

International GNSS Service Terms of Reference

2023 Revision

INTERNATIONAL GNSS SERVICE TERMS OF REFERENCE

PREAMBLE

A proof of concept for the International GPS Service for Geodynamics (IGS, where GPS stands for Global Positioning System) was conducted with a three-month campaign during June through September 1992, and continued until December 1993 as a Pilot Service until the establishment of the IGS as a service of the International Association of Geodesy (IAG). The IGS formally began on 1 January 1994. IGS operates in close cooperation with the International Earth Rotation and Reference Systems Service (IERS). As a result of the review of IGS objectives, the name of the service was changed to International GPS Service (IGS) on 1 January 1999. Following further expansion of IGS, integrating data from the Russian GLONASS system and from future Global Navigation Satellite Systems, the name was changed to "International GNSS Service," (IGS, where GNSS stands for Global Navigation Satellite System), on 14 March 2005, in the scope of an update of the Terms of the Service. The organization retains the acronym "IGS". Developments in the intervening period necessitated a further update of these Terms of Reference in 2010, 2014, 2017 2019, and 2023.

MISSION

The International GNSS Service provides, on an openly available basis, the highest-quality GNSS data, products, services in support of the terrestrial reference frame; Earth observation and research; Positioning, Navigation and Timing (PNT); and other applications that benefit the scientific community and society.

SLOGAN

Providing openly available GNSS data and products that benefit science and society.

VISION

A better understanding of the Earth through the application of GNSS.

GOALS AND OBJECTIVES

The IGS goals and objectives are articulated within its Strategic Plan, which is reviewed and updated by the Governing Board nominally every 4 years, or at an interval deemed appropriate by the Governing Board. Generally, the IGS strives to:

- Serve as the premier source of the highest-quality GNSS related standards and conventions, data and products, openly available to all user communities.
- Attract leading-edge expertise to pursue challenging, innovative projects in a collegial, collaborative, and creative culture.
- Incorporate and integrate new developments, systems, technologies, applications, and changing user needs into IGS products and services.
- Facilitate the integration of IGS into the International Association of Geodesy (IAG) Global Geodetic Observing System (GGOS) and other more broadly based Earth observing, geodetic, and global navigation systems and services.
- Maintain an international federation with committed contributions from its members, and with effective leadership, management, and governance.
- Promote the value and benefits of IGS to society, the broader scientific community, and in particular to policy makers and funding entities.

It presents a forward-looking strategy addressing the role of IGS as facilitator, incubator, coordinator, and advocate working towards three major goals in service to our community and beyond:

 Achieve Multi-GNSS Technical Excellence: we strive to increase organizational capability by identifying barriers to multi-GNSS success throughout the IGS, supporting solutions to key challenges, and

- reinforcing the importance of continuous technical evolution.
- Strengthen Outreach and Engagement: Objectives of this goal will guide advocacy for open access geodetic and GNSS data and products that facilitate collaborations, standardization, and inclusivity.
- 3. Build Sustainability and Resilience: Ensuring sustainable and resilient contributions to the IGS community and its work, as it is the diversity of contributors to the IGS as well as their high levels of commitment that have ensured the high level of performance and reliability of product generation and delivery thus far.

IGS COMPONENTS

The IGS accomplishes its mission through the following components:

1) DATA, PRODUCTS, AND SERVICES

- 1a) DATA CENTERS
- 1b) ANALYSIS CENTERS
- 1c) IGS PRODUCTS
- 1d) NETWORK OF TRACKING STATIONS
- 1e) REAL TIME SERVICE
- 1f) STANDARDS

2) OPERATIONAL COORDINATION COMPONENTS

- 2a) Working Groups
- 2b) Pilot Projects
- 2c) Committees

3) GOVERNANCE

- 3a) CENTRAL BUREAU
- 3b) GOVERNING BOARD
- 3c) EXECUTIVE COMMITTEE
- 3d) STANDING ELECTIONS COMMITTEE
- 3e) ADDITIONAL AD-HOC GROUPS

