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APPROVED  
OCT 13 1976

S 10/13/76

THE WHITE HOUSE  
WASHINGTON  
October 11, 1976

ACTION  
Last Day: October 13

MEMORANDUM FOR THE PRESIDENT  
FROM: JIM CANNON *JAC*  
SUBJECT: S. 3383 - National Weather Modification Policy Act of 1976

Attached for your consideration is S. 3383, sponsored by Senators Pearson and Bellmon.

Background

S. 3383 passed the House by a vote of 292 to 91 and passed the Senate by voice vote.

The enrolled bill would direct the Secretary of Commerce to conduct a study which would include:

- a review and analysis of research efforts and needs in weather modification technology;
- an assessment of the potential economic importance and legal, social and ecological implications of expanded weather modification activities;
- the formulation of options for a model regulatory code for domestic weather modification activities.
- recommendations for legislation at all levels of government, and an assessment of the adequacy of funding from all sources for weather modification activities;
- a review of the international importance and implications of weather modification activities by the United States, including the feasibility of an international agreement on peaceful uses of weather modification; and
- an assessment of the roles of the various Federal departments and agencies involved in weather modification.



The primary Federal agencies concerned with weather modification activities are the Departments of Agriculture, Commerce, Defense and Interior, plus the Environmental Protection Agency, the National Aeronautics and Space Administration and the National Science Foundation. The Department of State is also interested in the effects on other countries of weather modification efforts. Some States also conduct weather modification programs.

In 1977 the Federal Government will spend about \$20 million-- compared to \$3 million in 1963 -- for such activities as fog, cloud and precipitation modification; hail and lightning suppression; amelioration of severe storms and hurricanes and other related activities.

Most of the information gathering and analysis asked for by the study required in S. 3383 has already been performed recently by the Federal Government. During the past year, the Domestic Council, through its Environmental Resources Committee's Subcommittee on Climate Change, has completed an extensive study of the role of the Federal Government in weather modification. Composed of representatives from several Government agencies, the subcommittee examined all available documentation on the progress and problems in weather modification, and through open hearings heard from representatives of the scientific community, commercial sector, State governments, conservation groups, agriculturalists, and the legal field.

#### Arguments for Approval

- The bill does offer an integrated approach to formulation of Federal policy and includes private sector input.
- Failure to approve could be viewed as "obstructionist" and "uncooperative" on narrow procedural grounds.
- The bill does not inhibit the ability of the Executive Branch to make policy determinations.

#### Arguments for Disapproval

- The bill is duplicative, to a great extent, of work already done.
- The "lead agency" approach is not necessarily wise for this program in that it would reduce inventiveness and be unfruitful.

## Staff and Agency Recommendations

### Approval

The Departments of Commerce, Transportation, State, Defense and the Office of Science and Technology Policy recommend approval.

OMB recommends approval but recommends that you instruct the Secretary of Commerce: (1) to use all available studies already completed as a foundation for this study; and (2) to include all interested agencies on the study team, including the Office of Science and Technology Policy. (see enrolled bill report at Tab A)

Max Friedersdorf, Counsel's Office (Kilberg) and the National Security Council recommend approval of the legislation.

### Disapproval

The Department of the Interior recommends disapproval because it believes S. 3383 is premature and would duplicate the recent work of the Domestic Council.

### Recommendation

I recommend that you sign S. 3383 at Tab B. There is little harm done by this legislation and the bill does not reduce the power of the President to lay out the policy guidelines to the Secretary.





EXECUTIVE OFFICE OF THE PRESIDENT

OFFICE OF MANAGEMENT AND BUDGET

WASHINGTON, D.C. 20503

OCT 7 1976

MEMORANDUM FOR THE PRESIDENT

Subject: Enrolled Bill S. 3383 - National Weather Modification  
Policy Act of 1976  
Sponsors - Sen. Pearson (R) Kansas and Sen. Bellmon  
(R) Oklahoma

Last Day for Action

October 13, 1976 - Wednesday

Purpose

Authorizes and directs the Secretary of Commerce to conduct a study on weather modification and recommend a national weather modification policy and a national weather modification research and development program.

Agency Recommendations

Office of Management and Budget	Approval
Department of Commerce	Approval
Department of State	Approval
Department of Defense	Approval
Department of Transportation	Approval
Office of Science and Technology Policy	Approval
Energy Research and Development Administration	Approval
Department of Justice	No objection (Informally)
National Science Foundation	No objection
Department of Agriculture	Defers to Commerce
National Aeronautics and Space Administration	(Informally)
Environmental Protection Agency	Defers to Commerce
Department of Housing and Urban Development	Defers to Commerce
Department of Interior	(Informally)
	Defers
	Disapproval

## Discussion

S. 3383 would direct the Secretary of Commerce to conduct a study which would include:

- a review and analysis of research efforts and needs in weather modification technology;
- an assessment of the potential economic importance and legal, social, and ecological implications of expanded weather modification activities;
- the formulation of options for a model regulatory code for domestic weather modification activities;
- recommendations for legislation at all levels of government, and an assessment of the adequacy of funding from all sources for weather modification activities;
- a review of the international importance and implications of weather modification activities by the United States, including the feasibility of an international agreement on peaceful uses of weather modification; and
- an assessment of the roles of the various Federal departments and agencies involved in weather modification.

Within 1 year of enactment of this bill, the Secretary would be required to submit a report to the President and Congress on the findings, conclusions, and recommendations of the above study. The report would include a recommended national policy on weather modification and a national weather modification research and development program. The Secretary would also recommend (1) Federal funding levels for the R&D program, and (2) any changes in the organization of Federal agencies required to implement the proposed new weather policy and R&D program.

To carry out the study and prepare the report, S. 3383 would authorize appropriations of \$1,000,000 in fiscal year 1977. Commerce does not have funds in its existing 1977 budget specifically earmarked for this purpose, and if the bill were approved, a supplemental budget request might have to be submitted to the next Congress.

S. 3383 also extends the appropriation authorization in P.L. 92-205 at the current level of \$200,000 per year for 1978, 1979 and 1980. That Act provides for the reporting of all non-Federal weather modification activities in the United States to the Secretary of Commerce and is the only source of information on attempts to influence the weather in the United States. The authorization for the reporting program currently expires on June 30, 1977.

#### Comment

The primary Federal agencies concerned with weather modification activities are the Departments of Agriculture, Commerce, Defense and Interior, plus the Environmental Protection Agency, the National Aeronautics and Space Administration and the National Science Foundation. The Department of State is also interested in the effects on other countries of weather modification efforts. Some States also conduct weather modification programs.

In 1977 the Federal Government will spend about \$20 million -- compared to \$3 million in 1963 -- for such activities as fog, cloud and precipitation modification; hail and lightning suppression; amelioration of severe storms and hurricanes and other related activities.

The requirement in S. 3383 for the Secretary of Commerce to recommend a "weather modification policy" and a "weather modification research and development program" is unnecessary. First, the President and not the Secretary of Commerce should determine issues such as the "changes in the organization and involvement of Federal ... agencies in weather modification ..." and the "levels of Federal funding sufficient to support adequately a national weather modification research and development program."

