

state & society

Congress gives NSF \$622 million; AEC funds still undecided

President Nixon has signed a compromise appropriation bill for the National Science Foundation giving it \$622 million for fiscal year 1972. The House and Senate have approved appropriations bills for the Atomic Energy Commission that differ on several items; the differences await resolution in a conference committee.

For NSF, the Administration had requested \$622 million. The House authorized \$622 million. The Senate voted for a two-year authorization with \$706.5 million for fiscal year 1972 and \$907 million for fiscal year 1973. The final authorization, for fiscal year 1972 only, was \$655.5 million. In the bill a line-item approach was used, rather than the lump-sum authorization previously customary. Specifically earmarked for the Science Education Program was \$99.3 million, of which not less than \$2 million is to go for the Student Science Training program and \$4 million for the Undergraduate Research Participation Program. Both

student programs had been eliminated in the Administration budget request. The Research Applied to National Needs program was limited to not more than \$59 million, instead of the requested \$81 million. Although the Administration had requested \$257.8 million for scientific research project support, the bill authorized \$271 million. The appropriations bill used the lump-sum approach allocating a total of \$622 million.

For AEC's Division of Research, the House gave the requested amount of \$263.6 million, but the Senate gave \$264.8 million. The additional sum was to increase the amount for controlled thermonuclear research from \$29.8 million to \$31.0 million. It is not yet known how this disparity will be settled.

In the authorization report of the Joint Committee on Atomic Energy, the committee urged AEC to develop a priority list of which accelerators should be kept operating should future funding be inadequate to support each of the six

existing high-energy physics laboratories effectively. It pointed out that when the National Accelerator Laboratory becomes fully operational, it will cost \$60-70 million, which is more than half of the money that was requested in 1972 for the whole field of high-energy physics.

The Committee expressed concern that when a new or improved machine starts operating, it has adverse effects on funding other parts of a program. It cited the example of the Lawrence Berkeley Laboratory, where the operation of the new Super-HILAC will cause ripples that "assume tsunami-like proportions at certain off-site laboratories where entire programs are lost . . . a nagging question remains as to the wisdom of the choices being made." The Joint Committee and other congressional committees plan to pay increasing attention to the problem of determining priorities in AEC-funded programs and other parts of the Federal establishment.

—GBL

IEE to market AIP's "Current Physics Information" in Europe

A new marketing agreement between the American Institute of Physics and the Institution of Electrical Engineers (IEE-London) has just been signed. Beginning in 1972 IEE will be the exclusive distributor of AIP-produced secondary information products in Europe and all Commonwealth countries except Canada.

The secondary products to be identified and marketed by the name "Current Physics Information" (CPI) consist of microfilm, computer tapes and printed journals containing titles or advanced abstracts. The new CPI system will provide rapid access to information from a selected set of the world's most significant physics journals. Full details of CPI will be given in a forthcoming *physics today* article by Arthur Herschman, director of AIP's Physics Information Division.

The new AIP-IEE agreement is the second to be signed by the two organizations. The first, completed in the early 1960's, permitted AIP to market

IEE-produced *Physics Abstracts* in the Americas. *Physics Abstracts* is a comprehensive abstract journal for which IEE regularly scans over 800 journals published throughout the world. The first agreement made this comprehensive secondary service available economically and speedily in the Americas.

The second agreement is reciprocal to the first in that it provides new CPI services to physicists in Europe and the Commonwealth. It is also an indicator of increasing cooperation and coordination in the international transfer of physics information. H. William Koch, director of AIP, recently announced that steps are being taken to improve the transfer further through negotiations currently under way between AIP and IEE. The agreement that is now being discussed could lead to the establishment of a single worldwide physics information system. The basis for this system would be the cooperative efforts of AIP through its large

primary-journal program comprising 35% of the world's journal literature in physics and of IEE through its range of comprehensive secondary services. Such cooperation would provide the capability of supplying currently available full texts of research articles from most of the significant literature and allowing retrospective searching of abstracts from a comprehensive coverage of the literature.

Koch said that a statement of intent was expected to be approved by the boards of both AIP and IEE by the end of September. If approval is obtained then formal contracts will be negotiated.

The increased cooperation between AIP and IEE is just another example of what is happening internationally in science information. Economic pressures and the realization that increased efficiency, improved speed and greater coverage can be provided by sharing services, are leading many publishers to cooperate and expand their operations.

Two outstanding examples of such

cooperation are the agreements of Chemical Abstracts Service (CAS) and International Nuclear Information Service (INIS), which is run by the International Atomic Energy Agency in Vienna. CAS, an arm of the American Chemical Society, has recently made bilateral agreements with the British Consortium on Chemical Information and the German Gesellschaft Deutsche Chemica. The agreement with the British Consortium, for example, gives it responsibility for preparing all material published in the U.K. for inclusion in *Chemical Abstracts*; in return it markets the abstract-journal related services in the U.K.

