

MANAGEMENT AGREEMENT
CONCERNING THE CONSTRUCTION AND EARLY
OPERATIONS
OF THE
ATACAMA LARGE
MILLIMETER/SUBMILLIMETER ARRAY
(ALMA)

BETWEEN

ASSOCIATED UNIVERSITIES Inc. of THE UNITED STATES
acting as the NSF Executive

and

THE EUROPEAN ORGANISATION for ASTRONOMICAL RESEARCH in the
SOUTHERN HEMISPHERE
acting as the European Executive

WHEREAS

- the European Organisation for Astronomical Research in the Southern Hemisphere (hereinafter ESO) is an international organisation with its headquarters in Garching, Munich, Federal Republic of Germany, dedicated to the design, construction, and exploitation of an astronomical Observatory in the Southern Hemisphere and to support and assist cooperation in astronomical research amongst its member states;
- the National Science Foundation (hereinafter NSF) is an independent agency of the United States Government whose mission is to promote the progress of science, to advance the national health, prosperity and welfare;
- NSF and ESO completed an Agreement (hereinafter the Bilateral Agreement) concerning the Joint Construction and Operation of the Atacama Large Millimeter Array (ALMA), signed in Washington by NSF on 7 February 2003 and by ESO on 25 February 2003, and subsequently amended;
- Associated Universities, Inc. (hereinafter AUI) is a not-for-profit organisation incorporated in the United States established to acquire, plan, construct and operate laboratories and other facilities;
- NSF has appointed AUI to be the NSF Executive under the terms of the Bilateral Agreement;
- the National Radio Astronomy Observatory (hereinafter NRAO), managed for NSF by AUI, is dedicated to the design, construction, and operation of large radio telescope facilities for use by the scientific community, and is responsible for the implementation of AUI's objectives in ALMA;
- the Bilateral Agreement is now being implemented, the necessary permissions and access to the land have been obtained from the Republic of Chile, agreements have been signed with CONICYT and Region II, and work has started on the construction of ALMA;
- AUI and ESO have jointly completed all the formalities necessary to secure access to the land and right of way and have jointly established the concessionary company "Concesionaria Proyecto Radioastronomy Chajnantor Limitada" (RCL) under Chilean law;
- AUI and ESO have jointly purchased the land required for the OSF and the right of way required for the road from the public highway to the OSF, and the purchase cost has been shared equally between AUI and ESO;
- ESO and NSF have signed an amendment to the Bilateral Agreement whereby the NSF Executive will employ the local staff in Chile required for ALMA;
- the National Institutes of Natural Sciences (hereinafter NINS) is an independent agency of the Government of Japan whose mission is to promote natural science especially in the areas of astronomy, material science, energy science, and life science, and is granted judicial personality under a special law;
- the National Astronomy Observatory of Japan (hereinafter NAOJ) is one of the divisions of NINS dedicated to astronomy and related research, and in charge of the implementation of NINS contributions to Enhanced ALMA;
- NINS, acting for NAOJ, has joined ALMA under an Agreement with ESO and NSF;

AUI and ESO, hereinafter referred to collectively as "The Executives", agree as follows:

Article 1: INTRODUCTION

- 1.1 This Management Agreement (hereinafter "this Agreement") sets out the manner in which AUI and ESO will work together to realize ALMA as set out in the Bilateral Agreement.
- 1.2. The obligations of AUI under this Agreement are limited to those of the NSF Executive and those it assumes as the manager of NRAO.
- 1.3 AUI agrees and accepts that ESO is bound by its Convention, Financial Protocol, Accuerdos of 1963, 1995, and 2002 with the Republic of Chile, and other agreements, statutes, and rules and regulations. ESO agrees and accepts that AUI is bound by its by-laws, its Agreements with NSF and the University of Chile, the laws of the United States and Chile, and its own rules and regulations.
- 1.4 AUI cannot and will not seek to make any commitments or enter into any arrangement which binds ESO, and vice versa, except as provided for in this Agreement or unless approved and signed by duly accredited representatives of both AUI and ESO.
- 1.5 Unless explicitly stated otherwise all words and expressions shall have the same meaning in this Agreement as they do in the Bilateral Agreement. However, in this Agreement "ALMA" shall mean the Atacama Large Millimeter/submillimeter Array being constructed by NSF and ESO under the Bilateral Agreement plus the additional contributions made by NINS as set out in the Agreement between ESO, NSF, and NINS.
- 1.6 This Agreement covers the Construction and early Operations phases. It may be amended to cover Operations.
- 1.7 The provisions of this Agreement will be carried out on behalf of AUI and ESO by the Director of NRAO and the Director General of ESO, respectively, working with the ALMA Director (hereinafter referred to collectively as "The Directors").
- 1.8 AUI and ESO agree to invite the JAO and the NAOJ to form an ALMA Directors' Council, composed of the ALMA Director, Director General of ESO, Director NRAO and Director NAOJ, the purpose of which is to identify, discuss and resolve important policy implementation matters in a manner consistent with the general policy set forth by the ALMA Board. In the event that the Directors' Council requires further policy clarification or cannot resolve implementation matters, the Council will refer such unresolved issues to the ALMA Board for guidance.

