

[We're moving!](#)

NASA's Global Climate Change website is going to look a little different in the coming months because weâ€™re heading to a new home, a more integrated portal onÂ science.nasa.gov. Keep your eyes on our new space as we transition.  
[Explore the new space](#) [Explore the new space](#)



Understanding our planet to benefit humankind

NASA missions study global climate change from air, sea, and space.

News & Features

[Launching this spring, the two small satellites of NASAâ€™s PREFIRE mission will fill in missing data from Earthâ€™s polar regions.](#)



features

[Meet NASA's Twin Spacecraft Headed to the Ends of the Earth](#)  
[A new, comprehensive analysis of satellite data finds that majority of glaciers on the landmass have retreated significantly.](#)



features

[NASA Study: More Greenland Ice Lost Than Previously Estimated](#)  
[What caused the year to be so hot? Here is a breakdown of the primary factors that scientists considered.](#)



features

[Five Factors to Explain the Record Heat in 2023](#)  
[Earthâ€™s average surface temperature in 2023 was the warmest on record, according to an analysis by NASA.](#)



news

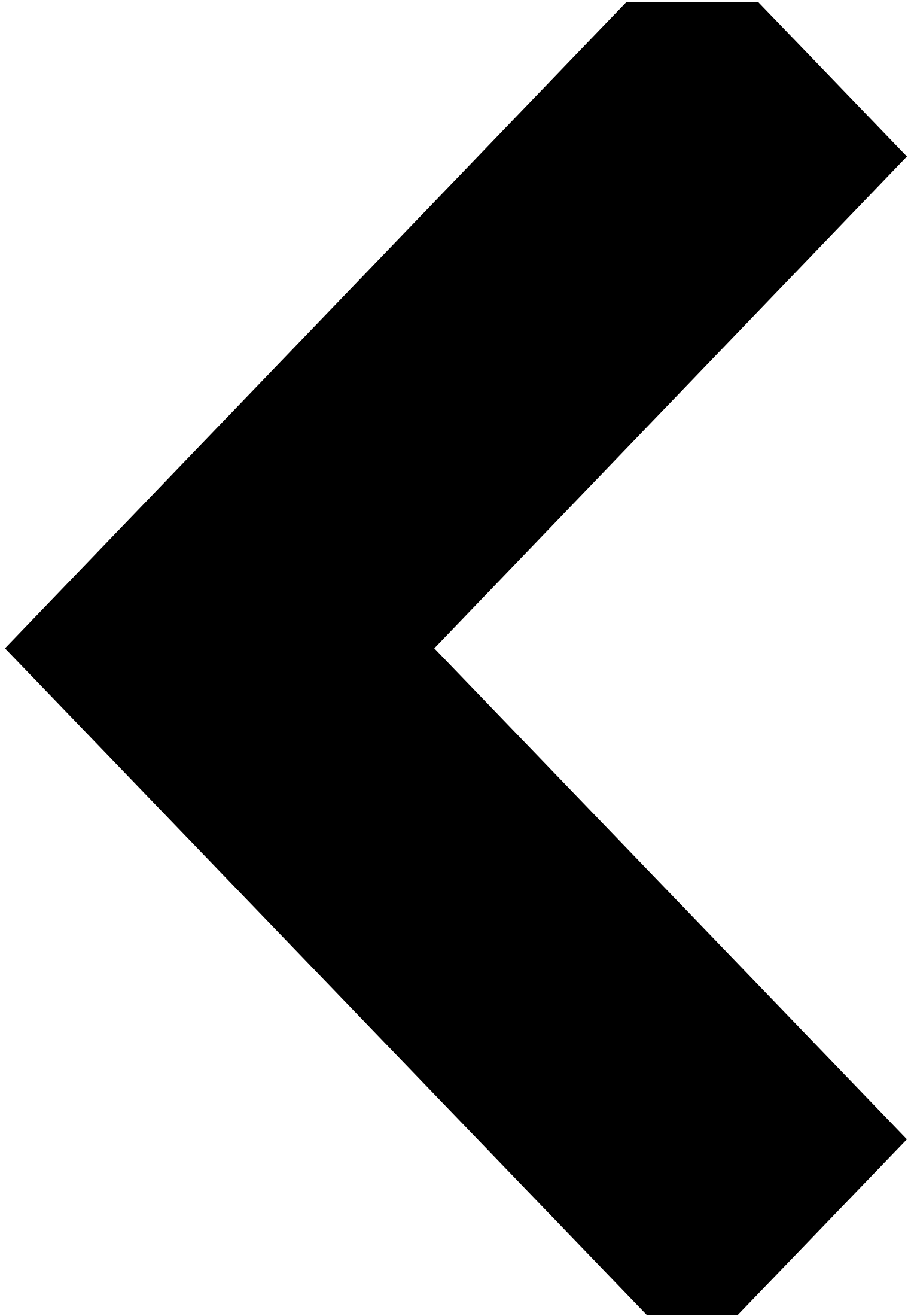
[NASA Analysis Confirms 2023 as Warmest Year on Record](#)  
[NISAR will study change to ice sheets, glaciers, and sea ice in fine detail, as climate change warms the air and ocean.](#)

