

# Search for the Director of the Physical Science Laboratory New Mexico State University Las Cruces, New Mexico

# THE SEARCH

New Mexico State University (NMSU), a Minority-Serving, Hispanic-Serving, land grant, and space grant institution, seeks an experienced, creative, and strategic leader to serve as the Director of the <u>Physical</u> <u>Science Laboratory (PSL)</u>. The Director will join NMSU and the PSL at a pivotal moment, as the laboratory—founded in 1946 to support U.S. military telemetry and missile systems—seeks a new leader to guide it into its next chapter after NMSU recently welcomed a visionary, <u>new President</u>, Dr. Valerio Ferme, and celebrates its new Carnegie-designated R1 status.

NMSU is one of the most diverse land-grant universities in the nation, situated near the Mexican border on the Central and Latin American corridor. Rooted in its dedication to mobility, justice, and transformation, the university embodies this commitment in its geographical context. In addition to its main campus in Las Cruces, the institution includes community colleges across the state, cooperative extension offices in New Mexico's 33 counties, 12 agriculture research and science centers, and an expanding distance education program through <u>NMSU Global</u>. NMSU's portfolio includes over 1,000 externally funded research projects, and annual research expenditures of over \$128.1 million.

The incoming Director of the PSL will play a critical role as a strategic and collaborative leader, tasked with creating a unifying vision and strategy that aligns the lab's objectives with NMSU's mission and strategic planning. The Director role is a dynamic position involving expanding the research portfolio, ensuring financial stability and sustainability, and championing the PSL to external audiences while fostering collaboration across government, academia, and industry. The Director will strengthen internal partnerships within the university, cultivate a high-performing team, and support workforce development initiatives aimed at preparing classified-ready professionals. By driving interdisciplinary research and community engagement, the Director will ensure that the PSL remains a vital resource for addressing critical societal challenges and contributing to economic development.

A list of the desired qualifications and characteristics of the Director can be found at the conclusion of this document. All confidential applications, inquiries, and nominations should be directed to the parties listed at the conclusion of this document.

### ABOUT NEW MEXICO STATE UNIVERSITY

NMSU comprises five degree-granting colleges, including the <u>College of Agricultural</u>, <u>Consumer and</u> <u>Environmental Sciences (ACES)</u>; <u>College of Arts and Sciences</u>; <u>College of Business</u>; <u>College of Health</u>, <u>Education</u>, <u>and Social Transformation</u>; and the <u>College of Engineering</u>. The university also houses the Honors College, the Graduate School, and the NMSU Library. NMSU currently offers over 180-degree programs, including more than 70 online programs through NMSU Global. The university has remained a strong provider of online education, with <u>multiple online programs ranked in U.S. News & World Report</u>. Along with the main Las Cruces campus, the university has three branch community colleges: NMSU– Alamogordo, NMSU–Doña Ana Community College, and NMSU–Grants. The <u>Burrell College of Osteopathic</u> <u>Medicine</u> operates on the NMSU Las Cruces campus. NMSU and Burrell undertake numerous joint academic initiatives and shared services and programs through academic agreements.

NMSU is the institution of choice for more than 21,000 students from 49 states and 89 foreign countries, with approximately 14,800 students enrolled at the Las Cruces campus, with New Mexico residents comprising approximately 70% of the population. The institution's diverse student population includes many first-generation, Pell-grant eligible, part-time, and working adult students. New Mexico's tuition-free college program, Opportunity Scholarship, is one of the most expansive in the nation. Twenty-three tribes have ancestral homeland ties to New Mexico, including 19 Pueblos, the Navajo Nation and the Jicarilla Apache Nation, Mescalero Apache Tribe, Piro/Manso/Tiwa tribe, and the Fort Sill Apache Tribe.

