
Photo credit: Colleen Gino

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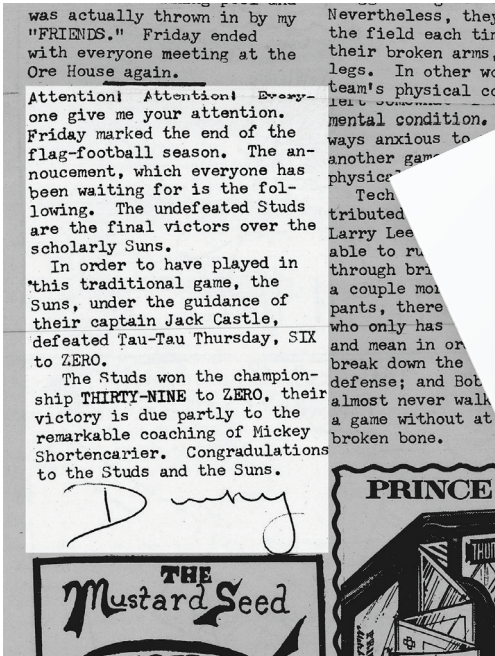
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Season's Greetings of Yesteryear

From alum J.H. Olsen, P.E. (B.S. Mining Engineering, 1975), a 1974 Christmas card from Vicki (Crum) and Lea (Graham) showing the players on the 1974 NM Tech Flag Football championship team.



Kneeling:

Lee Mathews and Jim Biava

Middle: Mickey (JPM) Shortencarier, Rich

Tamura, Steve (Arsenic) Birckett, John (Man Mountain) Crum, and Charlie Dein

Back: Mike (Italian Stallion) Provenza, Harry Muttart, Dave Graham, John (Juan) Vandergeest, and Jim (Big O) Olsen.

The game was held 49ers Weekend and the Studs beat the Suns, 39-0. The game write up was in the October 1974 Gold Pan (then the typewritten student newsletter, above left). Scans of historic Gold Pan issues, many generously donated by J.H. Olsen and other thoughtful alumni, are slowly being added to our digital archives.

**25TH & 50TH
CLASS REUNION DINNER**

THE DEJU HOUSE
4:00 P.M.
Hosted by: NMT's
Office for Advancement
Welcoming: Class of
1998 & Class of 1973

**SATURDAY,
OCTOBER 14**

RSVP to Sandi Lucero
at sandi.lucero@nmt.edu or
575-835-5618




**RAFTING THE CHAMA
2024**



MORE INFORMATION SOON TO COME

**FOR QUESTIONS PLEASE CONTACT SANDI LUCERO
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PRESIDENT'S MEDAL AWARD



President Daniel H. López is proud to announce that John Crum (B.S. 1975, Petroleum Engineering) is New Mexico Tech's 2022 recipient of the President's Medal. Established in 2017, President's Medal recipients are individuals who have profoundly enhanced the university through several criteria, including significantly supporting the university through donations or gifts and notably enhancing the reputation of New Mexico Tech nationally or globally.

John exemplifies this definition. Since graduating from NMT in 1975, John has been involved with worldwide oil and gas development for more than 40 years. He is the managing partner of JAC Energy Partners, LLC. John began his career with Conoco in 1975, then held positions of responsibility with several independent exploration and production companies. From 1995 to 2011, John served in a variety of executive roles for Apache Corporation, in Australia, Canada, UK, and in the US. From 2011 to 2014, he served as chairman, president, and chief executive officer of Midstates Petroleum Company, Inc.

In addition to being a leader in the oil and gas industry, John is working closely with the NMT Advancement Department as a Co-Chair for New Mexico Tech's Launching Tech to New Heights Comprehensive Campaign. He and his wife Vicki hosted alumni receptions at their Houston home for nearly a decade. As a campaign Co-Chair, John has worked tirelessly to create networks and open doors for NMT with the oil and gas industry. In addition to the time and effort that John has dedicated to NMT through his volunteer work as a Co-Chair, John and Vicki have demonstrated their commitment to and passion for NMT through their generous financial support.

Editor's Note: The information in this article is correct and up-to-date. We regret the incorrect career history published about Mr. Crum in the Winter 2023 "Alumni Awards" article (p. 11).

MATCHING GIFTS

DOUBLE THE IMPACT

1

you give

2

your employer
matches

YOU designate the scholarship, program, or department your gift will benefit.

YOUR EMPLOYER'S matching gift will go to the same fund.

Did you know that your employers may double or even triple your gift to New Mexico Tech?

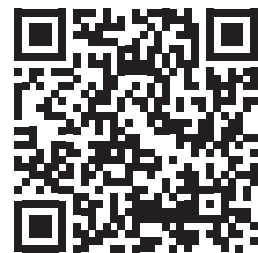
Many employers sponsor matching gift programs and will match most charitable contributions made by their employees. Some even match gifts made by retirees!

Please contact your HR department to learn if your employer supports matching gifts and let us know! If you have trouble finding out, please contact advancement@nmt.edu and we will help you!

Here are some incredible companies that support NMT through matching gifts.

ADVANCEMENT@NMT.EDU

**SCAN HERE TO
DONATE TO NMT**



Scott Williams

2022 TECHIE OF THE YEAR

(1972 BS Basic Sciences, 1984 Mining Engineering, & 1985 Master of Science for Teachers).



NM Tech Graduation 1972

Born to a mining engineer in Ray, AZ, Scott Williams knew from a young age that he wanted to be an engineer. When it came time to choose a college, on Scott's short list were UC Santa Barbara (a top party school), University of Arizona (Scott's dad's alma

mater), and Texas Tech (Scott said "who knows why!" - we don't either, Scott?!).

Although he grew up mostly in San Jose, CA, Scott had the unique opportunity to spend the summers of his adolescent years in Taos, NM where his father worked at the Molycorp mine. Despite this exposure to New Mexico, Scott had never heard of New Mexico Tech. He found out about the little college on the Rio Grande through a tiny NMT catalog he stumbled upon in his high school library. Intrigued, he decided to add NMT to his list.

Applying is one thing, but how did NMT beat out the oceanside campus of UC Santa Barbara and the opportunity to be a legacy student at UA? Like so many alumni and students share with us, it was New Mexico Tech's personal touch that got Scott here.

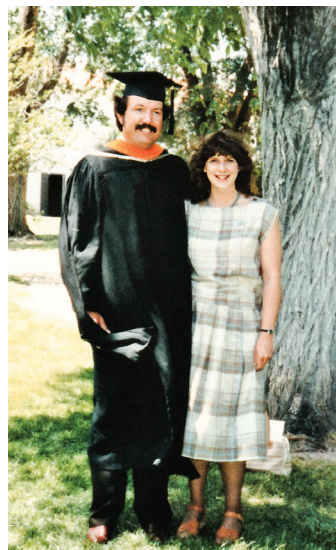
"Sy Gormley, New Mexico Tech's Admissions Director at that time, personally visited my high school. He said, 'Not only would we like you to come to New Mexico Tech, we would like to make you a co-op student.' I was impressed by that kind of personal service. So I accepted his offer."

After catching a ride on a WW2 BT-13 to Albuquerque, Scott arrived with a bus full of nuns (you'll have to ask Scott), to Socorro in the summer of 1968 to start his \$1.25/hr co-op internship at TERA (now EMRTC).

Scott had the intention of following in his father's footsteps to become a mining engineer but about halfway through the program was drawn to the idea of teaching. Scott spent the last two years at NMT



Scott & Judy's Wedding – Gibson Lake, Socorro 1975



NM Tech Graduation



San Juan Coal Mine

working on his degree in basic sciences and his teacher certification. Upon graduation in 1972, Scott was certified to teach math and just about all the high school science disciplines.

NMT can't take all the credit for our alum's success. Scott met the love of his life and his "number one supporter of chasing wild hairs," Judy, while photographing his friend's wedding in Graham, TX in the summer of 1972. After dating long distance for three years and finishing her nursing degree, Judy was crazy enough to follow Scott to Socorro where they were married on July 5, 1975 at Gibson Lake near the NMT campus.

Scott was just about 8 years into teaching (mostly geometry and biology) at Socorro High School when he started feeling the engineering itch again. Scott's former NMT professor, Dr. Geoffrey Purcell, had been

ALUM & DONOR SPOTLIGHT



First day as a Teacher at Socorro High



Uganda - Rainwater Catchment

putting a bug in Scott's ear to go back to school for a few years. It finally paid off. When Scott knocked on Dr. Purcell's door in 1979 he was greeted with a prompt, "What can we sign you up for?" Mining still held his interest and heart and so Scott enrolled in NMT master's mining engineering program on the condition that he also complete all the undergraduate mining courses.

Scott finished his MS in Mining Engineering, and all undergraduate mining courses, in 3 semesters plus a summer and promptly took a job with Utah International in Farmington, NM. Scott received his official degree in 1984 after completing his thesis remotely from Farmington. Scott worked for Utah International (acquired by BHP in 1983), for the duration of his nearly 30-year career.

Scott became known as an excellent project manager (a skill honed by wrangling high schoolers for 8 years, no doubt), and after 5 years in Farmington was offered the opportunity to work abroad. Scott's international career took him to the Escondida Mine in Chile, the largest copper mine in the world, where he set up the project controls and had the opportunity to witness history as the very



Rice University Team - Nicaragua

first truck rolled off the ship and into the mine. He took an assignment as a construction manager in Borneo to build a port for the island's coal mine and a platinum project in Zimbabwe where he honed his diplomacy and negotiating skills working with the Zimbabwe government, then under President Robert Mugabe, to build a town to support BHP's mining operations there.

Zimbabwe marked Scott's last short term assignment. BHP had bigger plans and twisted Scott's arm (it didn't take much!) for a more permanent position in Brazil. As assistant to the President of Samarco Mineracao, Scott helped develop a plan to double the capacity of the mine and plant. Once approved, Scott was made construction manager for the project, including the installation of the world's largest iron ore indurating furnace. After four years in paradise, the Williams packed up again to chase a new adventure near Yellowknife, Canada where Scott was on the management team that opened Canada's very first diamond mine, Ekati.

The Ekati Diamond Mine is located just 55 miles from the Arctic Circle, making for an incredible working environment. Scott describes looking at the

ALUM & DONOR SPOTLIGHT



Onverdacht Bauxite Mine Suriname



Village near Kalimantan Coal Port Indonesia



Coal Project - Pt. Lay Alaska



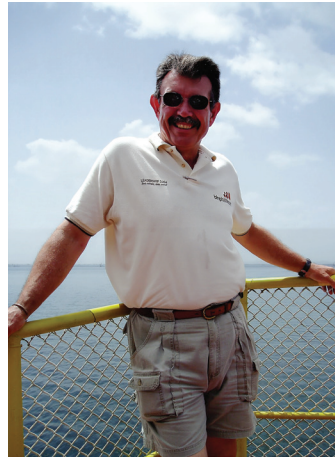
Bastrop State Park - Replanting Loblolly Pines



Houston Food Bank



Navajo Mine Area III



Alcoa Joint Venture Suriname



Port Kalamantan Indonesia

thermometer one day and seeing -54°C (-65.2°F). All the facilities were enclosed, including the processing plant, with heated walkways between buildings. An early BHP promotional video gives a glimpse into the purity and harshness of the landscape and also the important reclamation plans that were put in place from the very beginning.

