

PROTOCOL
of the Second Formal Meeting between the Delegations
of the
National Oceanic and Atmospheric Administration (NOAA)
Department of Commerce (DOC)
United States of America
and the
Russian Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet)
in the framework of the
Memorandum of Understanding (MoU)
for Collaboration in the Fields of Meteorology, Hydrology, and Oceanography

Silver Spring, Maryland, USA
April 7 – 11, 2008

In accordance with the Memorandum of Understanding (MoU) between the National Oceanic and Atmospheric Administration (NOAA) and the Russian Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet) in the areas of meteorology, hydrology, and oceanography, the Second Formal Meeting of NOAA and Roshydromet was held in Silver Spring, Maryland (USA), April 7 – 11, 2008.

The delegation of NOAA was headed by Dr. John L. Hayes, Assistant Administrator for NOAA for Weather Services and Director, National Weather Service (NWS), and the delegation of Roshydromet was headed by Dr. Alexander I. Bedritsky, Head of Roshydromet.

The list of the participants is given in Annex 1 to this Protocol.

The delegations of NOAA and Roshydromet express satisfaction with the collaborative spirit and mutually beneficial results of the NOAA-Roshydromet cooperation in meteorology, hydrology, and oceanography conducted in the framework of the Program of Activities for 2006-07. The main results of the collaboration are described in the Status Report of the Accomplishments for the Program of Activities 2006-07 (Annex 2);

Both sides agree that Items 1.2.2, 1.3.1, and 3.1 are complete; to discontinue Item 5.4 on oceanographic data exchanges as collaboration will occur under the auspices of the UNESCO Intergovernmental Oceanographic Commission (IOC) International Oceanographic Data and Information Exchange (IODE); and to freeze Item 5.5 pending improvements to high-speed Internet access by the All-Russian Research Institute for Hydrometeorology Information (RIHMI)-WDCB; and agree that all other items would be carried over into the Program of Activities 2008-09 (Annex 3).

To enhance the exchange and access by the scientific community to hydrometeorological data and information, the Russian side proposed to create a special 1 Gb/second optical channel between World Meteorological Centers in Washington and Moscow within the framework of the global network, GLORIAD. The American side supports the idea and will inform the Russian side about the possibility of the realization in 2008.

In support of the utilization of satellite information, the American side proposed to include the new theme "Hydrometeorological security through space and in-situ observations" to use data from Russian and NOAA satellites as well as Roshydromet ground observational data to monitor and study dangerous natural phenomena, such as droughts, floods, forest fires, and others. The

Russian side, in turn, proposed cooperation in the following directions in the field of analyzing and using satellite data:

- Russian and U.S. meteorological satellite instrumentation intercalibration, in particular, the atmospheric sounders;
- Precipitation and thunderstorm intensity evaluation over the territory of the U.S. on the basis of polar-orbital and geostationary satellite data;
- Derivation of atmospheric carbon dioxide and methane concentration over boreal ecosystems of the U.S. and Canada;
- Evaluation of the dynamics and pollution of coastal waters utilizing regional satellite data.

Both sides also agreed to include into the Program of Activity for 2008-09 the new theme “Use, application, and validation of NOAA satellite-derived precipitation and snow-water equivalent (using as a case study the Ussury River basin).”

Both sides agreed to extend scientific and technological collaboration in the Arctic region and to include in the Program of Activities for 2008- 2009 the new theme “Nansen –Amundsen Basin Observing System (NABOS)” in order to obtain new data on the state of the ocean, sea ice and atmosphere over the continental slope in the Arctic basin and to estimate the impact of the Atlantic waters on current climate change in the Arctic.

The American side suggested the organization of Climate Reference Network (CRN) sites at Tiksi and Yakutsk. The Russian side expressed its interest in those suggestions.

The American side offered to provide the Russian side with instrumentation for sea level measurements at Tiksi and satellite transmission of the observational data within the framework of the Global Sea Level Observing System (GLOSS). The Russian side agreed to consider this issue and noted the importance of organizing similar observations in Alaska (USA).

The Russian side presented information about the restoration of the high-altitude atmospheric rocket sounding at the weather station on Heiss Island (Franz Josef Land) and proposed to consider the development of a joint research program including the organization of the rocket sounding station at Alaska. The American side agreed to explore this proposal.

The American side proposed to explore the possibilities of unmanned aircraft systems (UAS) to obtain new data to study the Arctic region. The Russian side agreed to consider the proposal.

Both sides agreed to collaborate in the framework of Item 6.1 in support of the following:

- To discuss the principles of the creation of the development of a database on hydrometeorological hazards;
- To further explore the exchange of existing databases related to hydrometeorological hazards;
- To explore the feasibility of creating a website to disseminate the results of economic research on hydrometeorology.

The American side suggested to include into the Program of Activities for 2008-2009 the new theme “Northern Eurasia Earth Science Partnership Initiative.” The Russian side suggested that the focus of activities under this theme be on the development of regional modeling and predicting climate in Northern Eurasia and on studies of climatic impacts and adaptation capacity.

Both sides approved, in principal, the Program of Activity for 2008-09 taking into account new proposals and also noted the importance of preparing joint publications under the themes of the collaboration in major scientific journals.

Within two (2) weeks, both sides agreed to identify and exchange lists of American and Russian thematic-area leads as well as Focal Points for each item identified in the Program of Activities 2008-09 and to charge the American and Russian Focal Points to prepare mutually agreed Statements of Work (SoWs) within the next three (3) months, which would be subject to the availability of financial and other resources. The SoWs will be presented to the heads of the NOAA and Roshydromet delegations.

To agree that the next bilateral meeting between NOAA and Roshydromet will take place in 2010 in the Russian Federation, date will be determined by consultations among the Parties.

During the course of the meeting, the members of the Russian delegation were familiarized with the NWS Weather Forecast Office (WFO) in Sterling, Virginia, and AWS Technologies, a commercial entity in which the NWS has established an exclusive partnership to more effectively incorporate data from the WeatherBug network into operations and which has enabled NOAA to improve its products and services. In addition, information was shared on the NWS support for the Salt Lake City Olympics as well as the collaboration between the NWS and Meteorological Service of Canada (MSC) for the Vancouver Olympics. The American Meteorological Society (AMS) also provided information about their education program.

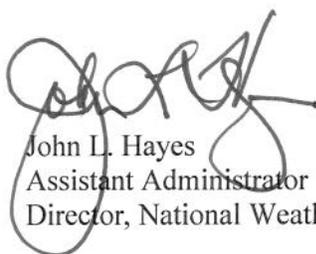
Both Parties agreed that the Second Formal Bilateral Meeting was held in a positive and constructive atmosphere in a spirit of mutual understanding and cooperation.

The Russian delegation wishes to express its sincere appreciation to NOAA for the kind hospitality extended to the delegation.

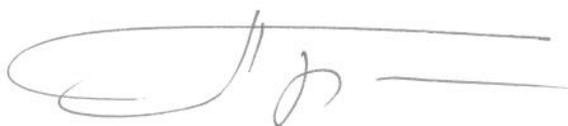
This Protocol was signed at Silver Spring, Maryland, USA, on April 11, 2008, in duplicate, in the English and Russian languages, both texts being equally authentic.

For NOAA

For Roshydromet



John L. Hayes
Assistant Administrator for Weather Services
Director, National Weather Service



Alexander I. Bedritsky
Head, Russian Federal Service for
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Monitoring