

Playing in the Shadows

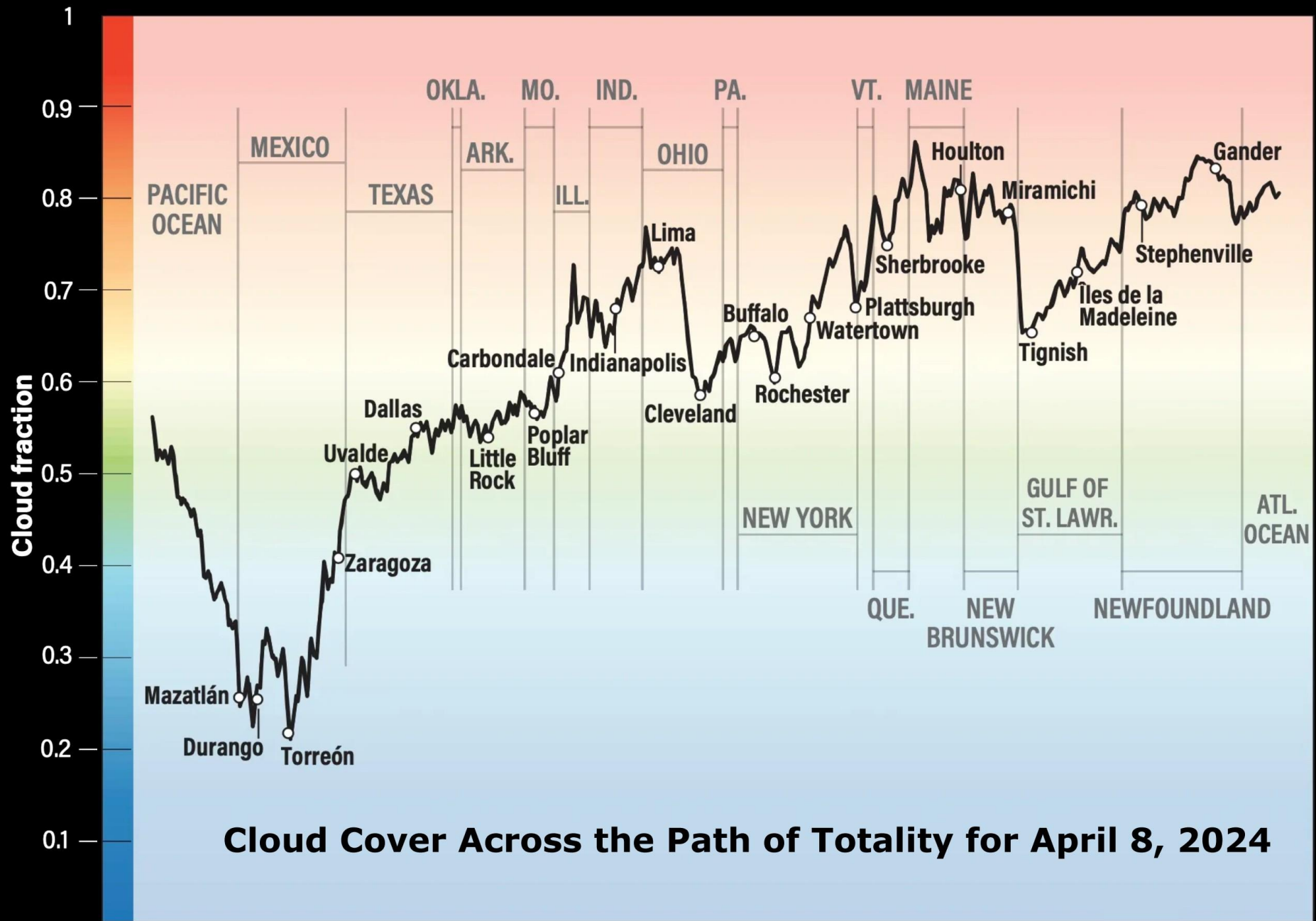


**April 8, 2024
Total Solar Eclipse
Derby, Vermont**



The WEATHER





Cloud Cover Across the Path of Totality for April 8, 2024

A satellite-style map of North America showing the path of a total solar eclipse. The path is a dark, narrow band that starts in the Pacific Ocean, crosses the western US, and ends in the Atlantic Ocean. The path is surrounded by a wider, lighter grey band representing the partial eclipse. The map shows state boundaries and major geographical features like the Great Lakes and the Gulf of Mexico. The text is overlaid on the left side of the map.

April 6, 2023, 1 p.m. EDT

The Worst Possible Scenario
The Entire Path of Totality
Under Clouds

NCAR
RAL

EXCLUSIVE ACCUWEATHER FORECAST

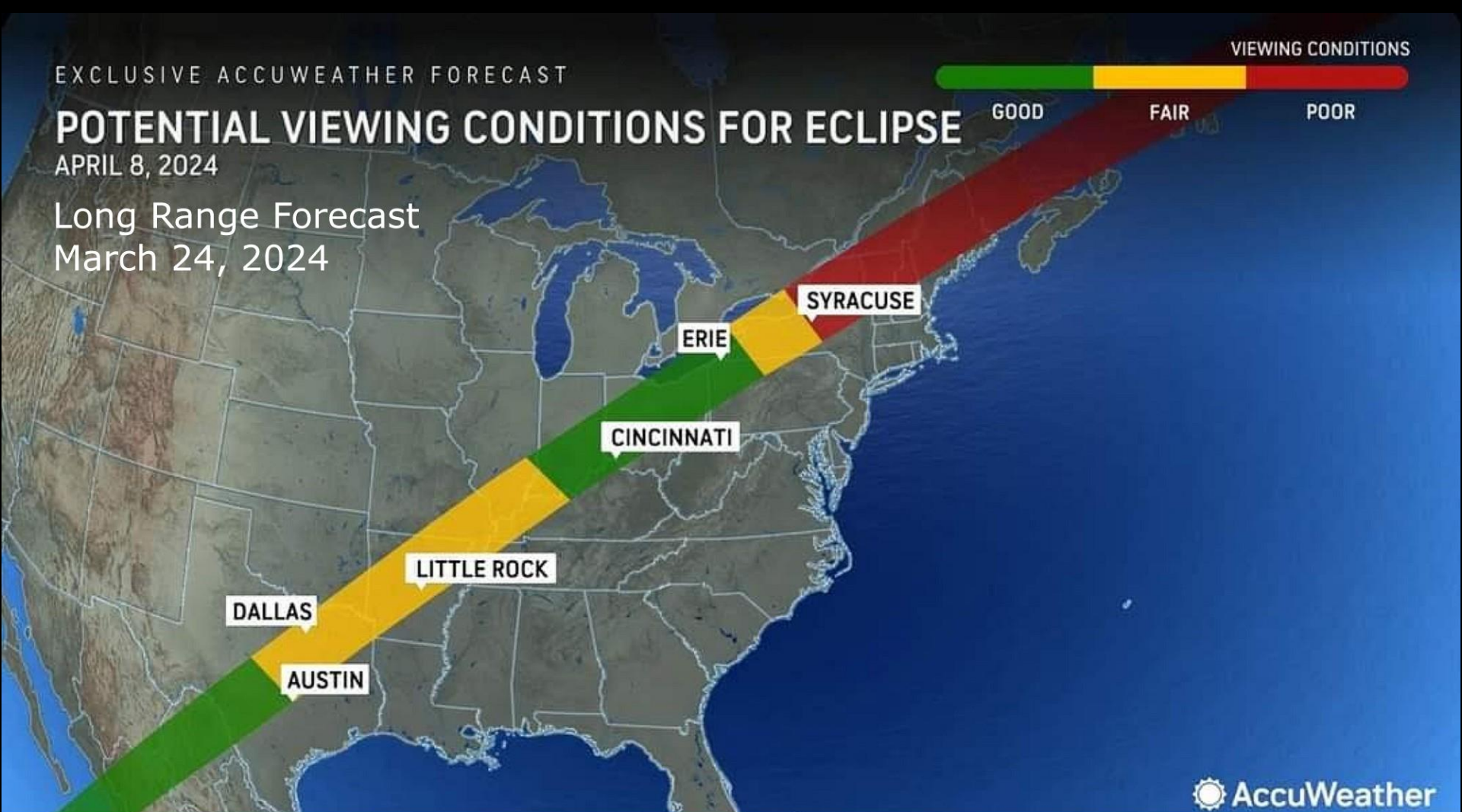
POTENTIAL VIEWING CONDITIONS FOR ECLIPSE

