



"GeoSUR develops geographic services on a free-access web platform"

Inside this Issue:

- The interview of the month with Eduardo Freitas, Coordinator of the GEOeduc Institute.
- Alejandra Sánchez of the CNIG (IGN Spain) refers to the training in metadata cooperation for GeoSUR.
- Santiago Borrero, from the coordination of the GeoSUR Program, comments on the objectives of capacity building in 2017.
- Rodrigo Barriga, General Secretary of the PAIGH, highlights the 1st Workshop on the Integrated Map of South America (MIAS), and the 9th GeoSUR Meeting.

The Editor's Note

Inside this issue, the interview with Eduardo Freitas underscores the recent establishment and most notable features of the GEOeduc Institute in Brazil. The permanent columns share, on the one hand, the 2017 goals on SDI capacity building of the GeoSUR Program -that this year celebrates its tenth anniversary-; and on the other, relevant aspects of integration for the Americas discussed in the framework of the 47th Meeting of the Directing Council of the PAIGH, which in 2017 commemorates its 89 years.

GeoSUR newsletter seeks to disseminate GeoSUR Program's achievements and characteristics as well as events, projects and best practices for the application of geographic information into sustainable development and decision making in the region, as part of the Geospatial Data Infrastructure of the Americas. The Portuguese translation is performed by **Eduardo Freitas**, Manager of the GEOeduc Institute of Brazil. Please send your contributions and suggestions to: **Nancy Aguirre**, Editor of GeoSUR Newsletter, at: cnaguire@ipgh.org.



Eduardo Freitas is a Cartographic Engineer, and Course and Research Coordinator of the GEOeduc Institute.

We are experiencing the most expressive technological revolution in history, says Eduardo Freitas, Coordinator of the GEOeduc Institute of Brazil

The novel GEOeduc Institute, linked to MundoGEO, was created as a result of the limited number of quality, flexible and distance-learning courses, that are a reference for both qualification and professional updating of the geospatial community. Eduardo Freitas talks about this initiative:

The GeoEduc Institute is a young initiative. How do you measure your success, what have been the results achieved, and which indicators show these?

To explain the origin of the GEOeduc Institute we must first return to the beginnings of MundoGEO, founded by Emerson Granemann in 1998 in the city of Curitiba, southern region of Brazil.

We are facing a global technological revolution, certainly the most expressive in all human history. The speed of change is ever increasing, which demands continuous updating and

availability of both data and quality tools for decision making. Nowadays, any professional seeking qualification needs most current teaching methodologies as to keep the market's pace.

However, that was not possible a time ago, since options offered by geospatial-solutions and technology courses were incipient, some were based on timeworn teaching methods, and others did not offer practical training or were motivated on commercial objectives.

It was thinking on this limited quality courses -which offered no flexibility or distance learning activities- for the geospatial community, that we decided to create an Institute for professional qualification and updating.

We wanted to create not one more Institute in the market, but one that offered something totally new and different; one that could be a reference for professional qualification in the geospatial sector.



"...with an expressive link to MundoGEO ... When the GEOeduc Institute was founded in April 2014 we were very sure of what we had created; but, since there were so many options, we had to focus on something that could define our singularity. This is how we created an online-course platform with an unprecedented format for the geospatial sector..."

"We wanted to be a reference in professional qualification for the geospatial sector, not only in Brazil but throughout Latin America. That's why we also developed training in Spanish... while we live in times of rapid and intense changes in geospatial markets."

Eduardo Freitas... continues

For some time, MundoGEO invested in face-to-face and online courses aimed both at training its own work team and at studying the market; thus, we noticed that it was important to create an independent company-structure in order to continue our new professional qualification mission for the geospatial sector.

Therefore, we projected a new Institute with its own space, a modern brand, and a team focused on carrying out that challenge and being able to realizing it.

Changes were clear from the beginning as the new company was born strong with an expressive link to MundoGEO, and both full of passion and concern as we glimpsed a sea of possibilities on our front.

