



## **2<sup>nd</sup> United Nations/Argentina International Conference on the Use of Space Technology for Water Management**

### **Conferencia Internacional sobre el Uso de la Tecnología Espacial en la Gestión de los Recursos Hídricos**

**Organized in cooperation with  
European Space Agency (ESA) and Prince Sultan bin Abdulaziz  
International Prize for Water (PSIPW)**

**Hosted by the Comisión Nacional de Actividades Espaciales  
(CONAE) on behalf of the Government of Argentina**

# **Tentative Program**

**(as of 10/03/2011)**

**Dates: 14-18 March 2011**

**Venue: Ministry of Foreign Affairs, International Trade and Worship  
Auditorium “Manuel Belgrano”  
Esmeralda 1212  
C1062ABF Buenos Aires  
Argentina**

## Day 1 – Monday, 14 March 2011

08:30 – 09:00      **Registration**

09:00 – 09:30      **Opening ceremony:**

- *Mr. Félix Menicocci, Secretary General, CONAE, Argentina*
- *TBA, Subsecretaría de Recursos Hídricos, Argentina*
- *TBA, ESA*
- *Dr. M. Tarabzouni, King Abdulaziz City for Science and Technology (KACST), Saudi Arabia*
- *Mr. Takao Doi, Head of the United Nation Programme on Space Applications, United Nations*

09:30 – 10:00      Keynote address: Space Activities and Latin American Cooperation  
*TBA, Argentina*

10:00 – 10:30      **Coffee break**

### **Technical session 1**

#### **Initiatives and strategies for the use of satellite data for water resources management Iniciativas y estrategias para el uso de datos satelitales en el manejo de los recursos hídricos**

- *International and regional initiatives and cooperation*
- *Capacity building*
- *Development of national policies and frameworks*

10:30 – 10:50      **Cartography of Argentina's Watersheds**  
*Dr. Miguel GIRAUT, Office of the Undersecretary for Water Resources, Argentina*

10:50 – 11:10      **UNESCO's Global Network on Water and Development Information for Arid Lands (G-WADI)**  
*Dr. Anil MISHRA, Programme Specialist, International Hydrological Programme (IHP), UNESCO*

11:10 – 11:30      **Developing Policies on the Use of Space Technology in Assessment of Water Resources in Chile and Projection to Joint Regional Projects**  
*Mr. Juan Fernando ACUNA ARENAS, Executive Secretary, Chilean Space Agency, Chile*

11:30 – 11:50      **Legal Framework for Renewable Energy in Argentina: Investment Opportunities**  
*Dr. Francisco Javier GIL VIDAL, Expert, Secretariat for the Environment, Argentina*

11:50 – 12:10      **Building a Bolivian Strategy for the Physical and Territorial Observation from Space Platforms**  
*Mr. Felipe R. SANCHEZ SARAIVA, Director General for Science and Technology, Office of the Vice Minister for Science and Technology, Ministry of Education, Bolivia*

- 12:10 – 12:30      **Geospatial Projects of the Bolivarian Agency for Space Activities**  
*Ms. Marlitt GUILARTE RIOBUENO, Bolivarian Agency for Space Activities (ABAE), Venezuela*
- 12:30 – 14:00      Lunch**
- 14:00 – 14:20      **Participatory Water Management Strategies: Contributions from Brazil's National Water Resources Policy**  
*Dr. Sanderson Alberto MEDEIROS LEITAO, Coordinator for Water Resources, Ministry of Science and Technology, Brazil*
- 14:20 – 14:40      **National Initiatives and International, Regional Cooperation**  
*Ms. Meri HARUTYUNYAN, Chief Specialist, International Cooperation Division, Ministry of Nature Protection, Armenia*
- 14:40 – 15:00      **Uruguay's New Institutional Context Within the Framework of the National Water Policy Law and the Need for Generating Adequate Information for an Integrated Management of its Water Resources**  
*Ms. Silvana Maria ALCOZ, Civil Engineer, DINAGUA, Uruguay*
- 15:00 – 15:20      **Geotechnology Subsidies the Identification of Irregular Land Use in Civil Lawsuits Proposed by Prosecutors General, Claiming Responsibility for Environmental Damages**  
*Ms. Ieda VIEIRA, Technical Director, INCITI Geo-technologies, Brazil*
- 15:20 – 15:50      Coffee break**

