

AGREEMENT FOR SCIENTIFIC COLLABORATION BETWEEN THE GEOPHYSICAL INSTITUTE OF PERU AND THE LEIBNIZ INSTITUTE OF ATMOSPHERIC PHYSICS

This agreement is intended to establish and formalize scientific collaboration between the GEOPHYSICAL INSTITUTE OF PERU, with address Calle Badajoz 169, Urb Mayorazgo, IV etapa, Ate, Province and Department of Lima, duly represented by its Executive President, Dr. RONALD FRANCISCO WOODMAN POLLITT, appointed by Supreme Resolution No. 002-96-ED and ratified by Supreme Resolution No. 013-2011-MINAM, that henceforth will be called IGP, and the other party the Leibniz Institute of Atmospheric Physics, with address Schloss Str. 6, Kuehlungsborn, Germany, duly represented by its Director, Prof. Dr. Franz-Josef Lübken, that in henceforth will be called IAP, under the following terms and conditions:

SECTION 1: BACKGROUND

The IAP and IGP have recently signed a framework agreement to encourage activities of technical and scientific cooperation in the fields of mesospheric and lower thermospheric research, atmospheric radar studies, and radio science. This cooperation may include educational and research activities, as well as providing support services and expert advice for the purposes of both entities.

IAP has been operating for more than 15 years the Ostsee-Wind-Radar (OSWIN) at Kuehlungsborn, Germany that is composed of a phased array antenna consisting of 144 four-element-Yagi antennas grouped in 6 individual subgroups (4x6 antennas) which can be connected to a 6-channel receiving system for atmospheric and ionospheric observations. Every antenna array was connected to a VHF ATRAD transmitter that can deliver about 10 KW of peak power. Recently, this radar system was upgraded and the six transmitters were left free.

IGP has also been operating for about 15 years the SOUSY radar located at the Jicamarca Radio Observatory in Lima, Peru that also operates at a VHF frequency. This system was a donation of the Max Plank Institute for Aeronomy (Germany) to the Peruvian government. This radar is also an array of 64 antenna-Yagis and it is also used for atmospheric and ionospheric observations. The transmitters of this system are quite old (about 30 years), and represent a point of failure for the operation of this radar.

In order to secure the operation of the SOUSY radar, scientists at IAP and IGP have been discussing about the possibility of using the VHF OSWIN transmitters at the SOUSY radar at Jicamarca in order to continue the atmospheric and ionospheric observations performed with this system.

SECTION 2: MAIN OBJECTIVE

The main goal of this agreement is to continue the regular operation of the SOUSY radar (property of IGP) located at Jicamarca in Lima, Peru using the OSWIN transmitters that are property of IAP. For this purpose, the OSWIN transmitters will have to be shipped to Peru and installed in place. Using these transmitters, we will be able to conduct periodic observations with the SOUSY radar for atmospheric and ionospheric research. As part of the SOUSY operations, special IAP campaigns will be conducted to study the lower atmosphere and mesosphere dynamics over Jicamarca and their connection to the ionospheric weather.

SECTION 3: LEGAL FRAMEWORK

- Constitution of Peru, 1993.
- Law No. 28411, General Law on the National Budget.
- Legislative Decree No. 136, Law of the Geophysical Institute of Peru.
- Supreme Decree No. 001-2015-MINAM, Rules of Organization and Functions of the IGP.

SECTION 4: REPRESENTATION

The parties agree that the coordination and implementation of this agreement, will be in charge of:

IGP: Dr. Marco A. Milla, Director of the Jicamarca Radio Observatory,
email: marco.milla@jro.igp.gob.pe

IAP: Prof. Dr. Jorge L. Chau
email: chau@iap-kborn.org

The parties agree that issues not covered by this Agreement that later emerge as necessary will be evaluated and approved by mutual agreement and according to the circumstances of each case.

SECTION 5: COMMITMENT OF PARTIES

The parties assume the following commitments:

- 5.1. IAP will lend to IGP the six OSWIN transmitters on the basis of a temporary importation.
- 5.2. IGP will cover all costs related to bringing the transmitters to Peru (shipping, Customs, handling, etc.). IGP will be in charge of coordinating the customs process.
- 5.3. IGP will be in charge of installing the transmitters at the SOUSY radar with the collaboration and advice of IAP personnel.
- 5.4. IAP and IGP representatives will coordinate a schedule of operations for atmospheric and/or ionospheric observations.

SECTION 6: PROPERTY

Both parties agree that this agreement does not affect or change the patrimonial property of the participants, so that the goods and instrumentation provided by the parties for the implementation of this agreement remain the property of the institution that provides them, except in the case of an explicit donation.

SECTION 7: THE DURATION

The period of performance of this Agreement is five (05) years, starting on the date of signature and will be automatically renewed every year after the end of the five years.

SECTION 8: THE CHANGES

As a result of periodic evaluations conducted during the period of performance of this agreement, the parties may modify or extend the terms of this agreement by signing addendums or amendments that will specify the actions to be coordinated in order to achieve the goals and commitments of the parties.

SECTION 9: RESOLUTION

This Agreement may be terminated by agreement of both parties, or unilaterally by either party. When the resolution is adopted by one of the parties this decision shall be communicated to the other party at least sixty (60) calendar days in advance.

SECTION 10: ADDRESSES AND NOTIFICATION

For purposes arising from this agreement, the parties set as their addresses the ones that appear in the introductory part of this Agreement. In case, one party changes its address, this information must be timely communicated to the other party by a simple letter.

All communications should be exchanged among the parties to the addresses set forth in the introductory section of this agreement.

SECTION 11: DISPUTE

Any discrepancy and/or dispute arising from the interpretation or enforcement of this agreement shall endeavor to resolve by direct treatment of the parties, committing to carry out their best efforts to achieve a harmonious solution in accordance to the spirit that animated the parties to sign the present agreement.

Disputes arising out of this Agreement shall be resolved in the way of conciliation. In the case parties, could not reach to a total or partial solution, the issues will be submitted to an ad hoc arbitration, as regulated by the Peruvian Legislative Decree No. 1071, Legislative Decree that regulates the Arbitration.

Both parties have signed this Agreement in four copies on the 10 day of August of 2016.

Dr. Ronald Woodman Pollitt
Executive President
Geophysical Institute of Peru

Dr. Franz-Josef Lübken
Director
Leibniz Institute of Atmospheric Physics

Prof. Dr. F.-J. Lübken
- Director -
Leibniz-Institute of Atmospheric Physics
Schlossstr. 6, 18225 Kühlungsborn
Germany

JOSE ENRIQUE MACHARÉ ORDÓÑEZ

Presidente Ejecutivo (e)
Instituto Geofísico del Perú
Encargado mediante Resolución
de Presidencia Ejecutiva
N° 160-IGP/2016,
de fecha 20 / 07 / 2016

