

**Resolution SIRGAS No. 1/2022, November 9th, 2022**

**Concerning to advance on the implementation of the United Nations (UN) General Assembly Resolution on the Global Geodetic Reference Frame (UN-GGRF) for Sustainable Development in the Americas and Caribbean region**

**In consideration of:**

1. Resolution No. 2 of 2007 of the International Union of Geodesy and Geophysics (IUGG) supporting the definition of a Geocentric Terrestrial Reference System (GTRS) in accordance with resolution B1.3 of the IAU (International Astronomical Union) of 2000, which adopts the International Terrestrial Reference System (ITRS) as the GTRS of choice for scientific and technical applications;
2. Resolution No. 1 of 2015 of the International Association of Geodesy (IAG) on the definition and implementation of an International Height Reference System (IHRF);
3. Resolution No. 2 of 2015 of the International Association of Geodesy (IAG) for the establishment of a Global Gravity Reference System based on absolute gravity measurements which is known under the name of International Terrestrial Gravity Reference System (ITGRS);
4. The realization of the ITRS, IHRF and ITGRS reference systems is given by their respective reference frames ITRF (International Terrestrial Reference Frame), IHRF (International Height Reference Frame) and ITGRF (International Terrestrial Gravity Reference Frame);
5. SIRGAS Resolution No. 2 of 2016 on the implementation of the IHRF in the region;
6. The objectives of the IAG Sub-commission 1.3b (Regional Reference Frames South and Central America) are coordinated within SIRGAS by Working Group I (Reference System), which in turn leads the maintenance and proper functioning of the geocentric reference frame in the Americas, managing the continuous GNSS (Global Navigation Satellite Systems) network as the basis of the reference frame for the Americas and the link to the global frame;
7. The objectives of the IAG Sub-commission 2.4b (Gravity and Geoid in South America) are coordinated within SIRGAS by Working Group 3 (Vertical Datum), which coordinates efforts to the establishment of an absolute gravity network and promotes the densification of gravity observations in the region, the development of a regional geoid, and a system for physical heights, in accordance to the IAG 2015 Resolutions No. 1 and No. 2;
8. The limited access to the WGS84 (World Geodetic System) reference frame and its poor geometric compatibility (at the decimeter level) relative to ITRF, the reference frame adopted for the UN-GGRF;
9. GNSS is the most precise and widely applicable technique for the implementation of the UN-GGRF in the countries of the region;
10. The promotion and continuous improvement of the technical capacity of countries in the region in topics related to the modern geometric and physical geodetic reference systems, as well as the use of the SIRGAS infrastructure;

**It has been resolved to:**

1. Promote the application of the UN-GGRF roadmap in the countries of the Americas and the Caribbean region;
2. Support the countries of the region to include GNSS stations in the SIRGAS network, as well as height and gravity stations throughout the Americas with the objective of implementing the UN-GGRF in all member countries;
3. Support and encourage the development of geodetic capabilities within the Americas and the Caribbean for the establishment and maintenance of a high-precision geocentric network as densification of the ITRF, IHRF and ITGRF in the continent and link to the appropriate national geodetic infrastructures of the region, as well as the connection of the national reference frame to the ITRF, IHRF and ITGRF;
4. Promote the development of strategies to build and strengthen national capacities in the geospatial information, sharing good practices, development of legal tools, management of models and technical standards;
5. Promote the open exchange of geodetic data and information that contributes to the regional and global reference frame;
6. Advocate for guidelines and standards to promote interchangeability and interoperability of geodetic data and systems;

**Resolution SIRGAS No. 2/2022, November 9th, 2022**

**Concerning the approval of the SIRGAS Work Plan for 2023**

**In consideration of:**

1. The objectives of SIRGAS and its Working Groups defined in the new bylaws of the Organization; and
2. The SIRGAS Work Plan for 2023 proposed by the SIRGAS Executive Committee;

**It has been resolved to:**

1. Approve the SIRGAS Work Plan for 2023; and
2. Encourage Member States to participate actively in the activities carried out by the SIRGAS Working Groups to collaborate in the realization of the 2023 Work Plan.

**Resolution SIRGAS No. 3/2022, November 9th, 2022**

**Concerning the gratitude to the Pan American Institute of Geography and History and the International Association of Geodesy**

**In consideration of:**

1. The continuous support that SIRGAS obtains from:
  - a. The Pan American Institute of Geography and History (PAIGH);
  - b. The International Association of Geodesy (IAG); and
2. That for expositors participation on SIRGAS 2022 Symposium, the PAIGH and IAG provided the economic resources to support the initiatives;

**It has been resolved to:**

1. To express the warmest and most sincere gratitude of SIRGAS to:
  - President of the PAIGH Patricia Solis;
  - Secretary General of the PAIGH, Antonio Campuzano Rosales;
  - President of the PAIGH Cartography Commission, Max Alberto Lobo Hernández;
  - President of the Geophysics Commission of the PAIGH, Mario Calixto Ruíz Romero;
  - Representative of the PAIGH to SIRGAS, Norbertino Suarez;
  - President of the IAG, Zuheir Altamimi;
  - Secretary General of the IAG, Markku Poutanen; and
  - Representative of the IAG to SIRGAS, Hermann Drewes.

