

Project East River

Report Criticizes Civil Defense

One-third of a 1000-page report to the federal government on civil defense was made public in January by Associated Universities, Inc., which operates the Atomic Energy Commission's Brookhaven National Laboratory. The remainder of the Associated Universities' report, containing a large number of specific recommendations for the reorganization of the national civil defense system, was classified top secret. Prepared following an eighteen-month study (known as "Project East River") by a group of eighty-eight scientists, educators, business men, and government experts, the report was submitted to the Department of Defense, the Federal Civil Defense Administration, and the National Security Resources Board, and called upon these agencies to institute a broad and revitalized program for defense against any possible atomic, biological, or chemical attack on the United States.

The portion of the report that was made public recommended that a national policy leading toward the decentralizing and replanning of cities and industrial areas be adopted in order to reduce the vulnerability of urban centers to attack. Criticizing public apathy and the lack of adequate coordination of civil defense with the over-all national defense program, the report declared that Congress, by its action in reducing appropriations for civil defense, had weakened public belief in the need for a vigorous program.

"Biological, chemical, and radiological warfare have been peculiarly veiled in secrecy," the report also stated, "and neither civil defense officials nor the public have been adequately informed as to the true nature of these threats, how they are related to the threat of atomic bombs and what civil defense planning and measures are deemed necessary to counter these threats. This deficiency needs to be corrected."

The nine members of Associated Universities, Inc., are Cornell, Columbia, Harvard, Johns Hopkins, Massachusetts Institute of Technology, Pennsylvania, Princeton, Rochester, and Yale. The survey was conducted under the direction of Otto L. Nelson, Jr., vice president of the New York Life Insurance Company.

The Deep Sea

ICSU Committee Urges Support for Research

Expressing the belief that fundamental research on the problem of the deep sea is not only promising, but very necessary in order to gain access to the full economic resources of the oceans, the Joint Commission on *Oceanography of the International Council of Scientific Unions* has urged that such research be given widespread support. Recent developments in electronics, physics, and chemistry, and in methods of detailed surveying and sampling of the deep-sea floor, the Joint Commission points out, have made possible "a new level of scientific understanding of the oceans which can be of the greatest importance to all fields of natural science".

The field of deep-sea research is one of the most favorable for international collaboration, according to the Joint Commission, which noted further that in view of the great expense of equipping and maintaining oceanographic vessels, it would be highly advisable that scientists of different nations participate in expeditions, wherever possible, both in planning the scientific program and in the work at sea, and in working up data and collections.

At its Second Meeting at the Institut Oceanographique and the International Hydrographic Bureau at Monaco, September 23-25, 1952, the Joint Commission adopted a resolution proposing that a permanent bureau be established under the name of the "International Deep-Sea Council", to act as a central organization to stimulate international collaboration in fundamental research problems of the deep-sea, to provide for the planning of expeditions, to serve as international clearing house for echogram and other data and for information concerning new methods and instruments, and to publish a journal of deep-sea research.

Applications of Science

V. Bush, on Basic and Applied Research

In reviewing some of the outstanding contributions to applied science made during the past fifty years as a result of the programs in basic research of the Carnegie Institution of Washington, Vannevar Bush, president of the Institution, had some things to say about the difference between fundamental and applied research in his annual report for 1952, released last December.

"It is a difference," he observed, "that lies not so much in methods and procedures as in motivation and objectives. Scientists conduct their investigations in much the same manner whether they are employed by a disinterested institution such as ours, by one of the agencies of the federal government, or by a large industrial corporation. They differ only in what they are trying to accomplish. The controlling purpose of fundamental research is to add piece by piece to our knowledge of the universe we live in and of ourselves. It is essentially, as the Greeks regarded it, a part of the larger field of knowledge and thought known as philosophy. It may and often does yield, or at least lay the foundations for, important practical applications, but these are incidental to its main purpose. Sometimes a more direct contribution to the practical application of fundamental research occurs when a scientist who has worked in a special field for years temporarily lends his talents to a program of development, as was done by many staff members of the Institution during the first and second World Wars. On the other hand, the purpose of applied science is more definite and immediate. Some of the larger corporations maintain impressive laboratories and able scientific staffs to whom they give great freedom of action. Their primary objective is to bring about the discovery of new processes or new products that will sooner or later—not too much later—yield a profit on the money invested. If the gain