

NASA/HEAT Rice U Status Report – January 2022

Patricia H. Reiff, Rice University

- ***Education: Astronomy for Teachers Class began Jan 10***

Five teachers have enrolled for graduate credit in my class ASTR503 “Astronomy for Teachers” (<http://mst.rice.edu/ASTR503>), and another five for professional development. Their tuition would be \$8900 for three hours, but because of discounts from Rice and support from other accounts, the grant is only paying \$900 each. The course contains learning objectives about all of stellar and galactic astronomy, but for the purposes of this grant, they will learn about the Sun and its life cycle and effects, plus review materials to be shown in a workshop at NSTA (and help with the workshop, like they did at CAST in the fall).

Learning Objectives (related to Heliophysics: there are more)

Solar structure

Solar activity and solar cycle

Solar energy sources and transport

Stellar evolution

Participants:

Teachers: 11 people, 7 women, 2 Hispanic, 2 African-American, 1 Native American, 1 Asian.

Zip Codes: 77005, 48134, 77445, 77429, 73443, 77469, 48638, 37617, 95134, 14609, 19010

- ***Eclipse Training, Commonwealth Charter Academy, PA***

Reiff presented two trainings for teachers at two Commonwealth Charter Academy (CCA) sites – one in Pittsburgh (Homewood) January 26 and one in Harrisburg on January 27. The eclipse animations that were created under the grant were used, and eclipse glasses given to the teachers. NO COST to the grant – the travel was paid for by my cooperating company MTPE, Inc. They were trained in their portable domes. They have a site in Erie (in totality) and we discussed how they should plan for the event.



Teachers trained in Harrisburg. Their dome will be used on the road at trainings at all the CCA campuses.

Learning Objectives:

1. Solar eclipses happen when the moon moves between the Earth and Sun
2. The corona is only visible during totality.
3. An annular eclipse happens when the moon is at apogee and is not large enough in angular size to cover the entire Sun
4. It is not safe to observe the Sun with naked eyes except during totality.
5. In an annular eclipse it is not safe to observe the sun with naked eyes at any time.
6. Be sure to be well inside the zone of totality to get a longer eclipse.

Participants:

Teachers: 32, 28 women, 4 African-American (Few if any economically or physically disadvantaged)

Zip Codes: 17110, 15120

Materials distributed:

Eclipse animations

Solar eclipse glasses (50 pc, paid for my MTPE Inc.)

• *Annular Eclipse and Artemis Animations Additional Distribution*

The annular and total eclipse animations, plus the Artemis animations, are continuing to be distributed.

We did not send out any new notices to our eclipse planetarians list this month and have provided digital copies to 53 planetariums so far.

Planetarians can sign up to get any of our animations for free here:

<https://forms.gle/sS8q31qFSDRnhnbX7>

Annular eclipse animation info and links:

https://space.rice.edu/eclipse/eclipse_animations.html **Note** the descriptions and links to the individual pieces are given in October 2021 report.

Recipients of the animations January 2022:

2 planetariums downloaded the animations in January:

One from the US: zip codes 99802 and one from Canada.

Our eclipse information email list is now up to 743 contacts, with 201 planetarians with active subscriptions.