

CHARTER
OF THE
Geo-Engineering
Earthquake Reconnaissance
Association
(GEER)

BY

**The Steering Committee of the Geo-Engineering
Earthquake Reconnaissance Association**

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PREAMBLE

WHEREAS earthquakes cause catastrophic loss of life and property,

WHEREAS these losses are reduced and public safety enhanced by effective planning and design of the built environment,

WHEREAS these beneficial actions depend critically on documenting and analyzing geotechnical effects of significant earthquakes and other disasters,

WHEREAS there is need for effective collection, documentation, and dissemination of data that describe the geotechnical effects of earthquakes and other disasters,

WHEREAS there is a need for continued and effective training and education of students, researchers, and practitioners conducting post-disaster reconnaissance,

WHEREAS present technology allows cost effective and efficient collection of measurements that document the seismic performance of the ground and earth systems, **AND**

WHEREAS analysis of geotechnical measurements and information are essential to minimize the otherwise massive cost of seismic hazard mitigation,

WE, THE MEMBERS OF THE GEO-ENGINEERING EARTHQUAKE RECONNAISSANCE (GEER) ASSOCIATION, ARE DETERMINED

to reduce the catastrophic effects of future earthquakes on life and property and reaffirm the need to significantly enhance public safety and protect the economic health from future earthquakes through:

acquisition, dissemination, archiving, and analysis of critically needed sets of field observations and measurements of the damaging effects of earthquake ground-shaking,

AND FOR THESE ENDS

to coordinate the efforts of members who are committed to gather, analyze, present, and disseminate critically needed post-earthquake reconnaissance measurements and information of geotechnical phenomena and their effects,

to establish principles and methods for the effective development of the foregoing,

AND HAVE RESOLVED TO WORK TOGETHER TO ACCOMPLISH THESE AIMS.

Accordingly, our respective Agencies, Institutions, and Organizations, through representatives assembled in the City of Berkeley, have agreed to the present this Charter of the **GEER** and do hereby establish an Association to be known as the **Geo-Engineering Earthquake Reconnaissance (GEER) Association**.

CHAPTER I — Purposes and Principles of GEER

Article 1 — Purposes

The Purposes of **GEER** are:

1. Document geotechnical and related effects of important earthquakes to advance research and practice.
2. Advance the capabilities of individuals performing post-earthquake reconnaissance.
3. Employ innovative technologies for post-earthquake reconnaissance.
4. Facilitate access to equipment required for sensing and data collection.
5. Train individuals to perform effective post-earthquake reconnaissance.
6. Disseminate timely and accurate post-earthquake web-based reports and data.
7. Develop a coordinated response for geengineers and earth scientists, who have previously self-assembled, to form effective post-earthquake reconnaissance teams.
8. Promote the standardization of measurement and reporting in reconnaissance efforts.

Article 2 — Principles

The GEER Association and its Members, in pursuit of the Purposes stated in Article 1, shall act in accordance with the following Principles:

1. All Members, in order to ensure the rights and benefits resulting from their membership or participation, shall fulfill in good faith the obligations assumed by them in accordance with the present Charter.
2. Members agree to adopt **GEER** recommendations and participate in **GEER** activities to the extent that these are in accord with member organization's missions, needs, policies, and resources.
3. Members shall be committed to increase seismic safety through the collection, documentation, analysis, and dissemination of post-earthquake geotechnical measurements and information.
4. Members who serve on post-earthquake reconnaissance efforts that are funded in part by **GEER** agree to make collected data available conveniently and rapidly to the geotechnical engineering research and practicing professional community.

CHAPTER II — Membership

Article 3 — Membership

1. Membership in **GEER** shall be open to all individuals of all agencies, organizations, private companies and consultants, professional institutions, professional societies, and universities, which accept the obligations contained in this Charter and are able and willing to carry out these obligations.
2. Members of **GEER** shall be individuals of organizations that agree to support its Purposes and Principles and to be governed by its Charter.
3. The admission of any member in **GEER** will be affected by action of the **GEER Steering Committee (SC)**, as provided in Article 12 (4).
4. Members may withdraw from **GEER** by sending a letter to the Chair of the **SC** stating their withdrawal and its effective date.

