

Memorandum of Understanding
for Cooperation in
the Cross Appalachian Tracer Experiment
between
the Department of Energy of the United States,
the United States Environmental Protection Agency,
the United States National Oceanic and Atmospheric
Administration, and
the Atmospheric Environment Service
of Environment Canada

Mémoire d'entente
en vue de coopérer à
l'expérience transappalachienne par traceur
entre
le Department of Energy des États-Unis
l'Environmental Protection Agency des États-Unis,
la National Oceanic and Atmospheric Administration
des États-Unis et
le Service de l'environnement atmosphérique
d'Environnement Canada

MEMORANDUM OF UNDERSTANDING

ON

THE CROSS APPALACHIAN TRACER EXPERIMENT

The Parties to this Memorandum of Understanding are the United States Department of Energy (DOE), the United States National Oceanic and Atmospheric Administration (NOAA), the United States Environmental Protection Agency (EPA), and the Atmospheric Environment Service of Environment Canada (AES).

WHEREAS

The Parties have a mutual interest in understanding the mechanisms of long distance atmospheric transport and dispersion of pollutants, the theoretical modeling of those mechanisms, and the verification of those models.

The Parties recognize that understanding and modeling long distance atmospheric transport and dispersion requires that complex and extensive field experiments be conducted.

IT IS AGREED AS FOLLOWS:

I. Objective

The objective of this Memorandum of Understanding is to provide the framework for cooperation in the design and conduct of a series of joint United States-Canada meteorological experiments to verify theoretical computer codes developed to establish the meteorological aspects of the long-range transport of airborne pollutants. This experiment is to be called the "Cross Appalachian Tracer Experiment" (CAPTEX).

II. Concept

It is planned that the field operations of CAPTEX will take place during September and October 1983. A perfluorocarbon tracer will be released into the atmosphere from several locations within the United States and Canada, tentatively to include Dayton, Ohio, and Sudbury, Ontario. The dispersion of the tracer will be measured and recorded, and the results analyzed to validate the various theoretical estimates. It is anticipated that the CAPTEX field operations will involve cross-border aircraft flights and landings by both United States and Canadian sampler aircraft, and the transport of perfluorocarbon tracer, support equipment, sampling instruments, and scientific personnel between the United States and Canada.

III. Responsibilities

1. The Air Resources Laboratory (ARL) of NOAA will act for NOAA, DOE, and EPA in the coordination of field operations in the United States under this Memorandum of Understanding. These operations may include, but are not limited to, operational forecasting, surface sampler deployment, airborne sampler deployment, and data management.
2. AES will manage and coordinate field operations in Canada under this Memorandum of Understanding. These activities may include, but are not limited to, operational forecasting, surface sampler deployment, airborne sampler deployment, and associated activities in cooperation with ARL.
3. DOE will coordinate the analysis and interpretation of the results obtained from tracer samples in the United States by ARL and other agencies and in Canada by AES and other agencies.
4. Equipment and supplies provided by any Party for carrying out joint activities under this Memorandum of Understanding will be considered to be scientific in nature, not having a commercial character. Each Party will use its best efforts to obtain duty-free entry of such equipment and supplies into the United States or Canada, as the case may be.
5. Each Party will use its best efforts to assist the other Parties with respect to border formalities associated with international travel and aircraft flights under this Memorandum of Understanding.

IV. Management

Each Party will designate a Coordinator to serve as a point of contact for the planning and conduct of the experiments under this Memorandum of Understanding.

V. Intellectual Property

1. Definitions as used in this article:

(a) The term "information" includes scientific or technical data, results, or methods of research and development, and any other information intended to be provided or exchanged under this Memorandum of Understanding.

(b) The term "proprietary information" means information which contains trade secrets or commercial or financial information which is privileged or confidential, and may only include such information which:

- (i) has been held in confidence by its owner;
- (ii) is of a type which is customarily held in confidence by its owner;
- (iii) has not been transmitted by the transmitting Party to other entities (including the receiving Party) except on the basis that it be held in confidence; and
- (iv) is not otherwise available to the receiving Party from another source without restriction on its further dissemination.