4) COMMUNITY OUTREACH & ENGAGEMENT

- 4a) ASSOCIATE MEMBERSHIP
- 4b) WORKSHOPS
- 4c) VIRTUAL MINI WORKSHOPS

5) IGS STAKEHOLDER ORGANIZATIONS

1) DATA, PRODUCTS, AND SERVICES

1a) INFRASTRUCTURE

INFRASTRUCTURE COMMITTEE

The IGS Infrastructure Committee (IC) is a permanent body established to

ensure that the data requirements for the highest quality GNSS products are fully satisfied while also anticipating future needs and evolving circumstances. Its principal objective is to ensure that the IGS infrastructure components that collect and distribute the IGS tracking data and information are sustained to meet the needs of principal users, in particular the IGS Analysis Centers, core Product Coordinators, Pilot Projects, and Working Groups. The IC reports directly to the GB.

Infrastructure Committee Coordinator

The Infrastructure Committee Coordinator (ICC) coordinates all activities concerning the IGS infrastructure (e.g., network, data centers, IT services). The ICC initiates the development of policies, standards, guidelines, recommendations, and other initiatives to maintain and improve access to high-quality GNSS data, information, and services. The ICC is a voting member of the IGS GB and interacts regularly with the CB. Infrastructure Committee Coordinators renew their commitment to the task and Governing Board nominally every four years, with no limit on renewals.

NETWORK OF TRACKING STATIONS

IGS stations provide continuous tracking using high accuracy receivers, antennas (including those with multi-GNSS and real-time capability), and geodetic monumentation. They need to have data transmission facilities allowing for regular (at least once per day) data transmission to the data centers (see below). The stations must meet physical and operational requirements as defined in the "IGS Site Guidelines" document available from the CB and published on the IGS website (https://igs.org). The ensemble of the IGS stations is the IGS Network. The IGS Network is operated by a voluntary federation of many worldwide agencies that collectively ensure the consistent high quality products and the long-term operation of the IGS network.

Network Coordinator

The Network Coordinator provides coordination and liaison functions with regards to the IGS Network between station operators, users, data centers and analysts. Job duties include reviewing and approving site log submissions, coordination of new IGS station proposals, decommissioning dormant IGS stations, working with GNSS manufacturers on updates to the rcvr_ant.tab and antenna.gra files, and providing user support with the Site Log Manager. The Network Coordinator works closely with the Infrastructure Committee Coordinator (see above).The Network Coordinator is a non-voting member of the IGS Governing Board. The Network Coordinator renews their commitment to the task and Governing Board nominally every four years, with no limit on renewals.

DATA CENTERS

IGS data centers fall into three categories: Operational, Regional, and Global Data Centers (DCs). Each has varied duties which must be carried out continually and with a minimum of delay or downtime, although the multiplicity of DCs provides a measure of redundancy. The description and responsibilities of each type of DC are detailed in the separate policy document "Charter for IGS Data Centers" and include duties such as collecting data from GNSS tracking stations and ancillary equipment, data validation, permanent archival, providing online availability, and transmittal to and equalization with other DCs. The set of DCs provides for open access to IGS data and products by IGS participants and all external users. DCs are approved by the IGS GB following demonstration of qualifications and commitment.

Data Center Coordinator

The Data Center Coordinator (DCC) assists the DCs and monitors their activities to ensure that the IGS objectives are carried out. Specific expectations include quality control, performance evaluation, and continued development of appropriate analysis standards. The DCC is also responsible for the appropriate collection and dissemination of IGS data and analysis products.

The DCC interacts regularly with the CB and the IERS. The DCC (or designee as approved by the GB) works closely with the Infrastructure Committee Coordinator (see above).

Generally the responsibilities for the DCC shall rotate among the DCs with appointments and terms specified by the GB.

