

# 2024 Total Solar Eclipse Planning



Rochester Eclipse Task Force 2024  
Transportation/Government Sector

Health Emergency Preparedness Coalition  
June 15, 2023

Jim Stack & Lori Maher  
Genesee Transportation Council, Rochester, NY

**Single-biggest mass travel event in the USA!**

# An Experience People Will Travel to Witness

---

- 360-degree sunset
- Temperature drops ~ 10 degrees
- Animal and plant behavior changes
- Sharpening of shadows
- Planets and stars visible
- Diamond Ring Effect
- Sense of Wonder and Awe

○ ○ ○  
**130**  
DAYS TO THE  
ANNULAR SOLAR ECLIPSE  
OF OCTOBER 14, 2023

*The Eclipse Daily*  
*June 6, 2023*

☾ ☀ ☽  
**307**  
DAYS TO THE  
TOTAL SOLAR ECLIPSE  
OF APRIL 8, 2024

**How do you describe the experience of totality?**  
Seasoned eclipse chasers enjoy hearing the reactions of eclipse virgins who have just seen their first view of the exquisite corona of the Sun. This cartoon by Bill Kramer summarizes some common reactions. What were your reactions if you saw the 2017 total solar eclipse?

Great American Eclipse  
Great American Eclipse.com



**TOTAL SOLAR ECLIPSE**  
**APRIL 8**  
**2024**



NORDGREN

**ROCHESTER**  
**NEW YORK**

Copyright 2022 SpaceArtTravelBureau.com

# GTC's Role

We don't own, operate or maintain transportation systems, but our member agencies do. As a planning agency, we hope to inform, convene, connect, share resources, and assist our member agencies and stakeholders. We want to be part of the success stories, not traffic-related horror stories.



**Jim Stack**  
**Executive Director**



**Lori Maher**  
**Program Manager**

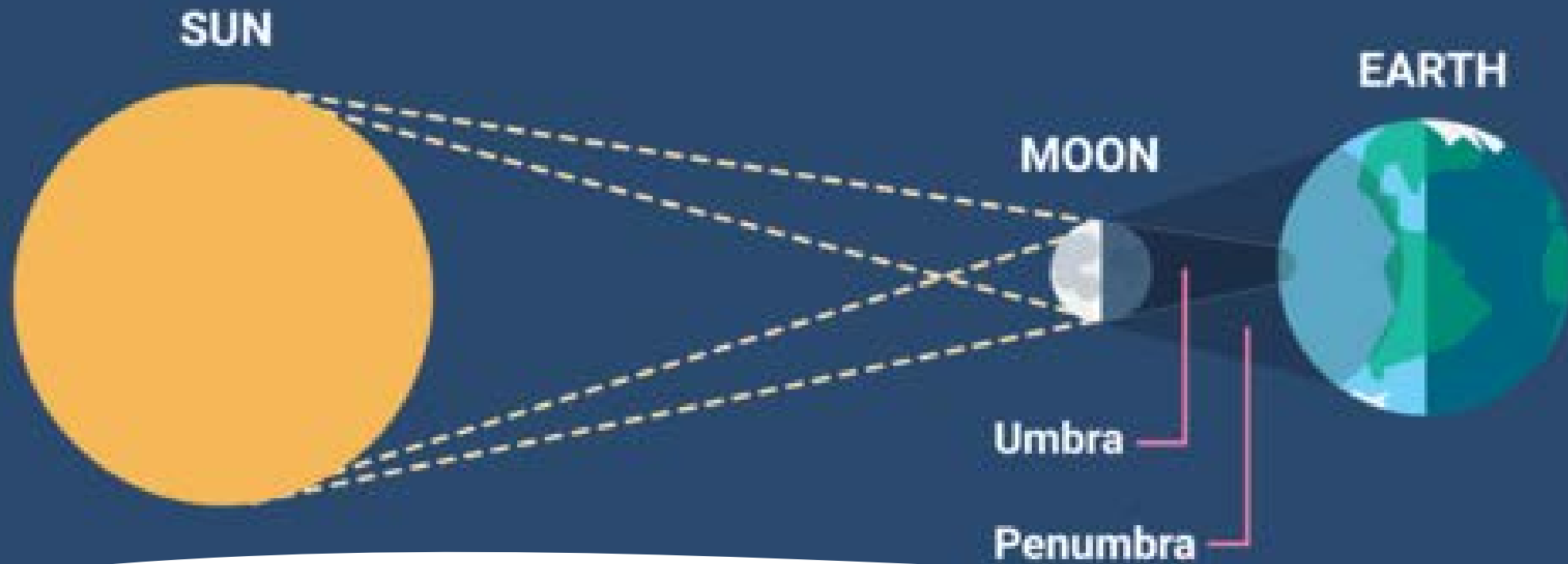
# Rochester Eclipse Task Force 2024



- Tourism:
- Arts & Culture
- Food & Beverage
- Lodging
- Marketing/Promotions
- Local and National Media
- Merchandise
- Etc.

