

# 2023 Annual Report

THE PAN AMERICAN INSTITUTE OF GEOGRAPHY AND HISTORY U.S. NATIONAL SECTION

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## **Glossary of Acronyms**

**AAG** American Association of Geographers

**AmeriGEO** Earth Observations for the Americas

**CAF** Latin American Bank

**CARICOM** Caribbean Community

**CARIGEO** Caribbean Geospatial Development Initiative

**CLAG** Conference of Latin American Geography

**CNIG** Spanish National Center for Geographic Information

**CORDEX** Coordinated Regional Climate Downscaling Experiment

**GeoSUR** Geospatial Information for Latin America and the Caribbean

**GEWEX** Global Energy and Water Cycle Exchanges

**GWF** Geospatial World Forum

**HLG-IGIF** High-Level Group of the Integrated Geospatial Information Framework

ICA International Cartographic Association

**INEGI** National Institute of Statistics and Geography in Mexico

NOAA National Oceanic and Atmospheric Administration

OAS Organization of American States

**OES** Organization of Eastern Caribbean States

**PAIGH** Pan American Institute of Geography and History

PAT Technical Assistance Program

**PGW** Pseudo Global Warming

**SDGs** Sustainable Development Goals

**SDI** Spatial Data Infrastructure

**SHAFR** Society for Historians of American Foreign Relations

**UN-ECLAC** United Nations Economic Commission for Latin America and the Caribbean

**UNGEGN** United Nations Group of Experts on Geographical Names

**UN-GGIM** The United Nations Committee of Experts on Global Geospatial Information

Management

**UN-GGIM: Americas** Regional Committee of the United Nations Global Geospatial Information

Management for the Americas

**UN-IGIF** United Nations Integrated Geospatial Information Framework

**USGS** United States Geological Survey

**USNS** United States National Section

## Introduction

The United States National Section (USNS) of the Pan American Institute of Geography and History (PAIGH) is pleased to submit this report of USNS activities for the period of October 1, 2022, through September 30, 2023. Included are significant activities, summaries of meetings, and reports from the USNS Geography, Cartography, Geophysics, and History Commission representatives, and the USNS roster.

## Highlights of 2023 Activities

- PAIGH President and USNS member Dr. Patricia Solís' portrait was added to the PAIGH Wall of Presidents. Patricia and USNS member Jean Parcher Wintemute had their portraits included on the newly inaugurated Wall of Female Authorities of PAIGH.
- PAIGH Secretary General Antonio Campuzano traveled to Washington, DC to visit the Organization of American States (OAS), the Inter-American Defense Board, and to meet with Patricia, USNS President Deirdre Bishop, and the U.S. State Department.
- During the 23<sup>rd</sup> General Assembly of PAIGH in October 2022, Deirdre presented a resolution for PAIGH to commit support of the United Nations Integrated Geospatial Information Framework (UN-IGIF), which was unanimously approved by the General Assembly.
- The Geospatial World Forum (GWF) awarded Deirdre with the 2023 Geospatial Ambassador of the Year award for her outstanding contributions to the geospatial community.
- The USNS invited Canada to participate in USNS monthly meetings to encourage and support Canada rejoining PAIGH.
- Jean, as well as USNS members Dan Winester, Bruce Presgrave, and Glenn Guempel have retired from USNS activities. The USNS would like to thank Jean, Dan, and Bruce for over 20 years of service to the organization and would like to thank Glenn for serving as PAIGH Liaison Officer to the United Nations Group of Experts on Geographical Names (UNGEGN).

## **USNS** Leadership and Participation

## Deirdre Bishop, USNS President



The USNS commends PAIGH on achieving ninety-five years of service promoting cartographic, geographic, historic, and geophysical studies and endeavors. The USNS is honored to be a part of this very special organization and to lead members of the U.S. in collaborating with other PAIGH members on research, technical assistance projects, and publications in support of this work. We look forward to the continued success of PAIGH and the cooperation between the Institute, the USNS, and other international organizations in promoting and advancing these areas of science in the Americas and beyond.

USNS members have a strong presence in many facets of the national and international community, especially as it relates to geography and geospatial activities. A few highlights of 2023 USNS activities follow:

- USNS representatives affiliated with the Cartography Commission completed the generalization of the U.S. Geological Survey (USGS) National Map to 1:100,000 and are integrating it with both Mexico's and Canada's data, progressing the state of the North American portion of the Integrated Map of the Americas.
- Related to the Geography Commission, USNS members participated in several conferences and organizations, published papers, and continued to conduct research pertaining to the Pan America region, including conducting workshops and providing maps for indigenous people in the Amazon borderlands of Peru and Brazil.
- Geophysics Commission activities of the USNS this year focused on reporting on the Organization of the Sixth Convective-Permitting Climate Modeling Workshop in the Global Energy and Water Cycle Exchanges (GEWEX) quarterly newsletter published in October 2022.
- USNS members involved with the History Commission attended an event at the OAS in Washington, DC in June 2023 along with Secretary General Campuzano and Patricia. They published numerous works during the year and met in August 2023 to discuss new ideas for supporting the USNS of PAIGH.

Overall, the USNS continues to thrive through the support and dedication of members representing the U.S. cartography, geography, geophysics, and history communities. This year we honor Jean, Dan, Bruce, and Glenn, who are moving on from the USNS to focus on post-career personal priorities. We also welcomed new members to the USNS and enjoyed having a role in re-introducing representatives from Canada to PAIGH.



The GWF is a collaborative and interactive platform that demonstrates the collective and shared vision of the global geospatial community. This year, the GWF awarded Deirdre Bishop the **2023 Geospatial Ambassador of the Year** award for her outstanding contributions to the geospatial community. The USNS congratulates Deirdre on this incredible accomplishment.

Fig. 1. Deirdre Bishop with the 2023 Geospatial Ambassador of the Year Award, GWF, Amsterdam, Netherlands.

## **USNS Leadership Update**

This year, Lynda Liptrap accepted a promotion to an Assistant Division Chief position within the Geography Division of the U.S. Census Bureau. Congratulations Lynda! As a result, Paul Riley will now serve as the USNS Executive Secretary.

The USNS thanks Lynda for her years of service as Executive Secretary and wishes her the best in her new position.

