

NATIONAL WEATHER SERVICE POLICY DIRECTIVE 10-9

March 2, 2012

Operations and Services

HYDROLOGIC SERVICES PROGRAM

NOTICE: This publication is available at: <http://www.nws.noaa.gov/directives>

OPR: W/OS31 (T. Graziano)

Certified by: W/OS (D. Caldwell)

Type of Issuance: Routine.

SUMMARY OF REVISIONS: This directive supersedes NWS Policy Directive 10-9, “Hydrologic Services Program,” dated January 12, 2010. The following revisions were made to this directive:

- 1) In Section 1, incorporated and expanded the definition of the NWS Hydro Services Program to remove Attachment 1.
- 2) In Section 2, reworded to mention water resources and bring in line with the Services Roadmap and Decision Support Services efforts.
- 3) In Section 3.1a, expanded upon OCWWS larger role in today’s NWS. This shows a more robust role that includes regional and field input into the process of policy and service requirement developments.
- 4) In Section 3.1e, removed wording of public summaries since OCWWS no longer provides this information.
- 5) In Section 3.2e, added wording to include responsibilities from OHD’s National Operational Hydrologic Remote Sensing Center (NOHRSC).
- 6) In Section 3.4, reworded the OCIO section to remove OPSnet from OCIO responsibility since the transfer to OOS.
- 7) In Section 3.5, included a section for NOAA Public Affairs office responsibilities to Hydrologic Services.
- 8) In Section 3.6, updated to incorporate additional administration and support for OPSnet
- 9) In Section 3.8a, updated wording with “hydrometeorological” guidance to replace “meteorological forecasts.”
- 10) In Section 3.9d, reworded to better capture our internal and external hydrologic outreach efforts.
- 11) Section 3.9e, added additional section for evaluation of performance and effectiveness of hydrologic services in RFCs similar to WFOs.
- 12) In Section 4b, add absolute timing error as additional performance measure in FLWs.
- 13) In Section 4c, updated to include Customer Satisfaction Index and other surveys as additional performance measures.

14) In Section 5, removed Attachment 1 since it was incorporated into Section 1.

1. As the Nation grows, more segments of society are becoming increasingly vulnerable to an excess or lack of water. Timely and accurate river and flood forecasts, warnings, and water resources information spanning minutes out to months in the future are becoming more critical to decision making processes which affect all citizens. The National Oceanic and Atmospheric Administration National Weather Service's (NWS) Hydrologic Services Program is the collective body of resources and activities provided and undertaken by NWS headquarters, regional headquarters, and field offices (i.e., The National Centers for Environmental Prediction (NCEP), River Forecast Centers (RFC), and Weather Forecast Offices (WFO)) to support and provide these water-related services in the form of forecasts, warnings, and associated products for the Nation's river systems. This directive governs the NWS' provision of hydrologic services to its internal and external partners and other users.

2. The NWS Hydrologic Services Program provides river, flood, and water resources information, forecasts and warnings for the protection of life and property and the enhancement of the national economy. These information and services form the foundation for hydrologic Impact-based Decision Support Services.

3. This directive establishes the following authorities and responsibilities:

3.1 The Office of Climate, Water, and Weather Services (OCWWS) will:

- a. Establish, collect, consolidate as appropriate and maintain national policies, procedures and requirements for the provision of consistent NWS hydrologic forecast and warning services.
- b. Conduct meteorological, climate, training, performance and awareness, and observing service programs which support hydrologic operations and services.
- c. Consolidate, analyze, and oversee national performance and effectiveness indicators of hydrologic services.
- d. Provide outreach to national partners and other users to promote hydrologic services.
- e. Collect operationally significant hydrologic information and prepare internal notification reports.
- f. Provide real-time operational support and maintenance for nationally-delivered hydrologic applications.
- g. Coordinate with NOAA Public Affairs Office to develop and manage national and regional media communications strategies for hydrologic events, including spokesperson preparations, talking points, news releases, supporting press materials, press briefings, and booking and facilitating national media interviews.