- Public Outreach
- Science
- Education
- Pre-K - 12
- Higher Education
- Eye Viewing Safety
- Science Events

- Traffic Management
- Emergency Preparedness
- Transit
- Public Safety
- Travel (rail, air, auto, boat)
- Highway Safety/ Education



## Total Solar Eclipse Basics

Total Solar Eclipse to be visible from US on Monday, April 8, 2024.

Moon appears the same size and will be positioned directly in line with the sun, casting a shadow on Earth, creating darkness in the middle of the day.

# Monday afternoon April 8, 2024

---

Note: In Rochester, NY

- Total solar eclipse begins at 2:07 p.m.
- Totality from 3:20 – 3:23 p.m.  
(3 minutes 38 seconds)
- Total solar eclipse ends at 4:33 p.m.

Less than 300 days to go!!!

○○○ *The Eclipse Daily*   
129 *June 7, 2023* 306  
DAYS TO THE ANNULAR SOLAR ECLIPSE OF OCTOBER 14, 2023 DAYS TO THE TOTAL SOLAR ECLIPSE OF APRIL 8, 2024

**The Total Solar Eclipse of April 20, 2023**

This is our composite photograph of the recent total solar eclipse from Australia. From begin to end, the eclipse lasts about 3 hours. We were rewarded with a fantastic view of an active corona near the maximum of the Sun's 11-year sunspot cycle.