Second, the Administration's position has been that weather modification programs should be pursued in concert with the missions of the agencies, and that a "lead agency" approach for all weather modification efforts in the Executive branch is unnecessary. Under this approach, funds for weather modification compete with funding for alternative means of attaining the mission goals of an agency. The Administration has, however, designated lead agencies for parts of the weather modification effort; agencies have been instructed to concentrate their efforts in specific areas, e.g., Commerce in severe storms and Interior in precipitation.

Various policy formulation mechanisms, e.g., the budget process and the Domestic Council, and coordination bodies, such as the Interdepartmental Committee for Atmospheric Sciences (ICAS), already exist to ensure that proper coordination of weather modification policy and research and development efforts exists in the Executive branch.

Most of the information gathering and analysis asked for by the study required in S. 3383 has already been performed recently by the Federal Government. During the past year, the Domestic Council, through its Environmental Resources Committee's Subcommittee on Climate Change, has completed an extensive study of the role of the Federal Government in weather modification. Composed of representatives from several Government agencies, the subcommittee examined all available documentation on the progress and problems in weather modification, and through open hearings heard from representatives of the scientific community, commercial sector, State governments, conservation groups, agriculturalists, and the legal field.

Prior to the Domestic Council report, which was released last December, there have been many other studies addressing weather modification policy and weather modification research. The study called for in S. 3383 would -- for the most part -- appear to duplicate these efforts. It should be noted, however, that OSTP has a contrary view and does not believe any of these studies, including the Domestic Council study, was "comprehensive in scope."

S. 3383 passed the House by a vote of 292 to 91 and passed the Senate by voice vote. Interior and NSF opposed the bill in reports to the Congress, and other agencies, such as Commerce, have testified that "we have had enough studies and serious consideration should be given as to whether another study is required at this time."

#### Agency Views

The Departments of Commerce, Transportation, State, Defense, and the Office of Science and Technology Policy recommend approval of the enrolled bill. Commerce states: "A comprehensive study of weather modification policy and programs would provide a forum for all interested parties to forge a plan for federal action. One key aspect of this study is that non-federal opinion is to be included in the deliberations... The national policy, the research and development programs, and other recommendations evolved from this broadbased study will address a wide range of

issues and problems associated with weather modification. A study that effectively integrates the many diverse aspects of weather modification can provide meaningful approaches to accelerating progress in man's deliberate attempts to influence the weather for the common good."

Interior recommends disapproval, believes S. 3383 is premature and would duplicate the recent work of the Domestic Council, and concludes:

"We also propose that any future study of the sort proposed by S. 3383 be conducted by an independent commission, rather than by a single lead agency. This would help assure a greater independence of study conclusions and results, not colored by special program interests and activities of a particular agency. The Domestic Council report did not recommend in favor of a lead agency. We concur with the position taken by the Interdepartmental Committee for Atmospheric Sciences (ICAS) that assignment of a single lead agency for weather modification activities in the foreseeable future would not be desirable and that placing the selection of priorities in weather modification R&D activity in a single agency at this time would reduce inventiveness and would be unfruitful."

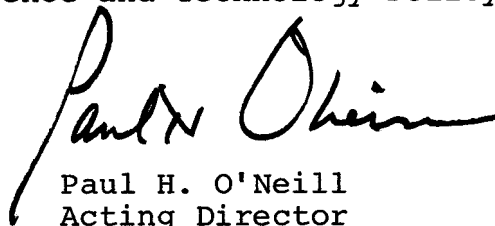
### Conclusion

The report required of the Secretary of Commerce by this bill may be able to be guided along appropriate policy lines. The bill does direct the Secretary to consider the views of other "governmental entities," and doubtless other Federal agencies will be consulted. OSTP, in its attached views letter, claims that "the authorization does little harm if there is leadership in the Executive Office of the President that will help guide the scope and direction of the study...." Whatever study is produced will be subject to normal Executive Office review procedures.

In our view, however, the overriding issue is the necessity for Presidential determination of the appropriate Federal effort and participation in weather modification. S. 3383 is clearly

intended to force the Executive branch to adopt a "lead agency" approach to weather modification activities with the Department of Commerce as the intended "lead agency." The Executive branch has resisted this approach for the past 10 years. While the dangers represented by the bill can be ameliorated by prudent Executive Office oversight, the possible precedent for an erosion of Presidential responsibilities is disturbing. Implementation of S. 3383 will also undoubtedly increase the pressures to significantly expand Federal weather modification activities. Our view is that the present level of Federal effort is appropriate.

On balance, I recommend that you approve the bill but instruct the Secretary of Commerce: (1) to use all available studies already completed as a foundation for this study, thereby keeping the costs to a minimum and avoiding the need for any supplemental funding; and (2) include all interested agencies on the study team, including the Office of Science and Technology Policy.



Paul H. O'Neill  
Acting Director

Enclosures



THE SECRETARY OF TRANSPORTATION  
WASHINGTON, D.C. 20590

OCT 1 1976

Honorable James T. Lynn  
Director  
Office of Management and Budget  
Washington, D. C. 20503

Dear Mr. Lynn:

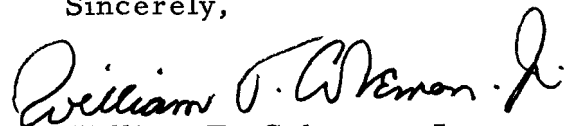
This is in reply to your request for the Department's views on S. 3383, an enrolled bill

To authorize and direct the Secretary of Commerce to develop a national policy on weather modification, and for other purposes.

The purpose of the enrolled bill is to provide for the development of a comprehensive and coordinated national weather modification policy and a national program of weather modification research and development. In furtherance of this aim, the bill requires the Secretary of Commerce (1) to conduct a comprehensive study of weather modification technology and problems impeding effective implementation of that technology; and (2) to submit to the President and the Congress within one year after the date of enactment of the bill a report on the findings and recommendations of the study.

Current efforts in weather modification are widespread in nature and application and collectively have important economic consequences. The Department's involvement in intentional weather modification has been somewhat limited, but we recognize that there are problems in correlating the diffuse national efforts in this field. We believe that the preparation of a report, as provided in S. 3383, setting forth a policy and plans for correlating these efforts would be useful. Therefore, the Department recommends that the President sign the enrolled bill.

Sincerely,

  
William T. Coleman, Jr.



# United States Department of the Interior

OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240

OCT 4 - 1976

Dear Mr. Lynn:

This responds to your request for the views of this Department with respect to an enrolled bill S. 3383, "To authorize and direct the Secretary of Commerce to develop a national policy on weather modification, and for other purposes."

We recommend that the bill not be signed.

S. 3383 in its enrolled form and as initially addressed in a Departmental report in June, would authorize an appropriation of \$1,000,000 for the Secretary of Commerce to conduct a study which would include: (1) review of research efforts to date in weather modification technology, particularly as it relates to protecting against loss of life and property; (2) review of research needs; (3) assessment of the potential economic importance to the United States of further implementation of weather modification technology; (4) assessment of legal, social, and ecological implications of expanded modification activities; (5) legislative recommendations; (6) review of the potential international implications of weather modification activities by the United States; (7) assessment of funding needs from all sources for weather modification; and (8) assessment of the roles of the various Federal departments and agencies involved in weather modification. A report on the proposed study would be required within a year after enactment of the bill.