APRIL 8, 2024

Long Range Forecast

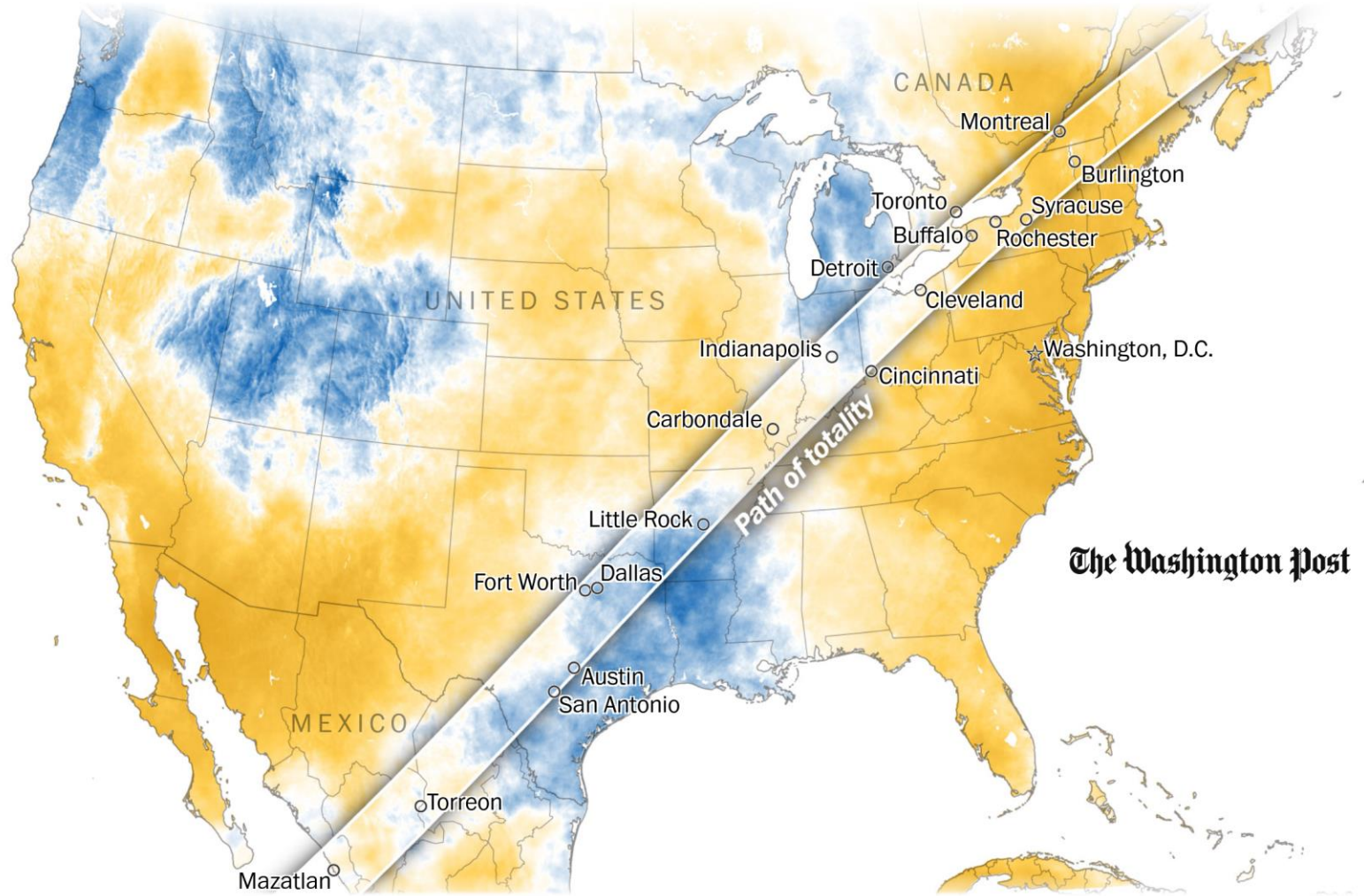
March 24, 2024

VIEWING CONDITIONS




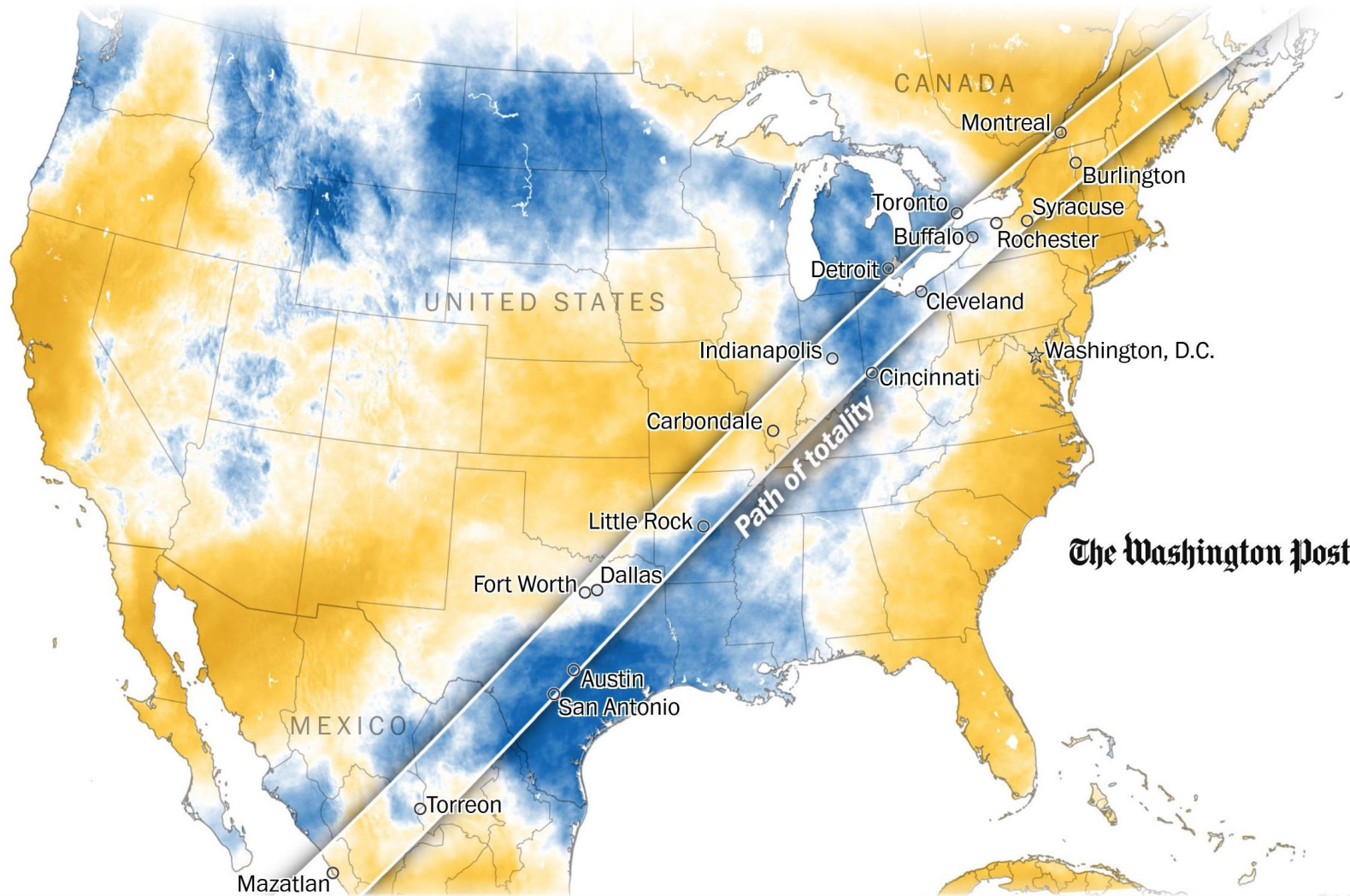
Saturday Afternoon, March 30, 2024

Percentage of sky covered by clouds




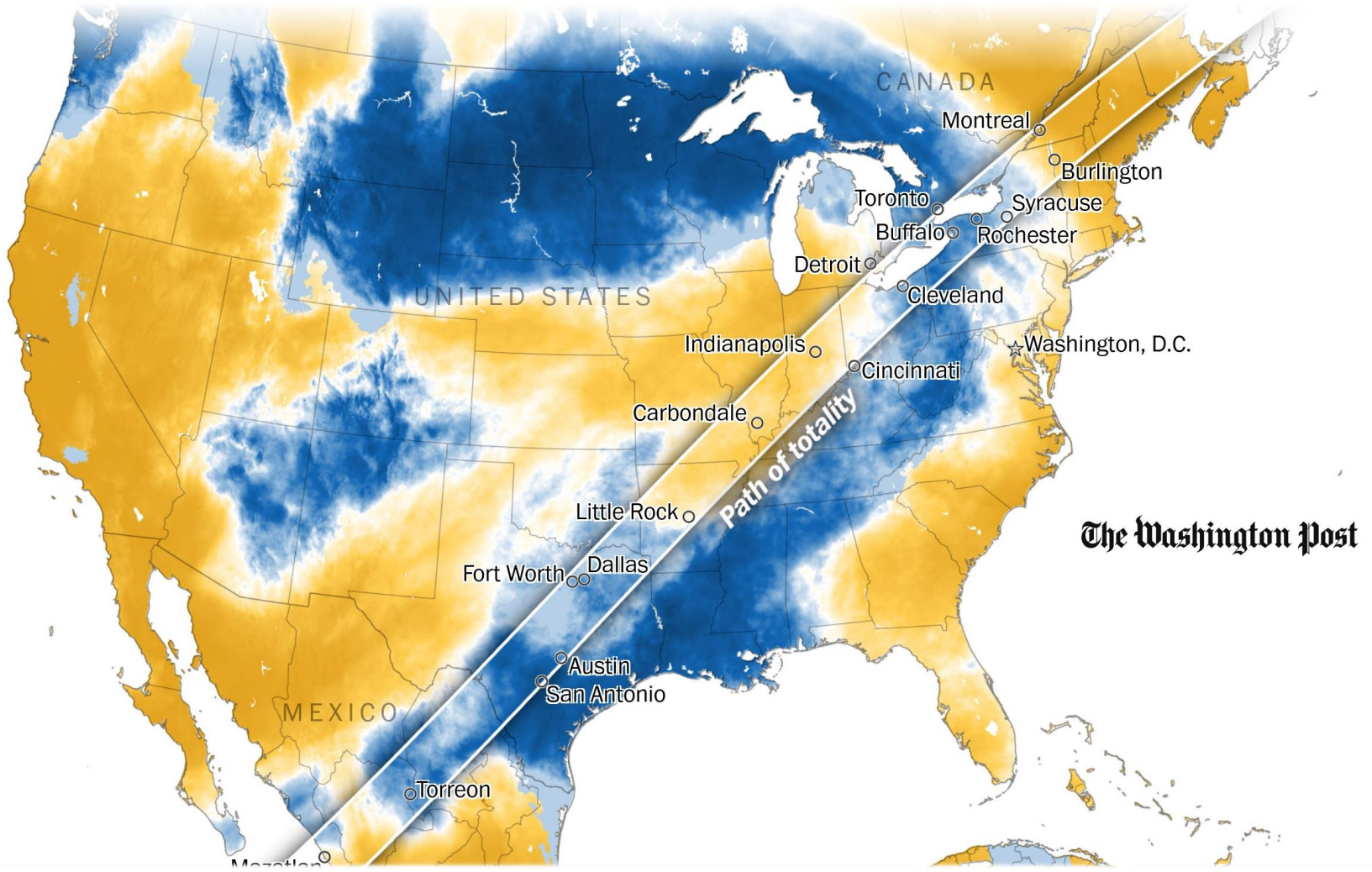
Forecast for April 8, Monday Morning, April 1, 2024