### ABOUT THE PHYSICAL SCIENCE LABORATORY

Founded in 1946 in response to the nation's space and rocket programs, the Physical Science Laboratory (PSL) is a unique national resource and a catalyst for robust federal-academic partnerships that support the development and application of 21st century technologies to strengthen national security and leverages talent at NMSU to support sustainable economic development in the state. In partnership with the U.S. Department of Defense, NASA, the Federal Aviation Administration, Los Alamos National Laboratory and many others, the PSL is a unique national resource that supports the development and application of new and existing technologies. This multi-disciplined organization provides expertise in sub-orbital platforms, information modeling for predictive decision making, specialized intelligence community support, advanced NASA scientific exploration and experimentation, homeland security sensing and detection technologies, and advanced weapons and countermeasures development and testing designed to strengthen national security. Today's domain expertise includes: Electronic Warfare, Counter Measures, Cybersecurity, Telemetry and Missile Systems, 21st Century Aerospace and Scientific Ballooning. With over 150 employees, including engineers, scientists, and support staff, the PSL serves as a business and economic development asset to the university while also providing educational and work opportunities for students.

PSL is located on 7 acres on the main campus of NMSU and in close proximity to White Sands Missile Range, Fort Bliss, NASA, and the El Paso/borderland. The 100,000 sq ft main facility possesses both lab

and production areas to include applied engineering and Research Development Test and Evaluation (RDT&E) specialized areas with an opportunity to expand to a nearby, 44,000 sq. ft., former SCIFF. Current production capabilities include:

- Design, assemble test telemetry systems
- Mechanical shop
- Electronics shop
- Antenna Production/Plating
- Catalog of Telemetry and Antenna Systems-designed and built at PSL

The PSL launched the Classified Ready Employee Workforce (CREW) program in 2020 to foster the next generation of the national security workforce. The mission of the CREW program is to **develop a pool of classified-ready professionals with the necessary technical, professional, and interpersonal skills required to pursue successful careers in support of national security.** Students selected for the program participate in a series of national security and classification seminars, and are employed through cooperative education experiences in national security research and emerging technology innovation and application. CREW has attracted national attention from leaders at Spaceport America, the Massachusetts Institute of Technology, among others.

More information about the PSL Divisions is available in the APPENDIX at the conclusion of this document.

### ROLE OF THE DIRECTOR

Reporting to the President's Chief of Staff, the Director is responsible for the strategic, operational, and financial health of the PSL. The Director manages contracts totaling approximately \$15-20 million annually. In addition to the Director, the PSL leadership team consists of three division directors, a strategic initiatives officer, and six staff responsible for operations, IT, and production.

### KEY OPPORTUNITIES AND CHALLENGES FOR THE DIRECTOR

The Director will be a strategic and collaborative leader and financially-savvy administrator who will address a set of key opportunities and challenges:

# Create a unifying vision for the PSL in alignment with the university's strategic direction and land-grant mission

The Director is tasked with creating a unifying vision that aligns PSL's objectives with NMSU's ambitions for even greater impact. This will involve articulating a clear and compelling direction for PSL that emphasizes its role in addressing critical societal challenges through applied research and external partnerships, while also providing educational opportunities for students and encouraging new research collaborations with faculty. The Director will help expand PSL's national defense relevance, academic integration, and innovation capacity, and have a strategic vision that aligns with national security needs

and the university's strengths. The Director will continue to leverage the PSL's many assets and expertise to build and expand partnerships in the region and state and discover new ways to partner with stakeholders across the university in support of NMSU's broader goals of growing research, community engagement, economic development, and workforce readiness. Aligning PSL's activities with the land grant mission will reinforce its commitment to public service and accessibility, ensuring that the lab remains a vital resource for both the university and the communities it serves. With a cohesive vision, the Director will inspire a shared sense of purpose among PSL staff and partners, driving collective efforts toward impactful outcomes.

#### Expand the PSL's research portfolio, increase contract expenditures, and diversify financial support

The Director will be joining NMSU at an opportune and critical time to expand the lab's research portfolio, increase contract expenditures, and lead the PSL in achieving financial growth to ensure a more vibrant and stable future for PSL. While the Director should support and maintain PSL's defense contracts, the Director will be expected to diversify financial support by identifying and pursuing new funding opportunities, such as collaborations with commercial partners and grants from federal agencies that support innovative applied research initiatives. The Director will strategically assess PSL's existing capabilities and align with emerging trends in science, technology, and national security needs, thereby continuing to position PSL as a leader in applied research in the state and nationally. By fostering a culture of innovation and encouraging interdisciplinary projects, the Director will enhance PSL's competitiveness in securing lucrative contracts and expand the lab's research portfolio.

