

Organization of the Year Award: Lowell Observatory

Website: <http://www.lowell.edu/>

About:

“Lowell Observatory is a private, nonprofit, research institution founded in 1894 by Percival Lowell. Since then, Lowell astronomers have conducted fundamental research that has led to the discovery of Pluto, the first evidence of the expanding Universe, and exhaustive measurements of the motions and basic properties of stars, among other achievements. Today, our staff of nearly 90 continues this tradition of discovery in all areas of astronomy and planetary science.

“In 1994, in celebration of our centennial, we opened the Steele Visitor Center; today, well over a million people have passed through its doors. Some 80,000 visitors each year enjoy our tours, telescope viewing, exhibits, multimedia shows, and more. Percival Lowell inspired millions with his tireless advocacy of astronomy in the public eye, and we continue this commitment today.

“In 2012, we will embark on our greatest adventure yet with the completion of the 4.3-meter Discovery Channel Telescope (DCT). This new facility will vastly expand the breadth of research capabilities for our astronomers. Perhaps more exciting, Discovery Communications will bring our results to hundreds of millions worldwide through programming using the DCT’s breathtaking images.”

Named one of “The World’s 100 Most Important Places” by TIME Magazine (3/11), Lowell Observatory is one of the most vibrant and active scientific centers in the country. To the best of our knowledge, Lowell is the largest non-profit, private observatory in the world. Lowell sets a very high standard for research results, as well as outreach and education. The work done at Lowell has profound effects on the field of astronomy and on people’s overall awareness of Flagstaff, both nationally and internationally. In 2011, we continued our rich history of groundbreaking research and education. Research highlights include Lowell Deputy Director Dr. Ted Dunham leading the first scientific flight with NASA/DLR’s airborne observatory, SOFIA; Dr. Dunham’s work as science lead for the Kepler Mission searching for exoplanets (more than 1,000 identified; work involves several other Lowell staff); the final stages of data collection and reduction for Dr. Deidre Hunter and her cohorts (including two Lowell fellows) involved in the long-term LITTLE THINGS galaxy-research project; continued important discoveries about the nature of comets, asteroids, Sun-like stars, Saturn’s moon Titan; and much more research about exoplanets, how best to find them, how to characterize their magnetic fields, atmospheres, and even surfaces.

Lowell directly collaborates with many institutions, including NASA, the U.S. Navy, Discovery Communications, the National Science Foundation, as well as

various other governmental, non-governmental, public and private entities. Locally, we work directly in cross-promotion with the Museum of Northern Arizona and Meteor Crater. We also work with the U.S.G.S. and the U.S. Naval Observatory (Flagstaff Station) on specific projects. Our 2011 work with U.S.G.S. included archival research of the Apollo Moon mapping done in Flagstaff (including at Lowell with the 24" Clark) during the early 1960s. Our 2011 work with the Naval Observatory included use of their facility to aid in calculating where the SOFIA airborne observatory needed to fly to see Pluto's shadow in June.

Lowell provides many workshops, colloquia, public programs, special events, and such, most at low or no cost.

- School's Out and Kids are Free days at Lowell
- Flagstaff Night (first Wed. of each month)
- 5th grade class visit program
- Flagstaff Festival of Science talks at Lowell (inc. several astronomical talks and ones on the 2010 tornado outbreak and the Schultz Fire)
- Meteor Shower nights (including discussion)
- Navajo-Hopi Outreach Program
- Talks and colloquia by regional and visiting scientists
- New scale models of the Milky Way and Universe on the campus
- An Exoplanet Education Day for local students in May
- A science writer's conference reception including talks and tours
- Behind-the-scenes tours of Lowell
- Outreach events at local schools ("Cosmic Cart") and for other groups
- And much more...

Lowell is one of the local educational leaders, providing low-cost or no-cost scientific education locally and regionally, ranging from FUSD students to classes involved in Lowell's Navajo-Hopi (N-H) Outreach Program. We are able and eager to provide such education, in part because of Percival's mission statement and because we receive grants and donations to do so. In addition, educational components are part of most scientific grants. Our staff arrives at Lowell knowing and espousing the fact that they will be involved in education, sometimes in non-traditional but very appreciated ways, such as the N-H program. Many employees volunteer time above and beyond what any grant might expect them to do. And with our public programs, we offer one of the most diverse and engaging slates of educational offerings in the state.