In addition to these provisions, recent amendments reflected in the enrolled bill would require as a part of the study and report: (1) formulation of one or more options for a model regulatory code for domestic weather modification activities; (2) assessment of the necessity and feasibility of negotiating an international agreement concerning the peaceful uses of weather modification; and (3) formulation of one or more options for an international agreement concerning the peaceful uses of weather modification. An additional amendment to the bill would continue, through 1980, authorization of \$200,000 per year to support work under Public Law 92-205 (15 U.S.C. 330; 85 Stat. 735) which requires reporting of weather modification activities.





As we reported in June, much work in the area of needs and role assessment as well as in specific problem-oriented research has been recently done. During the past year, the Domestic Council, through its Environmental Resources Committee's Subcommittee on Climate Change, has completed an extensive study of the role of the Federal Government in weather modification. Although composed of representatives from several Government agencies, the subcommittee examined all available documentation on the progress, status, and problems in weather modification, and conducted open hearings to hear from well-informed representatives of the scientific community, commercial sector, State Governments, conservation groups, agriculturalists, and the legal field. It would appear that the study proposed by S. 3383 would duplicate the recent work of the Domestic Council and several other reports.

We conclude, therefore, as we concluded in June, that S. 3383 is premature and do not support its enactment.

We do not mean to say that further study in the area of weather modification will not be needed at a future time. In light of recent reports and studies, however, particularly that of the Domestic Council, the study proposed by S. 3383 is unnecessary at this time.

Although the bill now contains new provisions respecting possible international agreements and regulatory programs, we note that the Domestic Council study concluded that additional Federal regulatory legislation is not needed at this time. The study mentioned international issues in its appraisal and would include consideration of these issues in further planning of domestic activities. There are no new provisions which concern matters that require immediate legislative action.

If any study comparable to that proposed by S. 3383 is authorized at some future time, we believe that the authorization should expressly require that the Department of the Interior be included in the study effort, particularly as it relates to water augmentation.

The Department, through the Bureau of Reclamation, the Office of Water Research and Technology, and its Power Administrations is one of the major mission agencies concerned with future operational application of weather modification technology for beneficial purposes.

The Bureau of Reclamation, as the principal water resources management and development agency in the Department of the Interior, was directed

by the Congress in 1961 to develop cloud seeding techniques which could be utilized to augment water supplies, particularly in water-short areas of the Nation. Project Skywater, as the research program is known, represents an expertise and capability in-being for weather modification activity and is currently devoted to advancing the effectiveness of augmentation technology. The Bureau is also developing and testing management concepts that include the type of local-State-Federal cooperation and private industry participation needed for research-supported operational activities in utilizing weather modification as a water resources management tool.

We also propose that any future study of the sort proposed by S. 3383 be conducted by an independent commission, rather than by a single lead agency. This would help assure a greater independence of study conclusions and results, not colored by special program interests and activities of a particular agency. The Domestic Council report did not recommend in favor of a lead agency. We concur with the position taken by the Interdepartmental Committee for Atmospheric Sciences (ICAS) that assignment of a single lead agency for weather modification activities in the foreseeable future would not be desirable and that placing the selection of priorities in weather modification R&D activity in a single agency at this time would reduce inventiveness and would be unfruitful.

In conclusion, we do not support enactment of S. 3383 and recommend that it not be signed.

Sincerely yours,

  
Assistant Secretary of the Interior

Honorable James T. Lynn  
Director, Office of  
Management and Budget  
Washington, D. C.



DEPARTMENT OF STATE

Washington, D.C. 20520

OCT 4 1976

Dear Mr. Lynn:

This is in response to Mr. James M. Frey's communication of September 30 requesting the Department's views on an enrolled bill (S. 3383) to develop a national policy on weather modification. The bill would direct the Secretary of Commerce to conduct a comprehensive study of the state of scientific knowledge concerning weather modification, the present state of weather modification technology, and problems impeding effective implementation of such technology at both the domestic and international levels. The study would form the basis of a report by the Secretary of Commerce to the President and the Congress within one year containing recommendations for a national policy in this field as well as on a research and development program, legislation and organizational changes required to implement the policy.

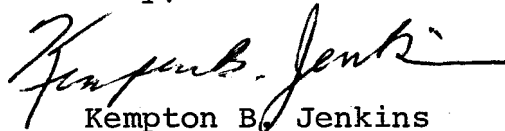
The bill properly recognizes the important international considerations associated with a U.S. national policy and supporting programs in the weather modification field. It calls specifically for an assessment of the international implications of U.S. weather modification activities, and an analysis of the feasibility of negotiating international agreements on the basis of alternative models which would be formulated in the course of the study. Indeed, it is clear that widespread application of weather modification will depend as much on resolving complex international legal and institutional issues as on achieving technological breakthroughs.

The Honorable  
James T. Lynn,  
Director,  
Office of Management and Budget.

While the bill directs the Secretary of Commerce to assume responsibility for analyzing, and making recommendations on, the international aspects of a U.S. weather modification policy and supporting programs, the Department of State, with its responsibility for overall U.S. foreign policy, will cooperate closely with the Department of Commerce. We are, in particular, able to contribute our experience in dealing with foreign policy issues associated with past weather modification activities, and our expertise in negotiating international agreements in the field of science and technology.

Accordingly, the Department urges that the bill be signed.

Sincerely,

A handwritten signature in cursive script, appearing to read "Kempton B. Jenkins".

Kempton B. Jenkins  
Acting Assistant Secretary  
for Congressional Relations



National Aeronautics and  
Space Administration

Washington, D.C.  
20546

Office of the Administrator

OCT 4 1976

Director  
Office of Management and Budget  
Executive Office of the President  
Washington, DC 20503

Attention: Assistant Director  
for Legislative Reference

Subject: Enrolled Enactment report on S. 3383, 94th Congress

This is an Enrolled Enactment report on S. 3383, "To authorize and direct the Secretary of Commerce to develop a national policy on weather modification, and for other purposes." It is submitted pursuant to Mr. James M. Frey's memorandum of September 30, 1976.

The Bill would direct the Secretary of Commerce to conduct a comprehensive study of the state of scientific knowledge concerning weather modification, the present state of development of weather modification technology, the problems impeding effective implementation of such technology, and other related matters. A report would be required, within one year, summarizing the foregoing findings and making recommendations regarding a national policy on weather modification including recommendations for Federal involvement, funding, and regulatory or legislative actions which may be required.

Although we do develop technologies which may have applicability in the area of weather modification, NASA has no direct program responsibility for weather modification research and development.

Accordingly, the National Aeronautics and Space Administration would have no objection to the approval of this legislation, but would defer to the position of the Secretary of Commerce.



James C. Fletcher  
Administrator



THE GENERAL COUNSEL OF HOUSING AND URBAN DEVELOPMENT  
WASHINGTON, D.C. 20410

OCT 5 1976

Mr. James M. Frey  
Assistant Director for  
Legislative Reference  
Office of Management and Budget  
Washington, D. C. 20403

Attention: Miss Martha Ramsey

Dear Mr. Frey:

Subject: S. 3383, 94th Congress  
Enrolled Enactment

This is in response to your request for the views of this Department on the enrolled enactment of S. 3383, the "National Weather Modification Policy Act of 1976".

