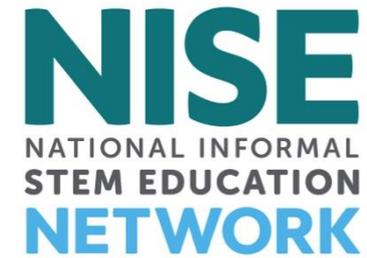


# NISE Net Online Workshop

## *Working with the Solar System Ambassadors and Night Sky Network*

*Tuesday, January 23, 2018*



***Welcome!***

**Today's presenters are:**

**Presenter 1:** *Raniere Raniere and Teddy Dillingham, Imagine Children's Museum*

**Presenter 2:** *Megan Downey, James and Anne Robinson Nature Center*

**Presenter 3:** *Tom Arnold, Science Museum Oklahoma*

**Special Guests:** Vivian White, Night Sky Network and Astronomy Ambassadors Heather Doyle and Kay Ferrari, Solar System Ambassadors

As we wait to get started with today's discussion, please:

**Introduce yourself!** Type your name and institution into the [Chat Box](#)

**Questions?** Feel free to type your questions into the [Chat Box](#) at any time throughout the webinar or use the raise your hand function in the participants list and we'll unmute your microphone.

**Today's discussion will be recorded and shared on nisenet.org at: [nisenet.org/events/online-workshop](https://nisenet.org/events/online-workshop)**



# Online Workshop Overview



- Quick Introduction to the Solar System Ambassadors and Night Sky Network
- Imagine Children's Museum
- Robinson Nature Center
- Science Museum of Oklahoma
- Q/A

