

AGREEMENT
between the
CONSIGLIO per le RICERCHE
ASTRONOMICHE
and the
OSSERVATORIO ASTRONOMICO di
PADOVA
and the
ISTITUTO de ASTROFISICA de
CANARIAS

6.12.1964
Consiglio per le R.A.

[Signature]

AGREEMENT
on the installation of the
TELESCOPIO NAZIONALE GALILEO
at the
ROQUE de los MUCHACHOS OBSERVATORY

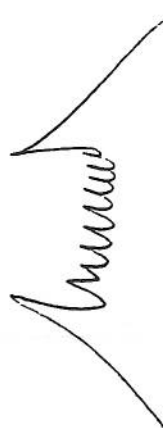
Preamble

In accordance with the Agreement on Cooperation in Astrophysics (from here on Intergovernmental Agreement) and the Protocol on Cooperation in Astrophysical Research (from here on Protocol), signed in Santa Cruz de La Palma (Canary Islands) on 26 May 1979, the Addendum to the Protocol signed in Madrid on 9 April 1983 and the Amendment to the Agreement and to the Protocol signed in Madrid on 18 April 1988, the Consiglio per le Ricerche Astronomiche (CRA) and the Osservatorio Astronomico di Padova (OAP), on behalf of the Italian Astronomical community, and the Instituto de Astrofisica de Canarias (IAC) have concluded an Agreement, the terms and conditions of which are recorded in Articles 1-10 below.

Article 1

In accordance with Article 3 of the Protocol, the OAP is authorized to install at the Observatorio del Roque de los Muchachos, La Palma in the Canary Islands, the 3.5m astronomical telescope GALILEO, described and specified in Appendix A to this Agreement, so that persons authorized by the OAP shall be free to use it under the responsibility of the OAP. The OAP shall use its best endeavours to install GALILEO and make it operational within the times set out in Appendix A. The OAP shall activate, at its own expense, all those measures which are needed to avoid any kind of contamination, either on the surface or under the soil, and shall leave the area surrounding the building in a clean and perfect state on completion of construction and while the telescope is on site.

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Article 2

The IAC shall ensure that the OAP is granted the right to use the site, as set out in Appendix B to this Agreement, for the purpose of constructing GALILEO as described in Appendix A, and shall likewise ensure that the OAP and persons authorized by it shall have the right to use the telescope.

Article 3

The IAC shall provide the site and common services described in Appendix B for the proper operation of GALILEO as described in Appendix A. The existing installations in the Roque de los Muchachos Observatory at the moment of signature of this Agreement fulfill Article 9 (1) of the Intergovernmental Agreement. Therefore all costs of the common services that are required by the OAP over and above those at present existing at the Roque de los Muchachos Observatory shall be borne by the OAP, unless otherwise agreed following negotiations according to Article 9 (2) of the Intergovernmental Agreement.

Article 4

- 4.1. In accordance with the provisions of Article 4 of the Protocol:
 - 4.1.1. The IAC shall have at its disposal 20% of the observing time of the GALILEO telescope and its common user instruments free of charge, except for the normal costs of consumable material required for observations. Observing time is defined as the time remaining after deducting from the natural time that which is required for maintenance of the telescope and the maintenance and commissioning of common user instruments. This time shall be distributed by IAC among Spanish institutions and other collaborating institutions of any nationality.

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- 4.1.2. The OAP shall allocate an additional 5% of the observing time of the GALILEO telescope and its instruments to collaborative programmes between User Institutions (as defined in the Protocol) including the IAC. Each User Institution and, with the agreement of the IAC, any Spanish institution, shall have the right to join in each programme if it so wishes.
- 4.1.3. The periods of maintenance and commissioning, as defined under 4.1.1., normally not to exceed 10% of the yearly telescope time during the first three years and normally not to exceed 5% from then on, shall be communicated to IAC at least two weeks in advance of the relevant meetings of the Time Allocation Committee. If it proved impossible to meet the level of 5% then a new percentage would be negotiated. The IAC will receive detailed information on the scheduled works. Should the maintenance and commissioning works require time in excess of the above mentioned fraction, this will be negotiated with IAC.
- 4.2. The allocation of observing time to Spain and to the collaborative programmes referred to in Article 4.1.2. above shall, where appropriate, be apportioned in an equitable manner throughout the various seasons of the year and phases of the moon. Any dispute shall be referred to the International Scientific Committee (CCI) which shall give a decision on the matter.
- 4.3. Responsibility for the allocation of the remaining time shall lie with the CRA/OAP.
- 4.4. Observing periods allocated in accordance with Articles 4.1.1. and 4.1.2. but not utilized during a given calendar year, may not be carried over to subsequent years.
- 4.5. The arrangements for the collaborative programmes referred to in Article 4.1.2. shall, subject to the provisions of the present Agreement, be governed by the rules laid down by the CCI.

