

# Texas Nexus Eclipse 2023-24

Reiff Patricia<sup>1</sup> and Sumners Carolyn<sup>2</sup>

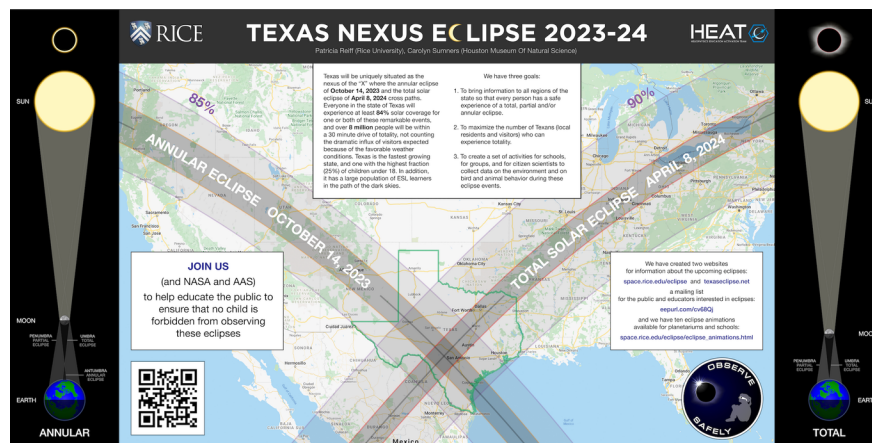
<sup>1</sup>Rice University

<sup>2</sup>Houston Museum of Natural Science

November 16, 2022

## Abstract

Texas will be uniquely situated as the nexus of the “X” where the annular eclipse of October 14, 2023 and the total solar eclipse of April 8, 2024 cross. Everyone in the state of Texas will experience at least 84% solar coverage for one or both of these remarkable events, and over 8 million people will be within a 30 minute drive of totality, not counting the dramatic influx of visitors expected because of the favorable weather conditions. Texas is the fastest growing state, and one with the highest fraction (25%) of children under 18. In addition, it is one with a large population of ESL learners in the path of the dark skies. Our goals are three: 1. To bring information to all regions of the state so that every person has a safe experience of a partial and/or annular eclipse; 2. To maximize the number of Texans (residents and visitors) who can experience totality; and 3. To create a set of activities for schools, for groups, and for citizen scientists to collect data on the environment and on bird and animal behavior during these events. We have created two websites for information about the upcoming eclipses <http://space.rice.edu/eclipse> and <http://texaseclipse.net>; we have a mailing list for people and educators interested in eclipses <http://eepurl.com/cv68Qj> and we have seven eclipse animations already created for planetariums and schools: [https://space.rice.edu/eclipse/eclipse\\_animations.html](https://space.rice.edu/eclipse/eclipse_animations.html), plus a number of diagrams. We are creating two more animations describing annular eclipses which should be ready for the AGU meeting. We have developed a set of Powerpoint slides and animations to be used for eclipse training, and special “dome versions” using the fulldome animations, to be used in fixed and portable planetariums. We have already done trainings in South Texas (where the eclipses cross) and will work with AAS, NASA, and other groups to ensure the widest possible dissemination of eclipse information, particularly safety information. By the time of AGU we will have already used these materials in teacher trainings at the CAST conference and planetarium trainings for LIPS, and will post them for download. Educational and safety materials will be provided in both English and Spanish, and presentations for both flatscreen Powerpoint or fulldome planetarium programs will be made freely available, thanks to the NASA HEAT program.