### **Presidents Corner**

As in past years, one or more USNS members are serving in leadership positions within PAIGH. Patricia is currently serving as President of the PAIGH for the 2022-2025 term.

#### **USNS Leadership**

#### **Deirdre Dalpiaz Bishop**

**USNS** President

U.S. Census Bureau Geography Division Chief

#### **Paul Riley**

USNS Executive Secretary
U.S. Census Bureau Geospatial Advisor

#### Julianna Aynes-Neville

Development Counselor US Mission to the OAS US Department of State



On February 7, 2023, PAIGH members gathered at the Palacio Sede in Mexico City, Mexico to commemorate 95 years of collaboration and progress. During this meeting a historic new wall was inaugurated, titled "Wall of Female Authorities of PAIGH." During the inauguration ceremony, Patricia's portrait was added to the Wall of Presidents. Patricia and Jean also had their portraits included on the Wall of Female Authorities of PAIGH. The USNS is proud to have two of our members represented on the Wall.

Fig. 2. Dr. Patricia Solís and Secretary General Antonio Campuzano at the Wall of Presidents, Mexico City, Mexico.

During the 99th Meeting of Authorities, which was held July 4-6, 2023, in Guatemala, Patricia received, on behalf of the U.S., a proclamation of congratulations from PAIGH recognizing the U.S. for 247 years of independence.

#### Dr. Patricia Solís, PAIGH President



"It's an honor for me to represent my country as President of PAIGH, and an even greater honor to know that I am the first woman in the history of the organization to do so. I am grateful to the USNS and its leadership for their encouragement and support to serve in this capacity."

# PAIGH Liaison Officer to the United Nations Group of Experts on Geographical Names

The USNS continues to support the PAIGH organization by having a USNS representative serve as the PAIGH Liaison Officer to the UNGEGN. The Liaison Officer reports the toponymy-related activities of PAIGH to UNGEGN while also reporting to PAIGH on the UNGEGN's recommendations, decisions, and activities.

This year marked a transition of this responsibility from Glenn to Sergio Rodriguez. Sergio currently works for the USGS National Geospatial Program. He is recognized as an expert on the subject matter.

The USNS and PAIGH thank Glenn for his dedication and service as the PAIGH Liaison Officer and wish him the best in his retirement.

### USNS Participation in PAIGH Events and Regional Collaborations

## 23<sup>rd</sup> General Assembly of PAIGH, Quito Ecuador – October 25-28, 2022

Deirdre, Lynda, and Christine Heifferon from the U.S. State Department attended the 23<sup>rd</sup> General Assembly of PAIGH in Quito, Ecuador from October 25-28, 2022. The meeting was historic and memorable with the first woman President, and a member of the USNS, Patricia, and Vice President Pahola Mendez presiding over the meeting. This was the first in-person General Assembly since 2018, due to civil unrest in Chile in 2019 and the COVID-19 pandemic in 2020 and 2021.



Fig. 3. Deirdre Bishop with PAIGH Executives at the 23<sup>rd</sup> General Assembly, Quito, Ecuador.

During the General Assembly, Deirdre voted on behalf of the U.S. on scientific, financial, and administrative functions and topics of the organization. Among the 21 member countries, Deirdre was elected to serve as President of the Scientific Committee for the General Assembly meeting. In this position, she led discussions about the launch of a new geospatial data platform for the Americas, upcoming technical meetings of the four scientific commissions (Geography, Cartography, Geophysics, and History), and the USNS Annual Report of Activities.

In recognition of her role as Co-Chair of the High-level Group of the United Nations Integrated Geospatial Information Framework (HLG-IGIF), Deirdre was invited to present on the importance and relevance of the UN-IGIF during the Scientific Policy Committee meeting. Working with colleagues from Argentina and Costa Rica, she drafted and proposed a new resolution, whereby the PAIGH would commit support of the UN-IGIF as it is implemented in the Americas and around the globe, which was unanimously approved by the General Assembly delegates.



Fig. 4. Deirdre Bishop presenting on the UN-IGIF at the 23<sup>rd</sup> General Assembly, Quito, Ecuador.

#### **2022 Statutory Meetings**

Patricia attended the 98<sup>th</sup> Meeting of Authorities in October 2022 in Quito, Ecuador, and the 99<sup>th</sup> Meeting of Authorities held July 3-7, 2023, in Guatemala City, Guatemala.

### 24th General Assembly of PAIGH

The 24th General Assembly of PAIGH is scheduled to occur in person in Santo Domingo, Dominican Republic November 1-3, 2023.

The 2023 Technical Commission meetings are scheduled to occur prior to the start of the 24<sup>th</sup> General Assembly, on October 30-31, 2023, in Santo Domingo, Dominican Republic.

## **PAIGH USNS Annual Meeting and Monthly Teleconference Meetings**

The 2023 PAIGH USNS Annual Meeting was held virtually on March 31, 2023, and was coordinated by the U.S. Census Bureau.

The meeting began with remarks from Secretary General Campuzano, who summarized PAIGH achievements from February-December 2022, based on the six guiding principles he introduced last year:

- To promote scientific research in the fields of cartography, geography, history, geophysics, and related sciences, the Technical Assistance Program (PAT) process was analyzed and there was a published call for project proposals. Out of 25 proposals submitted to the 2022 PAT, 17 were approved during the 23<sup>rd</sup> General Assembly. The number of scholarships for online courses also increased during the 2022 cycle, with 58 scholarships being distributed among the four commissions.
- To disseminate scientific studies in cartography, geography, history, geophysics, and related sciences of interest to the American continent, the PAIGH, working with the Spanish National Center for Geographic Information (CNIG), organized and financed a workshop on Geographic Names and Geospatial Information, which was held in Suwon, Republic of Korea in November 2022. The Geospatial Information for Latin America and the Caribbean (GeoSUR) platform was consolidated into the Americas Spatial Data Infrastructure (SDI) platform in collaboration with the United Nations Economic Commission for Latin America and the Caribbean (UN-ECLAC) and United Nations Global Geospatial Information Management for the Americas (UN-GGIM: Americas) and was implemented in November 2022.
- **To keep finances healthy,** the Secretary General practiced austerity and responsible planning to reduce operational costs by tens of thousands despite return to in-person operations.
- To strengthen the global presence of the PAIGH, the Secretary General traveled to Washington, DC to visit the Organization of American State (OAS), the Inter-American Defense Board, and to meet with USNS members and the U.S. State Department.
- To strengthen its relations with the host country of the institute, the General Secretariat conducted meetings with institutions of Mexico, including the National Defense of Mexico, the National Section of Mexico, and the Secretariat of Foreign Relations.
- To ensure the good state of conservation of all human, material, infrastructure, movable, and immovable resources, the PAIGH added new staff, updated the Palace Headquarters with fiber optic cables, and carried out work to recover the documentary and bibliographical heritage to integrate into the Historical Archive of PAIGH.

