

MEMORANDUM OF UNDERSTANDING
AMONG THE
INTERAGENCY MODELING AND ATMOSPHERIC ASSESSMENT CENTER
OF THE
DEPARTMENT OF HOMELAND SECURITY
AND THE
DEPARTMENT OF COMMERCE, NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION
DEPARTMENT OF DEFENSE
DEPARTMENT OF ENERGY
ENVIRONMENTAL PROTECTION AGENCY
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
NUCLEAR REGULATORY COMMISSION

December 15, 2004

I. PARTIES

A. This Memorandum of Understanding (MOU) is entered into, by, and among the following agencies and departments of the United States Government that are designated Parties for the purpose of this MOU:

1. Department of Homeland Security (DHS)
2. Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA)
3. Department of Defense (DoD)
4. Department of Energy (DOE)
5. Environmental Protection Agency (EPA)
6. National Aeronautics and Space Administration (NASA)
7. Nuclear Regulatory Commission (NRC)

II. AUTHORITIES

A. This MOU is entered into by DHS pursuant to Section 101(b)(1) of the Homeland Security Act of 2002, Public Law 107-296, which charges the Secretary of the Department of Homeland Security with the responsibility for coordinating Federal operations within the United States to prepare for, respond to, and recover from terrorist attacks, major disasters and other emergencies. Homeland Security Presidential Directive #5 (HSPD-5) assigns the Secretary the role of principal Federal official for domestic incident management.

B. Subsequent **annexes** to this MOU will cite the appropriate legal and programmatic authorities pursuant to Section VII, IMPLEMENTATION OF ANNEXES. These authorities may include but are not limited to the following statutes:

1. 31 USC Sec. 1535, the Economy Act, which provides that an agency may place an order with a major organizational unit within the same agency or another Federal agency for goods or services if (a) amounts are available (b) the ordering agency decides the order is in the best interest of the U.S. Government; (c) the agency filling the order is able to provide or obtain by contract the ordered goods or services; and (d) the agency decides the ordered goods or services cannot be obtained by contract as conveniently or economically by a commercial enterprise.
2. Public Law 107-296, Sections 102(a)(3) and 102(b)(2) The Secretary of the Department of Homeland Security "shall have the authority to make contracts, grants, and cooperative agreements, and to enter into agreements with other

executive agencies, as may be necessary and proper to carry out the Secretary's responsibilities under this Act or otherwise provided by law."

III. BACKGROUND AND PURPOSE

A. The Homeland Security Presidential Directive #5 (HSPD-5) assigns the Secretary of the Department of Homeland Security the role of principal Federal official for domestic incident management. Additionally, the Homeland Security Act of 2002, charges the Secretary with the responsibility for coordinating Federal operations within the United States to prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies.

Consistent with approval and direction by the Homeland Security Council, this MOU codifies the roles and responsibilities of participating Federal departments and agencies with respect to support for and usage of the Interagency Modeling and Atmospheric Assessment Center (IMAAC). The goal of the IMAAC is to enhance the national scientific capability through robust scientific cooperation among Federal agencies that incorporates the best practices from Federal programs and non-Federal programs. The goal of the IMAAC is to improve Federal modeling and assessment capabilities.

In the event of an inconsistency between this MOU (or its annexes) and the policy guidance provided by the National Response Plan (NRP) or its annexes or the National Incident Management System (NIMS), the NRP/NIMS guidance will prevail

B. The IMAAC will provide atmospheric hazards predictions in support of the lead Federal agency for incidents of national significance. The IMAAC products will be recognized as the single source of Federal hazards prediction and will be provided to Federal, state and local emergency responders and other Government officials as necessary. The IMAAC will leverage existing Federal capabilities and will be responsible for providing accurate, reliable estimates of predicted hazard areas, with associated concentrations, which will serve as the foundation for decisions by the authorized emergency managers. The IMAAC is not intended to replace or supplant the atmospheric transport and diffusion modeling activities that are currently in place to meet agency-specific mission needs. The purpose of this umbrella MOU is to ensure optimum efficiency and maximum benefit to the United States by establishing a framework for cooperation and coordination among all of the Parties for the execution of the IMAAC. This MOU is necessary and essential to further the mission of the Parties in that it will serve as the overarching agreement that sets forth the general terms and conditions under which the Parties may execute the various functions of the IMAAC. It also acts as the instrument to more effectively carry out the responsibilities associated with these identified functions.

