News and views

WASHINGTON DEBATE

CONGRESS CONSIDERS MANPOWER PROBLEM

As regards scientific manpower at this writing, the Capitol chit-chat in Congressional Committees, learned councils, and the Cosmos Club trends toward a pattern adapted to the concept of Universal Military Service and Training. Opposition to UMST from those who are justly concerned lest the training and use of scientists be jeopardized, was somewhat diminished by the testimony of Mrs. Anna M. Rosenberg. The "Defense Department Plan" as described in her testimony as Assistant Secretary of Defense in charge of manpower and personnel problems, which she presented to the Senate Armed Services Committee on January 10th, included more of the thinking of science groups and educators than was generally expected.

The testimony was in terms of intent and background only. At this writing, eight days later, the bill to be proposed by the Defense Department and the national manpower policy to be announced by the President have not appeared. It is expected that the latter will emphasize generally the importance of making the most effective use of scientists, and that the bill will include provisions to keep up the flow of training for scientific fields, at least temporarily, through Selective Service deferments of students now in college. Dipping into the 18 year age class relieves the pressure against deferments at higher ages, and hence a program of deferment for advanced science students becomes more feasible.

One feature of the plan provides for the assignment of a number of selected men, after four months of basic training, to ROTC units in colleges. This is to get officers. It is known that many in the government, and in various official advisory committees, as well as elsewhere, feel strongly that there should be some kind of civilian counterpart of the ROTC. To it also, selected trainees would be assigned after four months' basic training. This would bring back to college, for specialized training in the sciences and other critical fields, an appropriate number of men for essential services to national security in ways other than military in the ordinary sense. This would avoid the, in their case, unrewarding two years of strictly military training and service. They would presumably be obligated to give an equal amount of time later in some essential activity requiring their specialty.

Plenty of questions are left without clear answers as of now. Some, for example, involve the method of selection of men for college training, and their status during and after such training; the extent that they must major in selected "critical" fields; the extent that military policy makers will be the ones who decide what fields are critical; and so on.

Many observers feel that no appraisal of the Defense Department plan can safely be made until after a careful study of the exact wording to determine its more subtle implications. Only then can a fair comparison be made with the plan of the six advisory committees to General Hershey, the more recent plans of the AIP, NRC, American Chemical Society, and Engineers' Joint Council, the plan of the Interdepartment Science Committee and other plans not yet publicized. In the last category is the plan of the Scientific Manpower Advisory Committee of the National Security Resources Board.

It is rumored that there may soon be a National Manpower Administration.

1950 NOBEL PRIZE IN PHYSICS

POWELL HONORED AT STOCKHOLM CEREMONIES

Meson physics, which has figured in two other Nobel awards in past years, again in 1950 played a dominant role at Stockholm when Cecil F. Powell, 46-year-old Melville Wills Professor of Physics at Bristol University's H. H. Wills Physical Laboratory, received the 1950 Nobel Prize in physics ($31,715) for his contributions to the knowledge of mesons.

Some fifteen years ago, Hideki Yukawa, 1949 Nobel Prize winner, suggested the theoretical need for a subatomic particle intermediate in mass between the proton and the electron. Evidence for such a particle, the meson, was obtained in 1936 from cloud chamber photographs which had been exposed atop Pike's Peak by Carl Anderson and Seth Neddermeyer. Anderson, who has also been credited with having found the first evidence for the positron, received the Nobel Prize in 1936.

Several years later, Powell, while examining some electron-sensitive plates which had been exposed at the Jungfraujoch high altitude laboratory by D. M. Ritson of the Clarendon Laboratory, Oxford, established evidence for a meson heavier by about one-third than any previously identified. Upon examining the plates, Powell noticed a pattern of tracks indicating the slowing down of a high-energy particle. The original track gave rise to three further tracks, and Powell reasoned that a meson of greater than usual mass had disintegrated and that three particles had formed from its breaking down—one of a mass about 286 times that of an electron, and the other two either of similar mass or of a lighter type of about 212 times an electron's mass.

The mass of the original particle was estimated in several ways. In what seemed the most reliable method, Powell calculated the number of silver grains in a given length of track

Cecil F. Powell, winner of the 1950 Nobel Prize for Physics. Photograph courtesy Wide World Photos, Inc.