Percentage of sky covered by clouds
0%  100% cloud cover
25% 50% 75%



Forecast for April 8, Saturday Morning, April 6, 2024

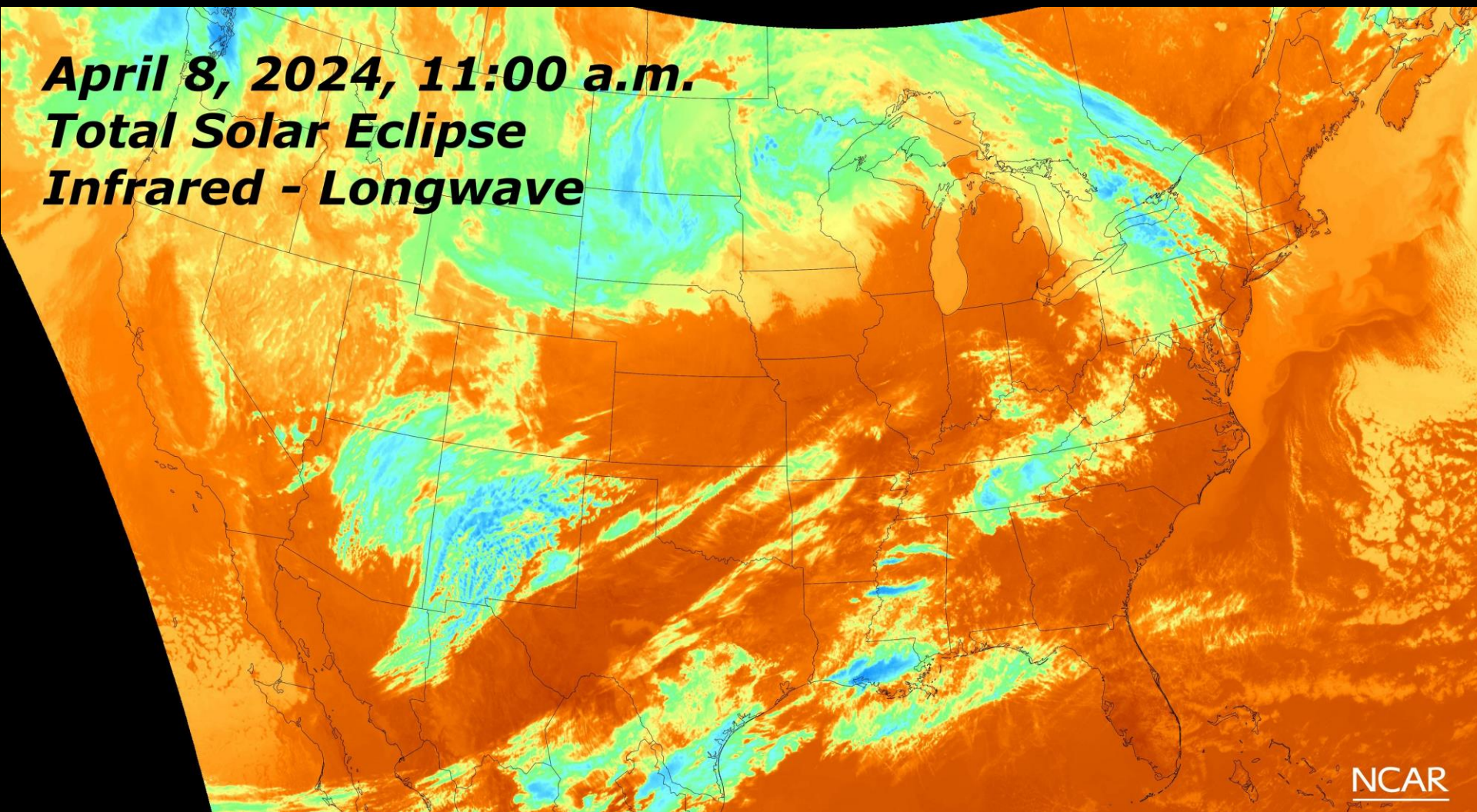
Percentage of sky covered by clouds
0%  100% cloud cover
25% 50% 75%



**April 8, 2024, 11:00 a.m.
Total Solar Eclipse
Visible**

NCAR

**April 8, 2024, 11:00 a.m.
Total Solar Eclipse
Infrared - Longwave**

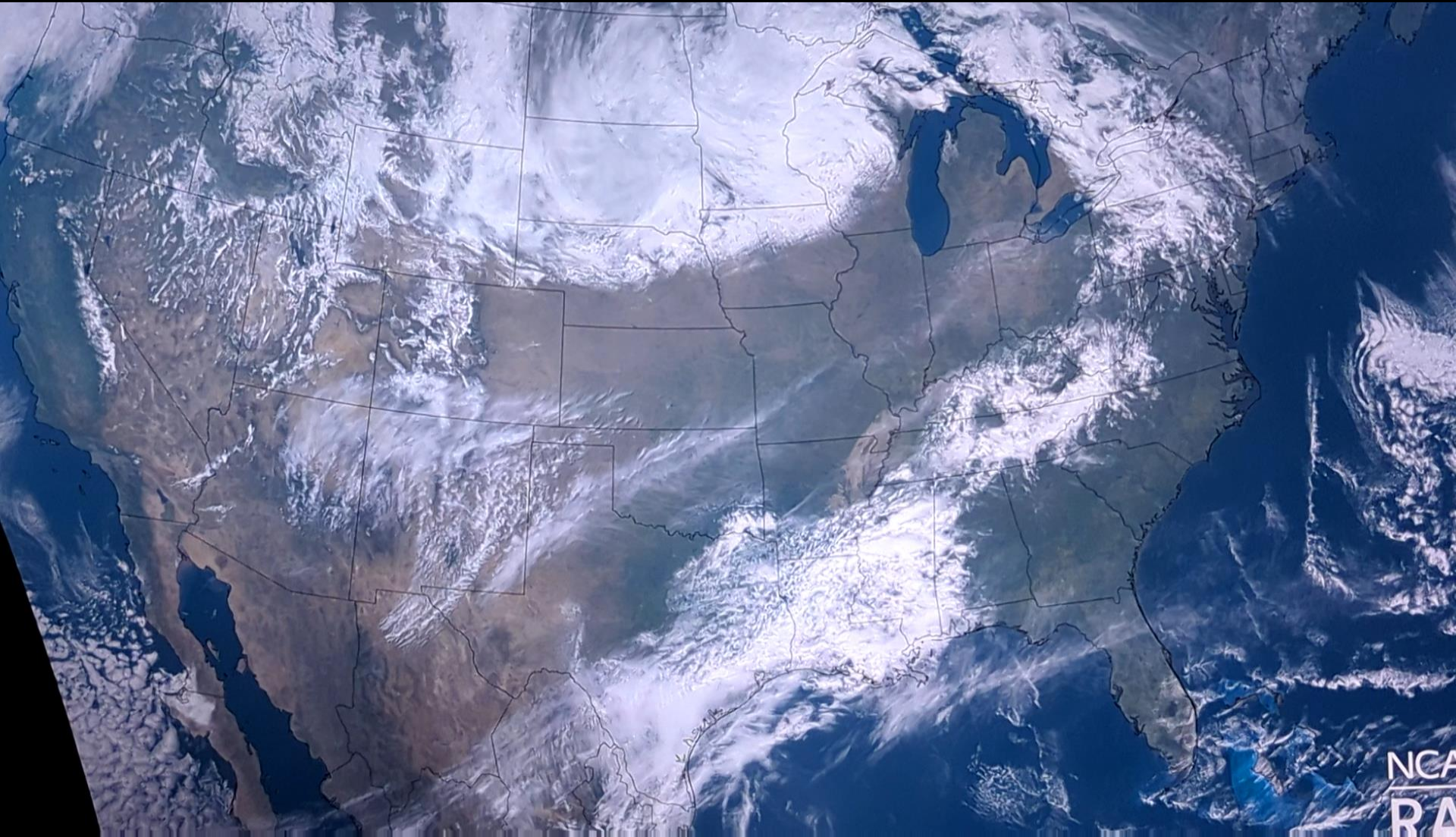


NCAR

A satellite view of North America during a total solar eclipse. The image shows the continent of North America, including the United States, Canada, and Mexico, with state and provincial boundaries visible. The land is in shadow, appearing in shades of gray and brown, while the surrounding oceans are a deep blue. The sky is filled with wispy white clouds. The text "Total Solar Eclipse" and "April 8, 2024, 3:22 p.m. EDT" is overlaid in the top left corner in white. The National Center for Atmospheric Research logo is in the bottom right corner.

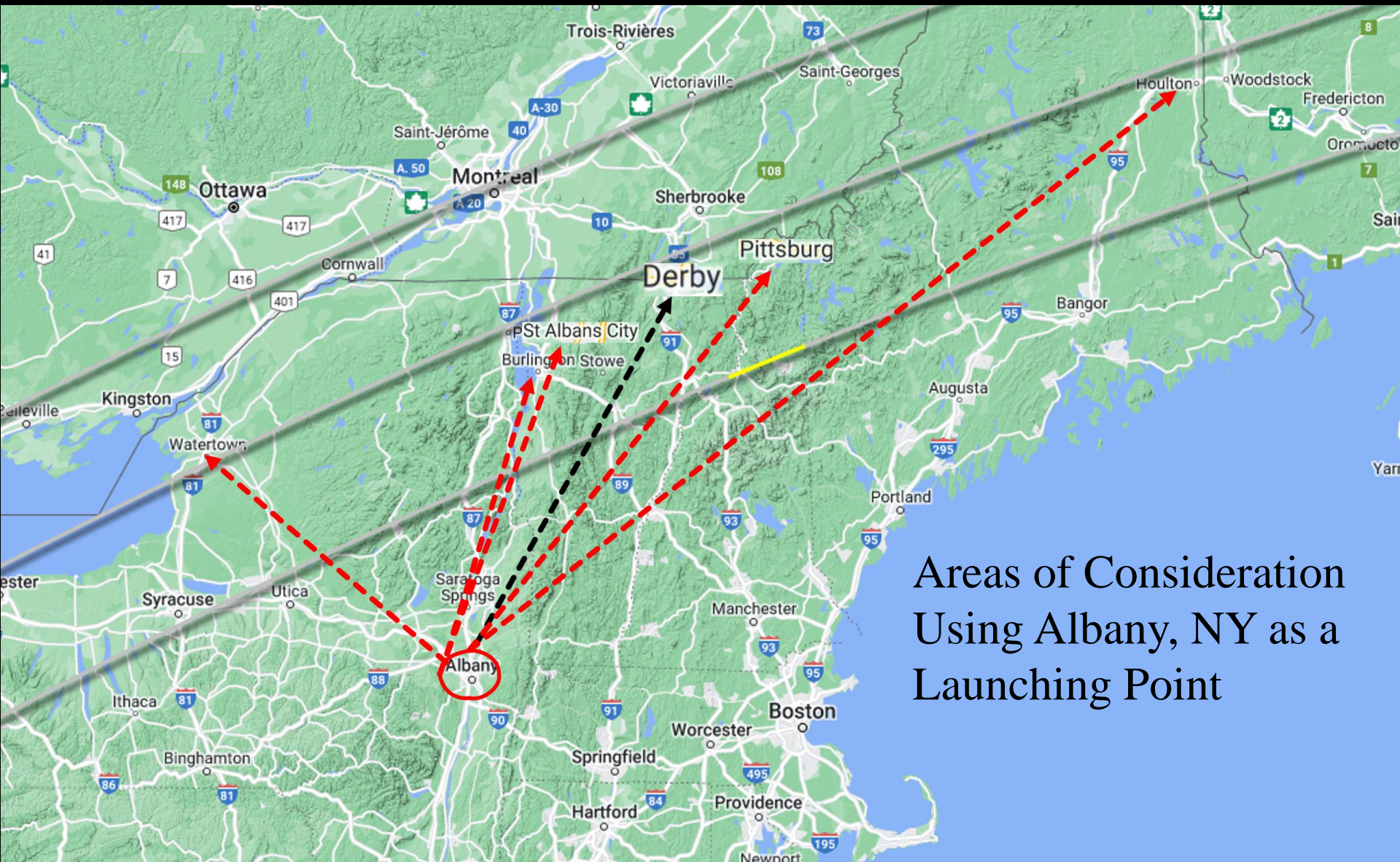
Total Solar Eclipse
April 8, 2024, 3:22 p.m. EDT