C. This MOU and efforts under this MOU are subject to the availability of appropriated funds. This MOU does not serve to obligate funds.

IV. MUTUAL INTEREST OF THE PARTIES

This MOU is in the mutual interest to the Parties because it is designed to enable each Party to apply its capabilities and expertise in cooperation with the other Parties to provide a single source of hazards predictions during the response and recovery phases of incidents of national significance.

V. PARTY REPRESENTATIVES AND JOINT RESPONSIBILITIES

A. Each Party has designated an Executive Agent for the execution of the MOU toward the preparedness, planning, prevention, response, and recovery of nationally significant events.

The Parties to this MOU will:

1. Support the development and implementation of a set of IMAAC products capitalizing on the Federal agencies' suite of meteorological and atmospheric transport and diffusion models.
2. Share information on existing and planned research and development programs and new technological advances in atmospheric modeling and assessment.
3. Support existing standards and guidelines and, as required, the development of new or improved national standards, guidelines, and protocols for model verification, validation and accreditation for IMAAC use. Models used for emergency planning and response by the IMAAC must meet verification, validation and accreditation guidelines. Accreditation approves its use under stated circumstances as determined through the results of the accreditation process. Models recommended for accreditation will be submitted by the IMAAC Director to the Senior Management Council for final approval. Each party will facilitate the implementation of existing communications systems for the rapid distribution of model results to Federal, state, and local responders, and new communications requirements as needed.

This MOU will utilize the DoD instruction 5000.61 for the definition of verification, validation, and accreditation. They are as follows:

Verification: The process of determining that a model's implementation and its associated data accurately represent the developer's conceptual description and specifications.

Validation: The process of determining the degree to which a model and its associated data are an accurate representation of the real world from the perspective of the intended uses of the model.

Accreditation: The official certification of a model, simulation, or federation of models and simulations and its associated data are found acceptable for use for a specific purpose.

4. Support the IMAAC through participation in exercises designed to test and examine the ability of the IMAAC to provide atmospheric modeling and assessment results to Federal, state, and local responders.

5. Support the IMAAC in establishing and maintaining a repository and clearinghouse for reports and lessons learned from actual incidents, training, and exercises, as well as best practices, for atmospheric modeling and assessment.
6. Each Executive Agent will provide a member to the Senior Management Council (SMC) at the Assistant Secretary (or equivalent) level. Furthermore, each Party signatory to this MOU will be offered an opportunity to nominate a subject matter expert to participate in the Senior Scientific Advisory Council.
7. Agency specific IMAAC responsibilities will be detailed in the form of an annex agreed to by DHS and the Party.

B. DHS Responsibilities

1. The Under Secretary for Science and Technology will establish a DHS-led Senior Management Council (SMC). The Senior Management Council will establish the mission priorities for the IMAAC. DHS will designate the chairperson of this body.
2. DHS will establish the Senior Scientific Advisory Council (SSAC) to provide scientific guidance and advice to the IMAAC Director consistent with mission priorities established by the Senior Management Council. The SSAC may **occasionally** consult with subject matter experts and other stakeholders outside the Federal Government.
3. The IMAAC will be led by a Director who is a Federal employee. The IMAAC Director will report to the Assistant Secretary for Programs, Plans, and Budget within the Science and Technology Directorate, or his designee.
4. DHS will assign the necessary resources to support the IMAAC within approved appropriations. Staffing will be coordinated with the IMAAC and provided through individual agency agreements.

