



Authentically Connecting the Dots Between Weather, Climate and the 2024 Total Solar Eclipse

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The **Mount Washington Observatory** is a private, nonprofit research and educational institution working to **advance understanding** of Earth's weather and climate.





WEATHER OPERATIONS

- Weather observations since 1932

SCIENTIFIC RESEARCH AND TECHNOLOGY

- In-house & university collaborations, product testing

RECREATION AND SAFETY

- Higher Summits Forecast

EDUCATION AND OUTREACH

- K-12 and adult audiences

**Total Solar Eclipse
Visible**
(100% coverage of Sun)



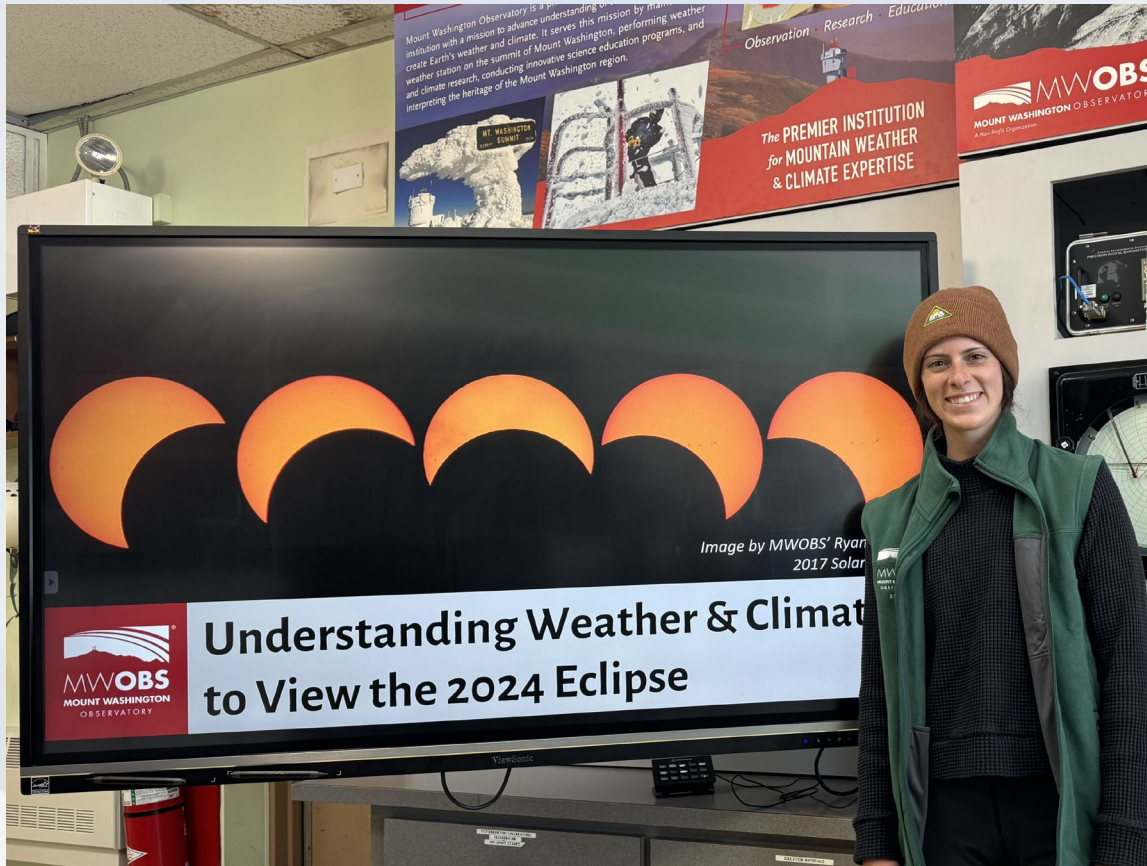
**Partial Solar Eclipse
Visible**
(95% coverage of Sun)



2024 Total Solar Eclipse Approach: Pre-Eclipse

Mission-aligned programs focused on
weather, climate & community science:

- Majority of programs serving rural K-12 students and communities in **Coos County, NH**
- Held in variety of spaces
 - School day, in-person and virtual
 - New Hampshire State Parks
 - Hotels and resorts



2024 Total Solar Eclipse Approach: Pre-Eclipse

Understanding Weather & Climate to View the 2024 Eclipse:

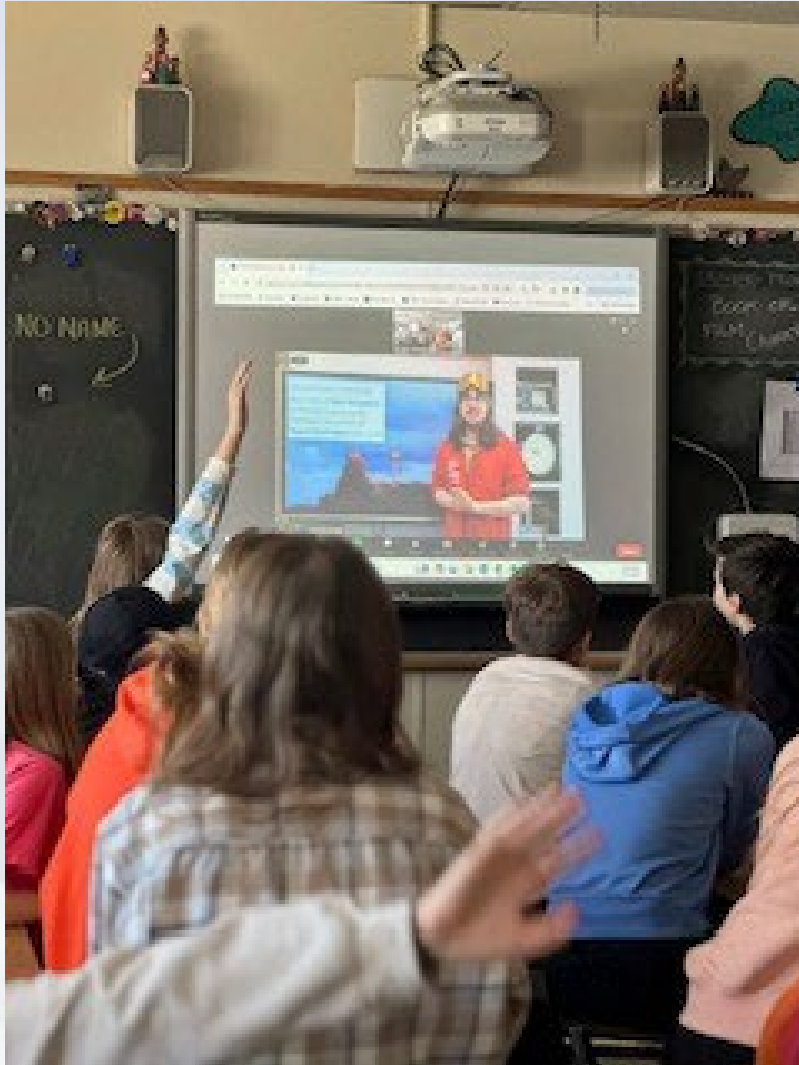
- Offered in-person or virtually by MWOBS educators
- Program content:
 - Weather vs. Climate
 - How weather might impact viewing
 - Accessing and interpreting weather and climate resources for their area
 - Science and history of eclipses



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2024 Total Solar Eclipse Approach: Pre-Eclipse

K-12 Reach:

- 12 virtual programs, 6 in-person programs
- 918 K-12 students engaged in MWOBS eclipse programs
- Primarily 5th-8th grade
- Expanded MWOBS geographic reach:
 - New Hampshire
 - New York
 - Ohio
 - Texas



2024 Total Solar Eclipse Approach: Pre-Eclipse

K-12 Reach:

- Center for Interactive Learning & Collaboration
- Survey highlights – Strongly Agreed
 - Increased students' interest
 - Meet educational standards
 - Educators gained new skills and resources
 - Provided a valuable and authentic experience

Participate in Exciting Eclipse
Science!



Make Cloud Observations & Collect Temperat



Become a Citizen
Scientist & Download
NASA's GLOBE
Observer App



ICESAT-2

The Ice, Cloud, and land Elevation Satellite-2 will be passing through the Moon's shadow during the Eclipse. You can help the mission by taking temperature measurements before, during, and after the Eclipse. The solar arrays will experience a slight drop in power. Your measurements will help scientists better understand the performance of the solar arrays in space.

