

**Memorandum of Understanding
between
Comisión Nacional de Actividades Espaciales (CONAE)
and
Agenzia Spaziale Italiana (ASI)
on the cooperation related to the
“Mario Gulich” Institute for Advanced Space Studies**

PREAMBLE

The Comisión Nacional de Actividades Espaciales of the Argentine Republic (hereinafter referred to as “CONAE”, whose registered Office is located at Paseo Colón 751 Buenos Aires, Argentina, represented by its Executive and Technical Director Mr. Conrado Franco Varotto and

the Agenzia Spaziale Italiana (hereinafter referred to as “ASI”), whose registered Office is located at Viale Liegi 26, 00198 Roma, Italy, represented by its President, Mr. Enrico Saggese,

Hereinafter also jointly referred to as “the Parties”,

RECOGNIZING that Argentina and Italy have cooperated in the field of Space from 1992 with the first Inter-governmental Agreement on the Research and Use of Outer Space for Peaceful Purposes;

CONSIDERING the long standing cooperation between CONAE and ASI which started with the ASI participation to the Argentinean SAC-B (1993), SAC-C (1999) and SAC-D (2006) satellite missions;

CONSIDERING the Memorandum of Understanding between CONAE and ASI for the development of the SIASGE (*Sistema Italo Argentino di Satelliti per la Gestione delle Emergenze*) and associated applications, signed on July 7, 2005 (hereinafter referred to as the 2005 SIASGE MOU), as amended by the First Amendment signed on 30 April 2008 and the Second Amendment signed on 17 November 2010;

RECOGNIZING that the SIASGE project architecture presently foresees the four Italian X band SAR satellites of the COSMO-SkyMed constellation and the two Argentinean L band SAR satellites of the SAOCOM Constellation;

CONSIDERING Article 5 of the 2005 SIASGE MoU, in which the Parties engage themselves in developing and expanding the task and role of the “Mario Gulich” Institute located in Cordoba (Argentina) in order to generate a SIASGE user community in Latin America;

CONSIDERING that, presently, the Gulich Institute is part of the National University of Cordoba in Argentina, established on the basis of an agreement between the National Cordoba University and CONAE, for the purpose of developing projects that make use of Earth Observation data in the fields of natural emergencies and disasters, panoramic epidemiology and satellite engineering research;

CONSIDERING that ASI installed a High Performance Computer at the Gulich Institute in 2000 in order to promote the development of Earth Observation studies and applications;

CONSIDERING the Letter of Intent between CONAE and ASI devoted to implementing actions towards fulfilling Article 5 of the SIASGE Agreement regarding the Gulich Institute, signed in May 2006;

TAKING INTO ACCOUNT the inclusion of an ASI representative in the Academic Council of the Mario Gulich Institute with the Resolution N° 745/2007 of the National University of Córdoba of April 17, 2007;

RECOGNIZING the CONAE and ASI efforts to further develop the Gulich Institute to an Italo-Argentinean Education Institute linked to Italian and Argentinean Universities;

CONSIDERING that ASI created a Task Force with the Letter reference n. 0005974 dated July 14, 2008 to study and propose, together with the Argentine counterpart, actions for the development of a Regional "Mario Gulich" Institute;

CONSIDERING that CONAE created an Argentinean Task Force with the Resolution n. 940/08, dated September 10th, 2008, as counterpart to ASI's Task Force;

DETERMINATED to promote social, educational and economic progress and projects for their communities;

RECOGNIZING the opportunity to offer new Earth Observation capacities to Argentinean, Italian and Latin American countries;

RECOGNIZING the mutual benefits in the development of space education programs and projects, in particular, for the prevention and management of risks and disasters, in the framework of collaboration among Argentinean and Italian Universities, Research Centers and companies involved in space activities;

CONSIDERING that ASI established a Center of Earth Observation data Interpretation, located in the ASI Matera Center of Geodesy, devoted to coordinating and managing projects using Remote Sensing High Resolution Images in order to capitalize the potential capabilities of COSMO-SkyMed and exploit the data fusion with other missions and sensors data;