The enrolled bill is designed to develop a comprehensive and coordinated national weather modification policy and a national program of weather modification research and development. Toward these ends, the Secretary of Commerce is directed to conduct a comprehensive study of the state of scientific knowledge concerning weather modification, the present state of development of weather modification technology, the problems impeding effective implementation of weather modification technology and other related matters. A final report on the results of the study, together with recommendations, must be submitted to the Congress within one year of the Act's enactment.

This Department has no objection to Presidential approval of the enrolled bill, but would defer to the Department of Commerce's recommendation for Presidential action on the measure.

Sincerely,

A handwritten signature in cursive script, appearing to read "Robert R. Elliott".

Robert R. Elliott

NATIONAL SCIENCE FOUNDATION

WASHINGTON, D.C. 20550



OFFICE OF THE  
DIRECTOR

October 5, 1976

Mr. James M. Frey  
Assistant Director for  
Legislative Reference  
Office of Management and Budget  
Washington, D. C. 20503

Dear Mr. Frey:

This is in reply to your communication of September 30, 1976, requesting the comments of the National Science Foundation on Enrolled Bill S. 3383, the "National Weather Modification Policy Act of 1976."

Section 4 of the Enrolled Bill directs the Secretary of Commerce to conduct a comprehensive investigation of weather modification science and technology and related matters. Many weather modification studies have been conducted, and we are uncertain what another study could be expected to contribute. Nevertheless, if the President approves the Enrolled Bill, the Foundation stands ready to contribute whatever information the Department of Commerce may request. Given the Foundation's weather modification responsibilities, we would hope and expect to be consulted by the Department.

The Foundation has no objection to approval of the bill by the President.

Sincerely yours,

Richard C. Atkinson  
Acting Director

DEPARTMENT OF THE AIR FORCE  
WASHINGTON, D.C. 20330



OFFICE OF THE SECRETARY

5 OCT 1976

Dear Mr. Director:

Reference is made to your request to the Secretary of Defense for the views of the Department of Defense with respect to S. 3383, 94th Congress, an enrolled bill, "To authorize and direct the Secretary of Commerce to develop a national policy on weather modification, and for other purposes." The Secretary of Defense has delegated the Department of the Air Force the responsibility for expressing the views of the Department of Defense.

The bill requires the Secretary of Commerce to study weather modification and recommend national policy, funding, and legislation for weather modification programs. The Department of Defense expects that some of the study areas and recommendations will involve national Defense matters. Since the bill also requires the Secretary of Commerce to solicit and consider the views of other interested governmental entities, the Department of Defense expects its views to be requested and included where national Defense matters are involved.

The Department of the Air Force, on behalf of the Department of Defense, recommends the approval and signature by the President of S. 3383.

The approval of this enactment will cause no apparent increase in budgetary requirements of the Department of Defense.





This report has been coordinated within the Department of Defense in accordance with procedures prescribed by the Secretary of Defense.

Sincerely,

*John Martin*

JOHN J. MARTIN  
Assistant Secretary  
Research & Development

Honorable James T. Lynn  
Director, Office of Management  
and Budget



**GENERAL COUNSEL OF THE  
UNITED STATES DEPARTMENT OF COMMERCE**  
Washington, D.C. 20230

OCT 6 1976

Honorable James T. Lynn  
Director, Office of Management  
and Budget  
Washington, D. C. 20503

Attention: Assistant Director for Legislative Reference

Dear Mr. Lynn:

This is in reply to your request for the views of this Department concerning S. 3383, an enrolled enactment

"To authorize and direct the Secretary of Commerce to develop a national policy on weather modification, and for other purposes."

The Department of Commerce recommends the President approve this enrolled enactment.

The primary purpose of the bill is to direct the Secretary to conduct a comprehensive investigation and study of the state of scientific knowledge concerning weather modification, its technology, any problems associated with that technology, and other related matters. This study should lead to information which, among other things, would allow the Secretary to:

- (1) determine the means by which deliberate weather modification can be used at the present time to decrease the adverse impact of weather on agriculture, economic growth, and the general public welfare;
- (2) determine the potential for weather modification;
- (3) conduct research into those scientific areas considered most likely to lead to practical techniques for drought prevention or alleviation and other forms of deliberate weather modification;
- (4) develop practical methods and devices for weather modification;
- (5) make weather modification research findings available to interested parties;



(6) assess the economic, social, environmental, and legal impact of an operational weather modification program;

(7) develop both national and international mechanisms designed to minimize conflicts which may arise with respect to the peaceful uses of weather modification; and

(8) integrate the results of existing experience and studies in weather modification activities into model codes and agreements for regulation of domestic and international weather modification activities.

The bill also requires that the Secretary submit to Congress within one year of the date of enactment, a report which describes the finding, conclusions, and recommendations of the study. In his report, in addition to describing the findings of the study, the Secretary would be required to make a number of recommendations relating to: a national policy on weather modification and an associated program of research and development; levels of federal funding adequate for the research and development program; any changes in the organization of the Federal Government which may be needed to effectively implement a national policy and research and development program; and any regulations or additional legislation necessary to implement a national policy and research and development program or an international program for the peaceful uses of weather modification activities.

An additional purpose of the bill is to extend the authorization in Public Law 92-205 for appropriations at the current level of \$200,000 for each of the fiscal years ending September 30, 1978, 1979 and 1980. That Act provides for the reporting of all non-federal weather modification activities in the United States to the Secretary of Commerce and is the only source of information on attempts to influence the weather in the United States. Authorization for the reporting program currently expires on June 30, 1977.

This legislation could influence the advancement of weather modification science, technology, and application. It may be the catalyst that helps weather modification reach its presumed potential.

A comprehensive study of weather modification policy and programs would provide a forum for all interested parties to forge a plan for federal action. One key aspect of this study is that non-federal opinion is to be included in the deliberations. Such input is to be

secured from universities, State officials, private operators, users, Federal agencies, environmentalists, and others having competence or interest in weather modification and its effects. The national policy, the research and development programs, and other recommendations evolved from this broadbased study will address a wide range of issues and problems associated with weather modification. A study that effectively integrates the many diverse aspects of weather modification can provide meaningful approaches to accelerating progress in man's deliberate attempts to influence the weather for the common good.

Under this legislation, \$1,000,000 is authorized. The Department is presently reviewing NOAA's preliminary cost estimates of \$850,000 to carry out the study required by this Act. NOAA's 1977 budget does not include specific funds to conduct a comprehensive weather modification study, and supplementary funding may be requested.