- 1.9 AUI and ESO agree to join with JAO and NAOJ to establish the ALMA Human Resource Advisory Group. This Group will provide a forum in which the ALMA Executives and the Joint ALMA Observatory can examine and evaluate human resource policy matters affecting ALMA International Staff and Local Staff based in Chile. The Group reports to the ALMA Director's Council.

Article 2: INTERACTIONS WITH THE CHILEAN AUTHORITIES

- 2.1 AUI and ESO agree to work jointly in Chile, each operating under its own legal regime. AUI and ESO agree to make joint approaches with the ALMA Director on all ALMA matters involving the Chilean authorities. The formal points of contact for AUI and ESO shall be the designated AUI and ESO Representatives in Chile.
- 2.2 AUI and ESO shall delegate the ALMA Director the powers necessary to be the primary point of contact in Chile for all issues concerning the Construction and Operation of ALMA with the exception of those that pertain directly to the Executives themselves. The ALMA Director is not, and shall not be, empowered to make commitments on behalf of the Executives.
- 2.3 The Executives shall represent themselves separately or jointly as required to the Chilean authorities on all matters regarding legal issues, which shall include but shall not be limited to:
- the right to conduct operations in Chile, including accreditation of foreign personnel and implementation of their rights and privileges,
 - compliance with laws and regulations pertaining to labour, environment, health, safety, RFI protection, building codes and other similar issues,
 - Courts and all other forums involving dispute resolution,
 - All matters regarding:
 - Radioastronomy Chajnantor Limitada (RCL) including its contracts with Bienes Nacionales and with the Executives
 - the CONICYT agreement
 - the Region II agreement

When the Executives interact with Chilean authorities on these matters, it shall be done in close coordination with the ALMA Director. If the JAO is contacted by authorities regarding any issue that pertains directly to the Executives, the ALMA Director shall immediately notify the Executive(s) who shall, in coordination with the ALMA Director, determine how the matter should be handled.

Article 3: LAND CONCESSION

- 3.1 AUI and ESO are obliged to contribute 5,000 (five thousand) US dollars each to the capitalization of RCL. If RCL is dissolved the net residual capital shall be returned to AUI and ESO in equal proportions. Any costs incurred by RCL in pursuit of its agreed objectives shall be met equally by AUI and ESO.
- 3.2 The Executives agree that the sole purpose of RCL is to act as concessionaire for the land delivered to it for ALMA by the Chilean Government. AUI and ESO will separately pay 50% of the annual concession fee to the Chilean Government under the terms announced in the Concessionary Decree and set out in the Concessionary Contract between the Chilean Government and RCL.
- 3.3 The annual payments by AUI and ESO specified in the agreements with Region II and CONICYT agreements shall be paid separately by AUI and ESO.
- 3.4 AUI and ESO shall continue to work together on all matters concerning the Land Concessions, consulting regularly and making joint approaches to the relevant Chilean authorities. They will ensure that their legal advisors consult each other, will share legal opinions separately obtained, and where practicable present common opinions. AUI and ESO shall bear their own legal costs.
- 3.5 AUI and ESO agree to develop a standard "Site Use Agreement" which must be executed by any other project wishing to use part of the ALMA site and/or its access roads. The basic principles of this document shall be that use of the ALMA site and/or roads shall not impact ALMA activities, that the other projects shall bear all costs associated with their use, and that AUI and ESO shall not assume any liability towards those projects. The ALMA Director will be authorized to execute the standard Site Use Agreement on behalf of AUI and ESO. Deviations from the standard Site Use Agreement required to accommodate a project's special conditions will be jointly considered by AUI and ESO in consultation with the JAO, and shall be subject to separate joint authorization to the ALMA Director prior to execution.