The USNS thanked Secretary General Campuzano for his service and leadership and for all he accomplished this year.

Julia Lopez then summarized the accomplishments of the PAIGH 95<sup>th</sup> Anniversary event that took place at the Palacio Sede in Mexico City, Mexico on February 7, 2023:

• The Wall of Presidents was updated with Patricia' photo, and a new wall was inaugurated titled "Wall of Female Authorities of PAIGH." Two women from the USNS, Patricia and Jean were included on the wall.

- The commemorative 95<sup>th</sup> Anniversary plaque was revealed.
- The historical archive "Eng. Pedro Celestino Sánchez" was opened, preserving historical documentation of the Pan American community.

Deirdre congratulated Patricia for her recognition on the Wall of Presidents and the Wall of Female Authorities of PAIGH and congratulated and thanked Secretary General Campuzano for his recognition of women in the PAIGH.

Deirdre also read a letter from former USNS member Paul Cooper, who noted how integral PAIGH has been in uniting North and South America to observe and analyze physical, human, and environmental geography, and in preserving and chronicling the rich history of the Americas.

Lynda recognized Dan for 25 years of participation in the USNS, Bruce for his long service and dedication to PAIGH and the USNS, and Glenn for his service as PAIGH liaison to the UNGEGN.

Norberto Garcia, PAIGH Secretariat lead of the PAT, provided an update on the upcoming 2023-2024 PAT cycle (formerly referred to as the 2023 cycle). New guidelines were established for the disbursement of funds, and procedures were modified to encourage more active participation from the National Sections for future PAT cycles.



Fig. 5. Screenshot of the virtual 2023 USNS Annual Meeting.

#### 2023 and 2024 PAT

Members of the USNS submitted a project proposal for a "Geodetic Train the Trainer" workshop. This workshop will be led by Shachak Pe'eri, Affiliate Assistant Research Professor at the University of New

Hampshire and Chief of the National Oceanic and Atmospheric Administration (NOAA) Coast Survey Development Laboratory. He will be assisted by Erika Little, Program Analyst at NOAA.

The purpose of the 3-day workshop will be to provide:

- A general overview on the roles that Global Navigation Satellite Systems plays in positioning.
- Navigation and timing applications and Global Navigation Satellite Systems operations related to Geodetic Control/Infrastructure.
- Global Navigation Satellite Systems theory, including the need for antenna calibration.
- Available tools and services for land surveying.

The USNS of PAIGH provided a letter of support for a number of 2024 Technical Assistance Program projects. A sample of those projects include:

- "SIRGAS 2024: Geodetic Reference Framework for the Sustainable Development of the Americas" led by Argentina.
- "Inventory Mapping of Archaeological Sites in the Caribbean Basin," "Floods in Higüey,
  Dominican Republic: An analysis of extreme hydrometeorological events in the last decade,"
  Geopotential Calculations for Updating the Modelo Geoidal in the Dominican Republic," and
  "Statistical Model of Probability of Cyclonic Impact," all led by the Dominican Republic.
- "Energy, Poverty, and Heat Island Effect in the U.S.- Mexico Border Zone" led by Mexico and the U.S.
- "Dynamics of migration and artisanal mining: Origin community insights on networks, livelihoods, and rural development" led by Peru and the U.S.
- Ethics in the Use of Geographic Data" led by Uruguay and the Academic Network of the UN-GGIM: Americas.

### **United Nations Committee of Experts on Global Geospatial Information Management**

The 13<sup>th</sup> Session of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) convened August 2-4, 2023, at the United Nations in New York, NY. Associated side events occurred July 31-August 1, 2023. Deirdre Bishop served as Head of U. S. Delegation, by appointment of the Chief Statistician of the U.S. and confirmation by the Director of the United Nations Statistics Division. The U.S. Delegation included representatives from various federal agencies, including the Department of Commerce, Department of Defense, Department of Interior, National Aeronautics and Space Administration, and the Department of State.

The meeting included approximately 350 representatives from 79 Member States and 135 representatives from Observer Organizations (e.g., the Group on Earth Observations, Open Geospatial Consortium, and International Cartographic Association). 19 topics were covered by the Committee, listed in the Organization of Work (https://ggim.un.org/meetings/GGIM-

<u>committee/13th-Session/documents/E C20 2023 3 e.pdf</u>), and there were 28 formal side events held during the week.

During the meeting, Deirdre led the U.S. Delegation through a series of formal meetings and side events focused on:

- The management of global geospatial information including the UN-IGIF.
- Collaboration between UN-GGIM
   Member States, Regional Committees,
   and Thematic Networks (i.e., Geospatial
   Societies, Academic Network, Private
   Sector Network, and UN Geospatial
   Network).
- The integration of geospatial, statistical, and other related information, such as earth observations.
- The use of geospatial information for sustainable development and climate resilience.
- Marine geospatial information.
- Geodesy and a global geodetic reference frame.
- Implementation and adoption of standards.
- Collaboration with the UNGEGN.



Fig. 6. The U.S. Delegation to the 13<sup>th</sup> Session of the UN-GGIM, United Nations Headquarters, New York, USA.

PAIGH Secretary General Antonio Campuzano Rosales was in attendance and provided an intervention on behalf of PAIGH during discussions on UN-IGIF in which he committed to continue aligning objectives and activities of PAIGH with those of the UN-IGIF.

