

ESO / NRAO Vacancies for JAO Personnel presented to the ALMA Board by the ALMA Director



ALMA Deputy Director for Science Operation

Draft version

- Attachment II –

Santiago, Chile

3 / 4 November 2003



3 of 12

ALMA Deputy Director for Science Operations

ESO/NRAO Vacancy

The Atacama Large Millimeter Array (ALMA) is an international astronomy facility. ALMA is an equal partnership between Europe and North America, in cooperation with the Republic of Chile. It is funded in North America by the U.S. National Science Foundation (NSF) in cooperation with the National Research Council of Canada (NRC), and in Europe by the European Southern Observatory (ESO) and Spain. ALMA construction and operations are led on behalf of North America by the National Radio Astronomy Observatory (NRAO), which is managed by Associated Universities, Inc. (AUI), and on behalf of Europe by ESO. ALMA will be a millimeter-submillimeter wave interferometer consisting of (64) 12m diameter antennas located on the Chajnantor Altiplano in the Atacama Desert of northern Chile. ALMA will be equipped initially with dual-polarization receivers covering 4 atmospheric windows: 84 – 119 GHz, 211 – 275 GHz, 275 – 370 GHz, and 602 – 720 GHz. The above mentioned parties/partners created the Joint ALMA Office (JAO) which is responsible for the overall leadership and management of construction, commissioning, and operation of the ALMA Observatory.

ESO/NRAO are now seeking applications for an **ALMA Deputy Director of Science Operations (DDSO)**, who will be part of the staff of the JAO, and will be responsible for the development, implementation, and management of ALMA scientific operations in Chile, in the following broad categories:

- * science program scheduling and execution
- * calibration plan management and execution
- * data processing, quality control, and archiving

ALMA science operations in Chile will be split between the Operations Support Facility (OSF) based near San Pedro de Atacama and the ALMA central office in Santiago de Chile. Early Science Operations are scheduled to begin in late 2007 with 8 - 10 antennas. Full Science Operations will be achieved with the installation of the last antennas in 2012. The final science operations staff size in Chile is anticipated to be 75 - 100 people.

In addition, the ALMA DDSO is responsible for working with the ALMA partners to develop and implement the core science operations aspects of the ALMA Regional Support Centers. These core responsibilities include: proposal preparation (Phase 1) user support and process management, observation definition (Phase 2) user support and process management, and regional ALMA archive operations. Other core responsibilities may be added later. RSC staff are employed by the



4 of 12

host institutions but report functionally to the ALMA DDSO.

The ALMA DDSO reports to the ALMA Director and is located in Santiago de Chile.

Education and/or Experience: The ALMA Deputy Director for Science Operations will have a Ph.D. in astronomy, astrophysics, or a related field as well as an established record of scientific and technical publication. The DDSO must have at least 10 years of prior experience in astronomical observatory science operations, with at least five years in a leadership role. Knowledge and experience in radio astronomical interferometry as well as international scientific projects is highly desirable. A working knowledge of the Spanish language or a willingness to learn are desirable. Strong leadership and organizational capabilities, excellent communication skills, and an excellent command of the English language are essential.

Duty Station: Santiago de Chile. Frequent travel to OSF, and RSC where ALMA operations are performed are required .

Starting date: 1 January 2004.

Contract: The initial contract is for a period of three years with the possibility of a fixed-term extension or permanent contract.

All applications should include the names of five individuals willing to serve as professional references for the applicant. Applications should be sent to the Personnel Office, at either of the following addresses: ESO, Karl-Schwarzschild-Str. 2, Garching, D-85748, Germany; or NRAO*, 520 Edgemont Road, Charlottesville VA 22903 USA. A Search Committee will begin reviewing applications on xx/xx/xxxx. Applications will be considered until the position is filled.



5 of 12

Remuneration: ALMA Key Personnel will be hired as employees of either ESO or AUI/NRAO. ESO and AUI/NRAO offer attractive remuneration packages including a competitive salary, comprehensive social benefits, and provide financial support in relocating families. Furthermore, an expatriation allowance as well as some other allowances may be added.

*The National Radio Astronomy Observatory is operated by Associated Universities, Inc. (AUI) under cooperative agreement with the National Science Foundation. Further information is available on www.nrao.edu. The NRAO is an equal opportunity employer (M/F/H/V).