Article 4: NAOJ

- 4.1 AUI and ESO shall jointly negotiate and conclude a Management Agreement with NAOJ, analogous to this Agreement, which covers operational arrangements between AUI, ESO and NAOJ. This Agreement shall take precedence over any Management Agreement with NAOJ.
- 4.2 ESO and AUI may agree to provide goods and services to NAOJ as part of ALMA. It is agreed that such goods and services shall be the subject of separate agreements, contracts, or arrangements between NAOJ and AUI and/or NAOJ and ESO, as appropriate, which shall be subject to the approval of the ALMA Director and acceptance by the ALMA Board. The cost of supplying such goods and services shall be paid to AUI or ESO by NAOJ.

- 4.3 AUI shall provide the local staff required by NAOJ under a separate agreement or agreements between AUI and NAOJ. This agreement shall be developed in consultation with ESO and the JAO.

Article 5: ALMA BOARD

- 5.1 ESO agrees to arrange administrative and secretarial support to the Secretary of the ALMA Board when meetings are held in Europe. When meetings are held in North America, AUI may be requested by NSF to arrange support to the Secretary. The costs of providing such support shall be paid by ESO or AUI respectively. When meetings are held in Chile, AUI and ESO agree to share equally the cost of arranging support through the JAO.
- 5.2 AUI and ESO agree that matters of mutual interest that they put before the Board, including any subsidiary bodies of the Board, shall be developed jointly in consultation with the JAO and wherever reasonably possible will be jointly supported.

Article 6: JOINT ALMA OFFICE and KEY PERSONNEL

- 6.1 AUI and ESO agree that the staffing level of the JAO, including the Key Personnel as defined by the ALMA Board, shall be jointly agreed between them and the ALMA Director, and submitted annually to the Board for approval.
- 6.2 All recruitment to the International JAO staff shall be done jointly by the Executives, but the individual international staff members of the JAO will be employed by either AUI or ESO, as agreed with the individuals concerned. Key Personnel will be recruited in accordance with the Bilateral Agreement through a process jointly proposed by AUI, ESO and the ALMA Director, and approved by the ALMA Board.
- 6.3 All JAO Local Staff will be recruited and employed by AUI in accordance with the Bilateral Agreement and Article 7 of this Agreement.
- 6.4 Existing international staff of AUI or ESO may be assigned to positions within the JAO with the written agreement of the ALMA Director and the other Executive. These assignments will be made under AUI's or ESO's respective standard terms and conditions, but AUI and ESO will consult each other before all appointments are made to ensure that the terms and conditions offered are, in as far as is reasonable and feasible, fair and equitable and do not selectively disadvantage one employer.
- 6.5 AUI and ESO agree that they will fully consult each other through their respective Heads of Personnel or HR before making approaches or formal or informal offers of employment to staff employed by the other.

- 6.6 International staff assigned to the JAO, including but not confined to Key Personnel as defined in the Bilateral Agreement, may, at the written request of the ALMA Director, be offered appointments without remuneration from whichever of AUI or ESO is not their primary employer. The terms and conditions of these appointments will form part of, and will be attached to, the employment contracts of the staff concerned.
- 6.7 AUI and ESO agree that all International Staff members assigned to work in Chile shall be subject to the overall direction of the ALMA Director, who will assign job responsibilities and set objectives and who may delegate these responsibilities to other JAO Staff. Performance appraisals for JAO International Staff, other than Key Personnel, will be done by the JAO in close coordination with NRAO and ESO, utilizing performance measures agreed to in advance by the ALMA Director, AUI and ESO. The format of the appraisals shall be the same as is utilized by their home institution. Decisions regarding compensation, advancement, and discipline shall be made by their home institution.
- 6.8 Performance Appraisals of Key Personnel shall be carried out annually by the ALMA Board (as required by the Bilateral Agreement), according to the processes put in place by the Board. AUI and ESO agree to honour the assessments of the Board and to take such actions as are appropriate according to their respective staff rules and regulations and the employment contracts of the individuals concerned. Decisions regarding compensation, advancement, and discipline shall be made by their home institution.
- 6.9 Where it is necessary and agreed that members of the JAO Key Personnel need to exercise control over commitments and expenditure by AUI and ESO, the implementation authority will be agreed between AUI, ESO, and the ALMA Director, and may be revised from time to time. In so far as is practicable, the implementation will be the same for both AUI and ESO.
- 6.10 **JAO Costs**
- (a) AUI and ESO, together with the ALMA Director, agree that the annual budget for ALMA presented to the Board shall show equal support for the JAO activities.
 - (b) AUI and ESO agree that all costs of maintaining the JAO, after deduction of any contribution from NAOJ or other third party, shall be shared equally between them, with reconciliation taking place on an annual basis after the close of the ALMA Financial Year (31 December). The ALMA Director shall certify the JAO expenses in writing prior to reconciliation, which shall be concluded no later than 31 March of the subsequent year, with any payments made as soon as possible thereafter.
 - (c) AUI will maintain its records in USD and CLP, ESO will maintain its records in EUR and CLP. The mechanism of calculating the

