

Friends of Arlington's David M. Brown Planetarium 2012-2013 Academic Year in Review

DAVID M. BROWN







FriendsOfThePlanetarium.org



Friends of the Planetarium

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Dear School Board Members and Dr. Murphy,

August 30, 2013

It is hard to believe that an entire year has passed since the Grand Re-Opening of the planetarium last September 28. What a successful year it has been! We would like to take the opportunity of this anniversary to present this review of our accomplishments during the inaugural year of our partnership in the transformed and updated planetarium.

We began with a Grand Re-Opening Weekend that included a ribbon-cutting; speeches by a former NASA Administrator, a retired NASA astronaut, our congressman and other officials; a performance by the Barrett Elementary School children's chorus; an open house that included t-shirts, games, liquid-nitrogen ice cream, and hands-on science activities for all ages; and non-stop shows enjoyed by capacity audiences reclined in large comfortable seats under the brand-new dome.

The state-of-the-art digital projector, computerized lighting, and integrated sound system make it possible for Arlington's planetarium to present the cutting-edge, high-definition, full-dome shows commonly seen at the top planetariums in the nation. For the first time, in 2013 APS students and the local community alike enjoyed easy and economical access to popular educational wonders such as "Stars," "Oasis in Space," "Dynamic Earth," "Black Holes" "SuperVolcanoes," "The Zula Patrol: Down to Earth," and "The Magic Tree House Space Adventure." The new equipment also allows for advanced Star Talks and other interactive programming customized to the audience and every possible interest in the night sky.

Arlington reliably ranks among the top localities in the nation for a combination of education and wealth, and the planetarium's Ballston location currently enjoys the highest concentration of science, technology and creative positions in the Washington, D.C. region. This presents an opportunity in which the planetarium is a valuable asset uniquely positioned to capitalize for the exclusive benefit of all Arlington.

One of the Friends' founding purposes is to promote a greater awareness and utilization of Arlington's planetarium. The success of that effort was evident this year in sold-out shows and the spillover benefit of significantly larger attendance at the regularly-scheduled APS public shows as well. With its central location, abundant free parking, affordable tickets, diverse yet family-friendly programs, and consistently educational focus, Arlington's planetarium is rapidly becoming a destination with strong appeal that attracts all ages not only from within the county but across the entire metropolitan area as well.

Another of the Friends' founding purposes is to provide a range of science programs of interest to the general public. In 2013 our Sunday Science lecture series entered its third year with eight fascinating talks, and was joined by Science Movies and Videos under the dome as well as a range of special events including a NASA Star Party and Telescopes on the Terrace.

