UNIVERSITY CORPORATION FOR ATMOSPHERIC RESEARCH

BY-LAWS

ARTICLE I

Name, Seal and Offices

The name of this corporation is University Corporation For Atmospheric Research. The seal of the corporation shall be a circular form bearing the words and figures "University Corporation For Atmospheric Research, Delaware, Incorporated 1959." In addition to the principal office in the State of Delaware, the corporation shall have offices at such other places within or without the State of Delaware as may be determined by the Board of Trustees.

ARTICLE II

Members of the Corporation

Section 1. Original Members; Additional Members. The original members of the corporation shall be the following thirteen educational institutions:

The Board of Regents of the University and State

Colleges of Arizona acting for and in behalf of the University

of Arizona, a public educational corporation of Arizona, with

its principal office in the City of Tucson, State of Arizona;

The Regents of the University of California, a public corporation of the State of California, with its principal office in the City of Berkeley, State of California;

The University of Chicago, an Illinois corporation, with its principal office in the City of Chicago, State of Illinois;

Cornell University, a New York corporation, with its principal office in the City of Ithaca, State of New York;

State of Florida Board of Control acting for and in behalf of Florida State University, a public corporation of Florida, with its principal office in the City of Tallahassee, Florida.

The Johns Hopkins University, a Maryland corporation, with its principal office in the City of Baltimore, State of Maryland;

Massachusetts Institute of Technology, a Massachusetts corporation with its principal office in the City of Cambridge, Commonwealth of Massachusetts;

The Regents of The University of Michigan, a constitutional corporation of the State of Michigan, with its principal office in the City of Ann Arbor, State of Michigan;

New York University, a New York corporation, with its principal office in New York City, State of New York;

The Pennsylvania State University, a public educational corporation of the State of Pennsylvania, with its principal office at the City of University Park, State of Pennsylvania;

Saint Louis University, a Missouri corporation, with its principal office in the City of Saint Louis, State of Missouri;

Texas Agricultural and Mechanical College System, a public educational corporation of Texas, with its principal office at the City of College Station, State of Texas;

The Regents of the University of Wisconsin, corporate body of the State of Wisconsin, with its principal office in the City of Madison, State of Wisconsin.

The original members shall take office and assume control of the corporation immediately following the final adjournment of the meeting of incorporators. Other members, whether as successors to the original members or as additional members, may be elected from time to time by two-thirds vote of all the trustees then holding office at any annual or special meeting of the trustees provided that notice of such election is included in the notice of the meeting. Each such member so elected shall have and assume all the rights, powers, duties and obligations which pertain to an original member. The number of members shall be not less than five nor more than eighty. Only non-profit corporations organized and operated for educational, professional or scientific purposes, hereinafter sometimes referred to as institutional members, shall be eligible for membership.

Section 2. Appointment of Representative. At any meeting of members a member may be represented by an individual representative who shall be appointed by vote of the governing body of the institutional member, or by the president (or chief executive officer) thereof, or by a vice-president or treasurer thereof. Prior to or at the time any such meeting is called to order or when any such representative shall join such meeting, there shall be delivered to the Secretary, Assistant Secretary or Secretary protempore a notice in writing certifying the appointment of each such representative so appointed, signed and dated by an officer of the institutional member, and stating the period not in excess of three

years for which such appointment is made, but no such notice shall be required to be so delivered in the case of any such appointment previously so certified for which such period has not expired. Each such representative shall exercise and assume all the rights, powers, duties and obligations of the member he represents.

Section 3. Fees and Assessments of Members. Every member, whether an original member or a successor or additional member, shall pay to the Treasurer an initial membership fee of Two Thousand Five Hundred Dollars within thirty days of his admission to membership. Every member shall pay such additional fees or assessments, annual or otherwise, as may be authorized from time to time by the affirmative vote of two-thirds of all the trustees then holding office; provided, however, that all such additional assessments shall be levied equally on all members (except members not subject to further fees and assessments as set forth hereinafter), and shall not exceed Two Thousand Dollars per calendar year per member. A member who has paid fees and assessments aggregating Ten Thousand Dollars in addition to the initial membership fee shall not be liable to any further fees or assessments, nor shall a member who has delivered his written resignation to the Secretary be liable for any fees or assessments levied after the delivery of his resignation. Any member who shall fail to pay any fees or assessments within sixty days from the time such fees and assessments are payable may be removed from the office of member for such nonpayment by majority vote of all the trustees then holding office but shall not be subject to further penalty.