reconciliation payments will be chosen to minimize the impact of exchange rate and currency conversion.

- (d) The annual costs of the JAO will be proposed by the ALMA Director and shall be agreed by AUI and ESO. They may include, but need not be confined to:
- Gross salaries, allowances, benefits etc paid to staff;
 - Office accommodation and maintenance charges if paid to a third party or parties;
 - Purchase and maintenance of standard office and IT equipment;
 - Travel and subsistence of JAO staff while on official duty, calculated according to the normal rules and regulations of AUI and ESO, as appropriate.
 - The acquisition, operation, and maintenance of the Project Management Control System.

These costs shall be reviewed regularly by AUI and ESO in consultation with the ALMA Director.

Article 7: LOCAL STAFF

- 7.1 ESO and NSF have agreed that AUI, as NSF Executive, shall be the sole employer of local staff recruited to work for ALMA in Chile. The arrangements for this shall be reviewed in 2009 and may be revisited from time to time thereafter. Should the terms of the agreement between ESO and NSF change, this Agreement shall be revised accordingly.
- 7.2 These arrangements do not apply to those employees performing Executive functions exclusively for AUI, such as, but not limited to, contracting and procurement, accounting, and legal matters etc.
- 7.3 Nothing in these arrangements is intended to create or infer, and shall not be construed as establishing, any employment relationship whatsoever between Local Staff and ESO.
- 7.4 In accordance with the provisions of the Bilateral Agreement and its Amendment #1, AUI and ESO agree that AUI:
- (a) Affirms that it has the right to hire Local Staff in Chile and that it will comply with all aspects of the Chilean Labor Code to the extent required by its status pursuant to Law 15.172, including any relevant subsequent legislation, and any associated rights, privileges and immunities.
 - (b) Shall, in the context of its legal obligations, comply with all relevant labour laws applicable to the Local Staff, including laws applicable to their employment, health, safety, welfare, and allow them all the legal rights to which they are entitled. This shall include all applicable health, safety laws, rules and regulations or directions, laws governing

the social security, unemployment insurance, old age pension and workmen's compensation and all laws applicable to the Local Staff.

- (c) Is solely responsible for all interactions with the Chilean Government specifically on the issues related to or arising from the Contracts of Employment of Local Staff. AUI shall keep ESO and the ALMA Director informed in due time with respect of all such issues.
 - (d) Shall give all notices, pay all tax, duties and fees and obtain all necessary permits or licenses or approvals which may be required by the nature of the Contracts of Employment in Chile.
 - (e) Establishes employment policies for the Local Staff and makes any changes thereto in consultation and concurrence with ESO and the ALMA Director.
 - (f) Implements the Local Staff Rules and Regulations, including, but not restricted to recruitment and dismissal procedures, selection policy, performance assess, staff advancement, corrective and disciplinary procedures, hours of work and remuneration and dispute resolution procedures. AUI shall consult with ESO and JAO and obtain their concurrence on any proposed substantive deviation from approved policies and procedures.
 - (g) Ensures, in consultation with ESO, that the Local Staff members recruited are appropriately qualified, skilled and experienced in their respective trades and occupations, and are persons of integrity, competent and physically fit to carry out their duties.
 - (h) Provides full-time on-site management and day-to-day supervision of the Local Staff. However, AUI may provide JAO International Staff employed by ESO with explicit written delegation of authority through formal individual powers of attorney to give instructions and directions to the Local Staff, and to inform the Local Staff accordingly.
 - (i) Takes all reasonable precautions to maintain the health and the safety of the Local Staff, working in close cooperation with the JAO and the ALMA Safety Officer.
 - (j) Maintains records and make reports to the ALMA Director concerning health, safety and welfare of the Local Staff.
 - (k) Presents timely and complete accounts of the all costs of employing Local Staff to the ALMA Director and ESO.
- 7.5 Should AUI enter into collective contracts with the Local Staff, AUI shall be the sole party to such contracts, but shall invite ESO and the JAO to participate as observers in the preparatory phase of negotiations with Local Staff, and shall inform ESO and the ALMA Director in advance of the conclusion of such contracts of the nature of the contract and the terms proposed.
- 7.6 The ALMA Director may request AUI in writing, giving full justification, to remove any member of the Local Staff. The decision on such a request is for

