

***NATIONAL WEATHER SERVICE POLICY DIRECTIVE 10-21***

***NOVEMBER 29, 2019***

***Operations and Services***

***INTERCOMPARISON OF HYDROMETEOROLOGICAL INSTRUMENTS AND ALGORITHMS***

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

**OPR:** W/AFS23 (F. Horsfall)

**Certified by:** W/AFS (A. Stern)

**Type of Issuance:** Routine

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***SUMMARY OF REVISIONS:*** This policy directive supersedes the National Oceanic and atmospheric Administration's (NOAA) National Weather Service (NWS) policy directive 10-21, issued October 19, 2017. Administrative changes only. Update name of National Climatic Data Center to National Centers for Environmental Information.

1. Data produced by the National Weather Service (NWS) for short-term forecasts and warnings provide long-term historical information for climate monitoring, analysis, and study. From time to time, the NWS will replace or modify instruments and algorithms as part of the normal life cycle event or to take advantage of new technology. Each instrument or algorithm possesses unique performance characteristics, which may influence the long-term climate record. To ensure data quality and compatibility, the guidelines and principles for climate monitoring will be met.
2. Intercomparisons will be conducted on all new or modified hydrometeorological instruments, and algorithms in accordance with procedures and instructions listed in Appendix A. Wherever applicable, NWS intercomparisons will follow American Society for Testing Materials Standards (ASTM).
3. This directive establishes the following authorities and responsibilities:
  - 3.1 The Director of the Analyze, Forecast, and Services Office (AFS) will establish procedures and instructions consistent with this policy directive and in consultation with the Director of the National Centers for Environmental Information (NCEI).
  - 3.2 All national sensor acquisition program managers, such as, but not limited to, those in the Office of Science, Technology, & Integration (STI) and the Office of Observations (OBS) will implement this policy. These program managers will also budget for conducting intercomparisons.
4. The effectiveness of this policy will be measured by verifying the intercomparisons are conducted in accordance with applicable procedures and instructions.

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5. This policy directive is supported by references and information listed in Attachment 1.

Signed	11/15/2019
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Louis W. Uccellini	Date
Assistant Administrator for Weather Services	

**Attachment 1**  
**REFERENCES AND SUPPORTING INFORMATION**

**Instructions**

*10-2101 General Instructions for Terrestrial-Based In-Situ Instrument and Algorithm Intercomparisons for the Purpose of Climate Data Continuity*

*WMO-No.8, "Guide to Instruments and Methods of Observation"*