

Geodetic Reference Frame for the Americas (GRFA)

UN-GGIM: Americas



UN-GGIM: Américas

COMITÉ REGIONAL DE LAS
NACIONES UNIDAS SOBRE
LA GESTIÓN GLOBAL
DE INFORMACIÓN GEOESPACIAL
PARA LAS AMÉRICAS

Outline

- **Introduction**
- **GRFA Working Group Terms of Reference**
- **GRFA Working Plan**
- **GRFA Members**
- **UN-GGIM Subcommittee of Geodesy Members**



GRFA WG ToR (approved sept. 2020)

General Objectives

- 1.1.1. To support the Nations of the Americas in response to the **United Nations General Assembly Resolution entitled “A Global Geodetic Reference Frame for Sustainable Development” (A/RES/69/266)** under the recommendations of the United Nations Global Geospatial Information Management (UN-GGIM) Subcommittee on Geodesy (UN-GGIM SCoG), and the scientific guidelines issued by the International Association of Geodesy (IAG) and Geocentric Reference System for the Americas (SIRGAS).
- 1.1.2. To **coordinate and assist Member States’ efforts to ensure the sustainability and enhancement of the GRFA**, as a crucial enabler of spatial data interoperability, disaster risk mitigation, and sustainable development.
- 1.1.3. The Working Group will be called the **Geodetic Reference Frame for the Americas (GRFA) Working Group** of the Regional Committee of United Nations on Global Geospatial Information Management for the Americas (UN-GGIM: Americas) and abbreviated to only GRFA Working Group.



GRFA WG ToR (cont.)

Specific Objectives

- 1.2.1. To assist and recommend to the Nations of the Americas **appropriate governance structures for implementing the GRFA.**
- 1.2.2. To support and recommend to the Nations of the Americas **proper standards and guidelines for implementing the GRFA.**
- 1.2.3. To encourage cooperation among the Nations of the Americas to **address infrastructure gaps and avoid duplications of efforts towards the development of a more sustainable GRFA.**
- 1.2.4. To **promote and provide mechanisms for capacity development and knowledge transfer in the field of geodesy** among the Nations of the Americas through supporting technical workshops and symposiums organized by SIRGAS and other institutions.
- 1.2.5. To **make the global and Pan-American geodetic reference frames more visible and understandable to society.**



GRFA WG ToR (cont.)

Specific Objectives (cont.)

- 1.2.6. To **serve as a conduit between the representatives of UN-GGIM SCoG and Geodetic Reference Frame Working Groups** from the other UN-GGIM Regions
- 1.2.7. To **serve as a collective of subject matter experts** for the broader UN-GGIM: Americas regional committee on all geodetic matters. Recommend representatives of the Americas to serve the UN-GGIM SCoG.
- 1.2.8. To **coordinate and assist the scientific efforts of SIRGAS and other American institutions** in the implementation of many of the above specific objectives.
- 1.2.9. To **promote that SIRGAS generates new strategic partnerships in the scientific field to ensure that the GRFA is accessible for implementation in all regions of the Americas**, including Nations that are not active members of SIRGAS.



GRFA WG ToR (cont.)

Composition

- **Members**
 - **Membership is open to all the Member States of the Americas** . They may designate national delegates (representatives) and alternates to participate in the GRFA Working Group.
- **Observers**
 - **Observers may be invited to meetings and contribute to the GRFA Working Group**, including from other institutions, professional, research, and academic organizations or associations interested in geodetic programs.
- **Co-Chair**
 - **SIRGAS' President and Vice-president will serve as co-Chairs** of the GRFA Working Group.



GRFA member states (10/36 countries)

Country	Agency	Name	Position
Argentina	Instituto Geográfico Nacional	Diego Piñón	Director Nacional de Servicios Geográficos
Brasil	Instituto Brasileiro de Geografia e Estatística	Salomão Soares	
		Sonia María Alves Costa	Coordenação de Geodésia
Canada	Canadian Geodetic Survey (NRC)	Michael Craymer	Coordinator of Reference Frames & Earth Dynamics
		Calvin Klatt	Director and Chief Geodesist
Colombia	Instituto Geográfico Agustín Codazzi	Diego Armando Cortes Bolívar	
		Carlos Caro	
Cuba	Oficina Nacional De Hidrografía y Geodesia	Rebeca Parada Benavente	
	Grupo Empresarial Geocuba	Ernesto Rodríguez Roche	
México	Instituto Nacional de Estadística y Geografía	Enrique Muñoz Goncen	Director General Adjunto de Información Geográfica Básica
		Francisco Javier Medina Parra	Director del Marco Geodésico
Perú	Instituto Geográfico Nacional	Ciro Sierra Farfan	Director de Información Geoespacial
		Rogger Montoya Monroy	
Sint Maarten	Stichting Kadaster en Hypotheekwezen	Robert Boekhold	
		Jonathan Charles	
Uruguay	Instituto Geográfico Militar	Daniel Piriz	Director del Instituto Geográfico Militar
USA	National Geodetic Survey (NOAA)	Daniel Roman	Chief Geodesist
		Dana Caccamise	



