

# The Observer

SAN BERNARDINO VALLEY AMATEUR ASTRONOMERS

Member of The Astronomical League

<http://sbvaa.org/>



Volume #58, Issue 2

Since 1958

February, 2016

## Meeting:

February 20, 2016

## 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.,**

**Pepper Steak**  
**Restaurant**  
**26589 Highland**  
**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!*

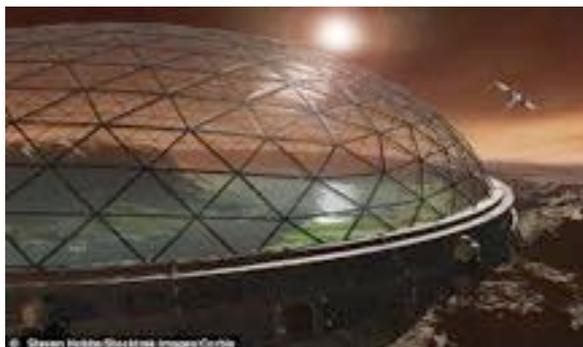
## Program

# Colonizing Space



We are privileged to have as our program this month, another one of the excellent episodes from the TV series, *The Universe*.

Many considerations come to the forefront when planning space travel beyond the moon. Scientists are currently working on overcoming the many challenges and testing their solutions.



## SBVAA Officers

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## Calendar of Upcoming Events

Mar. 5, Messier Marathon, GMARS site

Apr. 9, Star Party, Johnson Valley

May 7, Star Party, Johnson Valley

May 26-29, RTMC, Camp Oaks, Big Bear

Jun. 3-5, **Grandview**, dark and starry!

*Other star parties, outreaches and events for  
2016, TBD*



*Though my soul shall set in darkness, it shall rise  
in perfect light. I have loved the stars to truly  
to be fearful of the night.*

*Rudy Rodriguez*

*Teacher, leader, mentor, friend*

## Club Meeting Dates, 2016

February 20

March 19

April 23

May 21

June 18

July 16

August 20, (Ann. BBQ)

September 17

October 15

November 12

December (Ann. holiday pizza TBD)

## Remembering Rudy Rodriguez

By Chris Clarke

We have lost a dear friend with the passing of Rudy. He left this earth, most suddenly, on February 2. He was 64 years old, and appeared many years younger in appearance. He also maintained a youthful and positive outlook on life that was infectious.



He had been in the club for 20 years. For a time he was the club president, and later a trustee. He brought a sense of vitality to the group and helped foster enthusiasm. He was an incredible educator, sharing his knowledge and inspiring his students to succeed. He taught for over 30 years, teaching physical science and astronomy at the high school level. He'd retired about five years ago.

He developed and implemented an astronomy class and lab that was on par, and even exceeded, many college intro-level courses on the subject. He encouraged his students to be participants and not just spectators. With this 'hands on' approach, he made his classes fascinating and fun. Indeed, to spur them on, he would offer the reward of a brand new 10" Dobsonian telescope to the student who finished the astronomy class with the highest marks. To earn extra points, he had students come to club outreaches and to remote star parties, so that they would have the opportunity to see more. He had a fantastic variety of telescopes to share at viewing events, plus he would usually have all sorts of "props" to help describe whatever was being

observed. He was a dedicated teacher and never overlooked an opportunity to enlighten anyone with a question.



He was an extremely friendly and talkative person and was a welcome addition to any discussion. He possessed a keen intellect tempered with wit and humor. It was a genuine pleasure to be around him. He gave so much of himself, and sought only the intangible return of satisfaction in knowing that he had helped others learn and be more aware of the universe around them.

We are all richer for having known him and the world has lost a truly special individual who worked very hard to make it a better place.



## Hundreds of Galaxies Hidden on The Other Side of The Milky Way

By Elizabeth Howell, Space.Com

Scientists used an Australian radio telescope famous for assisting with the moon landings to peer through the gas and dust of the Milky Way, and uncovered 883 galaxies hidden behind it — one-third of which were never observed before.



The new observations, made using the Commonwealth Scientific and Industrial Research Organization (CSIRO) Parkes Observatory, in Australia, found three new galaxy concentrations (NW1, NW2 and NW3) and two new clusters (CW1 and CW2). The researchers put a new, 21-centimeter (8.3 inches) multibeam receiver on the observatory that allowed it to map the sky 13 times faster than it had previously. Thus, they were able to pin down a region beyond the Milky Way that astronomers had wondered about for decades. With further work, the team hopes the discoveries will help explain observed anomalies within the universal expansion of the cosmos, like the Great Attractor,

This new view of the region could help explain something called the Great Attractor, which is a mysterious spot in the universe whose strong gravity pulls on the Milky Way and thousands of other galaxies with "the force equivalent to a million billion suns,

## Is New Mars Lander Dead Before Launch?

By Mike Wall, Sr. Writer, Space.com

NASA will decide soon whether a Mars lander that was supposed to launch next month will ever get off the ground.

NASA announced in December that its InSight Lander, which is designed to probe the interior structure of Mars, would not be ready to blast off in March as originally planned because of a leak in the vacuum container surrounding one its key instruments.



Favorable alignments of Earth and Mars come along just once every 26 months, so NASA could aim to send InSight on its way in mid-2018. But it's also possible that the mission will be scrapped altogether, agency officials have said.

InSight — whose name is short for Interior Exploration using Seismic Investigations, Geodesy and Heat Transport — has a total cost cap of \$675 million, \$525 million of which has already been spent. NASA will need to determine whether or not InSight can still launch in mid-2018 while staying under the \$675 million limit, agency officials said in December. If InSight gets off the ground, the lander's observations should reveal a great deal about the Martian interior, including the size of the planet's core. This information should in turn shed light on the formation and evolution of rocky planets in general, NASA officials have said.

InSight was originally supposed to launch on March 18 from Vandenberg Air Force Base in California. No NASA planetary missions have ever launched from Vandenberg; they generally blast off from Florida's Cape Canaveral Air Force Station.