SCAN QR CODE TO LEARN MORE ABOUT
HOW ICESAT-2 MEASURES EARTH'S HEIGHTS



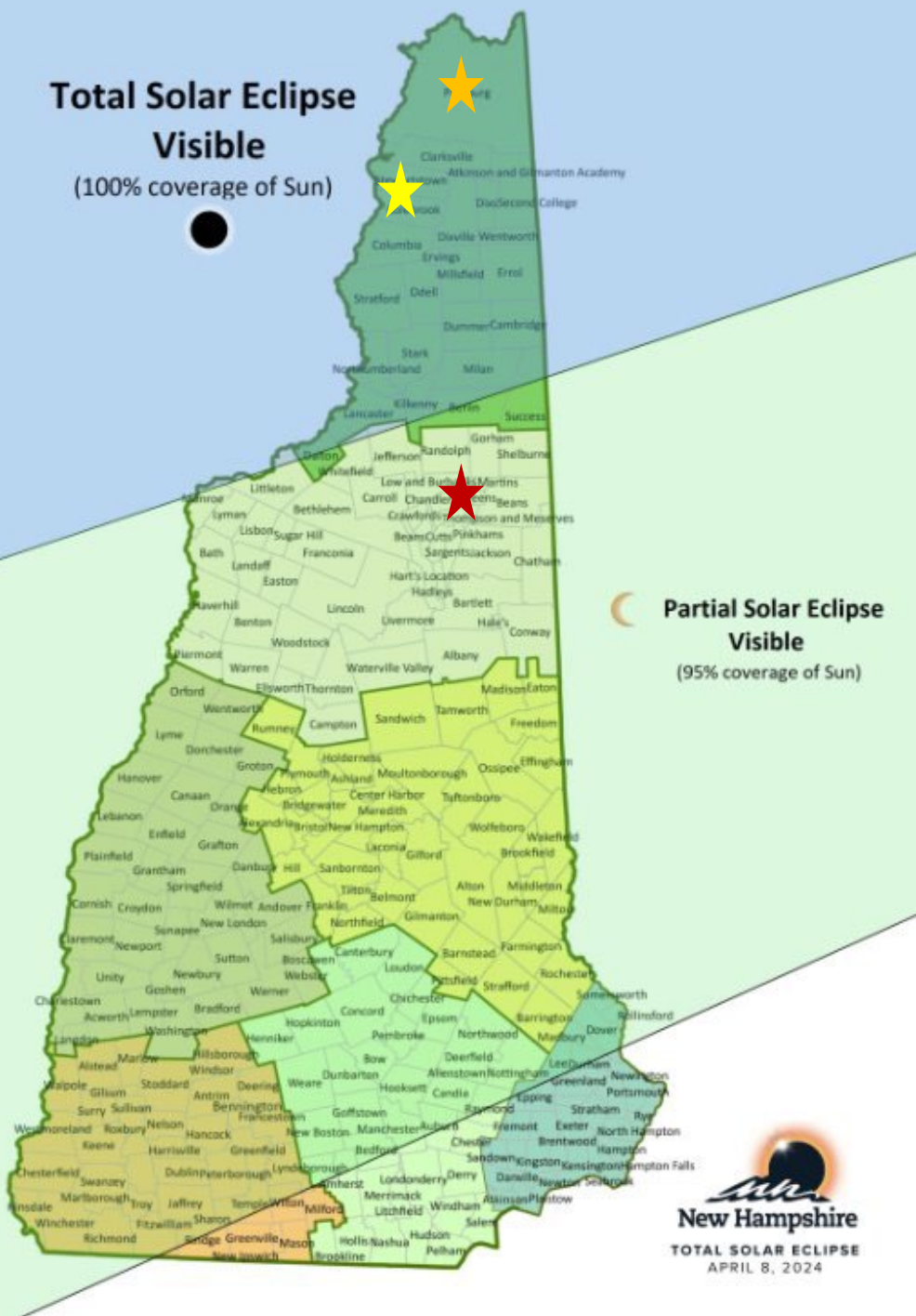
ICESat-2
ICE, CLOUD, AND LAND ELEVATION SATELLITE-2

2024 Total Solar Eclipse: Citizen Science

Community Science Initiatives:

- NASA GLOBE Eclipse Initiative
- Citizen Continental-America Telescopic Eclipse (Citizen CATE 2024)

**Total Solar Eclipse
Visible**
(100% coverage of Sun)



2024 Total Solar Eclipse: Citizen Science

Community Science Initiatives:

- NASA GLOBE Eclipse Initiative, **Stewartstown NH**
- Citizen Continental-America Telescopic Eclipse (Citizen CATE 2024), **Pittsburg NH**



2024 Total Solar Eclipse: Citizen Science

Coleman State Park, Stewartstown NH:

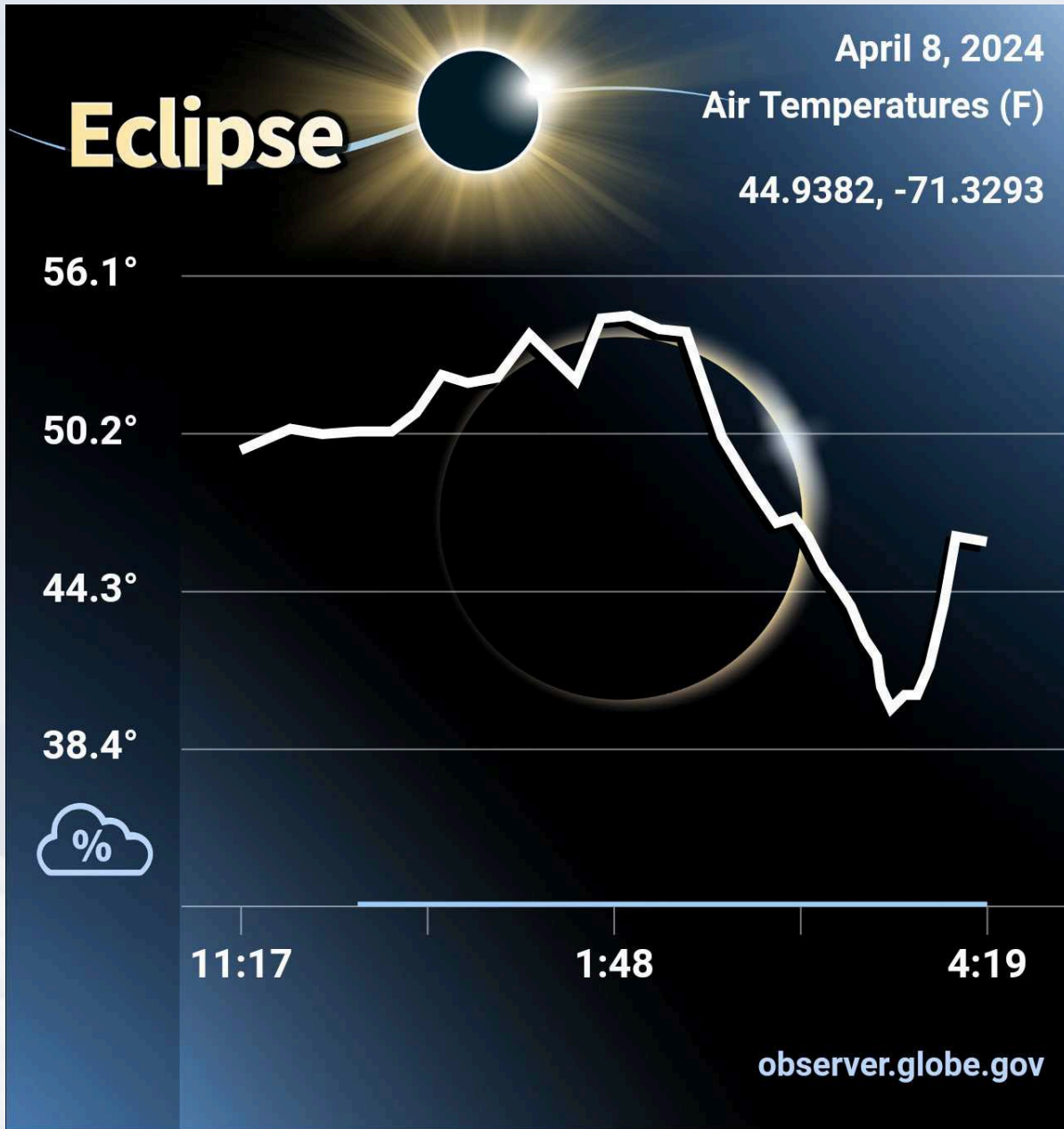
- NASA GLOBE Eclipse Initiative
- Monitoring temperature and cloud coverage
- ICESat-2
- Connected with over 200 people, primarily families
- Media outreach