During his six years with Ekati, Scott was responsible for engineering, environment, IT, geology and also project management. It was the project's uniqueness and complexity and the people he worked with that made it the highlight of his career.

"Ekati was entirely unique. The mine never produced industrial diamonds, just gemstones. Also, no one had mined diamonds in that part of the world before and at that scale and in that environment. Equipment and materials just don't act the same at that temperature."

After his project ended in Ekati, Scott took a three year assignment in Suriname and then one last coal project in Alaska before retirement in 2009.

Scott spent the first few years of "retirement" consulting for BHP, volunteering with Engineers

Without Borders, and even returned to teaching Biology for one year. These days Scott dedicates much of his time to the Oasis of Love Foundation, a nonprofit in the Houston area dedicated to providing meals to those in need and of course, spending time with his lovely wife of 48 years.

When asked about his biggest life accomplishment Scott said, "I am proud of all of the projects I was involved with over the course of my career but I'm most proud of my marriage."

Scott just celebrated his 50th graduation anniversary from New Mexico Tech. With a personal invitation from Scott, many members of the class showed up to celebrate, making the Class of 1972 50th year reunion one of the biggest in 49ers history! In celebration, the class established the Class of 1972 Endowed Scholarship to support current students at NMT and together have contributed over \$200,000 to the scholarship.

Scott, New Mexico Tech is proud to call you an alum and happy to be a part of your story. Thank you for all that you do!

September – December, 2023



Alumni reception at National Press Club in Washington DC December 10, 2022.

- **September 6 – Gallup, NM**
6:00–8:00 pm at Don Diego's
- **September 6 – Washington, DC**
6:00–8:00 pm at The National Press Club
- **September 8 – Farmington, NM**
6:00–8:00 pm at Si Señor
- **September 8 - Potomac, MD**
5:30 pm Crab Feast Hosted by Stavros (1962 M.S., Hydrology) and Annie Papadopolus
- **September 8 – Colorado Springs, CO**
6:35–10:00 pm at Rocky Mountain Vibes baseball \$15 per ticket; includes parking and all-you-can-eat buffet
- **September 30 – Kuala Lumpur, Malaysia**
6:00–8:00 pm at Westin Kuala Lumpur
- **October 5 – Pittsburgh, PA**
6:00–6:45 pm special access tour Invertebrate of Paleontology collection Carnegie Museum of Natural History Hosted by Suzanne Mills (2004 M.S., Hydrology) 7:15–8:30 pm dinner at The Porch
- **October 16 – SPE at San Antonio, TX**
6:00–8:00 pm at Yard House - River Walk
- **October 25 – Houston, TX**
6:00–8:00 pm at Inman Gallery
- **October 26 – San Jose, CA**
6:30–8:30 pm at Maggiano's Little Italy
- **October 26 – Ridgecrest, CA**
6:00–8:00 pm at Bangkok House
- **November 7 – Port Townsend, WA**
6:30–8:30 pm at The Old Whiskey Mill
- **December 7 – Portland, OR**
6:30–8:30 pm at 10 Barrel Brewing Co.

RSVP for any event at https://www.nmt.edu/advancement/alumni_receptions.php

NMT PERFORMING ARTS SERIES

SHOWS: 7:30PM (UNLESS OTHERWISE NOTED)

MACEY CENTER, SOCORRO (909 OLIVE LN)

NMT.EDU/PAS • 575-835-5688 • PAS@NMT.EDU

23/24 SEASON

\$20/Adults (65+)
\$15/Seniors (65+)
\$8/Youth (17-)

Upcoming Season Shows

- Fri-Sun 9/22-24** **As You Like It**
Shakespeare's pastoral comedy
- Fri 10/27** **Cirque Mechanics: Zephyr**
A whirlwind of circus
- Thu 11/30** **Stjepane Wrembel Quartet**
Django Reinhardt style guitarist
- Sat 12/16** **Mariachi Christmas**
A seasonal favorite
- Tue 1/30** **Peking Acrobats**
Pushing the limit of human ability
- Thu 2/15** **Masters of Soul**
Songs that define Motown
- Fri 3/1** **Stories from Home**
Dance, embodying SW traditions
- Fri 4/12** **Scrap Arts: Children of Metropolis**
High-energy percussion ensemble

Presidential Chamber Music Series

- Fri 10/6** Eric Sewell's Nomad Ensemble **FREE!**
Piano, Violin, Cello FAMILIES WELCOME
- Fri 11/10** Camerata del Sol Quartet
Jewish Composers
- Thu 1/18** Alash Ensemble
Tuvan Throat Singers
- Thu 3/7** Alias Brass Quintet
Innovative Virtuosos

PAS Special Events 6pm+ Prices Vary

- Fri 9/22** **Ye Olde Partye** Medieval Dinner
- Fri 1/26** **Canvas & Cocktails** Art, Food & Fun
- Thu 2/15** **Groovin' Valentines Dinner**
- Fri 5/3** **Tacos & Tequila** Food, Fun & Loteria

COMMUNITY EVENTS Prices & Times Vary

- Fri-Sat 9/15-16** **SocorroFest** Music, Spirits Tent & More **FREE!**
Historic Plaza
- March** **Women's Art Showcase** **FREE!**
Featuring Local Artists
- Fri-Sun 4/5-7** **Rocky Horror Show** \$16/12/0 Macey Center
NMT & Socorro Community Theater
- Wed 7/4** **4th of July Celebration** **FREE!**
NM Music, Fireworks & Fun

SAVE THE DATES

OCTOBER 12-15 2023

The NMT Office for Advancement and Alumni Relations is gearing up for the 2023 "annular" 49ers.

This year's theme is "Total Eclipse of the Sun," which is sure to be a fantastic galactic weekend full of Techies, annular eclipse viewing, an electric light parade, and much more!

CONTACT SANDI LUCERO
at sandi.lucero@nmt.edu or 575-835-5618

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Hawaii 2023

In March 2023, the NMT Office for Advancement and Alumni Relations explored the big island of Hawaii with a group of 38 NMT alumni and friends.

The trip started in Kona; everyone enjoyed a luau, an Atlantis Submarine tour, hikes, and snorkeling.

Heading to Hilo for volcanic activity, everyone appreciated a Puna Geothermal Venture tour, a trip to Mauna Kea summit and Observatory, and more.

Alum Doran Vaughan (Bachelor of General Studies, 1972) and his partner Steven Jacquier hosted a lunch at their beautiful house in an area covered in active volcano steam vents and volcano ruins.

The group spent another evening with beautiful views - and fire dancing - hosted by alum David Allen (late 1960's-early 1970s) and his wife Dallas at their spectacular property overlooking the ocean.



Alumna Peggy Barroll (Geophysics – M.S. 1985 and Ph.D. 1990) reported “I enjoyed the Volcano Park visit and the Mauna Kea telescope tour the most, but I also really liked the Geothermal Plant tour and the visits to the homes of those generous Tech alumni. I thought the evening talks were fantastic, and they really made the trip into more than just the usual Island tourist tour. It was a great group of people!”

Ken and Gina Robinson and sunset



Save the Dates San Pedro de Atacama, northern Chile

Led by: *Dr. William X. Chavez, Jr.* (Class of 1977)
Professor of Geological Engineering and Economic Geologist

Alumni and Friends **Vistas and Volcanoes**

27 December, 2023 – 3 January, 2024

Sample Itinerary below:
Cost: \$2,300-\$2,500 per person
This trip will be limited to 14 people.

Dec 27:
Afternoon arrival in Diego de Almagro Calama
Evening Reception with Safety & Logistics Meeting

Dec 28:
Depart for San Pedro de Atacama
Field trip to Valle de la Luna

Dec 29:
Depart for Lago Miscanti-Miniques (hiking along lake shorelines, lakes, Socaire visit, stroll, shop, & relax)

Dec 30:
Depart for Laguna Chaxxa (hike, flamencos, and local avian populations. Side trip to Peine)

Jan 1:
Free Day
Evening astronomy session

Jan 2:
Return to Calama (visit Chuquicamata open pit copper mine)
Farewell Dinner

Jan 3:
Departure day

Questions? Please contact Sandi Lucero at sandi.lucero@nmt.edu or 575-835-5618



WOMEN'S CENTER KICKOFF

Story by Johann Lindig



Left to right: Dr. Kay Kuhlmeier Bjornen (BS Chemistry, 1980), invited speaker Dr. Jennifer Dawson, Johann Lindig (BS Petroleum Engineering, 1984, and BS Technical Communication, 1986), and Dr. Nelia Dunbar (MS Geology, 1986, and PhD Geochemistry, 1989)

How did I get involved in a fundraising project to endow a Women's Center at Tech? I was just a Tech alum, chatting with Colleen Foster, Director of Advancement. She mentioned something called a Woman's Center was part of the Capital Campaign. A center to support women in STEM in academia and work? Something went "zing" in my heart.

I mentioned the idea of a Woman's Center to my Tech roommate and bestie, Kay Kuhlmeier Bjornen, and asked "Is it even a thing anymore?" To answer that question we got more minds involved, and last fall we kicked off a Working Group (WG) to test the climate on campus and in our industry circles. It became clear that not only are some of the outdated ideas about women in science and engineering still around, but they may have become more challenging. To discover if there was interest on campus in building a Women's Center, the WG put together two days of events to coincide with and celebrate International Women's Day in early March. We hosted a guest speaker, Dr. Jennifer Dawson, and a room full of powerful women (and some men), and continued the conversation about how a Woman's Center could support women students, staff, and faculty at Tech.

We have engaged with some local professional groups to keep the conversation going on campus and over the summer. Athena Scientifica, a fabulous group of fun and fundraising alumnae, has hosted a book club (NOT just for women). There will be another book club starting soon; it will be announced on the NMT Women's Interest Group Facebook (FB) page. We have begun our social media campaign, and we have engaged with the Tech chapter of the AAUW, and hope to further work with this group to help define what a Woman's Center might look like at Tech.

Meanwhile, the WG has started a fundraising plan and we are planning a StorySlam contest for 49ers (details here: <https://nmt.edu/wrc/events.php>).

If any of this gets you a little excited, reach out to me, or any member of Athena Scientifica, to see how you can get involved! If any of this gets you a lot excited, you can donate to the Woman's Center at <https://advancement.nmt.edu/wrc>. If none of this gets you excited, come to 49ers and see all the cool stuff going on at NMT, and find a place where you can make a difference. See you in October!

MAGDALENA RIDGE RESEARCH

Story by Katie Bauer



The view looking north and west from the location of Langmuir Lab and the Magdalena Ridge Observatories. The clear mountain air is outstanding both for astrophysical research and for observing weather phenomena such as the rain shafts visible here in the distance.

Cake, champagne, party hats, and streamers aren't exactly part of the celebrations, but the scientists, engineers, and students working on research projects on Magdalena Ridge are in a festive mood as they are observing anniversaries and major milestones reached this year.

Magdalena Ridge, an 18-mile-long mountain range about 20 miles southwest of New Mexico Tech's campus in Socorro, is the home of Langmuir Laboratory for Atmospheric Research, the Magdalena Ridge Observatory's 2.4-meter telescope (MRO), and the Magdalena Ridge Observatory Interferometer (MROI).

