News of Science

Consultant and Clearing House Service on Academically Talented

The National Education Association has announced the establishment of a consultant and clearing house service on education of the academically talented. Charles E. Bish, former principal of McKinley High School, Washington, D.C., has been named director of the 3-year project, which will collect information on such questions as: How can specific schools most effectively educate their talented students? What have experiments revealed on various methods? How can the teacher, guidance counselor, and school administrator cooperate? What is necessary in the way of teachers and equipment?

The new service will be carried on under the administration of the NEA and its appropriate units through a grant from the Carnegie Corporation. Chief concern of this project will be the academic subjects in the secondary schools. The new center will (i) provide consultant service to state and local school systems, to colleges and universities, and to local, state, and national education associations; (ii) keep an up-to-date record of experimental and research projects; (iii) develop a comprehensive collection of materials on all aspects of the problem; (iv) develop plans for needed research; and (v) organize study conferences on specialized topics within the field.

This much-needed service will assemble the results of research studies and other programs now carried on in various parts of the country and by numerous organizations. For the first time, those educators collecting information and those seeking it, will have a reliable and continuing point of contact.

The new service is a follow-up of the project carried on during the current year dealing with the identification and education of the academically talented pupil in the secondary school. A nationwide conference held last February under the chairmanship of James B. Conant, president emeritus of Harvard University and former ambasasdor to the Federal Republic of Germany, climaxed the earlier project. That conference, also financed by the Carnegie Corporation, brought forth recommendations published by NEA and widely circulated throughout the country. Inquiries should be directed to: Dr. Charles E. Bish, Director, Project on the Academically Talented Pupil, National Education Association, 1201 16th St., N.W., Washington 4, D.C.

Soviet Dogs Ascend 281 Miles

The Soviet News Agency Tass has reported that the U.S.S.R. sent two dogs up in a rocket to an altitude of 281 miles and returned them safely to earth. It is not clear whether or not the dogs remained in the rocket during ascent and descent or whether, as in earlier experiments, they were parachuted to earth in a hermetically sealed compartment. The highest altitude reached in previous Soviet experiments with animals that were returned was 132.5 miles.

A single-stage rocket was used. It pushed a load of 1690 kilograms (about 3718 pounds) to the 281 mile altitude. The weight was about 800 pounds more than that of Sputnik III.

U.S. research. The United States has tried three times this year to recover mice sent aloft in Thor-Able missiles. Search teams were unable to find the mice-carrying nose cones after they had fallen into the South Atlantic. However, data radioed from two missiles that had flown the prescribed trajectory indicated that the animals had survived the acceleration to 600 miles and the deceleration encountered on reentering the atmosphere.

In 1952, the United States sent two monkeys and two mice to an altitude of 36 miles in an Aerobee rocket. They survived.

Regional Census Training Center

A regional Census Training Center for Asia and the Far East opened 1 September in Tokyo under the sponsorship of the United Nations and the Food and Agriculture Organization of the United Nations, in cooperation with the Government of Japan. The Training Center, which will last until 13 December, will include some 50 participants from the following countries and territories: Afghanistan, Burma, Ceylon, China (Taiwan), Federation of Malaya, India, Indonesia, Iran, Korea, Laos, Nepal, North Borneo, Pakistan, Philippines, Ryukyu Islands, and Thailand.

Governments were asked to nominate as participants in the training center officials who are to be responsible in their countries for major technical phases of the world census which is planned for 1960. The director of the center is Seiichi Tobata, president of the Agriculture, Forestry and Fisheries Council, Ministry of Agriculture and Forestry, Japan; the co-director is Octavio Cabello, who is in charge of social statistics in the United Nations Statistical Office.

Censuses of population, housing and agriculture are of basic importance to the planning of economic and social development. However, it is important to obtain a reasonable degree of comparability in the censuses. To provide census assistance to governments, the United Nations and FAO are making regional teams of experts available on request. These teams will help governments in organizing regional training centers to deal with all aspects of census operations. The Tokyo center is devoted to the actual planning and organization of censuses. Training will be offered in 1959 or 1960 on the analysis, evaluation, and use of census results.

Army Research Office

The new Army Research Office, located at Arlington Hall Station, Arlington, Va., was established in March of this year for the purpose of promoting and coordinating the growing Army research effort in physical, engineering, geophysical, biological, medical, and social sciences. It is in communication with the nation's scientific community to obtain new ideas, approaches, and techniques which can be used in the Army's Research and Development Program. It also guides the efforts of the Army's seven Technical Services, which continue to direct actual research projects in their respective fields.

It functions as an integral part of the Army's Office of the Chief of Research and Development, and in this respect it differs from both the Office of Naval Research and the Air Force Office of Scientific Research, which operate as organizations separate from their respective staffs. The ARO method of operation is designed to fill the particular needs of the Army structure and to exploit the strength of its Technical Services, which will continue to make increasing use of research capabilities of private industry, universities, and nonprofit organizations.

Generally, in the Army, the develop-

ment of a particular item is done by a single Technical Service or private contractor. Research, however, being diffuse by its very nature, may cut across several technical service or private industry lines, and offer promise to several different Army organizations or programs.

The ARO, in this situation, will provide centralized planning and coordination of an Army-wide research program, for Army-wide benefit. Planning will be centralized in ARO; execution will be decentralized. Research projects will continue to be handled by the Technical Services, using either their own facilities or those outside the Army, with the exception of a few projects of Army-wide nature. The Technical Services will retain complete control over their laboratories.