Dissolution. Subject to the requirements of Section 4. law and of the Certificate of Incorporation the members shall have the power at any time by majority vote of all the members then holding office to dissolve the corporation and wind up its affairs. In such case it shall be the duty of the members to designate by like action a successor nonprofit corporation organized for educational, professional or scientific purposes, contributions to which are deductible for Federal income tax purposes, to take over all or substantially all of the functions and purposes of the corporation, or, if no such successor corporation is so designated, to designate the nonprofit corporation or corporations organized for educational, professional or scientific purposes required by said Certificate of Incorporation to be designated by the members as the recipient or recipients to which shall be paid over any property or assets remaining after such winding-up.

Section 5. <u>Membership Not Assignable</u>. Membership in or any other interest in this corporation shall not be assignable by any member nor shall membership in or any other interest in this corporation pass to any personal representative, heir, legatee or devisee.

Section 6. Resignation. Any member may at any time resign from membership in the corporation by resignation in writing delivered to the Secretary at least sixty days prior to the date upon which such resignation is to become effective, and an acceptance thereof

shall not be necessary to make such resignation effective unless so stated in such resignation. Such resignation shall be signed by the president (or chief executive officer) of the institutional member.

ARTICLE III

Board of Trustees

Section 1. <u>Powers of Trustees</u>. There shall be a Board of Trustees which shall exercise all the powers of a board of directors and such other powers as are given them by law, by the Certificate of Incorporation and by these by-laws. The Board of Trustees shall have the final and exclusive management of the funds and business of the corporation.

Section 2. Appointment of Institutional Trustees. Each institutional member shall have the right to appoint two members of the Board of Trustees, hereinafter sometimes referred to as institutional trustees, one of whom shall be a member of the faculty whose professional duties include atmospheric research or research in related fields and one of whom shall represent the administrative staff of the institutional member. The institutional trustees shall be appointed from time to time by the chief executive officer of each institutional member and shall serve, except as otherwise provided in Section 6, at the pleasure of such institutional member. The chief executive officer of each institutional member shall notify the Chairman of the Board of Trustees in writing of the names of the persons appointed as trustees to represent such institutional member on the Board of Trustees, and such appointments shall remain

effective until revoked in writing in the same manner.

Section 3. Election of Trustees-at-Large. In addition to the institutional trustees the Board of Trustees may elect no more than five additional trustees who shall be known as Trusteesat-Large. The Trustees-at-Large shall be divided into three classes, one class of which shall initially be elected for a term of one year, one class initially for a term of two years and one class for a term of three years, in order that the term of not more than two Trustees-at-Large shall expire in any one year. Thereafter each class shall be elected for a term of three years. Trustees-at-Large may be elected at any annual meeting of the Board of Trustees and shall hold office until the annual meeting in the year in which their term expires. A Trustee-at-Large who has served a full term of three years shall not be eligible for re-election as Trustee-at-Large until the annual meeting of the Board of Trustees next succeeding the annual meeting at which said three-year term expires. Trustees-at-Large shall not be eligible for election as officers of the Corporation, and not more than one Trustee-at-Large may serve on the Executive Committee at any one time.

Section 4. Nominating Committee. A Nominating Committee consisting of three trustees shall be elected at each annual meeting of the Board of Trustees, to serve until the next annual meeting of the Board of Trustees. It shall be the duty of the Nominating Committee to prepare nominations for election as officers and members of the Executive Committee at the annual meeting of the Board of Trustees next following and at any special meeting at which a vacancy in such offices is to be filled. A report of the action of

the Nominating Committee shall be included in the notice of any meeting at which an election of an officer or a member of the Executive Committee is to take place. Vacancies in the membership of the Nominating Committee between annual meetings may be filled by the Chairman of the Board.

Section 5. Other Committees. The trustees may appoint such other committee or committees from which or outside of their own number as they may in their discretion from time to time determine, and such committees shall have such terms and powers as the trustees may determine.

