Uzbekistan

One of issues related to replacement the manual observational weather stations with automated ones.

Aleksandr Merkushkin
(Uzhydromet, Uzbekistan)

Critical water management within the five central Asian republics (CAR) requires access to reliable climate and hydrological data. As part of the effort to strengthen trans-boundary water resources management within the region, the US Agency for International Development's (USAID) Natural Resources Management Program (NRMP) funded a pilot automated climate data collection network. Sixteen automated weather stations (AWS) were installed within Tajikistan, Kyrgyzstan, Kazakhstan, Uzbekistan and Turkmenistan during the period from February 2002 to September 2003. . Ease of use, low operational cost, suitability for remote unmanned operation, proven reliable collection of high quality data and capability to electronically store and transfer data are the primary reasons for utilizing automated climate monitoring instrumentation. Most of these stations use the USAID sponsored meteor burst radio communications to provide real time data telemetry and acquisition.

This automated data collection and telemetry system was the first of its kind deployed within the region. The national Hydromet service (NHMS) within the CAR had little experience with this technology. Two key objectives of the program was to demonstrate the utility for remote automated deployment as well as allow for simultaneous operation with familiar manual monitoring. Eight of the stations were installed at operational climate stations that were staffed by NHMS observers.

The homogeneity of accumulated long term data series by manual measurements going to be replenished with data come from automated weather stations is not to be negatively affected. This paper provides the results of the comparative analysis from some of the simultaneous manual and sensors measurements.