3.2 The Office of Hydrologic Development (OHD) will:

- a. Plan, develop, demonstrate, and integrate scientific techniques and software capabilities for the Hydrologic Services Program.
- b. Formulate and maintain a research and development plan in response to requirements of the Hydrologic Services Program.
- c. Develop, maintain and provide user support for hydrometeorological data collection systems and disseminate data products for use in NWS operations.
- d. Manage development and maintenance of software applications needed for the web presence of the Hydrologic Services Program.
- e. Provide, through the National Operational Hydrologic Remote Sensing Center (NOHRSC) remotely-sensed and modeled hydrology products and information for the conterminous U.S. and Alaska.

3.3 The Office of Science and Technology (OS&T) will:

- a. Maintain overall responsibility for plans, programs, and development in NWS science and technology activities.
- b. Develop selected applications providing observed and forecast information used in hydrologic operations.

3.4 The Office of the Chief Information Officer will:

- a. Provide the key information technology (IT) planning and evaluative activity for the NWS, to include coordination and development of the annual NWS IT Operating Plan, the NWS IT Strategic Plan, and coordination and implementation of all NWS IT security and critical IT infrastructure activities.
- b. Conduct a comprehensive program of IT systems investment, planning, and review to insure high quality, cost-effective IT initiatives.
- c. Develop, monitor, and coordinate the overall NWS systems architecture in close concert with the weather system architecture activities of the OS&T and develop hardware and software management policies and standards for the NWS.
- d. Provide overall planning and policy oversight for the NWS use of the Internet, and develops NWS telecommunications policies and guidance.

3.5 The Office of Operational Systems will:

provide system engineering, software management, facilities engineering, communications, maintenance, and logistical services to sustain operational systems supporting the Hydrologic Services Program. This includes the administration and support for the NWS Web infrastructure, Telecommunications Gateway, and OPSnet and ensures security for NWS systems.

3.6 NWS regional headquarters will:

- a. Ensure WFO's and RFC's are organized, trained, and equipped to fulfill the Hydrologic Services Program obligations within their region.
- b. Provide hydrology-related requirements to OCWWS.
- c. Develop supplements to procedural directives for the Hydrologic Services Program.
- d. Provide technical and operational support to WFOs and RFCs.
- e. Oversee hydrologic service outreach efforts.
- f. Evaluate performance and effectiveness of hydrologic services within their region.
- g. Ensure WFOs and RFCs comply with Hydrologic Services Program directives and regional supplements.

3.7 The NCEP will:

- a. Provide hydrometeorological guidance serving as input to the hydrologic forecasting process for all time scales.
- b. Prepare national products which integrate hydrometeorological information produced by WFOs and RFCs.
- c. Support verification of Quantitative Precipitation Forecasts (QPF) produced by the Hydrometeorological Prediction Center (HPC), RFCs, and WFOs.

3.8 RFCs will:

- a. Conduct hydrologic modeling and forecast operations for rivers, reservoirs, and lakes in large, multi-state areas of responsibility.
- b. Produce the forecast and guidance information used in NWS hydrologic products.
- c. Provide products describing observed, current, and future hydrometeorological conditions over their areas of responsibility such as discussions, significant river flood outlooks, quantitative precipitation estimates, and water supply forecasts.
- d. Provide internal and external outreach to other agencies, partners, and users supporting water management and resources in river basins to promote hydrologic services and awareness.
- e. Evaluate performance and effectiveness of hydrologic services within their service area.

- 3.9 WFOs will:
- a. Provide hydrologic forecasts, watches, warnings, statements, and related products for local service areas. These products cover events ranging from short-fused flash floods to regional droughts and slow-rising floods on large rivers and lakes.
 - b. Provide outreach to state and local partners and other users to promote hydrologic services.
 - c. Evaluate performance and effectiveness of hydrologic services within their service area.
4. Performance measures include:
- a. Stage forecast accuracy.
 - b. Warning products probability of detection, false alarm ratio, lead time and absolute timing error.
 - c. Periodic Customer Satisfaction Index (CSI) score using the American Customer Satisfaction Index (ACSI) methodology and qualitative and/or quantitative feedback from other Office of Management and Budget (OMB) approved user surveys regarding the performance and effectiveness of NWS Hydrologic Services.
5. Procedural directives will be issued to implement this policy as needed and determined by the Director, Office of Climate, Water, and Weather Services.

(Signed)

February 17, 2012

John L. Hayes
NOAA Assistant Administrator for Weather Services and
Director, National Weather Service

Date