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NEWS RELEASE

August 31, 2010 --- For Immediate Release

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Mount Wilson Observatory Awarded Renovation Grant

MOUNT WILSON, CA — The National Science Foundation has announced the award of a \$1.48 million grant to the Mount Wilson Institute, which operates historic Mount Wilson Observatory in the San Gabriel Mountains above the Los Angeles Basin. The grant was awarded following a peer-reviewed competition in the NSF's Academic Research Infrastructure: Recovery and Reinvestment Program.

"This is a major shot in the arm for us and reaffirms Mount Wilson's ongoing role in contemporary astronomy," said Dr. Hal McAlister, the Observatory director. "This grant will provide resources to renovate a significant portion of the aged infrastructure of the Observatory to ensure its continued viability as a site for astronomical research." To the casual visitor, the most obvious result of this grant will be fresh paint, for the first time in decades, on the major historic telescope domes on the mountain.

Founded in 1904, Mount Wilson Observatory was home to the world's largest telescopes during the first half of the 20th Century. The Observatory's astronomers utilized those powerful instruments to revolutionize our understanding of the Universe. The Hubble Space Telescope was named for Mount Wilson's most famous astronomer, Edwin Hubble. In the 1920s, Hubble used Mount Wilson's 100-inch telescope, then the world's largest, to show that we live in a galaxy among countless others populating a vast and expanding Universe. This launched a revolution in astronomical thought that set the science of astronomy on a new course.

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The site is known for its excellent astronomical “seeing” conditions, resulting from smooth air flowing in from the cold Pacific Ocean and not becoming very turbulent until after passing inland from the San Gabriel Mountains.

“The stars over Mount Wilson don’t twinkle as much as from most sites,” said McAlister, “which means that objects appear naturally sharper and more clearly defined through telescopes than they typically do from inland sites.”

While the bright skies of Los Angeles render the site no longer suitable for studying very faint objects in the distant Universe, Mount Wilson remains an outstanding site for observations that benefit from excellent seeing. Thus, the two original solar tower telescopes built before 1910 are still in daily operation on the mountain under direction of researchers from the University of Southern California and the University of California, Los Angeles. These two instruments routinely monitor the sun’s magnetic field, measure its vibrational motions and monitor the number and nature of sunspots and other phenomena on its surface.

Two other institutions, the University of California, Berkeley, and Georgia State University, have constructed modern, state-of-art arrays of telescopes that utilize the technique of “interferometry.” This method allows two or more telescopes to be linked together to enable them to perform as a single much larger telescope in terms of their ability to see fine detail in astronomical objects. In particular, Georgia State’s CHARA Interferometer Array is for the first time producing images of the surfaces of normal-sized stars like the sun. Such stars have angular sizes equivalent to that of the period at the end of this sentence seen from a distance of 50 miles.

A year ago, Mount Wilson was in the midst of the Station Fire crisis which threatened to sweep the mountaintop, destroying irreplaceable historic facilities along with tens of millions of dollars in modern instrumentation. The Observatory is launching a “Second Century Campaign” to build a major new visitor center on the Observatory grounds. As a prelude to that venture, a new food venue, The Cosmic Café, was opened on the mountain this summer. The café is open weekends, including long weekends like the upcoming Labor Day holiday, from 10 a.m. to 4 p.m.

“Come visit Mount Wilson Observatory,” invites McAlister, “and stay tuned to our development goals up here. This grant is a real milestone in ensuring that the Observatory does indeed survive well into its second century.”

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