Section 6. Removal. Any trustee, whether an institutional trustee or a Trustee-at-Large, may be removed from office with or without cause at any time by two-thirds vote of all the trustees then holding office.

Section 7. Out-of-Pocket Expenses. Members of the Board of Trustees shall receive no compensation for their services in this capacity, but shall be reimbursed for out-of-pocket expenses incurred for attendance at meetings of the Board of Trustees or any committee thereof or on any other business of the corporation in such manner as the Board of Trustees may from time to time determine.

ARTICLE IV

Executive Committee

Section 1. Composition of Executive Committee. There shall be an Executive Committee of the Board of Trustees consisting of ten members of the Board of Trustees. The Chairman of the Board shall be ex officio chairman and a member of the Executive Committee, and the

remaining nine members shall be elected by the Board of Trustees as hereinafter set forth. The nine elected members of the Executive Committee shall include at least four institutional trustees who are faculty members and represent the scientific staff of the institutional members who appointed them to the Board and at least four institutional trustees who represent the administrative staff of the institutional members who appointed them to the Board. There may be no more than one member of the Executive Committee who is an appointee on the Board of Trustees of any one institutional member at any one time, and no more than one Trustee-at-Large may serve on the Executive Committee at any one time.

Section 2. Election of Executive Committee. Members of the Executive Committee shall be elected by majority vote of the Board of Trustees present and voting at a duly constituted meeting. members of the Executive Committee, who shall initially be elected at the first meeting of the Board of Trustees, shall be divided into three classes of three members each, one class of which shall be initially elected for a term of one year, one class initially elected for a term of two years and one class for a term of three years. Thereafter each class shall be elected by the Board of Trustees at its annual meeting for a term of three years. Members of the Executive Committee shall hold office until their successors are elected and qualify. A member of the Executive Committee who has served two consecutive three-year terms shall not be eligible for re-election to the Executive Committee until the annual meeting of the Board of Trustees next succeeding the annual meeting at which the last of said consecutive three-year terms expires.

Section 3. <u>Vacancies in the Executive Committee</u>. The Executive Committee may fill any vacancy occurring in its membership between meetings of the Board of Trustees by election of an eligible member of the Board of Trustees who shall hold office until the next meeting of the Board of Trustees. The Board of Trustees shall fill any vacancy on the Executive Committee at its first meeting after the vacancy occurs by election of an eligible member of the Board of Trustees who shall hold office for the balance of the term of the Executive Committee member whose place he takes.

Section 4. Meetings of the Executive Committee. The Executive Committee shall meet as often as it may deem necessary, but in any event not less than four times in each calendar year. Meetings shall be called at the direction of the Chairman of the Board, or upon the written request filed with the Secretary of three or more members of the Executive Committee or of one-third or more of the trustees. Seven members of the Executive Committee, or two-thirds of the members if there are less than ten members, shall constitute a quorum for the transaction of business, and a majority of the members present at any duly constituted meeting may decide any question and take any action which may properly come before the meeting. If the Chairman of the Board determines that a quorum will not be on hand at any duly called meeting of the Executive Committee, the Chairman of the Board may select one alternate member from the Board of Trustees to serve as a member of the Executive Committee for such meeting but no longer.

Section 5. <u>Powers of the Executive Committee</u>. The Executive Committee shall have and may exercise all the powers vested

in the Board of Trustees during the intervals between meetings thereof unless the Board of Trustees shall otherwise determine, and may determine the manner of holding and calling its own meetings and giving notice thereof.

Section 6. Records and Reports. The Executive Committee shall keep accurate records of the proceedings at its meetings. It shall provide a copy of the records of each of its meetings to each trustee and officer and shall make such other reports as the Board of Trustees may require.

ARTICLE V.

Meetings

Section 1. Meetings of the Board of Trustees. The trustees shall have two regular meetings in each year, one in April and one in October which shall be the annual meeting, at such place within or without the State of Delaware as they may determine. The date of each regular meeting, if not fixed by standing order, shall be fixed at the preceding regular meeting. Meetings, whether regular or special, which may also be held within or without the State of Delaware, may be called at the direction of the Board of Trustees, the Chairman of the Board, the Vice Chairman or the Director, and special meetings shall be called upon the written request filed with the Secretary of one-third or more of the trustees then holding office.

