



DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648-XV204]

Request for Comments on the National Weather Service Cooperative Observing Program (COOP)

AGENCY: National Weather Service (NWS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce.

ACTION: Notice; request for comment.

SUMMARY: The NWS is seeking public and stakeholder input on the modernization of the Cooperative Observer Program (COOP). COOP is congressionally directed and represents a foundational meteorological network that has provided critical data via a volunteer network since 1890—the longest continuous record of weather stations in the country. To transition this historic network into a real-time observing program, the NWS aims to deploy commercial sensor technology, automate data collection to reduce volunteer burden, optimize the national footprint to address geographic data gaps, and leverage mesonet data as a key network augmentation tool. This Request for Comment (RFC) specifically elicits feedback on how stakeholders currently utilize COOP data, the utility of shifting to sub-hourly reporting, and considerations for network modernization and optimization. By gathering these insights, the NWS intends to shape a more agile, technologically advanced network that efficiently meets evolving operational and stakeholder needs. This RFC is for informational purposes only and does not constitute a request for proposals or solicitation for a contract or grant award, nor does it obligate the Government in any way. A complementary, forthcoming RFC in <https://Sam.gov> will be the appropriate venue for offering any voluntary information regarding potential commercial solutions to COOP data collection.

DATES: To ensure consideration, you must submit comments regarding this request for comment on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Interested parties are invited to submit statements addressing some or all of the questions listed below. Submit via email to *COOP.comments@noaa.gov* and include “Stakeholder Feedback on NWS COOP Modernization” in the subject line of the message. If responding to any of the specific questions posed below, please label each of your statements to correspond with the relevant question. These questions are designed to elicit relevant public feedback; however, response to some or all questions is not necessary for the agency’s full consideration of the comment.

Responses should be limited to 10 pages, inclusive of a 1-page executive summary and any supporting appendices, title page(s), tables, graphics, images, and figures. Responses should include standard margins and 12-point font. Information must be submitted in Microsoft Word DOCX or Adobe Acrobat PDF format and be received no later than 11:59 p.m. Eastern Standard Time on **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. The Government is not obligated to review responses received after the deadline.

FOR FURTHER INFORMATION CONTACT: For questions or comments regarding this notice, please send your inquiries to Janine Scianna, NWS Chief of Staff, at *janine.scianna@noaa.gov*, or via phone at (240) 622-9359.

SUPPLEMENTARY INFORMATION: COOP is a foundational NWS meteorological observation network established by the Organic Act of 1890 to record the climatic conditions of the United States. The National Integrated Drought Information System Reauthorization Act of 2018 further underscored the program’s importance, and directed the NWS to (among other things) modernize and optimize the program, ensure data continuity from long-term sites, and reduce the burden on volunteers. For over 130 years,

this program has relied on a vast network of dedicated volunteers to provide critical daily reports on temperature, precipitation, snowfall, and snow depth. This authoritative data is essential for a wide range of operational needs, from supporting agricultural planning and disaster declarations to validating radar environmental conditions and establishing the nation's long-term climate records.

Since the inception of the COOP program, weather sensor technology has rapidly advanced, and the availability of other non-Federal, high quality surface observation datasets has also grown. The NWS aims to improve and modernize this historic network by leveraging modern commercial sensor technology and optimizing the network footprint to more efficiently and effectively deliver key surface observation data. Primary objectives include:

- Upgrading aging COOP equipment with easier-to-maintain commercially available weather observation systems;
- Automating data collection to reduce volunteer burden;
- Increasing observations in data-sparse regions;
- Integrating other high-quality environmental data (*e.g.*, state and private mesonets) sets to augment federally-provided COOP data where appropriate;
- Right-sizing and optimizing the scope and coverage of the existing ~6,700-site COOP network.

Public comment will directly inform our transition to a more agile, technologically advanced backbone that continues to meet the NWS mission while addressing the evolving needs of the stakeholder community. We invite you to provide your feedback and expertise to help shape the future of this critical national resource.

Issues for Comment

We invite stakeholders to provide detailed information on their current use of COOP data in operations, research, and decision-making to help the NWS identify which

data streams are most essential to maintain and enhance through the modernization process. We also request feedback on the utility of shifting from daily to sub-hourly reporting and adding automated parameters not currently collected by COOP observers. We request input on geographic optimization, specifically identifying where COOP is the sole or primary observation source, and determining when external, high-quality mesonet data can supplement the Federal backbone of COOP stations. Additionally, the NWS seeks strategies for maintaining snowfall and snow depth data continuity during automation and understanding how the volunteer role might evolve from manual observation to site stewardship.

To this end, NWS has posed the below series of questions designed to elicit relevant public feedback; however, response to some or all questions is not necessary for the agency's full consideration of the comment. We value your insights as we work to modernize this important observational network.

Questions

I. General data user community

1. For what specific operational, research, or business purposes do you or your organization currently use COOP data?
2. How long have you or your organization been a COOP data user and how often do you access it?
3. Are there specific applications for which the COOP program is the sole or primary data source?
4. How do you assess the reliability and quality of COOP data compared to other sources such as private or state mesonet network data?

II. COOP Modernization: Technical Modernization and Scientific Continuity

1. How do you anticipate the utility of COOP data would change if the reporting frequency increased from daily to sub-hourly?

2. While temperature and precipitation remain core parameters, some commercial automated weather systems offer additional parameters such as relative humidity, solar radiation, and barometric pressure that have not historically been collected by COOP stations. What additional parameters would have the greatest impact on your sector's or organization's uses and why?

3. For stakeholders in legal and insurance sectors, what metadata or certification requirements are necessary for automated sensor data to be accepted as *prima facie* evidence in dispute resolution?

4. Do you have any experience with data sets provided by automated weather systems? Please share your experiences regarding data utility, quality, and reliability.

5. Given that most commercial all-in-one automated weather systems lack sensors for measuring snowfall and snow depth, what strategies should the National Weather Service consider to maintain data continuity for these parameters?

III. COOP Modernization: Network Footprint and Optimization

1. What specific geographic or scientific considerations should the NWS be weighing when determining priority sites for modernization?

2. Are there known areas in your region where the COOP program provides the only source of high-quality ground-level observations?

3. Are there any clear geographic voids that should be prioritized for hosting new COOP sites? Are there any other known sources of reliable and accurate data (*e.g.*, public or private mesonet data) that are capable of addressing those gaps?

4. The recent growth in high-quality state and private mesonets represents a key opportunity for the NWS to leverage when optimizing the COOP network footprint. Under which conditions—such as operating within high-density data regions or monitoring environmental parameters of lesser criticality to your application—would data from external networks be suitable alternatives to federally managed COOP stations? Please be

specific.

IV. Volunteer Engagement

1. Do you have personal experience with hosting or maintaining a COOP site?
2. For current or potential volunteers, how would your interest in the program change if the role shifted from daily manual observation to site stewardship and impact reporting?
3. If your site were automated, would having access to near real-time local weather observations increase your engagement with the National Weather Service mission?
4. Do you have any additional feedback about volunteer engagement or how to improve the overall program?

Authority: 15 U.S.C. 8550

Dated: May 4, 2026.

Michael Lee Hopkins,

Director,

Surface and Upper Air Division, National Weather Service.