C. The Executive Agents are:

- a. For the Department of Homeland Security (DHS):
Dr. Charles **McQueary**
Under Secretary for Science and Technology
- b. For the Department of Commerce (DOC):
Vice Admiral Conrad C. Lautenbacher
Under Secretary for Oceans and Atmosphere
- c. For the Department of Defense, (DoD):
Honorable Paul **McHale**
Assistant Secretary of Defense for Homeland Defense

- d. For the Department of Energy (DOE):
Ambassador **Linton F. Brooks**
Under Secretary of Energy for Nuclear Security/Administrator of the
National Nuclear Security Administration
- e. For the Environmental Protection Agency (EPA):
Thomas P. Dunne
Acting Assistant Administrator
Office of Solid Waste and Emergency Response
- f. For the National Aeronautics and Space Administration (NASA):
A.V. Diaz
Associate Administrator for Science Mission Directorate
- g. For the Nuclear Regulatory Commission (NRC):
William F. Kane
Deputy Executive Director for Homeland Protection and Preparedness

VI. CONTACTS (Specified for each agency)

Contacts for each participating agency are specified in Interagency Annexes.

VII. PERIOD OF AGREEMENT, MODIFICATION, OR TERMINATION

- A.** This MOU will become effective upon the date of the last signature and shall remain in effect for a period of 5 years thereafter.
- B.** This MOU may be amended at any time by mutual written consent of the relevant Parties.
- C.** Any Party may terminate its participation in this MOU by providing written notice to the other Parties 180 days in advance of the termination.

VIII. RESOLUTION OF DISAGREEMENTS

- A.** To ensure consistency, annexes will follow a format similar to this MOU and will be subject to all applicable statutory, regulatory, and other legal and administrative clearance requirements of the Parties.
- B.** Nothing herein is intended to conflict with current department or agency directives. If the terms of this MOU are inconsistent with existing directives of any of the Parties entering into this MOU; then those portions of this MOU which are determined to be

inconsistent shall be invalid as to those portions only, but the remaining terms and conditions not affected by the inconsistency shall remain in full force and effect. At the opportunity for review, all necessary changes will be accomplished by either an amendment to this MOU or by entering into a new MOU, whichever is deemed expedient to the interests of the Parties.

- C. Should disagreement arise on the interpretation of the provisions of this MOU, or amendments **and/or** revisions thereto that cannot be resolved at the operating level, the **area(s)** of disagreement shall be stated in writing by the disagreeing Parties and presented to the other Parties for consideration. If agreement on interpretation is not reached within 30 days, the Parties shall forward the written presentation of the disagreement to respective higher officials for appropriate resolution.
- D. **In** case of a conflict between an annex and this MOU, the terms and conditions of this MOU will govern and prevail, with the exception of any provision dealing with the termination date of an annex. Each annex shall have its own termination date, which will supersede the termination date of this MOU.

ACCEPTED AND AGREED BY:

For the Department of Homeland Security (DHS):

Charles McQueary, Ph.D.
Under Secretary for Science & Technology

Date: _____

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NUCLEAR REGULATORY COMMISSION

ACCEPTED AND AGREED BY:

For the Nuclear Regulatory Commission (NRC):

William F. Kane
Deputy Executive Director for Homeland Protection and Preparedness

Date: _____

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DEPARTMENT OF COMMERCE, NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION

ACCEPTED AND AGREED BY:

For the Department of Commerce (DOC):

Vice Admiral Conrad C. Lautenbacher
Under Secretary for Oceans and Atmosphere

Date: _____

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DEPARTMENT OF HOMELAND SECURITY
AND THE
DEPARTMENT OF DEFENSE

ACCEPTED AND AGREED BY:

For the Department of Defense, (DoD):

Honorable Paul McHale
Assistant Secretary of Defense for Homeland Defense

Date: _____

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AND THE
DEPARTMENT OF ENERGY

ACCEPTED AND AGREED BY:

For the Department of Energy (DOE):

Ambassador Linton F. Brooks
Under Secretary of Energy for Nuclear Security/Administrator of the National Nuclear
Security Administration

Date: _____

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AND THE
ENVIRONMENTAL PROTECTION AGENCY

ACCEPTED AND AGREED BY:

For the Environmental Protection Agency (EPA):

Thomas P. Dunne
Acting Assistant Administrator
Office of Solid Waste and Emergency Response

Date: _____

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

ACCEPTED AND AGREED BY:

For the National Aeronautics and Space Administration (NASA):



A.V. Diaz
Associate Administrator for Science Mission Directorate

Date: 4/15/05