

Request for Information

Seeking Expressions of Interest from IRIS and UNAVCO Member Institutions for Hosting Future Geophysical Facilities

June 22, 2020

Introduction

The Incorporated Research Institutions for Seismology (IRIS) and UNAVCO, Inc. (UNAVCO), both university consortia, are interested in identifying member institutions that may be willing to host one or more functions of a future (post-2023) merged IRIS-UNAVCO organization (referred to hereafter as “new organization”).

Context

IRIS and UNAVCO operate a variety of facilities and provide services in support of the geophysical research community. Both organizations are not-for-profit 501(c)(3) corporations, structured as consortia of universities with research and educational interests in seismology, geodesy, and other closely aligned fields of geophysics. Both organizations are dedicated to facilitating world-class research and education in geophysical sciences.

Primary sponsorship of the IRIS and UNAVCO facilities is from the National Science Foundation (NSF) but also includes sponsorship from the National Aeronautics and Space Administration (NASA), the United States Geological Survey (USGS) and other (primarily federal) entities.

Currently, IRIS and UNAVCO operate the Seismological Facility for the Advancement of Geoscience (SAGE) and the Geodetic Facility for the Advancement of Geoscience (GAGE) facilities, respectively, for the NSF. These facilities constitute the primary awards to both organizations, comprising some \$30 M in NSF funding. NSF has announced [[NSF Dear Colleague Letter NSF 20-037](#)] that any future geophysical facilities will be funded as a single cooperative agreement, to be selected through an open competition, with a new award commencing on October 1, 2023. IRIS and UNAVCO are developing plans to merge, creating a new not-for-profit corporation and university consortium that will compete for the award to operate this new geophysical facility. As such, IRIS and UNAVCO are seeking to identify one or more potential host institutions that could provide the necessary offices, laboratories, and warehouse space required by the new organization, and that would partner with IRIS and UNAVCO to respond to the eventual solicitation from NSF.

Purpose of this Request for Information (RFI)

We are seeking expressions of interest from IRIS and UNAVCO member institutions, located in the USA, to host one or more functions of the new organization, which would support any future NSF-funded geophysical facility operated by the new organization. We will use responses to this RFI for planning purposes and to ensure that any subsequent Request for Proposals (RFP) is well conceived and framed to take advantage of the full range of opportunities that host institutions

may provide. We expect an RFP will be used to select one or more partners that will be part of our proposal team when the new organization responds to the anticipated NSF solicitation for the SAGE-GAGE follow-on facility.

Scope

This RFI covers the following four functional areas of the SAGE-GAGE activities. Responses may address any one of the desired capabilities as well as portions or combinations thereof. Because the specific services and capabilities under NSF's SAGE-GAGE follow-on facility solicitation are unknown at this time, we base the list below on the current SAGE and GAGE facilities and services. We are particularly interested in responses that identify synergies between our activities and those at the host institution(s), such as availability for staffing via subaward to the host institution(s), office, warehouse or meeting space, testing facilities, internships, work study for part-time staffing, education and outreach, and increased diversity. At present, the facilities operated by SAGE and GAGE are staffed by IRIS or UNAVCO employees, and by host institution employees (via subawards), and sometimes both. We expect these sorts of versatile staffing arrangements to continue.

Note that the new organization expects to make substantial use of telework for office-based work, so we quote wide ranges for the number of staff that are locally associated with each functional area.

1. **Headquarters and business operations.** Requires a standard office environment, housing 25-40 people. The required facilities include:
 - 5-10 private offices, including two to three larger executive offices; other offices can be a combination of private and shared offices and/or cubicles
 - Robust internet, phone, copier, shipping, receiving, break room/kitchenette, and storage functions of a typical office environment, including wi-fi throughout the office space
 - Visitor offices for use by teleworkers during their periodic visits to the office, that can also serve as temporary private offices for staff
 - Access to one large conference room (30-40 people) with A/V capability and one or two smaller workgroup meeting rooms (at least one capable of accommodating eight people)
 - Access to a facility for up to 50 people for seminars and other short courses
 - Storage space for office supplies, file cabinets, etc.

2. **Instrumentation Services.** This facility must provide a mixed-use office, laboratory, testing, planning/training, and warehouse space that will accommodate the combined operations of the new organization. We note that UNAVCO and IRIS currently have multiple locations that support Instrumentation Services and experiment support. These encompass portable (campaign-style) seismic and geodetic instrumentation and large geophysical sensor network operations (e.g., NOTA, NASA GGN, and GSN), implemented in both large principal facilities and in several smaller regional offices/warehouses. It will not be fully established (until the next proposal is written during 2022) to what extent

these distinct functions and facilities will be proposed to be consolidated or continue to be operated at multiple locations. However, the required facilities are expected to include:

