

Addendum II

NASA-NOAA Agreement

Data and Information Exchange Activity

I. BACKGROUND

In support of the U.S. Global Change Research Program (USGCRP), it is essential for government agency data and information systems to be interoperable. NASA and NOAA are both participating in the Interagency Working Group on Data Management for Global Change (IWGDMGC). Under the aegis of the IWGDMGC, participating agencies have agreed to cooperate to build interoperability among their data and information systems so that the aggregate of agency systems can appear to the Global Change research user as one logically integrated system, the Global Change Data and Information System (GCDIS). This includes interoperability of the Information Management Service (IMS) functions of each participating data system.

In addition, NASA and NOAA programs have special requirements for mutual exchange of data that transcend the normal services available from the other agency. NASA requires near-real-time access to data and products from NOAA for use in producing data products for the Earth Observing System (EOS) and associated missions such as the Tropical Rainfall Measuring Mission (TRMM). NOAA needs data in near-real-time from selected NASA instruments which are considered prototypes for future operational instruments. These include the Atmospheric Infrared Sounder (AIRS) and the TRMM Precipitation Radar. Both agencies want access to substantial amounts of data and products on a retrospective basis as well.

Therefore NASA and NOAA agree to cooperate in building interoperability between their data and information systems and to develop special arrangements as needed for data exchange to support NASA and NOAA programs.

This addendum constitutes an overall implementation level agreement under the "Memorandum of Understanding between NASA and NOAA for Earth Observations Remotely Sensed Data Processing, Distribution, Archiving, and Related Science Support." This agreement will, in turn, provide a framework under which specific project-level implementation agreements will be developed between NASA and NOAA elements involved in these activities. For NASA, the Goddard Space Flight Center's Earth Science Data and Information Systems (ESDIS) Project, which is responsible for the Earth Observing System Data and Information System (EOSDIS) including the EOS-supported Distributed Active Archive Centers (DAACs), will be the point of coordination. For NOAA, the point

of coordination will be the Earth System Data and Information Management (ESDIM) Program's Environmental Information Systems Office.

II. General Implementation

The following general principles apply to this cooperation:

1. To the maximum extent possible, NASA and NOAA will provide in-kind exchange rather than funding where a contribution is required. This in-kind exchange may include:

-- access without charge to agency data and products via normal services

-- technology, including hardware and software, to support data catalog, archive, and distribution functions

2. Each agency will distribute data obtained from the other agency only for internal and cooperative uses of the receiving agency and will not serve as a general distribution source for data obtained through this agreement.

3. Responsibility for implementing the provisions of this addendum are assigned to NASA and NOAA points of contact to be designated by the Agencies.

III. IMPLEMENTATION ACTIVITIES

NOAA and NASA define an Affiliated Data Center (ADC) to be a data center which holds data and can provide services necessary to support the agency's program. A special agreement is necessary when the partner agency's requirements exceed the normally available services of the cooperative data center or operations center in terms of volume, timeliness, or other aspects of the needed support.

This section of the addendum provides a framework for the development of specific ADC implementation agreements, as needed, between NASA/ESDIS and/or the DAACs involved, and NOAA/ESDIM and/or the National Data/Processing Centers. Each NOAA entity providing special ADC services to NASA will have a distinct title and responsibility within EOSDIS as a National Data Center or National Processing Center. Likewise, NASA elements providing special ADC services to NOAA will be identified in appropriate NOAA documentation as a NASA DAAC, providing a distinct service as a component of the EOSDIS.

Each agency will define a format in which the other agency should describe its requirements for access to data and services. Requirements will be categorized in general terms as operational or retrospective.

A. **NASA** Operational Requirement Implementation

NASA operational requirements will be those that support routine product generation at **NASA** DAACs, which will entail routine, near-real-time delivery of data from **NOAA**. There will be no direct cost to **NASA** for data delivered operationally; however, the specific implementation agreements should:

1. Identify the **NOAA** source and **NASA** destination;
2. Clearly define the requirements for **NOAA** data delivery in terms of timeliness and quality of service;
3. Ensure that the needed interoperability is established between the **NASA EOSDIS** and **NOAA** elements involved;
4. Define **NASA** requirements to fund any necessary telecommunications support, both initial set-up costs and ongoing operational costs, and to be responsible (with **NORA** cooperation) for network monitoring and troubleshooting;
5. Define the portion of the **NOAA** costs which **NASA** must fund directly or by providing in-kind exchange. The **NOAA** costs are those to develop, operate, and maintain the capability to provide operational data delivery where this capability either does not exist, or exists only partially. **NASA** support should cover upgrades to maintain interoperability if **NASA** upgrades its interfacing system.

B. **NOAA** Operational Requirements

NOAA operational requirements are those needs for routine near-real-time data or products from **NASA** systems to support **NOAA** operational and/or research activities. There will be no direct cost to **NOAA** for data delivered operationally; however the specific implementation agreements should:

1. Identify the **NASA** source and **NOAA** destination;
2. Clearly define the requirements for **NASA** data delivery in terms of timeliness and quality of service;
3. Ensure that the needed interoperability is established between the relevant **NOAA** elements and **NASA EOSDIS**;
4. Define **NOAA** requirements to fund any necessary telecommunications support, both initial set-up costs and ongoing operational costs, and to be responsible (with **NASA** cooperation) for network monitoring and troubleshooting;
5. Define the portion of the **NASA** costs which **NOAA** must fund directly or by providing in-kind exchange. The **NASA** costs are

those to develop, operate, and maintain the capability to provide operational data delivery where this capability either does not exist, or exists only partially. NOAA support should cover upgrades to maintain interoperability if NOAA upgrades its interfacing system.

C. Retrospective Requirement Implementation

Retrospective requirements are those that support access by NASA researchers to NOAA data and access by NOAA researchers to NASA data in non-real-time. Both agencies will work to ensure that the needed interoperability is established between the relevant agency elements. In each case the requesting agency will pay or offset through "in-kind contributions" the marginal cost of filling the specific request, consistent with the "Bromley Principles" for global change data exchange (see section II above).

In addition, each agency shall help the other by sizing and characterizing the requirements and timeliness requirements for the retrospective data requests.

The providing agency will identify and communicate the requirements and the cost associated with meeting those requests.

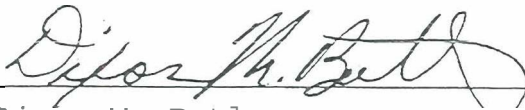
IV. OTHER

In the event that agreement cannot be reached by the designated points of contact, issues will be raised to the signatories of this addendum or their designees.

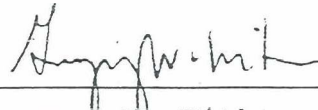
This addendum may be modified by agreement of the signatories. It will remain in effect for the duration of the overall NASA-NOFA MOU unless otherwise agreed.

For the National Aeronautics
and Space Administration

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11/25/92
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11/24/92
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