Article 4 — Types of Membership

GEER shall have four categories of membership:

1. **Regular Members**, comprised of individuals from agencies, organizations, private companies, professional organizations, and universities who agree to be available to participate in **GEER** training, development, and post-earthquake reconnaissance activities.
2. **Steering Committee Members**, comprised of regular members who volunteer to participate actively in the leadership of the **GEER** Association.
3. **Advisory Panel Members**, comprised of individuals who volunteer to provide guidance to the development and growth of the **GEER** Association.
4. **Organizational Partners**, comprised of entities, such as the Consortium of Organizations for Strong-Motion Observation Systems (COSMOS), Earthquake Engineering Research Institute (EERI), Federal Emergency Management Agency (FEMA), Incorporated Research Institutions for Seismology (IRIS), National Institute of Standards and Technology (NIST), National Science Foundation (NSF), Network for Earthquake Engineering Simulation Incorporated (NEES Inc), Structural Engineering Association of California (SEAOC), U.S. Army Corps of Engineers (USACE), United States Geological Survey (USGS), and other public or private organizations with a specific interest in advancing knowledge through post-earthquake reconnaissance, or earthquake recording or data-dissemination efforts.

Article 5 — Membership Application and Status

1. An individual or organization may apply to become a member or partner of **GEER** by: 1) providing a description of its work or interest in post-earthquake reconnaissance, 2) pledging support to the Purposes and Principles of **GEER**, and 3) identifying the membership status for which it is applying.

CHAPTER III — GEER Components

Article 6 — GEER Components

The following are established as the principal components of **GEER**:

1. **Regular Membership (RM)**,
2. **Steering Committee Members (SC)**,
3. **Advisory Panel Members (AP)**, and
4. **Organizational Partners (OP)**.

CHAPTER IV — Regular Membership (RM)

Article 7 — RM Composition

1. The **Regular Membership (RM)** shall consist of all the regular members of **GEER**.

Article 8 — RM Functions and Powers

1. The **RM** may discuss any matters within the scope of the present Charter or relating to the powers and functions of any components provided for in the present Charter and shall make any recommendations to the **SC**.

2. The **RM** should call the attention of the **SC** to opportunities and situations, which are likely to influence the advancement of post-earthquake reconnaissance.
3. The **RM** shall endeavor to affect excellent communication among the members regarding knowledge about post-earthquake reconnaissance and use of collected information.
4. The **RM** shall develop recommendations based on studies, Steering Committee contributions, and workshops for the purpose of pursuing the purposes according to the principles of **GEER** as stated in Chapter I, Articles 1 and 2.
5. The **RM** shall receive and consider annual and special reports from the **SC** as provided by its Chair.
6. The **RM** shall receive and consider reports from the other components of **GEER**.
7. The **RM** may recommend suspensions of rights and privileges when members do not comply with purposes, principles, and provisions of the **GEER** Charter.
8. The **RM** may periodically review and recommend changes to the Purposes and Principles of **GEER**.
9. The **RM** may form committees in concurrence with the **SC** to conduct various tasks and responsibilities of **GEER**.
10. The **RM** shall be eligible to serve on committees, working groups, advisory panels, and councils to draft standards and policies.

Article 9 — RM Voting

1. Voting privileges shall be restricted to **Regular Members (RM)**.
2. A quorum for a meeting of the **RM** shall be a minimum of 40 percent of the total **RM** or a total of 30 **Regular Members**, whichever is the lowest.
3. Decisions of the **RM** shall be made by a simple majority of the members present at an official meeting or by letter/electronic ballot.

Article 10 — RM Procedures

1. A special meeting may be called if requested by at least ten percent of the **RM** or by the **SC**.
2. The meetings of the **RM** shall be conducted according to Robert's Rules of Order with summarized minutes.

CHAPTER V — Steering Committee (SC)

Article 11 — SC Composition

1. The **GEER Steering Committee (SC)** shall initially consist of eight Regular Members of **GEER**. The **SC** is initially formed by a Chair and appointed members who agree to work to lead the activities of **GEER**. It is the responsibility of the **SC**, working under the guidance of the **GEER Advisory Panel (AP)**, to develop mechanisms for renewing **SC** membership at the appropriate time.