With that in mind, we put together a team committed to the Institute's objectives, hired best technology providers, and searched our network for instructors and strategic partners to advancing this venture.

Since the above was not enough and we needed external support, we conducted market studies and asked for the geospatial sector decision-makers advice, which helped us defining what to do to get where we wanted.

When the GEOeduc Institute was founded in April 2014 we were very sure of what we had created; but, since there were so many options, we had to focus on something that could define our singularity.

This is how we created an online-course platform with an unprecedented format for the geospatial sector, which offers schedule-freedom, quality didactic material, voluminous exercises and complementary contents, in addition to supporting students by email, skype,

telephone, social networks and mobile devices. Furthermore, we began conducting on-demand market surveys, which were something not done before for the geospatial sector.

Nonetheless, we perceived that offering courses and surveys was not sufficient. We wanted to be a reference in professional qualification for the geospatial sector, not only in Brazil but throughout Latin America.

That's why we also developed training in Spanish. We knew it will not be easy, but each day we are building strengths for this new phase.

These challenges led us to reflect on our roots -MundoGEO-, a company founded in 1998 by Emerson Granemann, which underwent a similar process.

By way of consolidation first in Brazil and later in the remaining of Latin America, today MundoGEO is considered a global player of technology and geospatial-solutions media and communication whose purpose is connecting professionals of this sector.

"Pressing the accelerator a little deeper" is What GEOeduc Institute is contributing to professional qualification and updating while we live in times of rapid and intense changes in geospatial markets.

We positioned ourselves to helping professionals absorbing better and faster all these innovations for their application in daily life.

We may say that - despite all obstacles to be found in the way - we are prepared and encouraged for challenges. We have market information in hand, and went through a necessary learning process that helped us rising to an excellence-level in the area of 'professional qualification without frontiers'.

Eduardo Freitas...continues

Now we offer Portuguese and Spanish course options on different technologies and geospatial solutions, either for beginners, users, or specialists.

Today, the GEOeduc Institute has more than 3,000 students and alumni, as well as support and discussion groups with hundreds of participants in Facebook and WhatsApp, and an active social networking community and discussion lists.

The educational platform of GeoEduc facilitates participation of students from other countries, how does the participation of these Latin American students progress and which countries are taking advantage of this training option?

The initial idea of the GEOeduc Institute was to offer online courses only to Portuguese-speaking countries, but during first months we noticed a great participation interest by Spanish-speaking students, which encouraged us to creating capacity building in Spanish.

In addition to online courses, we periodically conduct Webinars in Spanish, and most recent ones - on drones and geomarketing - had an average of 300 live participants plus 200 watching replays with attendants from all countries of Latin America, and Spain, among others.

Countries with highest number of participants in the GEOeduc Institute courses and webinars are Argentina, Peru and Colombia. Among the Portuguese-speaking countries, after Brazil, are Portugal, Angola and Mozambique.

Most sought topics are drones, geomarketing, and the environment, but we may also highlight a great interest in Spatial Data Infrastructures

(SDI), Digital Image Processing (DIP), and free software such as QGIS and gvSIG.

MundoGeo and GeoEduc since several years have a cooperative relationship with the GeoSUR Program. What new options for future collaboration may be identified based on the work and growth plans of your organization?

For us it is an honor to be able to cooperate with the GeoSUR Program in different activities in the region.

Together we have organized events, and I personally have acted as translator and reviewer of the Newsletter for some years.

Today, MundoGEO and GEOeduc are evaluating the use of new technologies for their Geotechnology / Drones dissemination activities and for the training of professionals, such as the use of virtual / augmented reality, micro-training, Business generation applications, virtual magazine, etc.

We were pioneers in organizing Geotechnology webinars in Latin America, and since 2009 we have developed more than 550 events with more than 40,000 participants in total; but we know that we cannot stop.

At the same pace that technology progresses, so must the media and professional training. We look forward to continuing cooperating with the GeoSUR Program on these new challenges and achievements for the region.