Section 2. Notice of Meetings of the Board of Trustees.

Notice of each meeting of the Board of Trustees shall be given by mailing to each trustee postage prepaid a written notice thereof at their respective addresses last appearing on the records of the corporation at least twenty-one days prior to the date of such meeting

in the case of regular meetings and at least thirty days prior to the date of such meeting in the case of special meetings. Each notice of a special meeting shall state the time and place appointed for the holding thereof and generally the business to be transacted thereat. Notice of the time, place and purpose of any meeting of the Board of Trustees may be waived by any trustee in writing either prior to or subsequent to the holding of such meeting.

At each meeting of the Board of Trustees the presence of a majority of all the trustees then holding office shall constitute a quorum for the transaction of business. If there be no quorum at a meeting or at any adjournment thereof, then those present may adjourn such meeting or adjourned meeting sine die or may adjourn such meeting or adjourned meeting sine die or may adjourn such meeting or adjourned meeting to a stated time and place provided that written notice of the time and place of the adjourned meeting shall be given to each trustee at least ten days prior to the date of the adjourned meeting, and thereupon any business may be transacted which might have been transacted at the meeting as originally called had such original meeting been held.

Except as otherwise required by law or by these by-laws a majority of the trustees present at any duly constituted meeting of the Board of Trustees at which a quorum is present may elect any officer, member of the Executive Committee, Trustee-at-Large or member of the Corporation and a plurality of the trustees present at such a meeting may decide any other question and take any other action which may properly come before such meeting. Unless otherwise provided by law or unless

a written ballot is requested in writing by a trustee, no election of members, trustees, officers, or any other person need be by ballot.

Section 5. Meetings of Members. Meetings of members shall be called and held as directed by the Board of Trustees, by the Chairman of the Board of Trustees or by the Secretary or upon the written request filed with the Secretary of a majority of the members of the corporation. Meetings of members shall be held at 100 West 10th Street, Wilmington, Delaware, or at such other place within or without the State of Delaware as the Board of Trustees may determine. Notice of each meeting of members shall be given by mailing to each member postage prepaid at least fourteen days prior to the date of such meeting a notice thereof at their respective addresses last appearing on the records of the corporation. Notice of the time, place and purpose of any meeting of members may be waived by any member in writing either prior to or subsequent to the holding of such meeting. Each notice of a meeting shall state the time and place appointed for the holding thereof and generally the business to be transacted thereat. At each meeting of members the presence in person or by representative of a majority of the members then holding office shall constitute a quorum for the transaction of business.

ARTICLE VI

Officers

Section 1. Chairman and Vice-Chairman of the Board,

Secretary, Treasurer, Director and Other Officers. At their annual meeting the trustees shall elect from their own number a Chairman

of the Board and a Vice-Chairman of the Board, each of whom shall serve for a term of three years, and shall elect from or outside of their own number a Secretary and a Treasurer, each of whom shall serve for a term of one year. No person shall serve as Chairman of the Board for two consecutive terms. At their annual meeting the trustees shall also elect from or outside of their own number a Director to hold office for such term as the Board may determine. The Trustees may elect and appoint from or outside of their own number at any meeting one or more Assistant Secretaries, and one or more Assistant Treasurers, each to hold office until the next annual election, and to perform such duties as may be directed from time to time by the Board of Trustees. The officers of the corporation shall hold office until their successors are chosen and qualified. The trustees may elect and appoint from or outside of their own number such other officers and agents for the management of the affairs of the corporation as they may from time to time deem wise, and such officers and agents shall have such terms and powers as the trustees may determine and delegate to them.

Section 2. <u>Number of Offices Held</u>. Except as otherwise required by law any person may hold two or more offices in the corporation at the same time.

Section 3. <u>Vacancies; Removal.</u> Any vacancy in any office may be filled at any time by the Board of Trustees. Any officer or agent elected or appointed by the Board of Trustees may be removed from office with or without cause at any time by majority vote of all the trustees then holding office.