1b) ANALYSIS CENTERS

IGS Analysis Centers (ACs) receive and process tracking data from one or more data centers for the purpose of producing IGS products. The ACs are committed to submit products for combination into IGS products using designated standards and conventions, and within a specified time delay to meet IGS requirements. The ACs generally provide the core products of ephemerides, Earth rotation parameters, station coordinates, and clock information, as well as other recommended products, such as rapid, ultra-rapid or real-time solutions. Associate Analysis Centers (AACs) produce specialized, regional, or temporary products recognized by the GB.

The "Charter for IGS Analysis Centers and Associate Analysis Centers" is a policy statement of the GB and is available from the CB and from the IGS website (http://igs.org).

The final analytical products are combined by an Analysis Center Coordinator.

Analysis Center Coordinator

The Analysis Center Coordinator (ACC) coordinates the ACs activities and monitors their products to ensure that the IGS objectives are carried out. Specific expectations include quality control and performance evaluation. The continued development of appropriate analysis standards is monitored and their application in the product generation is coordinated where needed. The Analysis Center Coordinator is also responsible for the appropriate combination of the ACs' products into a single set of orbit and clock products, which are official IGS products delivered to the Global Data Centers.

Generally the responsibilities for the Analysis Center Coordinator shall rotate among the ACs with appointments and terms specified by the GB. The Analysis Center Coordinator is a voting member of the IGS GB. The Analysis Center Coordinator role may be shared between two individuals; if this occurs, only one will be a voting member of the Governing Board. Analysis Center Coordinators renew their commitment to the task and Governing Board nominally every four years, with no limit on renewals.

1c) IGS PRODUCTS

The IGS collects, archives, and distributes **high-quality GNSS observational data sets** to satisfy the objectives of a wide range of scientific and other high-end applications and experimentation. These data sets are used by the IGS to generate the following data products:

- High accuracy GNSS satellite ephemerides and related information
- Earth rotation parameters
- Coordinates and velocities of the IGS tracking stations
- GNSS satellite and tracking station clock information, timescale products
- Ionospheric information
- Tropospheric information

The IGS also maintains and develops related **standards for GNSS data provision and processing**. These standards are used and shared as guidelines with the IGS community to ensure the highest quality of GNSS data and products and include:

- GNSS station guidelines, including recommendation for equipment and monumentation
- Real-Time GNSS station and broadcaster guidelines
- GNSS data and products naming conventions
- GNSS data and products formats
- GNSS data processing standards
- Guidelines to operate a GNSS Data and Analysis Center

The IGS strives to maintain the most fit-for-purpose products possible in support of numerous scientific objectives, including:

 Realization of global accessibility to, and the improvement of, the International Terrestrial Reference Frame (ITRF)

- Monitoring deformation of the solid Earth
- Monitoring Earth rotation
- Monitoring variations in the hydrosphere (sea level, ice sheets, etc.)
- Scientific satellite orbit determination
- Ionosphere and Troposphere monitoring
- Climatological research, and eventually weather prediction models
- Time and frequency transfer

2) OPERATIONAL COORDINATION COMPONENTS

2a) Working Groups

- Description: An IGS Working Group (WG) is established to address a specific scientific or technical issue or work on a particular topic related to the IGS mission. May be transitioned into a Pilot Project or Committee, with approval from the GB.
- **Term Length:** Short-Term: Initial period no longer than 4 years, with annual review by GB.
- **Leadership:** 1 chair.
- Voting Rights: Chairs are non-voting observers to the GB.

2b) Pilot Projects

- Description: An IGS Pilot Project (PP) is established to investigate or develop a new IGS product or core component. May be transitioned into a Committee if successful in the establishment of a new operational product.
- **Term Length:** Defined-Term: Reviewed every 2 years.
- **Leadership:** 1 chair.
- Voting Rights: Chairs are voting members in the GB.