Under the INIS agreement, member organizations take responsibility for supplying abstracts of articles in journals and reports originating in member countries. By sharing in the production operations, the organizations plan to participate in joint secondary products and services. INIS has been developing since 1966.

These agreements are now being promoted and stimulated by the activities of two other international bodies, the International Council of Scientific Unions Abstracting Board (ICSU/AB) and a joint ICSU-UNESCO committee. This committee has produced UNISIST, which is a feasibility study of a world science information system.

ICSU/AB met in July 1971, in Orleans, France to elaborate on its plan of a world system for science abstracting and indexing services. Koch and Herschman were present at the July meeting representing IUPAP and AIP respectively.

UNISIST is to be discussed in detail for the first time in Paris this month in an intergovernmental meeting. UNISIST will attempt to catalyze as many agreements as possible such as those of CAS, INIS and AIP-IEE.

Koch stated in his announcement of the marketing agreement that the increased cooperation between AIP and IEE represented an important new example of cooperation between major primary and secondary publishers. He said that many more examples are expected and desired in order to satisfy the growing information needs of the worldwide science community.

NY State Assembly forms permanent scientific staff

A permanent scientific staff has been formed to assist the New York State Assembly in science and technology by Perry B. Duryea Jr, Speaker of the Assembly. The staff director will be Seville Chapman, formerly Chief Scientist at the Cornell Aeronautical Laboratory. Chapman has worked in many fields including atmospheric physics.



CHAPMAN

When the Assembly committee structure was revised recently, the Central Program Staff was created to satisfy the research requirements of the Assembly. The need for the scientific staff arose when it became apparent that additional broad scientific strength would be desirable for dealing with the technical complexities of many legislative problems.

Chapman told us that New York is the first state to institute a full-time scientific advisory staff, although California has had a part-time advisory board of scientists for some time. While the Assembly is in session, the scientific staff will respond to requests for technical information and perspective on various bills before the legislature. When the Assembly is out of session, the scientific staff will participate in studies of long-range technical requirements in such fields as power production, airport design and pollution abatement.

DuBridge and Friedman join Science Advisory Committee

Among the five new members of the President's Science Advisory Committee are two physicists, Lee A. DuBridge, former science adviser to President Nixon and Herbert Friedman, chief scientist of the E. O. Hulburt Center for Space Research, US Naval Research Laboratory. The other new members include two electrical engineers, Kenneth H. Olsen, president of Digital Equipment Corp and John G. Truxal, vice-president of the Polytechnic Institute of Brooklyn and a sociologist, Daniel P. Moynihan, professor of education and urban politics at Harvard Graduate School of Education and former counsellor to the President.

DuBridge, who with Friedman brings the number of physicists on the Committee to eight, had been president of California Institute of Technology from 1946 until 1969 when he became science adviser. His research on photoelectricity resulted in such books as *Photoelectric Phenomena* and *New*

Theories of Photoelectric Effect. He has also worked on thermionic emission, nuclear disintegration and radar.

Friedman, an astrophysicist, has been associated with the Naval Research Lab since 1940. A pioneer in rocket and satellite astronomy, he directed experiments that detected x-ray and uv radiation from the sun.

The three-year appointments, which were made by President Nixon in January to fill the positions of the four members whose terms have expired, bring the total membership of the Committee to 19. The members whose terms have expired are James C. Fletcher, new head of NASA, Michael Ference Jr, a physicist and vice-president of Ford's scientific research staff, Lewis Thomas, professor and chairman of pathology at Yale University and F. H. Westheimer, professor of chemistry at Harvard University.

NSF gives Science Development funds

As part of the University Science Development Program, the National Science Foundation has awarded supplemental funds to five universities for physics-related activities. These two-year supplemental grants will enable the universities to complete the five-year development programs originally proposed to the Foundation.

Rutgers University received \$1 000 000 for the continued development of the physics and mathematics departments. The University of Maryland received \$1 000 000 for the Institute of Fluid Dynamics and Applied Mathematics, the Computer Science Center, the Center for Theoretical Physics and the departments of chemistry and mathematics.

The \$900 000 grant to the University of Notre Dame will be divided among the departments of biology, chemistry, mathematics, microbiology and physics, and the \$1 600 000 grant to the University of Texas at Austin will be used to continue development of interdisciplinary programs in relativity, astronomy, astrophysics and plasma science, as well as other fields. At the University of Washington, the \$1 500 000 grant will be used to support programs in high-energy, low-temperature and solid-state physics, as well as earth-science research.

Arecibo Observatory is restructured and renamed

The organization of the Arecibo Observatory in Puerto Rico has been restructured, and the name of the installation has been changed to the National Astronomy and Ionospheric Center