**

"Today, the GEOeduc Institute has more than 3,000 students and alumni ... The most sought topics are drones, geomarketing, and the environment, but we may also highlight a great interest in Spatial Data Infrastructures (SDI), Digital Image Processing (DIP), and free software such as QGIS and gvSIG."

"We were pioneers in organizing Geotechnology webinars in Latin America, and since 2009 we have developed more than 550 events with more than 40,000 participants in total ... We look forward to continuing cooperating with the GeoSUR Program on these new challenges and achievements for the region."

Specialized Contribution:

CNIG COLLABORATION ON METADATA FOR THE GEOSUR PROJECT

By Alejandra Sanchez-Maganto,
National Geographic Institute (IGN
Spain) National Geographic Information
Center (CNIG)

Search engines are currently the Internet reference to locating any type of resource; within the scope of geographic information a metadata catalog is the web browser that allows learning, accessing and locating descriptions of each available geographic resource, thus bringing geographic information and services produced by organizations to all types of users.

The GeoSUR Program operates and maintains the geographic information network of Latin America and the Caribbean. In the metadata catalog are now published 17,957 metadata files of different organizations.

Last year, the PAIGH signed a contract with the National Geographic Information Center (CNIG) of Spain in the context of cooperation between the Spanish IGN, CAF and PAIGH, with the objective of providing technical assistance and of promoting the overall process of spatial information cataloging in institutions participating in the GeoSUR Program, thus contributing to its optimization and on-line diffusion through the metadata catalog.

The following national organizations responsible for implementing SDI projects in the region have been contacted:

- Panama, National Geographic Institute «Tommy Guardia»
- Ecuador, Military Geographic Institute
- Chile, Military Geographic Institute

- United Mexican States, National Institute of Statistics and Geography
- Colombia, Geographic Institute «Agustin Codazzi»
- Argentina, National Geographic Institute
- Peru, National Geographic Institute
- Uruguay, Military Geographic Service
- Guatemala, National Geographic Institute «Ing. Alfredo Obiols Gomez»
- Dominican Republic, National Geographic Institute «José Joaquín Hungría Morel».

Within the framework of the GeoSUR Program other organizations that need support on matters of metadata may join this initial network of countries.

During a first interaction a questionnaire was sent, aimed at learning the levels of metadata implementation, the standards used, and the editing tools that were handled.

In addition, two metadata records were requested in order to analyze and detect possible errors and non-compliance with metadata regulations.

As a result of this work a technical report was sent to each of the technical contacts including recommendations to consider.



GeoSUR Geoportál Metadata Catalog

“Search engines are currently the Internet reference to locating any type of resource; within the scope of geographic information a metadata catalog is the web browser that allows learning, accessing and locating descriptions of each available geographic resource...”

“...national organizations responsible for implementing SDI projects in the region have been contacted... Within the framework of the GeoSUR Program other organizations that need support on matters of metadata may join this initial network of countries.”

CNIG COLLABORATION IN METADATA... *continues*

During this first contact it was evident that there is a firm institutional commitment in cataloging and the creation of metadata, as well as an outstanding implementation of standard catalogs. Likewise, National Profiles have been developed in some countries as are the cases of Ecuador (Ecuadorian Metadata Profile), Mexico (Technical Standard for the Elaboration of Geographical Metadata), and Argentina (Metadata Profile of IDERA).

The next step implies monitoring the amount of indicated metadata recommendations that are implemented in organizations, besides responding to queries or problems that may arise while metadata are being created.

Furthermore, consistency-tests will be completed to ensuring that metadata produced by participating institutions do comply with technical and regulatory specifications defined within the GeoSUR Program, thus allowing their proper integration into the catalog.

Finally, we are pleased to report that last year in September the ISO 19115-3 standard was published, which contemplates implementation of an XML schema for the ISO 19115-1 metadata standard. Fostered from the region and under the umbrella of the PAIGH, work is being done for adapting the LAMP (Latin American Metadata Profile) to this new standard and scheme, in order to define the LAMP version 2.0.

This new version will require adaptation of metadata to the new profile, for which tools to supporting this will be provided. Technical assistance of the CNIG will also be available for this effort.

