



MAKING SPACE FOR RISK REDUCTION

Through the unique perspective of Earth observation, NASA's Disasters program reveals the scope and severity of disaster risk. "Making space for risk reduction" means exploring natural hazards and climate change in combination with vulnerability, exposure, and coping capacity. This approach provides increased awareness that can help reduce risk, improve response, hasten recovery, and promote resilience from natural and technological disasters. Before, during and after disasters strike, our tools and our agile network of global and local partners help communities improve response, hasten smarter recovery, and promote sustainable resilience.

APPLIED RESEARCH

NASA Disasters sponsors application science to support disaster risk reduction, response, and recovery through a series of grants and partnerships funded by the NASA Research Opportunities in Space and Earth Science (ROSES) program. The current research portfolio covers a broad swath of natural and human-caused hazards and situations of exposure and vulnerability. These projects represent the cutting edge of applied disasters research, including projects to advance tsunami and landslide forecasting, volcanic ash and wildfire smoke plume tracking, detecting and characterizing oil spills, and flood risk monitoring.

View our Research Portfolio: appliedsciences.nasa.gov/what-we-do/disasters/projects

FOSTERING PARTNERSHIPS AND COLLABORATION

We are stronger when we work together. NASA Disasters participates in partnerships, working groups, and research meetings to strengthen the international disaster response community and identify the social, environmental, and economic concerns common to communities worldwide. We actively contribute to the U.N. Sendai Framework and its Global Risk Assessment Framework (GRAF), the Community on Earth Observations Satellites (CEOS) Working Group on Disasters (WGDisasters) and the Group on Earth Observations (GEOS).

The NASA Disasters Community newsletter helps keep our partners informed of the latest news, tools and resources: conta.cc/3ncBTjU

RISK REDUCTION

Disaster preparedness is at the core of our mission to cultivate disaster resilience worldwide. That's why we engage with diverse stakeholders, including those in crises and emergency management, humanitarian assistance and relief organizations, and more. We rely on open science and standard geospatial platforms to foster anticipatory knowledge, preparedness, and mitigation, strengthening communities to withstand future challenges.

RESPONSE SUPPORT

When disasters strike, our team activates to identify critical imagery, data, and analysis to support informed decision-making by affected stakeholders and communities. We enable access to a wide variety of near real-time data to enhance situational awareness for responders on the ground that can protect lives and property. While not a service, the approach pilots and demonstrates novel capabilities that users can easily access, shape, and adapt to their needs.

See our latest disaster activations: appliedsciences.nasa.gov/what-we-do/disasters/disaster-activations

RECOVERY

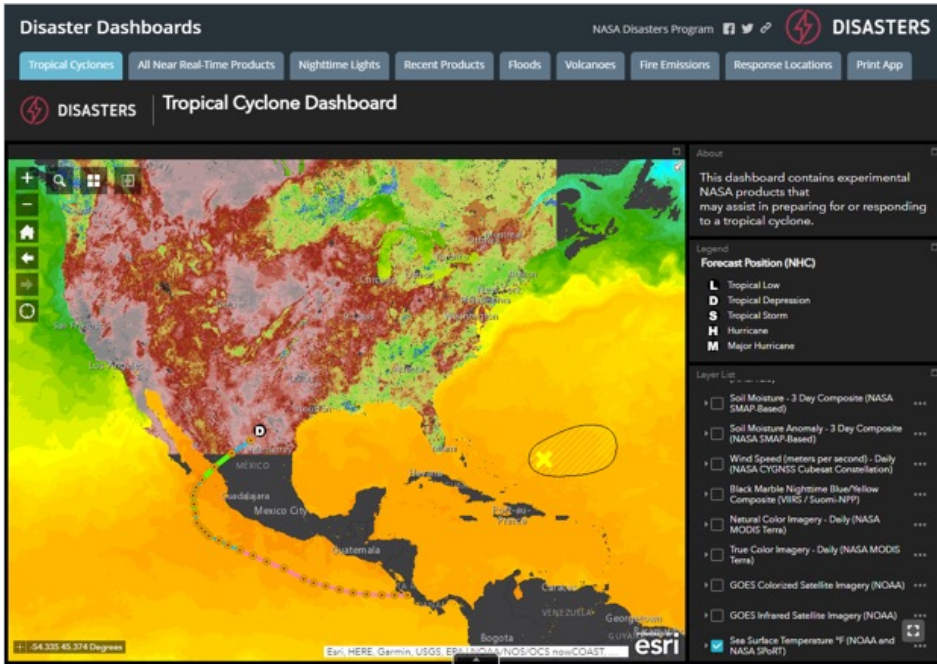
In the wake of disasters, responders need to quickly know where to allocate their resources to speed restoration and recovery to those impacted most. Science-informed information on exposure can also enhance coordination and planning for future threats. We can provide a "big picture" to reveal the most affected regions, inform guidance on building back smarter, and enhance coordination to better prepare for future threats.

LEARN MORE ABOUT NASA DISASTERS:

appliedsciences.nasa.gov/what-we-do/disasters



NASA DISASTERS TOOLS & RESOURCES



NASA DISASTERS MAPPING PORTAL

The Disasters Mapping Portal is an online interface and proving ground for Earth system science where you can view, analyze and download the latest near real-time and disaster-specific products and models on exposure and vulnerability in Geographic Information Systems (GIS) format. Products are available as REST and open-source compatible WMS endpoints.

[CLICK HERE TO VISIT PORTAL ▶](#)

The Tropical Cyclone Dashboard on the NASA Disasters Mapping Portal provides a variety of near real-time datasets for tracking tropical cyclones and their impacts. Credits: NASA

DISASTERS TRAINING

NASA Disasters supports education and outreach, including working with science societies, civil society and humanitarian organizations, other government and state agencies, U.N. organizations, and international and regional institutions. Key partnerships with other NASA programs, including the Applied Sciences Capacity Building program area, provide in-person and online training focusing on access and applications of remote sensing observations, including disaster management.

appliedsciences.nasa.gov/join-mission/training?program_area=14

OTHER RESOURCES

A collection of datasets, models and tools and other resources that can aid your community is available at: appliedsciences.nasa.gov/what-we-do/disasters/practitioner-resources.



FEMA responders surveying flooded areas. Credit: FEMA



Scan QR code to learn more about the Disasters program area.

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