Composite of Eclipse Across America



The PLAN





Areas of Consideration
Using Albany, NY as a
Launching Point

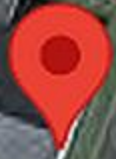
Map adapted by NationalEclipse.com from original at eclipse.gsfc.nasa.gov. Map copyright Google, INEGI. Eclipse predictions courtesy of Fred Espenak, NASA/Goddard Space Flight Center.

re

Crawford

Observing Area

Crawford Farm Rd



Newport Church of God

Newport Church of God



Internet

**Bishop Laurence H. Wall &
Sally Wall, Lead Pastor**

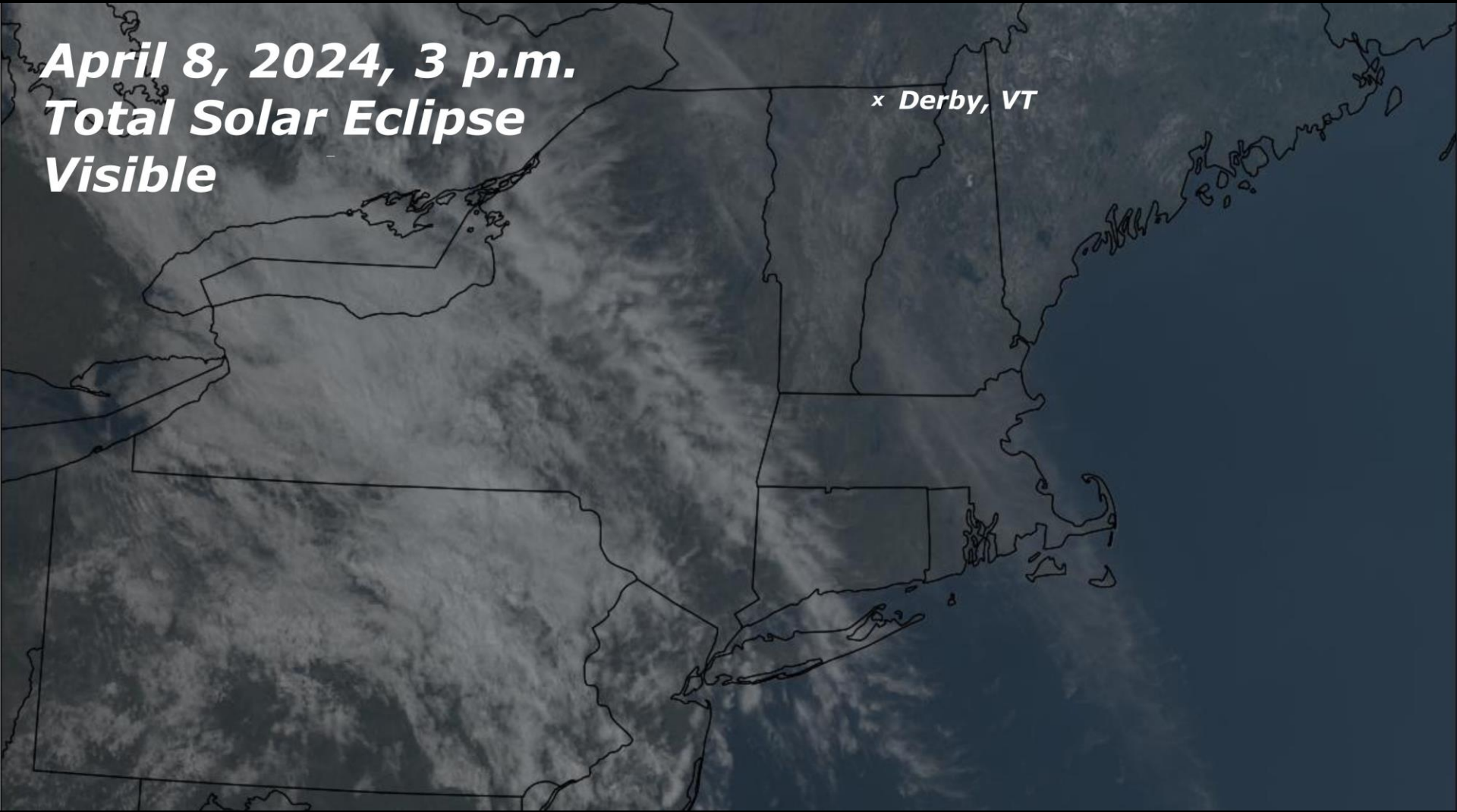


Galaxy S22

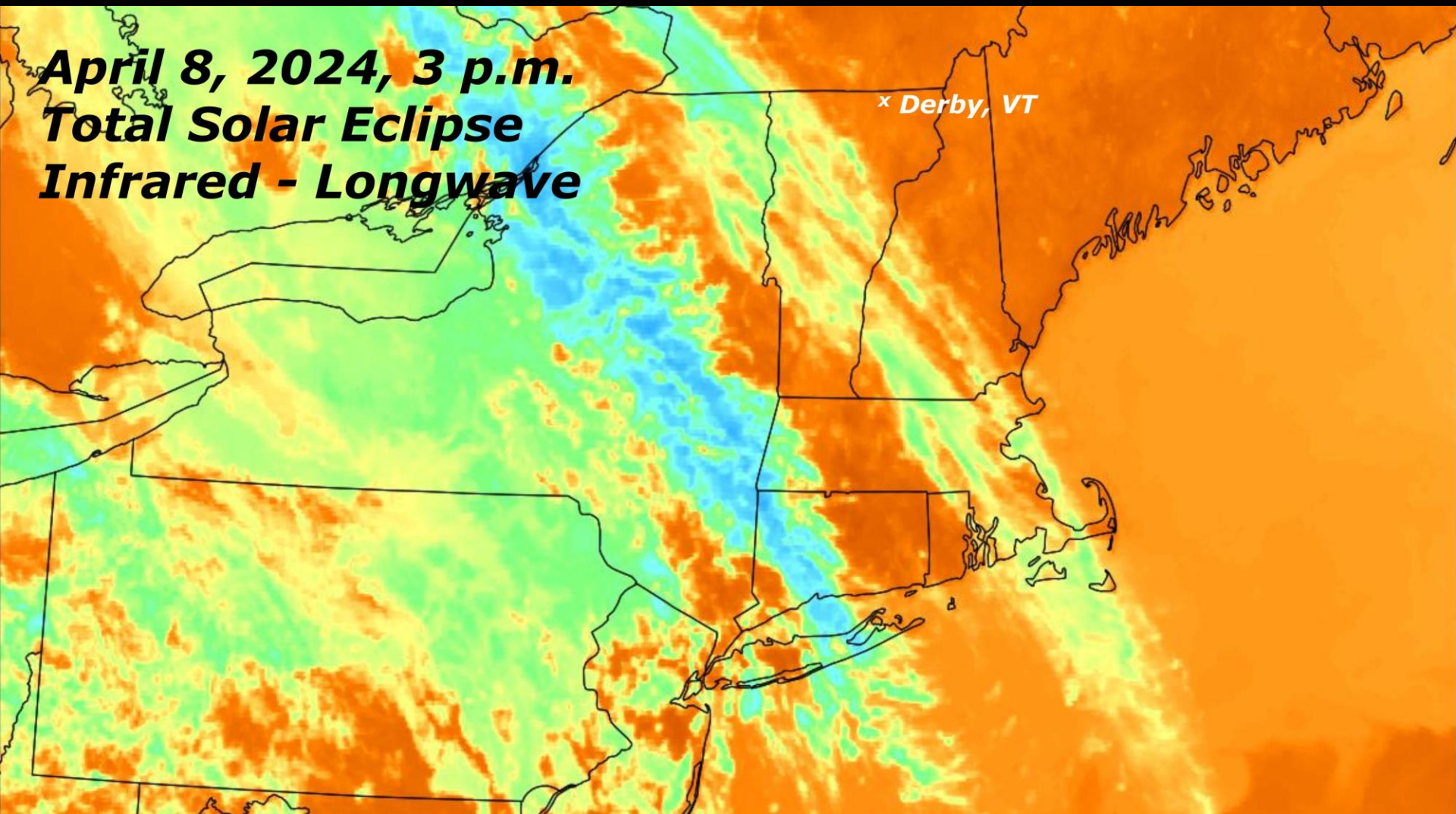
Peter K. Detterline image

**April 8, 2024, 3 p.m.
Total Solar Eclipse
Visible**

x Derby, VT



**April 8, 2024, 3 p.m.
Total Solar Eclipse
Infrared - Longwave**



The PEOPLE



Internet



Why did they put the sandwiches at the seven-foot level?



Zzzzzs at Walmart

Lots to Do Before an Eclipse



The Detterlines

Peter

Jon

Nancy

Galaxy S22

Alan Gilda image



Ryan Hannahoe, Director
Montana Learning Center



TOTALITY
APR. 8, 2024

2024 | Total Solar
eclipse
THROUGH THE EYES OF NASA

Galaxy S22

Nancy Detterline image



Brenda Rath

Dean Bauer

Tobey: The official dog of the 2024 eclipse.

Mark Balanda

Anthony Sparrow



Waiting...





Mark Balanda image



Welder's Filter Goggles/Number 14 Welder's Shades



No. 14 “Gold Coated” Welder’s Shade

Wildman,
Jesse Leayman



Jesse Leayman

A Wildman Video



Baily's Beads

1.43 seconds
between frames



The ECLIPSE



Anthony Lynch

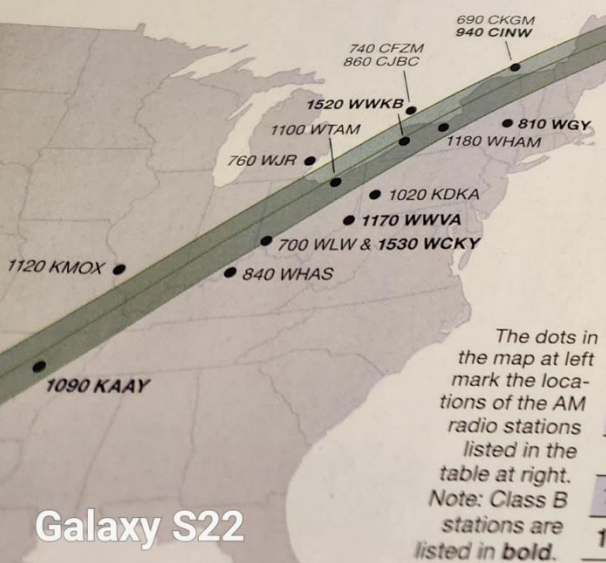


A BOUNCING WAVES Electromagnetic radio waves broadcast by AM stations will be reflected by the ionosphere. The ionosphere is a layer of the atmosphere that reflects radio waves. The waves are reflected along curved arcs when passing through it.

