

HYDROMETEOROLOGICAL SERVICE OF UZBEKISTAN IS ATTAINING THE MODERN TECHNICAL LEVEL

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ABSTRACT

Hydrometeorological Service of Uzbekistan is the oldest in Central Asia: the actual beginning of its work – the mid 19th century. In recent years under the assistance of WMO and international organizations the work on updating and improvement of the instrumentation pool of Hydrometeorological service is being carried out: modernization of the remote sensing systems is made, stations for direct reception of images of the Earth surface from Meteosat 7, Meteosat 10, NOAA 19, TERRA, AQUA, FengYun-2D satellites are installed, Meteor-500C and VHDD-350C Doppler weather radars are installed. Grant Project of the World Bank “Modernization of hydrometeorological servicing in Central Asia” is underway. As part of this project the installation of station for the direct receiving of satellite images of high-resolution up to 10-meters is planned, as well as the development of numerical weather forecasting methods and installation of computer with big efficiency (up to 100 Tf).

Increase of the efficiency of computers, growth of capacity of communication means and organization of the radar network will provide for the timely and qualitative solution of the tasks of the short-range forecasting, of the timely warning about severe meteorological phenomena and disasters, for the estimation of snow and water reserves in mountains and related planning of agriculture activities as well as other tasks of the national economy.

PAPER

During the recent years with the assistance of WMO and international organizations the instrument pool of hydrometeorological service has been partly updated.

The equipment of aviation meteorological stations (KRAMS-4 and AMIIS-2000) is installed which is to provide for the good-quality meteorological accompanying of the air vessels in the regions of the republican airports. The main airports of Uzbekistan – Tashkent, Samarkand and Nukus are equipped with METEOR-500C and VHDD-350C Doppler meteorological radars.

In the Republic of Uzbekistan the modernization of the system of remote sensing was implemented, the stations for the direct receiving of the Earth surface images from Meteosat 7, Meteosat 10, NOAA 19, TERRA, AQUA, FengYun-2D satellites were installed. Wide range of combinations of parameters of the proposed data types (space resolution, view band, spectral area), frequency of survey (from 30 minutes to 2 times per day) provides the use of images in operative work in different fields of the economical activities: analysis and forecast of synoptic processes and related weather conditions in the Central Asian region, operational assessment of the conditions of the ice and snow covers, early detection and observation of the propagation of the forest and steppe fires, sand storms, operational assessment of conditions and degradation degree of the agricultural lands and pastures, inventory of agricultural lands, control over the crop conditions, definition of eroded, salinized lands and deserts; monitoring of quality and timeliness of different agricultural techniques; observation of the dynamics of agricultural crops development and estimation of inventory of agricultural lands.

Currently Uzhydromet in cooperation with international organizations and meteorological services of other states carries out large-scale activities on modernization of hydrometeorological service of Republic of Uzbekistan. Grant Project of the World Bank “Modernization of hydrometeorological servicing in Central Asia” is underway; the joined projects of Uzhydromet and Korean Meteorological Administration (KMA) are being prepared for realization. In the framework of these projects it is planned to master the numerical forecasting methods, installation of computer with big efficiency (up to 100 Tf), organization of network of meteorological radars, installation of

systems for the receiving of the big volume of meteorological information from the world meteorological centers, etc.

Increase of the efficiency of computers, growth of capacity of communication means and organization of the radar network will provide for the timely and qualitative solution of the tasks of the short-range forecasting, of the timely warning about severe meteorological phenomena and disasters, for the estimation of snow and water reserves in mountains and related planning of agriculture activities as well as other tasks of the national economy.

For the provision of such improvement on the base of highly-qualified personnel the establishment of system for the remote training (CRT) is planned on the base of WMO Regional Training Centre. It is planned to set up CRT remote training classes at NHMS of Kazakhstan, Tajikistan, Kazakhstan and a number of CRT training places at the territorial subdivisions of Uzhydromet.