



The Observer

SAN BERNARDINO VALLEY AMATEUR ASTRONOMERS
Member of The Astronomical League
<http://sbvaa.org/>



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Since 1958

June, 2020

Meeting:

June 6, 2020

Location:

~~First Christian Church
2102 E. Foothill Dr.
San Bernardino, CA~~

~~7:00 p.m.~~

~~Pre-meeting Dinner,
5:00 to 6:30 p.m.,~~

~~**Jenny's Family
Resturant
7750 Palm Ave.
Highland, 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!*

Program

No Meeting This Month

Thanks to the uncertainty of the COVID19 contagion, once again there will be no club meeting this month.

To keep up your “social distancing” continue practicing a little “backyard astronomy.” We’ve been fortunate to have some fairly still nights lately — albeit with not the greatest clarity (at least from my hi-tech driveway location in Redlands). Light pollution, of course, remains a problem.



But... remember the late Jack Horkheimer’s admonishment to “keep looking up.”

Also remember, be a helper not a hoarder.

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Calendar of Upcoming Events

~~June 17-21, Grandview~~

~~June 26, Outreach, S.B. Cty. Museum~~

July 11, Summer Social, Sizzlers (Ten.)

July 18, Outreach, Oak Glen (Ten.)

Aug. 8, Annual Club BBQ (Ten.)

Aug. 12 - 16, Grandview (Ten.)

Aug. 29, Outreach, S.B. Cty. Museum
(Ten.)

Sept. 19, Star Party/Outreach,
Oak Glen (Ten.)

Grandview in June Cancelled

Alas, Megan has received word from the Park Service that the campgrounds in and around Grandview remain closed. No mention was made of August so we must keep our fingers crossed.



Piece of Space History Flies Home

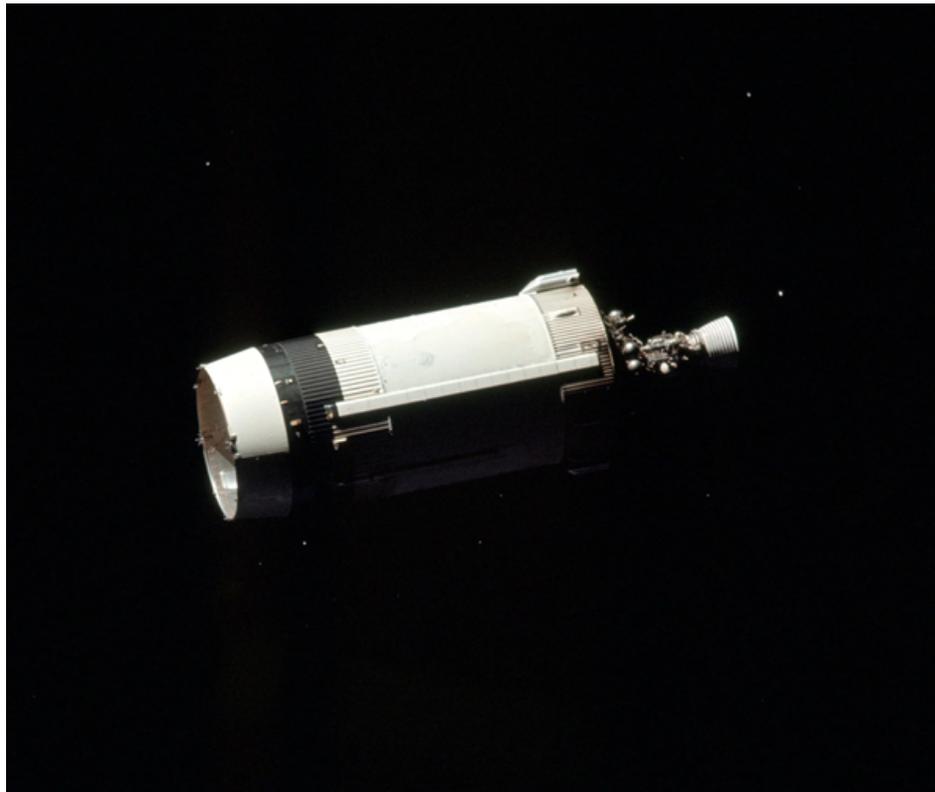
By: Doug Adler, Astronomy.Com

On September 3, 2002, amateur astronomer Bill Yeung discovered an object that he believed was a never-before-seen asteroid in a rapid orbit around Earth. While it's easy for massive planets such as Jupiter to frequently capture objects like asteroids and comets, Earth is smaller and has less gravitational oomph with which to influence interplanetary passersby.

Yeung's discovery, formally named J002E3, became the focus of an intense analysis with a unique result. The object was not an asteroid captured by Earth in a cosmic game of coincidence. This was a relic of humanity's space race: an Apollo-era rocket that had been placed in orbit around the Sun — and then returned to Earth.

...An analysis of recent launches did not identify any possible candidates for the source of the object. Scientists at the Jet Propulsion Laboratory (JPL) in Pasadena, California, tracing back the object's trajectory, discovered that it had been captured in April 2002 into Earth orbit from an orbit around the Sun that was similar to Earth's. Backtracking even further, the object appeared to have gotten into its Sun-circling orbit after originally escaping Earth orbit all the way back in February 1971.

This gave researchers some potential clues as to the origin of J002E3. [The] information pointed toward a very specific object as the identity of J002E3: a spent third stage from an Apollo-era Saturn V rocket, which were historically covered in this specific kind of paint. [Specifically, white, titaniumoxide (TiO₂) paint]



Astronomers Find The Closest (known) Black Hole to Earth

By: Eric Betz, [astronomy.Com](http://astronomy.com)

Astronomers have discovered a black hole that's [closer to Earth than any found before it](#). Located about 1,000 light-years away in the southern constellation Telescopium, the black hole weighs in at some four times the mass of our Sun, which means it's only about 7.5 miles (12 kilometers) wide. The researchers found the hidden beast while tracking binary stars using a telescope at La Silla Observatory in Chile. When they looked at the double star system HR 6819, they noticed that the inner star orbits quickly, while the outer star slowly chugs along. This meant the stars are not just circling each other. Some unseen third object has to be located near the center of the system. The hidden object and the inner star dance around each other every 40 days. Meanwhile, the outer star slowly circles the pair much farther out. And because the invisible object is at least four times the mass of the Sun, it can only be a black hole...

In comparison, the previous record holder for closest black hole is V616 Monocerotis, which is nestled in a binary system more than 3,000 light-years away. “Just looking at the number of black holes that we expect in the Milky Way, I would be very surprised if there aren't a few of them still closer by than HR 6819,” [one astronomer said].



Things to See While in “Quarantine”



June will be a great time to see Mars, Jupiter, Saturn Mercury, Venus and even Uranus & Neptune. Uranus will be a challenge since it will be entrenched in the dawn twilight. Neptune's best night is likely June 13, at dawn but at an altitude of only 5* it will be a challenge in the dawn twilight.