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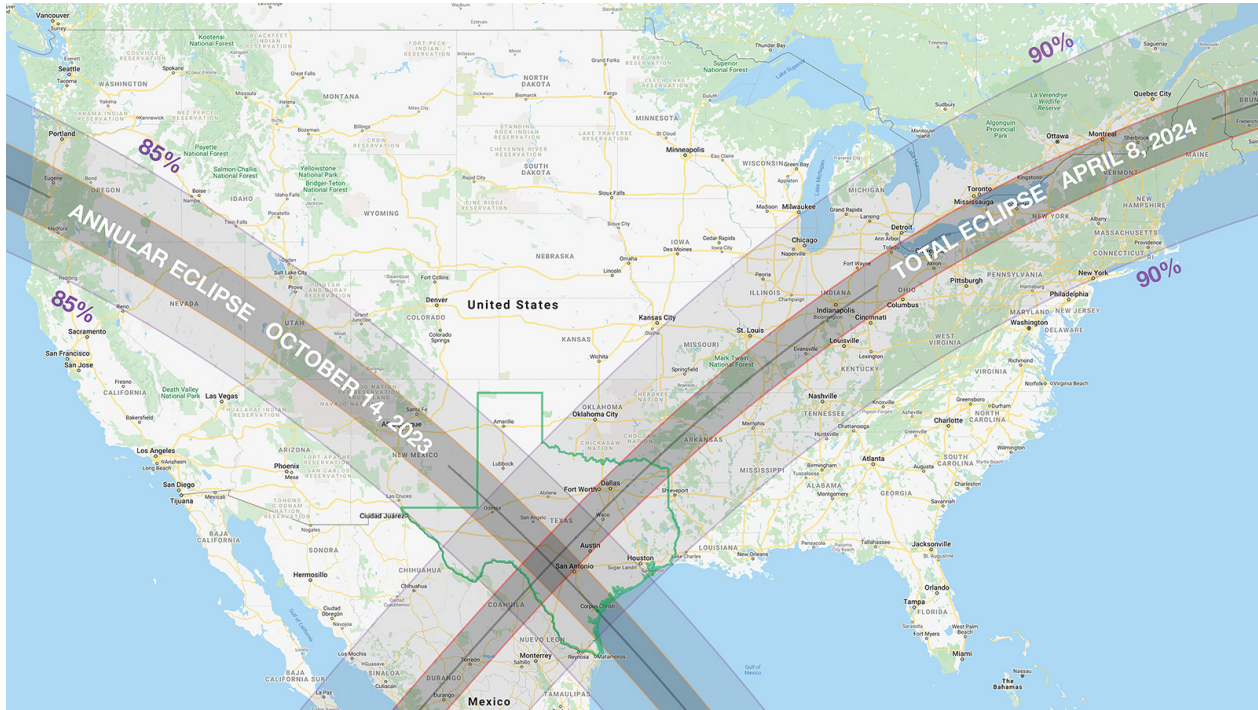
Patricia H Reiff, Rice University, Houston, TX, United States and Carolyn Sumners, Houston Museum of Natural Science, Astronomy, Houston, TX, United States

#### Abstract Text:

Texas will be uniquely situated as the nexus of the "X" where the annular eclipse of October 14, 2023 and the total solar eclipse of April 8, 2024 cross. Everyone in the state of Texas will experience at least 84% solar coverage for one or both of these remarkable events, and over 8 million people will be within a 30 minute drive of totality, not counting the dramatic influx of visitors expected because of the favorable weather conditions. Texas is the fastest growing state, and one with the highest fraction (25%) of children under 18. In addition, it is one with a large population of ESL learners in the path of the dark skies. Our goals are three: 1. To bring information to all regions of the state so that every person has a safe experience of a partial and/or annular eclipse; 2. To maximize the number of Texans (residents and visitors) who can experience totality; and 3. To create a set of activities for schools, for groups, and for citizen scientists to collect data on the environment and on bird and animal behavior during these events.

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### Plain-Language Summary:

We are creating, testing, and using materials to teach Texans (especially the hispanic students in South Texas) about safe eclipse viewing for the annular eclipse of 2023 and the total solar eclipse of 2024. Our eclipse information sites: <http://space.rice.edu/eclipse> and <http://texaseclipse.net>. Educational and safety materials will be provided in both English and Spanish, and presentations for both flatscreen Powerpoint or fulldome planetarium programs will be made available, free thanks to the NASA HEAT program.

### Session Selection:

ED046. Solar Eclipses: Opportunities for Science and Education Outreach

### Submitter's E-mail Address:

reiff@rice.edu

### Abstract Title:

Texas Nexus Eclipse 2023-24

### Requested Presentation Type:

Assigned by Program Committee (oral, eLightning or poster discussion session)

### Previously Published?:

No