A line of work on metadata that requires commitment from official geographic data-producing institutions -and especially from those responsible for cataloging and metadata generation- has begun; so that organizations may comply with current regulations to conveying geographic information to users through the GeoSUR Program's metadata catalog.

“A line of work on metadata that requires commitment from official geographic data-producing institutions - and especially from those responsible for cataloging and metadata generation- has begun; so that organizations may comply with current regulations to conveying geographic information to users through the GeoSUR Program's metadata catalog.”

GeoSUR Program: Basic Figures

Years in Operation	10
Participating Institutions	110
Beneficiary Countries	26
GeoSUR Network Specialists	550
Officials Trained	
(6 Regional Workshops)	314
CAF Officials Trained	130
Virtual Workshops Offered	41
Available Digital Maps	20,000
Available Metadata	17,957
Map Services (WMS)	310
WFS Services	25

Webpage: <http://www.geosur.info>

What is said from the Coordination of GeoSUR?

By Santiago Borrero

GeoSUR and Capacity Building in 2017

Contributing to Capacity Building on spatial data management as part of constructing Spatial Data Infrastructures is of crucial importance to the GeoSUR Program's success; hence, in 2017 we have a set of training activities that we hope will be of interest to associated specialists in the Program's participating institutions and to the community in general.

On one hand, GeoSUR's geoportal will have a new face including new services and a friendlier interface by middle of the year, so that two Webinar sessions will be organized in order to increasing use of the platform:

First, a general explanation of both the platform and particularities of the new tools; and second, a webinar devoted to the renewed Topographic Processing System (TPS) tool.

For non-specialists we will continue developing a series on how to use available databases in the Program's geoportal, and then we will host these both in our portal and in the GeoSUR YouTube Channel at <https://www.youtube.com/channel/UCbFZOLxi-poJTjqa467tc0A>

Concerning metadata, on the other hand, with the invaluable backing of the PAIGH and the CNIG we will continue supporting the Latin American Metadata Profile (LAMP) version 2 developments, for which an international course on Metadata Management and LAMPv2 is planned to take place during second semester.

Simultaneously, also with help of the CNIG, we will continue providing direct advice to participating organizations that are concerned with metadata as to improving quality and compliance with related ISO standards.

The second phase of the near-real-time flood monitoring project to be carried out by the Dartmouth Flood Observatory of the University of Colorado for GeoSUR aims at data and tools updating as of the second half of this year; therefore, a training activity will be scheduled to optimizing available tools in the Program's geoportal.

Finally, I want to remind interested parties in GeoSUR that this year we are **celebrating 10 years** of continuous operations, a milestone in the development of regional spatial data programs in the Americas.

From now, I kindly invite your participation in the 6th GeoSUR Award edition; by this means, we will share shortly both the Call and the application deadline.

**



Santiago Borrero, GeoSUR Program Coordinator

"Contributing to Capacity Building on spatial data management as part of constructing Spatial Data Infrastructures is of crucial importance to the GeoSUR Program's success; hence, in 2017 we have a set of training activities ..."

"...this year we are celebrating 10 years of continuous operations, a milestone in the development of regional spatial data programs in the Americas. From now, I kindly invite your participation in the 6th GeoSUR Award edition..."

From the PAIGH's Secretary General

By Rodrigo Barriga

In this opportunity I want to share results of important events that took place in the context of the 47th Meeting of the Directing Council of the Pan American Institute of Geography and History (PAIGH).

I am referring to the 1st South American Integrated Map Workshop, and the 9th GeoSUR Meeting, which took place in the city of Asuncion, Paraguay, during November 2016.

The 1st South American Integrated Map (MIAS) Workshop was held on November 7-11, 2016. First day of the workshop was attended by the majority of Directors of Geographic Institutes, who -in addition to approving general objectives for this initiative- pledged to continue promoting this project.

17 specialists from 11 Geoinstitutes from South American countries participated in pertinent technical activities; some of them - Bolivia, Brazil, Colombia, Ecuador and Peru- previously participated in the workshops of the North Andean Integrated Map.

