

# Total Solar Eclipse: Live from the USA



**LIVE STREAMS TO ENHANCE VISITOR EXPERIENCE**

**ROBYN HIGDON, EXECUTIVE PRODUCER**



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5 Live Streams

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Multiple Platforms

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2 Languages

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**Exploratorium live streams can support your programs and enhance the experiences of your visitors**

# 5 Live Streams

August 21, 2017



**3-HOUR TELESCOPE VIEWS FROM OREGON: NO COMMENTARY**

**3-HOUR TELESCOPE VIEWS FROM WYOMING: NO COMMENTARY**

**1-HOUR EDUCATIONAL PROGRAM (FROM OR & WY)**

**1-HOUR EDUCATIONAL PROGRAM (OR & WY) IN SPANISH**

**3-HOUR TELESCOPE VIEW WITH SONIFICATION**

**FEATURING A 30-MIN LIVE SCORE BY KRONOS QUARTET**

# 2-hour & 45 min. Telescope Views (Oregon)

**Start:** 16:00UT, 9:00am PDT, 10:00am MDT, 12:00pm EDT // **End:** 18:45UT, 11:45am PDT, 12:45pm MDT, 2:45pm EDT  
1<sup>st</sup> contact at 16:06, totality at 17:19, 4<sup>th</sup> contact at 18:41



- This is a mix from four telescopes in Madras, Oregon
- The eclipse will be shown in white light and H-Alpha; full-disc and close-up
- No Soundtrack.

This stream is great for:

- A museum with local talent giving commentary
- Showing on monitors around your museum
- Embedding in your website
- 'Capturing' to post on social media

Using this on Exploratorium App

- Great for people who are *outside* watching the eclipse live and want to watch what is happening in Oregon!



# 3-hour Telescope Views (Wyoming)

**Start:** 16:15UT, 9:15am PDT, 10:15am MDT, 12:15pm EDT // **End:** 19:15UT, 12:15am PDT, 1:15pm MDT, 3:15pm EDT  
1<sup>st</sup> contact at 16:22, totality at 17:42, 4<sup>th</sup> contact at 19:09



- This is a mix from four telescopes in Casper, WY
- The eclipse will be shown in white light and H-Alpha; full-disc and close-up
- No Soundtrack

This stream is great for:

- A museum with local talent giving commentary
- Showing on monitors around your museum
- Embedding in your website
- 'Capturing' to post on social media

Using this on Exploratorium App

- Great for people who are *outside* watching the eclipse live and want to watch what is happening in Wyoming!



# One Hour Education Program

(based in Wyoming, featuring Oregon)

Start: 17:00 UT, 10:00 PDT, 11:00am MDT, 1:00pm EDT // End: 18:00 UT, 11:00 PDT, 12:00 MDT, 2:00pm EDT

This program that will capture the excitement of the event: featuring interviews with eclipse chasers, and, for the first time, totality from two different locations! It will also include:

- general information about the eclipse, path of totality, and safe-viewing techniques
- explore NASA's upcoming Solar Probe Plus mission with Dr. Eric Christian
- NASA Education Specialist, Dr. Hakeem Oluseyi and Exploratorium's Dr. Paul Doherty
- The highlight will be the stunning live eclipse imagery from four telescopes at each location

This stream is great for:

- Easy, stand-alone set ups
- Smaller museums that don't have staff to interpret
- Online viewers

*Using this on Exploratorium App*

- Great for people who are *outside* waiting for totality and want to watch a show (and see totality from two other locations!)



# One Hour Education Program in Spanish

(based in Wyoming, featuring Oregon)

Start: 17:00 UT, 10:00 PDT, 11:00am MDT, 1:00pm EDT // End: 18:00 UT, 11:00 PDT, 12:00 MDT, 2:00pm EDT



This program that will capture the excitement of the event: featuring interviews with eclipse chasers, and, for the first time, totality from two different locations! It will also include:

- Bay Area Univision Host and Emmy winner, Kira Villanova, and Dr. Isabel Hawkins providing informal commentary about the eclipse, path of totality, and safe-viewing techniques
- NASA's upcoming Solar Probe Plus mission with Dr. Eric Christian
- Stunning live eclipse imagery from four telescopes at each location

This stream is great for:

- Spanish speaking audiences
- A secondary presentation in museums that have mixed-language audiences
- Online viewers (embeddable!)

*Using this on Exploratorium App*

- Great for people who are *outside* waiting for totality and want to watch a show (and see totality from two other locations!)



# Sonification/Live Score

3-hour Telescope Views (from Wyoming) with sonification audio track and live score by Kronos Quartet

**Start:** 16:15UT, 9:15am PDT, 10:15am MDT, 12:15pm EDT // **End:** 19:15UT, 12:15am PDT, 1:15pm MDT, 3:15pm EDT



- Visually, a mix from four telescopes in Casper, WY
- Live video is converted into raw data, which is then converted into sound. This computer-created 'sonification' will be the audio track for this feed
- In addition to the sonification, in the 30-mins surrounding totality, the Kronos Quartet will be adding a live musical score.