While the Magdalena Ridge is known for its scenic panoramas and hiking, camping, and wildlife viewing opportunities, the third-highest range in southern New Mexico also is known for its high elevation, its dark skies, its low humidity, and its quiet seismic activity.

Its proximity to a small research institution such as NMT has benefitted students, researchers, and faculty for more than 60 years. And the fact that it's a ridge, not a peak, with plenty of room could mean future development for astrophysics research.

Each of the three NMT research venues has a successful accomplishment to boast about and share with the community in the following pages.

LANGMUIR LABORATORY FOR ATMOSPHERIC RESEARCH



The largest structures at Langmuir Lab (shown here) include two observation decks, a networking hub that links lightning instruments and trailers scattered over the entire mountaintop and environs. The main lab also has kitchen/dorm facilities for a dozen visitors/researchers.

The Langmuir Lab for Atmospheric Research was built in 1963 near the summit of South Baldy, with funds from the National Science Foundation (NSF). South Baldy (10,783 feet) is Magdalena Ridge's highest point and is also the highest point in Socorro County. It provides a base for the study of cloud processes that produce lightning, hail, and rain. The need for the laboratory arose following the pioneering research into thunderstorms over New Mexico that began in the 1930s.

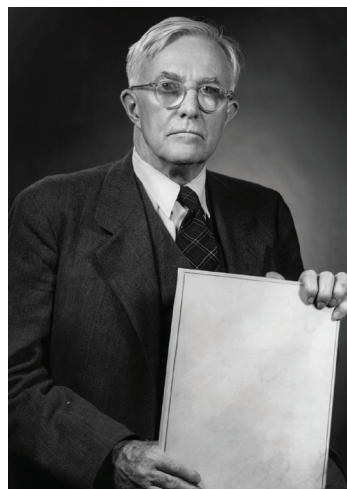
The lab is named for Dr. Irving Langmuir, a 1932 Nobel laureate for surface chemistry who grew up in New York City and Paris. According to Dr. Van Romero, Vice President and Chief Operating Officer of the Office of Research and Special Programs who has given presentations about Dr. Langmuir's life to students over the years, Dr. Langmuir became very famous when he studied thin-film chemistry. In the 1920s, quantum physics and quantum mechanics had just been discovered, and Dr. Langmuir made many contributions, developing the theory of single-layer chemistry and discovering atomic hydrogen.

After teaching chemistry at the Stevens Institute of Technology in Hoboken, New Jersey, until 1909, Dr. Langmuir began working at the General Electric

Research Laboratory in Schenectady, New York. Scientists at the GE research lab were working on improvements to the incandescent lamp, trying to extend its life. The lightbulb Thomas Edison invented used a carbon filament, which didn't last long. Dr. Langmuir's research focused on experimentation with tungsten filament bulbs and vacuum tubes. It was thought that residual gas in the bulb was causing the darkening of the bulb and the research lab was focused on improving the vacuum inside the bulb. Dr. Langmuir solved the dark bulb problem by not using a vacuum but filling the bulb with an inert gas, along the way contributing much to our understanding of single-atom-thick films. Langmuir's most significant paper was published in 1919, "The Arrangement of Electrons in Atoms and Molecules."

"His accomplishments were impressive, and he was praised for bringing a scientific approach to engineering," Dr. Romero said.

Dr. Langmuir's love of nature and outdoor hobbies, such as downhill skiing, led to continued scientific study, especially in weather and cloud physics and the potential for using silver iodide to form ice crystals in clouds. These ice crystals can lead to water drop formation and produce precipitation. While he did not have support from GE for his cloud seeding research, Dr. Langmuir did find interest from the Army Signal Corps, the Office of Naval Research, and the Air Force, which provided aircraft and support for the seeding efforts.



Irving Langmuir

Former NMT President Dr. E.J. Workman, who was a physicist primarily interested in atmospheric electricity, had assembled a well-respected group of researchers to study thunderstorms and lightning since before World War II, Dr. Romero said. In New Mexico, the clouds were predictable and small, and it was relatively dry so the thunderstorms would not grow too large too quickly.

LANGMUIR LABORATORY FOR ATMOSPHERIC RESEARCH

According to the book detailing the history of Langmuir Lab, "Storms Above the Desert," which can be found on the NMT Langmuir website (<http://langmuir.nmt.edu/>), Dr. Langmuir learned of Dr. Workman's research and the GE crew arrived in New Mexico in the fall of 1948. Their initiative, dubbed "Project Cirrus," seeded hundreds of clouds between Albuquerque and Socorro in an attempt to make it rain.

Of course, trying to change the weather garnered a lot of publicity and, according to Dr. Romero, if you are a Nobel laureate trying to change the weather you get even more. Dr. Langmuir made the August 28, 1950 cover of Time magazine for his cloud seeding efforts.

Dr. Langmuir passed away in 1957. In the early 1960s Dr. Workman saw the need to build a mountaintop laboratory to conduct atmospheric research. He went to the National Science Foundation and was successful in obtaining the money needed to build the facility, which opened in 1963. An endowment established by Dr. Langmuir's family in 1994 provides ongoing funding for the facility, which is the home base for scientists and students from NMT and visiting scientists from other parts of the United States and other countries.

Over the years, scientific research conducted at Langmuir Lab includes, but is not limited to, the initiation and growth of cumulus convection, the relationship between lightning and rainfall, the formation of hail, the location and distribution of lightning and charges in thunderclouds, the fine structure of lightning, the effects of point discharge on cloud electrification, the electrical budgets of thunderstorms, and the properties of sprites. Recent advances in instrumentation have allowed researchers to begin to understand the plasma physics of a lightning flash.

The facility features a variety of instrumentation, much of it built in-house, including ground-based and balloon-borne, video cameras, and an electrically-isolated underground room at the summit of South Baldy called the Kiva from which rockets that trigger lightning are launched. Other cutting edge research tools developed or significantly improved at Langmuir include the Lightning Mapping Array (LMA) and lightning interferometer, which map the 3D structure of lightning flashes with microsecond precision.



Dramatic photo of an early experiment in lightning triggering. A wire-trailing rocket caused a lightning flash and the current traversed (and vaporized) the wire. The sheetlike appearance of the lightning is caused by "streamers" and strong winds during multiple strokes.

According to Dr. William Winn, physics professor emeritus, three key activities have characterized the research efforts undertaken at Langmuir Lab to better understand lightning: first rocket launches, then balloon launches, to fly instrumentation into thunderclouds to gather data; storm cloud and lightning observations made from ground instruments such as radio antennas and radar; and launching rockets trailing a wire connected to the ground to trigger lightning when atmospheric conditions are right, showing where the electrical energy is inside the clouds.

From back in 1969 when he began his lightning research at the lab "things have changed enormously," Dr. Winn said. "It's better done now than then."

Recent advances in lightning research have included work done by Dr. Sonnenfeld, physics professor and chair of Langmuir Lab, with graduate

LANGMUIR LABORATORY FOR ATMOSPHERIC RESEARCH



A balloon train begins its ascent into a thunderstorm from the Langmuir Lab balloon hangar. Multiple instruments along the string measure X-rays, electric fields and provide a location to allow instrument recovery.

student Daniel P. Jensen, to see inside lightning storms. They used data from two interferometers – measurement instruments that see through clouds – collected from a thunderstorm near Langmuir Lab to produce a three-dimensional interferometer data set, the most accurate verified result to date for a broadband lightning interferometer. The data also showed that certain in-cloud lightning processes (K-leaders) slow down as they progress over kilometers, and observation is not possible without this technology. The work resulted in Jensen’s research paper, “Dart-Leader and K-Leader Velocity from Initiation Site to Termination Time-Resolved with 3D Interferometry,” which was published in the *Journal of Geophysical Research*. The colorful picture on the next page is from an even more recent study using this tool.

Dr. Sonnenfeld said the Langmuir group of lightning researchers – including Drs. Caitano da Silva, Adonis Leal, and others – are especially interested in lightning’s effects on renewable energy infrastructure. They are

reinstalling instrumented lightning rods on top of South Baldy.

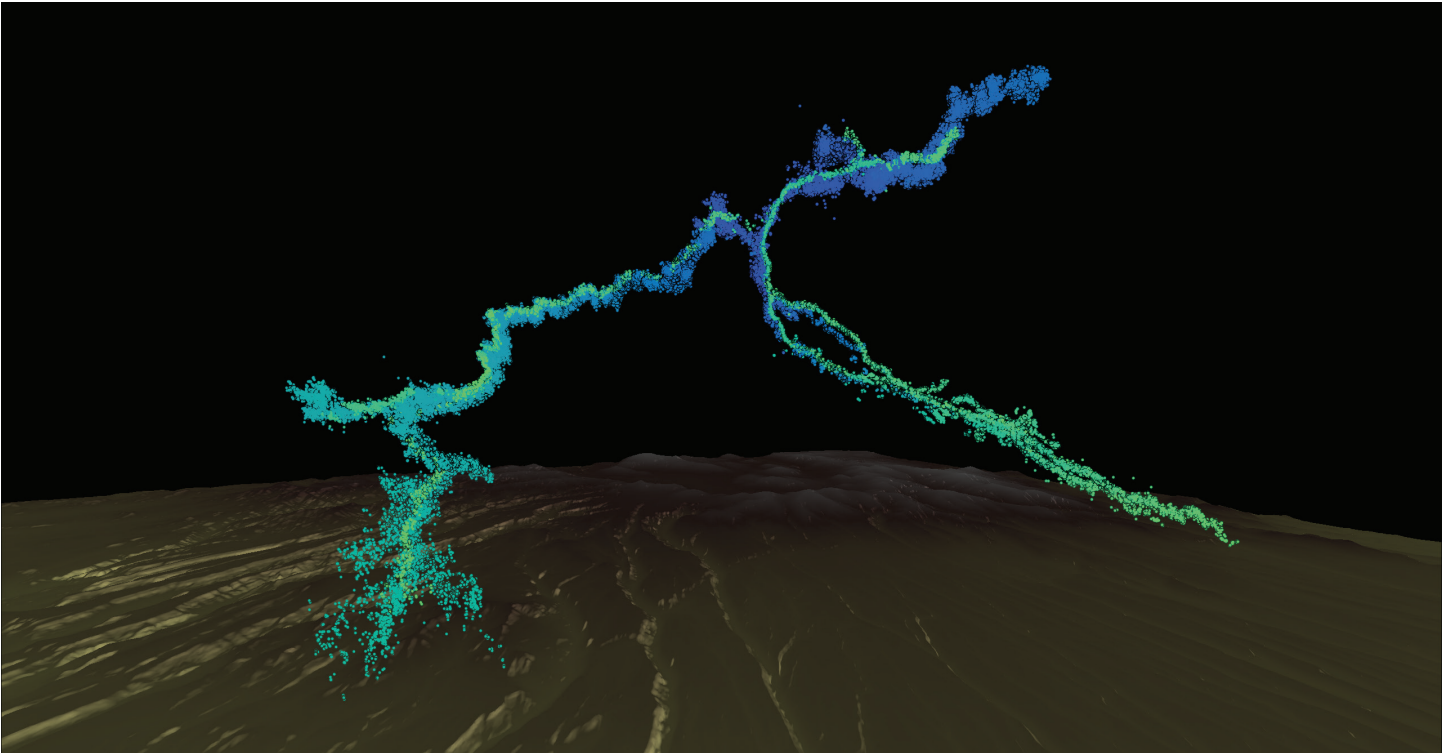
“We want to see the current pulses that come out as the lightning approaches the rods,” he said. “We’re trying to understand and we’re really making progress in understanding actually how the air breaks down. And so with the interferometer and the LMA we can watch the air breaking down and with the models that Dr. da Silva does we can link the data more closely to the fundamental physics.”