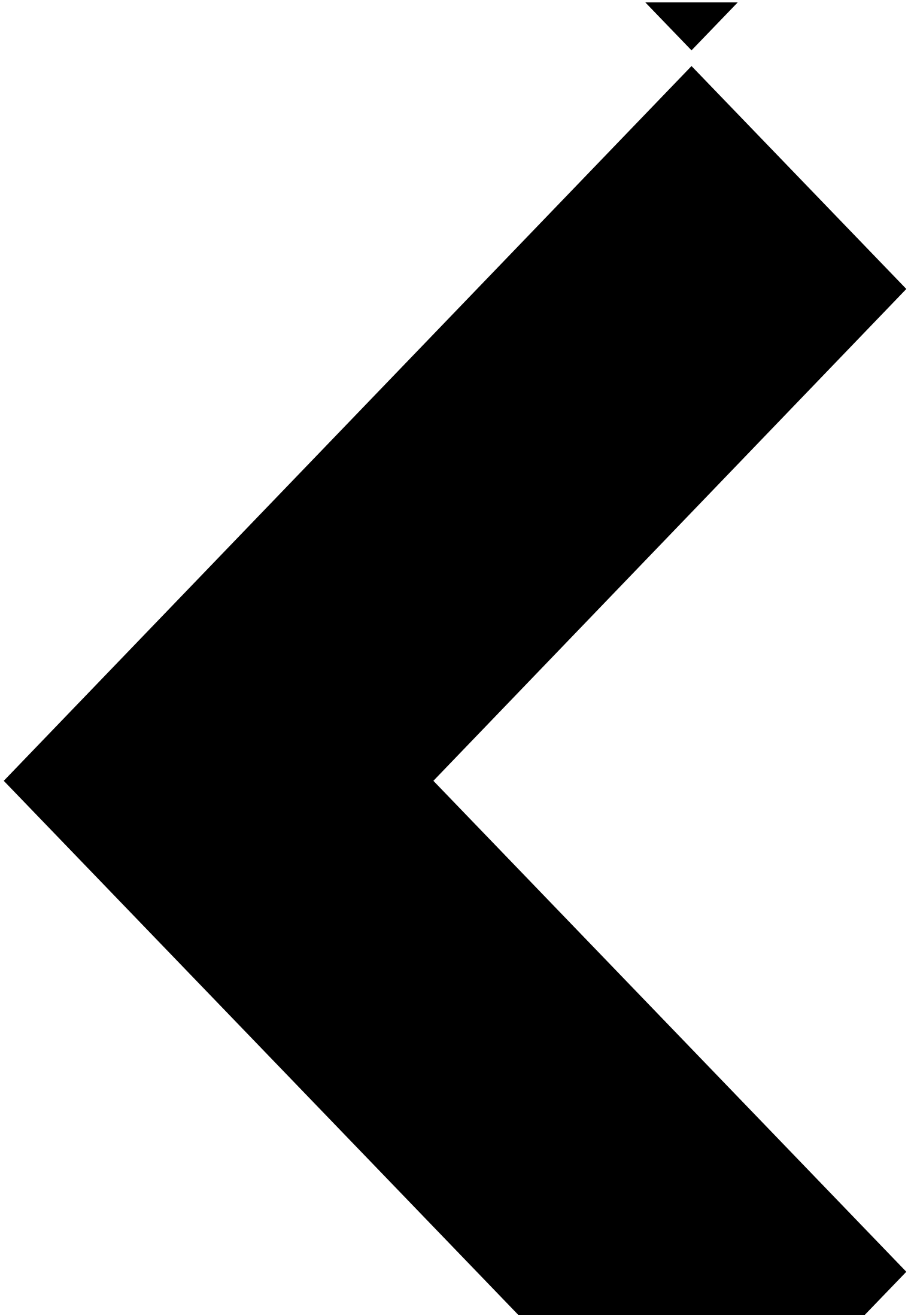


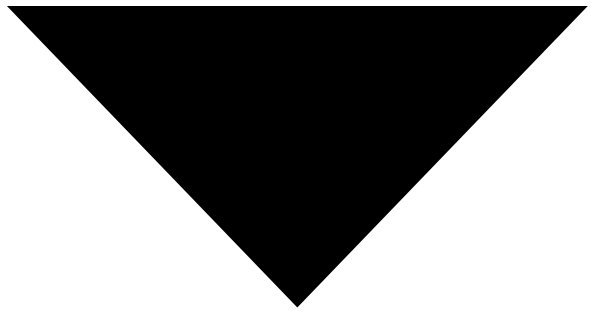
feature

[This US-Indian Satellite Will Monitor Earth's Changing Frozen Regions](#)









## **What Is Climate Change?**

[Evidence](#)

### **How Do We Know Climate Change Is Real?**

[Evidence](#)

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[There is unequivocal evidence that Earth is warming at an unprecedented rate. Human activity is the principal cause.](#)  
[more](#)

[Causes](#)

### **Why Is Climate Change Happening?**

[Causes](#)

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[Human activities are driving the global warming trend observed since the mid-20th century.](#)  
[more](#)

[Effects](#)

### **What Are the Effects of Climate Change?**

[Effects](#)

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[The effects of human-caused global warming are happening now, are irreversible on the timescale of people alive today, and will worsen in the decades to come.](#)  
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[Solutions](#)

### **What Is Being Done to Solve Climate Change?**

[Solutions](#)

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[NASA provides the robust scientific data needed to understand climate change.](#)  
[more](#)

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[more](#)

Solutions

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[more](#)

From space, sky, sea, and land, NASA provides detailed climate data and research to the world.

