AASG DATA PRESERVATION

Association of American State Geologists

AASG

Geoscience issues that are critical and of immediate interest to the nation are the following:

- Water supplies, especially their quantity and quality
- Domestic energy sources: oil, gas, geothermal, and coal to meet rising demands
- Domestic metal and industrial mineral sources to meet rising demands
- Identification and prediction of geologic hazards
- Calibration of new technological developments
- Training of the next generation of geoscientists

Photo by Stephen M. Dickson, Maine Geological Survey.

All of these issues rely on analysis of geological and geophysical samples, collections, and data that already exist. Regrettably, these vital materials are often in poor states of preservation and access.

The Challenge

Geoscience data preservation in the United States consists of a set of disparate facilities and programs of variable effectiveness and having little coordination. More than 25 percent of this nation's geological data repositories are currently at or near their storage capacity. Some have exceeded their capacity and are relying on temporary, non-climate-controlled portable storage. Whereas industry and government have made substantial investments to acquire geoscience data and collections for more than 150 years, volumes of expensive and difficult-to-obtain subsurface information are currently at risk of disposal or ruin, and once these data are lost, they probably will never be replaced.

An Answer

Congress established the National Geological and Geophysical Data Preservation Program through the National Energy Policy Act of 2005 [PL 109-38, Sec. 351]. Reauthorization is in S.1460 - Energy and Natural Resources Act of 2017.

Highlights of the Act

The NGGDPP was established to

- Support a national network of cooperating geoscience material centers and data archives representing a partnership between U.S. Department of the Interior bureaus and State Geological Surveys
- Archive geological, geophysical, and engineering-geological data, maps, well logs, and samples in accordance with national and international formats and standards
- Permit ready access to the holdings of all collections through a common, distributed, internet-based national digital catalog of archived materials
- Provide Federal assistance, matched by State and private funds, to support physical and digital infrastructure efforts, outreach, public awareness, and workshops
- Ensure that this nation's next generation of earth scientists has the necessary reference material with which to train
- Designate the U.S. Geological Survey (USGS) as the program administrator to coordinate geologic material centers and data archives with other Department of Interior bureaus, the State Geological Surveys, and AASG.
- Encourage private industry and universities to partner with State Geological Surveys to leverage resources.

Photo by David M. Stephens, Bureau of Economic Geology, The University of Texas at Austin.

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Current Activities

The USGS Data Preservation Program administrator has

- Initiated a small grants program to facilitate the initial inventory of geological and geophysical data and samples held by State Geological Surveys and DOI agencies to determine their preservation and data rescue needs
- Begun the design, implementation, and populating of a National Digital Catalog
- Begun to establish detailed guidelines for the distribution of program funds
- Begun establishing minimum standards and best practices and archiving of the geological data and collections
- Initiated, with co-sponsorship of the AASG, a Data Preservation Techniques Workshop for geoscience specialists to learn and exchange best management practices

Recent Funding History

- Congress authorized $30 million to implement this program.
- Funding has been on the order of $1M per year, with the amount tending to rise.
- AASG advocates for a $5M increase per year, up to the authorized $30M.

Conclusion

The AASG strongly supports a Federal appropriation of the NGGDPP to ensure that highly valuable and irreplaceable geoscience data are properly preserved, cataloged, discoverable, and accessible.

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