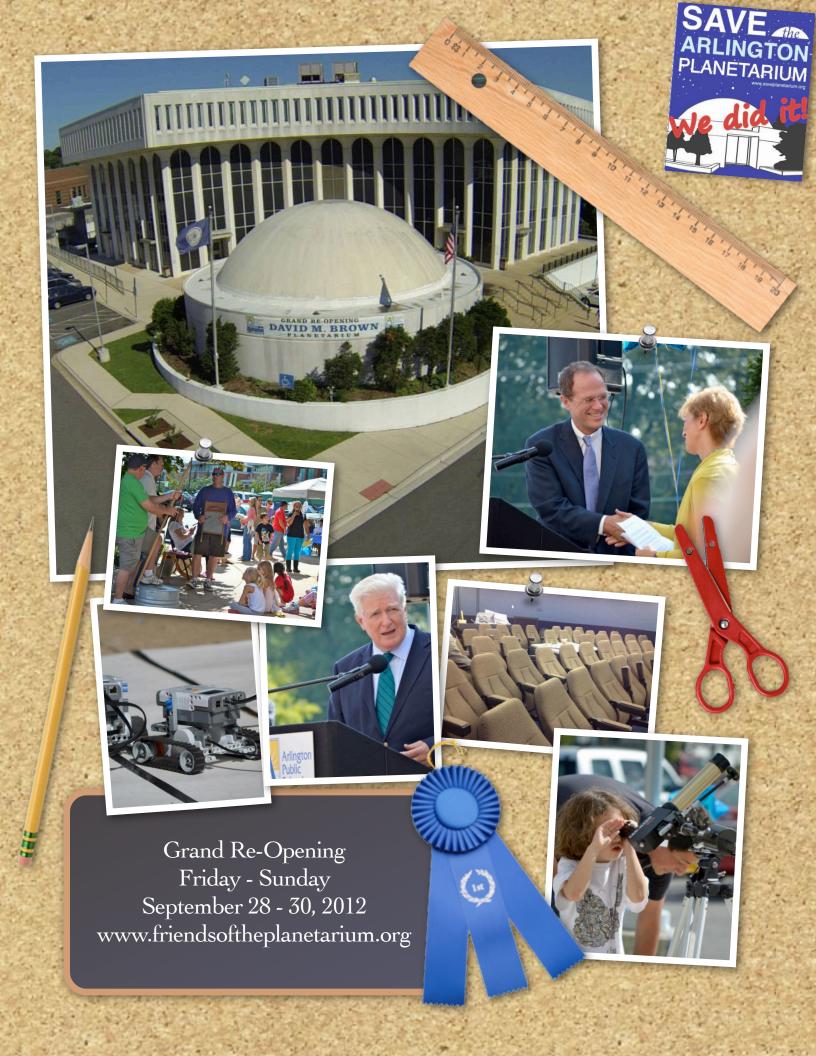
Finally, we closed the year with the remarkable achievement of one of our earliest goals, the award of the first David M Brown Memorial Scholarship. The \$2,000 renewable scholarship debuted near the top of over 50 scholarships managed by the Arlington Community Foundation for local college students.

Please enjoy this compilation of our successful year in review.

Alice K. B. Monet

Herek & Monet

President



2012-2013 Friends Weekends

October - Going Beyond the Stars

Screening of the documentary, "The City Dark" • Premiere of the full-dome show, "Stars: The Powerhouses of the Universe" (made possible by donations of parents of Arlington Public School students) • Sunday Science Presentation by Dr. Andrew Clegg, National Science Foundation: "Managing the Electromagnetic Spectrum to Protect Radio Astronomy"

November - Climate Change

Screening of the documentary, "Six Degrees That Could Change the World" • Premiere of the full-dome show, "Dynamic Earth" donated by Ric and Jean Edelman • Special Talk by Jason Samenow, Washington Post, "Wild Weather in Washington, D.C.: A Climate Change Connection?" • Sunday Science Lecture by Cary Secrest, "Trashing the Troposphere"

February - Astronomy: Women in Science

Movie Night at the Planetarium featuring "Contact" • Full-dome show, "Oasis in Space" • Interactive Star Talk • Sunday Science Lecture by Dr. Sethanne Howard on "Four Thousand Years of Women in Science"

March - Dinosaurs & Fossils

Movie Night at the Planetarium featuring "The Land Before Time" • Full-dome show, "The Zula Patrol: Down to Earth" • Interactive Star Talk • Sunday Science Lecture by Paleo Quest founders Jason Osborne and Aaron Alford discussing "SharkFinder" and their mobile museum of local fossils

April - Earth Science

Full-dome show, "SuperVolcanoes" • Interactive Star Talk • Full-dome show, "The Magic Tree House: Space Mission" • Sunday Science Documentary and Discussion on "Inside Planet Earth"

May - Astronomy

Screening of the documentary, "Saving Hubble" • Premiere of the full-dome show, "Black Holes: the Other Side of Infinity" • Interactive Star Talk • Sunday Science Lecture by Nathan Secrest on "The Mysterious Origins of Supermassive Black Holes"