## Regional Committee of the United Nations Global Geospatial Information Management for the Americas

Members of the USNS of PAIGH attended the 9th Session of UN-GGIM: Americas convened November 28 - 30, 2022 at the UN-ECLAC Headquarters in Santiago, Chile.

The meeting included representatives from 22 Member States and additional observer organizations such as the UN-ECLAC, PAIGH, the UN-GGIM Private Sector Network, and the UN-GGIM Academic Network. PAIGH Secretary General Antonio Campuzano Rosales was in attendance and provided an



Fig. 7. Deirdre Bishop with members of PAIGH and UN-GGIM Americas, Santiago, Chile.

intervention on behalf of PAIGH in which he committed to continue aligning objectives and activities of PAIGH with those of UN-GGIM: Americas.

# UN-GGIM Expert Group on the Integration of Statistical and Geospatial Information Meeting

Alongside the 9th Session of UN-GGIM:
Americas, the UN-GGIM Expert Group on the
Integration of Statistical and Geospatial
Information meeting was held from December
1-2, 2022, at the UN-ECLAC Headquarters in
Santiago, Chile. Members of the USNS

attended the meeting and Deirdre served as a panelist in a session designed to determine "The Strategic Direction of the Expert Group." Deirdre shared information about the challenges national statistical organizations could expect to face as they continue to integrate geospatial and statistical information. A few of those challenges could include adapting to data user demand for timelier and more relevant data products, migrating to open-source software and the cloud, and complying to formal legislation and laws related to the production and dissemination of geospatial data.

## Implementation of Global Guidelines to Strengthen Geospatial Information Management in the Caribbean

Members of PAIGH and the USNS participated in a Caribbean workshop hosted by Saint Lucia on the United Nations suggested implementation approach for the UN-IGIF. This workshop was organized by the UN-ECLAC, UN-GGIM: Americas, and the Caribbean Geospatial Development Initiative (CARIGEO) with the support of the Caribbean Community (CARICOM), the Organization of Eastern Caribbean States (OECS), and the University of the West Indies.

The goal of the workshop was to encourage and provide guidance for the effective management and utilization of geospatial information in support of economic, social, and environmental development priorities. The objectives are:



Fig. 8. UN-IGIF Workshop

- To raise awareness of the value of the UN-IGIF as the fundamental tool to develop and /or strengthen the national geospatial initiative.
- To provide the needed tools and expertise for the development of UN-IGIF country level action plans

• To engender interest and enthusiasm in championing UN-IGIF adoption and implementation nationally and regionally.



PAIGH members contributed to the workshop by providing a presentation on "Planning and Preparing Phase" of the UN-IGIF. PAIGH members also facilitated a breakout session on "Identifying and Analyzing National Geospatial Stakeholders," based on a pre-workshop assignment, and facilitated the Capstone Activity on the final day.

Fig. 9. (above) Paul Riley presenting at the UN-IGIF Workshop for the Caribbean, St. Lucia.

Fig. 10. (right) (From left to right)
Alvaro Monett (UN-ECLAC), Valrie
Grant (CARIGEO), and Paul Riley at
the UN-IGIF Workshop for the
Caribbean, St. Lucia.



## **Commission Activities**

The USNS continues to benefit from the expertise of the USNS Commission Representatives who reliably serve as active members. The USNS is grateful that each Commission Representative faithfully maintains the positions they have held in previous years. Eric van Praag, Esri, serves in the role of Principal U.S. Representative to the Commission on Cartography; Dr. Erick Langer, Georgetown University, is Principal U.S. Representative to the Commission on History; Dr. David Salisbury, University of Richmond, is the Principal U.S. Representative to the Commission on Geography; and Dr. Christopher Castro, Arizona State University, serves in the role as Principal U.S. Representative to the Commission on Geophysics. Their reports follow.

## **Cartography Commission**

Prepared by Eric van Praaq, U.S. Representative to the Cartography Commission

The mission of the Cartography Commission is to promote the exchange of technical knowledge in Cartography, develop collaborative partnerships among member countries and between PAIGH and other multi-national institutions. During 2023, several members of the USNS Cartography Commission supported activities in the Americas aimed at increasing data sharing, improving data interoperability, strengthening SDI initiatives, and supporting the work of geospatial agencies in PAIGH member countries. Below is an overview of these activities and their outcomes.

### 2023 PAIGH Projects with Significant USNS Cartography Commission Participation

#### **Regional Map of The Americas**

The Regional Map of the Americas is a collaborative effort of the national mapping organizations of the Americas and regional stakeholders such as PAIGH, CNIG, and the Latin American Bank (CAF).

This initiative is producing a digital geographic database at 1:250,000 scale that covers the following topographic themes: Administrative Boundaries, Hydrography, Villages, Roads, Morphology, and others (e.g., Points of Interest) using official geographic data provided by PAIGH member countries.

The work was started in 2013 with funding provided by PAIGH and CAF, and the South American and Central American components of the map were completed in 2020. The North American component is under development, and it is led by the USGS, National Institute of Statistics and Geography in Mexico (INEGI), and Natural Resources Canada.

During the last quarter of 2022 and the first quarter of 2023 the USGS National Map data was generalized to 1:100,000 and it is currently being integrated with data from Mexico and Canada at an

equivalent scale. These three agencies plan to set up web services to share the data, complete data revisions and updates through the third quarter of 2023, re-load the data into the new data schema, and deliver the final dataset to PAIGH by the end of 2023.



Fig. 11. Members of the USNS Cartography Commission at the Instituto Geográfico Militar, La Paz, Bolivia.

#### **Regional Geoportals**

USNS members of the Cartography Commission have been working on standardizing three related geoportals for use in the Americas:

CEPALSTAT is a statistical database and publication for Latin America and the Caribbean. It was only a statistical and publication platform with no geospatial components prior to the refresh. Users of the refreshed application will be able to browse and download various demographic, economic, and environmental data for Latin American and Caribbean nations. Users can also browse the statistics and view historical data within a map viewer.

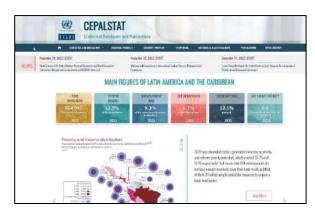


Fig. 12. CEPALSTAT website.