This stream is great for:

- Audiophiles!
- Could be interesting to play in museum for ambiance
- Embedding in your website
- 'Capturing' to post on social media
- More information on the process and score is here:  
<http://waynegrim.com/sonification-of-the-total-solar-eclipse-august-2017>



01:39:09

exploratorium

# Distribution Platforms

Streams will be embeddable from our website



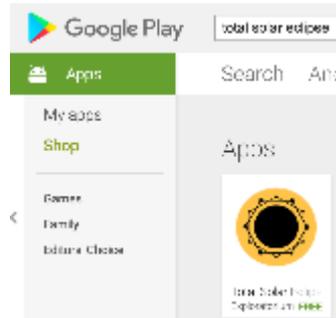
## ALL STREAMS: EXPLORATORIUM.EDU/ECLIPSE

iPad Apps



Total Solar  
Eclipse  
Education

Download



iPhone Apps



Total Solar  
Eclipse  
Education

Download

CENIC network (libraries)

Domestic Satellite direct

NASA.gov (still a bit tentative)

Exploratorium Facebook Live:  
1-hour Educational Program

Talking with YouTube Live, Facebook Live,  
U-Stream

# Contact



**BEST FIRST CONTACT:  
NICOLE MINOR  
PRODUCER**

**[NMINOR@EXPLORATORIUM.EDU](mailto:NMINOR@EXPLORATORIUM.EDU)**

**OR**

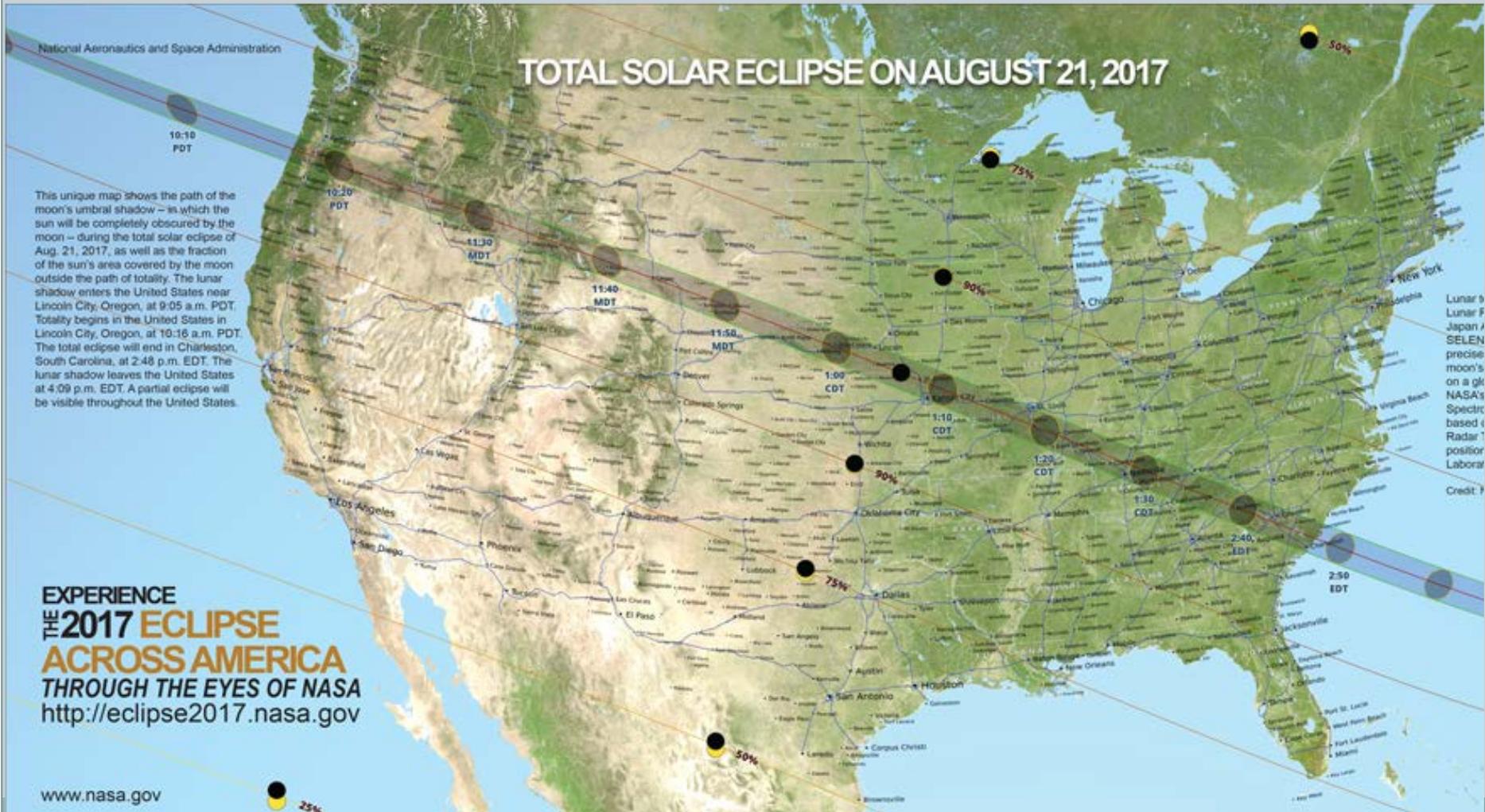
**ROBYN HIGDON  
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**SONIFICATION QUESTIONS:  
WAYNE GRIM**