2024 Total Solar Eclipse: Citizen Science

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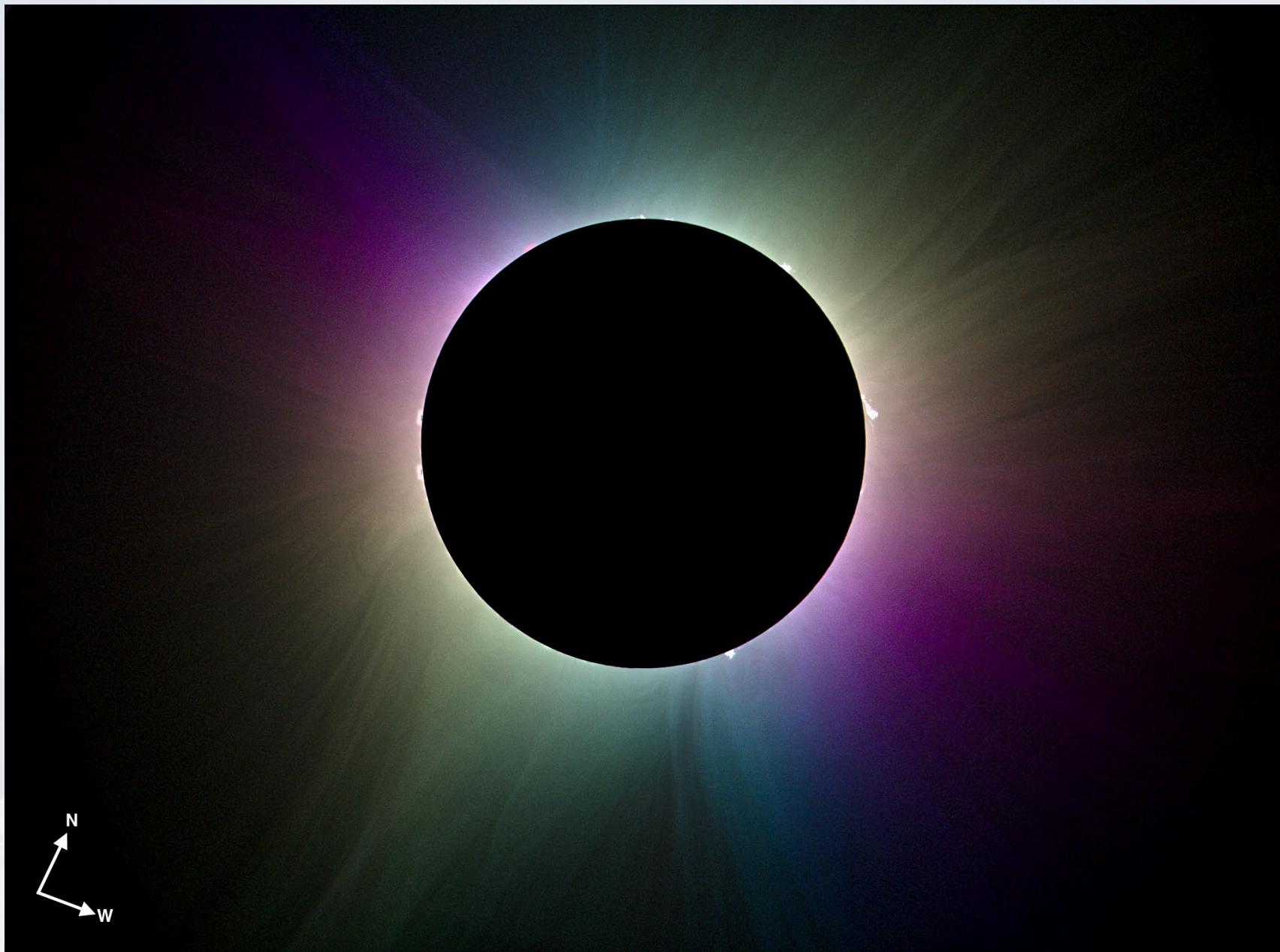
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2024 Total Solar Eclipse: Citizen Science

Pittsburg Library, Pittsburg NH:

- CATE 2024, NH State Level Coordinator
- 35 identical telescopes teamed by groups of citizen scientists
- Collect polarized imagery of corona during totality
- Team placed in Pittsburg, NH



Courtesy of SwRI / Citizen CATE 2024 / Ritesh Patel / Dan Seaton

A photograph of a total solar eclipse over a snowy mountain landscape. The sun is a bright white ring in a dark blue sky. The foreground shows a snowy field with evergreen trees and a small building. The background features a large mountain peak.

2024 Total Solar Eclipse: Outreach Success!



Thank You!

Learn more: www.mountwashington.org

Contact me!: jbellefontaine@mountwashington.org