

AIMS AND ACTIVITIES OF THE  
U. S. ADVISORY COMMITTEE ON WEATHER CONTROL  
by  
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The Advisory Committee on Weather Control appointed by President Eisenhower in December 1953 is now conducting an exhaustive study to determine how the nation's economy can obtain the greatest benefit from rain making or weather modification.

The Committee was established by legislation passed last session of Congress after a careful study over a period of three years by several committees of the Senate and the House of Representatives.

The bill setting up this Committee was originated by Senator Francis Case of South Dakota but several other senators from western states, especially Senators Cordon, Magnuson and Anderson, gave very active support to this legislation.

The bill was signed by President Eisenhower on August 13, 1953, and became Public Law 256. The President has since appointed (December 9th), and the Senate confirmed (January 25th), the members composed of five members from private life and six members to represent interested government departments. These latter consist of the Under Secretaries of Commerce and Interior, Assistant Secretaries of Defense and Agriculture, the Surgeon General and the Director, National Science Foundation.

The other private members, besides myself, are Mr. Lewis Douglas, former ambassador to Great Britain and a prominent rancher and banker in Arizona, Dean A. M. Eberle of South Dakota State College who is also Vice Chairman, Brig. General Joseph J. George, superintendent of meteorology of Eastern Airlines at Atlanta, and Kenneth G. Spengler our very popular and efficient executive secretary of the American Meteorological Society.

The Committee held its first organizational meeting on December 18, 1953, in the Secretary's Conference Room, Department of Interior. At this meeting the Committee agreed upon a general plan of operations for the coming months. Section three states, "a complete study and evaluation of public and private experiments in weather control for the purpose of determining the extent to which the United States should experiment with, engage in, or regulate activities designed to control weather conditions."

It was obvious to the Committee that in order to carry out this study it was first necessary to obtain reports of past operations of all weather modification operations conducted by private individuals, state and government agencies since the start of Project CIRRUS in the spring of 1947. Accordingly, the Committee directed that the Chairman and the Acting Executive Secretary Charles Gardner, Jr., at present Executive Secretary to Senator Francis Case of South Dakota, go ahead with steps to obtain reports from every known source. It was thought that by the time the reports were obtained funds would be available for a small staff to start reviewing them.

In addition to the reports the Committee recognized the need for field trips. At this first meeting, invitations had been received to visit cloud physics projects carried out jointly by the University of Chicago and the U. S. Air Force at Puerto Rico and another project being conducted by the Weather Bureau in Seattle, Washington. Accordingly, the Committee made the two field trips, both in February 1954, to these areas. Both trips proved to be extremely interesting and informative to all the members who were able to attend.

At its first meeting the Committee agreed to certain principles which will guide it in its work. These four principles are quoted below:

"First, the Committee will base its conclusions on facts obtained and interpreted and not any preconceived notions. Experiments to date have suggested that weather control may eventually provide benefits to agriculture, industry and government. Without such a hint of substantial benefits, the Congress would most likely not have created this committee. However, the Committee will not now proceed under the assumption that weather control, including rain-making, does "work" or does not "work". It will aim to examine all of the evidence with scholarly care and scientific impartiality.

"Second, the Committee recognizes the need for additional basic research dealing with processes related to rain, snow, and cloud phenomena. There is also the need to develop ways and means of providing methods for reliable evaluation of weather control activities. The Committee will encourage such research in industry, at our universities, and throughout government.

"Third, the Committee will welcome, and will solicit, the information possessed by and the opinions held by all individuals and groups having an interest in the field of weather control. It will carefully consider all facts and opinions pertinent to its study.

"Fourth, the Committee will not act in any way prejudicial to responsible individuals and concerns attempting

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to modify the weather."

Many of you are fully aware of the controversial nature of this study and, of course, can appreciate the importance of the Committee taking and maintaining an impartial attitude in carrying out this evaluation.

At an early date the Committee will obtain copies of all state laws and information regarding states which may now have legislation pending. Many of you perhaps know that Wyoming (my native state), South Dakota, Colorado, Arizona, New Mexico, California, Oregon and Massachusetts now have laws regulating the activities of those who conduct rain making operations. The Committee has been informed that several other states are considering possible legislation.

Within the next four months, several "task forces" of the Committee expect to make other visits to areas where government and private cloud seeding operations are underway in order to obtain further information for use in preparation of its first preliminary report to the President for submission to the Congress.

The Committee hopes to have available, for consultation, all of the top scientists in this field. Drs. Langmuir and Schaefer made the trip to Puerto Rico and Dr. Sverre Petterssen, Chairman of the Artificial Cloud Nucleation Committee of the Department of Defense, the trip to Seattle, Washington in February, 1954. There are many persons of national and international standing who have made substantial contributions to Project CIRRUS or other projects whose advice and technical guidance the Committee will seek.

It is expected that the professional staff in the headquarters in Washington will number three professional full time members and two or three part time consultants. A personnel sub-committee has been appointed to assist in the selection of professional and administrative personnel when the budgetary situation clears up.

During its study the Committee will attempt to find out what information it can on weather modification operations in foreign countries. Canada, Mexico, Guatemala, Cuba, Peru, Japan, Australia, Israel, North Africa, Spain, France, Switzerland, Italy, Sweden, Pakistan and many other countries are known to have research projects underway. There are probably others. The methods used and results obtained may very well have a bearing on the Committee's recommendations.

It is of interest to know that Professor Findeisen, the co-originator of the Bergeron-Findeisen ice crystal theory of precipitation disappeared behind the Iron Curtain. It would be of interest to the Committee to know what success in artificial weather modification is being obtained in USSR.

The Committee will pay particular attention to any research leading to the discovery of new types of nucleating agents and new methods of dispersing these agents.

The present approach to the evaluation of rain has lead to much criticism and misunderstanding. There is urgent need for the selection of more satisfactory criteria to determine the effectiveness of the several nucleating agents. Whether this can be done or not remains to be seen.

If the Advisory Committee finds that weather modification projects can not produce important results, it will so report -- and thus deter farmers and ranchers from spending their money unwisely. This will, if such a report has to be made, save the public millions of dollars.

If the Advisory Committee finds that weather modification activities work only in certain circumstances, it will find out what those circumstances are, and thus encourage feasible projects and discourage those which are not feasible.

If the Advisory Committee finds out it can confirm the results claimed by the reports it has so far received from reputable and scientifically competent operators -- increases of from 7% to 50% and more -- then, the dollar benefits to agriculture, industry and government will be so great as to be incalculable.

In other words, gentlemen, this study will produce direct and immediate benefits -- no matter what the Advisory Committee finds out.

#### DISCUSSION

Robert D. Elliott (Vice-President, North American Weather Consultants, Goleta, California) -- I believe I speak for all professional cloud seeders when I say that the Advisory Committee on Weather Control will receive complete cooperation from us. I am sure that there will be no reservations occasioned by fear of revealing "trade secrets." I expect that as a group we shall be able to provide the Committee with a wealth of information.

Within our own Company we have certain opinions concerning the current situation on regulation of cloud seeding. We feel that existing state laws are a good start. However, they do not go far enough. It is apparent that in present form they constitute, on the whole, more or less temporary arrangements for collecting data. I am sure the Committee will find this public information of value, and the philosophy behind it is certainly sound. However, under