Informal translation of CONAE's call for proposal for use of 10%
https://www.argentina.gob.ar/noticias/anuncio-de-oportunidad-para-proyectos-cientificos-con-la-red-de-estaciones-cltc-conae

# Announcement of Opportunity for Scientific Projects with CLTC-CONAE-NEUQUÉN and ESA DS3 MALARGÜE Station Network

The National Space Agency of Argentina (CONAE) has published the First Opportunity Announcement to present scientific proposals for the use of the CLTC-CONAE-NEUQUÉN and ESA DSA 3 Malargüe deep-space stations. This initiative gives the national scientific community the possibility of utilizing two antennas of 35 meters in diameter and associated equipment for projects in radio astronomy, geophysics, and other applications for the period 2019-2021.

**Background**

Within the framework of the intergovernmental agreement signed between the People's Republic of China and the Argentine Republic, approved by Law 27.123, the subsequent Amendment to the aforementioned agreement signed, and the inter-institutional agreements signed between the National Space Agency of Argentina (CONAE), China Launch and Tracking General Control (CLTC), and the Province of Neuquén, the CLTC-CONAE-NEUQUEN Station was established to support the Chinese lunar exploration program. In the same way, the European Space Agency (ESA) and the government of the Argentine Republic through CONAE signed an agreement in 2009 to establish the station called ESA Deep Space 3 (DSA3) in the town of Malargüe, province of Mendoza to support the European space missions of interplanetary exploration.

**1. Goals and Objectives**

These agreements provide for the use of 10% of the operating time of the antennas for CONAE and its projects in cooperation with national and international partners. The installed technology allows not only monitoring and telecommunication with spacecraft, but also scientific research projects.

To make effective the use of the time available for the scientific and technological benefit, CONAE makes this opportunity available for members of the expert community at the national and international level to present projects in cooperation.

**2. Admissibility**

Only those applications that meet the requirements detailed below will be considered to establish their merit:

a) The researchers of the National System of Science, Technology and Innovation (SNCTI) may apply with existing projects currently financed with public funds, if the goals they expect to achieve with the observation time requested are related to the objectives of their research projects.

b) In accordance with Law No. 26,899 on the Creation of Institutional Digital Repositories for Open Access and Resolution MINCYT No. 753/2016, the project must indicate the repository where the data will be loaded and the estimated date of its release.

c) The project must explicitly include and express the use of the deep space antenna.

d) Researchers based abroad may submit projects, so long as they are associated with a local research group that meets the requirements in the above points.

**3. Project Requirements**

In the analysis, projects that address a challenging scientific and / or technological problem that specifically require the outstanding characteristics of deep-space antennas and that may result in the publication of high-impact works or in technology transfer will be assessed. However, the experimental nature of this first call will be considered for the selection of the number of selected projects.

This being the first call, it will be of a risk-sharing nature (share risk call for proposals), so at this stage that the project is to include a CONAE investigator as co-responsible to minimize possible risks.

The projects submitted must express the estimated observation time required in order to evaluate and distribute time availability according to the possibilities at each moment.

Projects that include the training of personnel (doctoral thesis, master's degree, specialization) and are also associated to CONAE as well as other organizations will be positively valued.

**4. Financing**

The project must have its own source of financing. CONAE will not make any financial contributions.

**5. Presentation**

Proposals must have a maximum of SEVEN (7) pages (one side), written in 12-point Arial typeface, divided into sections as detailed below. Figures, tables and notes are counted within the stipulated maximum of pages for each section. The proposal must address each detail listed below, following the numbering and order of each section.

A. **Cover** (1 page): It must contain the following information (respecting the format):

1. Project Title.
2. Total amount of time requested.
3. Name of the Responsible Investigator (RI).
4. Email and contact phone of RI.
5. Institution (one where the RI has the highest hour load).
6. Address of the Institution.
7. List of collaborators (researchers and fellows) of the project.
8. Type, title and code of the associated R&D project.
9. Summary of the project.

