GLOBAL SYSTEMS LABORATORY

For more information:
www.gsl.noaa.gov or
susan.cobb@noaa.gov

Building Towards a Fire-Ready Nation

Bipartisan Infrastructure Law Wildfire Projects

THE INVESTMENT: $100 Million

Operations, Research, and Facilities and Procurement, Acquisition, and Construction Funds

Congress provided NOAA with a one-time amount of $100 million through the Bipartisan Infrastructure Law (BIL) to support NOAA's transformational work with wildfires. BIL's funds are distributed evenly across two provisions that support research & operations and hardware acquisition & construction projects, respectively.

Scan here for more information.

- **Wildfire Provision 5** funds 14 Operations, Research, and Facilities projects worth $50,000,000.
- **Wildfire Provision 15** funds 11 Procurement, Acquisition, and Construction projects worth $50,000,000.

OUTCOME 1: Equip Incident Meteorologists (IMETs) | $19,408,322

NOAA deploys Incident Meteorologists (IMETs) to wildfire incident command posts at the request of emergency managers. These specially-trained and specially-equipped forecasters work closely with incident commanders to provide highly-detailed, tactical forecasts that support operational decisions and enable firefighters to safely combat wildfires. BIL will advance the capabilities of IMETs to access, interpret, and communicate key information in real time.

Equipping IMETs with More Reliable and Robust Web and GIS Services and Tools	$3,500,000
NOAA NWS Geostationary Weather Satellite Antenna System (GWSAS) Server Refresh, Redesign, and Consolidation	$1,508,322
Transforming NWS Forecast Infrastructure to the Cloud	$10,400,000
Integrated Dissemination Program Infrastructure Hardware Refresh	$4,000,000

OUTCOME 2: Deploy new observing systems | $28,500,000

Observing systems are crucial to detecting and monitoring wildfires and their impacts. Systems such as radars and lidars measure smoke and other particles in the air. Fixed-site observing stations can monitor weather and soil conditions for early warnings of high-risk conditions. New technologies such as uncrewed aerial systems can provide new capabilities to make observations in difficult-to-reach locations such as in very rough terrain or near fires.

New Mobile Observing Systems	$5,880,000
Upgrades to ASOS	$13,500,000
New Fixed-Site Remote Sensing Systems	$7,320,000
Designing and Deploying New Uncrewed Aircraft Systems	$1,800,000

August 9, 2024 10:11 AM

GLOBAL SYSTEMS LABORATORY

For more information:
www.gsl.noaa.gov or
susan.cobb@noaa.gov

OUTCOME 3: Advance early detection tools and predictive capabilities | $24,827,000

Early detection and prediction of fires are crucial to limiting their impacts along with saving lives and property. Tools that can accurately predict ignition sources such as lightning, high fire risk conditions such as low-humidity/high-wind "Fire weather," along with smoke and air quality impacts, are a priority for NOAA.

Sustained Development of Short Range Fire Weather Prediction Capabilities	$4,992,000
Improving Air Quality Forecasting Using Fire Weather Modeling and Smoke Emissions Data	$4,992,000
New and Improved Satellite Products in Support of Wildland Fire Monitoring and Forecasting	$2,995,000
Fire Weather Analysis Using High-Resolution Observations	$3,500,000
Support for Sustained Advances to the 3D/4D Real Time Mesoscale Analysis Suite	$5,392,000
Wildfire Potential Research to Inform Extended Range Resource Planning	$959,000
Providing User-Friendly Access to NOAA Fire Weather Products and Data	$1,997,000

OUTCOME 4: Accelerate the development of user-specific decision support tools | $7,488,000

One of the most important goals of research is producing results that end-users can implement in their operations. BIL provides support to connect NOAA's cutting-edge research with its users through a new Fire Weather Testbed that allows forecasters to provide feedback to product developers, and new tools designed for use by emergency managers, forestry resource managers, and more.

Fire Weather Testbed	$3,494,000
Applying Artificial Intelligence to Improve Fire Prediction at Weekly, Monthly, and Longer Time Scales	$1,997,000
Probabilistic Fire Weather Guidance	$10,983,000
Classifying Fire Emissions that Impact Air Quality and Climate	$1,997,000

OUTCOME 5: Engage the broader fire weather community | $11,803,000

NOAA recognizes that engagement with the broader fire weather community is imperative. New funding opportunities for non-NOAA research organizations, support for community model development, and new social and behavioral science approaches to understand impacts to diverse and underrepresented communities, are all key components of BIL's wildfire research funding.

Understanding the Human Responses to Fire Weather Products	$2,817,000
Identifying Complex Interactions between Social Infrastructure and Wildfire Risks to Improve Community Adaptive Capacity	$998,000
Weather Program Office Fire Weather Grants and Earth Prediction Innovation Center	$3,994,000

By helping build and deploy new observing systems, advance high-resolution forecast models, and accelerate the transition of experimental products to operations, BIL's investment in NOAA's fire weather research will help ensure that NOAA continues to build a Fire-Ready Nation.

Visit our new web hub, noaa.gov/wildfire. Here, you can learn more about NOAA's fire weather science and products, including:

- Monitoring and forecasting
- Supporting wildfire incident management
- NOAA fire weather research