Article 12 — SC Functions and Powers

1. The **Steering Committee (SC)** has primary responsibility for establishing policies of **GEER**.
2. The **SC** shall act in accordance with the Purposes and Principles of the **GEER** as set forth in this Charter.
3. The **SC** shall submit annual and, when necessary, special reports to the **RM**.
4. The **SC** shall admit new **Regular Members** of **GEER** based on a review of their application.

5. The **SC** shall review **Organizational Partners** every three to five years to assess institutional involvement.
6. The **SC** shall nominate individuals from which the **SC** and **AP** shall confirm to serve as members of the **SC** for terms of five years, which are renewable.

Article 13 — SC Voting

1. Each member of the **SC** shall have one vote.
2. Decisions of the **SC** on key matters shall be made by an affirmative vote of a majority of the quorum of the **SC**.
3. A quorum of the **SC** shall be a majority of the **SC** members.

Article 14 — SC Procedures

1. The **SC** activities shall be lead by a Chair of the **SC**, who will be elected by a majority of the members of the **SC**.
2. The **SC** shall conduct at least one formal meeting each year, and other virtual meetings as required to conduct business. The **SC** shall prepare a summary of its meetings for presentation to the **RM** through its web site.
3. The **SC** may establish such ad hoc and standing committees, as it deems necessary for the performance of the functions of **GEER**.
4. The meetings of the **SC** shall be conducted according to Robert’s Rules of Order.

CHAPTER VI — Advisory Panel (AP)

Article 15 — AP Functions and Powers

1. The **GEER Advisory Panel (AP)** is established to provide guidance to the **SC** as they execute **GEER** activities to advance post-earthquake reconnaissance activities for purposes of public earthquake safety.
2. The **AP** shall provide continuing broad overview of post-earthquake reconnaissance needs and promote and encourage the expansion of investment by government bodies and private entities in post-earthquake reconnaissance. The **AP** will provide high-level review and comment and when appropriate recommend endorsement of proposals being developed or submitted, providing support and/or recommending revisions for improvements.
3. The **AP** will provide high-level overview of **GEER** activities independent of specific programs, identifying needs, and conceiving, identifying, and developing strategies to move the state of the art and practice in post-earthquake reconnaissance forward in keeping with the mission of reducing earthquake hazards.

Article 16 — AP Composition

1. The **Advisory Panel (AP)** shall be comprised of approximately 20 to 25 individuals whose interests represent the broad fields of engineering, science, and public policy related to natural hazards research and post-event reconnaissance.
2. The **AP** members shall be appointed by the **SC** to serve multi-year terms.

Article 17 — AP Voting and Procedure

1. Each member of the **AP** shall have one vote.

2. Decisions of the **AP** on all matters shall be made by an affirmative vote of a majority of members present.
3. A quorum for the **AP** is defined as a majority of **AP** members.
4. The meetings of the **AP** shall be conducted according to Robert's Rules of Order.
5. The **AP** shall formally participate in at least one **GEER** meeting every three years and meet more frequently, including teleconference meetings, as warranted.
6. The Chair of the **AP** shall be appointed by the Chair of the **SC**, with approval of a majority of the **SC** members, to lead the activities of the **AP**.

CHAPTER VII — Organizational Partners (OP)

Article 18 — Functions and Powers

1. The **Organizational Partners (OP)** shall be formed of organizations that have components that conduct post-earthquake reconnaissance, or collect and disseminate earthquake data, and who share the vision of **GEER**.
2. The **OP** should liaison with **GEER** with the purpose of developing a coordinated response to post-earthquake reconnaissance efforts.
3. Each **OP** should identify an individual within its organization to serve as a point of contact who can work with **GEER** to coordinate post-earthquake reconnaissance activities. These individuals may also serve as members of the **AP**.