## **Technical session 2**

### **Use of satellite-derived information for surface water studies Usos de datos satelitales para el estudio del agua superficial**

- 15:50 – 16:10      **Understanding the Decline of Lake Naivasha Using Satellite-Based Methods**  
*Prof. John Bosco Kyalo KIEMA, University of Nairobi, Kenya*
- 16:10 – 16:30      **TBA**  
*Mr. Daniel PRIETO, Instituto de Clima y Agua, INTA, Argentina*
- 16:30 – 16:50      **Water Safety Plans**  
*Ms. Zulma Elizabeth JIMENEZ RODRIGUEZ, Coordinator, Centro de Tecnologia Apropriada, Catholic University "Nuestra Seiora da la Asuncion", Paraguay*
- 16:50 – 17:10      **Monitoring Shallow Lakes in the Pampas**  
*Prof. Graciela CANZIANI, Universidad Nacional del Centro, Argentina*
- 17:10 – 17:30      **Inventory and Characteristics of Wetlands in the Papaloapan River Basin**  
*Mr. Jorge BRENA, Water Expert, Instituto Mexicano de Tecnología del Agua, Mexico*
- 17:30 – 17:50      **Water Quality in Inland Water Bodies**  
*Dr. Silvia SALA, UNLP, Facultad de Ciencias Naturales y Museo, Argentina*
- 18:30 – 20:00      Icebreaker reception hosted by CONAE**

## Day 2 – Tuesday, 15 March 2010

### Technical session 3

#### Applications of space technologies to management and distribution of water resources Aplicación de tecnología espacial en el manejo y distribución del agua

- *Applications of space technologies that provide cost-effective solutions or essential information for planning and implementing programmes or projects to enhance management, protection and restoration of water resources*
- *Case studies on applications of space technologies for enhancing water resources management in developing countries presented by the participants*

- 09:00 – 09:40      **Role of Advanced Observational and Information Technologies for Addressing Global Water Issues**  
*Prof. Soroosh SOROOSHIAN, Director, Center for Hydrometeorology and Remote Sensing (CHRS), University of California, USA*
- 09:40 – 10:00      **Importance of Using Satellite Data to Predict the Presence of Water Resources in Argentina's Farming Areas**  
*Mr. Pablo MERCURI, Instituto de Clima y Agua, INTA, Argentina*
- 10:00 – 10:20      **Space Inputs for Land and Water Resources Management**  
*Prof. Katarzyna DABROWSKA ZIELINSKA, Head of Remote Sensing Department, Institute of Geodesy and Cartography, Poland*
- 10:20 – 10:50      Coffee break**
- 10:50 – 11:10      **SAR and Optical Satellite Data for Flood Monitoring**  
*Mr. Y. POTIRACHA, Researcher, GISTDA, Thailand*
- 11:10 – 11:30      **DInSAR Use for Irrigation System Management in the Mexicali Valley, Baja California, Mexico**  
*Dr. Ewa GLOWACKA, Researcher, Centro de Investigación Científica y Educación Superior de Ensenada (CICESE), Mexico*
- 11:30 – 11:50      **Water-related Emergency Warning System in Argentina**  
*Mr. Juan BORUS, INA, Argentina*
- 11:50 – 12:10      **Use of Space-related Technologies in Mitigating Water-related Emergencies, Providing Safe Drinking Water and Combating Desertification**  
*Mr. Pierre Philippe JEAN, Director General, National Drinking Water Service (SNEP), Haiti*
- 12:10 – 12:30      **Case Studies on Successful Applications of Space Technologies for Enhancing Water Resources Management in Developing Countries**  
*Prof. Nestor David CABRAL ANTÚNEZ, FIUNA/ FCAUNA/ UCP/ SEAM-DGPCRH, Paraguay*
- 12:30 – 14:00      Lunch**