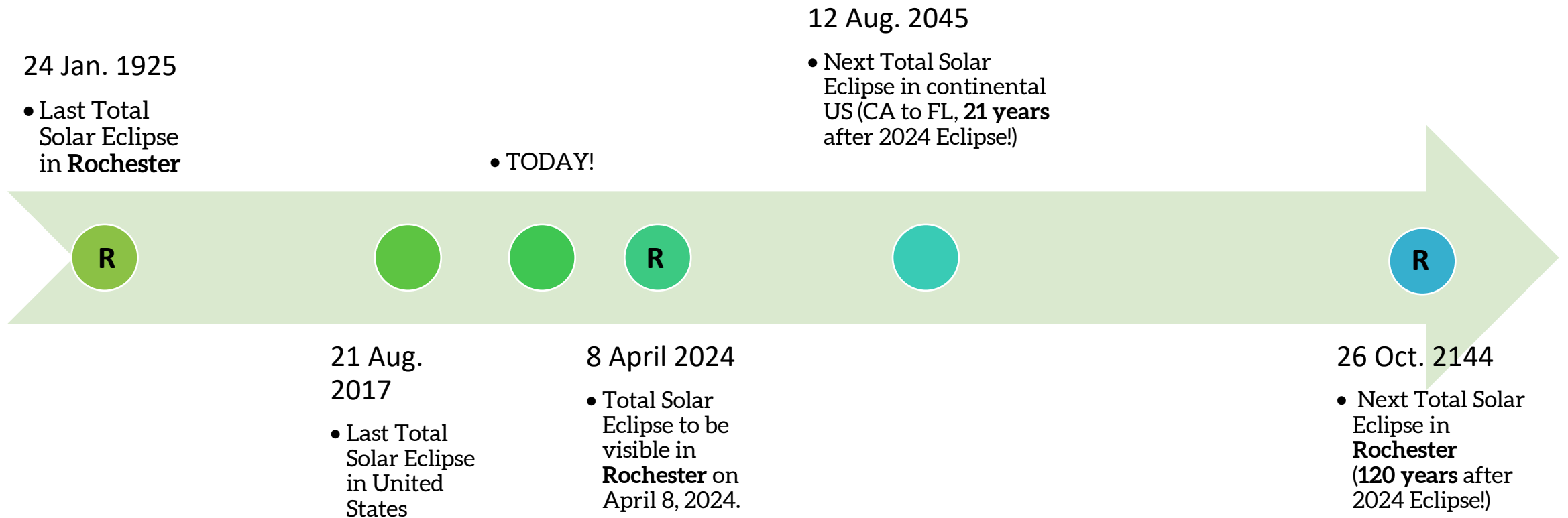


April 20 2023 *Michael Usher*

 *Great American Eclipse.com*

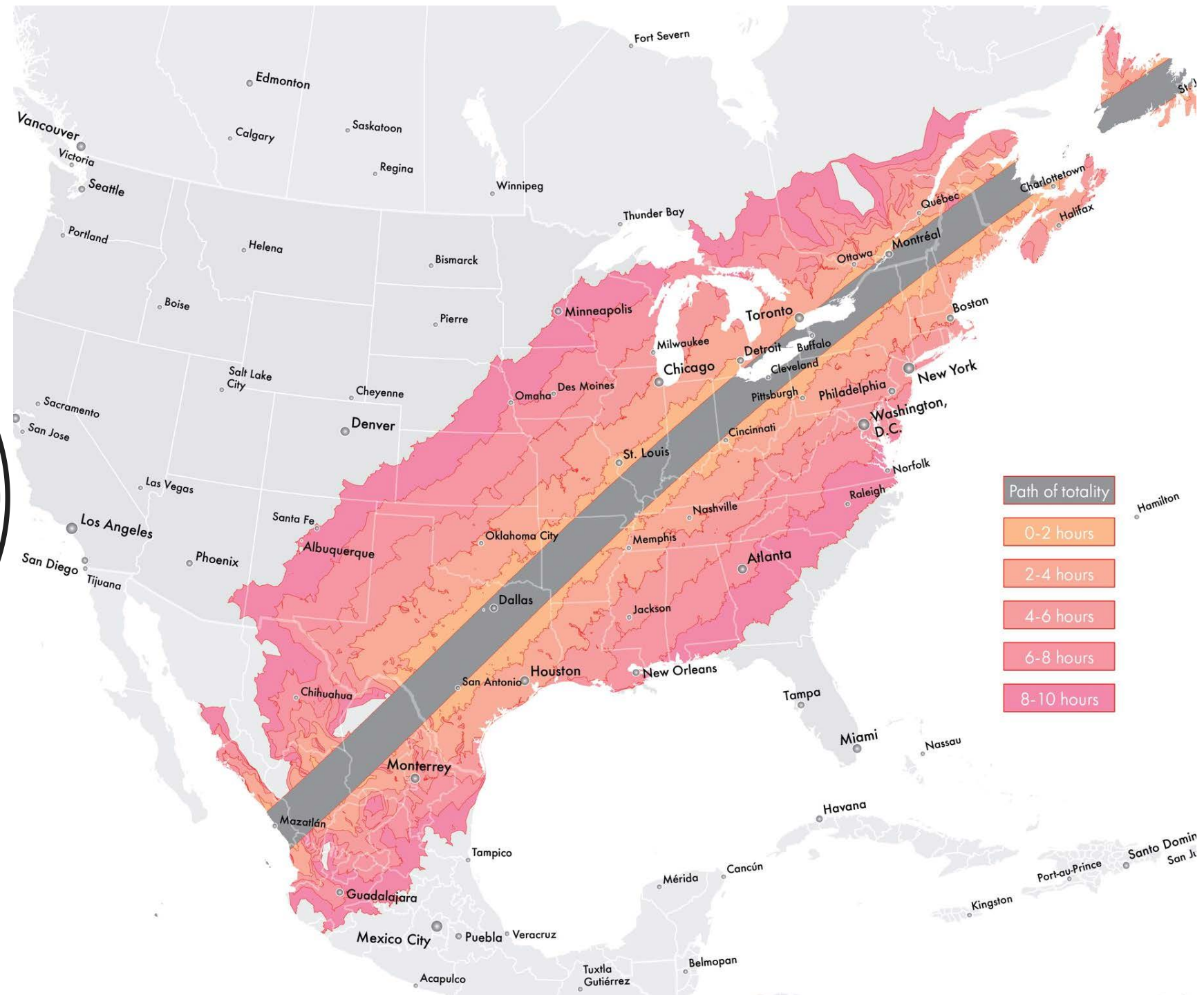
# Total Solar Eclipses Visible from the US

## A Rare & Unique Occurrence (Worth a Road Trip)





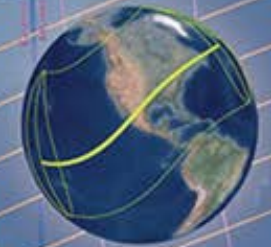
Half of the US population lives within 250 miles of the Path






# Be prepared for the single-biggest mass travel event in the USA.

- Will attract people from around the world to the 120-mile Path of Totality.
- 32 million people live directly within the USA section of the path. Additional metropolitan areas such as St Louis, Cincinnati, Detroit, Toronto, and Quebec are very close to the path.




**Total solar eclipse of April 8, 2024**



After an interval of seven years since 2017, a total solar eclipse visits North America again. This is easily nature's most spectacular sight. To see the beauty of the Sun's corona in the suddenly darkened sky, you must travel to the path of total solar eclipse.

Durations of total solar eclipse are given inside the path of totality. The gray oval shapes show the Moon's shadow at five minute intervals. Times of greatest eclipse are shown in local time along the purple curves. Degrees of partial eclipse (observations) are shown along the orange curves.