2. The GEOSUR platform has been revamped and integrated into the Americas SDI platform. While CEPALSTAT provides data only for Latin American and Caribbean countries, Americas SDI includes all Member States of North and South America. The website includes geospatial resources, an Americas SDI geoportal, and a metadata catalog. Users can access SDI initiatives



Fig. 13. Americas SDI website.

 Members were able to leverage in-house resources to provide a new look to the UN-GGIM: Americas webpage in hope that this could be a subsidiary website to the CEPALSTAT and Americas SDI platforms.

The USNS thanks UN-ECLAC for their support in the creation and maintenance of these platforms.

and related resources, view geospatial regional projects, view technical and normative documents, and access global geospatial frameworks and guidelines (helpful for Spanish speaking users), and access regional geospatial platforms. The website also offers geospatial services, opensource geospatial technologies, and a link to technical documentation and metadata.



Fig. 14. UN-GGIM: Americas website.

#### **PAIGH ArcGIS Online Regional Account**



Fig. 15. PAIGH ArcGIS Online Regional Account website.

During 2023, Eric van Praag held several virtual meetings with the PAIGH Secretary General and Secretariat to evaluate ways to increase the PAIGH and USNS use of this platform Eric provided an introduction to ArcGIS Online and provided access to resources for PAIGH staff to train themselves on the use of this platform.

Eric also discussed with Mr. Max Lobo, the President of the PAIGH Cartography Commission, the possibility of hosting USNS-specific data generated by PAT initiatives on the site and the

possibility of identifying volunteers that can support PAIGH in the use and maintenance of the site.

## **Geography Commission**

Prepared by Dr. David Salisbury, U.S. Representative to the Geography Commission

The role of the USNS Geography Commission is to help foster collaboration among geographers of the Americas through its member activities and its participation in PAIGH programs. The USNS Geography Commission is strengthened by the PAIGH President, Patricia. Her leadership ensures an active representation of the USNS Geography Commission at the highest level.

#### **Conferences and Meetings**

#### The American Association of Geographers Annual Meeting

The American Association of Geographers Annual Meeting was held on March 23-27, 2023, in Denver, CO. More than 4,500 presentations, posters, workshops, and field trips were presented and conducted by leading scholars, experts, and researchers: https://www.aag.org/events/aag2023/.

• The 2024 AAG annual meeting is April 16-20, 2023, in Honolulu, HI: <a href="https://www.aag.org/events/aag2024/">https://www.aag.org/events/aag2024/</a>.

#### **Conference of Latin American Geography (CLAG)**

The 37th Conference of Latin American Geography (CLAG) was held January 3-7, 2023 in Tucson, AZ and consisted of 88 presentations, 20 Sessions, 11 posters, 2 book salons, 2 panels, and a film screening all focused on the Geography of Latin America: <a href="https://geography.arizona.edu/CLAG2023">https://geography.arizona.edu/CLAG2023</a>.

• The 38th Conference of Latin American Geography (CLAG) will be held in Old San Juan, PR from May 22-24, 2024: <a href="https://clagscholar.org/">https://clagscholar.org/</a>.

#### **AmeriGEO 2023**

The Earth Observations for the Americas (AmeriGEO) meeting was held August 7-12, 2023 in San José, Costa Rica: https://2023amerigeoweek.amerigeo.org/.

• The 2024 AmeriGEO dates and location are forthcoming. Please check the website for details: <a href="https://www.amerigeo.org/">https://www.amerigeo.org/</a>.

Braided Knowledges for a Sustainable Future: Indigenous Peoples, Rivers, Justice was held at the University of Richmond, Richmond, VA from Nov. 13-17. There was a subsequent "knowledge train" to Washington, DC to meet with agency partners and Non-Governmental Organization collaborators.

### 2023 PAIGH Projects with Significant USNS Geography Commission Participation

The USNS members of the Geography Commission did not significantly participate in any 2023 Technical Assistance Projects, however, the following projects listed the U.S. as a participant:

• Geodetic Reference System for the Americas (SIRGAS) 2023: a geodetic reference framework for the sustainable development of the Americas.

- Victims or perpetrators? Reflections, views and proposals on exclusion and vulnerability in Latin America. De-constructing inequality and strengthening identities.
- Proposal for an image bank, to be printed in relief in Information and Communication
  Technology classrooms using a Fuser oven, to support the training of students with visual
  disabilities in the context of the 2030 Agenda and the Sustainable Development Goals (SDGs).

## Research Contributions and Accomplishments of USNS Geography Commission Members

#### • Dr. Andrew Sluyter, Ph.D.

Professor, Department of Geography and Anthropology

Louisiana State University

Carnegie Fellowship, 2022-2024

Twitter/X: @CLAGeogs

Website: <a href="https://sites.google.com/site/andrewsluyter/home">https://sites.google.com/site/andrewsluyter/home</a>

Andrew's project, "Slavery and Higher Education: New Narratives on the Plantation
Past, New Places for Racial Equity," will help colleges built on former slave plantations
to understand that aspect of campus place identity in relation to higher education's
racial inequities.

#### • Dr. Osvaldo Muñiz Solari, Ph.D.

Professor, Department of Geography and Environmental Studies Associate Director, Grosvenor Ct. for Geographic Education Honorary Professor of International Studies

Texas State University

- Muñiz Solari, Osvaldo, Schrüfer, Gabriele (eds.) 2023. Understanding Sustainability with Pedagogical Practice A contribution from geography education towards sustainability. Advances in Geographical and Environmental Sciences Series, Springer-Japan. Escuela. Aprendizajes y Pensamiento Crítico (Tomo II). uah/Ediciones Universidad Alberto Hurtado, Santiago, Chile.
- Muñiz Solari, O. 2023. Recontextualizing Sustainability: Regulative and Instructional Discourses. In Osvaldo Muñiz Solari, Gabriele Schrüfer (eds.) Understanding Sustainability with Pedagogical Practice – A contribution from geography education towards sustainability. Springer-Japan. Pages 3-14.
- Muñiz Solari, O., Schrüfer, G. Opportunities and Challenges in Geography Education to Practice Sustainability Education. In Osvaldo Muñiz Solari, Gabriele Schrüfer (eds.)
   Understanding Sustainability with Pedagogical Practice – A contribution from geography education towards sustainability. Springer-Japan. Pages 185-189.

