

Protocol of
«Results of the first year of atmospheric measurements
at the Tiksi Hydrometeorological Observatory (HMO)»
AARI
St.-Petersburg, the Russian Federation
September 18-20, 2012

The meeting “Results of the first year of atmospheric measurements at the Tiksi Hydrometeorological Observatory (HMO)” took place at the Arctic and Antarctic Research Institute (St.-Petersburg, the Russian Federation) on September 18-20th, 2012

Representatives were present from the research branches of the Roshydromet, the Russian Academy of Sciences, the National Oceanographic and Atmospheric Administration, the University of Colorado (Boulder, the USA) and the Finnish Meteorological institute. The list of participants of meeting is can be found in Attachment 1 of this Report. The meeting followed the agenda in Attachment 2.

23 scientific reports were presented that focused on analysis of measurement programs that have operated at the Tiksi HMO since the opening in August, 2010; results were examined in the context of the international network of polar observatories (www.iasoa.org). Reports will be placed on a web site <http://www.esrl.noaa.gov/psd/events/2012/tiksi/>.

During discussion the requirements to establish the HMO Tiksi as a Global station for the Global Atmosphere Watch (GAW) was discussed. Topics discussed including submission of data from the HMO Tiksi to international databases; responsibility for preparation of the data and future submissions, and establishing a regular program of maintenance and operations by qualified personnel. The work plan to elevate the HMO Tiksi to the status of a global station for GAW is Attachment 3.

The status of the facility infrastructure and required improvements was reviewed and current infrastructure improvement requirements are listed are in Attachment 4. A regular schedule of annual specialist visits to Tiksi and the proposed funding for operations at the Tiksi HMO and the AARI Tiksi Data Center was discussed.

It was noted that HMO Tiksi scientific program contributes to a number of the international programs, such as BSRN, AeroNET, and CRN. The Tiksi data is being reliably transmitted on a regular schedule in to AARI, NOAA and FMI. The BSRN radiation data is being processed to BSRN specifications by AARI and the first data delivery was made to the BSRN archives in September 2011 with a second submission is scheduled for October 2012. Continuation of BSRN grade data will require instrument calibrations before autumn 2013. CRN data has been

compared to standard meteorological measurements and shown good agreement. The CRN station needs to be officially commissioned and procedures for ingest into the NOAA CRN data archives need to be completed by NOAA. There have been difficulties with complying with requirements of the NASA AeroNET program because of problems associated with timely calibration of the device in the USA. In 2012, delays in the delivery of CIMEL instrument to Tiksi after calibration resulted in measurements not resuming until the end of May. This underscored the necessity to develop a program supporting timely calibration schedules for all Tiksi instruments. There was a discussion of the measurements of an annual cycle of surface atmospheric pollutants that were conducted from in 2010 – 2011. The complicated analysis procedures for the samples are in progress and these data will be submitted to AMAP. Continuation of this program will be dependent on identifying additional funding.

NOAA presented a ftp web interface for accessing the data of the HMO Tiksi. <http://www.esrl.noaa.gov/psd/arctic/observatories/tiksi/doc/Tiksi.swf>

The ftp site will be duplicated at AARI to provide duplicate archives of data. NOAA also noted that the Tiksi data will be accessed through the data portal of the IASOA program which supports cooperative network Arctic science.

For organization of operations of the HMO Tiksi the participants have agreed that the specialists will participate in a schedule of 4 seasonal site visits each year to check instruments and associated data collection and transmission systems.

During the discussion of the infrastructure issues it was agreed that NOAA would determine if it would be necessary for there to be an official inspection by a U.S. entity to determine improvement and repair plans. The group has charged ЯУГМС to prepare an estimate of expenses for repair of infrastructure of the HMO Tiksi.


The Russian side noted that it will be necessary to prepare advance schedules for visiting the HMO Tiksi for Russian and foreign experts, and also to inform Roshydromet regarding visits not less than 60 days in advance.

During the meeting the successful 2011 – 2012 program of training Roshydromet and IFARAN experts by both NOAA and FMI was noted. Participants agreed with necessity of continuing similar training in the future.

Participants of the meeting agreed to expand their efforts to inform the research community about activities at the HMO Tiksi especially in the context of the WMO. It was agreed to prepare an article for submission to The Bulletin of the WMO with contributions of Russian, American and Finnish specialist. The participants have also agreed to prepare for the publication a number of articles devoted to activities at the HMO on Tiksi; a list of proposed research subjects are in the Attachment 5.

In summary participants of meeting have emphasized that there has been significant progress in realizing the HMO Tiksi project and have noted that the program is at a critical stage requiring further organization of measurement program to transition into full operations. Finally, all participants have expressed appreciation for the efforts resulting into the preliminary results that are the product of the first year.

On Behalf of Russia



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