2c) Committees

- **Description:** An IGS Committee is established to oversee and continuously develop operational IGS products or core components and provide governance and support to IGS Data, Products and Services. May arise from a Working Group or Pilot Project.
- **Term Length:** Long-Term: Reviewed every 2 years.
- Leadership: 1 Chair + Vice Chair (at least two people)

Voting Rights: Chairs/Coordinators vote in the GB

The "Policy for the establishment and governance of IGS Working Groups, Pilot Projects and Committees" provides a guide to the establishment, operation and adjournment of IGS Working Groups, Pilot Projects.

3) GOVERNANCE

3a) CENTRAL BUREAU

The IGS Central Bureau functions as the secretariat of the IGS, supporting general management, coordination, organization, documentation and communication as well as technical support of information systems, monitoring and coordination of IGS ground stations, and other organizational support consistent with the directives, policies and priorities set by the Governing Board. The Central Bureau ensures that administrative and organization tasks critical to the IGS functionality are performed in a consistent and high-quality manner. The Central Bureau ensures standardization and reliability across the all-volunteer organizational components.

Other core functions include the coordination and sustainability of IGS governance, ensuring the timely execution of decisions made by the Governing Board, as well as action items providing critical support to working groups, committees, and other organizational elements. The CB may also serve a role in incubating projects and initiatives.

The CB actively coordinates with the IGS Pilot Projects, Working Groups, Product Coordinators, and committees and ensures the compatibility of IGS and IERS by interfacing with the IERS. The CB acts as the outreach office and promotes use of IGS data and products, maintaining and expanding the visibility of the IGS.

The CB operates the information system for the IGS; it is also responsible for the IGS Annual Reports, which may be produced by an IGS Contributing Organization on behalf of the CB¹. The CB coordinates the publication of other documents required for the satisfactory planning and day-to-day operation of the Service, including standards and specifications regarding the performance, functionality and configuration requirements of all elements of the Service.

Although the Chair of the GB is the official representative of the IGS to external organizations, the CB, consonant with the directives established by the Governing Board, is responsible for the day-to-day liaison with such organizations. The Director of the CB is a voting member of the GB ex-officio. The Deputy Director of the CB and its Executive Secretary are a non-voting member of the GB ex-officio.

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¹ IGS Annual Technical Reports have been compiled and edited by the Astronomical Institute of the University of Bern on behalf of the Central Bureau since 2011

The long-term functioning of IGS is ensured through redundancy of most of its components, though this does not apply to the CB. For this reason, the performance of the Central Bureau is to be formally reviewed by the GB at least every five years. On these occasions the CB host organization will either reconfirm its commitment to the IGS for the next period of five years or announce that it will terminate operations after a transition phase of at least one year. The GB will formally approve the CB's proposal, or, alternatively issue a Call-for-Proposal for a new IGS CB to take over responsibilities after the transition phase.

CENTRAL BUREAU REVIEW PANEL

The performance of the CB will be reviewed every five years by establishing a CB Review Panel, consisting of at least three GB members plus the Chair ex officio. This panel will conduct a series of review exercises, independently and in consultation with the current CB Director and staff, and provide a summary of their findings at the end of the year. If the CB Review Panel recommends continuing with the current CB, and the CB financial sponsor shows a committed budget for fully staffed CB, then the CB Review Panel will enter an "observation" mode, offering annual progress evaluations on CB Review Panel Report goals and weaknesses.

If the CB Review Panel recommends that the CB be relocated, or if the CB sponsor announces a wish to no longer host the CB, the procedures outlined in the "Central Bureau Sustainability Process" document shall be called into use.

3b) GOVERNING BOARD

The principal roles of the Governing Board (GB) are to set policy and to exercise broad oversight of all IGS functions and components. It also controls general activities of the Service, including restructuring, as appropriate to maintain efficiency and reliability, while taking full advantage of the advances in technology and theory. The GB membership should be balanced with regard to supporting organizations, as well as geographically.