4.2. *Marcos L. A.*

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- 4.6. All persons using any telescope or auxiliary instrument shall observe the rules for its operation, laid down by the OAP, under the supervision of a responsible officer in charge of the telescope or instrument, who shall be designated for this purpose by the OAP.
- 4.7. All persons using the common facilities at the Observatorio del Roque de los Muchachos shall observe the rules established by the IAC and approved by the CCI for use of the common facilities under the supervision of the Director of the IAC or his delegate.

Article 5

- 5.1. The IAC and the CRA/OAP shall arrange joint meetings to review the requirements for the training of Spanish scientific and technical personnel and to encourage cooperative programmes in which Spaniards may participate. These meetings shall be held at the request of either party.
- 5.2. The cooperative programmes mentioned in Article 5.1. shall include programmes to which equal amounts of observing time shall be contributed from the time allocated to CRA/OAP under Article 4.3. and from the time allocated under the responsibility of the IAC under Article 4.1.1.
- 5.3. The CRA shall accept at any one time, through the Italian Observatories and other institutions, up to 2 Spanish astronomers and technicians for training in the development and use of telescopes and auxiliary equipment. The IAC shall arrange for the salaries, travel and living expenses of Spanish personnel undergoing such training.
- 5.4. The CRA shall fund, from its own or other sources, on the recommendation of the IAC, stays by Spanish scientists and technicians in Italy to an extent of up to 24 men-months per year and up to 4 persons at any one time, providing in such cases a sum not less than 2,000,000 Italian Lire monthly (1992 prices). This monthly amount shall be adjusted annually

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according to any changes in the Italian price index. In addition, the CRA shall finance annually from its own or other sources up to 4 round trips between Spain and Italy for Spanish scientists and technicians. These stays will be funded provided that their express aim is that of furthering collaborations and the training of Spanish scientists and technicians in the field of astrophysics. Candidates shall be selected by the IAC with the consent of the CRA.

- 5.5. The CRA shall endeavour to support from its own funds, or other sources, joint Italian-Spanish projects in the field of astrophysics in accordance with the financing agency's rules.
- 5.6. The CRA shall annually organize lectures and seminars at the IAC on astronomical topics in agreement with the IAC. The CRA shall finance, from its own or other sources, the travel and living expenses of the teaching staff members.

Article 6

- 6.1. The OAP shall bear its share of the operating costs of the common services according to Article 5, paragraphs (2) and (3) of the Protocol, which includes the costs of the observing time allocated to the Spanish side, which is free of charge according to Article 4 of this Agreement and the corresponding Articles of the Intergovernmental Agreement and its Protocol. The OAP shall pay to the IAC its share of this expenditure annually on demand.
- 6.2. The OAP shall contribute to the fund set up by the CCI according to Article 5, paragraph (4) of the Protocol an amount not exceeding one twelfth of the estimated annual liability of the OAP under Article 6.1. above, such estimation to refer to the first year of full operation of GALILEO. This contribution shall be paid to the IAC on demand, and shall be repaid to the OAP upon termination of this Agreement.

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6.3. The OAP shall ensure that the IAC shall not be required to meet from its own funds any expenditure which is the responsibility of the OAP.

Article 7

7.1. The OAP shall endeavour to employ Spanish staff for GALILEO whenever possible.

7.2. The staff employed locally by the OAP shall be subject to the relevant Spanish legislation.

Article 8

The consents of the Consejo Rector of the IAC and the CCI to this Agreement are recorded in Appendix C.

Article 9

It is understood that this Agreement continues to hold also in the case that another Italian institution might take over in the future the functions of the CRA and/or OAP. This must be officially communicated to IAC in writing.

Article 10

All disputes arising between the two Parties concerning the interpretation or application of this Agreement, which cannot be resolved by reference to the CCI or otherwise, shall be resolved in accordance with the Rules of Conciliation and Arbitration of the International Chamber of Commerce by one or more arbitrators appointed by it in accordance with its Rules, whose decisions shall be binding on both Parties.

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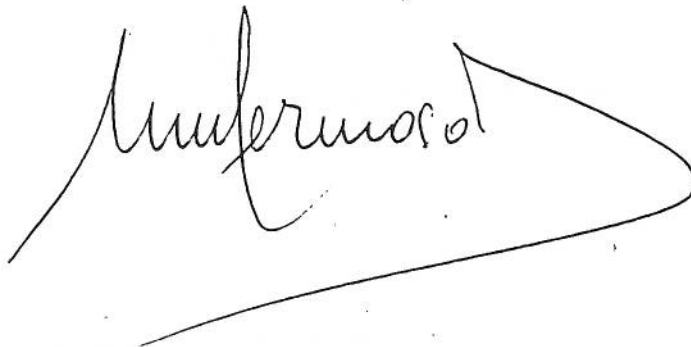
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Article 11

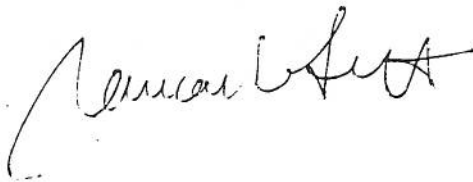
This Agreement shall enter into force on the date on which it is signed by both Parties and has received the consents according to Article 8 above, and shall continue in force during the period in which the Protocol is in force, unless otherwise agreed between the Parties.