Sincerely,



General Counsel

EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF SCIENCE AND TECHNOLOGY POLICY  
WASHINGTON, D.C. 20500

October 6, 1976

MEMORANDUM FOR: Jim Frey  
Assistant Director  
Legislative Reference  
Office of Management and Budget

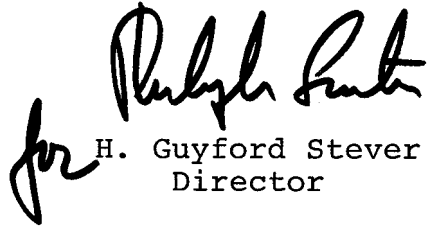
SUBJECT: S. 3383, "National Weather Modification  
Policy Act of 1976"

I recommend that the President sign the National Weather Modification Policy Act of 1976. In making this recommendation, I would make the following observations:

- . Two comprehensive studies of the opportunities and problems in weather modification were made in the mid-1960's; one of these was a report of the National Academy of Sciences; the second was made by a specially appointed Commission by the National Science Board. Other reports and studies on weather modification have been made in the intervening years, e.g., some elements of the weather modification situation were dealt with in the Stratton Commission report in the late 1960's. However, none of the more recent reports, including a Department of Commerce led ad hoc task force report prepared under the aegis of a Domestic Council sub-committee, have been comprehensive in scope. I believe that a competently managed review of weather modification would be worthwhile.
- . While a specific authorization such as that provided in S. 3383 is not necessary for the conduct of such a study, the authorization does little harm if there is leadership in the Executive Office of the President that will help guide the scope and direction of the study that has been authorized. As Director of the Office of Science and Technology Policy, I will attempt to work with the agencies to make this a worthwhile review.
- . P.L. 94-282 establishes the President's Committee on Science and Technology (PCST) which is to undertake a two-year study of the organization and effectiveness of federally-sponsored research and development. I would

expect that the PCST would consider the question of weather modification, but not in the detail that would be undertaken by the study S. 3383 authorizes. Therefore, I do not believe that there is redundancy between the work of the PCST and a committee or group that would be established to look at this particular problem.

- . From a Presidential perspective, I see little to be gained by vetoing a bill of this character.

  
for H. Guyford Stever  
Director



UNITED STATES  
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION  
WASHINGTON, D.C. 20545

OCT 7 1976

Mr. James M. Frey  
Assistant Director for  
Legislative Reference  
Office of Management and Budget

Dear Mr. Frey:

The Energy Research and Development Administration (ERDA) is pleased to respond to your invitation to comment on the Enrolled Bill, S. 3383. This measure is cited as the National Weather Modification Policy Act of 1976.

This Act directs the Secretary of Commerce to study and review the state of scientific knowledge about weather modification. The Secretary is also directed to include in his study a review of the need for such a program, a consideration of economic impacts, and an assessment of legal, social, international and ecological impacts of weather modifications.

Not only would the comprehensive study described in S. 3383 be a valuable general reference work, it would also provide information which ERDA could use in planning various energy research projects. I, therefore, recommend that the President sign into law the Enrolled Bill, S. 3383.

Sincerely,

A handwritten signature in black ink that reads "Robert Seamans". The signature is written in a cursive, slightly stylized font.

Robert C. Seamans, Jr.  
Administrator





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OCT 8 1976

OFFICE OF THE  
ADMINISTRATOR

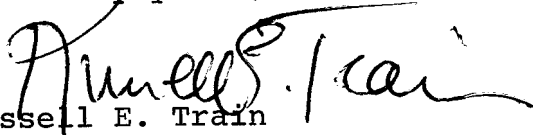
Dear Mr. Lynn:

This is in response to your request of October 4, 1976, for the views of the Environmental Protection Agency (EPA) on enrolled bill S. 3383 entitled, the "National Weather Modification Policy Act of 1976."

Under the provisions of S. 3383, the Secretary of Commerce is directed to conduct a comprehensive investigation and study of the state of scientific knowledge concerning weather modification, the present state of development of weather modification technology, the problems impeding effective implementation of weather modification technology, and other related matters and to submit a final report within one year to the President and the Congress on the findings, conclusions, and recommendations resulting from the study. Among the items to be included in this report would be the findings relating to an assessment of the legal, social, and ecological implications of expanded and effective research and operational weather modification projects. One million dollars is authorized to carry out the provisions of S. 3383.

The Environmental Protection Agency has no objection to the signing of S. 3383. However, EPA defers to the Department of Commerce as to the specific provisions contained in the bill.

Sincerely yours,

  
Russell E. Train  
Administrator

Honorable James T. Lynn  
Director, Office of  
Management and Budget  
Washington, D.C. 20503



**Department of Justice**  
**Washington, D.C. 20530**

October 7, 1976

Honorable James T. Lynn  
Director, Office of Management  
and Budget  
Washington, D. C. 20503

Dear Mr. Lynn:

In compliance with your request, I have examined a facsimile of the enrolled bill S. 3383, "To authorize and direct the Secretary of Commerce to develop a national policy on weather modification, and for other purposes."

The Department of Justice defers to views of the Department of Commerce with respect to whether or not the bill should be approved.

Sincerely,



Michael M. Uhlmann  
Assistant Attorney General



DEPARTMENT OF AGRICULTURE  
OFFICE OF THE SECRETARY  
WASHINGTON, D. C. 20250

October 8, 1976

Honorable James T. Lynn  
Director, Office of Management  
and Budget

Dear Mr. Lynn:

As your office requested, here is our report on S. 3383, an enrolled enactment "To authorize and direct the Secretary of Commerce to develop a national policy on weather modification, and for other purposes."

The Department of Agriculture defers to the Department of Commerce for a recommendation on whether the President should approve S. 3383.

S. 3383 would direct the Secretary of Commerce to conduct a comprehensive study of the state of scientific knowledge concerning weather modification technology and implementation. Within one year of enactment, the Secretary of Commerce would submit to the President and the Congress a final report of his findings along with his recommendations including, among other things, national policies, Federal funding levels, Federal organizational relationships, and possible new Federal legislation related to weather modification. The report would also include options for a model international agreement concerning the peaceful uses of weather modification and the regulation of national weather modification activities.

Each department, agency, and other instrumentality of the Federal Government would be authorized and directed to furnish the Secretary of Commerce any information he deemed necessary to carry out his responsibilities under S. 3383. The Secretary of Commerce would also solicit and consider the views of State agencies, private firms, institutions of higher learning, and other interested persons and governmental entities in the conduct of the study and preparation of the report. Up to \$1 million would be authorized to be appropriated to carry out the provisions of S. 3383.

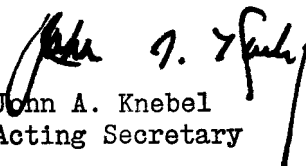
We generally support the need for continued research and technology development related to weather modification, and the Department of Agriculture is very much involved in the ongoing Federal effort. However, the authorities and responsibilities described in S. 3383 would rest with the Department of Commerce, and we defer to that Department for a recommendation on whether the President should approve S. 3383.

Honorable James T. Lynn

2.

If S. 3383 is approved, several agencies within the Department of Agriculture have weather modification experience and information that would be useful and available to the Secretary of Commerce. We would expect to make major contributions to the study and the report that would be required by S. 3383.

Sincerely,

  
John A. Knebel  
Acting Secretary

THE WHITE HOUSE

ACTION MEMORANDUM

WASHINGTON

LOG NO.:

Date: October 8

Time: 1030am

FOR ACTION: George Humphreys  
 Max Friedersdorf *an* cc (for information):  
 Bobbie Kilberg *an*  
 Glenn Schleede *an*  
 NSC/S *an*

Jack Marsh  
 Steve McConahey *dy*  
 Ed Schmults

FROM THE STAFF SECRETARY

DUE: Date: October 9

Time: noon

SUBJECT:

S.3383-National Weather Modification Policy Act of 1976

ACTION REQUESTED:

- |   |   |
|---|---|
| <input type="checkbox"/> For Necessary Action         | <input type="checkbox"/> For Your Recommendations |
| <input type="checkbox"/> Prepare Agenda and Brief     | <input type="checkbox"/> Draft Reply              |
| <input checked="" type="checkbox"/> For Your Comments | <input type="checkbox"/> Draft Remarks            |

REMARKS:

please return to judy johnston,ground floor west wing

PLEASE ATTACH THIS COPY TO MATERIAL SUBMITTED.