June - Best of Year Retrospective

The CubeSat Mission: Hands On Presentation • Presentation of First David M Brown Scholarship • "Summer Meteor Showers" by Dr. Alice Monet • Full-dome show "Magic Tree House® Space Mission" • Full-dome show, "Oasis in Space" • Full-dome show, "Stars: The Powerhouses of the Universe" • Full-dome show, "Black Holes: the Other Side of Infinity" • Project Enlightenment Living History • Full-dome show "Dynamic Earth"

Special Events

The Grand Opening Weekend

September 28-30, 2012: Open House with science activities for all ages; speeches by elected officials, a former NASA astronaut, the former NASA Administrator and school officials; performances by Barrett Elementary School chorus and the Yorktown Yahoos; liquid-nitrogen ice cream; t-shirts, games and hands on science for kids; and non-stop shows in the dome., including a lecture on "Very Long Baseline Radio Astronomy" by Dr Kerry Kingham, US Naval Observatory (ret.).



eBay Auction

September 30, 2012: Launched a 10-day online auction for the name dedication of the last remaining Planetarium seat, which sold to a long-time supporter of the planetarium for \$1425.

Presidential Inauguration Event - NASA Star Party

January 19, 2013: Arlington's David M. Brown Planetarium was invited to host a NASA Inaugural Weekend gala event – a Star Party! NASA astronauts and other experts were on hand to talk about current NASA missions and the future of space exploration, and to introduce the several planetarium shows. Each show was followed by a brief description of the night sky led by Planetarium Director Jonathan Harmon. The night sky was clear enough for star gazing with many telescopes positioned on the plaza surrounding the planetarium.





Benefit Concert at IOTA

December 3, 2012: IOTA Club and Cafe generously hosted a third benefit for Arlington's David M. Brown Planetarium to raise funds to purchase programming and meet other needs of the refurbished and reopened facility. IOTA's support played a key role in saving the Planetarium in 2011.

Dr. Heidi Hammel - Cosmic Collisions

March 23, 2013: Dr. Hammel, world-renowned astronomer, award-winning science communicator, and Vice President of The Planetary Society, gave a fascinating talk entitled, "Cosmic Collisions" to a sold out crowd in March 2013.

Special Events, cont.



SMASH Art Contest

In connection with the September 2012 Grand RE-Opening of the David M. Brown Planetarium, a new science contest for elementary school children was developed called SMASH (Sports, Math And Scientific Hypothesis). The purpose of SMASH is to encourage students to become more interested in STEM subjects - science, technology, engineering, and math. Friends of the Planetarium sponsored SMASH, and hosted the Award Ceremony on **May 17, 2013**.

MathDice Competition

In **June 2013**, Friends of the Planetarium sponsored MathDice, a competition that attracted 5^{th} grade students from all over Arlington County. Many of these students had been practicing and playing the MathDice game for months in preparation for this event.



Living History Presentation

In **June 2013**, Mr. Dean Howarth and his McLean HS students presented Project Enlightenment - a unique interdisciplinary living history program focused on conducting historical interpretations at local museums, schools, and historic sites. The presentation at the Planetarium connected astronomy to natural science in the Age of Enlightenment through the introduction of Captain James Cook and a presentation on his global expeditions in the 1760's and 70's.



Credit: NASA/JPL-Caltech/ Montana State University

CubeSat Presentation by St. Thomas More Students

Also in **June 2013**, Friends of the Planetarium invited students and faculty from St. Thomas More Cathedral School to present their program to launch a student-built satellite into orbit. These students have helped build a CubeSat satellite, and plan to use the data that the satellite collects for school research purposes in math and science.

Interactive Star Talks

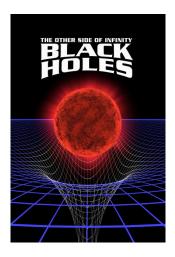
Many members of the Friends Board of Directors, including Andy Clegg, Jessica Rosenberg, and Alice Monet, joined Jonathan Harmon in presenting an interactive discussion of the night sky over Arlington and other astronomy-related topics following the screening of selected full dome digital shows.

