



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

OFFICE OF  
WATER

MEMORANDUM OF UNDERSTANDING  
Between  
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
And  
THE ENVIRONMENTAL PROTECTION AGENCY  
For  
COOPERATION IN WATER, COASTAL and EARTH SCIENCES

I. Purpose and Scope

The purpose of this Memorandum of Understanding (MOU) is to provide a framework for cooperation between the National Aeronautics and Space Administration (NASA) and the Environmental Protection Agency (EPA), hereinafter "NASA", "EPA" or "the Parties" to facilitate research, development, transfer, utilization, and commercialization efforts in the area of water, air, land, modeling and remote sensing.

This cooperation and coordination will not be limited to the Parties to this MOU, but each Party, independently or jointly, may cooperate with other federal offices, agencies and their extensions; interested State, regional and local agencies, tribal organizations, colleges and universities; private industries, non-profit organizations; foundations and public interest groups. Both Parties view this Agreement as important in realizing progress toward the shared goals of improving decision making, policy, and management through beneficial and appropriate use of Earth science data, modeling, computation, and application in the following areas:

- 1 Watersheds
- 2 Lakes
- 3 Rivers
- 4 Streams
- 5 Wetlands
- 6 Estuaries
- 7 Coastal Zone and Near-Coastal Waters
- 8 Oceans
- 9 Ground Water
- 10 Transboundary Water Issues

1. Support EPA science and technology research, development, transfer, utilization, and commercialization efforts within the Research, Economics and Education Mission Area as agreed upon by providing technical expertise for performance, planning, review, or consultation in areas of mutual interest, subject to program priorities and budget constraints.
2. Assist EPA through collaborations to evaluate, verify, validate, and benchmark practical uses of NASA-sponsored observations from remote sensing systems and predictions from scientific research and modeling through the NASA Earth Sciences Enterprise (ESE).

B. Within the context of the Purpose and Scope above, EPA agrees to use all reasonable efforts to:

1. Support selected NASA technology research and development within the office of Earth Science, Applications Division, as agreed upon by providing technical expertise for performance, planning review or consultation in areas of mutual interest, subject to program priorities and budget constraints.
2. Pursue the collaborative application of NASA Earth Science Enterprise data, Web services, and scientific models in EPA offices including, but not limited to the Office of Water, the Office of Environmental Information, the Office on International Affairs, other EPA regional & headquarter offices, and EPA State, Tribal, & Local partners.
3. Engage in collaboration including, but not limited to, the following: using the 2004-08 EPA Strategic Plan, reports on the environment, and other sources of program priorities to identify specific EPA decision support processes, assessments and systems that require predictions and observations that may be provided by NASA Earth Sciences data and remote sensing systems; identifying performance expectations/requirements for NASA inputs to any processes identified; collaborate with NASA on the development, evaluation, verification and validation of results for component solutions; and collaborate with NASA in the benchmarking process to establish quantifiable improvements in system performance.

C. Within the context of the Purpose and Scope above, NASA and EPA agree to use reasonable efforts to:

1. Reference this MOU in any supplemental agreements, amendments, interagency agreements, or letters of agreement executed between the two Parties, pursuant to the objectives of this MOU.
2. Support the exchange of technical information – through databases, Web services, information systems, clearinghouses, conferences and other means – on research, development, demonstration, and technology transfer opportunities.
3. Establish an interagency working group to develop the JPIP described above, based on existing and developing EPA program needs and NASA capabilities. Accelerate the development, evaluation and adoption of existing and new technologies to be outlined, but not limited to, the areas in the JPIP.
4. Encourage through education and outreach, in partnership with both public and private organizations, the public awareness and access to Earth science advances in water resources sciences.
5. Provide effective and efficient information delivery to the water resources and coastal management communities to enhance understanding of innovative solutions to the applications supporting protection of the environment and human health.

D. All activities under or pursuant to this MOU are subject to the availability of appropriated funds, and no provision of this MOU shall be interpreted to require the obligation or payment of funds. As presently constituted this MOU does not constitute a financial obligation. If a subsequently identified activity or project is identified requiring transfer of funds or other obligation between NASA and the EPA, a supplemental written agreement will be executed.

E. Each Party agrees to assume liability for its own risks associated with activities undertaken in this agreement.

#### IV. Rights in Data

It is the intent of the parties that the information and data exchanged in furtherance of the activities under this agreement will be exchanged without use and disclosure restrictions unless the parties agree to impose restrictions on specifically designated data or information.

Responsible Officers

The following are Responsible Officers in NASA and EPA for the agreement.

NASA: Ronald J. Birk  
Director Applications Division  
Earth Science Enterprise  
NASA Headquarters  
Code YO  
300 E Street SW  
Washington, DC 20546 Telephone: (202) 358-1701

EPA: Michael H. Shapiro  
Deputy Assistant Administrator for the Office of Water  
Environmental Protection Agency  
1200 Pennsylvania Avenue NW  
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VI. Duration

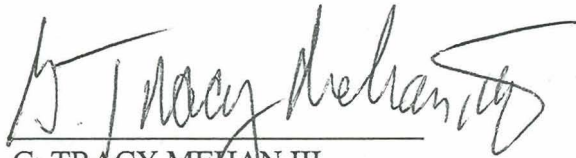
This MOU becomes effective on the date of signatures of both Parties and shall remain in effect for a 5-year term from the effective date. This MOU may be amended or by either Party upon 90-day notice to the other Party.

VII. Termination

Either Party, upon a 90-day written notice to the other Party, may terminate this agreement, at any time and for any reason it deems substantial



DR. GHASSEM ASRAR,  
Associate Administrator,  
Earth Science Enterprise  
National Aeronautics and  
Space Administration



G. TRACY MEHAN III,  
Assistant Administrator for Water,  
Environmental Protection  
Agency

November 7, 2003  
Date

10/21/03  
Date