## Earth Science in Action



[People across the world using NASA data to solve big problems right here on Earth.](#)

## More to Explore

- [Ask NASA Climate](#)

[Your questions about climate change answered.](#)



- [People Profiles](#)

[Learn about the people behind NASA Earth science.](#)



- [Quizzes](#)

[Test your knowledge of climate science.](#)



## Images of Change

## [Before-and-after images of Earth](#)

Columbia Glacier melt, Alaska: 7/28/1986 - 7/2/2014

## Climate Change Resources

**An extensive collection of global warming resources for media, educators, weathercasters, and public speakers.**

Explore

- [Images of Change](#)  
[Before-and-after images of Earth](#)
- [Global Ice Viewer](#)  
[Climate change's impact on ice](#)
- [Earth Minute Videos](#)  
[Animated video series illustrating Earth science topics](#)
- [Climate Time Machine](#)  
[Climate change in recent history](#)

Resources

- [Multimedia](#)  
[Vast library of images, videos, graphics, and more](#)
- [En espaÃ±ol](#)  
[Creciente biblioteca de recursos en espaÃ±ol](#)
- [For Educators](#)

- [Student and educator resources](#)
- [For Kids](#)
- [Webquests, Climate Kids, and more](#)



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  - [Extreme Weather](#)
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### NASA Science

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This website is produced by the Earth Science Communications Team at

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