 Great American Eclipse.com

Map by Michael Zoller, GreatAmericanEclipse.com, Dec. 2016  
Eclipse computations by Solar Eclipse, solarEclipse.fr  
Eclipse predictions by Fred Espenak, eclipsewatches.com



# Total solar eclipse of April 8, 2024

Northern limit of total eclipse

Central line of total eclipse

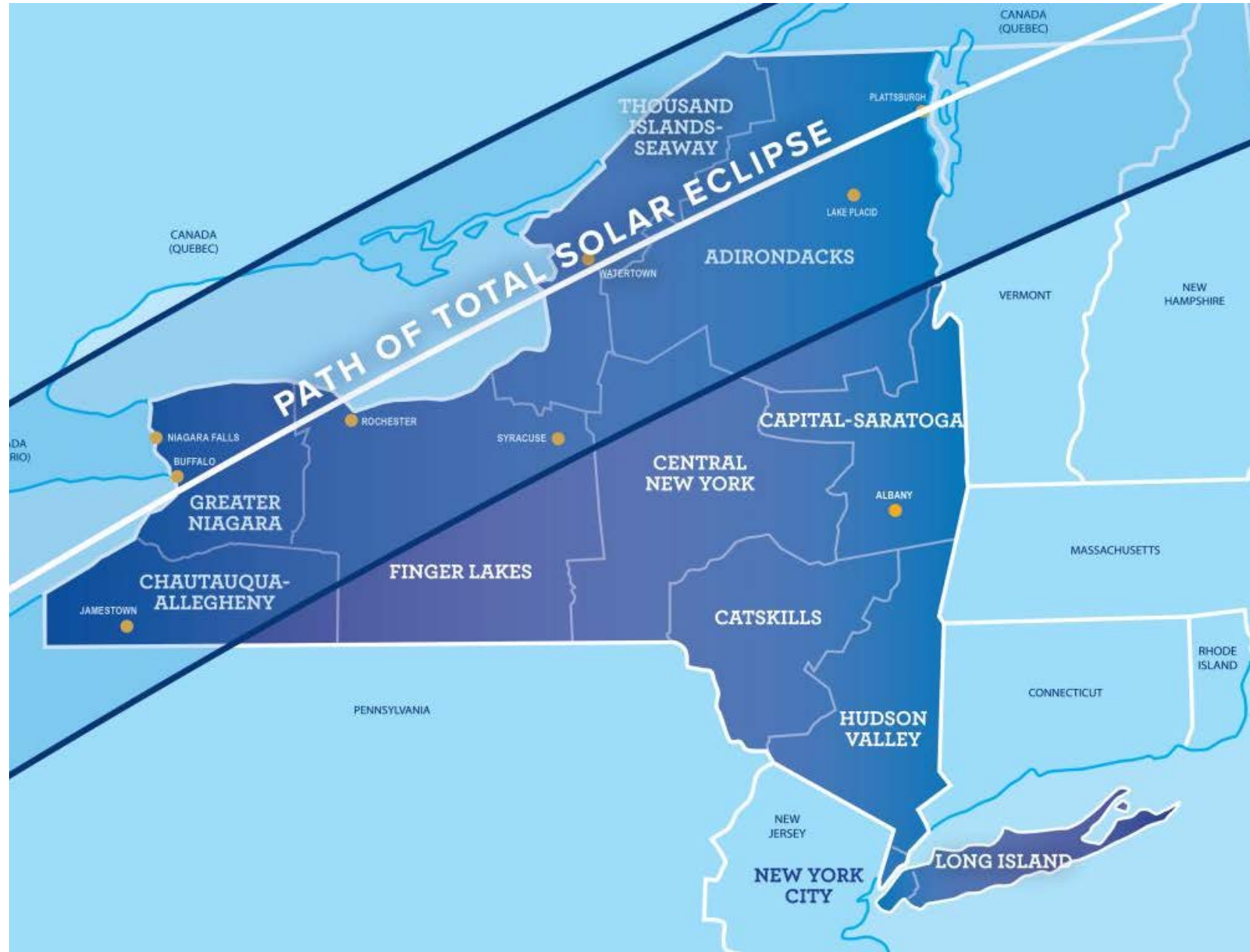
Southern limit of total eclipse





---

Much of Western and Northern NY is in the Path of Totality.