The GB consists of a number of voting and non-voting members. They are distributed as follows:

| Membership | Number of People | Term Length | Term Limit | Voting | Nominated by/Elected by | | | | |
|----------------------|------------------|----------------|---------------|--------------|--|--|--|--|--|
| Chair and Vice Chair | | | | | | | | | |
| Chair | 1 | 4 yr. | 2 | only in case | Must be current GB member; Nominated by GB Standing Elections Committee, who solicit nominations from Governing Board; Elected by the Governing Board; | | | | |

| Vice Chair | 1 | 2-4 yr. | | yes | Nominated by GB Standing Elections Committee, who solicit nominations from Associate Membership in consultation with the Governing Board; Elected by the Governing Board | | | | |
|---|------------------|---------|------|-----|---|--|--|--|--|
| Associate Representatives | | | | | | | | | |
| Analysis Center Representatives | 3 | 4 yr. | | yes | Nominated by Standing | | | | |
| Data Center Representative | 1 | 4 yr. | | yes | Elections Committee, which solicits candidates | | | | |
| Network Representatives | 2-3 | 4 yr. | | yes | via a call for nominations from IGS Associate Members; elected by IGS Associate Members. | | | | |
| Appointed Members | | | | | | | | | |
| Appointed Members | Max 6 | 2 yr. | 4 | yes | Nominated by Central Bureau in consultation with the Governing Board; Elected by the Governing Board; maximum of 4 terms (8 years). | | | | |
| | Ex Offi | cio Men | bers | | , | | | | |
| Director of the Central Bureau | 1 | | | yes | Nominated by respective | | | | |
| Committee Chairs | 1 each | | | yes | contributing organizations; Approved by Governing Board. | | | | |
| Pilot Project Chairs | 1 each | | | yes | | | | | |
| Analysis Centre Coordinator | 1 | | | yes | | | | | |
| Stakeholder Representatives | | | | | | | | | |
| IERS Representative to the IGS Governing Board | 1 | | | yes | Nominated by respective organization; Approved by Governing Board. | | | | |
| IAG President | 1 | | | yes | | | | | |
| GGOS President | 1 | 1 | - | yes | | | | | |
| Stakeholder Organization Representatives | see Section 5 | ı | - | no | | | | | |
| | Obser | ver Mem | bers | | | | | | |
| Working Group Chairs, Network Coordinator, Data Center Coordinator, Real-Time Analysis Center Coordinator, Deputy Director of the CB, Executive Secretary of the GB | - | | | no | Working Group Chairs and Pilot Project Chairs are nominated by a simple majority vote within their respective groups. | | | | |

GOVERNING BOARD ELECTIONS

General procedures for the election of Governing Board members is outlined in the companion document "IGS Governing Board Elections Process".

GOVERNING BOARD MEMBERS OVERVIEW

Chair:

The Chair is one of the members of the GB elected by the Board for a term of four years with the possibility of re-election for one additional term. The Chair does not vote, except in case of a tie. He/she is the official representative of IGS to external organizations. The immediate past Chairperson, if no longer a voting member of the Board, will be invited to continue as a non-voting member of the GB for a period of one year after completion of the term(s) as Chair.

The Chair is elected by a simple majority of voting GB members. If the chair wishes to run for re-election, he or she should make this known during the Call for Nominations period for all GB positions to be filled in a given year.

If no additional nominations for the Chair position are received, the Chair may run unopposed, and his renewal will be presented to the GB voting members for approval in lieu of an election. Second (renewal) terms may be for less than four years, pending GB approval.

Vice Chair:

The Vice Chair role includes assisting the Chair in carrying out their responsibilities, including standing-in as Chair when needed. This position is nominated by the Standing Elections Committee, who solicit nominations from Associate Membership in consultation with the Governing Board, and the candidate does not need to be an existing GB member. The Vice Chair is elected by a simple majority of the GB, and may run unopposed.