#### Champion the PSL to NMSU and external audiences, generate support, and foster collaboration

The Director will engage a broad range of NMSU and external audiences across government, academia, and industry to inspire their engagement and investment in the lab's strategy and vision. The Director should leverage existing connections and seek to build new partnerships that align with PSL's mission and expertise in applied research, particularly in emerging technologies relevant to national security. As the main spokesperson for PSL, the Director will be a strong advocate for the work being done across the lab's divisions and proactively pursue opportunities for impactful partnerships and funding. This will include being an effective advocate for PSL and its strengths at high levels within the government, military, industry, and at NMSU.

The Director will augment current relationships and partnerships while capitalizing on the unrealized potential opportunities for new customers and proponents. This will involve expanding collaborations with other labs in the state, fostering productive relationships with the Vice President for Research's (VPR's) office and NMSU colleges, and serving as an advocate for the PSL at the federal level. The Director will highlight the PSL's unique contributions, ensuring that both faculty and administration recognize the value of PSL's work in enhancing the university's reputation, interdisciplinary collaborations, and overall research funding. Working closely with the Deans, the Director will actively engage with faculty members to understand their research interests and explore opportunities for joint projects that align with PSL's interests. By effectively partnering with the VPR's office, the Director will also work collaboratively to

navigate compliance needs and issues, cultivate relationships with federal agencies, and promote and execute contracts effectively. With success, the Director will enhance visibility and support for PSL and NMSU, fostering a robust network of both external and NMSU allies who can contribute to PSL's long-term growth and success.

#### Steward a sustainable business model and infrastructure

While formally a part of NMSU, the PSL differs greatly from other academic units, operating as a separate business arm of the university with three subsidies and without state funds. The Director will be expected to partner with university leadership to creatively navigate and integrate policies and procedures that can positively impact PSL's business and ensure an effective business model. The Director will bring a business-savvy, solutions-oriented mindset to all conversations, focusing on the good of the whole at NMSU, to encourage collaboration, creativity, and shared resources for new funding. The Director will be expected to attract new business and contracts, renegotiate rates, ensure an effective organizational structure, and expand funding through state, federal, and commercial means while also maintaining costs. Implementing effective financial management practices and cost-control measures will be essential to ensure that the PSL operates efficiently while maximizing profitability. Ultimately, the Director's efforts will contribute to building a sustainable financial foundation for PSL, enabling it to invest in talent development, infrastructure, and future growth.

#### Cultivate a dynamic and high-performing team

The Director will cultivate a talented and high-performing team eager to realize the PSL's strategic goals, overcome challenges, and build more effective collaborations across divisions, the main campus, and externally. The Director will evaluate all operations upon arrival and promote open communication, encourage participation, and leverage expertise to maximize business opportunities. The Director will inspire a sense of shared purpose, ensure the PSL is organized effectively to capitalize on new opportunities, and work closely with their team to create policies, procedures, and best practices that enable collaboration, teamwork, and a financially-sound business model across divisions. Recognizing and celebrating achievements will also be central to the Director's efforts in building morale and reinforcing a culture of excellence.

#### Continue to augment and support workforce development initiatives

Part of the PSL's mission is to develop classified-ready professionals with the necessary technical, professional, and interpersonal skills required to pursue successful careers in support of emerging national defense areas. The Director will continue to support and invest in PSL's programs that provide hands-on training for NMSU's diverse student body and other professionals in the field, ensuring they acquire the necessary skills and experience to meet industry demands. PSL has many distinguished programs, including one of only a few FAA certification programs in the country, and the Director will be expected to leverage programming to foster cost-sharing opportunities while continuing to put PSL on the map for educating the nation's future workforce. The PSL's workforce development initiatives align closely with

NMSU's mission and commitment to serving the community, addressing regional challenges, and promoting access to quality education that benefits both students and the broader society. The Director will serve as a good spokesperson for the program, telling their stories to various audiences for additional support and recognition. The Director will sustain current workforce development initiatives and pursue avenues for growth for an even greater impact on New Mexico's workforce and economic prosperity.