Ironically, the F2 layer is actually better for radio reception at night. The reason for this is that there are more ions during the day. Since the atoms are split into ions by the Sun's ultraviolet (UV) radiation that are constantly recombining into atoms, the number of ions decrease at night because there's no sunlight and increase again every day as the Sun's UV radiation does its daily work.

Utilizing AM Radio for the Eclipse
Medium wave, or AM (amplitude modulation), is the oldest system of commercial broadcast transmission. The pioneer

AM Stations Along the Path of Totality



becomes increasingly important before, during, and after totality. Listeners within a few hundred km of a transmitting station residing in or near the path of totality might hear the signal of a distant station begin to materialize. The broadcast

Frequency (kHz)	Call Sign
690	CKGM
700	WLW
740	CFZM
760	WJR
810	WGY
820	WBAP
840	WHAS
860	CJBC
940	CINW
1020	KDKA
1090	KAAY
1100	WTAM
1120	KMOX
1170	WWVA
1180	WHAM
1200	WOAI
1520	WWKB
1530	WCKY

During total solar eclipses and at night, adjustments in the height of the Ionosphere allow AM radio signals to be received from distant stations. Time constraints did not allow this experiment to be conducted during totality.

Galaxy S22

Gary A. Becker Eclipse Photos

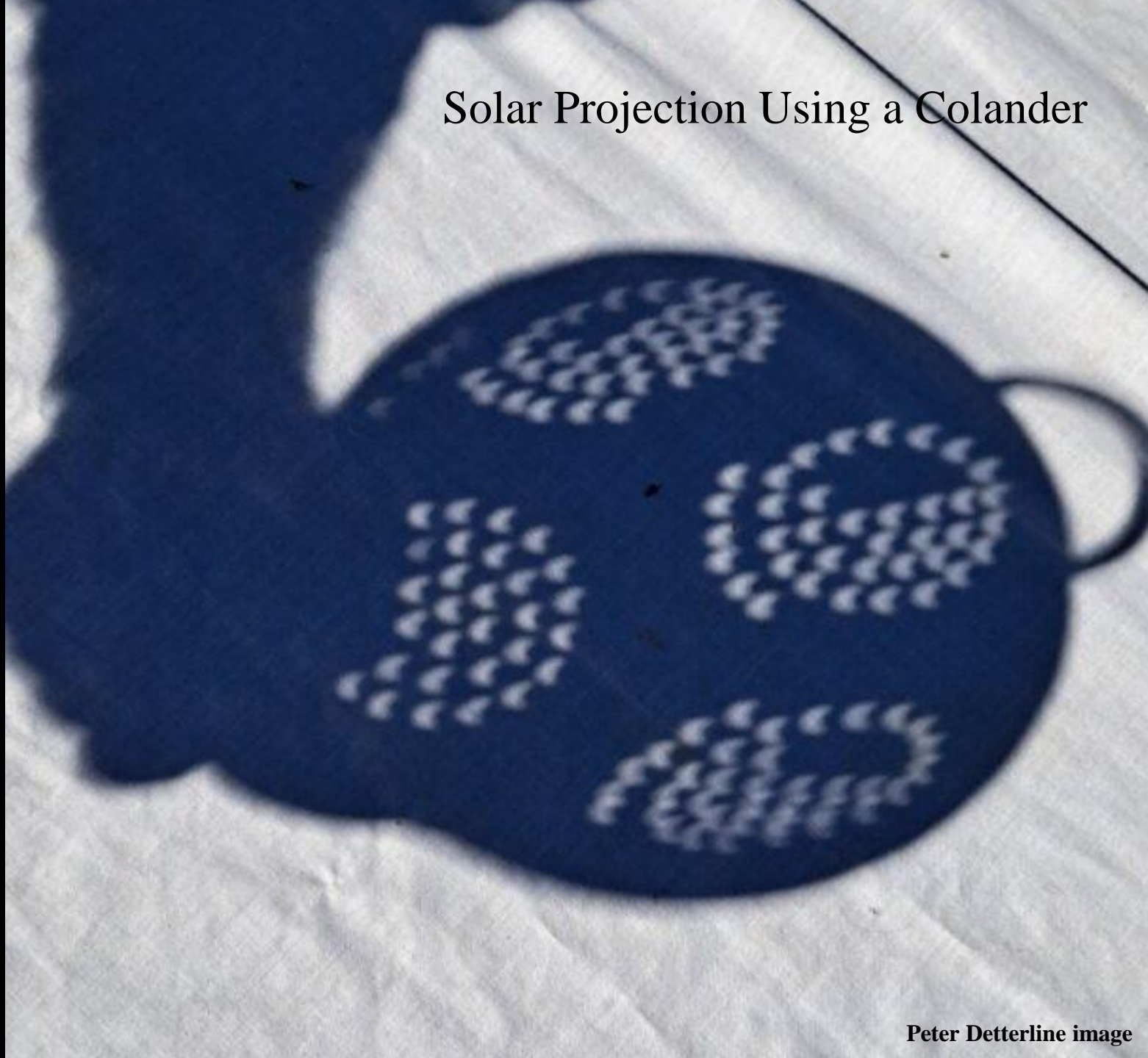








Solar Projection Using a Colander





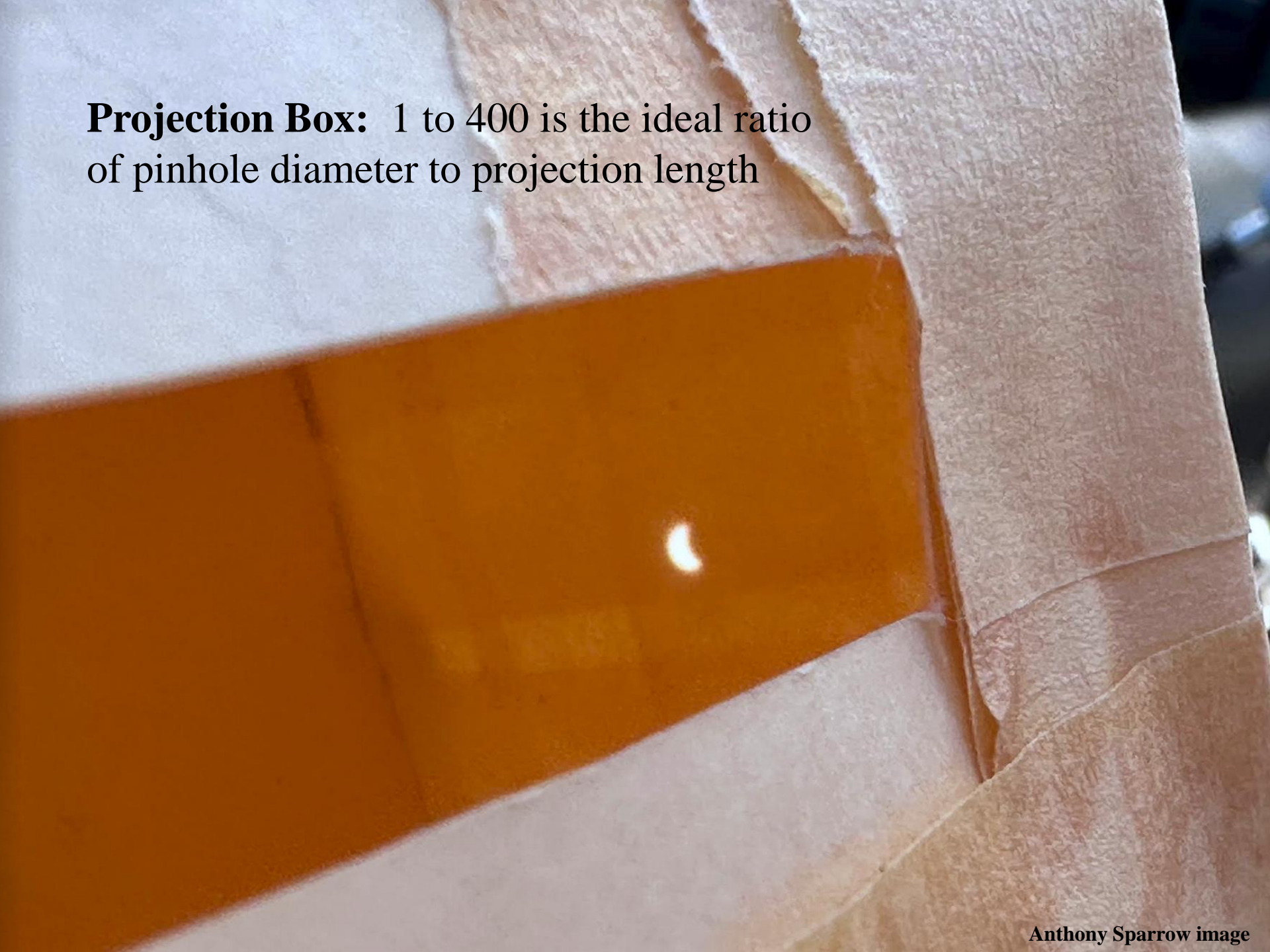
Nancy Detterline image



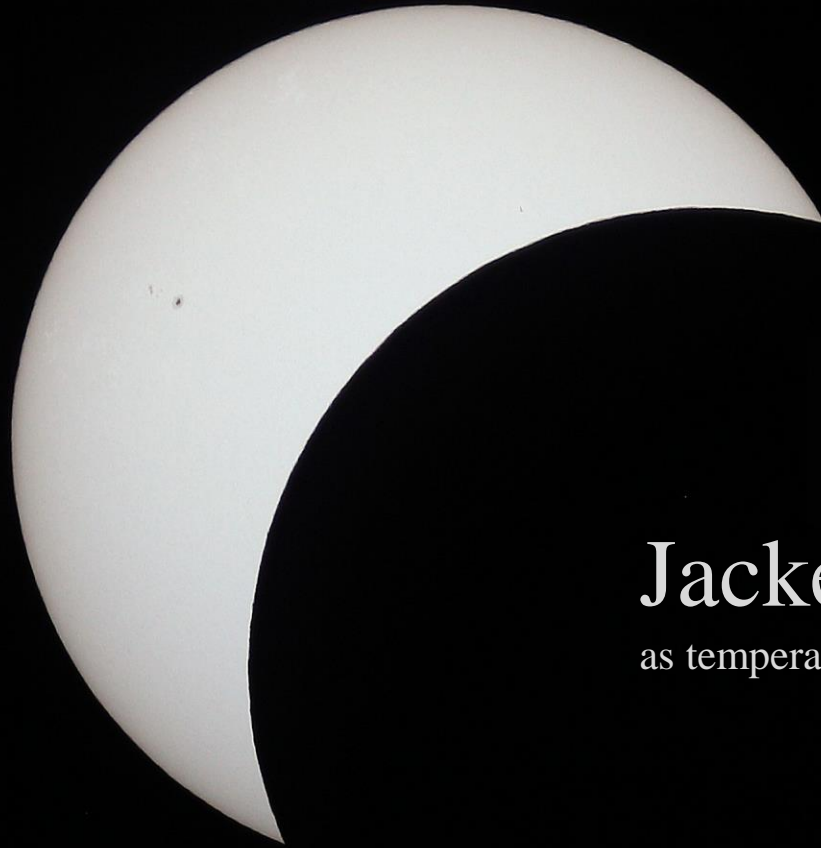
Alan Gilda image

Colander Heads

Projection Box: 1 to 400 is the ideal ratio
of pinhole diameter to projection length