# Travel Reports from August 2017



Illinois 2017, Chicago Tribune

- People will arrive over 1-4 days pre-eclipse
- Almost all viewers traveled to the path of totality by motor vehicle
- Majority leave within 2 hours of totality
- Most of these people will do so within the first 15 minutes after totality
- Traffic congestion on **rural interstate routes** lasted for up to **13 hours** after the eclipse
- Rural, non-freeway routes also experienced significant traffic congestion, slow speeds, and long travel times
- For hours after totality, almost every interstate route passing through the path of totality showed red on Google Traffic maps



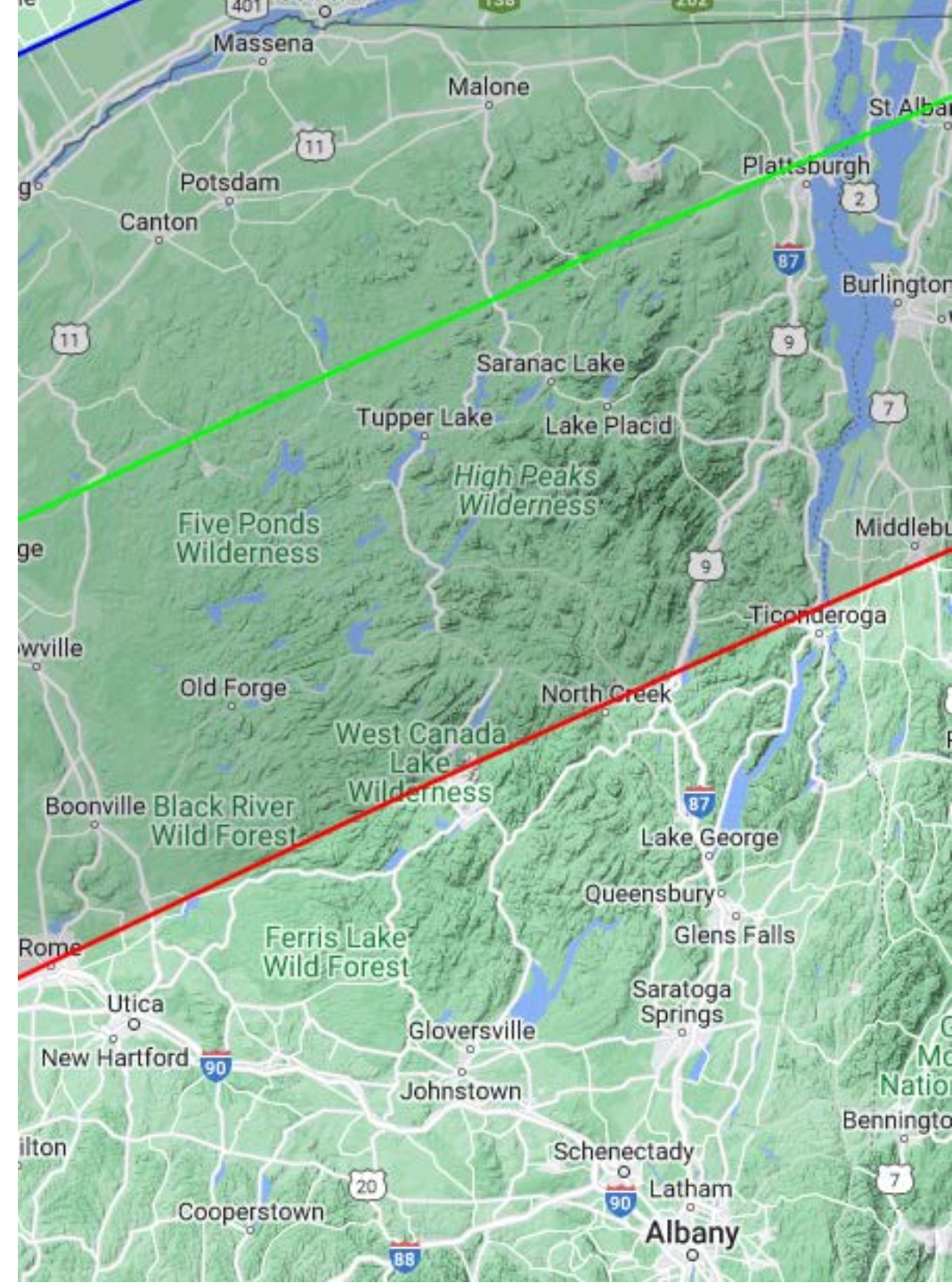
# Crowds and Traffic



- **Expect crowds coming from the east and south;**
- **Expect visitors from Boston, DC, Baltimore, Philadelphia, etc.**
- **NYS residents will also travel to path**
- **Traffic jams should be expected on all roads leading away from the area.**

# Traffic Considerations

- The North Country has limited major roads
- Can EMS & Fire be pre-deployed?
- Likely to be increased crashes
- What if air ambulances can't fly?
- Will population centers be overwhelmed?
- Will motorists be stranded?