Signed in four copies, two in Spanish and two in English, each of them giving the same faith, on 26 June, 1993, at the Roque de los Muchachos Observatory, La Palma.

Signed for the:
Instituto de Astrofísica de Canarias



Consiglio per le Ricerche Astronomiche



Osservatorio Astronomico di Padova



APPENDIX A

1. **The telescope installation proposed by the CRA/OAP.**
 - 1.1. GALILEO will be a Ritchey-Chretien telescope with altazimuth mounting, a primary mirror of 350 cm in diameter, and active optics. Its main instruments are imaging cameras and spectrographs for the visible and the infrared.
 - 1.2. The detailed description of GALILEO, referred to under Article 3 Paragraph 3 of the Protocol, will include specifications on the telescope and its associated instrumentation explaining how to use them. This information will be made available to the IAC as soon as possible and will be updated as often as necessary.
2. **Description of the building for GALILEO.**
 - 2.1. The telescope and its auxiliary instrumentation will be accommodated in a building composed by a rotating dome with an annex wing. The dome shall be covered by a metal skin and the wing shall be coloured, so as to ensure appropriate thermal control.
 - 2.2. The building which will house GALILEO covers 830 square meters of ground, and has a dome whose diameter is 20 meters with the observing floor at a height of 12.25 meters above ground level. This building contains the facilities necessary for scientific observation, as well as for maintenance and operation of the instrument (electronics laboratory, preparation rooms, air conditioning equipment and workshop). It also contains offices, as well as general and technical facilities. Part of the air conditioning system will be placed at a convenient distance from the dome and connected to the wing by buried pipes. The specifications of this building are shown in Annexes A1, A2 and A3 attached to the present Agreement.

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- 2.4. Residencia Accomodation and Canteen Facilities:
2.4.1. During the construction phase, OAP shall require the use of up to two offices. OAP shall require accomodation for up to 5 persons.

3. Damages

It shall be the responsibility of the OAP to repair, without delay, all damage caused by the construction work and the installations carried out by the Italian side.

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APPENDIX B

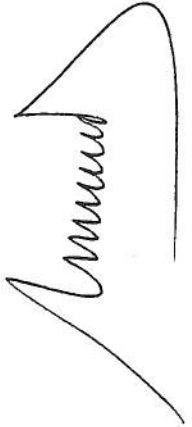
1. **Site and access roads.**

- 1.1. The site for the telescope building together with the necessary access road and other infrastructure, fulfilling all of the established requirements, are shown in drawing B attached to the present Agreement.
- 1.2. The necessary access road and bridge to the building site shall be financed by the OAP.
- 1.3. If, for any technical reason, including the quality of the seeing, the selected site is found to be unacceptable in the course of the first period of the construction, the OAP is entitled to select, in agreement with the IAC, after fulfilling all of the appropriate requirements, another site while the rest of the present Agreement continues to hold.

2. **Common Services.**

- 2.1. **Electrical Power.** The requirements of electrical power for the GALILEO telescope are: installed power 350 KVA and peak power 200 KVA.
- 2.2. **Telephone, Fax and Telex.** The OAP shall provide the telephones, fax machines and modems which it requires at its telescope installation as well as the corresponding lines which shall be connected where the IAC indicates.
- 2.3. **Water Supply.** The maximum daily requirement for drinking water for the GALILEO installation shall be 1 cubic meter. Its cost shall be met by the OAP.

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2.3. A place for a seeing monitor telescope and a meteorologic tower is also required.

3. **Schedule for the installation of the GALILEO telescope.**

It is expected that the schedule will be as follows:

- commence work on site: 1993
- telescope operational: 1995

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cc. Giovanni Seta

APPENDIX C

Consents of the Consejo Rector of the IAC and the International Scientific Committee to this Agreement.

