

National Aeronautics and Space Administration



EARTH | DISCOVER THE WORLD AROUND YOU

www.nasa.gov



EARTH | DISCOVER THE WORLD AROUND YOU

Since its inception, NASA has been studying the most important planet in the universe: Earth

Our home planet is made up of a vibrant web of interconnected threads that grow up and out and weave together into a rich tapestry. Pull on one thread and it sends reverberations through the rest. Where it rains, or doesn't, affects the height of rivers, water supplies, and the health of crops. Smoke from fires a thousand miles away affects the air we breathe. Melting glaciers at the poles contribute to rising sea levels on coasts around the globe.

For more than 50 years, scientists at NASA have been using the view from space to discover our world and how air, rain, ice, land, and sea interact with each other. Through that process of discovery, scientists have developed a greater understanding of our planet's climate and how it is changing over time. While climate change is a global challenge, its effects are local and communities' experiences differ depending on where they are located. That is why NASA takes the next step and partners with interagency, state, and local partners to effect positive change in communities across the country.

EXPERIENCE OUR CHANGING PLANET

Earth information from space supports decision makers, partners, and people in developing the tools they need to mitigate, adapt, and respond to our changing planet. The Earth Information Center allows visitors to see how our planet is changing in areas that affect lives and livelihoods – sea level rise, air quality, wildfires, greenhouse gases, sustainable energy, and agriculture. Discover the Earth as NASA sees it and consider why this information matters to us all.



AGRICULTURE Landsat Croplands Data Overview

(SCAN CODE TO VIEW IMAGES) Since 2009, the United States Department of Agriculture's National Agricultural Statistics Service, or NASS, has drawn on Landsat data to monitor dozens of crops in the lower 48 states as part of NASS's Cropland Data Layer program. The Cropland Data Layer uses Landsat and similar sensors to identify which crop is growing where in the country. Separately,

NASS uses instruments aboard the Aqua and Terra satellites to monitor daily vegetation health and growth stage, all indicators of crop yield.

<https://go.nasa.gov/3zf1ZZJ>



DISASTERS Power Outages in New Orleans

(SCAN CODE TO VIEW IMAGES) Three days after Hurricane Ida brought fierce wind, rain, and storm surges to Louisiana, large swaths of the state endured electric power blackouts. A team of scientists from NASA's Goddard Space Flight Center and the Universities Space Research Association (USRA) mapped the outages using satellite data. The images show nighttime lights data acquired by the Suomi NPP satellite on August 9 (before the storm) and August 31 (after). The base maps make use of data collected by the Landsat 8 satellite.

<https://go.nasa.gov/3tWZnL5>



AIR QUALITY Nitrogen Dioxide Over the United States

(SCAN CODE TO VIEW IMAGES) Nitrogen dioxide (NO₂) can impact the respiratory system, and it also contributes to the formation of other pollutants including ground-level ozone and particulates. Air pollution has decreased even though population and the number of cars on the roads have increased. The shift is the result of regulations, technology improvements, and economic changes, scientists say. The images show concentrations of nitrogen dioxide as detected by NASA's Aura satellite, averaged yearly in 2005 and 2022.

<https://go.nasa.gov/40NWL1y>

NASA invites everyone to join us on a journey of discovery through our Earth Information Center.

Learn more at <https://go.nasa.gov/eic>