Search for events

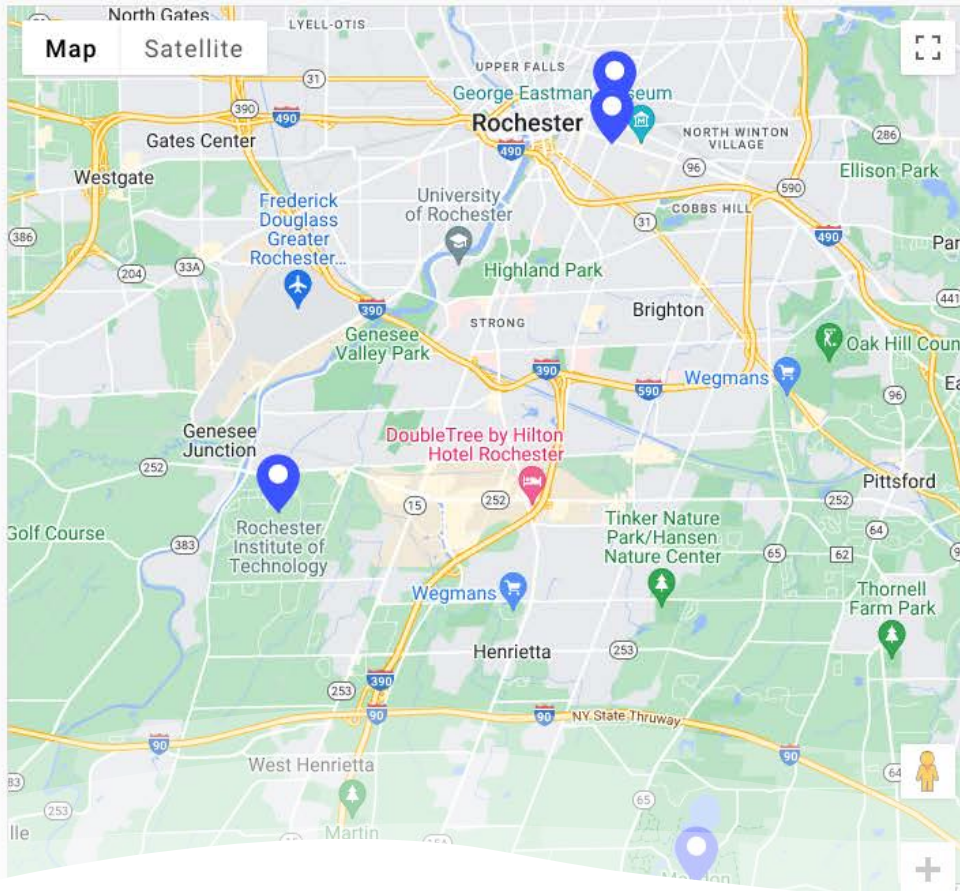
In a location

FIND EVENTS

MAP

Today JANUARY 29 - NOW

Condense Events Series



WINTERFEST

MENDON PONDS 95 DOUGLAS RD, HONEOYE FALLS



APR 6 10:00 AM - 11:00 AM CELEBRATING ONE YEAR UNTIL TOTALITY RMSC 657 EAST AVE, ROCHESTER



APR 15 6:30 PM - 10:30 PM RMSC AFTER DARK: YURI'S NIGHT RMSC 657 EAST AVE, ROCHESTER



APR 29 10:00 AM - 5:00 PM ROC THE ECLIPSE AT IMAGINE RIT ROCHESTER INSTITUTE OF TECHNOLOGY 1 LOMB MEMORIAL DR, ROCHESTER



MAY 2 5:00 PM - 7:00 PM TYLER'S ECLIPSE ART HAPPY HOUR AT SALENA'S MEXICAN RESTAURANT SALENA'S MEXICAN RESTAURANT 302 N GOODMAN ST. ROCHESTER



Collecting Event Locations at https://rochestereclipse2024.org/events/



# Arrive Early and Stay Late

Partnering with the full Rochester Task Force to share information about tourism, science education and community.

“Come for the sun, stay for the stars!”

#TakeTuesdayToo



# But what if it's cloudy?

Cloud cover on April 8, 2023  
Along path of total solar eclipse of April 8, 2024  
*Imagery from [worldview.earthdata.nasa.gov](https://worldview.earthdata.nasa.gov)*



- The eclipse will still happen
- It will still get dark
- The temperature will still drop
- There is no rain delay

Image: Michael Zeiler  
[GreatAmericanEclipse.com](https://GreatAmericanEclipse.com)

# ~~But what if it's cloudy?~~ Or NOT!



- The eclipse will still happen
- It will still get dark
- The temperature will still drop
- There is no rain delay



# Safety Considerations

---

- PR Campaigns to raise awareness
- Eye Safety is critical
  - MUST wear Solar viewing Glasses (“Eclipse glasses”)
  - Sunglasses do NOT work.
  - Never look directly at the sun!



# Safety Considerations

**PUNCH** Pinhole Projection of the Sun

Gaps between leaves are like the “pinholes” of our projector, and even these odd-shaped gaps create round images of our sun!