#### • Dr. Ivan J. Ramírez, Ph.D.

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Academic Publications:

 Barton, K., Lee, J., & Ramírez, I.J. 2023. Disease Discourses, African Knowledge Systems, and COVID-19 in Senegal. In Global Health, Humanity, and the COVID-19 Pandemic: Philosophical and Sociological Challenges and Imperatives, Egbokhare, F., & Afolayan, A. (Eds.). New York: Palgrave.

#### • Tim Trainor

President of International Cartographic Association (ICA)

- Tim completed his 2019-2023 term as ICA President and is now in an ICA Past
   President position for the 2023-2027 term. Tim's theme as ICA President was "The relevance and importance of cartography: A call to action."
- Tim successfully conducted the 31<sup>st</sup> International Cartographic Conference in South Africa between August 13-August 18, 2023.
- Tim is currently supporting the implementation of the UN-IGIF globally working with the UN-GGIM Secretariat and the SDG Data Alliance.

#### • Dr. Charlotte Smith

Lecturer, UC Berkeley School of Public Health

 Charlotte hosted Dr. Heliodoro Ochoa's Fulbright-sponsored stay at the University of California Berkeley. Heliodoro is a faculty member at Instituto Tecnológico y de Estudios Superiores de Occidente - Jesuit University of Guadalajara. During Heliodoro's stay, Charlotte developed plans for two joint projects in Mexico to commence in October 2023.

#### Dr. Betty Smith

Professor Emerita, Eastern Illinois University

- Betty co-organized the American Association of Geographers (AAG) Session, "Cities and Urban Regions in the Americas," with Joel Outtes (Professor, Universidade Federal do Rio Grande Do Sul).
- Betty also co-organized the AAG Annual Meeting, Denver, Colorado, March 23-27,
   2023;

#### **Academic Publications**

- "Co-Management with Tribes as Coloniality," Joaquin Lopez Huertas, University of Utah.
- "Implementing Sustainable Policies: how perspectives and representation differs between cities and suburbs," Guillaume Poiret, Universite Paris Est Creteil.
- "Geographic Examination of Spatial Processes of Shrinking City and Underlying Economic, Social and Political Driving Factors in Metropolitan Detroit," Yichun Xie, Institute for Geospatial Research and Education at Eastern Michigan University.
- "Urban Hierarchy Model for City and Settlement Classification: An Approach from a public policy perspective in Peru," Freddy Injoque and Marco Millones Mayer.
- "Conocer para Planear (Knowing in Order to Plan): The First Argentine Congress of urbanismo (Planning) (Buenos Aires 1935), An Approximation, Joel Outtes, Universidade Federal do Rio Grande do Sul, Puerto Alegre, Brazil.

#### • Dr. David Seward Salisbury, Ph.D.

Associate Professor of Geography and the Environment, University of Richmond

- Amazon Borderlands Spatial Analysis Team Project (previously funded by NASA SERVIR Amazonia USAID).
  - Expedition for Dashboard and Map Distribution in Brazilian and Peruvian Amazon (June 12-July 10, 2023) with Conservación Amazónica (ACCA), Imaflora, the Upper Amazon Conservancy, and Indigenous partners.
    - Held workshop meetings to share climate change maps of Indigenous Communities and Protected Areas, and introduce dashboards of ecosystem services, roads, and weather stations.
    - Shared over 200 maps with partners from Acre, Brazil, and Ucayali, Peru.
  - MOCAF: Monitoring of Forest Roads with ACCA and Universidade Federal do Acre-Floresta, and LabGAMA.
    - Bulletin 1: Monitoring Forest Roads in the Peruvian Amazon in 2022: <a href="https://mailchi.mp/conservacionamazonica/boletin\_mocaf\_n1?fb">https://mailchi.mp/conservacionamazonica/boletin\_mocaf\_n1?fb</a>
       clid=IwAR0BJAI7v8SS\_2UIZ4c7SnWE5Blx3NNYR8buL3mWFQmhfc8vula8
       CwDDREU.
  - Salisbury, D. S., Spera, S., Reygadas Y., LaRocca, S. Facing the Climate Crisis in a Threatened Amazon. The 1st Colloquium on Climate Change in the Ecosystems of the Americas, PAIGH, Quito, Ecuador (Zoom) May 18-19, 2023.

#### **Academic Publications**

Salisbury, D. S., Powell C. V., Balbín Ordaya, B., Tipula Tipula, P., Alvarado, D. E.,
 Huayaney, M. A., Reis Brown, V., Lopes, E., Flores de Melo, A. W., Novoa Sheppard, S.,
 Pinedo Ochoa, M. L., Rengifo Cardenas, P. E., Silva, S. d. S., de Melo Silva, J. F., Spera, S.

A., Vela Alvarado, J. W., González Gamarra, D. O. (2023). Crossing boundaries: Transboundary geographic information in the Amazon borderlands of Peru and Brazil. In Ed. López, C. S. Socio-Environmental Research in Latin America: Interdisciplinary Approaches Using GIS and Remote Sensing Frameworks, 33-55. Springer Nature. ISBN 978-3-031-22679-3.

https://link.springer.com/chapter/10.1007/978-3-031-22680-9 3.

Lopez, S., Salisbury, D. S., (2023). Challenges and opportunities: Interdisciplinary
GIScience Research on Human-Environment Dynamics in Latin America. In Ed. López,
C. S. Socio-Environmental Research in Latin America: Interdisciplinary Approaches
Using GIS and Remote Sensing Frameworks, 281-291. Springer Nature. ISBN978-3031-22679-3.

https://link.springer.com/chapter/10.1007/978-3-031-22680-9 13.

#### Awards

- 2023 University of Richmond Distinguished Educator
- 37th Annual CLAG Poster Awards:
  - Sbrocca, Leticia de Almeida\*, Salisbury, D.S., Spera, S. A. (2023). Ecologia Política de uma Eleição Crítica par. a a Amazônia: Análise Comparativa das Políticas Ambientais de Lula e Bolsonaro. 37th Conference of Latin American Geographers. January 4-7, 2023.
  - Hernández, H. T.\*, Salisbury, D. S., Barnard, L.\*, Spera, S. (2023). The Geolocation of Facebook and Twitter Publications on the Proposed Road Trail UC-105. Southwest Amazon Transboundary Corridors and Ecosystem Services Conference, June 13, 2022. Universidad Nacional de Ucayali, Pucallpa, Ucayali, Perú. Español.