A spectacular example of the response of buildings to nearby lightning was recently captured in Brazil and appeared in *Geophysical Research Letters*. The photo of upward streamers meeting downward leaders is shown below, and da Silva’s team was intimately involved with the modeling.

Dr. da Silva’s group focuses on the plasma physics of electrical discharges in lab sparks and natural lightning. Some of his students are doing spectroscopy of lightning – measuring the temperature of a lightning bolt and other parameters - while other students are measuring X-rays emitted by lightning. All of his students’ projects tend to involve a good



This spectacular frame from a video of a lightning strike in Brazil was analyzed by Dr. da Silva and student John Pantuso. It teaches a lot about the lightning “attachment” process which is critical to improving lightning protection. This work was published in *Geophysical Research Letters* as “Close View of the Lightning Attachment Process Unveils the Streamer Zone Fine Structure”



This is a 3-dimensional imaging of a lightning flash by a lightning interferometer in a collaboration between Los Alamos and Langmuir Lab. The interferometer can penetrate thunderclouds to reveal details of breakdown as it occurs.

amount of computer simulations to make sense of the data. In the past five years the group has raised over one million dollars to investigate lightning at an unprecedented level of detail.

Lightning protection for renewable energy systems, machine learning applied to lightning research, and simultaneous observations of lightning from space and ground are topics studied by Doctor Leal's group. In the past year, they have worked together with a lightning location company to develop a modern lightning classification algorithm based on sophisticated artificial intelligence techniques. Those techniques can be applied to the massive amount of data collected every summer using cutting-edge Langmuir instruments (LMA, Interferometer, E-field) to extract information that would not be possible using traditional approaches. Dr. Leal is also involved in the validation of lightning detection from space. He is combining different

lightning datasets from different research groups on the American continent to probe the new Geostationary Lightning Mapper (GLM).

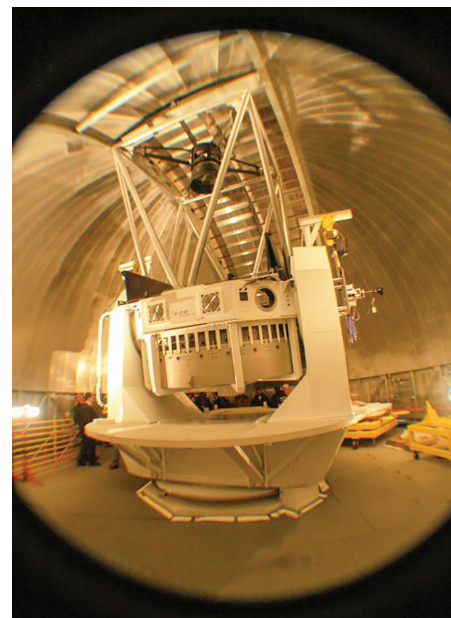
According to Dr. Sonnenfeld, the study of this exceedingly complex natural phenomenon, which is becoming more frequent and impactful with climate change, is as important as ever. Later this year NMT will mark a key milestone, the 60th anniversary of the Langmuir Lab.

Thirty years ago, Langmuir Chairman Charlie Moore said "We've been studying lightning for 30 years, and we don't know the first thing about it." Sonnenfeld says, "Langmuir Lab has now been studying lightning for 60 years, and we DO know the first thing about it. We're working on the second and third things."

MAGDALENA RIDGE OBSERVATORY (MRO) 2.4-METER TELESCOPE



Sunset view of Magdalena Ridge Observatory 2.4-m telescope dome



MRO Telescope

After President Workman's era ended in 1965, Dr. Stirling Colgate, a physicist, astronomer, and astrophysicist, took over leadership of NMT, bringing his interest in using the Magdalena Ridge site for astronomical purposes. According to Dr. Romero, he used digitized astronomy to search the night sky and found Magdalena Ridge to be a good site for photographing novae, supernovae, and other celestial phenomena because of its elevation, dark skies, and air with low moisture content.

NMT started building telescopes on Magdalena Ridge, with the first real facility named the Joint Observatory for Comet Research (JOCR). From there, the Magdalena Ridge Observatory 2.4-meter (diameter mirror) Telescope was built and achieved first light in October 2006. According to Dr. Eileen Ryan, the telescope's Director, the MRO 2.4-meter telescope is primarily used to observe, track, and characterize solar system astronomical targets such as asteroids and comets, and man-made satellites. She operates the facility alongside her husband, Dr. William Ryan, who is the senior Telescope Scientist.

"We spend most of our time – 90% – since 2008 working for NASA on projects involving asteroids and comets that are potentially harmful to the Earth," she said. The MRO is one of NASA's Spaceguard telescopes, which means it is classified as a follow-up telescope, investigating new objects discovered by NASA's discovery telescopes, which can be up to 25 per night

"The discovery telescopes get one or two immediate points on the object, and then they pass it off to just a handful of follow-up telescopes to extend the observational arc. We can then get a very accurate orbit determination of the object's path around the sun," Dr. Ryan said. "That will tell us if it's on a collision course with the Earth or not."

The MRO 2.4-meter telescope is called a "Planetary Defender" – and has been funded by NASA via its Planetary Defense Office, distinct from other scientific projects because of its special mission to protect the Earth.

That ability to track near-Earth objects led to the telescope's involvement in NASA's recent DART (Double Asteroid Redirection Test) Mission, as one of four contracted ground-based observatories supporting the space agency's September 26, 2022 mission. The effort employed an asteroid deflection technique known as a "kinetic impactor," smashing a spacecraft into a binary asteroid named Dimorphos. From the data, the DART investigation team, led by the



MRO image of Dimorphos asteroid

MAGDALENA RIDGE OBSERVATORY (MRO) 2.4-METER TELESCOPE



MRO 2.4 m Telescope aerial view

Johns Hopkins Applied Physics Laboratory in Laurel, MD, found that a kinetic impactor mission like DART can be effective in altering the trajectory of an asteroid, a big step toward the goal of preventing future asteroid strikes on Earth.

“We were able to play a unique role in the mission because of our military requirements – the telescope can look down very low, basically horizontal,” she said. “We were the only team-funded Northern Hemisphere telescope that was able to get images of the impact shortly after the crash.”

The impact created a debris cloud that the MRO tracked both immediately after the crash and in the days, weeks, and months that followed.

“All of that debris got shot up, away from the asteroid, and eventually formed a tail,” Dr. Ryan said. “It was pretty exciting that we were able to get images” so quickly.

Besides monitoring the “ejecta” as it evolves through time, the mission helped scientists understand “orbital mechanics” – how debris gets distributed after an impact. The ground-based MRO also detected that the debris tail bifurcated into two tails about a month after the impact, confirming images taken by the space-based Hubble Telescope. The team of telescopes working on the mission delivered about 200 precise measurements – light curves – confirming a 32-minute post-impact change in the asteroid’s orbital period.

“We successfully diverted the asteroid’s orbit,” Dr. Ryan said. “That was the first test that NASA ever did to determine whether we could do anything if there was a potentially hazardous object headed our way.



Eileen Ryan, MRO 2.4-m Telescope Director

“It was an outstanding success – we changed the orbit by 32 minutes, which was well above expectations. It was a spectacular thing to be part of.”

Dr. Ryan said that about 10% of the time she and Dr. William Ryan work on Air Force projects to improve our national security by tracking and characterizing artificial targets like satellites that are in orbit around the Earth, as low as 200 kilometers (km) above the Earth to as high as geosynchronous orbits, about 36,000 km above the Earth. There are only a handful of telescopes that can track low-Earth objects (LEO), she said, because the telescope has to accelerate and move very quickly.

“It’s quite astounding that the 2.4-meter telescope is about two million times more sensitive to light than your eyes,” she said. “We’re very lucky to have such an instrument here at New Mexico Tech.”

Dr. Ryan said she tries to incorporate NMT students – both undergraduate and graduate – into the observatory operations and projects. She also teaches a course in summer months for teachers seeking a master’s degree in science.

“It’s exciting because – we do laboratory exercises with the telescope – the in-service teachers can pass on enthusiasm to their students when they return to their classrooms,” she said. “We often have teachers and students back for tours.” And NMT students can get hands-on experience doing the laboratory exercises to augment their coursework studies.

The MRO averages about 650 visitors per year – a key part of its public outreach mission that also includes high school students attending summer astronomy programs, Dr. Ryan said.

MAGDALENA RIDGE OBSERVATORY INTERFEROMETER (MROI)



MROI beam combining facility with first telescope on the array



MROI team using a crane to help with the assembly of the dome and enclosure for the second telescope in the maintenance facility at Magdalena Ridge. The enclosure is being assembled by a team of engineers from EIE in Venice, Italy and will soon be integrated with the telescope and moved to the array arms.

A venue atop Magdalena Ridge where a lot of activity is currently taking place is the site of the Magdalena Ridge Observatory Interferometer (MROI). With one optical interferometer telescope operational and another being installed this year, plans call for the site to eventually host a distributed array of ten 1.4-meter telescopes laid out in a “Y” configuration.

