



**NATIONAL
GEOPHYSICAL
FACILITY**
Operated by EarthScope

Global Seismographic Network Advisory Committee Charter

Purpose

The GSN Advisory Sub-committee advises the NSF NGF Facility (via the Network Instrumentation Advisory Committee) and the USGS on policies to deploy and operate the Global Seismographic Network (GSN), to ensure its integrity and long-term viability, to rapidly disseminate data collected by the GSN, and coordinate GSN linkages with other networks around the world. Specifically, this sub-committee is charged to:

1. Set standards for GSN instrumentation and data collection, focusing on high-quality, real-time data.
2. Develop and maintain a siting plan, in coordination with FDSN partner networks and groups focusing on oceanic instrumentation, to achieve the collaborative goal of a minimum of one station every 20 degrees with performance-based densification in regions of scientific importance, earthquake hazard, or other monitoring interests.
3. Integrate GSN activities with other national and international centers (e.g., ORFEUS, GEOSCOPE, ISC) and networks to enhance GSN interoperability and facilitate the free and open exchange of data in a timely, user-transparent manner. Facilitate collaborations between the GSN and national and international agencies (e.g., CTBTO) whose mission would benefit from rapid access to GSN data.
4. Set standards and policies to ensure the timely flow of data from the GSN stations to the Data Collection Centers and to real-time monitoring agencies. Develop strategies for improving station uptime, and for eventually realizing all of the data flow in real-time.
5. Develop strategies to maintain, calibrate, and refurbish the existing instrumentation of the GSN. Develop strategies for instrumentation upgrades, where feasible and cost-effective, including new seismic sensor technologies and ancillary geophysical sensors.
6. Develop new initiatives to enhance the effectiveness of the GSN for scientific advances and societal benefit. Guide the development of new instrumentation for extreme environments, e.g., autonomous stations for seafloor, ocean-island, and polar deployment.
7. Advise the Network Instrumentation Advisory Committee, EarthScope Management (relevant Program Managers, VP, and CEO) and USGS GSN Program Coordinator on program planning and annual budgets.
8. Review activities and sources of support for new initiatives that use or wish to use GSN facilities or resources in the context of the effectiveness of the overall EarthScope mission.
9. Provide a “State of Health” report on the facilities under the purview of this sub-committee to the NIAC and the NSF that can also be shared with the EarthScope Board of Directors.
10. Liaise with other committees on specific issues of governance, policy, resource allocation, programmatic initiatives, or strategic direction.
11. Monitor whether the EarthScope Consortium is meeting its Cooperative Agreement commitments in the areas relevant to this committee’s charge.



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12. Re-evaluate this Charter on an annual basis and report to the NIAC.

Membership

1. There will be 6 voting members of the GSN Advisory Sub-committee
2. Two members of the sub-committee, one of whom will be sub-committee chair, will be current members of the Network Instrumentation Advisory Committee
3. Two members of the sub-committee will be members of the community outside of the NIAC with knowledge of and interest in the Global Seismic Network.
4. Two members should be from the USGS, one ex-officio and one rotating.
5. Additional observers and contributors may be added by this sub-committee on a non-voting basis as needed for their expertise.

Selection

1. All four EarthScope community members recommended for this committee (as described below) are recommended by the Board from a slate of nominees provided by the Committee, and are then appointed by the EarthScope CEO.
2. The two members that are joint with the NIAC shall be recommended to join this sub-committee by the NIAC. This includes the selection of the chair of the GSN Sub-Committee.
3. The two members that are from the community (that are not on the NIAC) shall be recommended jointly by the GSN subcommittee and the NIAC.
4. The two members from the USGS are to be selected by the USGS.

Term of Office

1. The two members from the NIAC shall serve from the time of their selection until the end of their NIAC committee membership term, or for three years, whichever comes first.
2. The two members selected from the community that are not on the NIAC shall serve three-year terms.
3. For the inaugural committee, the Chair will serve a one-year term, the other NIAC member will serve for two years, and both non-NIAC community members will serve three-year terms.

Member Responsibilities

1. Being Informed: Participate in training related to onboarding, governance best practices, ethics, and implicit bias
2. Being Visible: Actively solicit input from our broad stakeholder community
3. Being Fair and Impartial: Faithfully represent our broader community's needs and perspectives
4. Being Honest: Committee members should seek to meet the highest standards of transparency and ethics
5. Being Active:
 - a. Prepare for and attend committee meetings (no more than two in-person meetings per year; additional virtual meetings likely).



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- b. Review and edit meeting briefing materials in advance of the next meeting
- c. Actively participate in committee discussions

Member/Committee Support to be provided by EarthScope

- 1. Hybrid option available for all meetings
- 2. Access to online resources for communication and record-keeping
- 3. Administrative support including minutes-keeping at meetings
- 4. Training in committee purpose, governance leading practices, and past committee actions
- 5. Onboarding education describing responsibilities of governance members to represent broad interests
- 6. Bias and ethics training
- 7. Limited caregiver support for governance participation

Officers

Chair

- 1. Presides over all committee meetings
- 2. Sets the agenda with senior management
- 3. Conducts formal communications between the AC, the EarthScope Board, and EarthScope staff liaisons
- 4. Assists with annual reporting of potential committee member COIs; manages such conflicts
- 5. Participates in Board meetings as a non-voting observer and briefs the Board on the facilities' success in meeting its Cooperative Agreement commitments in the areas relevant to this committee's charge
- 6. Ensures the posting of outward-facing minutes to the community with help of the Secretary and EarthScope Consortium staff

Secretary

- 1. With the assistance of EarthScope Staff liaisons (scribes may be assigned within EarthScope staff to take notes for the minutes during the meeting) records and prepares both outward- and inward-facing minutes for all meetings of this committee
- 2. Distributes outward- and inward-facing meeting minutes to this advisory committee in advance of the next AC meeting for revision and/or approval
- 3. With the assistance of EarthScope Staff liaisons, documents significant decisions made by the committee. This includes a brief description in both the outward- and inward-facing minutes, along with an archiving of relevant documents. Ensures these documents are shared in full to the appropriate audiences (see communications below).



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Management Staff Liaison

For the inaugural committee, the management staff liaison(s) will be determined by the CEO in consultation with the Board of Directors and the Advisory Committee Chair. The presumptive Staff Liaison will be the cognizant VP or their designee.

Communications

1. A liaison from the Board of Directors will be present at all Committee meetings
2. The Chair of this Advisory Committee will present to the PIs and the Board of Directors at least once per year in order to provide information on the program.
3. This committee shall be cognizant of the Board of Directors' proposed recruitment structures, and provide feedback to help ensure best practices for equitable and inclusive governance are being followed.
4. This committee shall provide members to participate in sub-committees or coordinating committees to ensure seamless communications between other Advisory Committees and/or subcommittees as necessary.