## Technical Session 4

### Space technology applications to water management in mountain and arid areas El aporte de la tecnología satelital al manejo del agua en zonas de montaña y en zonas áridas

- 14:00 – 14:20      **Hydro-glaciological Simulation of Rimac and Mantaro River Basins**  
*Mr. Wilson SUAREZ, Researcher, Servicio Nacional De Meteorología E Hidrología, Peru*
- 14:20 – 14:40      **Application of Satellite Images to the Argentine Glacier Inventory**  
*Dr. Pedro VILLALBA, IANIGLA, Argentina*
- 14:40 – 15:00      **TBA**  
*Dr. M. Tarabzouni, King Abdulaziz City for Science and Technology (KACST), Saudi Arabia*
- 15:00 – 15:20      **Use of Satellite Data to Study the Watersheds of the Pampean High Plains**  
*Ing. José Vera DIAZ, Universidad Nacional de La Rioja, Argentina*
- 15:20 – 15:50      Coffee break**
- 15:50 – 16:10      **Applications of Space Technology in Assessment, Planning and Management of Water Resources and Combating Desertification in Argentina in Context of Indian Experiences**  
*Prof. Tej Singh CHOUHAN, University of Rajasthan, India*
- 16:10 – 16:30      **Use of Satellite Data to Study the Watersheds in Andean Area**  
*Dr. Graciela SALINAS DE SALMUNI, CONAE, Argentina*
- 16:30 – 16:50      **Optimisation of Water Use Through Smart Irrigation and Precision Viticulture**  
*Mr. Ricardo A. CABEZAS CARTES, Director of the Terra Pacifico Group, Universidad de La Serena, Chile*
- 16:50 – 17:10      **Snow Melting Model in the Argentine Central Andes**  
*Mr. Jorge MILLÓN, Secretaría de Recursos Hídricos, Pcia de San Juan, Argentina*
- 17:10 – 17:30      **Rainwater and Runoff Harvesting and Recharge in Saudi Arabia**  
*Dr. Abdulmalik Al-Alshaikh, Secretary General, Prince Sultan bin Abdulaziz International Prize for Water (PSIPW), Saudi Arabia*

## Day 3 – Wednesday, 16 March 2011

- 09:00 – 18:00      **Field trip to the Delta del Tigre**

## Day 4 – Thursday, 17 March 2011

### Technical Session 5

#### Applications of space technology to managing ground water resources Aplicaciones la tecnología satelital en la búsqueda de agua subterranean

- 09:00 – 09:20      **Monitoring and Control of Ground Water Pumping - A Space-based Solution**  
*Mr. Sanaullah Shah SAYED, Manager, SUPARCO, Pakistan*
- 09:20 – 09:40      **El Acuífero Guaraní**  
*Dr. Raúl RIVAS, Instituto de Investigación de Hidrología de Llanuras , UNC, Argentina*
- 09:40 – 10:00      **Estimation of Groundwater Exploitation Through Satellite Images**  
*Mr. Aissa AGOUNE, Head of water resources department, Ministry of Agriculture, Hydraulic Resources and Fisheries, Tunisia*
- 10:00 – 10:20      **Integration of Remote Sensing, Geophysical and Hydro-geological Data for Determining Good Groundwater Potential Zones - Case Study of Almsaitbee**  
*Mr. Mohamad MELHEM, Head of brunch, General Organization of Remote Sensing (GORS), Syria*
- 10:20 – 10:50      **Coffee break**

### Technical Session 6

#### Use of space-related technologies in addressing water-related emergencies, natural hazards and climate change

#### Uso de tecnología espacial relacionado con cambio climático, riesgos naturales y emergencias hídricas

- 10:50 – 11:10      **TBA**  
*Dr. Gabriel Platzeck, CONAE, Argentina*
- 11:10 – 11:30      **Using Space Technology in Identifying and Predicting Climate Change and Water Management Associated Problems: Case Study of the Lake Chad Basin Region of Africa**  
*Mr. Babagana ABUBAKAR, Vice President, Kanuri Development Association, Nigeria*
- 11:30 – 11:50      **Climate Change, Risk Management and Free Software**  
*Mr. Marcelo CANDO, Geologist, National Secretary for Risk Management (SNGR), Ecuador*
- 11:50 – 12:10      **Hydrological Risks (SAOCOM's Strategic Application Project)**  
*Mr. Marcelo URIBURU, INA/CONAE, Argentina*
- 12:10 – 12:30      **Performance of Different Precipitation Estimations Over South-Eastern Region of South America**  
*Dr. Paola SALIO, Centro de Investigaciones del Mar y la Atmosfera, Ciudad Universitaria, Argentina*

