



## UZBEKISTAN CLIMATE DATA RESTORATION PROJECT

Uzbekistan has preserved hydrometeorological observational data since 1867. This hydrometeorological data (estimated at 18 million pages of paper) is of significant historical value. When preserved and digitized for easy access and study, the data will be of great value in planning for agriculture, complex water resource management, power stations, gas and oil industries, auto and rail transportation, aviation, communication, civil engineering and construction, urban economic development, tourism, and understanding climate change and global warming.

Uzhydromet declared that hydrometeorological data preservation and utilization is one of the major directions of the organization’s development and identified the “Uzbekistan Climate Data Restoration Project” as a top priority.

The Korea Meteorological Administration (KMA) provided funding for the project. Together with the World Meteorological Organization (WMO) and the International Environmental Data Rescue Organization (IEDRO), Uzhydromet embarked on rescuing this valuable hydrometeorological observational data by converting hard copy (paper) observations into digital images.



### STAFF

Uzhydromet employs two project managers to supervise, train, and manage data rescue along with 20+ student workers who provide daily “hands-on” work converting historical documents into digital images.

Project managers also work closely with the Uzhydromet archivist staff who help maintain an inventory of data processed.

After initial consulting for planning and implementation all project work is performed and managed by Uzhydromet.

### EQUIPMENT

Data Rescue operations are performed in a system designed and custom built for Uzhydromet.

Official papers are converted to images by placing these documents into a “book cradle” and photographing the paper using a two-camera system controlled by software on a computer workstation.

Images are processed by student workers and transferred across an in-house network to a master storage device for secure storage and eventual digitization.

### SECURITY AND QUALITY CONTROL

Project managers are responsible for insuring all digital images meet high quality specifications for clarity and readability.

All images are properly inventoried so that any of specific page from the millions of electronic images can be easily located and shared with researchers and decision makers.

Project managers are also responsible for data integrity and multiple system backups of images.





## CURRENT STATUS AND NEXT STEPS

As of June 2017 Uzhydromet has converted over **4 million pages** hydrometeorological observations into digital images and this operation is on track to complete this first phase of data rescue in **16 months** - **providing this operation has funding to maintain staff and equipment.**

Moving forward Uzhydromet plans to make scientific use of this valuable historic information by digitizing the information contained on these images for importation into database management systems for modeling and analysis by researchers, planners, and decision makers.

## DATA RESCUE OPERATIONS