**Resolution SIRGAS No. 4/2022, November 9th, 2022**

**Concerning the acknowledgements to Diego Piñón, SIRGAS vice president from 2019 to 2022**

**In consideration of:**

1. The valuable work carried out by Diego Piñón to SIRGAS, in the social media initiative, the new SIRGAS website, PAIGH Projects and all collaborative activities developed during his vice presidency;

**It has been resolved to:**

1. To express the warmest and most sincere gratitude to Diego Piñón for his time dedication and tireless work carrying out all these activities as SIRGAS vice president.

**Resolution SIRGAS No. 5/2022, November 9th, 2022**

**Concerning the gratitude to the Military Geographic Institute of Chile for the organization of the SIRGAS Symposium 2022 and the Vertical Reference System Workshop**

**In consideration of:**

1. The excellent organization carried out by the Military Geographic Institute of Chile, for the successful realization of the SIRGAS 2022 Symposium and the Vertical Reference System Workshop; and
2. The unconditional availability of the staff of the Military Geographic Institute of Chile to attend all aspects involved in the proper development of the SIRGAS 2022 Symposium and the Vertical Reference System Workshop.

**It has been resolved to:**

1. To express the warmest and most sincere gratitude of SIRGAS to Lautaro Rivas Reveco Director of the IGM-Chile, Lieutenant Colonel Pablo Hidalgo, Sergio Rozas, Claudio Reyes, Ignacio Parada, Luis Troncoso, and Coralí González for their dedication and tireless work in front of the organization and implementation of all aspects related to the realization of the SIRGAS 2022 Symposium.
2. To express the warmest and most sincere gratitude of SIRGAS to Geodetic area of the IGM Chile and specially to Claudio Reyes, for his dedication in front of the organization related to the realization of the Vertical Reference System Workshop and special recognition from SIRGAS to the instructors of the workshop Ing. Hernán Guagni (National Geographic Institute of Argentina) and Dr. Gabriel Guimarães (Federal University of Uberlândia, Brazil), to Dr. Ing. Hermann Drewes and Laura Sanchez (Deutsches Geodätisches Forschungsinstitut - Technische Universität München, Germany which provided the computation tools.

**Resolution SIRGAS No. 6/2022, November 9th, 2022**

**Concerning the officialization of the SIRGAS processing center of the  
National Geographic Institute of Costa Rica**

**In consideration of:**

1. The will which was expressed by the National Geographic Institute of Costa Rica (IGN-CRI) to consolidate a SIRGAS processing center in that entity;
2. The excellent performance shown in the experimental phase of the processing center in terms of timeliness, quality of results and relationship with SIRGAS Working Group I; and
3. The timely and generous collaboration that the staff of the IGN-CR experimental processing center has demonstrated in the face of the SIRGAS needs;

**It has been resolved to:**

1. Officially declare IGN-CR as SIRGAS local processing center; and
2. To extend the most sincere thanks to the authorities of IGN-CR for the support given to the initiative to create the SIRGAS local processing center in the Costa Rica.

**Resolution SIRGAS No. 7/2022, November 9th, 2022**

**Concerning the acknowledgements to the SIRGAS GNSS Data, Analysis and Combination Centers**

**In consideration of:**

1. Article 1 of the SIRGAS bylaws (approved by the SIRGAS Directing Council on November 19, 2020), which describes that one of the main objectives of SIRGAS is "To establish and maintain a continental geocentric frame of reference (network of stations with geocentric coordinates [X, Y, Z] of high precision and their variation over time [Vx, Vy, Vz]), following the recommendations of the International Association of Geodesy";
2. Article 35 of the same SIRGAS Statute, which establishes the main objectives of Working Group I, including the following highlights "a) Coordinate the materialization (realization) and maintenance of the geocentric reference frame; and (b) Coordinating the work of the data and analysis centers of the Working Group";
3. The promotion and continuous improvement of the technical capacity of the countries of the region in matters related to the modern geodetic reference systems, as well as the use of the SIRGAS geodetic infrastructure;
4. The existence of:
  - Eleven national GNSS data centers: CEPGE (Ecuador), IBGE (Brazil), IGAC (Colombia), IGM-Cl (Chile), IGN-PER (Peru), IGN-Ar (Argentina), INEGI (Mexico), SGM-Uy (Uruguay), IGM-Bol (Bolivia), IGN-CRI (Costa Rica), IGN-PAN (Panama);
  - An international GNSS data center: IGS;
  - Ten local processing centers: CEPGE (Ecuador), IBGE (Brazil), IGAC (Colombia), IGM-Cl (Chile), IGN-PER (Peru), IGN-Ar (Argentina), INEGI (Mexico), SGM-Uy (Uruguay) and USC (Chile);
  - IGS regional associated processing center, the IGS RNAAC SIRGAS (DGFI-TUM, Germany);
  - Two combination centers: IBGE (Brazil), IGS RNAAC SIRGAS (DGFI-TUM, Germany); and
  - An Official Center for the Analysis of the Neutral Atmosphere: (CIMA, Argentina);

