

Memorandum of Agreement

For

**Technical Cooperation in Effective Tsunami System
Analysis and Early Warning, and General Cooperation
in
Meteorology, Oceanography, and Hydrology**

Between the

**National Oceanic and Atmospheric Administration
(NOAA)
Department of Commerce
of the
United States of America**

and the

**Ministry of Foreign Affairs, Representing the National
Disaster Warning Center (NDWC),
of the
Kingdom of Thailand**

Preamble

The National Oceanic and Atmospheric Administration (NOAA) Department of Commerce of the United States of America and the Ministry of Foreign Affairs (MOFA), representing the National Disaster Warning Center (NDWC), of the Kingdom of Thailand, hereinafter referred to as the Parties:

Noting that both the Government of Thailand and the Government of the United States of America are Members of the Intergovernmental Oceanographic Commission (IOC) and the World Meteorological Organization (WMO) and have common interests in oceanography, meteorology, and operational hydrology; including mutual commitments to support activities of the Global Earth Observation System of Systems (GEOSS) in such a way that builds on and strengthens the existing global systems, especially the Indian Ocean Tsunami Warning System;

Noting that both NDWC and NOAA are the officially recognized focal points for tsunami early warning systems for their respective nations;

Recognizing the importance of scientific and technical cooperation in oceanography, meteorology, and hydrology;

Recognizing that such cooperation has mutual benefits for both countries and can benefit the international community; and

Understanding the importance of promoting a closer working relationship to address environmental issues of common concern that are associated with oceanography, meteorology, and hydrology;

In accordance with the laws and regulations of each country, mutually agree to the following:

I. Purpose of Memorandum

The purpose of this Memorandum of Agreement (MOA) is to facilitate coordination of activities in oceanography, meteorology, hydrology, and end-to-end multihazard warning systems between the Parties. This MOA will facilitate exchange of scientific resources, personnel, and technical knowledge for mutual benefit which will support development of meteorological and hydrological services for both Parties. Specifically, this MOA and its implementing arrangements will support the Parties' efforts to improve tsunami early warning systems and enhance the Global Earth Observation System of Systems in such a way that builds on and strengthens the existing global systems. Other mutual cooperation efforts may be added to the MOA in support of oceanographic, meteorological, and hydrological areas of mutual interest to the Parties.

II. Scope of Cooperative Activities

Cooperative activities are specific projects undertaken by the Parties and their subsidiary entities. Activities may include, but are not limited to, the following:

1. Activities that support the improvement in capability to develop and sustain tsunami detection systems, analysis, and early warning meteorological, hydrological, oceanographic, and related capabilities that will assist in effective warnings and disaster mitigation;
2. Activities that support the improvement of hydrological forecasts and services such as flood forecasting and warning systems development;

3. Studies and activities that support operational data collection, data sharing, compilation, and processing;
4. Studies and activities that support oceanographic, meteorological, hydrological and climate research;
5. Activities that allow the collaborative and mutual exchange of scientific and technical expertise for the enhancement of mutual project objectives;
6. Activities that support one or more international objectives as identified in international fora in which the Government of the United States, the Government of the Kingdom of Thailand, and cooperating entities participate.

III. Responsibilities of the Parties

1. The Parties are responsible for coordinating and engaging with other organizational entities in their own countries, as appropriate and necessary, for the completion of the tasks designated pursuant to this MOA.
2. Each Party is to provide staff, facilities, and other support necessary for implementation of projects as mutually determined by the Parties. Such support will be subject to the availability of personnel and appropriated funds and will be in accordance with the laws and regulations of each Party's respective country.
3. These responsibilities may include:
 - a. Management and coordination of activities undertaken under the auspices of this MOA;
 - b. Designation of appropriate officials to manage and coordinate joint activities; and
 - c. Provision of all necessary arrangements to facilitate entry to and exit from its country's territory of personnel and equipment of the other country, engaged in, or used in projects under this MOA.

IV. Implementing Arrangements

1. Specific cooperative activities including tasks, responsibilities, and related conditions to be conducted under this MOA will be embodied as Implementing Arrangements to this MOA and will be signed by the Parties and any other cooperating entities when appropriate. Cooperative programs established under this MOA will be coordinated through the heads of the two Parties or their designees. Coordinators and working groups may be appointed, as required, to consider and act on matters related to the implementation of this MOA.
2. Periodic reports, as required, should be submitted to the heads of the two Parties or their designees. Such reports should outline future activity areas, represent proceedings of working groups, seminars or meetings, and document the progress and results of a particular project or program.
3. Responsibilities for the payment of costs of the cooperative activities authorized by this MOA shall be decided by mutual agreement on a case-by-case basis, consistent with the responsibilities of the Parties set forth in Section III, above, and with each Party's rules on reimbursement. Reimbursable financial arrangements, when deemed appropriate to carry out specific projects, will be outlined in the implementing

arrangements agreed to under this MOA.

V. Scientific and Technical Information

1. Distribution of information will be through customary channels and in accordance with the normal procedures of the Parties.
2. The supplier will insure that the best scientific information will be transferred and/or exchanged between any participants. The application or use of any information exchanged or transferred between any participants under this MOA will be the responsibility of the receiving participant. The supplier does not guarantee the suitability of such information for any particular application.

VI. Settlement of Disputes

Any disputes regarding interpretation or implementation of this MOA or its associated Implementing Arrangements will be resolved through mutual discussion between the Parties.

VII. Entry into Force

1. The MOA will enter into force on the date of receipt of the last written notification by which the Parties notify each other of the completion of their respective internal procedures required for entry into force.
2. The MOA will remain in force for five (5) years from the date of such notification and will automatically be extended for an additional period of five (5) years, unless either Party notifies the other Party, in writing, of its intention to terminate the MOA. Such notice of termination will be provided at least three (3) months prior to the expiration of the initial five-year term. The MOA may be terminated at any time by either Party upon three (3) months written notice to the other Party.
3. Termination of the MOA will not affect projects or programs undertaken or being performed hereunder and not completed before such termination.

VIII. Amendment of the Memorandum

This MOA may be amended by mutual written agreement of the Parties.

DONE in duplicate in the English language.

FOR THE NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION
DEPARTMENT OF COMMERCE OF
THE UNITED STATES OF AMERICA:



William J. Brennan, Ph.D.
Deputy Assistant Secretary for
International Affairs

DATE: 10.30.06

PLACE: Washington, DC

FOR THE MINISTRY OF FOREIGN
AFFAIRS, REPRESENTING THE
NATIONAL DISASTER WARNING
CENTER, OF THE KINGDOM OF
THAILAND:

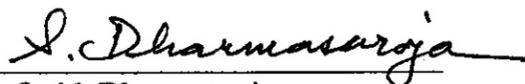


Mr. Piamsak Milintachinda
Director-General
Thailand International Development
Cooperation Agency
Ministry of Foreign Affairs

DATE: 3 November 2006

PLACE: Bangkok

WITNESSES:



Dr. Smith Dharmasaroja
Chairman of the Committee for the
Development of an Early Warning System

DATE: 3 November 2006

PLACE: NDWC



Dr. Plodprasop Suraswadi
Executive Director
National Disaster Warning Center

DATE: 3 November 2006

PLACE: NDWC