Associate Representatives:

Associate Representatives represent the Analysis Center, Data Center, and Network components of the IGS. Candidates for these positions are solicited by an Associate Member Call for Nominations and vetted by the Standing Elections Committee. The Standing Elections Committee then presents at least two candidates for each position to the Associate Members for voting. The election will be determined by the number of votes received from the Associate Members.

Further information about Associate Membership application, selection, maintenance, and validation is described in the "Associate Member Engagement Process" document.

Appointed Members:

There are up to five voting members who are nominated by the Central Bureau or Standing Elections Committee and appointed by the Governing Board to two-year terms. These include up to two members who serve as additional representatives of IGS Analysis Centers, Data Centers or Networks, as well as up to three additional members at large. These members are appointed to fill gaps in geographic representation or expertise, and confirmed by a majority vote of

the Governing Board.

Ex Officio Members:

By virtue of their positions within IGS, the IGS Analysis Center Coordinator, Data Center Coordinator, Product Coordinators, Infrastructure Committee Coordinator and the Director of the Central Bureau are considered ex officio members of the Governing Board with full voting rights. The Ex Officio members are approved by the GB every 4 years except for the Director of the Central Bureau.

Stakeholder Representatives:

To ensure coordination and cooperation between the services, the IGS and IERS share reciprocal board positions: the IERS nominates a representative to the IGS GB to be approved by the IGS GB. In turn, the IGS GB nominates two IGS representatives (voting) to the IERS Directing Board to be approved by the IERS DB.

Similarly, to ensure alignment between IAG and IGS, two ex officio board seats are open, subject to Governing Board approval: (1) to the IAG President or representative designated by the IAG Bureau, and (2) to the GGOS Chair or representative designated by the GGOS Executive Committee.

In the case of products requiring significant joint expertise, the GB may approve GB membership of a representative of a partner organization, in order to ensure appropriate representation and communication. Such a representative is designated by the partner organization and is a non-voting member of the GB. It will normally be expected that the GB will in turn be invited to appoint an IGS representative to the Directing Board, or equivalent body, of the partner organization. Partner organizations may include but are not limited to: the International Federation of Surveyors (FIG), the Group on Earth Observations (GEO), co-chairs (together with IGS) of International Committee on GNSS (ICG) working groups, and other relevant collaborative/stakeholder organization or entity.

Bureau International des Poids et Mesures (BIPM) Representative: A representative of the BIPM Time Department, appointed by the BIPM with agreement of the IGS GB, is a non-voting member of the GB. In turn, the IGS appoints a representative to the BIPM Comité Consultatif du Temps et des Fréquences (Consultative Committee for Time and Frequency, CCTF)² and its relevant working groups.

Observers:

The Network Coordinator, Working Group and Pilot Project Chairpersons, the Central Bureau Deputy Director, and the Governing Board Executive Secretary are Governing Board members with voice but without vote.

PROCEDURES

Board Terms/Number of Positions Limit:

² Comité Consultatif du Temps et des Fréquences (Consultative Committee for Time and Frequency), a committee of the Bureau International des Poids et Mesures (International Bureau of Weights and Measures) www.bipm.org.

Governing Board Members are to be elected/approved during the year-end GB Meeting in December. Their term start date will be on 1 January and their term end date will be on 31 December, unless otherwise specified. For example, a two-year term would begin on 2022-01-01 and will end on 2023-12-31. Members are limited to holding up to a maximum of two positions. If both positions are voting positions, the member can only vote once.

Resignation from the Board:

In case of a resignation from the Board, after consulting with the appropriate IGS components, the CB will work with the Standing Elections Committee to nominate replacement candidates for election by the GB. The replacement will serve in an "acting" role until the end of the term of the resigned Board member. At any time the GB can ask for the resignation of the Chair, or any member of the Board, if a majority vote of all voting members of the GB so requests.