#### Media Coverage

o <a href="https://www.acca.org.pe/guardianes-de-la-amazonia-uniendo-ciencia-tecnologia-y-sabiduria-ancestral-para-proteger-la-selva/">https://www.acca.org.pe/guardianes-de-la-amazonia-uniendo-ciencia-tecnologia-y-sabiduria-ancestral-para-proteger-la-selva/</a>.



Fig. 16. Presentation of maps at the anniversary of Apiwtxa, Juruá River, Acre, Brazil



Fig. 17. Workshop meeting for the Indigenous Agroforestry Agents of CPI-Acre, Rio Branco, Acre, Brazil



Fig. 18. Working meeting with CIGMA-SEMAPI, Rio Branco, Acre, Brazil



Fig. 19. Working meeting with Dulce Gloria, Yurúa, Atalaya, Ucayali, Peru



Fig. 20. (above) Working with the leaders of Apolima Arara, Acre, Brazil at the SERVIR Amazonia-ACCA-UAC-Richmond booth at the First Festival Intercultural de Yurúa and Juruá in Breu, Yurúa, Atalaya, Ucayali, Peru

Fig. 21. (right) First Colloquium of Climate Change in the Ecosystems of the Americas Flyer



## **Geophysics Commission**

Prepared by Dr. Christopher Castro, Former U.S. Representative to the Geophysics Commission

#### **2023 PAIGH Projects with Significant USNS Geophysics Commission Participation**

The Geophysics Commission was a supporting participant of the awarded Technical Assistance Project to PAIGH entitled "Organization of the Sixth Convective-Permitting Climate Modeling Workshop" that was awarded in 2022. The U.S. is designated a participant country on this proposal. Argentina was the lead participant country, by Dr. Lluis Fita Borrell from the *Centro de Investigaciones del Mar y la Atmósfera*, Buenos Aires Argentina. Other participant countries in this proposal include Colombia and Chile. This workshop took place September 7 – 9, 2022 and much of the information related to the workshop is included in the GEWEX quarterly newsletter published in October 2022 (see image below). The link to GEWEX newsletters can be found here: <a href="https://www.gewex.org/resources/gewex-news/">https://www.gewex.org/resources/gewex-news/</a>.



Fig. 22. GEWEX Quarterly newsletter, October 2022.

#### Workshop logistics and scope

The workshop consisted of 70 in-person and 49 online participants from 19 countries. There were oral and poster sessions and several discussion panels. Focus topics included advances in high resolution climate modeling, simulation of extreme weather events, coordination of modeling efforts and connection to impact research. South American efforts were particularly emphasized. Members of several community scientific efforts were brought together: the hydroclimate research program for

the Andes project, the Coordinated Regional Climate Downscaling Experiment (CORDEX), a recent meteorological field campaign that took place in Argentina, and the South American Affinity Group. Additional sponsors to the workshop included local universities within South America and the National Center for Atmospheric Research.

#### Summary of major science themes

There were several major scientific themes that emerged from the workshop, and these are summarized per specific area:

- Generating climate change scenarios with high resolution modeling: There were two methodological approaches presented. Direct downscaling of global or coarser-resolution regional models to the kilometer scale has been demonstrated in CORDEX and its flagship pilot studies. Using this method, there is systematic improvement of extreme precipitation events with reduced uncertainty, with a larger increase in heat extremes. The Pseudo Global Warming (PGW) method dynamically downscales historic atmospheric reanalysis data perturbed with climate change deltas derived from projections to generate future scenarios. The advantages to the PGW approach are computational efficiencies, the elimination of the impact of biases from individual global climate projection models, and clear attribution of a climate change signal.
- Event storylines: The PGW approach can be used to generate event storylines, related to extreme weather such as tropical cyclones, derechos (straight-line winds), floods, and extreme snowfall events. The emphasis in the storyline approach is to evaluate how these events would change if they would re-occur under future climate conditions or how historic climate change changed an event that occurred under present conditions. Such studies can improve the understanding of process change in relation to a changing climate and are helpful in working with stakeholders who experienced a specific event so as to better relate with how such an event may change in the future.
- Coupled high resolution modeling, to the land surface or ocean: Improving land surface model capabilities is an urgent need. Lateral flow of shallow ground water must be represented in the Amazon for realistic climate simulation. High rates of precipitation recycling in the western Amazon relate to the remote effects of deforestation. Coupled modeling also has large benefits for simulating glaciers along the Andean Cordillera. Account for the human impact on the water cycle is an emerging research topic, highlighted as being critical.
- **Data Analysis and Sharing:** Large model domains, longer integrations, and larger ensembles with high resolution models require paradigm shifts in how data is shared and analyzed.

Various platforms were presented, for example the Joint Analysis System Meeting Infrastructure Needs system that allows researchers to perform analysis at the location of the data rather than download datasets to local servers. Cloud storage and computing solutions were mentioned as a future solution but are currently often prohibitive due to costs and inability to ensure long-term data access.

• Data usability and impact: The World Meteorological Organization strategy for climate service delivery was presented, with several key aspects: identifying and engaging users and understanding their needs, co-designing services that fulfills needs, delivering products, and evaluation and improvement of products. Developing relationships to ensure usability and impact of data among users identified is a worthwhile effort but takes years of continuous work. Strategies of how to make high resolution modeling more visible in national and international climate assessment was discussed. There is a strong need to focus on impacts, adaptation, and vulnerability in the next cycle of the Intergovernmental Panel on Climate Change, and this is where high resolution modeling is critically important.

