

The Observer

SAN BERNARDINO VALLEY AMATEUR ASTRONOMERS

Member of The Astronomical League

<http://sbvaa.org/>



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Since 1958

September, 2012

Meeting:

September 8, 2012

Location:

San Bernardino County
Museum, 7:00 p.m.
Redlands, CA. California
St. exit, I-10 Fwy.

Pre-meeting Dinner, 5:00
p.m.,

The Sizzler
1800 So. Waterman
Ave.
San Bernardino, CA

After the meeting telescopes
will be set up for viewing
and members will be
available to answer
questions. Bring your
telescope to observe with us.

*No telescope is too humble,
and beginners are always
made welcome!*

After viewing the group will
head for Coco's in Redlands,
Tennessee exit, I-10 Fwy.

Neil A. Armstrong

1930 -2012

I've trod The high untrespassed sanctity of space,
Put out my hand, and touched the face of God.



High Flight

Program

Grandview:
Then, now and future

Martin Carey



Our club has enjoyed the tradition of making the trip to Grand View campground twice a summer for nearly two decades. September 8th, some of us will gladly make the pilgrimage up to the White Mountains campground again. Because of the increasing popularity of Grand View and problems with finding space and keeping it dark, we have reserved an alternative site for September. In this slide show we'll look at some memories of Grand View, take a peek at the new campground, and a few surprises. We'll also compare images and data of our star party options that are closer to home.

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Calendar of Upcoming Events

September 14-16, GRANDVIEW

September 22, Moon Party at the Museum

October 13, Star Party at Afton Canyon
and
Star Party/Outreach, Wildlands Conservancy
Oak Glen

October 20, Club meeting at the Museum

October (Date to be announced) annual outreach
at the Asistencia

November 10, Star Part at Johnson Valley

An Outreach to Celebrate the Equinox!

By Chris Clarke

On **Saturday, September 22**, the club will host a "Moon Party" at the County Museum. That date falls on the first day of autumn, where the sun sits at the juncture of the ecliptic and the celestial equator. Day and night are of equal length and the sun rises exactly due east and sets exactly due west. The counterpart to this occurs in March, where the vernal equinox occurs and spring begins in the northern hemisphere.

These annual astronomical events were enjoyed and celebrated long ago. Today, few people notice or care, but it is still an important point in the earth's orbital motion around the sun. The earth's axial tilt of $23 \frac{1}{2}$ degrees causes the sun to shine directly on different parts of the globe as it moves around the sun in its orbit. At this point, the sun will be directly above the equator.

While it will become autumn for us here in the northern hemisphere, in the southern hemisphere, they will be celebrating the first day of spring. And

when it is our winter, folks "down under" will be having their summer.

We'll have our own little "celebration" with a party to share views of the first-quarter moon with the public at the Museum. We'll be set up on the south end of the parking lot and the viewing will be from 7:00 to 8:30 pm. Set will be at 6:30 pm

Come on down and have a pleasant evening to mark the beginning of autumn!

FOR SALE

Like new Televue Nagler 9mm Type 6
Eyepiece in excellent condition that has
only been used three times.
Asking price only \$180.00.

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Crowded Neighborhood!

ScienceDaily (Aug. 23, 2012) — Two newly submitted studies verify 41 new transiting planets in 20 star systems. These results may increase the number of Kepler's confirmed planets by more than 50 percent: to 116 planets hosted in 67 systems, over half of which contain more than one planet.

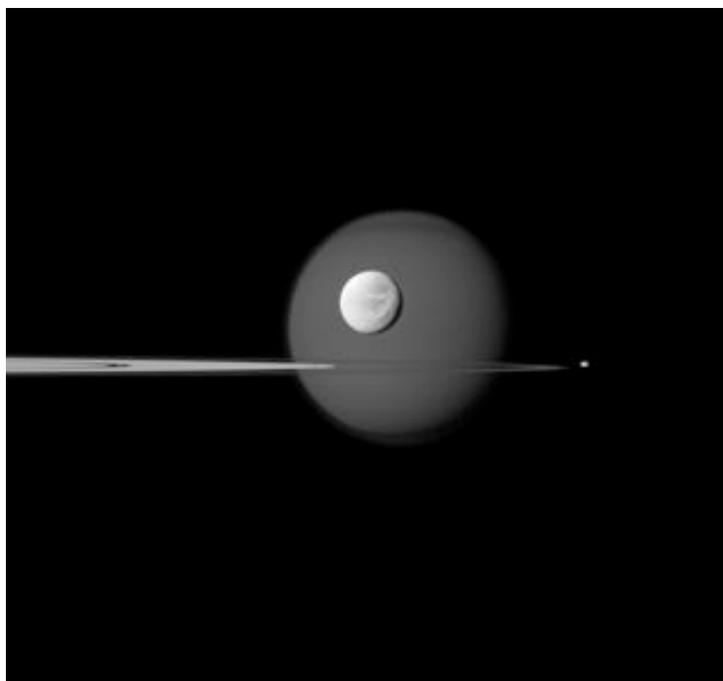
The papers are currently under scientific peer-review.

Nineteen of the newly validated planetary systems have two closely spaced transiting planets and one system has three. Five of the systems are common to both of these independent studies. The planets range from Earth-size to more than seven times the radius of Earth, but generally orbit so close to their parent stars that they are hot, inhospitable worlds. The planets were confirmed by analyzing Transit Timing Variations (TTVs). In closely packed systems, the gravitational pull of the planets causes the acceleration or deceleration of a planet along its orbit. These "tugs" cause the orbital period of each planet to change from one orbit to the next. TTV demonstrates that two transiting planet candidates are in the same system and that their masses are planetary in nature. "These systems, with their large gravitational interactions, give us important clues about how planetary systems form and evolve," said lead researcher Jason Steffen, the Brinson postdoctoral fellow at Fermilab Center for Particle Astrophysics in Batavia, Ill. "This information helps us understand how our own solar system fits into the population of all planetary systems." The two research teams used data from NASA's Kepler space telescope, which measures dips in the brightness of more than 150,000 stars, to search for transiting planets.

"The sheer volume of planet candidates being identified by Kepler is inspiring teams to look at the planet confirmation and characterization process differently. This TTV confirmation technique can be applied to large numbers of systems relatively quickly and with little or no follow-up observations from the ground," said Natalie Batalha, Kepler mission scientist at

NASA's Ames Research Center, Moffett Field, Calif. "Perhaps the bottleneck between identifying planet candidates and confirming them just got a little wider."

(The above story was edited and reprinted from materials provided by NASA.)



GRANDVIEW

SEPTEMBER 14 - 16



Moon Party, August 25, 2012

Photos by Robin Nennen