If you have any questions or if you anticipate a delay in submitting the required material, please telephone the Staff Secretary immediately.

\_\_\_\_\_  
 K. R. COLE, JR.  
 For the President

THE WHITE HOUSE

ACTION MEMORANDUM

WASHINGTON

LOG NO.:

Date: October 8

Time: 1030am

FOR ACTION: George Humphreys  
Max Friedersdorf  
Bobbie Kilberg  
Glenn Schleede  
NSC/S

cc (for information): Jack Marsh  
Steve McConahey  
Ed Schmults

FROM THE STAFF SECRETARY

DUE: Date: October 9

Time: noon

SUBJECT:

S.3383-National Weather Modification Policy Act of 1976

ACTION REQUESTED:

For Necessary Action

For Your Recommendations

Prepare Agenda and Brief

Draft Reply

For Your Comments

Draft Remarks

REMARKS:

please return to judy johnston, ground floor west wing

*no objection Kelly 10/9/76*

PLEASE ATTACH THIS COPY TO MATERIAL SUBMITTED.

If you have any questions or if you anticipate a delay in submitting the required material, please telephone the Staff Secretary immediately.

James M. Cannon  
For the President

THE WHITE HOUSE

ACTION MEMORANDUM

WASHINGTON

LOG NO.:

Date: October 8

Time: 1030am

FOR ACTION: George Humphreys  
Max Friedersdorf  
Bobbie Kilberg  
Glenn Schleede ✓  
NSC/S

cc (for information): Jack Marsh  
Steve McConahey  
Ed Schmults

FROM THE STAFF SECRETARY

DUE: Date: October 9

Time: noon

SUBJECT:

S.3383-National Weather Modification Policy Act of 1976

*2*

ACTION REQUESTED:

For Necessary Action

For Your Recommendations

Prepare Agenda and Brief

Draft Reply

For Your Comments

Draft Remarks

REMARKS:

please return to judy johnston, ground floor west wing

*Personal copy  
Schleede*


PLEASE ATTACH THIS COPY TO MATERIAL SUBMITTED.

If you have any questions or if you anticipate a delay in submitting the required material, please telephone the Staff Secretary immediately.

James M. Cannon  
For the President

NATIONAL SECURITY COUNCIL

October 9, 1976

MEMORANDUM FOR: JAMES M. CANNON  
FROM: Jeanne W. Davis   
SUBJECT: S. 3383

The NSC Staff concurs in the proposed enrolled bill S. 3383 - National Weather Modification Policy Act of 1976.

THE WHITE HOUSE

WASHINGTON

October 11, 1976

*CANNON*

MEMORANDUM FOR:

JIM ~~CAVANAUGH~~

FROM:

MAX L. FRIEDERSDORF *M.L.*

SUBJECT:

S.3383-National Weather Modification  
Policy Act of 1976

The Office of Legislative Affairs concurs with the agencies that the National Weather Modification Policy Act of 1976 should be signed.

House passed under suspension.

Attachments



# Calendar No. 817

94TH CONGRESS }  
2d Session }

SENATE }

REPORT  
No. 94-859

## NATIONAL WEATHER MODIFICATION POLICY ACT OF 1976

MAY 13, 1976.—Ordered to be printed

Mr. PEARSON, from the Committee on Commerce,  
submitted the following

### REPORT

[To accompany S. 3383]

The Committee on Commerce to which was referred the bill (S. 3383) to authorize and direct the Secretary of Commerce to develop a national policy on weather modification, and for other purposes, having considered the same, reports favorably thereon with amendments and recommends that the bill as amended do pass.

#### PURPOSE OF THE LEGISLATION

The purpose of S. 3383 is to authorize and direct the Secretary of Commerce to develop a comprehensive and coordinated national policy on weather modification and a recommended national weather modification research and development program.

#### BACKGROUND AND NEED

Directly or indirectly, the activities of virtually all Americans are affected by the weather. The effects of severe storms, drought, hurricanes, hail, tornados, fog, and lightning are enormously costly, both in terms of human suffering, and property and crop damage. A recent report of the Domestic Council's Subcommittee on Climate Change indicated that \$6.7 billion in property damage and in excess of 1,500 individuals are killed annually in the United States as a result of weather-related disasters and hazards. The recent severe drought in the State of Kansas is but one example of the enormous economic costs associated with such weather phenomena. As a result of the drought, Kansas wheat farmers have been forced to abandon 2.3 million acres of wheatland, a figure that represents 17.6 percent of the State's total wheat acreage. In addition, yields on the harvested acre-

age is forecasted to be 28 bushels per acre compared to the 5-year average of 33.1 bushels per acre. Similar weather-related damage to U.S. agricultural production occurs virtually every year.

Weather modification activities have been operational for over 25 years. From the results obtained from these activities and related scientific developments there is reason to believe that weather modification could have significant potential for preventing, diverting, moderating, or ameliorating the adverse effects of weather-related disasters and hazards. This potential is not being realized. The lack of a coordinated Federal weather modification research and development program, the lack of a lead agency to coordinate Federal efforts in weather modification, and the continued low level of Federal funding for such activities have combined to stunt the pace of scientific and technical progress. The pace has been less than desirable, and the many potential benefits that could accrue to the Nation as a result of a coordinated and wisely managed national weather modification program have remained unrealized.

These conclusions are not new. A long litany of reports and studies issued by such knowledgeable and diverse organizations as the National Academy of Sciences, the National Advisory Committee on Oceans and Atmosphere, the General Accounting Office, and the Domestic Council have highlighted both the need to better organize and support Federal efforts in weather modification and the enormous benefits that could accrue as a result of an intensified and coordinated Federal weather modification program. The committee believes the time to act on these recommendations has arrived.

The committee believes that this legislation offers a feasible and rational first-step approach to establishing a national weather modification policy and implementing a national weather modification research and development program. Both of these objectives have for too long not been addressed in a comprehensive and coordinated fashion within the Federal Government. Once a recommended weather modification policy and research and development program is presented to Congress pursuant to the requirements contained in this legislation, it is the intention of the committee to move forward with substantive legislation on these issues.

#### LEGISLATIVE HISTORY

On February 16, 1976, the committee conducted hearings on three bills, S. 2705, S. 2706, and S. 2707, that were designed to increase both the level and intensity of Federal involvement in the field of weather modification. Testimony from governmental, scientific, and user group representatives emphasized that the establishment of a comprehensive and coordinated national weather modification policy combined with a Federal commitment to an expanded national weather modification research and development program could yield important scientific advances in such areas as rain enhancement, hail suppression, fog dissipation, hurricane dispersal, and other weather phenomena.

S. 3383 takes into consideration the concepts contained in (1) S. 2705, S. 2706, and S. 2707; (2) the committee's hearings on weather modification; (3) numerous reports on weather modification by a wide variety of knowledgeable organizations; and (4) follow-up discussions with interested parties.