Interferometry is a technique that astronomers use to obtain the resolution of a large telescope by using smaller telescopes working together to simulate a larger aperture. According to Dr. Michelle Creech-Eakman, Project Scientist and Astrophysics Professor, the MROI’s chief technical and scientific goal is to produce images of faint and complex astronomical targets at high resolution. Besides its work for the Air Force, its focus is on three areas:

1. Young stellar objects (YSOs), including newly formed stars and the beginning of planet formation
2. Stellar processes such as pulsations, star spot production and mass loss; as well as stars interacting with other stars, such as stars orbiting each other or in stellar accretion – when a star gains mass from a disk or companion
3. Active galactic nuclei - the black holes at the hearts of nearby galaxies

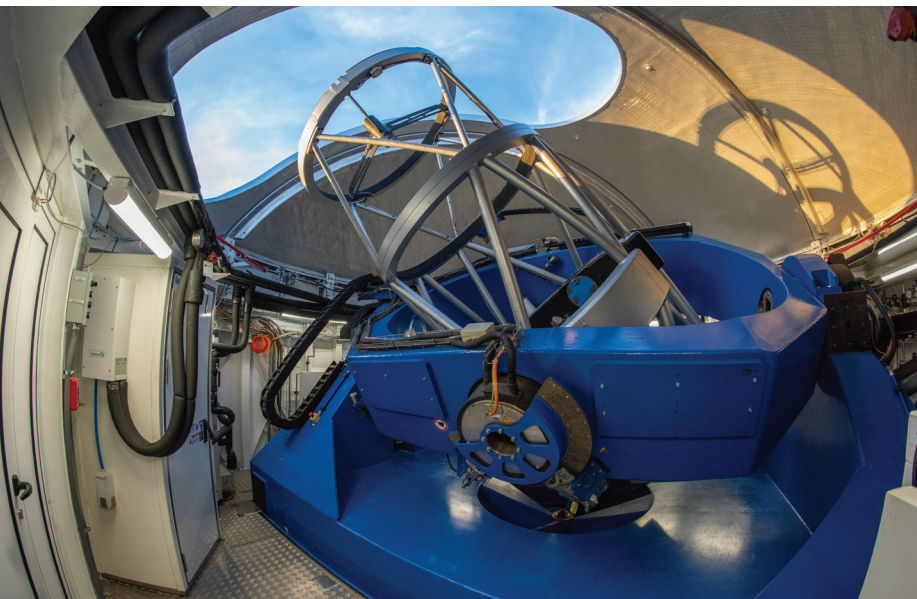
The MROI, while hosted by NMT, is operated under a partnership with The Cavendish Laboratory at the University of Cambridge, with its \$30 million cost funded by the Air Force Research Lab (AFRL). A \$20 million proposal to expand the site is currently under consideration by the NSF. Fully building out the site could take another \$60 million to \$70 million and a few more years to complete. Cambridge scientists contributed the MROI’s design and systems architecture, and have worked alongside NMT scientists on a 20-person team in developing the telescope array since its inception in 2004.

The MROI collects light via mirrors at different stations, using vacuum pipes both inside and outside the facility’s walls, and with delay trolleys that run inside the interior pipes. All of the light collected at different times and different locations is then put together in the Inner Beam Combining Area within the Beam Combining Facility, creating a picture of an object in space. Scientists study the images collected to detect basic features underlying the physics of the objects and can use multiple images taken over days to months to detect changes

MAGDALENA RIDGE OBSERVATORY INTERFEROMETER (MROI)



The first MROI telescope located on the array outside the Beam Combining Facility. The yellow frame on the ground is used to lift the telescope and enclosure together as a unit and move them to a new station on the array. The second telescope will be located adjacent to the first telescope later this month and used this fall to make the first MROI measurements of interference fringes on stars.



Fisheye view of the first telescope in its enclosure on the MROI array. The telescopes are being built by AMOS in Belgium and the enclosures by EIE in Italy. Photo credit: Colleen Gino

like motion in binary star systems or formation of planets in stellar disks.

“The whole thing basically emulates – acts in a way – as though you had a telescope with a giant mirror or lens,” said Dr. Christopher Haniff, Professor of Physics at Cambridge and one of two systems

architects for the project. “The bigger the effective size of a telescope, then the more detail you can see.”

His colleague Dr. David Buscher said with an interferometer like the MROI “you can see details nobody else can see.”

In late spring engineers from the Italian vendor EIE installed the dome with a “shutter” over a building to house the second interferometer telescope, built by the Belgian firm AMOS. The assembled structure can be moved between one of 28 telescope stations or pads, seven of which are already built. The most modern and most advanced telescope of its kind will be capable of being configured into different formations – either widely spread or close together – to achieve different resolutions. This can be thought of like a zoom lens on a camera.

“There’s a trade-off with this type of telescope,” Dr. Haniff said. “Which is we’re trading off having only parts of a giant ‘synthetic’ aperture but still being able to see very, very fine detail versus having the whole of a giant mirror, which would collect more light and see fainter things but which would technically not be possible to deliver.”

MAGDALENA RIDGE OBSERVATORY INTERFEROMETER (MROI)



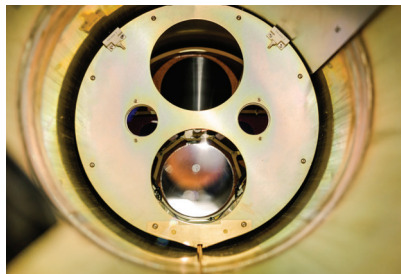
First telescope and enclosure on MROI array at night in a long exposure looking toward the beam combining facility.
Photo credit: Colleen Gino

A goal will be looking at galaxies outside our own Milky Way, including nearby galaxies with black holes in them, also known as “active galaxies” and how they change over time.

“It typically takes a long time from having an idea about building such a thing to then trying to raise the money to do it then doing the construction work to then putting all the parts together and getting it working and finally getting to look at all the things you want to look at,” Dr. Haniff said.

A major milestone is anticipated early this fall when the MROI is expected to achieve “first fringes” – when the light from the newly installed second interferometer telescope and from the existing one combine for the first time – and in the quality of the data recorded.

“We will link those two telescopes together and, in doing so, we will either be happy that the



Internal view of MROI line



MROI Delay Line with the first 100 meter pipe installed in the Beam Combining Facility



First telescope backlit by interior lights in the enclosure.
Photo credit: Colleen Gino

performance is as we predicted and 20 years of work will have been validated, or it won't work as we had expected and then we'll scratch our heads and troubleshoot,” Dr. Haniff said. “If it demonstrates that we have the extra sensitivity that we think we will get, that will be unmatched by other big interferometer projects.”

MAGDALENA RIDGE OBSERVATORY INTERFEROMETER (MROI)

According to Dr. Creech-Eakman, components for the third MROI telescope are on order, but installation is 15 to 18 months away. When all ten telescopes are installed in the coming years, it might be possible to detect astronomical objects scientists are not even aware of today – the “unknown unknowns.”

“The real interest is – there are things we haven’t even thought about,” Dr. Haniff said. “That’s the real motivator – the ability to discern detail hitherto that has been hidden can reveal many things that we don’t know about.”

Dr. Creech-Eakman said that the scientific findings may be quite impactful for both the state of New Mexico and New Mexico Tech and for current and future students and researchers.

“I think there’s going to be a lot of serendipity when we start looking at these objects – that we’re going to see things that no one knew were there,” she said. “There will be a renaissance and it will mainly be in stellar physics.”



Artist impression of the completed MROI array
Image of the array: Andres Olivares. Aerial Image: Tyson Eakman.



First telescope and enclosure being moved onto transport via crane to be located on the pad on the MROI array. Photo credit: Colleen Gino

More development might be coming to Magdalena Ridge according to Dr. Romero, providing even more valuable research opportunities for faculty and students close to campus.

- One project on the near horizon, sponsored by the University of Minnesota, will construct an extremely fast telescope to enable more detailed study of gravitational waves and light created by colliding black holes and neutron stars. The Total-Coverage Ultra-Fast Response to Binary-Mergers Observatory (TURBO) project, funded by a \$1 million NSF grant, aims to place one telescope at Magdalena Ridge and the other at the Skinakas Observatory on Psiloritis, the tallest mountain peak in Crete, Greece.
- A second potential project under consideration for Magdalena Ridge is the Coronal Solar Magnetism Observatory (COSMO), to be operated by the National Center for Atmospheric Research. This new observatory offers the potential to transform fundamental understanding of magnetic fields in the Sun’s atmosphere and how they drive the formation of solar eruptions and other space weather that can affect technologies on Earth. Currently a search is underway to find a suitable location at a high elevation with clear weather for the observatory.

The synergy created by existing and future scientific research projects will have a lasting impact on the area, Dr. Romero predicted. “Combined with the NRAO’s VLA (Very Large Array), look at all the great stuff that is happening in New Mexico.”

STUDENT SPOTLIGHT

2023 NMT STUDENT RESEARCH SYMPOSIUM

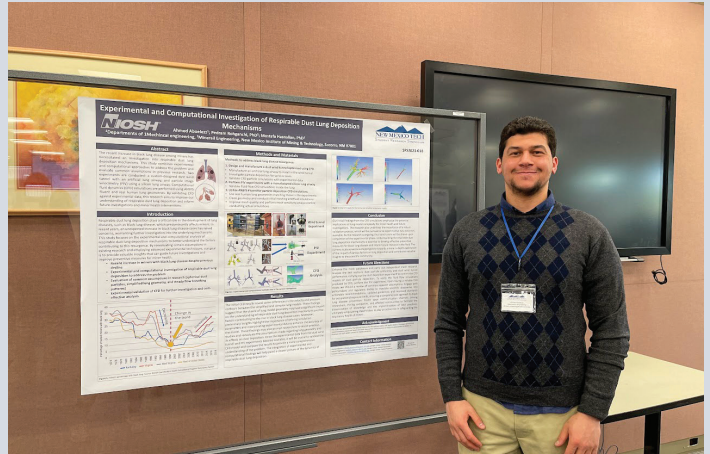
The 13th Annual Student Research Symposium (SRS) took place April 18 through 21, 2023. Congratulations to Dr. David Cox, Director, Skeen Library & Office for Student Learning, and his colleagues on the planning committee.

In all, 545 research students were involved in the various venues for presentation this year. The numerous events included Oral Presentations, Poster Sessions, departmental and program showcases, the 3-Minute Speech Competition, and the Graduate Student Association (GSA) Poster Competition.

- The 3-Minute Speech Competition winners were:
 - First place:** Santiago Navia Vasquez, Development of a Mine Road Condition Classification (MRCC) to Investigate the Effects of Road Conditions on Mine Rescue Robots
 - Second place:** David Bennecke, On the Trail of Sparks: Investigating Initial Breakdown in Thunderstorms
 - Third place:** Natasha Schaal Davis, Fengaribot II: Bio-Inspired Pillbug with Dandelion Dispersion Launch Mechanism
- The GSA Poster Competition winners were:
 - First place:** Casia Esparza, Ashley Bradshaw, and Kayla Mackowski, Isolation and Evolution of Novel Phages for Potential Use in Phage Therapy
 - Second place:** Mohamed Metwally, Effectiveness of Shale Inhibition by Anionic and Cationic Polyacrylamide Copolymers in Water Based Mud
 - Third place:** Jeffrey Gordon, Maria Acevedo, and Simon Lotero, Investigation of the Efficacy of Blended Learning Techniques for Safety Training Material Development: A Case Study

NMT students at all levels, from freshman to graduates, have the opportunity to participate in hands-on research and the SRS provides a forum to share progress and results of the exciting projects they work on. We hope you can join us, in person or virtually, for next year's SRS in April 2024.

To support student research,
Make an online gift today by scanning the QR code.
Or go to
<https://advancement.nmt.edu/giving>



Ahmed Aboelezz (Mechanical Engineering) at the GSA



Santiago Navia Vasquez won the 3-Minute Speech



Mechanical Engineering department showcase at SRS

FULL PROFESSORS, MAY 2023

- Dr. Anders Jorgensen, Electrical Engineering
- Dr. Michaelann Tartis (B.S. 2002, Chemical Engineering), Chemical Engineering

AWARDS, FELLOWSHIPS AND SCHOLARSHIPS

- 2023 Distinguished Teaching Award presented to Dr. Jeff Altig, Associate Professor, Chemistry. Article at <https://www.nmt.edu/news/2023/distinguished-teaching-award.php>.
- Goldwater Scholar awarded to Cassandra Skaar, Biology major. Article at <https://www.nmt.edu/news/2023/goldwater-scholar.php>.
- NSF Graduate Research Fellowship awarded to Raymond Castillo, accelerated M.S. Biology program (B.S. 2022, Biomedical Sciences, Biology Option)
- Fulbright Scholars – article at <https://www.nmt.edu/news/2023/fulbright-scholar.php>.
 - Dr. Raul Morales-Juberias, Associate Professor, Physics
 - Alisha N. Roberts, NMT's first student Fulbright Scholar (B.S. 2023, Physics with Astrophysics Option)

RETIRING - SPRING AND SUMMER 2023

- Dr. George Veni, Director, National Cave and Karst Institute (NCKRI)
- Dr. John McCoy, Professor, Materials & Metallurgical Engineering
- Dr. Kevin Wedeward, Professor, Electrical Engineering

WHAT'S NEW WITH YOU?