GRFA WG Working Plan 2021

Objectives	Goals	Supplies	Deliverables	Due date
<p>1. Improve the governance structure to develop and sustain the geodetic reference frame of the Americas</p>	<p>To support the countries of the Americas to respond to the General Assembly Resolution on a Global Geodetic Reference Frame (GGRF) for Sustainable Development</p>	<ul style="list-style-type: none"> - The United Nations General Assembly Resolution A/RES/69/266 - The GGRF Road Map - The GGRF Road Map Implementation Plan - The UN-GGIM Subcommittee of Geodesy (SCoG) ToR - The GRFA ToR - Statute of SIRGAS 	<ul style="list-style-type: none"> - Resolutions of the GRFA working group to develop and sustain the geodetic reference frame of the Americas - Participation of a greater number of Member States in the GRFA working group and in SIRGAS 	<p>October 2021</p>



GRFA WG Working Plan 2021 (cont.)

Objectives	Goals	Supplies	Deliverables	Due date
2. Strengthen the geodetic capacities of professionals and technicians responsible for maintaining national geodetic reference frames	To promote and collaborate with the development of technical documentation for GNSS data centers, GNSS analysis centers, and adoption of the SIRGAS reference frame	Documentation developed by SIRGAS and by other international and regional geodesy organizations	Technical documentation for Member States	October 2021
	To coordinate the development of the course "Determination of precise geodetic reference frames, using the scientific processing software GPS / GNSS GAMIT / GLOB-K"	<ul style="list-style-type: none"> - Successful experience acquired and documentation developed for the course given in 2018 in Buenos Aires - International geodetic standards promoted by the IAG and SIRGAS 	Course	June 2021



GRFA WG Working Plan 2021 (cont.)

Objectives	Goals	Supplies	Deliverables	Due date
2. Strengthen the geodetic capacities of professionals and technicians responsible for maintaining national geodetic reference frames	To coordinate the development of the workshop "Vertical Reference Systems"	<ul style="list-style-type: none"> - Successful experience acquired and documentations developed in previous courses - International geodetic standards promoted by the IAG and SIRGAS 	Workshop	July 2021
	To coordinate the development of the Workshop "GNSS Geodetic Infrastructure"	<ul style="list-style-type: none"> - UNAVCO documentation - International geodetic standards promoted by the IAG and SIRGAS 	Workshop	October 2021



GRFA WG Working Plan 2021 (cont.)

Objectives	Goals	Supplies	Deliverables	Due date
3. Promote the open exchange of geodetic data to improve and develop the geodetic reference frame of the Americas	To promote the opening of the geodetic data repositories of the Member States	<ul style="list-style-type: none">- The United Nations General Assembly Resolution A/RES/69/266- The GGRF Road Map- The GGRF Road Map Implementation Plan- The GRFA ToR- Statute of SIRGAS	Recommendation for Member States to open their geodetic repositories	September 2021



GRFA WG Working Plan 2021 (cont.)

Objectives	Goals	Supplies	Deliverables	Due date
4. Define and maintain the geodetic reference frame of the Americas	To undertake an analysis of the reference frames and geodetic capacities within the Member States	<ul style="list-style-type: none">- Survey- International standards promoted by IAG, SIRGAS and SCoG of UN-GGIM	Necessary actions to strengthen the geodetic reference frames of the Member States, following the international geodetic standards	June 2021
	To coordinate with the Member States the development of three new GNSS Analysis Centers	Existing human, computing and geodetic capabilities	SIRGAS-CON network expansion to North America	October 2021

