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For further information, contact Patricia S. Curlin, program administrator, Regional Energy Seminars, at the AAAS address, 202-467-4310.

Arthur Livermore Announces Retirement

In 1963 Arthur H. Livermore took a 1-year leave of absence from Reed College to help the AAAS design the study program "Science—A Process Approach." Now, 18 years later, Livermore is retiring as head of the AAAS Office of Science Education.

During this time, Livermore has seen the Association's involvement in issues of science education grow to include a wide range of activities.

Livermore's interest in curriculum development was sparked when he served as co-director of the Chemical Bond Approach (CBA), one of the earliest efforts made at improving science curricula. The CBA conceived a prototype high school chemistry course.

"Science—A Process Approach," was originally tested in 11 school systems around the country. At last count the program had been used by approximately 7 million schoolchildren.

That study program was one of the projects guided by the AAAS Commission on Science Education (1962–1974). As deputy director of education at AAAS, Livermore worked closely with the Commission as it assessed the status and needs of science education in the United States. With funding from the National Science Foundation (NSF), the Commission was established to direct programs and develop materials designed to improve science instruction and the education of science teachers. It developed a clearinghouse on science curricula and prepared guidelines for teacher preparation in elementary and secondary science and mathematics. The Commission also passed, in 1972, a resolution urging that creationism not be taught as science in any school system. (The AAAS Board of Directors and Council also passed similar resolutions in 1972.)

Another AAAS/NSF effort to improve the quality of science teaching has been



Arthur Livermore

the Chautauqua Short Courses for Science Teachers. Since its inception in 1970, under the direction of then Education Office head John R. Mayor, Livermore has worked closely with the Chautauqua program. These courses, for college-level science teachers, are aimed at enabling participants to keep up-to-date on current research in the sciences. Livermore's involvement with the program has centered on identifying and including outstanding men and women from a broad range of scientific disciplines as Chautauqua lecturers. Approximately 3000 college teachers took Chautauqua courses during the 1980–81 academic year.

In addition to improving the teaching of science, Livermore has long been interested in making science entertaining and accessible to young people. From 1956–59 he hosted a biweekly television program, "Secrets in Science," for junior high school students in Portland, Oregon. In recent years this concern has resulted in increasing participation of junior and senior high school students at the AAAS Annual Meeting. Beginning with the Boston meeting in 1976, Youth Symposia, Conversations with Scientists, and presentations of student papers from the junior academies of science have drawn several thousand young people to the Association's meetings. He has also administered the small student research grants which the AAAS makes available through the state academies of science.

Science education at AAAS has reflected Livermore's international interests as well. He has conducted workshops and seminars on elementary and secondary school science and mathematics in Argentina, Chile, Israel, Japan, the Philippines, and West Germany.

In 1971, at the request of the U.S. Department of State, Livermore went to Penang, Malaysia, to serve as training adviser to the Regional Center for Education in Science and Mathematics. There, elementary science and mathematics educators from eight Asian countries explored the latest developments in

their fields and in teaching techniques. They then passed along these developments and techniques to other educators in their home countries.

Another international initiative was the exchange of scholars with the Znanie Society of the Soviet Union. This program, which Livermore directed from 1973 to 1980, allowed outstanding scientists to lecture at several universities in the host country. Experts from a broad range of disciplines visited between the two countries during the program.

Most recently, the Chinese have become involved in AAAS science education programs. This past spring, symposiums on microcomputers and atmospheric science were conducted in the People's Republic of China, after the Chinese had indicated their particular interest in these subjects. Livermore helped to organize the groups and served as a consultant to the China Association of Science and Technology while in Beijing and Shanghai.

Livermore has long served as the Association's resident expert on Japan. In 1965 he edited the AAAS symposium volume, *Science in Japan*. This interest has continued, and in 1979 he was co-organizer of the joint United States/Japan Seminar on Science and Society, in Honolulu.

Livermore's retirement does not signal his withdrawal from science education activities. In addition to being a consultant to the AAAS, he serves as science adviser and lecturer at the Washington (D.C.) International School, adjunct professor at the University of West Virginia, and chair of the Governmental Affairs Committee of the American Institute of Chemists.

Nomination of AAAS Fellows Invited

The AAAS Executive Office invites groups of three Fellows to nominate AAAS members for fellowship, provided that in each instance at least one of the three sponsors is not affiliated with the institution of the nominee. In order to be considered in 1982, nominations must be submitted no later than 5 March. Nomination forms should be requested from the Executive Office at the AAAS address.

A Fellow is defined as "a Member whose efforts on behalf of the advancement of science or its applications are scientifically or socially distinguished." Examples of areas in which nominees may have made significant contributions

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