New job? New child? New spouse? New address? We strive to stay in contact with our alumni and our generous donors. Please email (advancement@nmt.edu) or phone us (575.835.5352) to update your information or if you have questions or concerns, and everyone is invited to share their ideas.

Visit the Office for Advancement and Alumni Relations for more details
<https://www.nmt.edu/advancement/>



New Faces



September 2022: Dr. John Rakovan, Mineralogist/Senior Mineral Museum Curator.

Article at <https://www.nmt.edu/news/2022/john-rakovan.php>.



January 2023: Dr. Michael Doyle, Vice President of Research.

Article at <https://www.nmt.edu/news/2023/vp-research.php>.



March 2023: Dr. Srinivas Mukkamala (M.S. 2002 and Ph.D. 2005, Computer Science), appointed to serve as NMT Regent through 2028.

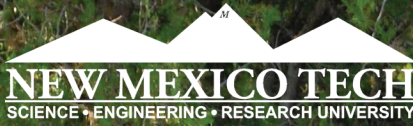
Article at <https://www.nmt.edu/news/new-regents-2023.php>.



March 2023: Dr. Gregory R. Yandek, EMRTC Director.

Article at <https://www.nmt.edu/news/2023/gregory-yandek.php>.

PRESIDENT'S GOLF TOURNAMENT



2023

The (Dr. Daniel H. López) President's Golf Tournament

Thursday, September 14th & Friday, September 15th

Back in 1993, I started this tournament, and I am excited to be here for an encore year in 2023. The tournament provides support for NMT students' scholarly goals and the creation of additional resources to support the mission of the University. Since the event's inception, more than \$990,000 has been raised to support more than 480 NMT students. You can find all of this year's sponsorship, participation, and donation option details in the online brochure at <https://www.nmt.edu/advancement/golf-tournament.php>. If you have any questions, please feel free to contact Sandi Lucero at 575-835-5618 or email her at pgt@npe.nmt.edu and she will be happy to assist.

I look forward to seeing you on the course on September 14 & 15, 2023.
I will be sure to have some fine cigars to share!

Dr. Daniel H López
Interim President
New Mexico Tech



2023 PGT registration page is at <https://advancement.nmt.edu/pgt>

Class of 2023



Hundreds of graduating students, families and friends gathered at the Socorro Sports Complex and Rodeo Grounds on May 13, 2023 to participate and celebrate.

DEGREES AWARDED

Three associate, 253 bachelor, eight graduate certificates, 103 master, 14 doctorate, and two honorary degrees.



CLASS DIVERSITY

Three Socorro High School alumni; just over 80% undergraduate New Mexico residents; students from 18 U.S. states; and international students from 11 different countries.

BACHELOR'S RECIPIENTS

Four graduated with a perfect 4.0 GPA; 72% had a GPA of 3.0 or higher; 40% received at least one F; class average was 3.21.

Ages of degree recipients ranged from 19 to 53

MOST WELL-REPRESENTED DEPARTMENTS

Chemistry: Three doctorate

Mechanical Engineering: 61 bachelor's, 23 master's, three doctorate.



PEOPLE YOU KNOW

CHASZ GRIEGO



(BS Chemical Engineering, 2017) reports, My research opportunities under the mentorship of Professor Pabitra Choudhury motivated me to pursue graduate school, and in the spring of 2022, I received my Ph.D. in Chemical Engineering. From there I made an interesting shift from engineering to academic libraries. I took a role as a postdoctoral associate through the Carnegie Mellon University (CMU) Libraries. This was a unique postdoc, which focused on Open Science, the practice of making research products available to all to foster collaborations, reproducibility, and equity. I worked with the Open Science and Data Collaborations program, a team of library faculty and staff that work to advocate and promote these practices through teaching, support services, and outreach. I spent my postdoc creating workshops, developing data science consultation services, and studying reproducibility, particularly measuring how open science tools offered by the CMU libraries help researchers reproduce or replicate other's experimental findings. I am finishing my postdoc and will transition to a faculty role at the CMU libraries as a Science and Engineering Liaison Librarian. In this role, I will be able to continue my efforts in open science and reproducibility while also directly teaching and supporting students and researchers in Chemical Engineering, Materials Engineering, and Chemistry.

DAVID HUNTER



(B.S. Petroleum Engineering, 1962) reports that – since graduation – he has: Worked in many US and international oil and gas provinces, primarily in upstream operations (drilling and production); retired to Arizona in 2000; and flunked retirement twice to work in Brazil and Houston.

He has now re-retired and currently serves as Vice President of the Property Owners and Residents Association for Sun City West, AZ and as chair of the community Water Committee with emphasis on water conservation and education.

He has always been a strong supporter of the SPE, beginning with serving as president of the NMIMT student chapter and continuing today. In 2014 he served on the SPE Member Engagement Task Force studying ways to retain members moving from late career stages into retirement.

David Hunter with Chance – how retirement should look

ANDREW MONTAÑO



(1994 Bachelor, General Studies) recently (March 2023) accepted a position with the Department of Energy's Office of Energy Efficiency and Renewable Energy's (EERE) Golden Field Office as the NEPA Division Director. Andrew began his federal career in 1990 having served as a student summer intern with the Bureau of Reclamation. He hired on permanently with Reclamation in 1994 and spent nearly 18 years working for them as an Aquatic Biologist. In 2008, Andrew left the Denver Federal Center and moved to Portland, OR to work with the Bonneville Power Administration as a NEPA Specialist for 6 years. Tiring of the rainy Pacific Northwest, Andrew moved back to the Rocky Mountains to work a short stint with the National Park Service as a Renewable Energy Specialist before accepting a position with the Western Area Power Administration where he worked as a NEPA Specialist for 7 years. Andrew began working with EERE in August 2022 and had been serving in a temporary detail as the EERE NEPA Division Director since November 2022 prior to being permanently selected for this role. Andrew also recently celebrated his 30th year of federal service in 2022.

BRAD PARKER & ELIZABETH (NAGY) PARKER



Brad - (B.S. Engineering with Specialization in Chemical Processing, 1996) and Beth - (B.S. Biology, 1997) recently celebrated their 25th wedding anniversary by spending nearly a month in New Zealand. They spent their time touring the entire country playing golf, bungee jumping, and soaking in the culture.

Brad and Elizabeth currently live in Gilbert, Arizona and have both recently retired from the workforce. Brad continues to consult as a Professional Engineer in the asphalt and aggregate business. Elizabeth decided to do something fun and drives a beverage cart on a local golf course a few days per week. They love to spend their time now playing golf, traveling, and enjoying their pets. In addition to a great education, love is possible at New Mexico Tech!

BARNEY PAUL POPKIN



(New Mexico Tech, 1965) recently published parts 1 and 2 of “The Role of Climate, Rocks, and Soils on the Wines of Napa Valley, California” in the American Institute of Professional Geologists’ The Professional Geologist (<https://aipg.org/news/625543/2023-TPG-Jan-FebMar-Issue.htm>), and “Aspects of the Military Geology of Ukraine” in the Global Journal of Human-Social Science (https://globaljournals.org/GJHSS_Volume23/2-Selected-Aspects-of-Military.pdf). He is currently writing “Geologic Influences on the Natural Resources of the Levant.”

PAUL D. SISSON



(B.S. 1988, Mathematics and Physics) says the second edition of his Calculus textbook went to press in July. This edition will join the third editions of his College Algebra and Precalculus texts and the first edition of his Algebra and Trigonometry text. All his books are available through the same publisher; pictures and details of his Calculus book can be found at <https://www.hawkeslearning.com/Products/Math/CALC/Calculus123.html>.

Paul Sisson with Pegasus

2023 INVENTORS & ENTREPRENEURS WORKSHOP



Ed Fries, keynote speaker

The 6th annual workshop, hosted by the New Mexico Tech Office of Innovation Commercialization (OIC), brought together more than 100 inventors and investors for the two-day seminar held on campus April 13-14, 2023. The event included an overview of assistance available from the U.S. Patent and Trademark Office and the Technology Commercialization Accelerator in Socorro, a panel on diversity, equity, and inclusion and social entrepreneurship, and a special presentation on growing the New Mexico space economy.

Keynote speaker Ed Fries (B.S. 1986, Computer Science), former Microsoft vice president and Xbox video game system creator, inspired the audience with anecdotes from his college days at NMT and his life as an “accidental entrepreneur.” Fries said it was fun to be back on the campus where he studied computer

science, once lived in West Hall, and held down a part-time job as a systems administrator. “Tech was amazing,” he said, adding that he accomplished things in his career he couldn’t have imagined when he was a college student from Seattle, Washington, who arrived in Socorro not knowing a soul.

Fries, who retired from Microsoft at age 40 after 18 years, went on to found companies and start a venture fund to support independent game developers around the world, shared with the audience his motto that “If your job isn’t fun you’re not doing it right” and encouraged them to follow their passion.

A promotional poster for an event. The background is a sunset over a silhouette of a mountain range. A hot air balloon is visible on the left, and a partial eclipse of the sun is on the right. The text reads: "Eclipse at BALLOON FIESTA PARK", "New Mexico Tech presents an annular eclipse viewing from Balloon Fiesta Park.", "Questions? Please contact Sandi Lucero at sandi.lucero@nmt.edu or 575-835-5618", and "2023 OCTOBER 14". The New Mexico Tech logo is in the bottom left corner.

Eclipse at
BALLOON FIESTA PARK

New Mexico Tech
presents an annular eclipse viewing
from Balloon Fiesta Park.

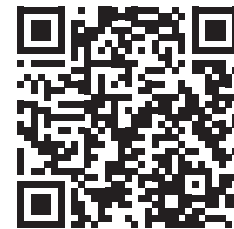
Questions? Please contact Sandi Lucero
at sandi.lucero@nmt.edu or
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NEW MEXICO TECH ESPORTS TEAM WINS NATIONAL TITLE



The New Mexico Tech Miners eSports team achieved the seemingly impossible by blazing their way to victory in the thrilling National eSports Collegiate Conference League of Legends National Championship. With a triumphant 3-0 win against the University of Southern Mississippi on June 15, 2023, the Miners claimed the crown!

Founded in 2019 by Damian Banks, now the Director of eSports at NMT, the team hosts five exceptional squads across Rocket League, Super Smash Bros, Valorant, and League of Legends, and they're not stopping there! Two more games are on the horizon for upcoming semesters, raising the stakes even higher.

