

## Sole Source Application and Determination Form

A sole source determination is not effective until the sole source application for determination has been posted on the Purchasing website for thirty (30) calendar days without protest and is subsequently approved in writing by the Vice President of Administration and Finance.

1. **Name of Department:** Southwest Innovation Alliance (SWIA), New Mexico Institute of Mining and Technology

**Contact Name:** Matthew Gallegos, Executive Director, Southwest Innovation Alliance

**Phone:** 505-321-0806

**Email:** matthew.gallegos@nmt.edu

2. **Name of Prospective Vendor:** Instituto de Astrofísica de Canarias (IAC),

**Contact Name:** Marcos Reyes Garcia-Talavera, Instrumentation Manager, Instrumentation Division, IAC

**Phone:** +34 922 605 338

**Email:** mreyes@iac.es

**Estimated Cost:** €27,500 annually (≈ \$31,997 USD), subject to annual adjustment based on the Consumer Price Index of the Canary Islands, plus any agreed common service or infrastructure costs as defined by agreement

**Duration (for Services or Professional Services – limited to four years):** Duration (for Services or

**Professional Services – limited to four years):** February 28, 2026 through October 28, 2026, representing a total period of performance of eight (8) months. Any continuation, renewal, or expansion of services beyond this period would be subject to separate AFRL approval and execution of a modification and/or extension to the applicable Partnership Intermediary Agreement (PIA), Contract Number: FA94532230002.

3. **Purpose/need for purchase and detailed list of items of tangible property, services, or professional services:**

The purpose of this procurement is to obtain space-as-a-service and associated observatory support services from the Instituto de Astrofísica de Canarias (IAC) to support an exploratory pilot engagement aligned with the mission and strategic objectives of the Air Force Research Laboratory (AFRL), facilitated by New Mexico Tech through the Southwest Innovation Alliance under an existing Partnership Intermediary Agreement (PIA), Contract Number: FA94532230002. Specifically, the procurement enables affiliate-type access to IAC-managed facilities, including the Teide Observatory, for the purpose of evaluating feasibility, scalability, and potential future use cases of IAC infrastructure in support of AFRL mission needs.

Services to be provided include:

- Access to IAC-managed observatory facilities and physical space
- Provision of common observatory services (power, communications, site access)

- Administrative coordination and facility hosting services
- Integration with IAC's Laser Traffic Control System, where applicable
- Operational support consistent with observatory safety, governance, and international collaboration frameworks

This procurement does not include the acquisition of equipment or the direct performance of technical work by SWIA personnel.

**4. Detailed explanation of criteria developed for this purchase:**

The criteria for this purchase were developed based on mission-critical operational, environmental, institutional, and legal requirements, including:

- Access to a world-class astronomical observatory with proven atmospheric stability and optical clarity
- Availability of existing, operational domes and site services suitable for advanced optical and laser-enabled activities
- Governance by a public research consortium with authority to host international governmental partners
- Compliance with international scientific cooperation agreements and Spanish national law
- Ability to support AFRL exploratory engagement activities in a controlled and compliant manner
- Demonstrated experience hosting advanced optical, laser beacon, and adaptive optics initiatives

Collectively, these criteria significantly limit the number of institutions capable of meeting all requirements.

**5. Provide a detailed, sufficient explanation of the reasons, qualifications or unique capabilities of the prospective vendor that make that prospective vendor the one source for providing the items of tangible property, services, or professional services:**

The Instituto de Astrofísica de Canarias (IAC) is the only entity capable of providing the required services for the following reasons:

- IAC operates and manages the Teide Observatory, one of the world's premier sites for optical and infrared astronomy, with established atmospheric stability and mature observatory infrastructure suitable for advanced optical and laser-enabled activities.
- IAC is constituted as a Spanish Public Consortium and is the sole governing entity responsible for the management, oversight, and administration of the Teide Observatory facilities and associated infrastructure.
- IAC is the only entity authorized to manage and provide institutional access to the required facilities, including integration with site-wide systems such as the Laser Traffic Control System.
- The observatory operates within an established international scientific cooperation framework that enables structured participation by foreign governmental entities in compliance with host-nation requirements.
- IAC has demonstrated experience supporting advanced optical, adaptive optics, and laser-based initiatives within its managed facilities.

No other institution simultaneously possesses exclusive management responsibility for the Teide Observatory, established site-wide operational systems, appropriate atmospheric conditions, and the institutional framework necessary to provide the required services. Accordingly, IAC is the only source capable of delivering the full scope of services identified in this procurement.

**6. Provide a detailed, sufficient explanation of how the items of tangible property, services, or professional services is/are unique and how this uniqueness is substantially related to the intended purpose of the department/grant:**

The services are unique because they combine access to a globally rare observatory environment with an established international governance framework that supports advanced optical and laser-enabled activities.