AUI alone, and shall be made within the provisions of the Local Staff Regulations and the Chilean Labour Code.

- 7.7 ESO agrees to make its expertise and experience in the employment of Local Staff in Chile available to the AUI and to assist AUI upon request on those matters.
- 7.8 ESO shall refrain from direct interaction with the Local Staff (other than as expressly delegated by AUI to specific ESO employees) on any issues related to its employment and will not interfere with the execution of the AUI responsibilities towards the Local Staff.
- 7.9 Any Agreement between AUI and NAOJ concerning Local Staff shall require the concurrence of ESO and the ALMA Director.
- 7.10 ESO agrees to pay one half of the agreed cost of the employment of Local Staff and any associated administrative costs, less payments from third parties such as NAOJ, within 30 days of the receipt of an invoice presented by AUI.
- 7.11 The cost shall include such costs as are normally incurred by an employer in Chile in connection with the employment of local staff. They shall be reviewed regularly and agreed by the Directors. Invoices shall be presented to ESO on a schedule to be agreed between ESO and AUI. Invoices shall be presented and payments shall be made in the currency in which AUI expends the funds.
- 7.12 Such payments are agreed by the AUI and ESO to constitute remuneration for services provided by AUI and shall not be construed as establishing any employment relationship between Local Staff and ESO.

Article 8: FINANCIAL MATTERS

- 8.1 AUI and ESO shall meet the provisions of Article 10.5 of the Bilateral Agreement according to their own internal systems.
- 8.2 Where cash accounting is required by the Bilateral Agreement or otherwise, AUI shall keep records of costs in US Dollars and ESO shall keep records of costs in Euros. AUI and ESO interpret this as meaning that expenditure which takes place in a different currency, for example Chilean pesos, the conversion to USD or EUR by the Executive incurring the cost shall be determined using the exchange rates obtained at the time of the expenditures.
- 8.3 AUI and ESO shall work with the JAO to make reasonable efforts to share work in a manner which minimises the need for exchanges of funds. In making decisions regarding the division of work, neither AUI nor ESO shall be placed in a situation whereby the proposed assignment of work to achieve balance increases the cost of ALMA.
- 8.4 A draft Budget shall be prepared each year by the JAO using input obtained from AUI and ESO via their Project Managers, and shall be presented by the

ALMA Director to AUI and ESO for their agreement before being submitted to the Board.

- 8.5 AUI and ESO, in consultation with the ALMA Director, will agree with the Board on a common format for reporting Value Earned and/or expenditures to the Board as required the Bilateral Agreement. It is agreed that these reports will be based on Value earned as evaluated by the PMCS, and only exceptionally will report cash expended.
- 8.6 Cost increases which fall, in whole or in part, upon either ESO or AUI as a consequence of actions or failures by the other shall be treated as any other cost increase, and neither AUI nor ESO shall claim compensation other than through the Default mechanisms of the Bilateral Agreement.
- 8.7 The costs incurred in ALMA Construction shall be assigned to AUI or ESO on the basis of the division of work identified in the bilateral Work Breakdown Structure approved by the Board. The costs incurred as a result of ALMA Operations, including early operations activities, shall be divided equally between AUI and ESO after deduction of any costs attributable to NAOJ.
- 8.8 Internally, AUI and ESO will maintain their normal annual financial cycle and audit provisions. The results of normal external audits, in so far as they concern ALMA, will be reported to the Board by AUI and ESO.