Meeting 2013 Goals

Building a Library of Digital Programming

The goal to build a library of programming for the planetarium's new digital projection system has been achieved with the following acquisitions, all available for use by Arlington Public Schools (APS) when desired:

- Stars: The Powerhouses of the Universe (made possible by donations from parents of APS students)
- o **Dynamic Earth** (made possible by a gift from Ric and Jean Edelman)
- o Oasis in Space
- Black Holes: the Other Side of Infinity (made possible by a gift from the Caruthers family)



Teacher Training

The Friends of the Planetarium organization is committed to supporting Arlington Public Schools (APS) in providing enhanced science education in Arlington County. Two programs were established during the 2012-2013 academic year as a result of this commitment.

1) Grants for Teachers Program

Friends of the Planetarium has recently established a new Grants for Teachers program. We have offered APS a total of eight grants, up to \$500 each, for teacher training in science, technology, engineering, and mathematics (STEM) education.

2) Friends of the Planetarium Teacher Institute (PTI)

The Friends of the Planetarium established the PTI in May 2013, and the first offering will be Introduction to the Planetarium for Teachers. The focus will be on middle school grades in the morning, and high school in the afternoon. The workshop will include a tour of the planetarium, a demonstration of the system and viewing of a full dome program, discussion of uses of the planetarium in the classroom and information about planetarium resources for teachers.

David M. Brown Memorial Scholarship

The Friends of Arlington's David M. Brown Planetarium accomplished a major goal this year – establishing the David M. Brown Memorial Scholarship, and presenting the inaugural award. The scholarship recipient for 2013, **Alec Jackson**, was honored during a ceremony at the planetarium on **Saturday, June 15, 2013**. Alec is a graduating senior at Wakefield High School who will attend the University of Pittsburgh and plans to major in biomedical engineering.

2014 and Beyond

In 2014 and beyond, The Friends of the Planetarium organization plans to continue to raise funds to make the Planetarium even better. In addition to showcasing the Planetarium as an important center of science education for Arlington and the surrounding community, our major goals continue to be the ones laid out in the 2012-2013 year:

- ▶ Build a library of spectacular digital programs, including ones that are designed and created by Spitz-trained APS staff and Friends of the Planetarium Board members;
- ▶ Support Arlington Public Schools (APS) teachers by providing enhanced teacher training opportunities and education grants; and
- ▶ Fund the David M Brown Memorial Scholarship for Arlington students planning to major in STEM (science, technology, engineering, and mathematics) subjects in college.

The Planetarium Teacher Institute (PTI) will offer additional workshops for APS faculty in 2014 in order to highlight the various ways in which the planetarium can be used inside the classroom, as well as an adjunct instruction mechanism.

The Friends of the Planetarium will continue to hold monthly, specially-themed weekend programs at the planetarium. The 2013-2014 schedule is as follows:

September 27-29, 2013 Comets are Coming! October 18-20, 2013 Mission to Mars November 15-17, 2013 The Comet is Here! December 13-14, 2013 Science and the Christmas Star News from the Kepler Mission January 4, 2014 February 14-16, 2014 Valentine's Date Night, then Climate vs. Weather March 21-23, 2014 **Exoplanets** April 25-27, 2014 **USA Science & Engineering Festival** Mathematically Speaking May 16-18, 2014 June 13-15, 2014 Rockets!

We plan to increase awareness of the planetarium amongst the citizens of Arlington and the surrounding communities, increase membership in The Friends of the Planetarium, and help make the David M. Brown Planetarium a destination even for those already served by their own local planetarium.



The Friends of Arlington's David M. Brown Planetarium has an all-volunteer Board of Directors and Advisory Council. For more information about this organization, please visit www.friendsoftheplanetarium.org.