Their journey to glory was nothing short of epic, defeating top-tier opponents like the University of British Columbia, Colorado College, Randolph Macon College, Sacramento State, and University of Louisville. Now, with their remarkable victory, they have the chance to take on another division and make history once more!

Meet the squad that conquered the eSports world: the unstoppable talents of Preston Kite (aka "Borrowed Bagel"), the masterful moves of Fernando Flores (alias "Minibootz"), the enigmatic Andrew Smith (also known as "Nightfall"), the incomparable Abram Iverson (known as "Nezumi no Shonen"), and the fierce spirit of Sofia Nocua Moreno (who goes by "Fita Mwaume").

In the words of Damian Banks, this triumph marks a historic moment for NMT's dedicated players, notifying the eSports world that they are serious contenders at the highest level. The Miners' passion, dedication, and teamwork have earned them a well-deserved spot among the nation's top collegiate competitors.

As they continue to grow and shine, the future holds even more thrilling adventures for this extraordinary team. The University couldn't be prouder of their eSports champions!



In addition to the National Championship

that NMT secured in the game League of Legends, one of the students won the conference championship as an individual in the game Super Smash Brothers (SSB). Justin Urbanich was the former president of the SSB club on campus and with the establishment of the esports program, merged the club into the new organization and rose to the top of the Western conference in the NECC.

IN MEMORIAM



Thomas (Tom) Ray Croxell



(M.S. Mathematics, 1971 and M.S. Geophysics, 1973) was born in Red Oak, IA on July 16, 1943. He passed away peacefully on March 5, 2023 at the Plano TX home that he and his family lived in for the last 41 years.

He graduated from Northwest Missouri State College at Marysville in 1968 with a B.S. in Mathematics. While at NMT, he worked as a teaching assistant and then as a research assistant. In the late 1970s, he studied for a third masters in Geodetic Science and worked as a teaching assistant at Ohio State University. Tom worked primarily in the oil exploration industry as a scientific programmer, and taught mathematics part-time in community colleges.

Despite many health problems, including recovering from being paralyzed from the waist down twice, he kept as active as possible. His last 15-year battle was against Parkinson's. He traveled extensively with his family. He was a kind and gentle father, not only to his biological children but many other young people that graced the family home

He is survived by his brother, Ronald Croxell (Dorothy); his wife for over 45 years, Patricia Croxell; their daughters, Christina, Autumn, and Angelic; stepchildren Laura McLand and Michael Rowland; five grandchildren; and two great-grandchildren.

A bench in his honor was installed in the Dallas Arboretum facing White Rock Lake. Donations can be made to the Michael J Fox Parkinson's Foundation at www.michaeljfox.org/.

Jack Gilliatt Gill



(B.S. Mining Engineering, 1961) passed away April 18, 2023. Jack was born a Hoosier in Washington, IN on December 28, 1935. Upon graduating from high school, Jack enlisted in the U.S. Navy, serving aboard the USS Hornet during the Korean Conflict. After his navy enlistment, Jack enrolled at New Mexico Tech. Originally, it was Jack's intent to major in Geology, but after meeting Dr. Gerald Green (Professor of Metallurgy; B.S. 1923, Metallurgy), Jack promptly changed his major to Mining Engineering.

Jack's career began in Leadville, CO working for Climax Molybdenum. After one winter on the mountain, Jack looked south and landed a job with Kennecott Copper in Ray, AZ. From there he worked for Kaiser Steel in Eagle Mountain, CA, Southern Peru Copper Corporation in Toquepala, Peru, the U.S. Mine Safety & Health Administration in Vincennes, IN, Southern Company Services in Birmingham, AL, and the Electrical Supply Commission of South Africa (ESCOM) in Johannesburg, South Africa. Jack's final job was managing a talc mine & mill in Van Horn, TX, the gateway to the Big Empty. As you can tell, Jack mostly preferred wide open spaces.

Jack was a member of Masonic Charity Lodge 30 and American Legion Post 121 both of Washington, IN.

Jack is survived by his wife of 64 years, Sharon (Englehart) Gill, his two children, Yancy Gill, Ph.D., PE and Carrie Gill Murdoch, M.D., and grandchildren.

Linda Gonzales



(B.S. Mathematics, 1965) passed away peacefully on January 31, 2023.

Born Linda Jones on November 6, 1942, in San Antonio, TX, her family moved frequently before settling in Albuquerque, NM where Linda attended high school at San Dimas High. Encouraged by the space race she decided to pursue her education at New Mexico Tech, one of a handful of women attending at the time. She worked with Dr. Croger on micro-meteorite research and graduated with a B.S. in Mathematics, a marriage to Socorro-born Leo Gonzales (deceased), and a newborn daughter.

Linda worked as a teacher and business owner in New Mexico and Colorado before retiring in the 1990s and moving back to Socorro, NM. She re-engaged with New Mexico Tech, teaching computer classes. She was also involved in alumni activities, including the 49ers parade.

Linda is survived by her daughters, Karry Wallen-Gonzales (Rob) and Adele Carson (Stacy), and five grandchildren. She was well-loved by many, many cherished friends.

Sidney Kirschner



(B.S. Metallurgical Engineering, 1955) left this world on February 21, 2023. Sid was born in Canada but grew up in the Bronx. A set of fluke circumstances led Sid to New Mexico Tech. When Sid boarded the bus from New York City to Albuquerque and ultimately Socorro he never looked back.

After college, Sid moved to Los Angeles, where he met his late wife, Judy Fishman. They were married in 1957 and brought three beautiful children into this world. In 1964 the family relocated to New Jersey.

In 1973, Sid received a phone call from Atlanta-based National Service Industries (NSI) that would reshape his family's life. The family made the move to Atlanta and Sid went to work for NSI as a Group Vice President and eventually became the CEO and Chairman of the Board of the publicly held company.

Sadly, Sid lost his wife Judy in 1986. He went on to find his current life partner, Carole Nigro, who has been a devoted wife to Sid for 35 years. Together they traveled both near and far. He particularly enjoyed a visit to New Mexico Tech in 1990.

In 1991, immediately after his retirement from NSI, Sid was recruited to be the CEO of Northside Hospital. After 12 years he became the headmaster of the Davis Academy, a K-to-8 day school. His next project was to lead the Piedmont Heart Institute as its CEO, and he finished his business career as the Head of the Piedmont Foundation. More important to Sid than his business accomplishments was his belief in giving back to the community. Sid spent countless hours volunteering in numerous capacities at many local nonprofit organizations.

Sid will be missed by many, but most specifically by his family. He is survived by his wife, Carole; his three children, Ron (Lori) Kirschner, Lisa (Mark) Greenberg, and Lori Kirschner; five grandchildren, and one great grandson.

Mark Mansell



(Bachelor General Studies, 1996 and B.S. Basic Sciences, 2001) passed away April 4, 2023. An In Memoriam was published by the NM Bureau of Geology & Mineral Resources with more information on Mark and expanding on his many contributions: <https://geoinfo.nmt.edu/news/home.cfm?id=649&title=In+memoriam+mdash+Mark+Mansell>.

Joe Paul Martinez



(B.S. Mathematics, 1962) passed away at age 82 at home in Albuquerque on May 14, 2023. A hard working and caring father, he was an inspiring person to his family and friends and will be dearly missed.

Joe was born June 26, 1940, in the village of La Garita, CO, and raised in northern New Mexico. He graduated from Santa Cruz High near Espanola, and immediately went to Socorro to attend NMT. He was a photographer for the 1961 NMT Porphyry yearbook.

After receiving his B.S. from Tech, he served in the U.S. Air Force for five years. Then he went into a lengthy civilian career at Dikewood (later Kaman Sciences) in Albuquerque, working with EMP and lasers on defense contracts.

Throughout his life he kept his passion for science and for his many hobbies. An amateur photographer, astronomer and ham radio operator. A guitarist for Spanish and Mexican music groups in Albuquerque. He took special pleasure in participating in community theater, acting in plays at the Vortex, Adobe, and ALT theaters. In retirement he was a volunteer instructor for many years at the Explora Science Center.

He always spoke highly of his New Mexico Tech experience - it was one of the life achievements that he was the most proud of.

His final resting place is at the National Cemetery in Santa Fe. He is survived by his wife of 53 years, Geraldine, his son Michael, his daughters Ruth and Mary, and other cherished family members. Anyone wishing to honor his memory is encouraged to donate to the Explora Science Center and Children's Museum of Albuquerque at explora.us/become-a-member/donate/explora.us/become-a-member/donate/.

Gerald “Jerry” Richard McGinty



(B.S. Petroleum Engineering, 1953) was born August 26, 1927 and died peacefully May 1, 2023 in Charlotte, NC. Jerry was born in Queens, NY. He volunteered for the USMC during WWII and after returning from overseas, earned an engineering degree from New Mexico Tech on the GI Bill. He became a licensed professional Civil Engineer and general contractor in Michigan where he married his wife of over 50 years, Margaret Ruth Hayes (deceased). Together they raised six children. In 1975 he moved his family to south Charlotte where he remained until entering hospice in Savannah, GA, last year.

Jerry especially enjoyed spending time with his loving extended family. He read widely on different subjects and delighted in long thoughtful conversations. He loved working with his hands and was accomplished at building cabinetry and furniture. His family appreciated his loyalty, dry wit, and curiosity.

He is survived by his brother James, his daughter Margaret McGinty, son Stephen McGinty (Jan), son Michael McGinty (Lynn), son John McGinty (Kerri), daughter in law Jennifer McGinty, daughter in law Angela McGinty, and several grandchildren and great grandchildren.

The family noted, "His time at New Mexico Tech provided the subject matter for more than 70 years of the greatest stories ever told. He truly loved the university and was rightfully proud of his school and the accomplishments that were made by the institution. He returned to campus for his 50th reunion in 2003. He had an incredible memory and a knack for detailed description - so much so that we felt we had been there."

Clyde Nathan Richards



(B.S. Physics, 1960) died May 19, 2023, in San Diego, CA. Clyde was born May 1, 1938, at the family farm in Dora NM. He graduated from Dora High School in 1956, New Mexico Tech in 1960, and earned his Ph.D. in Atmospheric Sciences from the University of Arizona-Tucson in 1971.

He was employed by Bell Laboratories before creating Atmospheric Physics Inc., where he worked as a research scientist and consultant well past the age of 80. He and his wife of almost 35 years, Ruth, enjoyed traveling, sailing, grilling, and relaxing with friends.

Clyde's ingenious mind and creative spirit shone through as an accomplished inventor, bringing innovative technologies to life. His artistic talents extended to metalworking, where he skillfully designed and welded beautiful creations, showcasing his imagination and craftsmanship. Additionally, Clyde took great joy in gardening, while also possessing an exceptional knack for fixing and explaining things, earning him the reputation of a skilled problem-solver.

Clyde exuded a larger-than life personality. His zest for life and infectious spirit continue to echo. Clyde's impact endures, a testament to a life fully lived and the indelible impression he left on the hearts of others.

Survivors include his wife Ruth Richards; two sons, KC Richards and Nathan Richards; and three daughters, Melanie Oliver, Leslie Starritt, and Nina Starling.