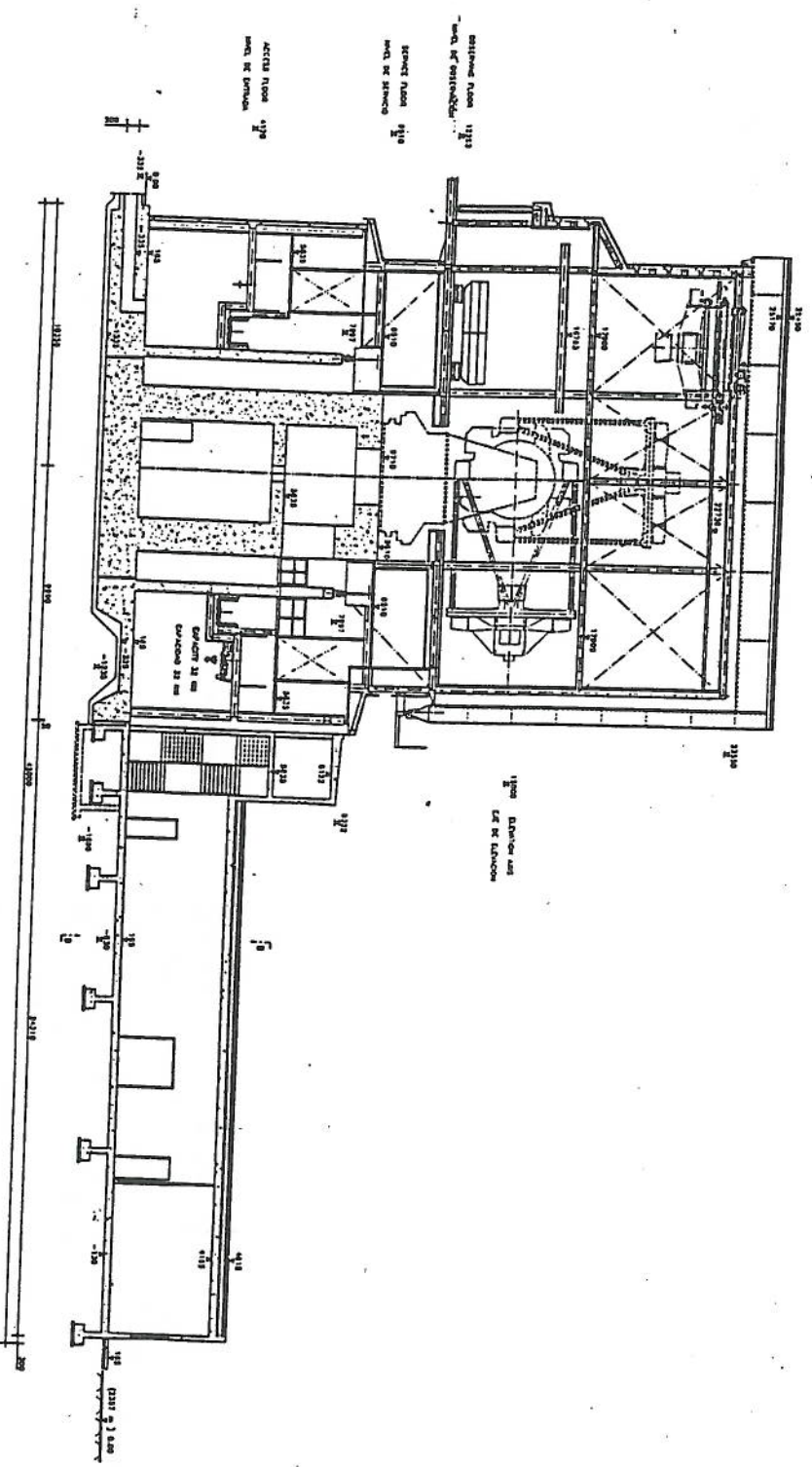
Approved on behalf of the Consejo Rector (with regard to siting of buildings, building plans and protection of the environment):

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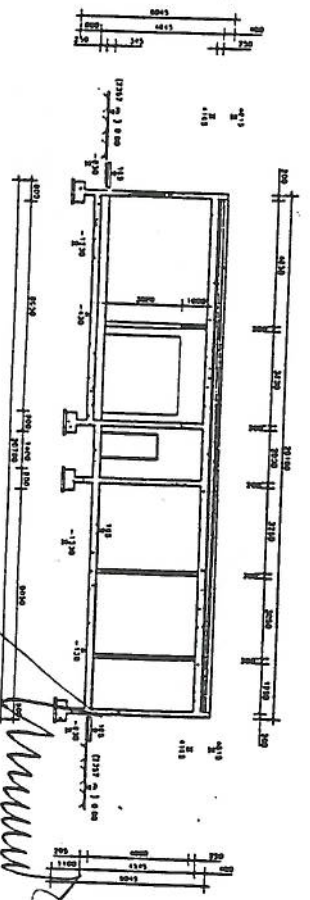
Approved on behalf of the International Scientific Committee (with regard to those aspects which may affect other users):

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke at the end, identical to the one above.

SECTION A-A



SECTION B-B



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