RECALLING that since 2002 the Italian Ministry of Foreign Affairs has been financing fellowships for Argentinean students to be spent at Italian Universities;

TAKING INTO ACCOUNT all the previous actions and the Joint CONAE/ASI Task Force recommendations,

AGREED AS FOLLOWS:

ARTICLE 1

Purpose

The purpose of this MoU is to define the terms and conditions governing the cooperation between CONAE and ASI in order to jointly support the development of Earth Observation advanced studies and applications through the "Mario Gulich" Institute in Cordoba (Argentina), as an Educational and Training Center of excellence for the Latin America Region.

The Mario Gulich Institute will:

- manage graduate and post-graduate courses open to Argentinean and Italian students;
- carry out joint Argentinean and Italian research projects on:
 - a) Space Applications relevant to Emergency, Early Warning and Response using Earth Observation data, in particular, the SIASGE data;
 - b) satellite and satellite payload engineering research.

CONAE and ASI will promote and facilitate also the participation in the Gulich educational programs of students and professionals from other Latin American countries so that it may be used as an Educational center for professionals of a future Regional Space Agency on whose development the Government of Argentina is currently working.

ARTICLE 2

Gulich Courses and Areas of Research

CONAE and ASI consider the SIASGE data the key tools for the training and research projects at the Gulich Institute as it is today for the Master Course on Space Applications for Early Alert and Response Emergencies (AEARTE Master).

As regards to the SIASGE data utilization, the projects to be carried out in the courses shall pay special attention to the development of applications and advanced products in the following areas:

- Floods;
- Fires;
- Landslides;
- Seismic and volcanic risk;
- Desertification;
- Epidemiology;
- Environmental assessment and monitoring;
- Forest inventory and monitoring;
- Geological mapping;
- Agricultural diagnostics, agricultural indicators, land cover maps and crop inventories;
- Carbon cycle monitoring;
- Urban and functional areas mapping and monitoring;
- Land surface hydrology and water management;
- Coastal zone monitoring and risk support;
- Oceanographic application (oil spill, meteo-marine forecasting).

Other areas can be added upon common agreement between the Parties, in particular with the aim of serving the needs and facing new emergencies as maybe requested by other Latin American Countries of the region.

CONAE and ASI will further collaborate in tailoring and organizing another Master course on advanced Earth Observation satellite payload engineering research.

The leading principle of this course shall be the architecture and design of satellite instruments conceived on the basis of concrete requirements of relevant Earth Observation users.

ARTICLE 3 **Responsibilities of the Parties**

Under the terms of the present MOU and the specific implementing arrangements as referred to in article 5 below, the Parties will use their reasonable efforts to provide as follows:

- a) With respect to the Post graduate courses at the Gulich Institute:
 - ASI will support the regular participation of ASI professionals, as well as Italian Professors and researchers coming from Italian Universities and Research Institutes through specific agreements with Italian Universities and national research centers;
 - CONAE will support regular participation of Argentinean Professors, researchers and professionals coming from Argentinean Universities, Research Institutes and CONAE, through specific agreements with Argentinean Universities and national research centers.

- b) With respect to the students:
 - CONAE will support the regular participation of Argentinean students through specific fellowships programs;
 - ASI will support the regular participation of Italian students, through specific fellowships programs;

CONAE and ASI will promote the participation of students coming from other Latin America countries and shall use their best efforts to get their respective Governments support through specific fellowships for such students.

- c) ASI undertakes to make available for the courses and for the approved research projects the COSMO-SkyMed products, according to the procedures defined in the GULICH Handbook, as per article 5. b) of the Second Amendment to the 2005 SIAGE MOU, signed on 17 November 2010.

- d) ASI will also make available for the above mentioned purposes any other Earth Observation data which it is entitled to use, in particular, will share with CONAE its own experience of remote sensing data interpretation and fusion technologies capitalized at the Matera Geodesy Center.

- e) CONAE undertakes to make available for the approved research projects the SAOCOM products.
CONAE will also make available for the above mentioned purposes any other Earth Observation data which it is entitled to use.