IN MEMORIAM



Whitney “Whit” Skaling



(B.S. Geology, 1970), was born in 1944 and grew up in Santa Barbara, CA. He graduated from San Marcos High School in 1962 and then served in the US Navy during Vietnam. After serving, he married Janice Naslund and attended Santa Barbara City College to study Geology. Two years later, he and Jan left the Golden State to continue his education at New Mexico Tech.

They returned to Santa Barbara to join the family business, Soilmoisture Equipment Corporation, a manufacturer of agronomy equipment sold around the globe. Whit went on to become the president of Soilmoisture. He was known as an innovator, integrating state of the art technology into agricultural equipment.

Whit contributed through community service organizations and interests in lapidary, geology, engineering and art. Over the years he was a member of the Jaycees, a volunteer with the Santa Barbara Zoo, actively involved in the Santa Barbara Mineral and Gem Society, and he served as chair of the Santa Barbara Industrial Association in the late 1990s. During the past few years, he also supported the Buellton Senior Center and Thrift Store.

Whit and Jan loved to travel and visited locations across the US and around the globe for both work and pleasure. Whit loved nature, music and art. He would combine the three by sketching outdoors while listening to music! He was at his best hosting large outdoor events at local parks, manning the BBQ, mixing the drinks and sharing jokes and laughing with friends and colleagues.

He is survived by his wife, Jan; his brother, Bryce; his two children, Noel Skaling and Cristal Skaling-Klopstock; and two granddaughters. He will be missed!

Travis Wade



(B.S. Chemistry, 1987) passed away in Paris, France on May 20, 2023 after a short illness. Travis was born in Lander, WY in 1963. His family moved to Otero County in New Mexico in 1965 where he graduated from high school in 1982.

After graduating from NMT and several years working as a laboratory chemist, he entered the Ph.D. program at University of New Mexico and received his Ph.D. in Chemistry in 1995. He went on to work as a postdoctoral researcher at the University of Georgia in Athens.

In 2001 Travis moved to Lausanne, Switzerland to work at the École Polytechnique Fédérale de Lausanne (EPFL). In 2003, he went on to work at the École Polytechnique in Paris, France where he fulfilled his lifelong goal of living and working in Paris.

Travis is survived by his mother Carrie Joyce France, his sister Shirley Wade, his brother-in-law Thomas Ortiz, and many friends throughout the world.

Lester Clint Welch



(B.S. 1962, Physics) passed away peacefully on July 17, 2023. He was born March 27, 1941 in Tucumcari, NM.

After obtaining his B.S. from NMT in 1962, he earned a Ph.D. in Physics from the University of Southern California and spent much of his career writing data acquisitions software for physics experiments, an endeavor that first brought him to Bloomington in 1977 with a job at the IU Cyclotron. He subsequently worked at Argonne National Laboratory in Hinsdale, IL and at the Department of Energy in Washington, D.C. In 2005, he retired to Aiken, SC and returned to Bloomington, IN in 2018.

Lester's many hobbies included driving his 1997 Mazda Miata R, clock repair, genealogy, chess, Wordle, crossword puzzles, identifying and cultivating wildflowers, and following the stock market. While living in Aiken, Lester helped organize a celebration for the role the city played in detecting the neutrino at the Savannah River Site in 1956.

Surviving are Lester's wife, Janeth Murray Welch, two brothers, Nelson Welch, Jr (Nina Dane Welch) and Wayne Welch, and other immediate family.

William Dennis “Denny” Peterson



(NMT Vice President, 1981-2006) passed away on June 26, 2023. He was born December 3, 1944 in Delta, UT. He is survived by 4 children. He graduated from The University of Utah in 1971 and began an illustrious administrative career.

After working for the University of Utah, Highlands Plaza Clinic, Museum of Northern Arizona, Highland Dental Clinic, KUED and KUER he accepted a position as the Vice President of Administration and Finance at New Mexico Tech in 1981. During his time at NMT he served on many committees and boards, playing a key role in the economic development for the State of New Mexico. He was also an adjunct professor of Mining Engineering.

One of his sons noted “He achieved much [at NMT]. Technical Explosives and Research Analysis (TERA), EMRTC, the landscaping on campus, the dorms... He served on local and state committees, working his magic. Making everything grow.”

He also served as a member of the New Mexico State Investment Council, Vice Chair of the New Mexico Finance Authority, and Chair of the New Mexico State Venture Capital Investment Committee.

After retirement he served a two-year term for the New Mexico State Legislature as Senior Analyst for the President Pro Tempore, as a member of the Board of Directors of the New Mexico Research Park Corporation, and as a member of the Board of Trustees for the NMT Foundation.

He loved his family, his dogs, duck hunting, listening to great music and enjoying the outdoors. He will be greatly missed, but his legacy will impact lives for many years.



Chemistry Elements of Success Table: 7' X 14' on permanent display in lobby of López Chemistry building

SUPPORT STUDENT RESEARCH IN CHEMISTRY BY BRINGING COLOR TO OUR “ELEMENTS OF SUCCESS” PERIODIC TABLE!

Support for student research is one of the biggest and most important needs across the NMT campus. Faculty benefit through student involvement with their research, and students benefit through paid opportunities to participate in the creation of new knowledge.

WHAT DOES IT TAKE TO SUPPORT PAID STUDENT RESEARCH OPPORTUNITIES?

- It takes \$8,000 to support a graduate student for a summer
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- **Student Donor** - Current NMT students may "own" an element for one year with a \$150 donation (or \$12.50 per month for twelve months).
- **Non-Student Donor** - Alumni, NMT faculty and staff, and NMT friends may "own" an element for one year with a single payment of \$250 (or \$20.84 per month for twelve months).

View available elements on the [“ELEMENTS OF SUCCESS” website](#)

ELEMENTS OF SUCCESS STUDENT HIGHLIGHT - QUINN ABFALTERER

Funds raised through Elements of Success support students such as Quinn, a first-year Chemistry graduate student. Quinn’s research project focuses on defining the cooperation between two proteins that play a crucial role in safeguarding our DNA and preventing carcinogenesis. The work provides avenues for treating cancers, due to the central significance of DNA damage as both a cause of cancer and a means of intervention.

“I love seeing biomolecules in action and learning the chemistry of life. Through my research group, I have learned novel methods and applied them to the study of DNA damage and repair proteins. It is exciting to see how research can lead to completely new routes of study. Even if things don’t work out for months on end, the experience I’ve gained from learning new methods, failing, and overcoming have taught me so much.”



Quinn Abfalterer, Chemistry graduate student

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COLLEGE RANKING CALCULATOR

YOUR PRIORITIES

High earnings	11%
Economic mobility	11%
Low sticker price	11%
Low net price	11%
Academic profile	11%
Party scene	11%
Campus safety	11%
Racial diversity	11%
Economic diversity	11%
Athletics	1%

High earnings

Median income 10 years after attendance



Economic mobility

More students start low-income and end up high-income



Low sticker price

Listed price of tuition, fees and housing



Low net price

Average price for students with financial aid and grants



Academic profile

Graduation rate, SAT/ACT scores and student-faculty ratio



Athletics

Student surveys, team performance and revenue



Party scene



Campus safety



Racially diverse



Economically diverse



YOUR RANKINGS

Size	1	Location	Filters	Search
1		New Mexico Institute of Mining and Technology	▼	
2		St. Francis College	▼	
3		Cooper Union	▼	
4		University of Virginia's College at Wise	▼	
5		California Institute of Technology	▼	
6		Harvey Mudd College	▼	
7		University of St. Thomas	▼	
8		North Carolina Wesleyan College	▼	
9		St. Mary's University	▼	
10		Mount Saint Mary's University	▼	
11		Felician University	▼	

The New York Times has created an online tool that allows users to find their best-fit university by prioritizing certain college features. NMT ranks #1 when all parameters (except Athletics) are set as important: High earnings, Economic mobility, Low sticker price, Low net price, Academic profile, Party scene, Campus safety, Racially diverse, Economically diverse.

Try the "Build Your Own College Ranking" tool yourself at <https://lnkd.in/gcMpicdN> (subscription required).

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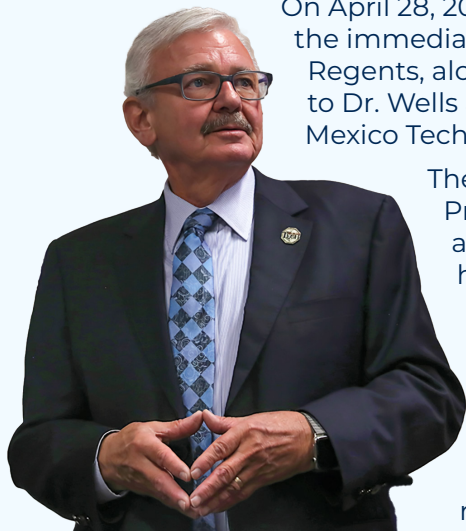
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NMT BIDS FAREWELL TO PRESIDENT WELLS



On April 28, 2023, the Regents of New Mexico Tech took formal action to accept the immediate resignation of President Stephen G. Wells due to health issues. The Regents, along with faculty, staff, and students, extend our sincere appreciation to Dr. Wells and his spouse, Beth, for their almost seven years of service to New Mexico Tech and wish them the best in their future endeavors.

The Regents are pleased to announce the appointment of former President Daniel H. López as interim President, effective immediately and continuing until the end of 2023, or until a permanent replacement has been appointed. Interim President López served as Tech President from 1993 through 2016, during which time Tech experienced unprecedented growth in enrollment, research activity, and capital improvements. Interim President López is well known in the Socorro community as well as throughout the state, having also served as Tech's chief lobbyist in Santa Fe during his tenure.

The Regents, through a search committee represented by faculty, staff, students, community members, and other stakeholders, have begun a national search for the next President and are

confident that the search will bring a strong pool of qualified applicants willing to serve our eminently renowned research university.

To the university's talented and proficient students, highly acclaimed faculty, dedicated staff, loyal alumni, caring community members, and committed partners, New Mexico Tech pledges to keep a firm focus on its mission to be a pre-eminent community of scholars dedicated to research, education, and innovation -- advancing science, technology, engineering, and mathematics -- to meet the challenges of tomorrow. Under the vigilance of the Board of Regents and interim President the institute reaffirms its commitment to serve New Mexicans as an outstanding institution of higher learning and cutting-edge scientific research, employing its vision, values, and strategic plan to chart its path in the weeks and months ahead.

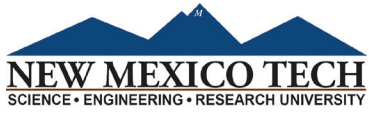


The Board of Regents has retained the services of Korn Ferry, a renowned executive search firm, to assist in the challenging and vitally important process of selecting our next President. The NMT Search Committee has met with Korn Ferry and the process is underway.

State law NMSA 21-1-16.1 A-F prescribes the latitude given to and responsibilities of state and private higher education institutions regarding public notice and presidential searches. As is best practice and in the interest of building a deep, talented pool of candidates from which to select an outstanding leader, applicant names will be held in confidence during the initial stages of the search. Five finalists will be announced at least 21 days before final selection as campus visits and forums are scheduled.

More information and updates about the NMT Presidential Search can be found online at <https://www.nmt.edu.presidential-search/>.





New Mexico Institute of Mining and Technology

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