The Army's seven Technical Services are the Army Medical Services, the Ordnance Corps, the Corps of Engineers, the Quartermaster Corps, the Transportation Corps, the Signal Corps, and the Chemical Corps.

The ARO staff now includes 57 persons, mostly military and civilian scientists, with necessary administrative personnel. Its program extends over some 2000 research tasks, with a yearly expenditure of about $90 million. The staff will be increased to 85 persons by mid-1959 to give the program the direction it requires. ARO is now recruiting these additional personnel, principally civilian scientists in the upper-pay grades.

Sardis Found

Archeologists from Cornell and Harvard Universities have located the site of the ancient Lydian city of Sardis, once the capital of King Croesus. Ruins of the city were found beneath those of a Roman city that was uncovered earlier this summer in Turkey near the Izmir-Sahihli highway. The discovery, climax of 2 months of searching, came just a few days before the Cornell–Harvard group was due to leave the excavation site for the United States.

Sardis was the capital of Lydia in the sixth century before Christ and was one of the foremost cities of the ancient world. Croesus was the last of the Lydian monarchs to reign at Sardis. During Roman times it was the seat of a Christian bishop and was one of the "seven churches which are in Asia" mentioned in the Book of Revelation.

The expedition was sponsored by Cornell University, the Fogg Art Museum of Harvard University and the American Schools of Oriental Research, with the support of the Bollinger Foundation of New York City. The excavations will be carried out over a 3-year period. George M. A. Hanfmann of Harvard was the expedition's field director, and A. H. Detweiler of Cornell, field adviser. Other group members were Sherman E. Johnson, M. D. Ross, and John Washeba.

Nuclear Test Program

John A. McCone, chairman of the Atomic Energy Commission, and Neil H. McElroy, Secretary of Defense, have announced plans for the final nuclear test series that will take place prior to the suspension of tests for 1 year, starting 31 October. The 1958 test program, which has been in progress at the Eniwetok Proving Ground and Johnston Island in the Pacific, will conclude with approximately ten low-yield nuclear detonations at the Nevada Test Site during September and October.

Several of the test shots will take place underground in tunnels that have been under construction for several months; the remainder will be fired from balloons or towers. More than half of the tests will be less than one kiloton; the highest yield will be in the nominal (20 kiloton) range. Certain information of interest to seismologists will be provided in advance of the underground detonations.

Solar Energy Research

The Curtiss–Wright Corporation and New York University have announced joint and separate programs for research, development, and practical application of solar energy to be carried out at the Princeton Division of Curtiss–Wright, Princeton, N.J. All the programs will be under the direction of Maria Telkes, who has been in charge of solar energy research at N.Y.U. since 1953.

Curtiss–Wright is entering the field of solar energy with immediate emphasis on the development and production of commercially saleable solar products, based upon existing patents, knowledge and needs. It is anticipated that New York University's participation in the joint program will generate new and basic discoveries.

The new industry-university program includes the establishment at Princeton of the New York University Solar Research Laboratory to serve as a center for teaching, research, and the dissemination of knowledge. Curtiss–Wright, among other companies, will provide grants for research projects. Curtiss–Wright will also provide a building to house the N.Y.U. Solar Research Laboratory staff of scientists and technicians and will make other facilities available.

Cooperation with Curtiss–Wright in solar energy will be only one phase of New York University's solar program. The N.Y.U. Solar Research Laboratory will limit its activities to academic-type research and will not develop properties and patent rights for the university. It will, however, continue to conduct separate research and development programs with commercial organizations and government agencies.

A complete Sun Court and Solar Laboratory is now under construction by Curtiss–Wright at its Princeton Division, where solar products will be produced. The Sun Court includes a solar heated house and a solar heated swimming pool, solar furnaces, solar batteries, solar stills, solar driers, solar cooking equipment, solar radios, and solar food processing equipment.

Bathyscaphe

The U.S. Navy has acquired the bathyscaphe *Trieste,* launched by Auguste Piccard and his son Jacques in 1953. Last summer the Navy rented the craft for research dives off Capri, Italy, and recently bought it from the Piccards for $200,000. A new one would probably have cost $1,500,000. Already *Trieste,* which is described in the 1 September issue of *Time,* has descended almost 3 miles, or twenty times deeper than conventional submarines. It can do this without danger to itself or passengers because it operates under water like a blimp. Its 50-foot hull is a float carrying 28,000 gallons of gasoline, which is 30 percent lighter than sea water and compressible. The float does the job of a balloon's gas-filled bag, while the passenger ball hangs below. Water enters the float, equalizes the inside and outside pressure, and compresses the gasoline, reducing the craft's buoyancy. Next month *Trieste* will begin diving off San Diego, Calif., to study the ocean's physical, biological, geological and chemical characteristics.

FAO World Livestock Disease Reporting Service

The Food and Agricultural Organization has established a world livestock disease reporting service that will operate from FAO headquarters in Rome. The service has been developed in collaboration with the International Office of Epizootics. Information will be gathered from the reporting forms issued to FAO and OIE member governments. This form, which has been revised and improved, was first circulated in 1957 and, as a result, a preliminary report on world livestock disease has been issued for 1956.

FAO plans to publish annually a *Yearbook of Animal Disease* that is ex-