

## Examples of Qualified Projects

### ***Create a Regional Capacity-Building Project***

The AfricaArray project shows that a broad consortium of US universities, foreign educational institutions, and government mission agencies can achieve educational and other goals that extend beyond scientific research. A convincing strategy can attract support from of the US government, foreign governments, for-profit corporations and charitable foundations that exceeds the resources available from educational institutions. IRIS could promise instruments to even a nascent consortium, to help it leverage other long-term funding commitments.

### ***Establish an Earthquake Alert System***

In the aftermath of major disasters effecting developing countries, such as the tsunami that resulted from the 2004 Sumatra-Andaman earthquake, wealthy national governments sometimes promise high levels of funding to support recovery, including preparation for a similar event in the future. When a disaster mitigation system is established as part of the recovery, a government generally intends to operate the system indefinitely. IRIS instruments could be loaned indefinitely to help the newly established system exchange data and integrate more effectively with other geophysical monitoring networks.

### ***Expand an Existing Monitoring Network***

Occasionally a state or national government may recognize that an existing geophysical monitoring network may not be dense enough or cover a large enough area to completely characterize a hazard. If such a government is considering a commitment to maintaining a network of more stations, IRIS could promise to indefinitely loan instruments as one element of a broader plan to acquire all of the required equipment.

## Instruments Now Available

The instruments available at this time are PASSCAL data loggers (**RefTek RT72-A**) that have been superseded by a new generation of instruments. IRIS is having a selected set of the data loggers refurbished by the manufacturer to perform in conformance with original specifications. Nevertheless, cumulative wear and tear has made them unsuitable for repeated shipment and use in short-term experiments.



These instruments have three 24-bit data channels and some also have three 16-bit data channels. Each unit has a SCSI disk with a minimum of 1 Gbyte of storage and a GPS clock for timing. IRIS will furnish copies of existing documentation and software for operating the instruments in portable and fixed environments.

**For more information contact us at: 202-682-2220  
or on the web at: [www.iris.edu/instrumentloan](http://www.iris.edu/instrumentloan)**



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## IRIS Long-term Loans of IRIS Instruments

As part of its mission to facilitate cooperation among seismologists and foster free and open exchange of seismological data, IRIS intends to make “long term loans” of instruments that are suitable for permanent geophysical observatories. The first set of instruments offered are six-channel, 24-bit data loggers. IRIS’s goals for the loans are to:

- Help densify global coverage of stations offering free and open data access by complementing other efforts to expand or establish permanent broadband seismic networks.
- Advance partnerships and encourage IRIS Affiliates to adopt standards and policies that support free and open data exchange.
- Advance Earth sciences in regions that would benefit from the introduction of digital broadband instrumentation.
- Foster capacity building by making loans to institutions with a technical capability to operate instruments independently and an intention to educate students.



## Terms of the Loans

Institutions that wish to borrow instruments should submit a proposal that fulfills the requirements described below. The receiving institution will be responsible for shipping costs and any customs duties. IRIS does not intend to recall the loan after any fixed time period but, the instruments will remain the property of National Science Foundation under inventory control by IRIS. IRIS will review usage of the instruments regularly and, should IRIS request them back, the receiving institution must pay all costs for return to IRIS.

Proposals will be accepted from institutions or institutional teams rather than individuals. The team must include at least one institution that is already either a full Member of IRIS or an Affiliate Member. Foreign Affiliates, Educational Affiliates, and U.S. Affiliates are all eligible.

## Selection Process

Proposals should be submitted to IRIS Headquarters ([susan@iris.edu](mailto:susan@iris.edu)). An IRIS panel comprised of members of the staff and committees for Planning, PASSCAL and the Data Management System will meet periodically to review proposals and make recommendations to the IRIS Board of Directors.



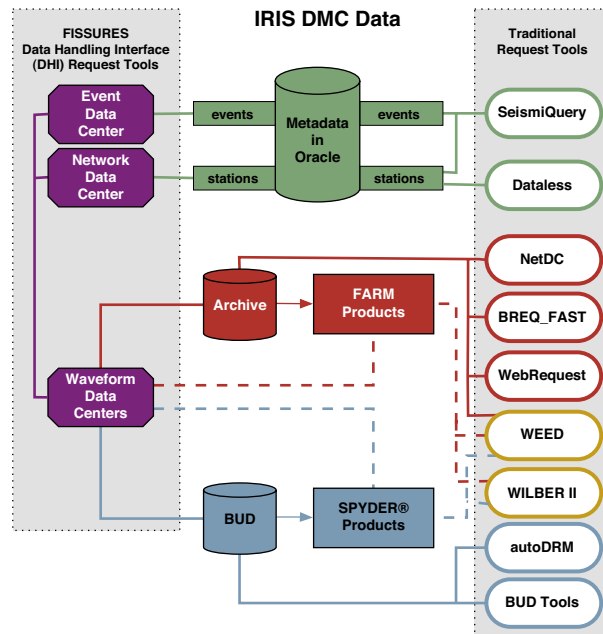
## Proposal Requirements

### Technical capability to operate instruments and deliver data

The proposal should demonstrate that the team is can operate the instruments without relying on the PASSCAL Instrument Center, usually by involving field engineers or investigators with relevant experience. If plans call for any outside organization, including the original manufacturer, to maintain the instruments then the proposal should include documentation that the organization is capable and willing to service the instruments.

### Commitment to seamless data access

Data collected using sensors, data loggers, or telemetry equipment loaned by IRIS must be freely and openly available using protocols developed by IRIS for seamless data access.



The preferred method for meeting this requirement is by contributing all of the data from each station that includes IRIS instrumentation promptly to the IRIS Data Management Center in SEED format. By prior agreement with IRIS, this requirement might instead be met by contributing the data to another FDSN-affiliated data center or by establishing a data center that makes all of these data available using IRIS-developed exchange protocols and data formats.

## Operational plan

Proposals should include a plan for ongoing operation of the network. Elements of an effective operational plan include

- A description of what sites are available for permanent stations or how access to such sites will be secured.
- Ownership or capability to acquire other equipment required to operate a seismographic network.
- A plan for delivering data to the DMC in SEED format, at least until an alternative system for seamless data distribution is operational.



## Financial plan

Proposers should demonstrate a good likelihood of success at securing funding for ongoing operations. Part of this demonstration might be a commitment by an institution to pay the salary of staff required for network operations. In addition, however, the proposal should make a good case that funding can be secured for other expenses, such as telemetry costs and instrument amortization.