CHAPTER VIII — Finances

Article 19 — Finances for Establishment of GEER

1. Initial ongoing day-to-day costs of **GEER** are expected to be minimal.
2. Travel costs of **SC** and **AP** members for the purpose of participating in **GEER** meetings will be borne by **GEER**, which is initially funded by the National Science Foundation, or by their respective organizations.
3. Travel costs of **RM** and **OP** representatives to participate in **SC** and **AP** meetings will be borne by their respective organizations, unless other arrangements are approved by the Chair of the **SC**. Administrative costs will be borne by the current Chair of the **SC**, unless other arrangements are approved by the **SC**.
4. Donations or other support from private or public entities may be accepted to support of **GEER** activities.
5. The Chair of the **SC** shall develop a financial plan for **GEER** to develop a fiscal basis to support activities beyond the minimal operating costs necessary to initiate **GEER**.

CHAPTER IX — Data-Dissemination Requirements for the Membership

Article 20 — Data Dissemination Requirements for Members

1. The **GEER** members commit to timely release of data collected after an earthquake, releasing data as rapidly as practical in the context of their organization's specific mission requirements.
2. The **GEER** members understand that appropriate credit for collected data is important. Therefore data released by the **GEER** members will be credited to its originator when the released data is of a derivative nature.
3. The **GEER** members understand that making the utilization of data convenient for users is important for its effective use. Members agree to distribute their data in an effective manner.

4. The **GEER** members agree to assist in the development of a master database of post-earthquake reconnaissance data.

CHAPTER X — Technical Assistance

Article 21 — GEER Assistance

1. **GEER** may assist with or arrange equipment loans, training programs, and other means of helping future post-earthquake reconnaissance efforts.
2. **GEER** may facilitate the use of post-earthquake reconnaissance data through various types of assistance to data users.
3. **GEER** may provide support to members upon request to facilitate data collection and dissemination.

CHAPTER XI — Amending the Charter

Article 22 — Amending the Charter of GEER

Amendments to the Charter of **GEER** require:

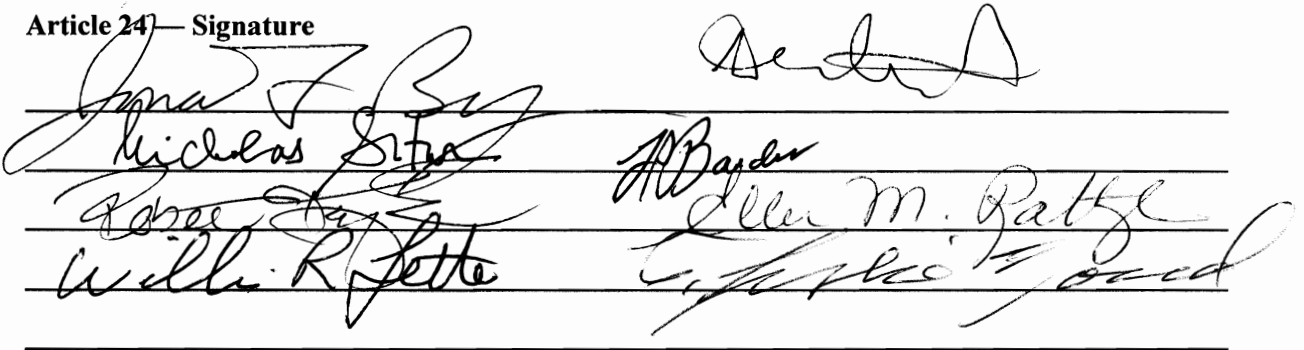
1. one-half vote of the **RM**, and
2. two-thirds vote of the **SC**.

Chapter XII — ADOPTION AND SIGNATURE

Article 23 — Adoption

1. The initial members of **GEER** shall include the members of the **GEER SC**.
2. The present Charter shall be adopted when signed by two-thirds of the membership of the **GEER SC**.
3. The adopted copy of the Charter shall be deposited with the Chair of **GEER**.
4. Nothing herein is intended to require any member to waive their intellectual property rights or otherwise surrender intellectual property without their consent.

Article 24 — Signature


The signatures are arranged in two columns. The left column contains four signatures: a large cursive signature, a signature that appears to be 'Nicholas...', a signature that appears to be 'Robert...', and a signature that appears to be 'William R. Jette'. The right column contains three signatures: a cursive signature, a signature that appears to be 'A. Bayden', and a signature that appears to be 'Allen M. Ratzke'. There are two additional horizontal lines below the last signature in the right column.