## QUALIFICATIONS AND CHARACTERISTICS

The Director will be an experienced leader with an earned graduate degree in a relevant field. The Director will also bring most, if not all, of the following professional experiences and personal qualifications to this position:

- Strong administrative experience and skills, and the ability to make difficult decisions in a transparent and consultative manner
- Demonstrated ability to lead, guide, coordinate, and facilitate strategic planning processes
- Excellent financial management skills, and demonstrated experience working with complex budgets and funding models
- Experience in forging partnerships with federal agencies (DoD, DHS, NASA) industries and aligned academic units
- Solid understanding of defense contracts
- Experience in determining appropriate organizational infrastructures for oversight, decision making, and increased efficiencies
- Experience in formulating policies and procedures, and developing new strategies
- Knowledge of current and emerging science and technology trends, techniques, issues, and approaches
- Strong verbal and written communication skills with an ability to engage a range of stakeholders
- A record of building and/or change management through the effective allocation of resources
- A demonstrated ability to work effectively and build relationships with a full range of internal and external constituencies, including faculty, staff, students, community members, Indigenous nations, government officials, and leaders in the private sector
- Ability to thrive in the public sector with well-developed political and diplomatic skills
- A comprehensive understanding of the mission of a public, land-grant institution of higher education
- Experience working in the national security sector and understanding of federal processes and procedures

Other Considerations:

- U.S. citizenship is required.
- Possess or ability to obtain a Department of Defense Top Secret (TS) security clearance and maintain throughout employment.
- The role requires travel.



• This position is subject to random drug testing in compliance with its drug-free workforce requirements.

### LOCATION

New Mexico is known as "The Land of Enchantment" or "Tierra del Encanto," because of its scenic beauty and rich history. New Mexico offers a wide variety of adventures, art, music and dance, breathtaking landscapes, and a multicultural heritage that cannot be found in any other state in the U.S. New Mexico has the highest percentage of Hispanic residents by State. It has the second-highest percentage of Native Americans as a proportion of the population and the fourth-highest total number of Native Americans. The major Native American nations in the state are the 19 Pueblos, Navajo, and three Apache peoples.

The community of Las Cruces is well known for its hospitality, its people, and its deep appreciation of a colorful past and enthusiasm for a future rich with possibilities. The geography, climate, demographics, and ambiance combine to offer a truly excellent place to live. Combined with the unsurpassed beauty of sunsets, purple mountains, and a climate that is warm and inviting, Las Cruces offers a very high quality of life.

The City of Las Cruces is the second-largest city in New Mexico, located in Doña Ana County, approximately 45 miles north of El Paso, Texas, and 225 miles south of Albuquerque. Las Cruces is the economic and geographic center of the Mesilla Valley, the agricultural region on the floodplain of the Rio Grande which extends from Hatch to the west side of El Paso, Texas. The Organ Mountains, 10 miles to the east, are dominant in the city's landscape, along with the Doña Ana Mountains, Robledo Mountains, and Picacho Peak. Las Cruces lies within a short driving distance of the Mexican border at Santa Teresa.

The historic downtown features an open-air plaza with an extensive farmers market where a variety of foods and cultural items can be purchased from local farmers, artists, and craftspeople. Las Cruces features multiple outdoor recreation areas including more than 100 parks covering over 700 acres. Throughout the year residents enjoy festivals celebrating local culture and food as well as local and national historical sites, national monuments, galleries, theaters, museums, and the symphony.

### APPLICATIONS, INQUIRIES, AND NOMINATIONS

Screening of complete applications will begin immediately and continue until the completion of the search process. Inquiries, nominations, referrals, and resumes/CVs with cover letters should be sent via the Isaacson, Miller website for the search: <u>https://www.imsearch.com/open-searches/new-mexico-state-university/director-physical-science-laboratory</u>. Electronic submission of materials is strongly encouraged.