ARTICLE VII

Duties of Officers

Section 1. <u>Director</u>. The Director shall be chief executive officer of the corporation subject to the control and direction of the Board of Trustees. The Director shall perform such other duties as may be directed from time to time by the Board of Trustees. He shall be entitled to attend all meetings of the Board of Trustees and of the Executive Committee and to receive notice of all such meetings, but he shall not vote or be counted for the purpose of determining the presence of a quorum at any meeting of the Board of Trustees or Executive Committee unless he is also a member thereof.

Section 2. Chairman of the Board. The Chairman of the Board shall preside at all meetings of the members, of the Board of Trustees and of the Executive Committee and shall perform such other duties as may be directed from time to time by the Board of Trustees. In the absence of the Chairman of the Board at any meeting of the Board of Trustees the Vice-Chairman shall preside and in the absence of the Chairman of the Board at any other meeting at which he is to preside a temporary presiding officer shall be elected by the meeting.

Secretary shall give notice of each meeting of members, of the Board of Trustees and of the Executive Committee as to which notice is required, and shall record all action taken at each such meeting in a book or books kept for that purpose. In the absence of the Secretary and an Assistant Secretary at any meeting a Secretary pro tempore shall be appointed by the presiding officer. The Secretary shall also have the custody of the seal and of the records of the corporation, and shall perform such other duties as may be directed from time to

of the corporation to any instrument of which the execution under seal shall be required, unless some other officer or officers shall have been threunto duly authorized.

Section 4. Treasurer. The Treasurer shall have custody of the funds and other property of the corporation and shall keep accurate records thereof and of all receipts and disbursements of the corporation in financial books to be kept for that purpose and shall deposit all moneys and other valuable effects in the name and to the credit of the corporation with such depository or depositories as shall be designated by the Board of Trustees. He shall be charged with the disbursement of the funds of the corporation by check or otherwise and the taking of proper vouchers therefor and shall render to the Board of Trustees such reports as it shall prescribe. He shall have the power to authorize in writing any one or more of the officers or employees of the corporation, in addition to himself, to draw checks and to disburse the funds of the corporation under his supervision. He shall, if required by the Board of Trustees, furnish bond, as prescribed by the Board of Trustees, for the faithful performance of his duties. All books, records and vouchers shall be open to the inspection of any trustee or member, subject to federal law and regulations of competent federal authorities governing access to classified information. The Treasurer shall at least once a year, and whenever requested by vote of the Board of Trustees render a full and detailed account of all receipts and expenditures and submit a schedule showing all property and investments of the corporation and the changes, if any, since his last report. He

shall perform such other duties as may be directed from time to time by the Board of Trustees.

Section 5. Audit. The trustees shall at least annually cause the books and accounts of the corporation to be audited by a certified or professional accountant.

ARTICLE VIII

Government Contracts

No contract shall be entered into with the United States Government by the corporation without an express vote of authorization of the Board of Trustees or of the Executive Committee in each case. Any such vote shall specify the officer or officers of the corporation who shall have the power to execute such contract and affix thereto the seal of the corporation, and/or shall specify an officer authorized to designate the officer or officers of the corporation who shall have the power to execute such contract and affix thereto the seal of the corporation.

ARTICLE IX

Indemnification of Members, Trustees and Officers

The provisions of this Article shall apply to each institutional member and/or its representative and each person elected or appointed a trustee or officer of the corporation. The words "officer" and "officers", wherever used hereafter in this Article, shall include any one or more of the institutions and persons above described.

The corporation shall indemnify any and all of its officers or former officers against expenses actually and necessarily incurred

by them in connection with the defense of any action, suit or proceeding in which they, or any of them, are made parties, or a party, by reason of being or having been officers or an officers of the corporation, except in relation to matters as to which any such officer or former officer shall be adjudged in such action, suit or proceeding to be liable for negligence or misconduct in the performance of duty. Such indemnification shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any agreement, vote of the members, or otherwise.

ARTICLE X

Amendment of By-Laws

These by-laws may be amended by the affirmative vote of two-thirds of all the trustees then holding office at any regular meeting or at any special meeting of trustees duly called and held, provided that the substance of each amendment to the by-laws shall be stated in the notice of the meeting at which it is adopted or in a duly completed waiver of notice of such meeting.