ARTICLE 4

Gulich Institute Coordination Management

A) Present Academic Council

Presently the “Mario Gulich” Institute is part of the National University of Cordoba and has been established by an agreement between the University and CONAE signed in 1997 relevant to the creation of an Institute for Advanced Space Studies.

The Academic Council is in charge of the deliberations relating to the programs of the Gulich Courses, the research policy and the management of the Gulich Institute.

The present Academic Council is composed of the Director of the Gulich Institute and four members. The Director of the Gulich Institute is designated by the Rector of the University of Cordoba, proposed by CONAE; the four members are namely: two members from the University, one from CONAE and one from ASI. One member of the Academic Council also acts as Acting Director.

CONAE and ASI agree to propose that the member of the Academic Council from ASI may act as Acting Director of the Gulich Institute.

The flexibility of the above agreement between the National University of Cordoba and CONAE allows any new organisation of the Mario Gulich Institute including the potential changing of its juridical status to that of an International Institute.

B) CONAE and ASI Joint Steering Committee (JSC)

CONAE and ASI will set up a Joint Steering Committee composed of 2 members for each Party. It is in charge of the implementation of this MOU.

The tasks of the Committee would be those of: receiving and approving the work plan elaborated by the Joint Implementing Team (JIT, as referred to in paragraph C) below) and of transmitting it to the Academic Council.

The work plan will be definitely approved by CONAE and ASI.

In addition, the JSC will give its support to bring the Institute from its actual status towards an International Institute.

C) Joint Implementing Team (JIT)

The Joint Implementing Team is composed of 3 persons for each Party; the JIT will develop and supervise the implementation of the three annual basis work plan to be proposed to the JSC, to be carried out at the Gulich Institute.

ARTICLE 5
Organization of Works

The masters and post graduate courses, as well as the joint research programmes as detailed in the work plan, may be also financed by other public or private funds in addition to those of CONAE and ASI.

The implementation of the work plan and its relevant financing shall be detailed in specific implementing arrangements between the Parties.

CONAE and ASI, if necessary, will avail themselves of external experts to define and develop joint research projects.

ARTICLE 6
Financial Provisions

Under the terms of the present MOU and the specific implementing arrangements as referred to in art. 5 above, CONAE will use its reasonable efforts to bear the following costs:

- infrastructure, logistics and maintenance costs;
- Gulich staff related costs;
- courses management costs (e.g. informatics, equipment , ect);
- students fellowships;
- CONAE personnel and Argentinean experts related costs.

Under the terms of the present MOU and the specific implementing arrangements as referred to in art. 5 above, ASI will use its reasonable efforts to bear the following costs:

- students fellowships;
- Italian University professors and researcher costs;
- ASI personnel costs.

The Italian Ministry of Foreign Affairs may contribute through fellowships for Argentinean students to be spent in Italy.

The Parties undertake to look for additional fellowships from their respective competent Ministries for students coming from other Latin America Region countries.

CONAE and ASI shall coordinate their actions within the Academic Council of the Gulich Institute in order to ensure that the request for resources to support the Institute from external sources, (e.g. under the VII Framework Program of the EU, Erasmus, etc) shall be made solely in agreement with CONAE and ASI and/or with their participation.

ARTICLE 7
Cooperation with Third Parties

The Parties agree to jointly evaluate any proposal concerning the cooperation of the Gulich Institute with third parties (e.g. national or international space organizations, universities,

research organizations and companies), relevant to the activities of the Gulich Institute and the enlargement of the SIASGE user community.

The terms and conditions of any such cooperation shall be spelled out in specific agreements, to be approved by CONAE and ASI and to be signed by the Gulich Institute legal representative, the concerned third party as well as CONAE and ASI, whenever deemed necessary.

ARTICLE 8

Particular Modalities of Companies Involvement in the Gulich Institute

CONAE and ASI agree to promote in the activities of the Gulich Institute, the involvement of Argentinean and Italian companies which wish to offer specialized teaching and training at the Institute, tutorship in Argentina and Italy, fellowships for the Gulich students in Argentina or Italy.

