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Biden-Harris Administration, NOAA award $7.6 million for flooding, extreme precipitation preparedness

cus areas: Satellites, Weather
pics: Bipartisan Infrastructure Law, flooding, precipitation, climate **Share:**

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eavy rains from Hurricane Helene caused record flooding and damage on September 28, 2024, in heville, North Carolina. (Image credit: Getty images)

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oday, the Department of Commerce and NOAA announced the award of $7.6 million funding for cooperative institutes to transform satellite observations and other data to information communities can use to prepare for and recover from floods and heavy ecipitation.

he awards will fund work to create street-level maps of potential flood and undation, improve models of how water cycles through the nation's rivers and reams and develop a new data set of hourly-precipitation information to help usinesses and communities better understand the effects of extreme rainfall. The sulting products will be useful in monitoring the far-reaching impacts of major orms like Hurricane Helene and Hurricane Milton.

This major investment, made possible thanks to President Biden's historic Bipartisan frastructure Law, will boost NOAA's efforts to address the rising threat of extreme ooding caused by climate change, help communities mitigate the economic impacts om these disasters and keep families safe as we tackle the climate crisis," said U.S. ecretary of Commerce Gina Raimondo.

recent years, the increasing frequency and severity of flooding, extreme precipitation d other extreme weather events have highlighted the urgent need for better ediction and resilience strategies. Rising sea levels, driven by climate change, are xacerbating these challenges and putting communities at greater risk.

s part of the Bipartisan Infrastructure Law (BIL), these funds will help communities an for a range of climate impacts, provide tools that emergency managers can use to prove safety during floods and other weather hazards and offer information about e impacts of extreme weather on vulnerable populations.

y incorporating state-of-the-art science and technology into actionable guidance, e will provide communities with the tools needed to better prepare for and recover om extreme weather and climate disasters," said NOAA Administrator Rick Spinrad, .D. "These efforts will enhance our nation's resilience and support NOAA's critical ork to improve the data and information available for science-based decision aking."

he $7.6 million in cooperative institute awards is part of a total $13.8 million of BIL nds provided to date for NOAA's National Environmental Satellite, Data, and formation Service (NESDIS) for flood and precipitation projects. The balance of the nding is supporting flood and precipitation projects through contracts and federal aff work. NESDIS research provides disadvantaged, underserved and socially lnerable communities — including urban and rural areas — with equitable access to xpanded products and services, and complements BIL-funded efforts managed by her parts of NOAA.

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esearch funding is supporting the following cooperative institutes:

- Cooperative Institute for Earth System Research and Data Science (CIESRDS) **at the University of Colorado Boulder**, $3.8 million for management of coastal inundation and flood-related data. The project will use this information to develop products that allow communities to understand and predict environmental changes that affect coastal regions. In addition, cloud-based infrastructure will make NOAA coastal data more accessible and easier to use.
- Cooperative Institute for Satellite Earth System Studies (CISESS) **at the University of Maryland**, $1.7 million for flood mapping and improving satellite-derived data about land surface conditions such as soil moisture and tree cover. The enhanced land surface data will be used for climate change research, agriculture and forest monitoring and improving the accuracy of NOAA's National Water Model, which simulates and forecasts how water moves throughout the nation's rivers and streams.
- Cooperative Institute for Satellite Earth System Studies (CISESS) **at North Carolina State University**, $1.5 million to use satellite- and land-based data to develop extensive climate information about flooding and precipitation. Information on the duration, frequency and size of floods will be used for monthly, seasonal and annual assessments of regional flood events that can be used by policymakers and the public. The assessments will include narratives about socioeconomic impacts on vulnerable populations, infrastructure and agriculture. A comprehensive, high-quality new data set of hourly-precipitation information will help businesses and communities better understand the effects of extreme precipitation.
- Cooperative Institute for Great Lakes Research (CIGLR) **at the University of Michigan**, $480,000 to develop a near-real-time flood mapping system driven by Synthetic Aperture Radar (SAR) satellite data. The project will test new ways to interpret SAR data for challenging flood types, including floods in urban, sparsely vegetated and desert areas.
- Cooperative Institute for Meteorological Satellite Studies (CIMSS) **at the University of Wisconsin-Madison**, $196,000 to test and implement flood mapping products derived from Visible Infrared Imaging Radiometer Suite (VIIRS) and SAR satellite instruments. This project will help provide detailed flood maps needed for local management during flood events and forecasting to help communities better plan for future flooding.

sit NOAA's Bipartisan Infrastructure Law website to learn about more funding pportunities and additional resources.

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imate, weather, and water affect all life on our ocean planet. NOAA's mission is to nderstand and predict our changing environment, from the deep sea to outer space, d to manage and conserve America's coastal and marine resources.

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