GB Voting Procedure:

GB decisions are made by a simple majority vote of voting members present (either in person or participating virtually *via* teleconference), provided that there is a quorum, defined as a simple majority (at least 51%) of voting members of the GB. Voting in person, electronically during the vote, or by email are all permitted by these Terms of Reference and contribute to a sufficient quorum. Changes in Terms of Reference require approval by a 2/3rd majority of all GB voting members.

Board Meeting Frequency:

The Board shall meet at least annually and at such other times as shall be considered appropriate by the Chair or at the request of five members. The GB Executive Secretary oversees the organization and documentation of GB meetings, and is based in the IGS Central Bureau.

IGS Component Assessment and Review:

For the GB to effectively assess the value of IGS data and analysis products, as well as other efforts or services, to the user communities, and to ensure that the Service remains up to date and responsive to changing user needs, the GB will organize reviews of the IGS components at appropriate intervals. The GB will select, on an annual basis, those groups (Analysis Centers, Data Centers, Network Stations, Working Groups and Pilot Projects, and the Central Bureau) that are to be reviewed and from time to time may select other activities for review as it deems appropriate.

Strategic Planning, Implementation, and Progress Tracking:

Strategic planning and implementation is a major and continuous task of the GB. A Strategic Plan shall be developed, approved and published by the GB approximately every four years, or as deemed appropriate by the GB. In order to maintain alignment with the current Strategic Plan, Implementation Plans may be drawn up and presented for approval by the GB. The implementation of the Strategic Plan and progress tracking is supported by each committee, working group and pilot project regularly reporting to the GB on their activities.

3c) EXECUTIVE COMMITTEE

The Executive Committee of the IGS Governing Board is established as a committee that has specific responsibilities allowing it to act on behalf of the GB for the following purposes:

- 1) to formulate and organize issues that are to be brought to the GB for action,
- 2) to act for the GB when a quorum of the Board is not present,
- 3) to act for the GB when a full Board meeting is not possible or necessary.

The Executive Committee is responsible for exercising the powers of the GB in the management of the business and affairs only to the extent set forth in these Terms of Reference. Any actions are communicated to the GB as soon as possible and reported and validated at the next Board meeting. The Executive Committee shall consist of six voting members, assisted by two Central Bureau ex-officio non-voting members of the GB:

- Chair of the GB (voting)
- Vice-Chair of the GB (voting)
- Immediate Past Chair (non-voting)
 - o If the Immediate Past Chair is unable to fulfill this role, this position may be filled at the discretion of the Chair of the GB.
- Director of the CB (voting)
- Deputy Director of the CB (non-voting)
- Executive Secretary of the GB (non-voting) and
- Three additional voting members of the GB proposed by the Chair of the GB and approved annually by the GB. These members shall cover all key components of the IGS and also represent the geographic distribution. Typically they are:
 - Analysis Center Coordinator
 - o Infrastructure Committee Coordinator
 - Analysis/Data Center or Network Representative

Except for the power to amend these Terms of Reference, the Executive Committee shall have all of the powers and authority of the Board in the intervals between meetings of the GB, and subject to the direction and control of the GB. Three votes of Executive Committee members are needed for any decision. Executive Committee meetings are open to any GB member, and outcomes of these meetings will be summarized for distribution to the GB membership.

3d) STANDING ELECTIONS COMMITTEE

The Standing Elections Committee is responsible for organizing and supervising elections within the IGS, and is assisted by the CB. They are also responsible for delivering results of the election to the GB. The SEC consists of at least three GB members holding a position not currently up for re-election, and the SEC chair is appointed by the Chair of the GB. At least one staff member from the Central Bureau will provide administrative support and guidance to the SEC members.

Members of this committee serve for staggered 2-year terms, renewable without limitation. For elections, the Standing Elections Committee works with the CB to issue a Call for Nominations for all GB vacancies, vets the nominations, and presents to the Associate Members a list of at least two candidates for each position to be filled at the time of elections. In the case of a tie, the election is by the members of the GB.