**B. Scientific and / or technological objectives** (maximum 2 one sided pages): Describe the scientific and / or technological problem that will be studied and its importance and justify the need for the use of the far space antenna to study the problem. This section should include a brief discussion of recent work by the RI and its collaborators related to the subject and describe the link between the R&D project and the proposed project.

**C. Observation plan (maximum 3 one sided pages):** Describe the planned observational experiments and the resources already allocated, with sufficient detail to confirm the validity of the estimate of the requested resources.

**D. Data management plan (maximum 1 one sided pages):** Each station can offer immediate storage (details will be established in each case and according to availability). In all cases the IR must provide external disks to copy the data at least 15 days before the observation date. The costs of transporting the disk to and from the station must be covered by the project. In this first call there is no possibility of transferring data over the Internet. CONAE will keep a copy of the data that will be protected in the Teófilo Tabanera Space Center and after the time of exclusivity will be available to the scientific community.

Date of Project Submission: Permanent (CONAE reserves the possibility of modifying this if required).

**6. Detail of Available Equipment**

CLTC-CONAE-NEUQUEN station:

a) Antenna and receivers:
Diameter: 35 meters
Frame: Altazimuth
Receiver Location: Waveguide
Working frequencies (reception): S band: 2.2GHz - 2.3 GHz. X band: 8.4 GHz - 8.5 GHz
HPBW: Band S: 17.4 ’. X Band: 4.2 ’
Aiming accuracy: S band: 6.4 ’. X band: 0.6 ’
Noise temperature of the antenna and receiver: S band: 46 K. X band: 46 K
Polarization: Circular (both polarizations at the same time)
Noise Diode: No

b) Backends:
Number of channels: 8 (4 for each polarization)
Bandwidth of each channel: 1 to 8 MHz (depends on quantization)
Data quantization: 2 to 16 bits
Data format: CCSDS Delta-DOR RDEF

ESA DSA 3 station:

a) Antenna and receivers
Diameter: 35 meters
Frame: Altazimuth
Receiver Location: Waveguide
Working frequencies (reception): X band: 8.4 GHz - 8.5 GHz. Ka band: 31.8 GHz - 32.3 GHz
HPBW: Band X: 4.4 ’. Ka Band: 1.1 ’
Aiming accuracy: Band X: 0.18 ’. Ka band: 0.12 ’
System noise temperature: X band: 18 K. Ka band: 30 K
Polarization: Circular (both polarizations at the same time)
Noise Diode: Yes * (Calibration Radiometer)

b) Backends
Number of channels: 8 (4 for each polarization)
Bandwidth of each channel: 1 to 8 MHz (depends on quantization)
Data quantization: 2 to 16 bits
Data format: CCSDS Delta-DOR RDEF

**7. Project Submission**

All project presentations must be made in PDF format and sent by email to: AO-espacio.profundo@conae.gov.ar. Shipments by postal mail or other channels will not be accepted. If in doubt about the call or about the technical specifications of the equipment, the questions should be addressed to the same address previously mentioned with a copy to atencion.usuario@conae.gov.ar.

The projects will be evaluated by an Evaluation Committee specifically designated by CONAE for this purpose, which will be formed by representatives of the organization and the Argentine scientific community.

**8. Evaluation Criteria**

For the evaluation of the projects and the establishment of the order of merit, the Evaluation Committee will take into account the documentation received and the eligible projects will be those that demonstrate technical consistency and feasibility according to the criteria set out in points 3 and 5 above and according to following maximum score:

**Section / Maximum score**
3
5 B
5 C
5 D
**Total / 100**

**Final Report**

The completed project must finalize with the presentation of a final report, which will be analyzed and approved by the designated evaluation committee.

**Data Policy**

The data will be of exclusive use of the RI of the project and collaborators for 18 months from the date of acquisition. After that time the data will be available for public use.

CONAE will keep all data acquired in accordance with the current data policy. The data will be archived and cataloged.

Any publication derived from the use of the data obtained by any of the stations (CLTC-CONAE-Neuquén and / or DS3) must include the mention of the Station and CONAE as their source.

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