Jacket Time

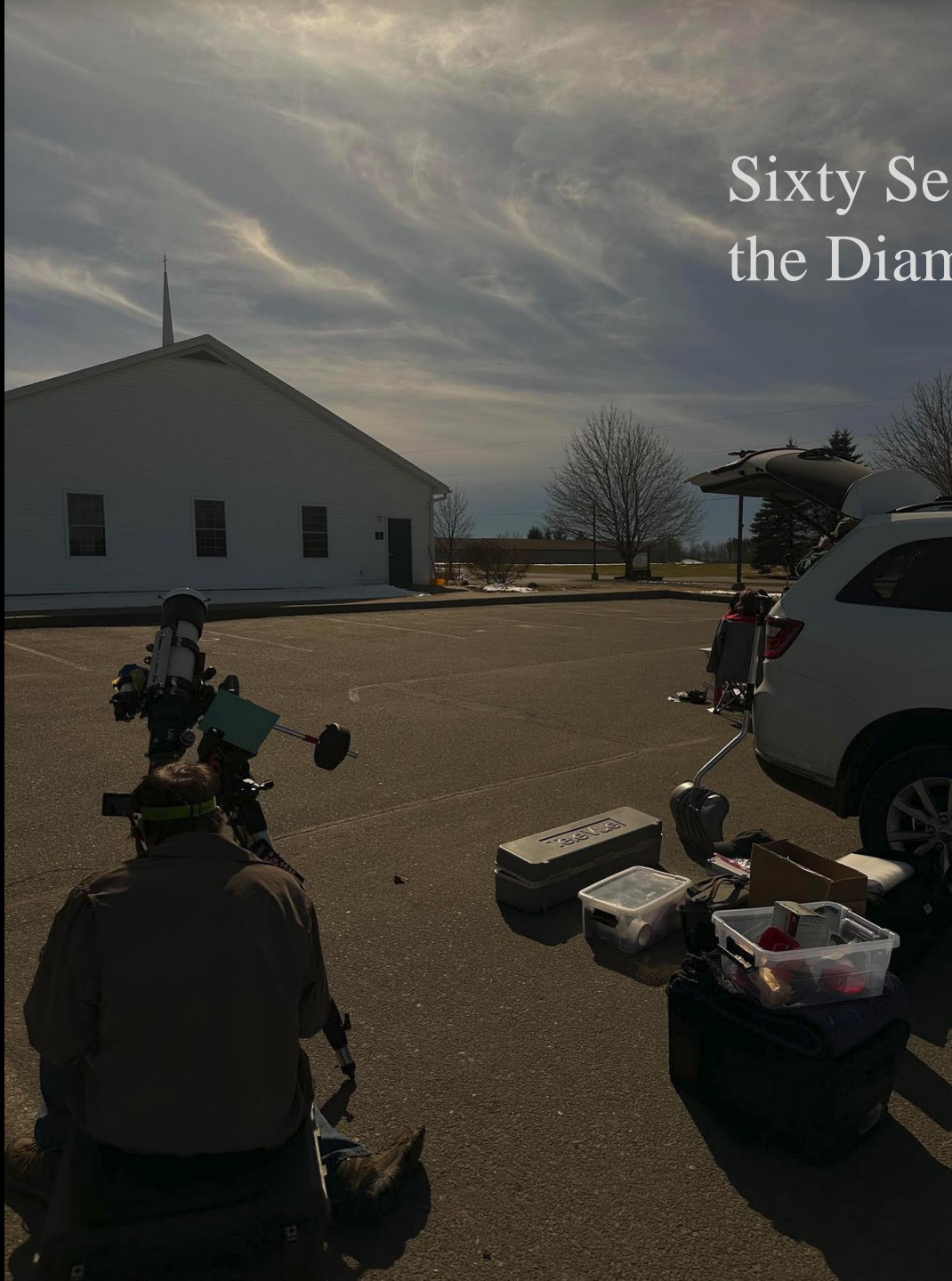
as temperatures dropped noticeably



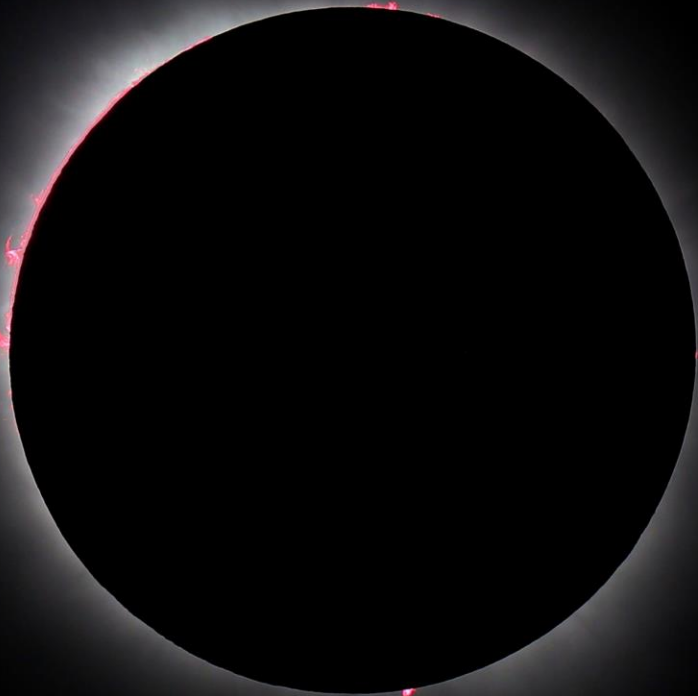




Sixty Seconds Before the Diamond Ring





















Gary A. Becker image

Peter K. Detterline Eclipse Photos



Galaxy S22



Galaxy S22

Peter Detterline image

Peter Detterline image









Peter K. Detterline composite





Near Mid-Totality



Mid-Totality



Near Third Contact





Pymatuning State Park,
Andover, Ohio





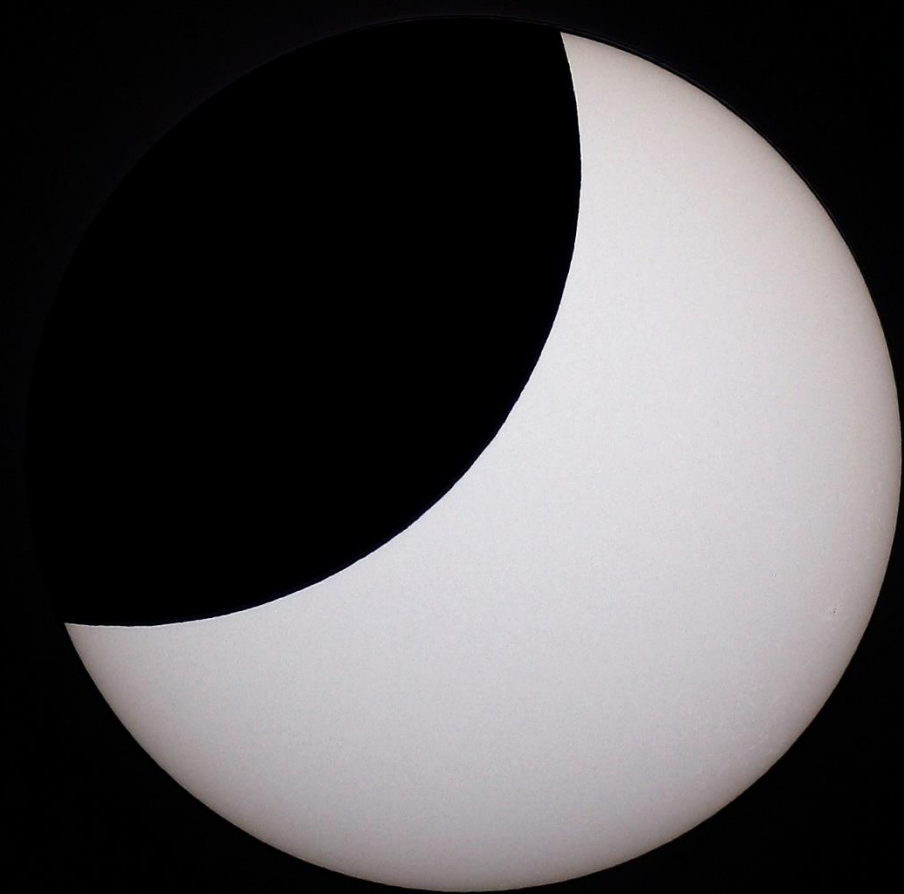
Baily's Beads

Mountains projecting from the sun's limb, obscures sunlight while light still shines from the valleys between those mountains.