ALMA Project Scientist

New proposal

- Attachment III -

Santiago, Chile

3 / 4 November 2003



ALMA Project Scientist

ESO/NRAO Vacancy

The Atacama Large Millimeter Array (ALMA) is an international astronomy facility. ALMA is an equal partnership between Europe and North America, in cooperation with the Republic of Chile. It is funded in North America by the U.S. National Science Foundation (NSF) in cooperation with the National Research Council of Canada (NRC), and in Europe by the European Southern Observatory (ESO) and Spain. ALMA construction and operations are led on behalf of North America by the National Radio Astronomy Observatory (NRAO), which is managed by Associated Universities, Inc. (AUI), and on behalf of Europe by ESO. ALMA will be a millimeter-submillimeter wave interferometer consisting of (64) 12m diameter antennas located on the Chajnantor Altiplano in the Atacama Desert of northern Chile. ALMA will be equipped initially with dual-polarization receivers covering 4 atmospheric windows: 84 – 119 GHz, 211 – 275 GHz, 275 – 370 GHz, and 602 – 720 GHz. The above mentioned parties/partners created the Joint ALMA Office (JAO) which is responsible for the overall leadership and management of construction, commissioning, and operation of the ALMA Observatory.

ESO/NRAO are now seeking applications for an **ALMA Project Scientist**, who will be part of the staff of the JAO. The **Project Scientist** is responsible for ensuring that ALMA is constructed, commissioned and operated in such a manner as to meet the scientific requirements of the ALMA Agreement.

Essential duties and responsibilities: (to be completed)

- Defining and maintaining the top-level scientific requirements and scope of the project.
- Establishing the scientific requirements for the ALMA system, working in conjunction with the IPT Leaders, and their Deputies.
- Together with the European PS and North American PS leading the global effort of the Science IPT
- Setting scientific requirements for various discipline areas
- Final responsibility of reviewing and monitoring compliance of all ALMA documents with the scientific requirements
- Responsible for the ALMA commissioning
- Responsible for the ALMA scientific activities in Santiago

The ALMA Project Scientist reports to the ALMA Director.



8 of 12

Education and/or Experience: The ALMA Project Scientist will have a Ph.D. in astronomy, astrophysics, or a related field as well as an established record of scientific and technical publication. The ALMA Project Scientist must have at least 10 years of prior experience in astronomical observatory science operations, with at least five years in a leadership role. Knowledge and experience in radio astronomical interferometry as well as international scientific projects is highly desirable. Strong leadership, excellent communication skills, and an excellent command of the English language are essential.

Duty Station: Santiago de Chile. Frequent travel to the different locations where ALMA constructions are performed are required .

Starting date: 1 January 2004.

Contract: The initial contract is for a period of three years with the possibility of a fixed-term extension or permanence.

All applications should include the names of five individuals willing to serve as professional references for the applicant. Applications should be sent to the Personnel Office, at either of the following addresses: ESO, Karl-Schwarzschild-Str. 2, Garching, D-85748, Germany; or NRAO*, 520 Edgemont Road, Charlottesville VA 22903 USA. A Search Committee will begin reviewing applications on xx/xx/xxxx. Applications will be considered until the position is filled.

Remuneration: ALMA Key Personnel will be hired as employees of either ESO or AUI/NRAO. ESO and AUI/NRAO offer attractive remuneration packages including a competitive salary, comprehensive social benefits, and provide financial support in relocating families. Furthermore, an expatriation allowance as well as some other allowances may be added.

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ALMA Key Personnel

Version 27 June 2002 (for information)

- Attachment IV -

Santiago, Chile

3 / 4 November 2003



10 of 12





1 ESO/NRAO Vacancies for ALMA Key Personnel

HOME INDEX SEARCH HELP NEWS

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The Atacama Large Millimeter Array (ALMA) will be a millimeter-submillimeter wave interferometer consisting of (64) 12m diameter antennas located on the Chajnantor Altiplano in the Atacama Desert of northern Chile. Built and operated by a bilateral North American (United States and Canada) - European (ESO member states and Spain) partnership, ALMA will be equipped initially with dual-polarization receivers covering 4 atmospheric windows: 84 - 119 GHz, 211 - 275 GHz, 275 - 370 GHz, and 602 - 720 GHz. The project, with a budget which exceeds half a billion dollars, is being carried out jointly by the European Southern Observatory (ESO) and the National Radio Astronomy Observatory (NRAO), managed by Associated Universities, Inc. The Governing Board of ALMA, made up of members representing the above mentioned parties/partners has created the Joint ALMA Office (JAO) which is responsible for the overall leadership and management of construction, commissioning, early operations, and operations of ALMA as Observatory.

