



SOLAR ECLIPSE *RESOURCE GUIDE*

In collaboration with: **Boston University School of Medicine,
Healthcare Emergency Management Program**

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Solar Eclipse Resource Guide

From jammed highways, extra port-a-potties, even a warning about the “Lizard Man” emergency preparedness planners across the country are preparing for mass gatherings along the Path of Totality for the August 21st Solar Eclipse.

While some planners have planned for years for this once-in-a-lifetime event, we are hearing from many municipalities they are only just pulling emergency preparedness plans together. As with any mass gathering the planning is greatly dependent upon the participation of others. This phenomena continues to intrigue people across the nation requiring planning in very short order particularly in some locations not accustomed to this type of requirement. We wanted to provide a resource guide to help you refine your plans and keep everyone safe on the day of the eclipse.

To give one example, in northern Colorado, emergency management officials in Larimer County are expecting anywhere from 500,000 to 3 million stargazers to travel through the county on their way to the Path of Totality. Colorado borders three states that are situated along the Path – Wyoming, Nebraska, and Kansas – and officials are coordinating their safety efforts across all four states. While the eclipse is expected to last only a few minutes on Monday, August 21, Larimer County has prepared for an event duration beginning on Saturday and ending on Tuesday. In addition to the heavy crowds expected to jam highways and local roads, of particular concern are the approximately 90,000 boaters anticipated to gather at Glendo State Park just north of the border in Wyoming.

Timing of the Solar Eclipse

The August 21, 2017 total solar eclipse will be a unique event, the first of its kind for most Americans. Expect a sharp increase in public awareness and engagement in the days leading up to the eclipse, especially on news and social media, and consider opportunities to use this awareness to engage and educate the public. There are many stories circulating now about fake solar-viewing sunglasses and even a warning from officials in South Carolina that you just might see a “[Lizard Man](#)” a creature seen occasionally in the woods of Lee and Sumter counties.

The full solar eclipse lasts about 90 minutes as it travels across the U.S. In Oregon, the full eclipse arrives at 10:18 am and viewers on the East Coast in South Carolina will see the full eclipse at 2:45 pm. As the eclipse passes through the U.S. each viewing area

will see the eclipse for about 1 – 3 minutes. The closer a viewer is to the center of the path, the longer they will be able to witness the solar corona.

The total eclipse brings an estimated 7 million visitors into the Path of Totality. Many municipalities are planning for a 4-day event including prepping their community, planning for tourists, and clean-up after the event. Something to keep in mind as you're developing your plans is not just the day of, but what do you need to do before and after August 21st.

As traffic will impact both Path of Totality communities and those adjacent to the path as travelers move towards their viewing spots, we highly recommend checking this ArcGIS analysis by Michael Zeiler (see: <https://www.greatamericaneclipse.com/statistics/>) for information on estimated distribution and severity of traffic in your area.



Relevance and Impact

The time of the eclipse will vary by State and City: a link showing the path is available from the National Aeronautics and Space Administration (NASA)

<https://eclipse2017.nasa.gov/eclipse-maps>.

Emergency responders should look at this in the same way as a mass gathering / special event – something similar would be a Presidential Inauguration or the Super Bowl. Municipalities in the path of totality or adjacent major transportation hubs should ensure they have the resources to handle a mass gathering.

The Federal Emergency Management Agency (FEMA) offers a Special Events Contingency Planning Manual <https://www.hSDL.org/?view&did=759939> for such unique circumstances. Additionally, the U.S. Department of Health & Human Services, Office of the Assistant Secretary for Preparedness and Response (ASPR) share a report by the U.S. Congressional Committee on Homeland Security report on Public Health, Safety, and Security for Mass Gatherings <https://www.hSDL.org/?view&did=485911>.