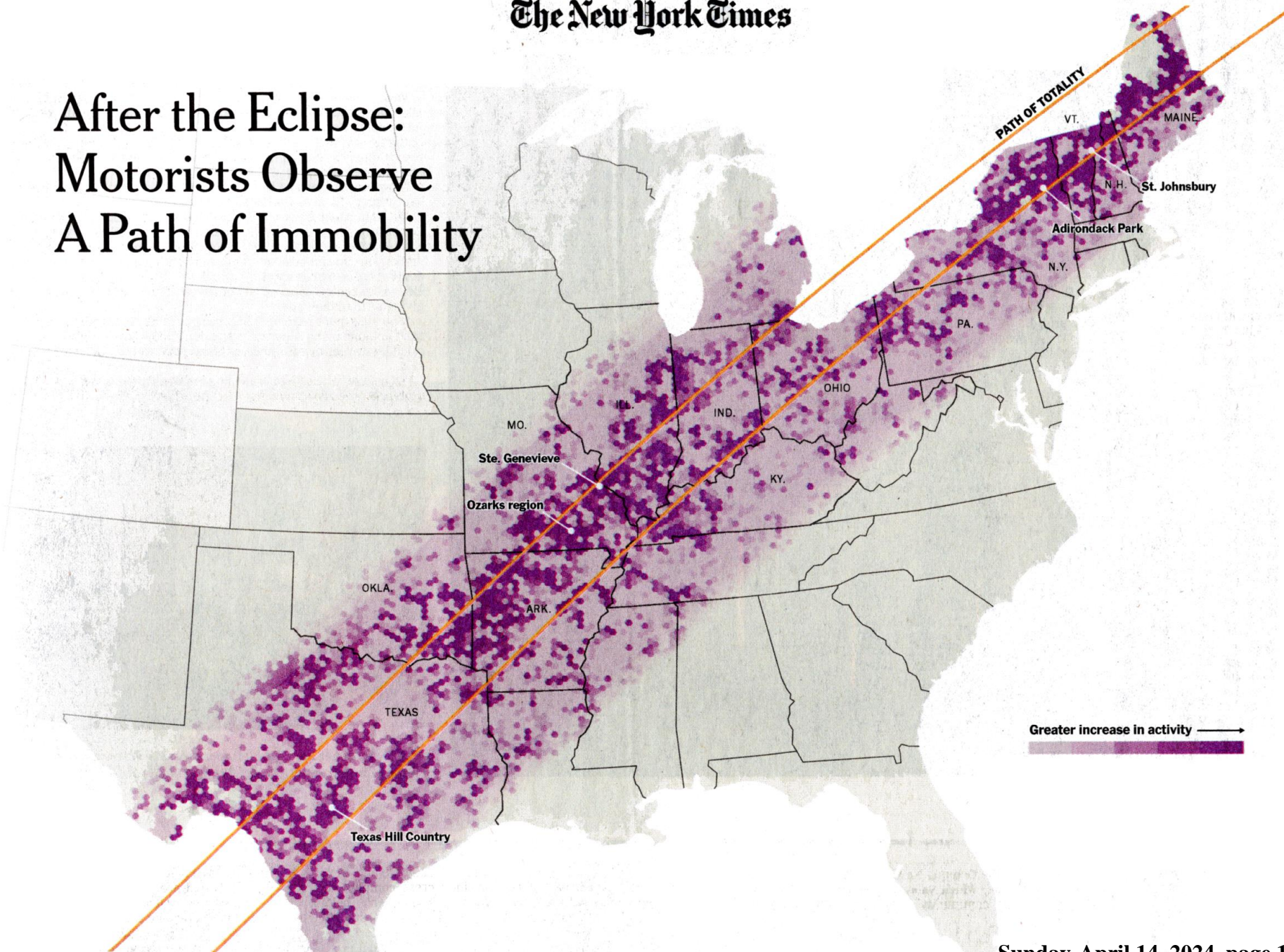
Sundog Departure

Sundogs are commonly caused by the refraction and scattering of light from horizontally oriented, plate-shaped hexagonal ice crystals either suspended in high and cold cirrus or cirrostratus clouds, or drifting in freezing moist air at low levels as diamond dust (Wikipedia).

The TRAFFIC



After the Eclipse: Motorists Observe A Path of Immobility

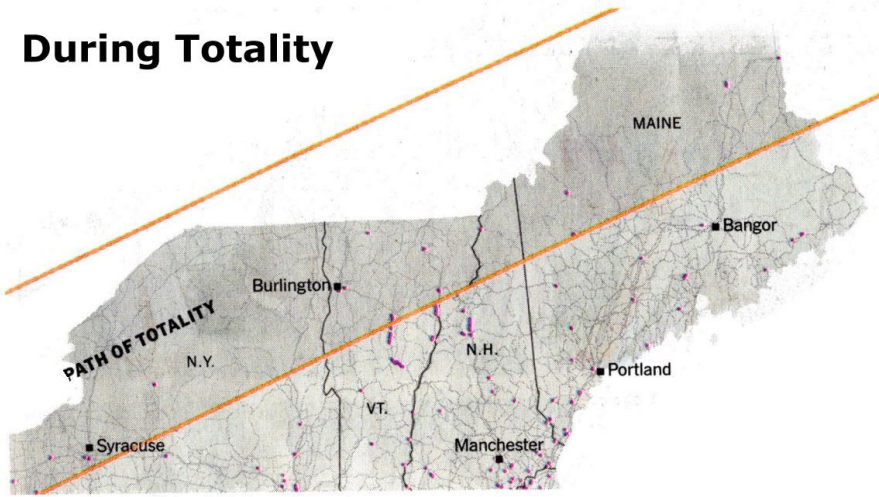


Fifty Miles North of Albany, 11:45 p.m.

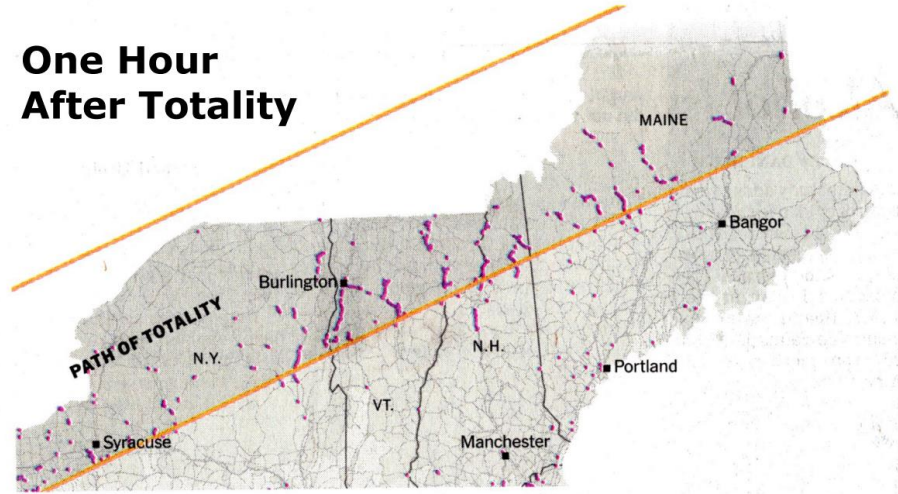


Traffic Delays in the Northeast

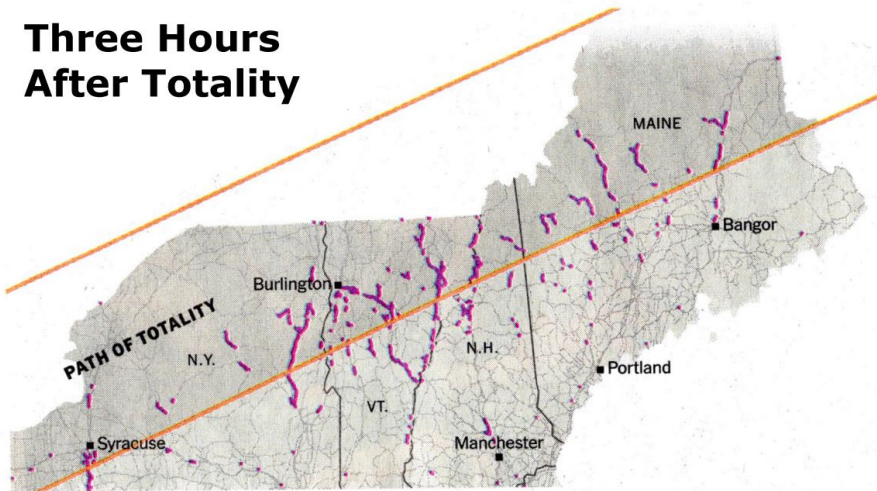
During Totality



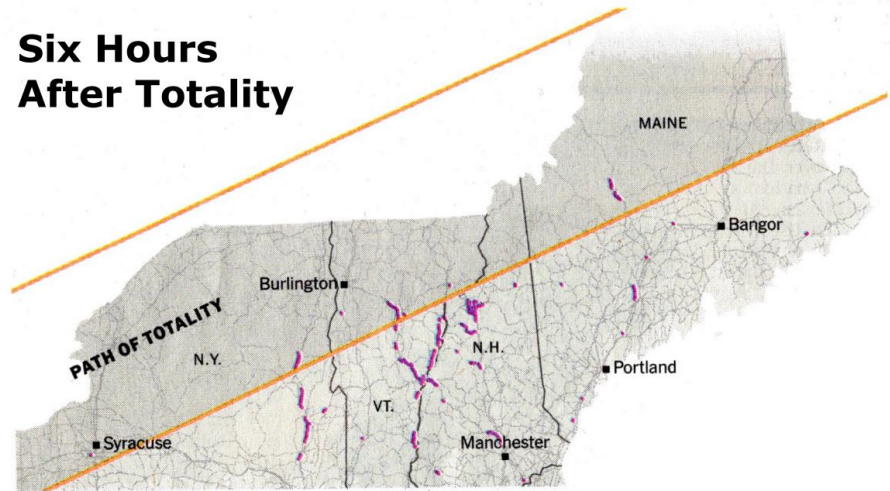
One Hour After Totality



Three Hours After Totality



Six Hours After Totality



Source: TomTom

Miles of Taillights on Interstates Last Hours Longer Than the Celestial Phenomenon in the Sky

Say Goodbye to the Sun



The Eclipse is at Hand!

Prepare Yourself

April 8, 2-4:30 p.m.

PPHAC Commons/HILL Lawn

(Weather Permitting)



