

AGU

AGU Council Actions: Fall 1991 Meeting

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At its semi-annual meeting December 12 in San Francisco, the AGU Council established a new Union medal in the atmospheric sciences and approved construction of a new AGU headquarters building in Washington, D.C.

The new Union medal will recognize outstanding contributions in the atmospheric sciences and climatology. The award was created in response to the growing interest in the global environment and interdisciplinary research and education in this field. The medal will reward key contributors in global environmental change research in the fields of oceans, biogeochemistry, climatology, and the atmospheric sciences.

Construction of an expanded headquarters building was recommended by the Real Estate Committee due to projected growth in membership and AGU activities. The new offices will be built on the site of the current building at 2000 Florida Avenue. Headquarters staff will be relocated to temporary offices in June when demolition is scheduled to begin. Construction will be completed in 1994.

The Council also gave its final approval to the revised AGU Bylaws, the most significant result of which was a new name for the Solar-Planetary Relationships (SPR) section. SPR will now be known as Space Physics and Aeronomy (SPA). A second AGU journalism award was established at the recommendation of the Public Information Committee to recognize "sustained achievement" by a journalist who has made significant contributions by reporting on or writing about the geophysical sciences.—*Stephen Cole*

Advancing Information Technology at AGU

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Since its inception in 1990, AGU's Information Technology Committee has been charged with considering and advising the Union on applications of established and emerging technology to Union activities. The committee has focused its attention on electronic access to AGU information and services, advanced publication technology and ways that AGU can assist members in preparing author-produced manuscripts, considered a new journal to publish numerical methods and algorithms related to geophysical and space sciences, and made recommendations regarding a Union position on the development of the National Research and Educational Network (NREN). Current members of the committee include Ray Walker (chair), Ray Arvidson, Bob Clauer,

Jeff Dozier, Bill Emery, Jim Green, Andy Lazarewicz, Russ Merrill, and J. Bernard Minster.

The improvement of Kosmos, AGU's electronic communication and information system, is considered by the committee to be of fundamental importance because Kosmos provides basic electronic access to AGU information and products. A Kosmos connection is available through PINET, which is operated by the American Institute of Physics. Using Kosmos on PINET provides access to a variety of data bases, including the AGU membership directory, meetings information, and various geophysical and political news. Connection to PINET may be made through the TCP/IP Internet (pinet.aip.org) or through SPRINTNET. Local access numbers for SPRINTNET can be obtained by calling 800-336-0437. The AGU computer is also now directly connected to the TCP/IP Internet (kosmos.agu.org).

In general, it was felt that the primary reasons for joining Kosmos would be to access online information—such as the membership directories, meetings schedules, and bulletin boards—as well as to submit meeting abstracts electronically. The electronic abstract submission service is now available. There were 200 abstracts submitted electronically for the 1991 AGU Fall Meeting. Instructions for submitting abstracts are posted on Kosmos during the abstract submission period.

The relationship between Kosmos and the AGU Internet connection is being considered as are possible Internet services that could be available to members. Such services could include signing up for Kosmos, ordering AGU products, updating a member's address, and submitting abstracts.

Another problem being considered by the committee is the cost of mailing *Eos* airmail to other countries. Electronic technology may be able to solve this problem in several ways. For example, timely information within *Eos* could be made available online. *Eos* could also be transmitted electronically for local printing and mailing.

The difficulty of publishing material that discusses new numerical methods and techniques in AGU journals is another problem being examined by the committee. Such papers are published now in IEEE journals, but these are not generally read by geophysicists. One possible solution would be a journal of algorithms analogous to the ACM algorithms. Papers would be peer reviewed and the code tested as part of the acceptance process. A proposal to initiate this journal has been prepared for consideration by the Publications Committee.

The committee has discussed the National Research and Education Network (NREN), which is the proposed electronic infrastructure of the future for scientific computing and collaboration. The NREN has been proposed by the Office of Science and Technology Policy's Committee on Physical, Mathematical, and Engineering Sciences of the Federal Coordinating Council for Science, Engineering and Technology as a supplement to President Bush's fiscal year 1992

budget. Such an investment in the electronic infrastructure to facilitate access to information and collaboration has great promise for geophysics research.

The committee voiced concern, however, that little input from the potential scientific users of the proposed system has been obtained. It was suggested that AGU form a committee to develop an advocacy position on the NREN requesting scientific user participation in its development. For example, experience with NASA's Space Physics Analysis Network (SPAN), which had a very strong user oversight, showed the significance of user input in obtaining the required service and avoiding expensive options that were not utilized. By understanding scientists' needs better, NREN developers can direct technology development to areas where needs exist.

Detailed discussions of the use of computers to aid in the publication of journals have been undertaken by the committee. All members of the committee endorsed the importance of utilizing computer tools and networks to benefit the publishing process, but for differing reasons. These reasons ranged from improving the appearance of journals to the desire for machine-readable journals. A concept with considerable support was a combination of online publication followed by publication on archival media, such as CD-ROM. The consensus view was that in the future AGU would be publishing in a variety of media, depending upon the needs of the members.

The committee was in agreement that the most immediate need regarding computer tools for publication would be the preparation of AGU-endorsed templates for camera-ready copy. For example, RevTeX is a macro set operating on LaTeX-based text files that is prepared and distributed by the American Physical Society. This year several member societies of the American Institute of Physics—AGU, Optical Society of America, American Astronomical Society, American Physical Society, and the American Association of Physics Teachers—and AIP itself agreed to develop and promulgate a standard set of macros as a new version of RevTeX. The new RevTeX will contain standard macros and definitions of special characters. There will be style sheets for all of the groups participating in the program. The standard input will be the same for all, but the output can be individualized according to the journal to which the paper is being submitted. For example, AGU will have style sheets for automatically outputting author-prepared copy for *Journal of Geophysical Research*, *Geophysical Research Letters*, *Water Resources Research*, *Tectonics*, *Paleoceanography*, *Global Biogeochemical Cycles*, *Radio Science*, and AGU books. One of the style outputs will be a standard double-spaced format for the review process.

After the RevTeX package is complete, AGU plans to look into developing similar packages for other word processing programs. The most likely candidates are Microsoft Word and WordPerfect.

The committee has also discussed the

publication of supporting data on machine-readable media, such as CD-ROM. Supporting data is the physical data in digital form specifically assembled and processed for a scientific paper. Special data sets of this nature are usually not included in an archive or permanent repository. The committee will draft a concept statement on this idea.

Another potentially useful AGU product

would be to expand the Current Publications Index (CPI) to provide bibliographic information on AGU publications. This information would be kept in a data base that would be easy to search and to put in a formatting routine. References from IUGG Quadrennial Reports would be easy to add to this data base. Authors could utilize this resource to build the reference sections of papers. A

concept statement is being developed by the committee.

The members of the committee are eager to explore new ideas regarding information technology and possible applications to AGU activities. Suggestions may be forwarded to any committee member.—*C. Robert Clauer, University of Michigan*