- Warehouse of at least ~8,000-10,000 square feet, with overhead space for pallet racks to three high and environmentally controlled to allow year-round indoor work to be conducted.
- Combined laboratory and office area of ~20,000-30,000 square feet, to provide:
 - offices for 30-50 people, to include several larger executive offices, other offices which can be a combination of private and shared offices and/or cubicles, and break room/kitchenette, and storage functions of a typical office environment, including office-wide wi-fi
 - 15-20 work benches for the service, test, and repair of small geophysical instruments
 - Several work benches located in a modestly “clean room” environment with air handling to accommodate work on sensitive mechanical and electronic systems
 - Computer/server room to accommodate experiment data offload and data archive support
- Bay doors to shipping / receiving area with appropriate truck-loading access
- Indoor and outdoor equipment staging areas to allow experiment shipment builds.
- Laboratory/testing space to accommodate operation of several large (5' x 5') freezers and environmental chambers for temperature cycle testing of hardware
- Concrete piers for testing seismic instruments in an environmentally controlled space
- Roof access for testing geodetic antennae, satellite communications, and other instrumentation needing sky views
- Training space to allow equipment training (15-20 people plus equipment and power access.
- Access to field laboratory/test area is desirable. Ideally this is a relatively rural location where prototype seismic and geodetic stations and systems can be installed and tested securely in a quiet and secure location. Must include the option to drill cased boreholes (~100m) and shallow post holes (3-5m) of 15-25 cm diameter for testing instruments. Must include space for setting up small photovoltaic arrays (e.g., 1-10 panels) and antenna structures under a blanket environmental impact statement.
- Ability to test RF equipment with minimal interference.
- Secured vehicle parking space for large equipment/trucks/trailers, etc.
- Facility must be readily accessible to major land and international air-based shipping.

3. **Data Services.** This facility must provide standard office space and access to computer facilities for housing the office communications, firewall and server equipment. The required facilities include:
 - Standard office space for 30-40 staff, which include at least 1 large (director's) office, 6 private offices, and the remainder as shared offices or cubicles
 - Robust internet, phone, copier, shipping, receiving, break room/kitchenette, and storage functions of a typical office environment, including office-wide wi-fi and 10 Gb ethernet.
 - Access to one large conference room (40 people) with appropriate data connections for displays and conference calls
 - Meeting room (10 people)
 - Computer Facilities: a secure server room with space for 4 racks of equipment, appropriate temperature control, and power (30A, 240V).
 - Local internet connection speeds of at least 1 Gbps (fiber)

4. **Education and public outreach.** This facility must provide standard office space, housing 5-10 people. This space is similar in all respects to the space required for headquarters and business operations staff. In addition, we require:
 - 2-4 private offices, including one to two larger executive offices; other offices can be a combination of private and shared offices and/or cubicles
 - ~600 square feet of combined light storage and workspace used to store educational materials (posters, books, etc.) and display items (large monitors, models, booth hardware, etc.) and to box/unbox these materials for distribution and receiving. This space is also used as a small shipping/receiving area for materials going to/from educational and scientific conferences.

Responses

All IRIS or UNAVCO member institutions based in the USA are eligible to respond. We recommend responses cover the following areas:

- Identify any and all functional areas (from the list above) that your institution may be interested in hosting.
- Identify the relevant capabilities (physical facilities, services, staffing, test facilities, etc.) that can be provided.
- Briefly describe any broader institutional capabilities and possible synergies between the host institution and the new organization. Synergies that further the mission of the new organization and thus enhance its growth and ability to make vital contributions to an engaged and diverse society, which is resilient to geohazards and is informed by geophysical discovery and global collaboration, are particularly desirable.
- Provide a discussion of cost and financial considerations relevant to your expression of interest – cost will be an important factor in a future RFP. Thus, a discussion of overhead rates, potential institutional, state, or other contributions, incentives, cost matches or other cost reduction strategies is welcome.
- Describe any special strategies your institution can implement as a facility host, which could enhance teleworking options for a virtual work force component.

- Briefly discuss (or summarize a list of websites that have this information) issues relevant to the new organization's workforce, such as the regional housing, employment, transportation, cost of living, and educational opportunities for the surrounding area. Access to airports and level of service provided by major commercial carriers is highly desirable.

As noted above, responses can express interest in hosting any one or more (or parts thereof) of the functional areas described above.

Please note that a future RFP may seek a somewhat modified scope of facilities, relative to those identified above, depending on the specifics of the NSF solicitation for the integrated follow-on facility post-SAGE and GAGE.

Response Specifications and Instructions

Responses should be no longer than 5 pages and must address all of the areas outlined in the *Responses* section above.

Responses should be e-mailed in PDF format to: rfi@iris.edu.

Questions can also be addressed to: rfi@iris.edu. General questions will be anonymized, and the questions and answers will be added to an FAQ at:

https://www.iris.edu/hq/news/story/geophysical_facility_rfi

Responses should identify an institutional point-of-contact who can respond to questions.

Review Process, Timeline, and Next Steps

A committee, jointly appointed by the IRIS and UNAVCO Boards of Directors, will review the responses to this RFI. We will use the responses to inform and shape an RFP for hosting the new organization's facilities. Interested parties are strongly encouraged to reply to this RFI. We retain the right to solicit responses to the RFP from only those parties who have responded to the RFI.

Responses to this RFI are due by 5 PM MT on September 18, 2020.

We expect to release an RFP for facility host(s) after NSF releases the solicitation for the integrated SAGE-GAGE follow-on facility (second quarter of 2021, per NSF 20-037).

RFI Terms and Conditions

IRIS and UNAVCO will not make any binding agreements as a result of this RFI. Any alleged oral agreements made by respondents with IRIS or UNAVCO employees will be disregarded in any evaluation of an institution's response.

Responses to this RFI will become the exclusive property of IRIS and UNAVCO upon receipt and will not be returned. Responses will be treated as the respondents' confidential and proprietary information.