#### Key summary messages of the workshop

- Where the community is headed: The high-resolution modeling community is continuing to increase capabilities, in terms of domain size complexity and length of integration. The community made the transition from purely a research focus to generating information that is valuable to impact researchers and stakeholders. Building connections and collaborations with users was highlighted as important to ensure usability of high-resolution model output, but these relationships take tame.
- *Earth-system thinking*: The community is currently coupling atmospheric models with other earth system components. This capability needs to be advanced, in terms of existing components such as convection and cloud schemes, and new components like groundwater flow and vegetation. Accounting for land surface processes in South America is critically important to reduce model biases. The additional impact of humans on the water cycle was highlighted as an urgent research need.
- Variety of techniques to produce high resolution projection: There is no 'right' answer in terms of a methodological approach to generate high resolution climate projections for the purpose of impacts assessment. Techniques highlighted at the workshop include direct dynamical downscaling, the pseudo global warming approach, and storylines. Each of these approaches have their benefits and shortcomings, and more research is needed to systematically intercompare these methods.

• Data accessibility and equality: Exponentially increasing values of data generated with high resolution modeling creates inequalities in data accessibility. This is a particular problem in South American, and in the 'Global South' generally. There have been some new initiatives to reduce such inequalities by allowing researchers to analyze data at the locations where the large databases are stored.

## **History Commission**

Prepared by Dr. Erick Langer, U.S. Representative to the History Commission

The U.S. History Commission has been very active the past year, despite challenges and difficulties with limited funding available to historians. The Commission met in August 2023 to discuss these challenges and how to increase participation in the History Commission.

#### **Research Contributions and Accomplishments of USNS History Commission Members**

#### • Dr. James Siekmeier

University of West Virginia

Academic Publications:

"The United States, Latin America, and the Caribbean Since 1961," by Dr. James Siekmeier with assistance from Sydney Beafore, Maya Lindsay Deering, and Madison Shea Lamanna, in Alan McPherson, ed. *The SHAFR Guide Online*, 3rd ed. (Leiden: Brill, 2022).

#### • Dr. Juana Moriel-Payne

Mount Saint Mary's University - Los Angeles

 Juana has signed a publishing contract for her book, Drama Under the Skin: Fiestas, Cofradías, and Capellanías in San Joseph del Parral, 16th-17th Centuries, with Texas Tech University Press.

#### • Dr. Thomas Field

Embry-Riddle Aeronautical University

 Thomas is finishing up his sabbatical leave and has been doing a lot of writing. He also engaged in service-oriented activities, including serving on the program committee for the June 2023 conference of the Society for Historians of American Foreign Relations (SHAFR). He was also appointed to a three-year term on SHAFR's Bernath Lecture Prize selection committee.

#### • Dr. Evan R. Ward

**Brigham Young University** 

This is the second half of Evan's research on the U.S. Park Service development of the Tikal National Park in Guatemala, exploring the state of affairs following a Guatemalan assessment of the park in the early twenty-first century. It should be seen as a second part of the article published in 2021.

#### Academic Publications:

- "The United States, Sustainability and Cultural Heritage at Tikal, Guatemala (1971-2003)," published in Other Landscapes of Cultural Heritage(s): History and Politics, Nuno Lopes, Walter Rossa, Miguel Bandeira Jerónimo, eds. (Coimbra, Portugal: Coimbra University Press, 2022), 275-296.
- "How Will Inacio Lula da Silva Change Brazil?" Deseret News, November 7, 2022, and
   "U.S. Mexico Border: Why Trade Between two Countries is Vital," Deseret News, May 26, 2022.
- Evan participated with Deborah Cohen, Aileen Teague, Jessica Kim, and Maria L.
   Quintana in "A Roundtable on Maria L. Quintana, Contracting Freedom: Race, Empire, and U.S. Guestworker Programs," *Passport* (The Society for Historians of American Foreign Relations), <a href="https://shafr.org/sites/default/files/passport-01-2023-quintana.pdf">https://shafr.org/sites/default/files/passport-01-2023-quintana.pdf</a>.
- o In addition, he published the following works on topics outside of the Americas:
  - Dr. Evan R. Ward, Hubbing for Tourists: Airports, Hotels, and Tourism Development in the Indo-Pacific, 1934-2019 (Berlin, Germany: DeGruyter Press, September 4, 2023).
  - Dr. Evan R. Ward (2023) "An Entrepot for Tourists: From Developmental Tourism to Gateway Travel in Singapore, 1937-2019," *Journal of Tourism History*, 14:1, 1-27, published online in June 2022, https://www.tandfonline.com/doi/full/10.1080/1755182X.2022.2091667.

#### • Dr. Erick D. Langer

Georgetown University

- Erick had the fortune of meeting PAIGH president Dr. Patricia Solís and Secretary-General Mtro. Antonio Campuzano at an event at the Organization of American States in Washington, DC on June 23, 2023.
- Erick also continued in his role as news analyst in "Club de Prensa" in NTN24, the
   Colombian all-news network, as well as giving various lectures at the Foreign Service
   Institute in Arlington, Virginia and appearing in Voice of America for news analysis.
- Erick presented a paper at the Taller de Estudios e Investigaciones Andino-Amazónicas at the Universitat de Barcelona, Spain in September 2022 and a virtual talk at the Red de Estudios Fronterizos in June, 2023.

#### Academic Publications:

- "Tierras Baldías and Indian Integration in the Bolivian Lowlands in the Nineteenth and Early Twentieth Centuries," *Indigenous Borderlands of* the Americas, Joaquin Martínez Rivaya, ed. (Norman: University of Oklahoma Press, 2023), 242-271.
- "Un ejemplo de agroforestería vitícola: Los sistemas de uvas tradicionales del Valle de los Cintis, Bolivia," with Pablo Oliva and Christian Gary, Revista Agroecología, vol. 16 (2022), 46-56.
- Erick's book, Economic Change and Rural Resistance in Southern Bolivia (Stanford University Press) was translated and published in Bolivia, with the following title: "Se pavonean en los pueblos": Resistencia rural y modernidad en Chuquisaca, 1880-1930 (La Paz: Plural Editores, 2023). In March he conducted a short book tour to present the volume in La Paz and Sucre, Bolivia.



Fig. 23. (From left to right) Dr. Erick Langer, Dr. Patricia Solis, and Secretary General Antonio Campuzano, OAS, Washington, DC.

The History Commission hopes to utilize new ideas discussed in the August 2023 meeting so that the History Commission can continue to be an essential part of the USNS of PAIGH.

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