Music: BerlinAires, New Worlds, Album, Supernova, YouTube.com

https://youtu.be/LaAKRwRSQ_8?si=GTHrgQSV2er_vy8E

Setuniman, Epic Intro OU_32m, Cinematic Intros Pack, freesound.org

<https://freesound.org/people/Setuniman/sounds/165765/>

Chris Thorn videographer

Moravian University

South Campus Station, HILL Green

Regan Storm and Abigail Rochlin



Regan Storm, main
image and inset below

Emily Nyte image



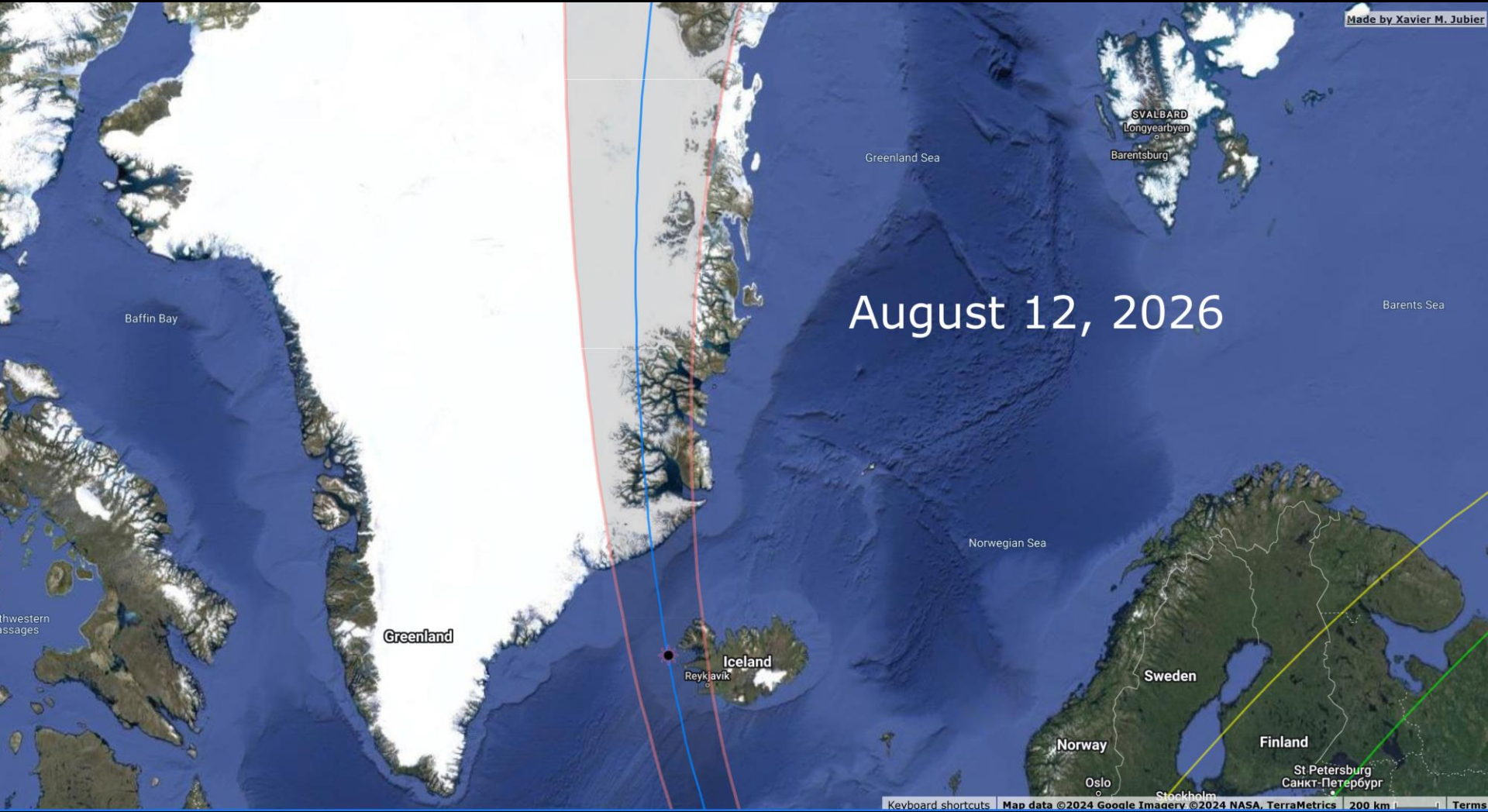


PPHAC Commons Station

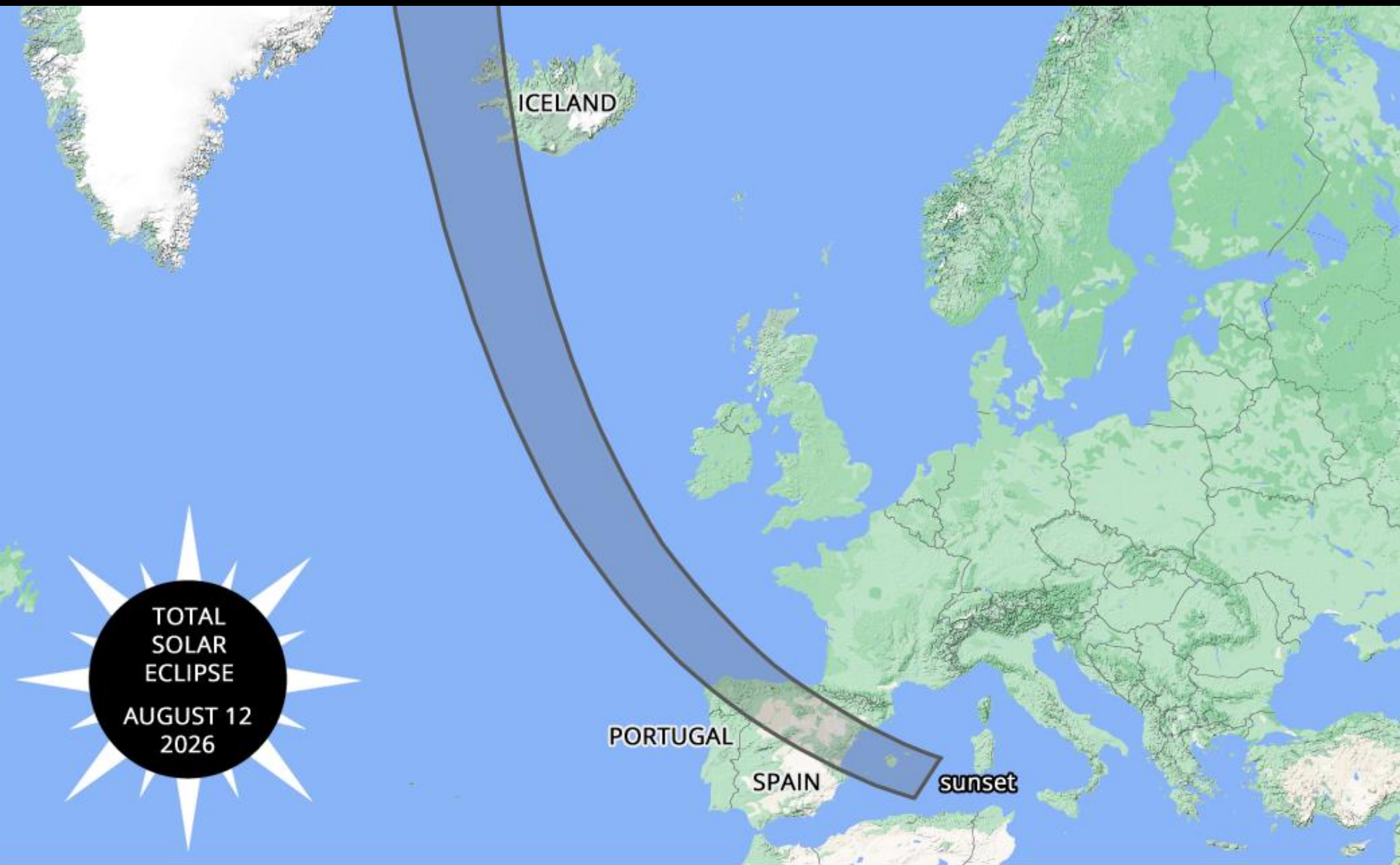




Next Eclipse



August 12, 2026

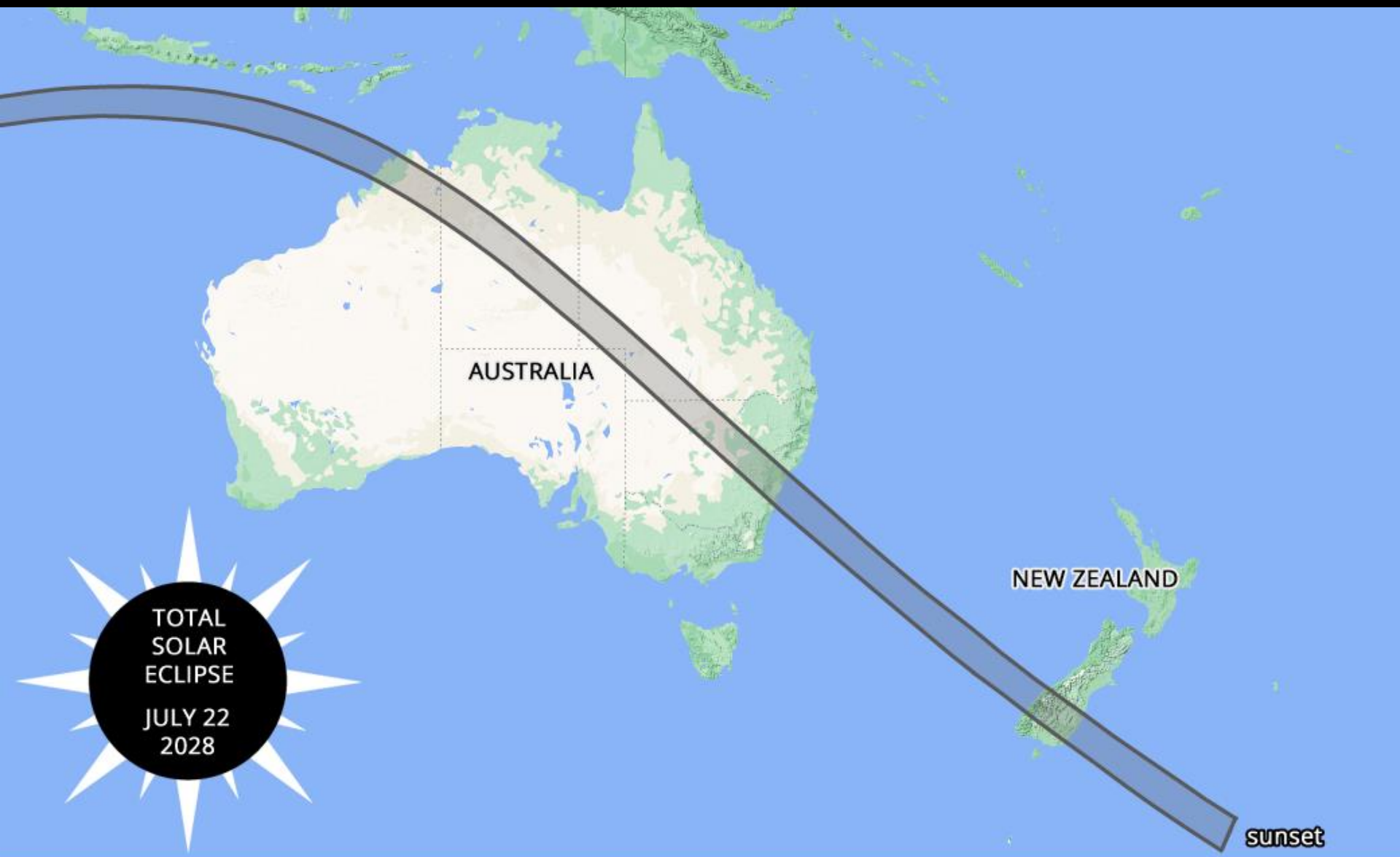


Map adapted by NationalEclipse.com from original at eclipse.gsfc.nasa.gov. Map copyright Google, INEGI, ORION-ME. Eclipse predictions courtesy of Fred Espenak, NASA/Goddard Space Flight Center.

Fred Espenak, NASA Goddard Space Flight Center



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Map adapted by NationalEclipse.com from original at eclipse.gsfc.nasa.gov. Map copyright Google, INEGI, ORION-ME. Eclipse predictions courtesy of Fred Espenak, NASA/Goddard Space Flight Center.

Finish