The Parties will evaluate the possibility to define separate agreements with such companies in order to achieve ad hoc objectives and goals, in particular, to promote joint ventures with the Gulich Institute in the space activities, programs and projects, particularly relevant to SIASGE.

ARTICLE 9

Public Information

As long as public information activities (press, communications to symposia and conferences, etc.) relevant to the cooperation activities of the Gulich Institute covered by the present MoU are concerned, each Party is free to undertake public information related to its own responsibilities; it shall however give information on the relevant initiative to the other Party.

Insofar as the participation of the other Party is concerned, the Parties shall consult about their public information activities.

In case of activities jointly carried out under the terms of the present MoU, the Parties will undertake public information activities upon prior agreement.

ARTICLE 10

Intellectual Property Rights

In the specific implementing arrangements relevant to the work plan approval, the Parties will define the regime for the intellectual property rights, in accordance with the relevant articles of the 2005 SIASGE MoU, as Amended, and taking into account:

- the ASI copyright on the COSMO-SkyMed products,
- the CONAE copyright on the SAOCOM products and

- other applicable copyrights relevant to third parties' Earth Observation data to be used in the framework of the joint research projects and courses to be held at the Gulich Institute.

ARTICLE 11

Cross-Waiver of Liability

With regard to the activities and related tasks carried out pursuant to this MOU, each Party waives all claims against the other Party with respect to injury or death of its own employees or with respect to damage of any kind to or loss of its own property caused by the other Party. Each Party agrees to extend this cross-waiver of liability by means of contractual provisions or other appropriate documentation, to its respective related entities (e.g. researchers or professors involved in the activities covered by this MOU) by requiring them to waive all claims against the other Party and its related entities, with regard to the activities under this MOU.

However, this cross waiver is not applicable to:

- intellectual property claims;
- claims made by a natural person, his/her estate, survivors, or subrogee for bodily injury, other impairment of health or death of such natural persons;
- claims for damage caused by gross negligence or willful misconduct.

In case of damage or loss caused by or to common property of the Parties, where the cost of such damage or loss is not recoverable from a third party, such cost is borne equally by the Parties.

ARTICLE 12

Visiting Personnel

Each Party shall assist, as appropriate, as long as entry and residence documentation is concerned, the other Party's nationals who enter, exit, or temporarily reside within its national territory, for the purposes of carrying out the activities covered by this MOU.

Each Party's national who enter and temporarily reside at the other Party's premises shall abide by any applicable rule and regulations, including the Safety and Security Regulations, in force at each specific premises.

ARTICLE 13

Amendments

Upon proposal of the Joint Steering Committee, as referred to in article 4 above, or either of CONAE and ASI, this MOU may be amended upon written agreement of the Parties.

ARTICLE 14
Settlement of Disputes

The Parties undertake to amicably settle any issue concerning the interpretation or implementation of this MOU; any dispute that cannot be settled amicably through the appropriate management level provided for in Article 5 above, will be settled in accordance with article 21 of the 2005 SIASGE MOU.

ARTICLE 15
Entry into Effect and Duration

The present MOU shall entry into force at the date of its signature by both Parties and remain in force for the same period of the remaining in force of the 2005 SIASGE MOU .

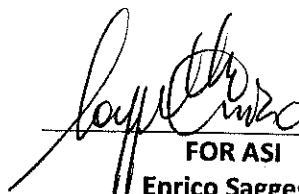
Nevertheless, either Party may withdraw from the present MOU at any time upon at least twelve months prior written notice to the other Party of its intention to withdraw. In that event, the Parties shall endeavor to reach an agreement on the terms and conditions to minimize the negative impact of such withdrawal on the other Party and on the Gulich Institute activities.

Termination of the present MOU shall not affect a Party's continuing obligations under articles 9, 10 and 11 of the present agreement.

Done in Buenos Aires, on this 1st day of April, 2011, in two originals in the English language.



FOR CONAE
Conrado F. Varotto
Executive and Technical
Director



FOR ASI
Enrico Saggese
President