Emergency Management Considerations

While preparing plans, your response team should consider:

What to expect during the eclipse:

- Gradual dimming of light before and after eclipse
- Near-nighttime conditions during totality of eclipse (i.e. ~civil twilight, bright constellations like Orion can be seen)
- Slight but rapid decrease in ambient temperature (i.e. ~difference b/w midday and right after sunset) (varies by location and local climate). [Meteorologists at NASA](#) are expecting temperature shifts of around 10°F in the Path of Totality and a swing of 3°F – 5°F further away.
- Sudden changes in wind direction/strength due to the drop in air temperature (not extreme, again depends on local climate)
- All of this will still happen even if the eclipse is blocked by clouds, fog, etc.
- There might be last-minute changes in venue by visitors if the planned viewing area is in a cloudy area. Weather.gov will be tracking forecasts along the path of totality for the eclipse from August 15th. They have established a [web page where you can search by zipcode](#).

Expected areas to be impacted or stressed:

- Transportation networks (congestion including total stop)
 - Highways
 - Local roads
 - Bike and footpaths
- Educational Facilities
 - School closures or early release
 - Some universities are planning special observation events
- Medical facilities
- Hospitals and other medical facilities may see an uptick in patients due to such issues as:
 - Car accidents
 - Twisted ankles from standing on uneven ground and other | similar issues
 - Heat-stroke
 - Eye-injuries from looking at the eclipse inappropriately or through non-approved sunglasses. Municipalities might want to warn people of inappropriate eyewear or viewing practices. (see resources)
- Areas with long sight-lines, especially if they extend above the cloud ceiling
 - Building roofs
 - Hills and mountains
 - Cliffs
 - Shorelines
 - Remote areas
 - National and state parks
 - Hiking trails and campsites
 - Lakes and open land
 - Planners should consider access to parking and public restrooms (or port-a-potties) in viewing areas

- Weather may impact last-minute travel, if a preferred viewing area experiences cloud cover, visitors may quickly disembark to an area with clear sky. Be prepared for a last-minute influx (or exodus) or people from your community.

An increase in 911 service:

- EMS and Emergency Department increase
 - Eye injuries after the eclipse
- Traffic control issues
- Motor vehicle accidents
- Power support issues

Recommendations

As with any unique event the essential functions of resilience include:

Ensuring the organization has assessed the vulnerabilities which may occur during the eclipse including those factors which may directly or indirectly impact operations. Through strong proactive communications with employees, public, and stakeholders this event can be managed successfully. Through the assurance of periodic updates, information sharing, and disaster preparedness the organization can preemptively plan for unforeseen events.



All communities, organizations, and businesses should remain vigilant for other threats or events which may coincide the eclipse. Resilience planning should ensure preparedness for the current event and any other crisis which may occur simultaneous or in succession.

We offer the following 10 Step Guidelines to assist your planning:

- 1. Assess your projected local impact including:**
 - a.** Traffic before, during and after the event
 - b.** Parking needs
 - c.** Viewer influx at prime watch spots
 - d.** Resources for viewers such as access to restrooms and water
- 2. Assess and plan for additional staffing (if necessary)**
 - a.** Police
 - b.** Fire
 - c.** Local medical responders
 - d.** Local government officials
- 3. Confirm your recall procedures for off-duty staff**
 - a.** How will you activate additional staff if needed
- 4. Plan for possible surge in calls for assistance/questions**
 - a.** Mobile carriers are expecting heavy usage during the eclipse be prepared with alternate means of communication
- 5. Plan for traffic congestion alternatives**
 - a.** Know how you will convey traffic issues to your emergency responders for quick response
- 6. Review Continuity of Operations Plan (COOP) and emergency operations plans**
 - a.** Consider activating a Command Center during the event to ensure continuity
- 7. Enact or create internal communication protocols**
 - a.** Consider checklists to ensure all critical tasks are completed
 - b.** Consider how to escalate a task if it's not completed in a timely manner
- 8. Enact or create external communication protocol (e.g. News, social media, community engagement)**
 - a.** Consider creating contact groups to reach the right people with the right information
 - b.** Consider setting up a press area for local media

9. Coordinate planning with local organizations (e.g. Schools, hospitals, partner organizations and communities) and authorities (e.g. Public safety, public works and utilities)
 - a. Should any individuals from local organizations be part of a Command Center or in a communication group to respond to an incident
10. Assess and document your planning and response activities through an After-Action Report
 - a. Full reporting will give municipalities an opportunity for “Lessons Learned” for the next mass gathering event.

