

Advanced Hydrologic Prediction Services Program

U.S. NATIONAL WEATHER SERVICE

PROJECT SUMMARY

The National Oceanic and Atmospheric Administration needed a means to improve water resource forecasts and information on the magnitude, timing, and certainty of hydrologic events. Under two separate, five-year contracts, Riverside Technology, inc. continues to support the National Weather Service Advanced Hydrologic Prediction Services Program by developing and implementing state-of-the-art services and technology for hydrological forecast models.

LOCATION
Worldwide

PERIOD
1997 – Present

PROJECT DETAILS

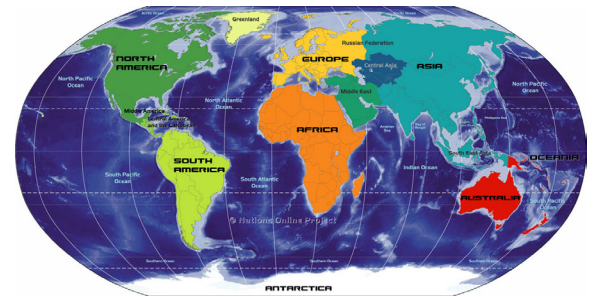
The National Oceanic and Atmospheric Administration (NOAA) is dedicated to enhancing the nation's economic security and safety through weather and climate-related research, providing river and flood forecast information to the public, and helping decision makers effectively manage our nation's water resources. The Advanced Hydrologic Prediction Services (AHPS) Program improves NOAA's response capabilities through the development of new scientific advancements in river, flood, and drought forecasting.

Using sophisticated meteorological and hydrological computer modeling combined with remote sensing data, AHPS research and activities produce state-of-the-art river and stream forecasts. Benefits of a national implementation of AHPS have been estimated to be worth more than \$750 million per year.

Riverside Technology, inc. (Riverside) is helping NOAA accomplish its goals through the infusion of new science and technology in advanced hydrometeorologic, hydrologic, and hydraulic services for integrated water resources management. Riverside's services on AHPS tasks have included the formulation, planning, and execution of specialized hydrometeorologic, hydrologic, and hydraulic modeling to generate advanced hydrologic forecasting products. Much of the work has involved using, enhancing, or implementing the National Weather Service River Forecast System (NWSRFS) throughout the United States. Under the first AHPS contract, Riverside successfully completed data analysis and calibration of hydrologic and hydraulic models for NWS River Forecast Centers; development of a multi-reservoir simulation model, a graphical user interface for FLDWAV model inputs, and a streamflow forecast verification system; and implementation of Geographic Information Systems (GIS)-based flood inundation mapping procedures.

As prime contractor on the current AHPS task order-based contract, Riverside is supported by an exceptional AHPS team, with members who have been contributing for more than two decades to the development of new scientific methods to advance the NWS' forecasting capabilities. Activities under this contract provide continued support to the NWS for NWSRFS model calibrations, time series processing, input data needs development, and forecast process recommendations. The AHPS contract is a Government-wide acquisitions contract vehicle for science and engineering tasks for NOAA's AHPS Program and other government agencies.

Riverside has also implemented NWSRFS and provided transfer of NWS technology and technical training for river forecasting and reservoir operations worldwide. The international projects are funded by USAID, World Bank, and other donor organizations.



RELATED PROJECTS

South Platte River Calibration

Watershed and Reservoir Model Calibrations for the Lower Mississippi River Basin

Calibration of the St. Mary and Milk Rivers

Distributed Flash Flood Modeling in Coastal Areas

Lower Tar River FLDWAV Calibration and Implementation

Streamflow Regulation Accounting for the South Platte

Hydrologic Calibration Analyses for the North Central United States

RIVERSIDE

global science solutions

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