This uniqueness is substantially related to the intended purpose because:

- AFRL requires evaluation of optical and space-domain environments that cannot be replicated at most domestic facilities
- The Teide Observatory provides site-specific atmospheric and geographic characteristics essential to this assessment
- IAC's governance structure allows for structured international engagement consistent with U.S. and host-nation requirements

These services directly support AFRL's strategic objectives and SWIA's authorized role as a partnership intermediary.

**7. Please provide a narrative description department's due diligence in determining a basis for the procurement. Include:**

- a. method used to research and review other available sources (i.e. list of potential vendors from Purchasing, internet, state pricing agreements, purchasing cooperatives)
- b. list of vendors contacted, the date and method of contact (i.e. email, phone call)
- c. documentation explaining why:
  - i. those vendors cannot provide the required items of tangible property, services, or professional services
  - ii. other similar items of tangible property, services, or professional services cannot meet the intended purpose of department/grant:

**a. Method used to research and review other available sources**

The SWIA conducted a structured review of potential domestic and international facilities capable of providing observatory space, laser-safe infrastructure, and administrative hosting services suitable for AFRL's exploratory assessment needs. This review included:

- Publicly available information on major astronomical observatories
- Prior AFRL and Department of Defense collaboration models
- International observatories operating under intergovernmental agreements
- Commercial space-as-a-service and research infrastructure providers.
- Institutional knowledge from prior AFRL, academic, and international partnerships

The review focused on identifying facilities capable of supporting feasibility-oriented access without requiring the exchange of controlled or export-restricted information.

**b. Potential alternative vendors reviewed**

Commercial providers were reviewed and excluded due to the absence of equivalent atmospheric conditions, laser-safe observatory governance, and public-institution authority to host international governmental research engagements. Commercial entities considered included, but were not limited to:

- Space and satellite service providers (e.g., Planet Labs, BlackSky), which focus on space-based sensing rather than ground-based optical observatory environments

- Commercial spaceport and test range operators (e.g., Spaceport America, Mojave Air and Space Port), which lack astronomical observing conditions and mature laser traffic control systems
- Private telescope hosting and remote observatory services (e.g., iTelescope, PlaneWave Instruments hosting sites), which do not provide the atmospheric quality, governance framework, or international governmental hosting authority required
- Commercial research infrastructure and test facilities, which generally lack both laser-safe astronomical governance and public-sector mandate for international scientific collaboration
- Accordingly, no commercial provider was capable of meeting the combined environmental, operational, legal, and governance requirements necessary to support the intended AFRL exploratory engagement.

Other potential alternatives were reviewed and considered:

- National Optical-Infrared Astronomy Research Laboratory (NOIRLab) / Kitt Peak National Observatory (Arizona, USA)
  - o Website: <https://noirlab.edu/public/programs/kitt-peak-national-observatory/>
- Mauna Kea Observatories (Hawaii, USA)
  - o Website: <https://www.maunakeaobservatories.org>
- European Southern Observatory (ESO) Facilities (Chile)
  - o Website: <https://www.eso.org/sci/facilities.html>

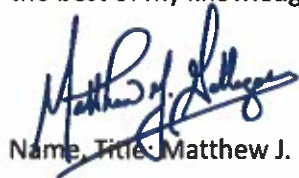
**c. Documentation explaining why: The Instituto de Astrofísica de Canarias (IAC) is the only entity capable of providing:**

- Observatory-grade atmospheric conditions
- Existing operational domes and site services
- Integrated site-wide laser traffic control
- Centralized institutional management of the observatory
- The ability to provide structured institutional access and administrative hosting for foreign governmental exploratory engagement under the specified arrangement

As the managing entity of the Teide Observatory, IAC is the only institution that provides all required environmental, operational, governance, and administrative elements under a single institutional framework.

**This determination is based solely on capability and institutional structure, not on convenience, scheduling preference, or flexibility. Accordingly, IAC is the sole source capable of providing the required services described in this procurement.**

I certify I have performed thorough and diligent research and analysis to determine that **Instituto de Astrofísica de Canarias (IAC)** is the only source capable of providing the required services. I understand that violations of the New Mexico Procurement Code (Chapter 13, Article 1 NMSA 1978) can carry severe penalties. I affirm that the information provided in this Sole Source Determination is true and accurate to the best of my knowledge and belief.



Name, Title: Matthew J. Gallegos, SWIA Executive Director

February 12, 2026

AdobeSign/Date

Review: Purchasing Services (Name, Title):

Meradeth Montoya, Associate Director

AdobeSign/Date

Website Posting Date: 2.13.2026

*Meradeth Montoya* 2/12/26

Posting Expiration Date: ~~2-15-2026~~ *3/15/26*  
*mm*

Protested (Yes/No):

Approval: Delilah A. Walsh

Vice President of Administration and Finance

AdobeSign/Date

*Delilah Walsh*  
Delilah Walsh (Feb 12, 2026 15:03:15 MST)

12-Feb-2026

Version: July 2025






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Final Audit Report

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