# **SOLAR SYSTEM AMBASSADORS**

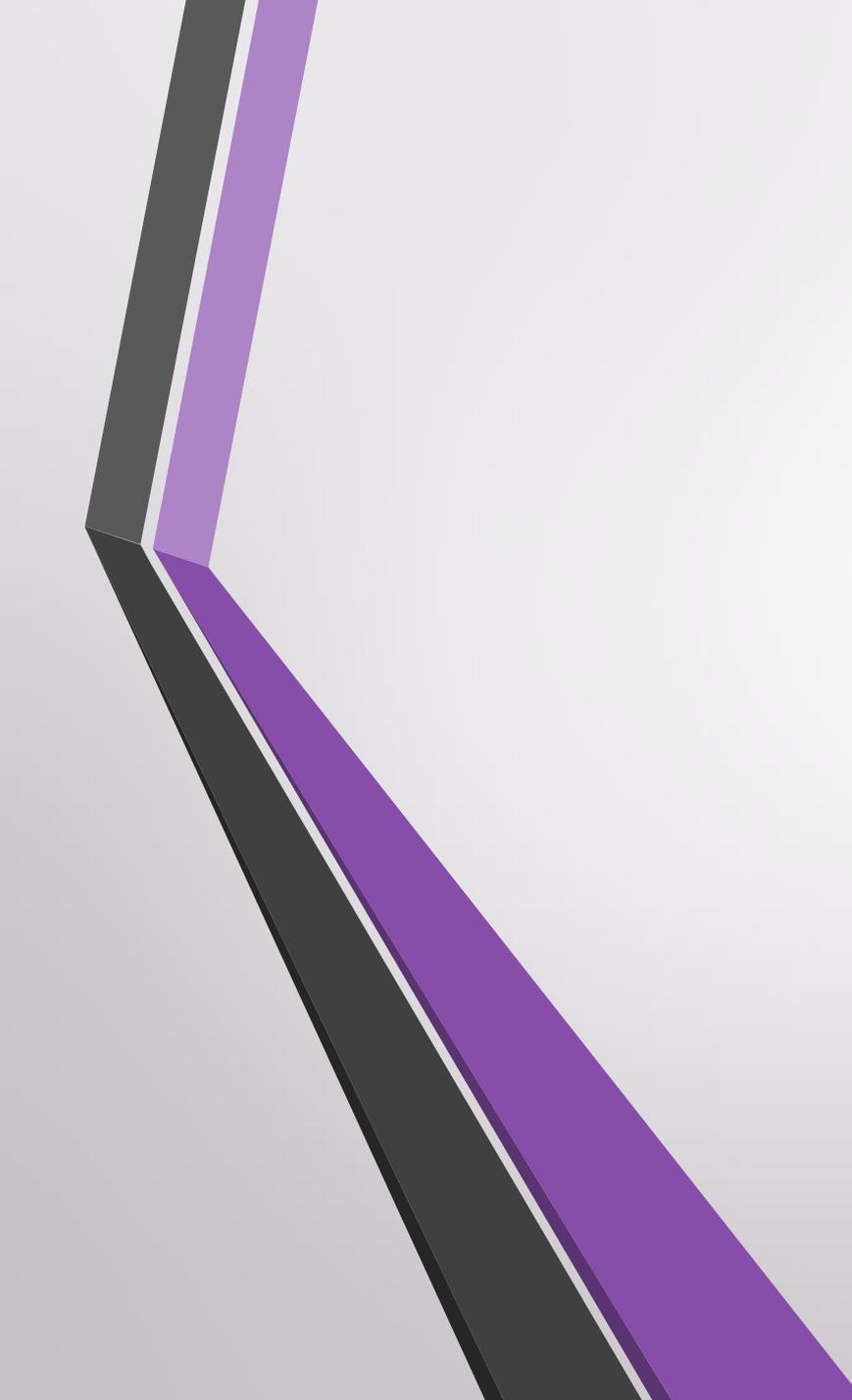
**HEATHER DOYLE AND  
KAY FERRARI**

**<https://solarsystem.nasa.gov/ssa>**

# NIGHT SKY NETWORK

VIVIAN WHITE

[NIGHTSKY.JPL.NASA.GOV](http://NIGHTSKY.JPL.NASA.GOV)



# Imagine Children's Museum Everett, WA

Raniere, Director of Community Engagement

Teddy Dillingham, Director of Education

# Earth & space





How we found our solar system  
ambassadors/night sky network volunteers

What events they have participated in at  
Imagine

Future plans?

# Earth & space



Lessons Learned

Maintaining  
relationships



# WORKING WITH THE SOLAR SYSTEM AMBASSADORS AND LOCAL ASTRO CLUBS



## THE JAMES & ANNE ROBINSON NATURE CENTER MISSION STATEMENT

The mission of the Robinson Nature Center is to facilitate the enjoyment and understanding of our natural resources and to bridge the gap between people and nature. By inspiring sound environmental awareness, we promote responsible stewardship of all of our natural resources and strive to connect people of all ages with nature through experience-based education.



Robinson Nature Center, Columbia, MD

# Who We Are

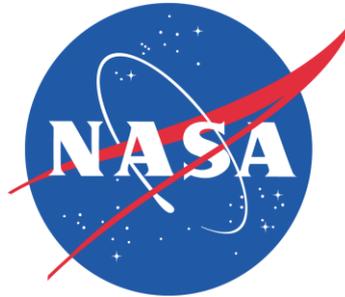


- Located in Columbia, MD



- Facility includes 50-seat planetarium; over 350 public programs and field trips each year
- Rely heavily on the expertise of local astronomy experts and volunteers as opposed to dedicated planetarium staff

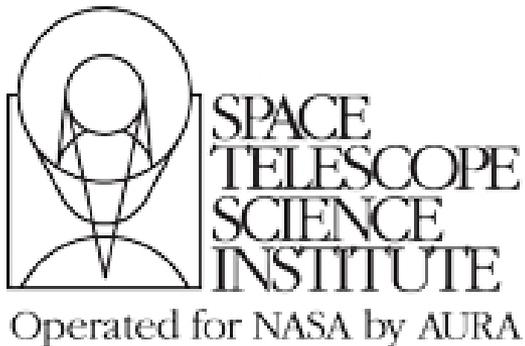
# Our Astronomy Partners



JOHNS HOPKINS  
APPLIED PHYSICS LABORATORY



**NISE**  
NATIONAL INFORMAL  
STEM EDUCATION  
**NETWORK**



**EXPLORE  
SCIENCE**

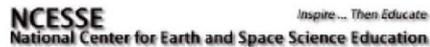
# International Astronomy Day 2015



## International Astronomy Day

April 25, 2015 | Robinson Nature Center

[www.howardcountymd.gov/RNCastroday.htm](http://www.howardcountymd.gov/RNCastroday.htm)