Sunlight comes from this direction

JO is observing in the morning in Dec

Sunlight passes through odd-shaped gaps between the leaves

3-Hole PUNCH Pinhole Projector

1. With your back to the Sun hold the card so that the hole you peer directly through the hole casts a round shadow like a well on a sidewalk. (Lighting on the light of the Sun from the earth comes and you see irregular round, and square shapes of light on the surface.)

2. Observe the shape of light as you slowly move the card farther from the surface. When all these shapes change to round, each hole is forming an image of the round Sun. Making images using only a small hole is called “pinhole projection.”

3. By using the card along a solar telescope or another optical device you can see the Sun.

4. Small gaps between plant leaves can also form “pinhole images” of the Sun. Look for round shapes of light instead of with the shadow!

When going off the shadow... of the hole side of the card... to the Sun!

projection surface

Image of round Sun through square hole

projection surface

The images of the Sun on the side of the building are round even though the gaps between leaves have odd shapes.

- It is safe and to view an eclipse using proper techniques like:
  - Pinhole viewers
  - Colanders
  - Sun spotters
  - Shadows from Trees
  - Projecting onto a surface
  - Solar viewing glasses



---

## Mental Health Considerations

---

- Some people may be overstimulated
- Raise awareness: No one should be surprised
- Are there options for people with sensory sensitivities?
- Mental health crisis intervention



---

## Inclusiveness

---

- Consider devices and apps for visually impaired
- Videos should have an ASL inset
- Be aware of cultural sensitivities







## Hospital Preparation in 2017

- Canceled elective surgeries
- Had eclipse glasses available for staff and patients
- Ran public service announcements about how to safely prepare for the eclipse
- Prepared for heat related illnesses

St. Charles Health System in Bend, Ore  
StatNews- August 2017

A group of five hospital staff members, three women and two men, are sitting on a patio outdoors. They are all wearing blue scrubs and protective eyewear. One woman is wearing a colorful, rainbow-patterned headband. They are all looking towards the sun, which is out of frame. The patio has a concrete floor and several black metal chairs. In the background, there are large windows and a building structure.

## Hospital Experience in 2017

- Eclipse did not result in a surge of patients who were blinded after staring directly at the sun
- Discussed communication methods outside of phones due to heavy cell phone usage
- Staff stuck in traffic





## What should you consider in 2024?

- Avoid elective surgeries
- Avoid routine office appointments
- Prepare for exposure injuries
- Prepare for remote rescues
- Discuss communication methods outside of cell phones
- Adjust staff schedules to avoid traffic
- Allow ambulatory patients and staff to get to a viewing area
- What else?



## What should you consider in 2024?

- Some patients may be over stimulated
- Raise awareness – no patient should be surprised
- Are there options for sensory sensitive patients? – think autism spectrum
- Mental health crisis intervention
- Consider devices for visually impaired
- Videos should have an ASL inset
- Be aware of cultural sensitivities



# UR Medicine Mobile Stroke Unit

Life saving stroke care in minutes.









# Emergency Management

- ✓ NYS Division of Homeland Security and Emergency Services (DHSES) -Office of Emergency Management
- ✓ County Emergency Management Offices
- ✓ Local Municipalities Emergency Management Offices
- ✓ Department of Transportation
- ✓ County Sheriffs
- ✓ State and Local Police Departments
- ✓ County Fire Coordinators
  - ✓ Fire Departments (paid)
  - ✓ Fire Districts (volunteer)
- ✓ Ambulance Services
  - ✓ Private (contracted)
  - ✓ Volunteer
- ✓ Incident Command System
- ✓ But how do we manage a Planned Event at multiple venues of different sizes in multiple counties ?

# New York State Mass Gathering Planning Guide

June 2018



## CHECKLISTS ARE HANDY!

- PRE-EVENT PLANNING
  - ✓ Identify & Coordinate with Key Partners
  - ✓ Risk Assessment
  - ✓ Develop plan
  - ✓ Exercise plan
  - ✓ Implement Critical Infrastructure Protection & Other Mitigation Measures
  - ✓ Identify Personnel and Equipment
  - ✓ Trainings & Exercises and Protocol Reviews
  - ✓ Communication & Info. Management Protocols
  - ✓ Permits & Notifications
  - ✓ Mass Casualty Plan Review

# New York State Mass Gathering Planning Guide

June 2018



## CHECKLISTS ARE HANDY!

- OPERATIONAL CONSIDERATIONS
  - ✓ Maintain Situational Awareness
  - ✓ Maintain Incident Action Plans
  - ✓ Maintain Lines of Communications
  - ✓ Ingress/Egress/Parking
  - ✓ Screening & Security
  - ✓ Law Enforcement Operations
  - ✓ Fire Rescue/Hazmat Operations
  - ✓ Emergency Medical Services (EMS) Operations
  - ✓ Facility Lockdowns & Evacuations
  - ✓ Emergency Alerting/Public Information
  - ✓ Crowd Control
  - ✓ Monitor Cyber/Technological Threats



