**See the night sky**
through a variety of telescopes and binoculars; bring your own or use Club members.

**KNOWLEDGEABLE** Prescott Astronomy Club members will have available their personal telescopes, a Club telescope, or binoculars for the public to view interesting objects in the night sky. Starry Nights is sponsored by the Prescott Astronomy Club in cooperation with the Prescott Department of Parks and Recreation, the Prescott Valley Department of Parks and Recreation, and the Highlands Center for Natural History.

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**Starry Nights in Prescott and Prescott Valley:**

- **March 9:** Pronghorn Park, 7:00 to 9:00 PM; see the Orion Nebula, Mars, galaxies, clusters, double stars
- **April 6:** Highlands Center, 7:00 to 9:00 PM; see clusters, galaxies, double stars, nebula, galaxies
- **May 11:** Pronghorn Park, 8:00 to 10:00 PM; see details of the Moon, double stars, galaxies
- **June 22 to 29 (each evening):** Annual Grand Canyon Star Party, South & North Rims, Grand Canyon National Park
- **September 21:** Pronghorn Park, 7:30 to 9:30 PM; see M31, M13, M57, M16, M11 and M27, M57
- **October 5:** Highlands Center, 7:00 to 9:00 PM; see clusters, double stars, Saturn, the Moon, M27
- **November 2:** Pronghorn Park, 6:30 to 8:30 PM; see the Moon, M27, clusters, M57, M13, Albireo

**PRONGHORN PARK** is at 7931 E. Rusty Spur Trail in the Pronghorn Ranch subdivision, Prescott Valley. GPS coordinates—34°39'8.14"N; 112°19'34.96"W

**HIGHLANDS CENTER FOR NATURAL HISTORY** is located at 1375 Walker Road, Prescott, about 2 miles south of Route 69. GPS coordinates—34°30'56.87"N; 112°23'27.16"W

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**PRESIDENT PUBLIC LIBRARY**

www.prescottlibrary.info  928.777.1500

**PRESIDENT ASTRONOMY CLUB**

www.prescottastronomyclub.org

**WITH THANKS TO OUR SPONSORS:**

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Photos courtesy of Prescott Astronomy Club members John Carter and Joel Cohen.
The Prescott Astronomy Club meets at 6:30 PM on the first Wednesday of each month in the Grand Lodge at Touchmark at the Ranch in Prescott. GPS coordinates are 34°55’N; 112°40’W. The public is welcome to attend.

Third Thursday Star Talks at Prescott Public Library Founders Suite

These presentations on a variety of subjects relevant to astronomy are sponsored by the Prescott Astronomy Club and the Prescott Public Library and are free to the public. Speakers are selected from a variety of regional organizations for their knowledge and outstanding ability to discuss their topic.

- **February 21, 6 to 8 PM**
  **Dark Energy, Dark Matter, and Cosmology**
  Dr. Quentin Bailey, Professor and Chair of Physics and Astronomy, Embry Riddle Aeronautical University
  Our knowledge of the observable universe has changed dramatically in just the last two decades. This is due to increasingly precise measurements and observations from dedicated ground observatories, satellite missions (such as WMAP and Planck), and more recent gravitational wave measurements. We have found that much of the universe is made of strange stuff called dark matter and dark energy that we do not yet fully understand. This talk will describe the current status of the Standard Cosmological Model of the Universe.

- **March 21, 6 to 8 PM**
  **Experience the Impact of Meteor Crater with the movie Impact, the Mystery of Meteor Crater.**
  Jeff Beal, Meteor Crater
  Hear about the origins and history of Meteor Crater, starting from the time a 150-foot meteorite crashed into the Earth 50,000 years ago. Discover why NASA came to the Crater to train the Apollo astronauts for landings on the Moon and why scientists still study the Crater today.

- **April 18, 6 to 8 PM**
  **Update—New Horizons Mission to the Pluto System**
  Dr. Will Grundy, Co-Investigator New Horizons Project, Lowell Observatory
  Dr. Grundy, co-investigator on the New Horizons mission, will provide an update on NASA’s New Horizons probe following its flyby of the Kuiper belt object Ultima Thule. He will also discuss his work as the leader in the study of exotic ices at the Ice Lab in NAU’s Physics and Astronomy department. The Ice Lab is advancing our knowledge of Pluto and other icy bodies in the outer Solar System.

- **May 16, 6 to 8 PM**
  **The Research Legacy of Lowell’s Great Refractor**
  Klaus Braasch, professor emeritus at California State University, San Bernardino and a docent at Lowell Observatory in Flagstaff.
  Lowell Observatory’s 24-inch Clark telescope has been in operation for 125 years and is listed in the US historic register. Built by the renowned firm of Alvan Clark & Sons, it was one of the largest telescopes in the world when commissioned in 1894. Recently refurbished, and now used mainly for public outreach and education, this telescope has a long and storied research career. Klaus will highlight many of the findings and discoveries made with this classic instrument.

- **September 19, 6 to 8 PM**
  **The Current Status of OSIRIS-Rex**
  Dolores Hill, Sr. Research Specialist, University of Arizona, Lunar and Planetary Laboratory and OSIRIS-Rex asteroid sample return mission
  The University of Arizona’s Lunar and Planetary Lab is the home department for NASA’s OSIRIS-Rex Asteroid Sample Return Mission. Dolores will provide an update on the progress and research of this exciting mission since the spacecraft arrived at asteroid Bennu a year ago.

- **October 17, 6 to 8 PM**
  **Exploring the Gap Beyond the Kuiper Belt: Implications for Planet X.**
  Will Oldroyd, Graduate Student, NAU
  In 1781 William Herschel discovered the planet Uranus. Alexis Bouvard observed changes to the orbit of Uranus and predicted the existence of another planet leading to the discovery of Neptune in 1846. Percival Lowell believed he had detected slight changes in the orbits of Uranus and Neptune caused by a yet to be discovered “Planet X.” This launched a search for another planet and Pluto was discovered in 1930 by Clyde Tombaugh. In the past 20 years, thousands of objects have been discovered past Pluto and, in the past 5 years, astronomers have noticed interesting gravitational alignments among these bodies pointing to the existence of another “Planet X.” Come learn about the ongoing search for Planet X as Will shares his research into these unexpected alignments.

- **November 21, 6 to 8 PM**
  **Mapping the Moon**
  Speaker from USGS to be determined