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Public Information Statement 21-32 National Weather Service Headquarters Silver Spring MD 1200 PM EDT Thu May 6 2021

To: Subscribers:

-NOAA Weather Wire Service

-Emergency Managers Weather Information Network

-NOAAPort

Other NWS Partners, Users and Employees

FROM: Michelle Mainelli, Director

Office of Dissemination National Weather Service

SUBJECT: Seeking Comments from Users on Providing NCEP NWP

Data in the Cloud through July 31, 2021

The National Weather Service (NWS) Office of Dissemination seeks to inform users of NOAA's demonstration to support the National Centers for Environmental Prediction (NCEP) Numerical Weather Prediction (NWP) data in the NOAA public cloud. We will accept comments from users through July 31, 2021.

The NWS Program Offices and NCEP are working with the NOAA Big Data Program (BDP) to provide a full complement of three (3) NCEP NWP model datasets via the cloud: the Global Forecast System (GFS): the RAPid Refresh (RAP): and the High-Resolution Rapid Refresh (HRRR).

BDP provides public access to NOAA's open data on commercial cloud platforms through public-private partnerships. As part of a 10-year contract initiated in 2019, BDP has made available approximately 8 petabytes of NOAA data which includes over 150 different datasets to date.

The cloud-based services are designed to augment access to the NWP data via BDP cloud service provider (CSP) partners. Along with other NOAA data already accessible in the cloud, NWP data in the cloud will increase data access and usability.

NOAA's NWP data is vast, complex, and distributed. The systems and infrastructure that process, store, and disseminate these data are complex. As the volume and velocity of the environmental data increases exponentially, we anticipate the demand for access will continue to grow.

Three (3) providers will make available the complete GFS, RAP, and HRRR data sets:

- Amazon Web Services (AWS)
- Google Cloud Storage (GCS)
- Microsoft Azure Cloud (Azure)

BDP will provide the full suite of NWP output for the following:

1) Global Forecast System (GFS)

https://registry.opendata.aws/noaa-gfs-bdp-pds/

https://console.cloud.google.com/marketplace/product/noaa-public/gfs

https://azure.microsoft.com/en-us/services/open-datasets/catalog/noaaglobal-forecast-system/

2) High-Resolution Rapid Refresh (HRRR)

https://registry.opendata.aws/noaa-hrrr-pds/

https://console.cloud.google.com/marketplace/product/noaa-public/hrrr

https://github.com/microsoft/AIforEarthDataSets/blob/main/data/noaahrrr.md

3) RAPid Refresh (RAP)

https://registry.opendata.aws/noaa-rap/

 $\frac{\texttt{https://console.cloud.google.com/marketplace/product/noaa-public/rapid-refresh}$ 

https://github.com/microsoft/AIforEarthDataSets/blob/main/data/noaarap.md

During this demonstration, the data will be available with 8x5 operational support. The NWS Program Offices and NCEP will evaluate the effectiveness of the demonstration, and will notify users of any operational posture changes.

NWS will hold a virtual public forum to seek feedback and discuss the benefits of disseminating data on a cloud platform as well as the necessary operational support on June 30, 2021, from 1:30-2:30 pm ET. Please register for the webinar at:

https://register.gotowebinar.com/register/4784263579124076560

At this time, there will be no change to the operational support or data posture of NWP services offered through the existing NCEP Web services at:

nomads.ncep.noaa.gov
ftp.ncep.noaa.gov
ftpprd.ncep.noaa.gov

Please direct questions and comments regarding this demonstration to:

Meenu Gupta
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Cloud Program Manager
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We will review all feedback we receive, and will notify users via a Service Change Notice (SCN) of any future changes.

National Public Information Statements are online at:

https://www.weather.gov/notification/

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