**It has been resolved to:**

1. To thank the data, processing, combination, and neutral atmosphere centers for the continuity and quality of the results obtained;
2. Encourage SIRGAS centers to maintain the effort made and continue to work in a serious and fraternal manner, as they have done to date; and
3. Recognize that the scientific activities and geodetic products developed by the SIRGAS centers have allowed the countries of the American Continent to access a continental geodetic reference frame, that ensures the materialization of the most recent realization of the international terrestrial reference frame (i.e. ITRF2014).



**Resolution SIRGAS No. 8/2022, November 9th, 2022**

**Concerning the recognition of the Pan American Institute of Geography and History  
for hosting the new SIRGAS website**

**In consideration of:**

1. The unconditional support received from the Pan American Institute of Geography and History (PAIGH) in hosting the new SIRGAS website (<https://sirgas.ipgh.org>);

**It has been resolved to:**

1. To express a well-deserved recognition and gratitude to the PAIGH for providing the necessary support and infrastructure for the operation of the new SIRGAS website.

**Resolution SIRGAS No. 9/2022, November 9th, 2022**

**Concerning the acknowledgements for the Portuguese language version of the SIRGAS website**

**In consideration of:**

1. The valuable work carried out by professors Wagner Carrupt Machado and Gabriel do Nascimento Guimarães of the Federal University of Uberlândia, Minas Gerais, in the translation into Portuguese language of the contents of the SIRGAS website;
2. The kind collaboration of Professor Luiz Paulo Souto Fortes to make the Portuguese language version a reality;

**It has been resolved to:**

1. To express a well-deserved recognition and heartfelt gratitude to Professors Wagner Carrupt Machado and Gabriel do Nascimento Guimarães for carrying out the translation and coordination work for the maintenance of the Portuguese language version of the SIRGAS website;
2. To extend the recognition and gratitude to the Federal University of Uberlândia, Minas Gerais, for the support provided for the development of translation activities; and
3. To extend the recognition and gratitude to Professor Luiz Paulo Souto Fortes for his collaboration with SIRGAS in the process of translation into the Portuguese language.

**Resolution SIRGAS No. 10/2021, November 9th, 2022**

**Concerning the gratitude to the USACH for the collaboration provided in the development of the SIRGAS 2022 webinars**

**In consideration of:**

1. The cycle of technical webinars held by SIRGAS during the year 2022; and
2. That this cycle was carried out using the platforms to host live events and conferences through the Internet of the University of Santiago de Chile (USACH);

**It has been resolved to:**

1. To express SIRGAS' warmest and most sincere thanks to the USACH for its support and collaboration for the development of SIRGAS virtual events.

**SIRGAS Resolution 2022 No. 11 of November 9, 2022  
About the SIRGAS 2024 Symposium**

**In consideration of:**

1. The offer received to hold the SIRGAS 2024 Symposium in the city of Bogotá, Colombia, presented by the representatives of the Agustín Codazzi Geographic Institute - IGAC, Daniela Andrea Hernández Beltrán and Leidy Johanna Moisés Sepúlveda;
2. The vote carried out at the hybrid meeting of SIRGAS Directing Council, from which 13 votes will result in favor of holding the SIRGAS2024 Symposium in the city of Bogotá.

**It has been resolved to:**

1. To instruct the SIRGAS president to officially inform the authorities of the Agustín Codazzi Geographic Institute that the SIRGAS Directing Council has accepted the proposal presented by the representatives of the Institute;
2. Send, along with the communication from the SIRGAS president, the document "About SIRGAS meetings and SIRGAS support for geodetic events in Latin America and the Caribbean", so that it serves as guidance to the Local Organizing Committee in planning and development of the SIRGAS 2024 Symposium;
3. Instruct the SIRGAS Executive Committee to carry out the necessary coordination for the successful development of the SIRGAS 2024 Symposium.