Observe Clouds

with the Globe Observer App

Virtual Early Explorers can participate in a special citizen science project to view clouds from above and below. Join us to observe clouds using a free and easy-to-use app on a smartphone or tablet: photograph clouds, record sky observations and compare them with NASA satellite images.

How To Get Started:

Watch a video on cloud science and how your family can become cloud citizen scientists: www.youtube.com/watch?v=TNc5qjj8ZZE

Image: NASA Earth Observatory.

Learn how to get started with the GLOBE Observer app in this video: www.youtube.com/watch?v=cZM3PO5hoHU

Download the GLOBE Observer App:
observer.globe.gov/about/get-the-app
The app will let you record your cloud observations. You can also make observations of land cover, trees, and mosquito habitats.

Print and cut out the Sky Window (see last two pages) as a guide to making your observations and learn more about clouds!

For more activities to do at home, go to:
observer.globe.gov/do-globe-observer/do-more/at-home

Become Citizen Scientists with the GLOBE Observer App

Clouds play an important role in our Earth system. They affect incoming energy, in the form of sunlight, as well as outgoing energy, heat emitted from Earth's surface back to space. NASA has a number of satellites orbiting Earth collecting data about clouds and Earth's energy. Combining NASA's global view from above with ground observations of clouds and sky conditions from below helps scientists get a more complete picture of clouds in our atmosphere. Because clouds can change rapidly, frequent observations are needed from citizen scientists.

Citizen science engages volunteers in the collection and analysis of data relating to the natural world, typically as part of a collaborative project with professional scientists. Through the GLOBE Observer app, citizen scientists of all ages can learn more about clouds and participate in NASA science. Formal training in science is not required to participate.

We hope you join us as we introduce this opportunity to contribute to NASA science!

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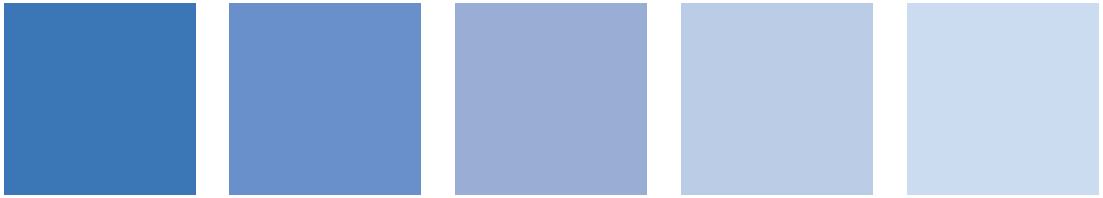
National Aeronautics and Space Administration

Sky Color: What's the deepest shade of blue?



You Can Help NASA Study Aerosols

Aerosols are very small particles floating in the sky. Although they occur in nature (like pollen), aerosols can also be human-made (like car exhaust). A milky or hazy sky is a sign that there are many aerosols in the sky.

Submit your data through:

THE GLOBE PROGRAM

or through the **GLOBE Observer** app, available for Apple or Android devices.

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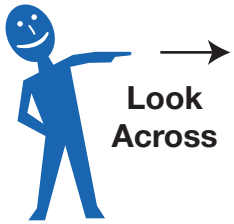
Participate in NASA Science:

Download the **GLOBE Observer** app and contribute your observations.

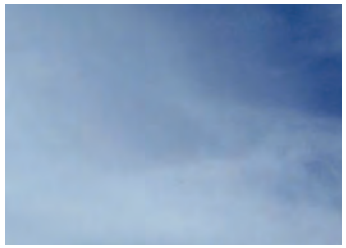
observer.globe.gov



Sky Visibility: What does a distant object along the horizon look like?

High-level Clouds

Cirrus



Cirrostratus

Cirrocumulus

Contrails

When observing the sky, never look directly at the sun!

Mid-level Clouds

Altostratus

Altocumulus

You Can Help NASA Study Clouds

Clouds have a large influence on Earth's energy balance, climate, and weather. Even small changes in the amount, location, or type of cloud can impact Earth's climate and weather. This is why collecting data on clouds is important.

Submit your data through:

THE GLOBE PROGRAM

or through the **GLOBE Observer** app, available for Apple or Android devices.

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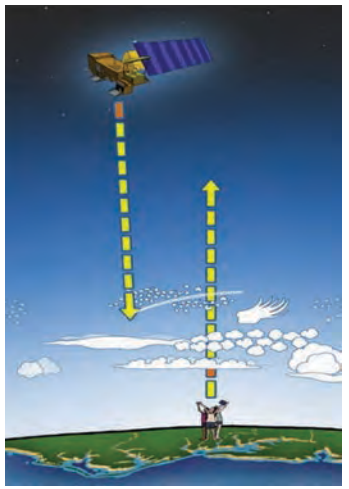


Your reports from the ground looking up help NASA better understand our atmosphere and the views from the satellite looking down.

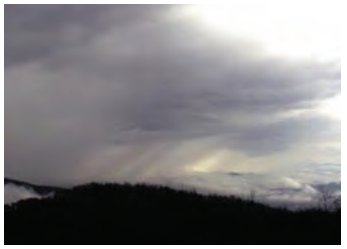
Low-level Clouds

Cumulus

Stratus

Stratocumulus

Low-level Precipitating Clouds



Nimbostratus

Cumulonimbus

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