cent zinc sulfide and aircraft impactor equipment, should be added if at all possible. These give information as to particle concentrations downwind from the generator, and concentrations are of key interest in assessing the numbers of ice crystals per unit volume of seeded storms.

Third, actual counts of silver iodide nuclei in the plumes emitted by the generators should be carried out if it becomes possible to obtain airborne nucleicounting equipment. It is recognized that cloud base heights and general storminess during seeding situations, plus the hazard of the mountains themselves, pose serious problems here, but the need is a very real one.

5) *Synoptic analysis.* Meteorologists familiar with past seeding trials will recognize the need for much more thorough synoptic analysis of the storms seeded during any given program. In the Santa Barbara experiments there is need for some institution or agency to undertake the analysis of the Pacific frontal-cyclonic systems that comprise the seeded population, in order to gain badly needed physical insight into the reasons for the statistical answers that may be forthcoming. Whether the final answers prove positive or negative there will be great scientific interest in the detailed processes that are involved in the seeded storms of this experiment. Thermodynamic analyses and airflow analyses are needed. Fortunately, it is in the nature of this problem, that the analysis can be done later, without any immediate provision of additional facilities. However, the interest of other groups in attacking this problem is invited now.

Inquiries regarding the Santa Barbara Cloud Seeding Experiment should be addressed to either of the present three participating institutions, preferably with copies to the remaining two, as follows: (i) California State Department of Water Resources, Sacramento, Calif.: Attention Mr. Robin R. Reynolds; (ii) North American Weather Consultants, Santa Barbara Municipal Airport, Santa Barbara, Calif.: Attention Mr. Robert D. Elliott; (iii) Statistical Laboratory, University of California, Berkeley 4, California: Attention Professors J. Neyman and E. L. Scott.

J. NEYMAN
Statistical Laboratory, University of California, Berkeley

Fertile Field for Communist Propaganda?

A federal judge has aroused the scientific community by commenting publicly that the younger generation of pure scientists seems to have succumbed to Communist propaganda. Alexander Holtzoff made this observation in Washington, D.C., when he sentenced Bernard Deutch, a graduate student in physics at the University of Pennsylvania, to 90 days in jail for contempt of Congress.

Deutch was a witness before the House Un-American Activities Committee at a hearing in Albany, N.Y., in April 1954. He admitted membership in a Communist group while attending Cornell University and answered questions about his personal activities. However, he refused on moral grounds to name other members of the group.

In November 1955 Federal Judge James R. Kirkland dismissed a contempt indictment against Deutch because it had failed to specify "willful" intent. However, the indictment was reinstated last July by the Federal Court of Appeals, which ruled that Deutch's refusal to answer had been a "positive, affirmative act" and "by its very nature deliberate and willful."

When Judge Holtzoff found Deutch guilty of these charges on 13 Dec., he addressed the court as follows:

"From evidence admitted in other cases that have come before the court, the court has gleaned the inference that the younger generation of pure scientists, specifically engaged in research in physics, has succumbed to Communistic propaganda."

He went on to explain that he was referring particularly to younger persons "engaged in pure science," and stated that a "dangerous" number of nuclear scientists have been found to be Communists. He said further that because of the brilliance of these scientists, they were potentially especially harmful "as subversive instruments." He then observed that "our educational methods have so changed in recent years" that young scientists lack "a proper cultural background" and are "abysmally ignorant of history, political science and economics." Deutch remains free on $500 bond pending an appeal.

So far two organizations have responded vigorously to Holtzoff. Charles C. Price, chairman of the Federation of American Scientists and head of the chemistry department at the University of Pennsylvania said in a letter that at least 1000 research physicists and teachers had been indicted by the jurist.

"While there have been instances of a few scientists, including physicists, whose thinking led to their association with the Communist cause at some time in their lives, we of the Federation strongly believe that the facts do not support your broad indictment of a whole generation of research physicists." Price added that Holtzoff's charges "poorly serve our national efforts to encourage young people to seek careers in science."

The Philosophical Society of Washington, an organization that is composed of 700 natural scientists, has also written a letter to Holtzoff. Malcolm C. Henderson, research professor of physics at Catholic University, was chairman of the committee that composed the communication, which included the following:

"We consider that not only is the distinction you draw between the alleged susceptibility to communistic propaganda of the 'pure' versus the 'applied' scientist a fallacious one, but that there is no evidence that young scientists of any sort are more susceptible to such propaganda than other groups of young people within the general population. . . . We feel that you have been guilty of generalizing from an exceedingly small sample, and one which has been given most undue weight in the public press. . . . The damage that such ill-advised statements as yours may do is to be found in the divisive effect that they have, setting off the scientist even further from the general public, which is only too ready to distrust and dislike the habit of thought of the scholar or scientist. . . . Anything that makes a career in science less attractive to our young people, or which influences their elders to advise against it, can but weaken the country in the long run."

Expanded Conservation Program

The United States Fish and Wildlife Service will develop a greatly broadened conservation program for fish and wildlife resources. The goals of the program are to solve problems of destructive drainage threatening marshes and wetlands for migratory waterfowl and to initiate a planned program of land acquisition to meet Federal and state needs in wildlife management.

As the result of legislation approved by the 84th Congress, the service now has the authority to undertake greatly expanded programs for commercial fisheries. The service is reviewing every possibility that will benefit the fishing industry. All this material will be used in developing the new program.

Additional Declassification

A large additional volume of technical information essential to the development of a civilian nuclear industry here and abroad is authorized for open publication under a 1956 revision of the Tripartite Declassification Guide. The United States, Great Britain, and Canada use this guide to determine what atomic energy information, jointly held, may be published and what information is to remain classified.

The information declassified by the new guide, now approved by the three nations, relates to all phases of nuclear power from ore recovery and fabrication of fuel elements to the design and opera-