The Joint Personnel Search Committee of the ALMA Board is now seeking applicants for the key positions within the JAO:

ALMA Director

The Director has the overall responsibility of leading the ALMA project and representing it to the global astronomical community and the funding agencies supporting the project. The Director reports to the ALMA Board, which will review the Director's progress on the project annually. The Director will be responsible for the operation of the Joint ALMA Office, and will ensure that ALMA is constructed to specification, on schedule and within the costs set out in the ALMA Bilateral Agreement. The Director will allocate observing time during early operations and operations in accordance with policies and procedures determined by the Board. Basic requirements for the position include a Ph.D. in astronomy, astrophysics, physics or a related field and a proven record



11 of 12

of scientific leadership. The selected candidate must have significant management experience. Previous experience with large international scientific collaborations is desired.

ALMA Project Manager

The Project Manager is responsible for the overall direction of the ALMA construction conducted by the North American and European project managers, for maintaining the integrity of the project schedule and work breakdown structure, and for periodically reviewing and summarizing the state of the project for the ALMA Management Advisory Committee. The Project Manager is also responsible for coordinating the ongoing ALMA technical development program carried out through the two project executives. The Project Manager reports to the ALMA Director, and his/her performance will be reviewed annually by the ALMA Board. Basic requirements for the position include an advanced degree in the physical sciences or engineering, and an established record of success in managing large projects. Experience in the management of international scientific projects is highly desirable.

ALMA Project Scientist

The Project Scientist serves as the primary contact between the ALMA project and its various scientific constituencies, for example, the ALMA Scientific Advisory Committee, with respect to the scientific capabilities and mission of the instrument, serving as the ALMA project's primary advocate for the array's scientific capabilities and needs. The Project Scientist reports to the ALMA Director and his/her performance will be reviewed annually by the ALMA Board. Basic requirements for the position include a Ph.D. in astronomy, astrophysics, physics or a related field, and a record of leadership and ability in the field of radio astronomy. Experience in radio astronomical interferometry is highly desirable.

ALMA Project Engineer

The Project Engineer ensures that the project as implemented fulfills the instrument's technical specifications. His/her duties include maintaining the integrity of ALMA's technical specifications, overseeing the definition, design, production, integration, verification and validation of ALMA's major components, overseeing the project's change control process, and developing and maintaining a detailed program to balance the requirements of completing construction, commissioning the ALMA components as they are completed, and initiating and maintaining early operations. The Project Engineer reports to the ALMA Project Manager and will be reviewed annually by the ALMA Board. Basic requirements for the position include an advanced degree in the physical sciences, or engineering; experience in astronomical project engineering is desirable.

All applications should include the names of five individuals willing to serve as professional references for the applicant.

Appointments to these positions are expected to begin on 1 January 2003. The initial location of the JAO will be decided in consultation with the Director, but the JAO is expected to be located in



12 of 12

Chile by the start of 2004. ALMA Key Personnel will be selected by international search solely on the basis of professional qualification and merit, and irrespective of national origin. Their appointment requires the concurrence of the ALMA Board. It is intended that the Director, when selected, will be consulted in the appointment of further staff to the JAO. Applications for the four positions below should be sent to the Personnel Office, at either of the following addresses: **ESO**, **Karl-Schwarzschild-Str. 2**, **Garching**, **D-85748**, **Germany**; **or NRAO***, **520 Edgemont Road**, **Charlottesville VA 22903 USA**. The Search Committee will begin reviewing applications on September 1, 2002. Applications will be considered until the positions are filled.

Remuneration: ALMA Key Personnel will be hired as employees of either ESO or AUI/NRAO. ESO and AUI/NRAO offer attractive remuneration packages including a competitive salary, comprehensive social benefits, and provide financial support in relocating families. Furthermore, an expatriation allowance as well as some other allowances may be added.

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24/02

Send comments to <vacancy@eso.org>

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