Other remaining countries of the region joined: Argentina, Chile, Guyana, Paraguay, Suriname and Uruguay.

Main objective of this project is to produce a digital integrated map of South America including fundamental official data of countries involved following ISO 19100 and OGC standards, throughout development of four workshops in the next two years 2017/2018.

Activities carried out on this occasion were very productive; we made great progress in the first phase of this initiative, which makes it possible to foresee that by 2018 we will have an integrated map that links the

"Integrated Map of Central America", and the "North Andean Integrated Map" with the official cartography of the South American region as to allow having the first "Integrated Map of Latin America".

The Workshop ended on November 11 as part of the 9th GeoSUR Meeting activities; hence, main conclusions and agreements reached regarding the vision of the Integrated Digital Map of Latin America at a scale of 1:250,000 were presented.

In addition to recognizing the motivation and dedication of specialists and managers of South American Geographic Institutes it was highlighted the sponsorship of the GeoSUR Program and CAF-Latin American Development Bank as well as very especially the technical advisory of the National Geographic Information Center (CNIG) of the IGN of Spain in developing the MIAS project.

As for other activities of the 9th GeoSUR Program Meeting, progresses achieved during 2016 and the prospective of this Program for 2017 as well as advancements of the cooperation between the PAIGH and the CAF were also announced.

Among relevant presentations we may underscore the Latin American Metadata Profile LAMPv2. Likewise, the Ecuadorian Military Geographic Institute gave a presentation as winner of the Fifth Edition of GeoSUR Award, 2016 on the initiative "Use of the Spatial Data Infrastructure of the Ecuadorian Military Geographic Institute for prompt response to natural disasters: The case of the 2016 earthquake in Ecuador."



Rodrigo Barriga Vargas, Secretary General of the PAIGH

"The 1st South American Integrated Map (MIAS) Workshop was held on November 7-11, 2016... Main objective of this project is to produce a digital integrated map of South America including fundamental official data of countries involved following ISO 19100 and OGC standards, throughout development of four workshops in the next two years 2017/2018."

"As for other activities of the 9th GeoSUR Program Meeting, the progresses achieved during 2016 and prospective of this Program for 2017 as well as advancements of the cooperation between the PAIGH and the CAF were also announced. Among relevant presentations we may underscore the Latin American Metadata Profile LAMPv2. Likewise, the Ecuadorian Military Geographic Institute gave a presentation as winner of the Fifth Edition of GeoSUR Award, 2016."

From the PAIGH's Secretary General... continues

Regarding the 47th Meeting of the Directing Council that was held on November 8-10, an agreement was reached for adaptation of the Cartography, Geography, History and Geophysics Commissions' work plans to the PAIGH's Pan American Agenda in relation to the UN Agenda 2030 for Sustainable Development; as well as to coordinate these with tasks envisaged in the "PAIGH / SIRGAS / UN-GGIM: Americas / GeoSUR Joint Action Plan to Accelerate the Development of Spatial Data Infrastructure in the Americas," among other topics.

It was also approved that the Cartography Commission continues evaluation of the Latin American Metadata Profile (LAMPV2), for which an ad hoc Working Group was recently created.

The Board also agreed on the need of issuing a Declaration of Recognition and Economic Strengthening for the work of official geographic institutes and cartographic agencies of Member States, highlighting the importance of information they produce for fulfillment of Sustainable Development Goals.

Incorporation of the Geocentric Reference System of the Americas (SIRGAS) into the working group of the Global Geodetic Reference Framework coordinated at the UN GGIM level (Committee of Experts for Global Geospatial Information Management) was also recommended.

The development of a "Catalog of Geographic Objects and Symbols of the PAIGH (COGS-PAIGH)" was also agreed.

Before the end of the meeting, it was decided to complete required activities to optimizing periodical

publications edited by the Institute, as well as to consolidate the respective digital dissemination and publication process by second half of 2017.