12:30 – 12:50 **External Factors and Economy of Disasters: Investment in Space and Satellite Technology and Knowledge of Vulnerability Indicators**  
*Prof. Marcos ADAMSON BADILLA, University of Costa Rica, Costa Rica*

12:50 – 14:00 **Lunch**

### **Working Groups Meeting**

Two or three Working Groups will be established to prepare observations and recommendations of the Conference as well as to develop proposals for follow up projects

14:00 – 14:30 Introduction to and formation of Working Groups:

- establish two or three Working Groups, identify themes of each group;
- identify group lead and rapporteur for each group, and their responsibilities;
- objectives of the Working Groups are: (i) to discuss issues and concerns in the thematic area; (ii) to discuss potential solutions with using space technologies; (iii) to prepare observations and recommendations of the Conference; and (iv) to develop project ideas for follow up actions.

14:30 – 15:30 Working Groups Meeting

15:30 – 16:00 **Coffee break**

### **Special session: *Prize Day***

16:00 – 18:00 The session is organized by the Prince Sultan bin Abdulaziz International Prize for Water PSIPW as an exclusive event within the framework of the Conference, and with participation of PSIPW representatives, Prize winners and top level government officials from Saudi Arabia.

Speakers:

- **2010 Prize Winner** – *Prof. Soroosh SOROOSHIAN, Director, Center for Hydrometeorology and Remote Sensing (CHRS), University of California, USA* –
- *Dr. Abdulmalek A. AL Al-Shaikh, Secretary General, Prince Sultan bin Abdulaziz International Prize for Water (PSIPW), Saudi Arabia*
- *Dr. Mohammed Ibrahim Al Saud, Deputy Minister for Water Affairs, Ministry of Water and Electricity, Saudi Arabia*

19:30 – 21:00 **Dinner hosted by PSIPW**

## **Day 5 – Friday, 18 March 2011**

### **Working Groups Meeting (Continued)**

09:00 – 10:30 Working Groups Meeting

10:30 – 11:00 **Coffee break**

## Closing session

- 11:00 – 11:30 Presentation of WGs observations, recommendations and follow-up projects ideas
- 11:30 – 12:00 Closing remarks:
- *Representative of CONAE*
  - *Representative of ESA*
  - *Representative of PSIPW*
  - *Representative of UN-OOSA*

### Presentations scheduled for poster session:

- Day 1 **Hydrological and Geomorphological Studies in Non-irrigated Area of Lavalle, Mendoza - Example of Applying Techniques of Digital Image Processing and GIS**  
*Dr. Maria Laura GOMEZ, National Council of Scientific and Technological Research (CONICET), Argentina*
- Day 1 **Hydrological Monitoring Stations Network – Use of Satellites to Monitor Water Resources in Iraq**  
*Mr. Sadiq AL-MALIKI, Senior Engineer, National Center for Water Resources Management, Ministry of Water Resources, Iraq*
- Day 2 **TBA**  
*Prof. Amin MISSALLATI, Al Fateh University, Libya*
- Day 2 **TBA**
- Day 4 **Hydro-geological Geographic Information System of Thailand**  
*Mr. Jittrakorn SUWANLERT, Senior Geologist, and Mr. Boonchai HANMONGKOLPIPAT, Geologist, Department of Groundwater Resources, Thailand*
- Day 4 **Water Resources of Azerbaijan Republic and their Long-Term Use**  
*Dr. Elchin GANBAROV, Director, Scientific and Research Institute of Water Problems, Azerbaijan*