410-313-0400 | 6692 Cedar Lane, Columbia, MD 21044

### International Astronomy Day 2015

#### Presenter Bios



**Dr. Wayne Baggett** became interested in astronomy as a child and went on to earn a PhD in Astronomy from New Mexico State University. He started his career with the Space Telescope Science Institute in Baltimore where he worked to ensure the proper operation of science instruments on the Hubble Space Telescope. He is now working to prepare the James Webb Space Telescope for launch. Dr. Baggett is also an active astronomer with the Howard Astronomical League (HAL). He joined HAL in 2002, serving as President in 2009 and as a vice president from 2010 - present. He is active in the preparations for HAL's observatory, which will be opening soon at Alpha Ridge Park in Howard County. He enjoys taking images of galaxies and other deep-sky objects with his 8-inch Newtonian telescope.



**Dr. Christina Viviano-Beck** is a staff scientist at the Johns Hopkins University Applied Physics Laboratory and has been working with CRISM data for about 7 years. She received her PhD from the University of Tennessee (Earth & Planetary Science) in 2012. Christina spends her time manipulating CRISM images and using them to explore ancient alteration processes on Mars. She is particularly interested in alteration of the crust, understanding the extent of water-rock interaction during ancient time periods on Mars, and tracing the metamorphic and hydrothermal history of the planet.



**Dr. Debra Buczkowski** is a planetary scientist at the Johns Hopkins University Applied Physics Laboratory. She specializes in the geologic mapping and structural analysis of rocky solar system bodies, and has performed studies of Mercury, Venus, Mars, Eros and Vesta. She is a science team member of the Dawn mission to Vesta and Ceres, and will soon begin an analysis of the dwarf planet Ceres.



**Andy Calloway** has over 20 years of experience in space mission operations and ground system development efforts. He began his career supporting multiple commercial and international geosynchronous communications satellite launches and operations in the early to mid-90's. He then spent six years supporting the Tropical Rainfall Measuring Mission, a low-Earth orbiting Earth resources satellite at NASA Goddard Space Flight Center, where he spent the last four years as the technical operations lead. He has been a member of the MESSENGER operations team since he joined JHU/APL in 2002 and has served as the Mission Operations Manager since January 2007. Andy is also a core team member of the New Horizons mission to Pluto, serving as the Deputy Encounter Mission Manager.



**Dr. Nancy L. Chabot** is a planetary scientist at the Johns Hopkins University Applied Physics Laboratory. She is the Instrument Scientist for the Mercury Dual Imaging System (MDIS) on the MESSENGER mission; chair of the mission's Geology Discipline Group; and leads MDIS-based scientific investigations of Mercury's polar, shadowed, likely ice-bearing craters. She has also been a member of five field teams with the Antarctic Search for Meteorites (ANSMET) program, and Asteroid 6899 Nancychabot is named in her honor.



**Carolyn Ernst** is a planetary scientist at the Johns Hopkins University Applied Physics Laboratory. Her research focuses on impact cratering and surface processes on planetary and small bodies. She is the Deputy Instrument Scientist for the Mercury Laser Altimeter (MLA) on board the MESSENGER spacecraft, is a member of the Long-Range Reconnaissance Imager (LORRI) team on New Horizons, and was recently selected to join the Cassini mission as a Participating Scientist.