The total of resolutions approved at this meeting of the Directing Council may be consulted at the following links:

English:

http://www.ipgh.org/consejo-directivo/47-rcd/resol/47-DCM_Resoluciones-Approved_1-30_ENG.pdf

Spanish:

http://www.ipgh.org/consejo-directivo/47-rcd/resol/47-RCD_Resoluciones-Aprobadas_1-30_ESP.pdf

Finally and with affection, the PAIGH and the Pan American community are pleased to expressing recognition and gratitude to the Member State of Paraguay -especially the Directorate of the Military Geographical Service, headquarters of the National Section of the PAIGH, headed by its Director and under coordination of the Technical Secretariat of the National Section-, and to all members of the local Organizing Committee for the important contribution made to the PAIGH for a successful holding of the 47th Meeting of the Directing Council, other academic and informational meetings of the Pan American community, the 1st Workshop of the MIAS Project, and the 9th GeoSUR Meeting.

**

"The Board also agreed on the need of issuing a Declaration of Recognition and Economic Strengthening for the work of official geographic institutes and cartographic agencies of Member States, highlighting the importance of information they produce for fulfillment of Sustainable Development Goals."

"Incorporation of the Geocentric Reference System of the Americas (SIRGAS) into the working group of the Global Geodetic Reference Framework coordinated at the UN GGIM level (Committee of Experts for Global Geospatial Information Management) was also recommended. Development of a "Catalog of Geographic Objects and Symbols of the PAIGH (COGS-PAIGH)" was also agreed."

CAF - Development Bank of Latin America

investorinformation@caf.com

www.caf.com

PAIGH

secretariageneral@ipgh.org

www.ipgh.org

GeoSUR Program

geosur@caf.com

www.geosur.info

Other events in the region

CAF: CALL FOR RESEARCH PROJECTS ON REGULATORY FRAMEWORK AND PRODUCTIVITY

CAF opens a call for research projects that analyze the impact of regulations and public policies on productivity in Latin America. Proposals should focus on the analysis of specific regulations or policies in the areas of competition promotion, intellectual property protection, innovation, new ventures, and environmental protection, among others.

Proposals should be submitted no later than **March 15, 2017**. A maximum of six projects will be funded in the amount of US \$ 15,000 each, with an additional incentive of up to US \$ 5,000 for proposals that use administrative databases.

Developing countries are characterized by distortions that undermine the proper functioning of markets and limit their productivity growth. Many of these distortions have their origin in existing regulations and failures in the design or implementation of public policies.

Requirements, submission means and more details may be found in the [Call](#).

[Source: [CAF](#)]

"Proposals should focus on the analysis of specific regulations or policies in the areas of competition promotion, intellectual property protection, innovation, new ventures, and environmental protection, among others."

CALL FOR TECHNICAL ASSISTANCE PROJECTS OF THE PAIGH 2018

The General Secretariat of the PAIGH (in its 89th anniversary 1928-2017) and its Commissions are pleased to inform that the Call for Applications to the Pan American Technical Assistance Projects for 2018 is opened. Proposals should be linked to the implementation of the "Pan-American Agenda of the PAIGH 2010-2020". T

The Technical Assistance Program of the PAIGH aims to achieving specialized actions in the fields of Cartography, Geography, History and Geophysics that contribute to regional integration and sustainable development. In 2018 priority will be given mainly to development of initiatives and edition of publications related to the PAIGH's Pan American Agenda and its connection with the United Nations Organization's Sustainable Development Goals, thus prioritizing studies in the areas of Adaptation to Climate Change, Territorial Ordering (Land Use Planning), Natural Risks and Historical Heritage Management. Projects should be submitted well in advance to the respective National Section. Deadline for receiving applications in the General Secretariat of the PAIGH is Monday, **April 17, 2017**.

Please read the complete Call [here](#). Contact: asistencia.tecnica@ipgh.org.

[Source: Rodrigo Barriga, Secretary General of the PAIGH]



Call for Pan American Technical Assistance Projects (PAT-2018) - "Agenda of the PAIGH 2010-2020"