2. Each Party may make available to the other Parties information in the field of meteorology which they have the right to disclose, either in their possession or available to them.
3. Information arising under this Memorandum of Understanding will be exchanged promptly between the Parties after verification of data through the normal quality control procedures.
4. The Parties agree that the information provided, exchanged, or arising under this Memorandum of Understanding may be given wide distribution. Such information may be made available to the general scientific community by any Party through customary channels and in accordance with normal procedures of the Parties.
5. No proprietary information will be provided or exchanged or will arise under this Memorandum of Understanding.
6. Inventions or discoveries made or conceived in the course of or under this Memorandum of Understanding (arising inventions) will be identified and reported promptly by the inventing Party. Information regarding inventions on which patent protection is to be obtained will not be published or publicly disclosed by the Parties until a patent application has been filed in the United States or Canada, as the case may be; provided, however, that this restriction on publication or disclosure will not extend beyond six months from the date of reporting the inventions. It will be the responsibility of the Party reporting the invention to mark appropriately reports which disclose inventions that have not been appropriately protected by the filing of a patent application.
7. Arising inventions will be owned by the inventing Party in all countries. The inventing Party will grant, to the other Party and its nationals designated by it, licenses for such inventions on a non-exclusive, irrevocable, royalty-free basis in all countries. For the purposes of this paragraph, the three United States Parties shall be considered as a single Party representing the country of the United States of America.
8. Each Party will take all necessary steps to provide the cooperation from its inventors and authors required to carry out the provisions of this Article.
9. Each Party will assume the responsibility to pay awards or compensation required to be paid to its own nationals according to its own laws.

VI. General Application

1. All activities under this Memorandum of Understanding are subject to the laws and regulations under which each Party operates.
2. All questions arising during the term of this Memorandum of Understanding will be settled by mutual agreement of the Parties.

3. The provisions of this Memorandum of Understanding will not affect the rights and obligations of the Parties under other agreements or arrangements. However, activities to be conducted under other agreements or arrangements may be incorporated into the framework of this Memorandum of Understanding, upon written agreement of the Parties.

4. Each Party will bear all costs incurred by it under this Memorandum of Understanding, unless otherwise agreed by the Parties in writing.

5. The ability of the Parties to carry out their obligations under this Memorandum of Understanding is subject to the availability of appropriated funds.

VII. Associate Parties

With the approval of the Coordinators designated under Article IV, ARL and AES may enter into agreements or arrangements with non-Signatory entities for collaboration in CAPTEX, and these entities will be called "Associate Parties". The terms and conditions of such agreements or arrangements will be consistent with the provisions of this Memorandum of Understanding.

VIII. Duration and Termination

1. This Memorandum of Understanding will enter into force upon the date of signature by authorized representatives of the Parties and will remain in effect until September 30, 1984.

2. This Memorandum of Understanding may be amended or extended at any time by written agreement of the Parties.

3. Any Party may withdraw from this Memorandum of Understanding at any time, upon ninety days written notice to each of the other Parties.

4. All joint efforts and experiments not completed at the expiration of this Memorandum of Understanding may be continued until their completion under terms of this Memorandum of Understanding.

Done in duplicate at Ottawa in the English and French languages, both versions being equally authentic, the twenty-third day of August, 1983.

Fait en double exemplaires à Ottawa en français et en anglais, chaque version faisant également foi, ce vingt-troisième jour d'août, 1983.

For the Department of Energy,
the Environmental Protection Agency
and the National Oceanic and
Atmospheric Administration of the
United States:

Pour le Department of Energy,
Environmental Protection Agency,
et National Oceanic and
Atmospheric Administration des
États-Unis :

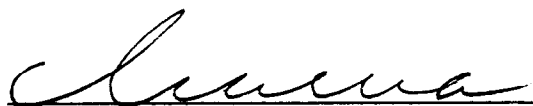
For Environment Canada
(Atmospheric Environment Service):

Pour Environnement Canada
(Service de l'environnement
atmosphérique) :

A large, stylized handwritten signature in black ink, appearing to read "Joseph W. Tobin".

Ambassador of the United States
to Canada

Ambassadeur des États-Unis au Canada

A handwritten signature in black ink, appearing to read "Anne McLaughlin".

Minister of the Environment

Ministre de l'Environnement