#### SECTION-BY-SECTION ANALYSIS

##### *Sec. 2. (Declaration of Policy)*

In subsection (a), Congress finds and declares that (1) weather-related disasters and hazards result in substantial human suffering and loss of life and billions of dollars of annual economic losses; (2) weather modification technology has significant potential for preventing, diverting, moderating, or ameliorating the adverse effects of such disasters and hazards as well as enhancing crop production and water availability; and (3) appropriate Federal action is required to prevent or alleviate such disasters and hazards.

It is declared in subsection (b) to be the purpose of Congress in this legislation to (1) develop a comprehensive and coordinated national weather modification policy and national program of weather modification research and development; (2) determine how weather modification can decrease adverse impacts on agriculture, economic growth, and the general welfare; (3) conduct research that may lead to practical weather modification techniques, methods and devices; (4) make research findings available to interested parties; and (5) assess the economic, social, environmental, and legal impacts of an operational weather modification program.

##### *Section 3. (Definitions)*

1. "Secretary" means the Secretary of Commerce.
2. "State" means any State of the United States, the District of Columbia, or any commonwealth, territory or possession of the United States.
3. "Weather modification" means any activity performed with the intention and expectation of producing changes in precipitation.

##### *Section 4. (Study)*

The Secretary is directed to prepare a study on the state of scientific knowledge and technology concerning weather modification as well as the problems impeding the effective implementation of such technology. The study is to include a review and analysis of (1) present and past research efforts directed at establishing practical weather modification technology; (2) weather modification research needs; (3) existing studies of the economic importance of weather modification technology; (4) present and past funding for weather modification and the adequacy of such funding; and (5) the purpose, policy, methods, and funding of Federal weather modification activities. In addition, the study is to include an assessment of the legal, social, and ecological implications of an expanded and effective operational weather modification program, recommendations for desirable legislation at all governmental levels necessary to implement a national weather modification policy and program, and a review of the international importance and implications of U.S. weather modification activities.

##### *Section 5. (Report)*

In subsection (a), the Secretary is directed to prepare and submit to the President and the Congress, within 1 year of the date of enactment of this legislation, a final report on the findings, conclusions, and recommendations of the study required under section 4. This report is to include, (1) a summary of the findings of each area of investigation specified in section 4; (2) other pertinent findings regarding the

determination and implementation of a national weather modification policy; (3) a statement of a recommended national weather modification policy and research and development program; (4) recommendations on Federal funding levels sufficient to adequately support a national weather modification research and development program; (5) recommendations for changes in the organization and involvement of Federal departments and agencies in weather modification; and (6) recommendations for any legislation which may be required to implement such policy and program.

Each Federal Government department, agency, or other instrumentality is authorized and directed to furnish the Secretary with any information which the Secretary feels is necessary to carry out the functions required by this legislation.

Subsection (b) requires the Secretary both to solicit and consider the views of State agencies, private firms, institutions of higher learning, and other interested parties and governmental entities in conducting the study required by section 4 and preparing the report mandated by section 5(a).

#### Section 6 (authorization for appropriations)

Funds not to exceed \$1 million are authorized to be appropriated to the Secretary for purposes of carrying out the provisions of this legislation.

#### ESTIMATED COSTS

Pursuant to section 252 of the Legislative Reorganization Act of 1970, the committee estimates that the cost of this proposed legislation, if funded at maximum authorization, would be as follows:

To the Secretary of Commerce:

Fiscal year 1977 ..... \$1,000,000

#### TEXT OF S. 3383, AS REPORTED

A BILL To authorize and direct the Secretary of Commerce to develop a national policy on weather modification, and for other purposes

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "National Weather Modification Policy Act of 1976".*

### SEC. 2. DECLARATION OF POLICY

(a) FINDINGS.—The Congress finds and declares the following:

(1) Weather-related disasters and hazards, including drought, hurricanes, tornadoes, hail, lightning, fog, floods, and frost, result in substantial human suffering and loss of life, billions of dollars of annual economic losses to owners of crops and other property, and substantial financial loss to the United States Treasury;

(2) Weather modification technology has significant potential for preventing, diverting, moderating, or ameliorating the adverse effects of such disasters and hazards and enhancing crop production and the availability of water; and

(3) The interstate nature of climatic and related phenomena, the severe economic hardships experienced as the result of occasional drought and other adverse meteorological conditions, and the existing role and responsibilities of the Federal Government with respect to disaster relief, require appropriate Federal action to prevent or alleviate such disasters and hazards.

(b) PURPOSE.—It is therefore declared to be the purpose of the Congress in this Act to develop a comprehensive and coordinated national weather modification policy and a national program of weather modification research and development—

(1) to determine the means by which deliberate weather modification can be used at the present time to decrease the adverse impact of weather on agriculture, economic growth, and the general public welfare, and to determine the potential for weather modification;

(2) to conduct research into those scientific areas considered most likely to lead to practical techniques for drought prevention or alleviation and other forms of deliberate weather modification;

(3) to develop practical methods and devices for weather modification;

(4) to make weather modification research findings available to interested parties; and

(5) to assess the economic, social, environmental, and legal impact of an operational weather modification program.

### SEC. 3. DEFINITIONS.

As used in this Act:

(1) The term "Secretary" means the Secretary of Commerce.

(2) The term "State" means any State of the United States, the District of Columbia, or any commonwealth, territory, or possession of the United States.

(3) The term "weather modification" means any activity performed with the intention and expectation of producing changes in precipitation, wind, fog, lightning, and other atmospheric phenomena.

### SEC. 4. STUDY.

The Secretary shall conduct a comprehensive investigation and study of the state of scientific knowledge concerning weather modification, the present state of development of weather modification technology, the problems impeding effective implementation of weather modification technology, and other related matters. Such study shall include—

(1) a review and analysis of the present and past research efforts to establish practical weather modification technology, particularly as it relates to reducing loss of life and crop and property destruction;

(2) a review and analysis of research needs in weather modification to establish areas in which more research could be expected to yield the greatest return in terms of practical weather modification technology;

(3) a review and analysis of existing studies to establish the probable economic importance to the United States in terms of agricultural production, energy, and related economic factors if the present weather modification technology were to be effectively implemented;

(4) an assessment of the legal, social, and ecological implications of expanded and effective research and operational weather modification projects;

(5) recommendations concerning legislation desirable at all levels of government to implement a national weather modification policy and program;



(6) a review of the international importance and implications of weather modification activities by the United States;

(7) a review and analysis of present and past funding for weather modifications from all sources to determine the sources and adequacy of funding in the light of the needs of the Nation; and

(8) a review and analysis of the purpose, policy, methods, and funding of the Federal departments and agencies involved in weather modification and of the existing interagency coordination of weather modification research efforts.

## SEC. 5. REPORT.

(a) **IN GENERAL.**—The Secretary shall prepare and submit to the President and the Congress, within 1 year after the date of enactment of this Act, a final report on the findings, conclusions, and recommendations of the study conducted pursuant to section 4. Such report shall include:

(1) a summary of the findings made with respect to each of the areas of investigation specified in section 4;

(2) other findings which are pertinent to the determination and implementation of a national policy on weather modification;

(3) a recommended national policy on weather modification and a recommended national weather modification research and development program which is consistent with, and likely to contribute to, achieving the objectives of such policy;

(4) recommendations for levels of Federal funding sufficient to support adequately a national weather modification research and development program;

(5) recommendations for any changes in the organization and involvement of Federal departments and agencies in weather modification which may be needed to implement effectively the recommended national policy on weather modification and the recommended research and development program; and

(6) recommendations for any legislation which may be required to implement such policy and program.