# New York State Mass Gathering Planning Guide

June 2018

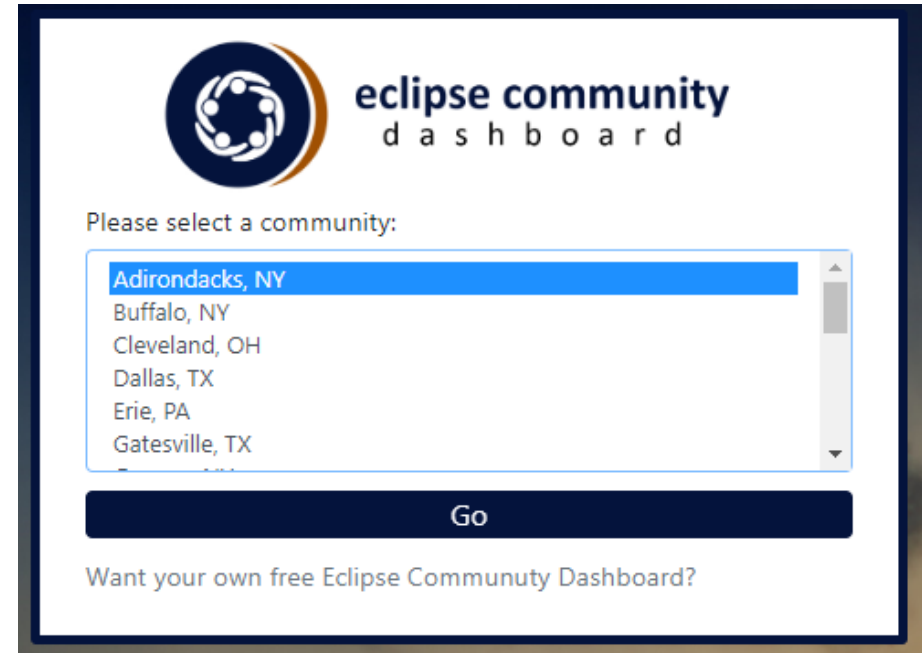


## CHECKLISTS ARE HANDY!

- POST-EVENT ACTIVITIES
  - ✓ Debriefs
  - ✓ Demobilization
  - ✓ Review of Medical Incident Response Procedures
  - ✓ After-Action Review and Plan Development

# Resources

- 511 NY
  - Real-time traffic conditions
  - Traffic camera feeds
- Eclipse Community Dashboard (<https://eclipseweb.org>)
  - Non-public platform for collaboration
  - The Adirondacks is already established
  - Cross sector connections
  - Shared resources
- Solar Viewing Glasses
  - [www.rainbowsymphony.com](http://www.rainbowsymphony.com)
  - [www.thousandoaksoptical.com](http://www.thousandoaksoptical.com)
  - [www.eclipseglasses.com](http://www.eclipseglasses.com)



# Resources

- **Maps and Data, Illustrations, Videos, Simulations, etc.**
  - GreatAmericanEclipse.com
  - NASA - <https://solarsystem.nasa.gov/eclipses/>
  - YouTube @RMSCVideo
- **Lessons learned in 2017**
  - National Center for Excellence in Operations - webinars
  - Eclipse2024resources.com
  - Dr. Kate Russo – Community Planning White Paper and author
  - TR News article (Transportation Research Board’s magazine)
- **References from across the country**
  - State of Ohio <https://ema.ohio.gov/media-publications/ohio-total-solar-eclipse>
  - State of New Hampshire <https://www.visitnh.gov/>
- **GTC**
  - [www.publicinput.com/GTCEclipse](http://www.publicinput.com/GTCEclipse)



# Rochester Eclipse Task Force 2024



- Tourism:
- Arts & Culture
- Food & Beverage
- Lodging
- Marketing/Promotions
- Local and National Media
- Merchandise
- Etc.

- Public Outreach
- Science
- Education
- Pre-K - 12
- Higher Education
- Eye Viewing Safety
- Science Events

- Traffic Management
- Emergency Preparedness
- Transit
- Public Safety
- Travel (rail, air, auto, boat)
- Highway Safety/ Education

# Contact Information



Debra Ross

[deb@kidsoutandabout.com](mailto:deb@kidsoutandabout.com)

585-305-6386



Dan Schneiderman

RMSC Eclipse Partnerships Coordinator

[dschneiderman@rmsc.org](mailto:dschneiderman@rmsc.org)

585-478-6898



Jim Stack, Executive Director

Genesee Transportation Council

[jstack@gtcmpo.org](mailto:jstack@gtcmpo.org)

585-232-6240