How Everbridge is Assisting Some Communities

Everbridge estimates it has 10.9 million contacts in the Path of Totality, not including the additional 7 million visitors expected to come into the path. As noted earlier, Larimer County Colorado is one of the communities preparing, including using the Everbridge platform.

Included in Larimer County’s safety plan is a call to have locals and travelers (the majority of whom are expected drive north from New Mexico and Arizona) to text the word ECLIPSE to 888777. Subscribers can expect to receive updates related to road closures and detours, emergency response to dangers like wildfires, and weather alerts.

Several other public safety agencies along the Path of Totality are also encouraging residents and trekkers to text their own keywords to 888777, including Cherokee County, North Carolina (ECLIPSE2017) and Lincoln County, Oregon (LINC4ECLIPSE).

Additional Resources

<https://eclipse2017.nasa.gov>

<https://eclipse.aas.org/eye-safety/eyewear-viewers>

Pre-planned events

https://eclipse2017.nasa.gov/sites/default/files/2017_solar_eclipse_general_events.html

<http://nationaleclipse.com/events.html>

Transportation

<https://ops.fhwa.dot.gov/publications/fhwahop16085/>

<https://www.greatamericaneclipse.com/statistics/>

Solar Filters (viewing glasses)

<https://eclipse.aas.org/eye-safety/iso-certification/>

<https://eclipse.aas.org/resources/solar-filters>

For more information

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About Everbridge

Everbridge, Inc. (NASDAQ: EVBG) is a global software company that provides enterprise software applications that automate and accelerate an organization's operational response to critical events in order to keep people safe and businesses running. During public safety threats such as active shooter situations, terrorist attacks or severe weather conditions, as well as critical business events such as IT outages or cyber-attack incidents, over 3,400 global customers rely on the company's SaaS-based platform to quickly and reliably aggregate and assess threat data, locate people at risk and responders able to assist, automate the execution of pre-defined communications processes, and track progress on executing response plans. The company's platform sent over 1.5 billion messages in 2016, and offers the ability to reach over 200 countries and territories with secure delivery to more than 100 different communication devices. The company's critical event management and enterprise safety applications include Mass Notification, Incident Management, IT Alerting, Safety Connection™, Community Engagement®, Visual Command Center®, Crisis Commander® and CareConverge™, and are easy-to-use and deploy, secure, highly scalable and reliable. Everbridge serves 8 of the 10 largest U.S. cities, 8 of the 10 largest U.S.-based investment banks, all four of the largest global accounting firms, all 25 of the 25 busiest North American airports and 6 of the 10 largest global automakers. Everbridge is based in Boston and Los Angeles with additional offices in San Francisco, Lansing, Beijing, London and Stockholm. For more information, visit www.everbridge.com, read the company [blog](#), and follow on [Twitter](#) and [Facebook](#).

About Boston University HEM Program

The Boston University Masters of Science (M.S.) in Healthcare Emergency Management (HEM) located at the Boston University School of Medicine, the HEM program gives students a learning environment with exposure to both the biomedical sciences and health care in the context of emergency and disaster preparedness. Through academic and practical experience students blend research and practice of planning and executing real world exercises, events, and action plans. The Masters program can be completed in-person or online through our virtual classroom. Healthcare Emergency Managers are professionals in the medical, public health, and public safety community who staff positions in such places as community health centers, local hospitals, local city and county boards and councils, and within local, state, and federal public safety, and homeland security offices. Incorporating the disaster lifecycle, HEM encompasses planning for, responding to, recovering from, and developing ways of mitigating all hazards.

Visit <https://www.bumc.bu.edu/bmcm/> to learn more.