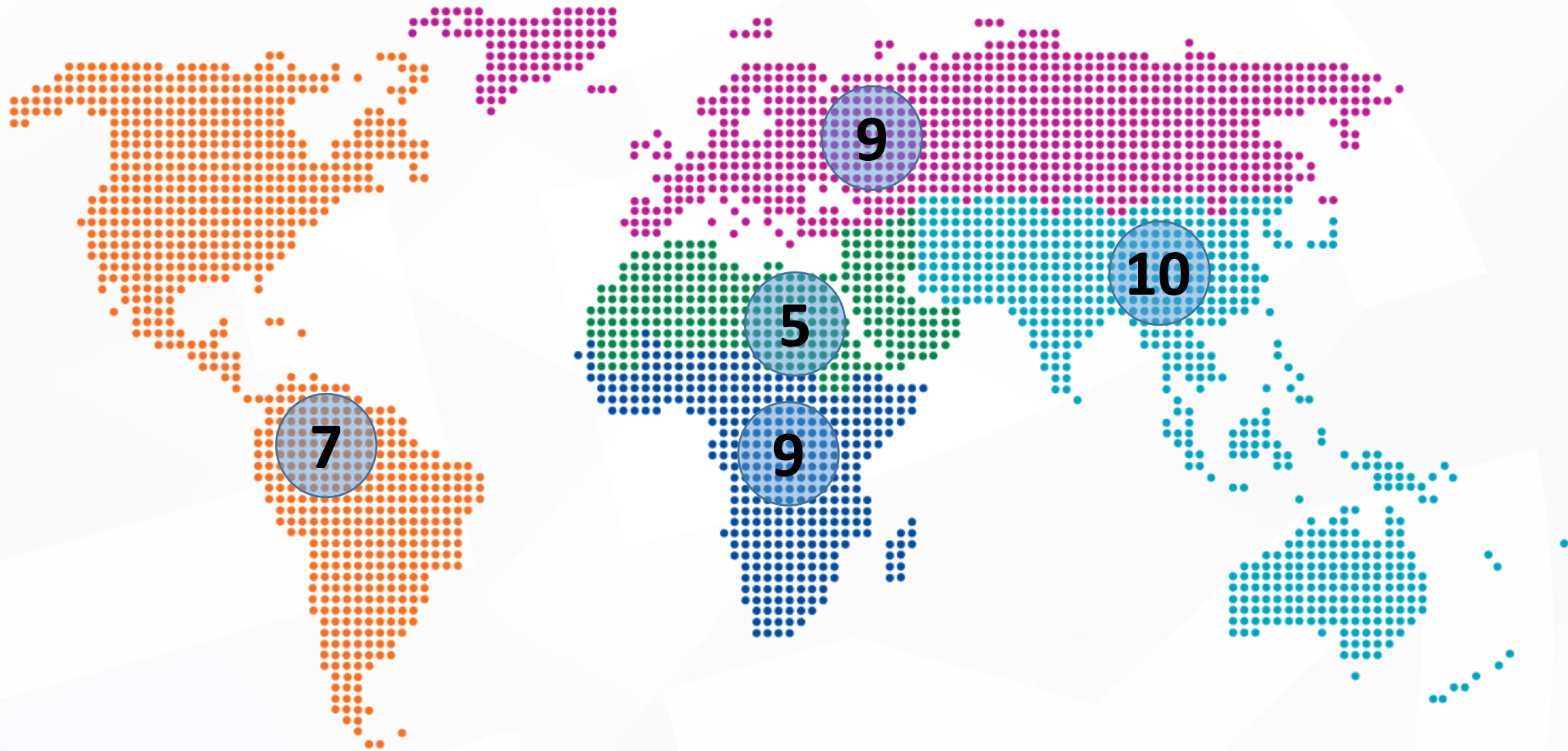


GRFA WG Working Plan 2021 (cont.)

Objectives	Goals	Supplies	Deliverables	Due date
5. Develop communication and outreach programs that allow the geodetic reference frame to be more visible and understandable to society	To disseminate the activities carried out by GRFA, SIRGAS, UN-GGIM: Americas and other regional and international geodetic updates	SIRGAS Facebook, Twitter, LinkedIn and YouTube channels	Weekly publications and posts on the official SIRGAS channels	October 2020 - October 2021
	To develop webinars for disseminating geodetic activities carried out in the Americas		At least 6 webinars from agencies in the Americas responsible for establishing national geodetic reference frames	January- October 2021



UN Subcommittee of Geodesy (40 member states)



UN-GGIM: Américas

UN Subcommittee of Geodesy (cont)

SCoG – UN-GGIM: Americas = 7 members + 3 observers

Country	Agency	Date	Position	Name
Argentina	Instituto Geográfico Nacional	26/04/2017	Director Nacional de Serv. Geog.	Diego Piñón
Canada	Canadian Geodetic Survey (NRC)	26/04/2017	Director and Chief Geodesist	Calvin Klatt
Costa Rica	Instituto Geográfico Nacional	31/08/2018	Jefe del Depto. de Geodinámica	Álvaro Álvarez Calderón
Jamaica	National Land Agency	31/08/2018	Chief Geodesist	Nolan Aikens
México	Instituto Nacional de Estadística y Geografía	26/04/2017	Director del Marco Geodésico	Francisco Medina Parra
USA	National Geodetic Survey (NOAA)	26/04/2017	Chief Geodesist	Daniel Roman
Uruguay	Instituto Geográfico Militar	31/08/2018	Jefe de la Div. Geodesia y Topog.	Gustavo Caubarrere
Brasil (o)	Instituto Brasileiro de Geografia e Estatística	31/08/2018	Coordenação de Geodésia	Sonia María Alves Costa
Chile (o)	Instituto Geográfico Militar	31/08/2018	Director del IGM	Eduardo Cayul Aristondo
SIRGAS (o)	SIRGAS	31/08/2018	Presidente de SIRGAS	



UN-GGIM: Américas

UN Subcommittee of Geodesy (cont)

UN SCoG TdR: Title 3 (Membership) - Article 3 (Members)

3.1. Membership is open to Member States **nominated by the executive of the UN-GGIM Regional Committees** on a pro-rata basis to serve on the Subcommittee and to be **reviewed every two years**. The **review will be based on actual participation and contribution from the members** as demonstrated through **national activity reports at the UN-GGIM Regional Committee meetings**.

Therefore, during the following days Americas members of the SCoG will get an email from the UN-GGIM: Americas Executive Secretary (Gabriela Seco) **requesting the following**:

- **Indicating interest for continuing to serve on the UN SCoG**
- **Briefing of the activities and contributions made since the members' designation**



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Thank you
for your attention



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