In consultation with the IGS Executive Committee, the Standing Elections Committee will be responsible for the following tasks:

- vetting and selecting the candidates responding to Governing Board Vacancy Calls for Nominations;
- 2. identifying and proposing candidates when sufficient nominations for a given vacancy are not received during the open Call for Nominations period; and
- 3. supporting the IGS Committee, Working Group, and Pilot Project chair elections and re-elections.

3e) ADDITIONAL AD-HOC GROUPS

At the discretion of the GB, temporary ad-hoc task forces, committees, or study groups may be formed to address specific topics.

4) COMMUNITY OUTREACH & ENGAGEMENT

4a) ASSOCIATE MEMBERSHIP

Associate Members are persons representing organizations that participate in any of the IGS components. The membership is balanced with respect to IGS components, organizational representation and geography, and is meant to represent institutions which contribute significantly to the IGS on a continuous basis. The list of IGS Associate members is maintained by the CB and published on the IGS website.

Associate Members elect the members of the GB representing Analysis Centers, Data Centers and Networks. The list of Associate Members eligible to vote in elections is vetted by the CB prior to the election process. Current and former GB members may maintain active Associate Member status before, during, and after their terms of service to the GB.

Guidelines for Associate Member candidate approval and engagement are outlined in the document "IGS Associate Member Engagement Process".

4b) WORKSHOPS

IGS Workshops provide a forum for presentation and discussion of all aspects of IGS activities (strategy, analysis, network, data centers, current and future projects, working groups, products, user applications, and others). Workshops are to be held at least every two years, and are open to all interested persons. A Local Organizing Committee (LOC) and Scientific Organizing Committee (SOC) are appointed by the GB to split workshop event planning responsibilities in collaboration with the CB. The LOC shall be responsible for handling budgeting, venue bookings, staffing, registration, and other on-site tasks. The SOC shall be responsible for the organization of the technical sessions and shall ensure that the workshop is appropriately documented through online proceedings and a "Recommendations" document. The GB shall approve the Recommendations document, which will be made available to the community via the IGS website (https://igs.org).

4c) VIRTUAL MINI WORKSHOPS

In addition to multi-day in-person workshops, IGS may hold virtual workshops on relevant topics to the IGS membership, stakeholders and GNSS community in general. These events may cover a wide range of topics considered to merit particular attention and may be used as the mechanism for reviews of specific IGS elements, as mentioned above.

5) IGS STAKEHOLDER ORGANIZATIONS

Stakeholder organizations are informed about IGS publications, workshops or scientific meetings organized by the IGS. Organizations (and/or offices) currently categorized as IGS Stakeholder Organizations include:

- IAG Bureau and Executive Leadership, presidents of IAG Commissions and Inter-Commission Committees.
- Chairs and Central Bureau Directors of affiliated IAG Services, including:
 - International VLBI Service for Geodesy and Astrometry (IVS),
 - International Laser Ranging Service (ILRS),
 - International Earth Rotation and Reference Systems Service (IERS),
 - International Doris Service (IDS), etc.,
- President and Coordinating Office Director of the Global Geodetic Observing System (GGOS)
- IUGG Secretary General and Executive Secretary
- Chairs and Secretariats of Partner or Stakeholder Organizations
 - International Federation of Surveyors (FIG)
 - United Nations International Committee on GNSS (ICG)
 - United Nations Global Geospatial Information Management (GGIM) Subcommittee on Geodesy (SCoG)

- o Bureau International des Poids et Mesures (BIPM)
- Former Governing Board Members
- The rules contained in the current edition of 'Robert's Rules of Order Newly Revised' shall govern the IGS in cases to which they are applicable and in which they are not inconsistent with these Terms of Reference and any special rules that the IGS GB may adopt.