**[WGRIM@EXPLORATORIUM.EDU](mailto:WGRIM@EXPLORATORIUM.EDU)**

# Tips and Additional Resources



# Quick Tips for Streaming



Our planning guide has these tips (and many more resources I will list later)

[http://www.nisenet.org/sites/default/files/catalog/uploads/ExSci\\_Space\\_PlanningandPromoGuide2017.pdf](http://www.nisenet.org/sites/default/files/catalog/uploads/ExSci_Space_PlanningandPromoGuide2017.pdf)

If you plan on streaming the solar eclipse live at your facility, keep the following in mind:

- It is easy to use a laptop or desktop computer connected to a projector or large screen TV. Be sure to check if you have the right video connectors and dongles. Many computers will have a VGA or HDMI output that can often be run directly into a display device.
- Make sure your browser and Operating System are updated:
- Use a wired network connection instead of Wi-Fi.
- Test the website the day before.
- Bookmark alternative URLs or mirror sites for your live stream in case the server gets overloaded.

# Quick Tips for Streaming



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[http://www.nisenet.org/sites/default/files/catalog/uploads/ExSci\\_Space\\_PlanningandPromoGuide2017.pdf](http://www.nisenet.org/sites/default/files/catalog/uploads/ExSci_Space_PlanningandPromoGuide2017.pdf)

Cont'd:

- If the streaming site uses Flash, you may need to download the latest version of Flash or create an exemption for that site to run Flash (since Flash is being phased out).
- Many live streams will have commentary and/or musical audio options, so consider a speaker system for your audience. For small groups, computer speakers may suffice but consider an amplified setup if you are expecting a larger crowd.
- If your event is outside, make sure you have access to the Internet, power, and a canopy. A bigscreen TV would work better than a projector in this situation, but make sure to anchor the screen to protect it from the wind.

# Additional Resources



## **NASA'S SOLAR SYSTEM AMBASSADORS**

**SME'S FOR YOUR ECLIPSE EVENT:  
[HTTPS://SOLARSYSTEM.NASA.GOV/SSA/](https://solarsystem.nasa.gov/ssa/)**

# NASA Eclipse Events



**SEE WHERE THERE ARE EVENTS AND GET YOUR EVENT  
ON THE NASA EVENTS LIST/MAP**

**[HTTPS://ECLIPSE2017.NASA.GOV/EVENT-LOCATIONS](https://eclipse2017.nasa.gov/event-locations)**

**CLICK ON THE EVENTS MENU AND SELECT EITHER:  
“SUBMIT OFFICIAL NASA EVENT  
OR  
SUBMIT GENERAL EVENT”**

# Additional Resources



## LIST OF ONLINE ECLIPSE RESOURCE

### **NISE NET SOLAR ECLIPSE PLANNING MINI-KIT**

- [2017 EVENT PLANNING AND PROMOTION GUIDE \(PG. 13-16 FOR ECLIPSE\)](#)
- [PREPARING FOR A PARTIAL SOLAR ECLIPSE SLIDES \(WITH PRESENTER NOTES\)](#)
- [EXPLORING THE SOLAR SYSTEM: BIG SUN, SMALL MOON \*SPANISH!\*](#)
- [EXPLORING THE SOLAR SYSTEM: SOLAR ECLIPSE \*SPANISH!\*](#)

\*ACTIVITY LINKS INCLUDE SOLAR ECLIPSE POSTER, POSTCARDS, AND ALL VIDEOS

[EYES ON 2017 ECLIPSE](#)

[DIY SUN SCIENCE FROM LAWRENCE HALL OF SCIENCE](#)

[GOOGLE MEGAMOVIE PROJECT](#)

[INATURALIST FROM CALIFORNIA ACADEMY OF SCIENCE](#)

[NASA ECLIPSE 2017 WEBSITE & NASA ECLIPSE LIVE STREAM PAGE](#)