# International Astronomy Day 2015



# Lessons learned – Working with SSA's

- If using multiple presenters, assign different “point people” to coordinate with them:

*“It was actually fairly easy to find someone because of your hard work and the great way you treated the speakers last time we were there. I sent out a request and someone that was there last time spoke up and vouched that she had really enjoyed volunteering with you because of the way she was treated by you guys...”*

– Dawn Turney, Educational Outreach Coordinator, APL

# Lessons learned – Working with SSA's

- Coordinate with presenter about expected audience and choose the best option for showcasing their expertise
  - ▣ Table-top activities
  - ▣ Formal talks or presentations
  - ▣ “Ask the Scientist” table/opportunity
  - ▣ Display that can be interpreted for interested patrons
- Get the word out (be creative)
  - ▣ Coordinate Extra-credit options with schools/colleges
  - ▣ Ask SSA's where they hear about astro events

# Yuri's Night World Space Party



# Hands-on presentations



# Set-up



– Clean-up!



# Display



# Formal Talk



# Display & Ongoing activity



# SCIENCE MUSEUM OKLAHOMA

A Partnership with Night Sky Network & NISE

***Night Sky Network***

Astronomy clubs bringing the wonders of the universe to the public

**NISE**  
NATIONAL INFORMAL  
STEM EDUCATION  
NETWORK

# Museum Programs Using Network Materials

- Camps and Science Overnights
- Scouting
- Space Day
- Special Astronomical Events: Solar Eclipse, “So You Got A Telescope For Christmas?”

# Kirkpatrick Planetarium

With around 100,000 visitors per year, the planetarium is a very busy venue in the museum.



There is a strong partnership between the Oklahoma City Astronomy Club within the Night Sky Network and the planetarium as a key source of astronomical information in Oklahoma City.

# Eclipse Day 2017

Events surrounding the Aug. 21 solar eclipse were a tremendous success, thanks in part to the materials provided by the Night Sky Network and NISE.



More than 2,000 guests visited Science Museum Oklahoma to participate in viewing activities both inside and outside the museum.

# Eclipse Day 2017



Contents from different kits were used to create activities for our youngest guests.

Museum staff provided tattoos and shadow-cards throughout the crowd, allowing children a chance to experience this rare event and provided a lasting memento of the occasion.

“Early Explorers” used the moon on a stick, sun flash light, toy bears, and a paper plate creating an easy way to demonstrate what they were about to see.

# Space Day

“Cloud in a Bottle” was a big hit.

It was easy to use and allowed our child volunteers to help pressurize the bottle.



## Camps, Science Overnights, Scouts and More

The Orbiting Objects kit was a great success, making the gravitational pull activity work for different age groups.

We have used the Ice Orbs on many different occasions, the most recent being an adult evening event.



# So You Got A Telescope For Christmas?

A January 2018 partnership event between the museum and the Oklahoma City Astronomy Club.



**Tom Arnold, Kirkpatrick Planetarium Director**

TArnold@ScienceMuseumOK.org

[405] 602-3705

Science Museum Oklahoma  
2020 Remington Pl.  
Oklahoma City, OK 73111

ScienceMuseumOK.org

@ScienceMuseumOK



# Questions?



# Upcoming Workshops



- **What's in Your 2018 Explore Science: Earth & Space Toolkit**  
Tuesday, February 6, 2018; 2pm-3pm Eastern  
<http://bit.ly/2ACQMff>
- **The Science Behind the Earth & Space Toolkit - Exploring Earth and the Solar System**  
Tuesday, February 27, 2018; 2pm-3pm Eastern  
<http://bit.ly/2yoyEc6>
- **The Science Behind the Earth & Space Toolkit - Looking Beyond the Solar System**  
Tuesday, March 13, 2018; 2pm-3pm Eastern  
<http://bit.ly/2Bj1CiZ>
- **NGSS and the Explore Science: Earth & Space Toolkit - Connecting Your Toolkit to Field Trips and K-12 Programs**  
Tuesday, March 20, 2018; 2pm-3pm Eastern  
<http://bit.ly/2iZ4tCU>

# Thank You