Article 9: CONTRACTING

- 9.1 AUI and ESO will adhere to the relevant provisions of the Bilateral Agreement.
- 9.2 AUI or ESO will draw up the necessary Call for Tenders (Request for Proposals) and associated Scheme of Work, Technical Specifications, and Schedule, as necessary. They shall consult the JAO where appropriate through their Project Managers, except that the JAO shall take the lead in the case of the Systems Engineering and Integration and Site. Staff from the JAO may be invited to participate in the assessment and evaluation but the responsibility for selecting the contractor and negotiating the final contract rests with AUI or ESO. All contracts will be placed by AUI or ESO under their respective rules and regulations, supplemented if necessary by special conditions agreed with the JAO.
- 9.3 AUI and ESO are responsible for clearly informing their respective employees, subcontractors, and consultants about the in appropriate disclosure of confidential or commercially sensitive material. AUI and ESO are solely responsible for ensuring that information that is considered to be confidential or commercially sensitive is clearly identified as such before transmitting it outside their respective organizations. Nothing in this section shall prevent AUI or ESO from asking their own employees to sign general non-disclosure agreements.

- 9.4 Where AUI carries out Work for ESO as part of a Work Package assigned to ESO and Valued as such, the relevant IPT Manager and the staff directly responsible from AUI and ESO shall agree to a charge for the Work. This charge should be accepted by the European and North American Project Managers and the ALMA Project Manager, and a compensation mechanism agreed by the them, if necessary in consultation with the ALMA Director. The corresponding provisions shall apply when ESO carries out Work for AUI as part of a Work package assigned to AUI.

Article 10: CONFIDENTIALITY

- 10.1 Any staff employed by AUI and ESO may be required to work with confidential and commercially sensitive material concerning ALMA as part of their duties. Normal non-disclosure and conflict of interest rules shall apply to all such staff independent of the source of the material, and will be enforced by their respective primary employer. Separate individual non-disclosure agreements will not be required of either AUI or ESO staff unless specific requirements mandate such agreements. Persons other than AUI and ESO employees who are required to work with confidential and commercially sensitive material as part of their duties will be required to sign appropriate agreements with AUI and/or ESO.

Article 11: DEFAULT

- 11.1 AUI and ESO will cooperate fully with the ALMA Director in the implementation of the Default provisions of the Bilateral Agreement, by providing all reasonable assistance and information without undue delay.

Article 12: LIABILITY, HEALTH AND SAFETY

- 12.1 AUI and ESO agree to share an "Erection All Risk" insurance coverage for activities conducted at the AOS, and the OSF, including the roads and the right of way. ESO agrees to procure the insurance policy in close consultation, and the concurrence of AUI. ESO shall ensure that "Associated Universities, Inc." and the "National Radio Astronomy Observatory" are cited as named insured or additional named insured on the policy. ESO shall provide AUI's Representative in Chile with a certificate of insurance for each policy period. ESO shall provide AUI's representative in Chile with any notice as to the termination or expiration of the insurance policy.
- 12.2 AUI and ESO will work with the ALMA Director to establish, maintain and abide by a single "ALMA Safety Plan" and a common set of "Site Safety Rules for Chajnantor", under the authority of the ALMA Safety Officer. The ALMA Safety Plan will recognize that the Executives are ultimately responsible for ALMA's health, safety and security matters and shall contain provisions for regularized periodic and timely episodic notifications of such matters.

12.3 Adherence to the provisions of the “ALMA Safety Plan” and the “Site Safety Rules for Chajnantor” shall be a contractual condition of all AUI and ESO staff.

Article 13: AMENDMENTS

13.1 This Agreement may be amended in writing at any time by mutual agreement between AUI and ESO.

Article 14: PRECEDENCE

14.1 This Agreement is subordinate to the following agreements, listed in descending order of precedence and including all amendments thereto: the Bilateral Agreement, the ESO/NSF – NINS Agreement, and the Agreements with the Government of Chile, CONICYT, and Region II.

Article 15: DISPUTES

15.1 Any dispute over the interpretation or implementation of this Agreement shall be referred to the ESO Director General and the NRAO Director for resolution, failing which it shall be presented to the ALMA Board.


Article 16: TERMINATION

16.1 This Agreement shall terminate when


- (a) the Bilateral Agreement is terminated, or
- (b) AUI ceases to be the NSF Executive.

For the Associated Universities Inc. of
the United States:

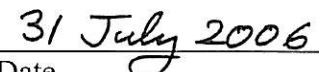
For the European Organisation for
Astronomical Research in the
Southern Hemisphere:



Ethan J. Scheier
President



Catherine Cesarsky
Director General



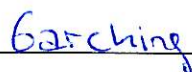
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