Lindsay Gold, Partner Courtney Cabansag, Associate Julia Hochner, Senior Search Coordinator New Mexico State University is dedicated to providing equal employment opportunities in all areas of occupation without regard to race, color, religion, gender, national origin, mental or physical disability, serious medical condition, age, ancestry, sexual orientation, sexual identity, spousal affiliation, veteran status, or genetic information according to state and federal laws.

### **APPENDIX: PHYSICAL SCIENCE LABORATORY DIVISIONS**

With over 70 years in the aerospace domain, the PSL today is a multi-disciplined, aerospace and defenseoriented scientific and technical organization. PSL staff are primarily applied hardware and software experts with a variety of engineers, technologists, and scientists focused on user needs. Computational thinking and problem solving are at the core of all PSL's research and development efforts, providing the foundation for field support and operations. As distinguished by its numerous scientific and technical contributions, loyal customers, expert staff, and student employees, the PSL continues to incorporate ongoing research and development and technical expertise into providing successful real world application solutions. The PSL consists of the following three divisions:

#### Aerospace Division

PSL's Aerospace efforts have a long history of over 75 years experience supporting research and flight missions of all kinds for various aerospace programs. Research and development are focused in the key areas of Unmanned Aircraft Systems (UAS) and Lighter-Than-Air Platforms including large scientific balloons and flight systems.

PSL is home to the one of the seven FAA approved UAS Test Sites which supports the integration of unmanned systems into the National Airspace System and specializes in unmanned systems flight testing for several classes of UAS. The UAS FTS operates under an FAA Certificate of Authorization (CoA) that permits UAS flights in over 15,000 square miles of coordinated airspace in southwestern New Mexico. The UAS FTS operates its own UAS fleet of systems and supports customer testing of new vehicles and flight systems. Facilities include a 15,000 square foot hangar at the Las Cruces International Airport dedicated exclusively to UAS operations.

PSL supports all phases of balloon flight operations through providing proven flight support systems, mission planning and operations, and launching small to large balloons. PSL has experience at many launch sites/locations worldwide. Domestically PSL has launched balloons from many different locations in the continental US, Alaska, and Hawaii, and can launch from any desired location. PSL has launched balloons from Antarctica, Sweden, Australia, New Zealand, Brazil, Canada, Greenland, and other international locations. We provide proven successful flight support systems. PSL has launched over 80 scientific balloon flights in the past 10 years.

#### Information Sciences Security Systems Division

PSL's Information Sciences & Security Systems (ISSS) specializes in providing capability based solutions in applied sciences, information sciences, and security systems. ISSS staff develops, produces, and integrates innovative products into reliable and cost-effective solutions our customers need to carry out their vital missions. The ISSS team supports many Department of Defense agencies and commercial companies through contracts geared specifically to defense systems and protection of the war fighter. ISSS Expertise includes Cyber Security Solutions, Homeland Security Solutions, Information Assurance, Electronic

Warfare and full-spectrum Electronic Countermeasures, Modeling and Simulation, Complex Adaptive Systems, Network-centric and Content-centric warfare disciplines, Sensor and Remote Sensing Technologies, Systems Development, Integration and Testing, and Real-time Data Acquisition and Processing.

#### Telemetry Missile Systems Division

PSL's Telemetry and Missile Systems (TMS) continues the traditional work that helped establish PSL. TMS supports contracts around the world that involve prelaunch preparation, launching, tracking, data acquisition and analysis. In addition, TMS also develops instrumentation and systems in support of sub-orbital flight operations. TMS has been a preferred provider of test and launch operational support services, flight instrumentation components, and antenna systems in support of many projects associated with NASA and DOD programs. TMS personnel have developed and supplied thousands of antenna systems for rocket, missile, aircraft, and spacecraft. Designs include microstrip, patch, Quadra loop, and spike antennas. These designs have extensive flight heritage in a wide variety of hostile environments. The WFF93 PCM encoder, designed and manufactured by TMS personnel is the heart of the instrumentation systems used to support DOD and NASA programs and are manufactured to meet their stringent specifications.