Each department, agency, and other instrumentality of the Federal Government is authorized and directed to furnish the Secretary any information which the Secretary deems necessary to carry out his functions under this Act.

(b) **OPERATION AND CONSULTATION.**—The Secretary shall solicit and consider the views of State agencies, private firms, institutions of higher learning, and other interested persons and governmental entities in the conduct of the study required by section 4, and in the preparation of the report required by subsection (a).

## SEC. 6. AUTHORIZATION FOR APPROPRIATIONS.

There is authorized to be appropriated to the Secretary for the purposes of carrying out the provisions of this Act not to exceed \$1,000,000.

### AGENCY COMMENTS

Although agency comments were requested, none were received as of the date S. 3383 was reported.

S. 3383

# Ninety-fourth Congress of the United States of America

AT THE SECOND SESSION

*Begun and held at the City of Washington on Monday, the nineteenth day of January,  
one thousand nine hundred and seventy-six*

## An Act

To authorize and direct the Secretary of Commerce to develop a national policy on weather modification, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "National Weather Modification Policy Act of 1976".*

### SEC. 2. DECLARATION OF POLICY.

(a) FINDINGS.—The Congress finds and declares the following:

(1) Weather-related disasters and hazards, including drought, hurricanes, tornadoes, hail, lightning, fog, floods, and frost, result in substantial human suffering and loss of life, billions of dollars of annual economic losses to owners of crops and other property, and substantial financial loss to the United States Treasury;

(2) Weather modification technology has significant potential for preventing, diverting, moderating, or ameliorating the adverse effects of such disasters and hazards and enhancing crop production and the availability of water;

(3) The interstate nature of climatic and related phenomena, the severe economic hardships experienced as the result of occasional drought and other adverse meteorological conditions, and the existing role and responsibilities of the Federal Government with respect to disaster relief, require appropriate Federal action to prevent or alleviate such disasters and hazards; and

(4) Weather modification programs may have long-range and unexpected effects on existing climatic patterns which are not confined by national boundaries.

(b) PURPOSE.—It is therefore declared to be the purpose of the Congress in this Act to develop a comprehensive and coordinated national weather modification policy and a national program of weather modification research and development—

(1) to determine the means by which deliberate weather modification can be used at the present time to decrease the adverse impact of weather on agriculture, economic growth, and the general public welfare, and to determine the potential for weather modification;

(2) to conduct research into those scientific areas considered most likely to lead to practical techniques for drought prevention or alleviation and other forms of deliberate weather modification;

(3) to develop practical methods and devices for weather modification;

(4) to make weather modification research findings available to interested parties;

(5) to assess the economic, social, environmental, and legal impact of an operational weather modification program;

(6) to develop both national and international mechanisms designed to minimize conflicts which may arise with respect to the peaceful uses of weather modification; and



(7) to integrate the results of existing experience and studies in weather modification activities into model codes and agreements for regulation of domestic and international weather modification activities.

**SEC. 3. DEFINITIONS.**

As used in this Act:

(1) The term "Secretary" means the Secretary of Commerce.

(2) The term "State" means any State of the United States, the District of Columbia, or any Commonwealth, territory, or possession of the United States.

(3) The term "weather modification" means any activity performed with the intention and expectation of producing changes in precipitation, wind, fog, lightning, and other atmospheric phenomena.

**SEC. 4. STUDY.**

The Secretary shall conduct a comprehensive investigation and study of the state of scientific knowledge concerning weather modification, the present state of development of weather modification technology, the problems impeding effective implementation of weather modification technology, and other related matters. Such study shall include—

(1) a review and analysis of the present and past research efforts to establish practical weather modification technology, particularly as it relates to reducing loss of life and crop and property destruction;

(2) a review and analysis of research needs in weather modification to establish areas in which more research could be expected to yield the greatest return in terms of practical weather modification technology;

(3) a review and analysis of existing studies to establish the probable economic importance to the United States in terms of agricultural production, energy, and related economic factors if the present weather modification technology were to be effectively implemented;

(4) an assessment of the legal, social, and ecological implications of expanded and effective research and operational weather modification projects;

(5) formulation of one or more options for a model regulatory code for domestic weather modification activities, such code to be based on a review and analysis of experience and studies in this area, and to be adaptable to State and national needs;

(6) recommendations concerning legislation desirable at all levels of government to implement a national weather modification policy and program;

(7) a review of the international importance and implications of weather modification activities by the United States;

(8) a review and analysis of present and past funding for weather modification from all sources to determine the sources and adequacy of funding in the light of the needs of the Nation;

(9) a review and analysis of the purpose, policy, methods, and funding of the Federal departments and agencies involved in weather modification and of the existing interagency coordination of weather modification research efforts;

(10) a review and analysis of the necessity and feasibility of negotiating an international agreement concerning the peaceful uses of weather modification; and

(11) formulation of one or more options for a model international agreement concerning the peaceful uses of weather modification and the regulation of national weather modification activities; and a review and analysis of the necessity and feasibility of negotiating such an agreement.

**SEC. 5. REPORT.**

(a) **IN GENERAL.**—The Secretary shall prepare and submit to the President and the Congress, within 1 year after the date of enactment of this Act, a final report on the findings, conclusions, and recommendations of the study conducted pursuant to section 4. Such report shall include:

(1) a summary of the findings made with respect to each of the areas of investigation specified in section 4;

(2) other findings which are pertinent to the determination and implementation of a national policy on weather modifications;

(3) a recommended national policy on weather modification and a recommended national weather modification research and development program which is consistent with, and likely to contribute to, achieving the objectives of such policy;

(4) recommendations for levels of Federal funding sufficient to support adequately a national weather modification research and development program;

(5) recommendations for any changes in the organization and involvement of Federal departments and agencies in weather modification which may be needed to implement effectively the recommended national policy on weather modification and the recommended research and development program; and

(6) recommendations for any regulatory and other legislation which may be required to implement such policy and program or for any international agreement which may be appropriate concerning the peaceful uses of weather modification, including recommendations concerning the dissemination, refinement, and possible implementation of the model domestic code and international agreement developed under the specifications of section 4.

Each department, agency, and other instrumentality of the Federal Government is authorized and directed to furnish the Secretary any information which the Secretary deems necessary to carry out his functions under this Act.

(b) **OPERATION AND CONSULTATION.**—The Secretary shall solicit and consider the views of State agencies, private firms, institutions of higher learning, and other interested persons and governmental entities in the conduct of the study required by section 4, and in the preparation of the report required by subsection (a).

**SEC. 6. AUTHORIZATION FOR APPROPRIATIONS.**

(a) There is authorized to be appropriated to the Secretary for the purposes of carrying out the provisions of this Act not to exceed \$1,000,000.



S. 3388—4

(b) Section 6 of the Act entitled "An Act to provide for the reporting of weather modification activities to the Federal Government", approved December 18, 1971 (85 Stat. 736; 88 Stat. 1212; 15 U.S.C. 330e), is further amended by striking out "1973, 1974, 1975, 1976, and 1977," and inserting in lieu thereof "1973 through 1980,".

*Speaker of the House of Representatives.*

*Vice President of the United States and  
President of the Senate.*