THE OBSERVER

SAN BERNARDINO VALLEY AMATEUR ASTRONOMERS

Member THE ASTRONOMICAL LEAGUE

"Celebrating Forty-Eight Years of Amateur Astronomy"

VOLUME #48 ISSUE #04 **APRIL 2006**

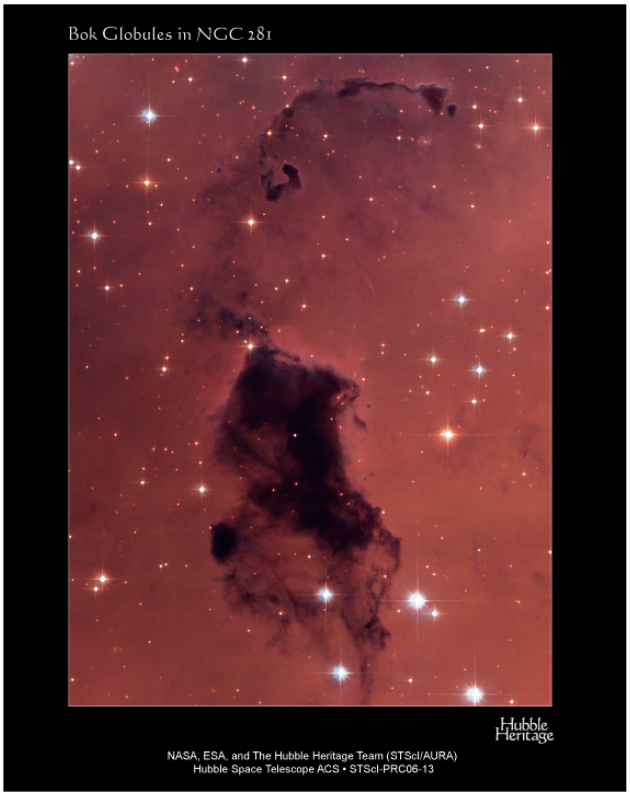
Feature Presentation: An IMAX movie called "Blue Planet"

Galactic Dust Bunnies

The yearly ritual of spring cleaning clears a house of dust as well as dust "bunnies," those pesky balls that frolic under beds and behind furniture. NASA's Hubble Space Telescope has photographed similar dense knots of dust and gas in our Milky Way Galaxy, but this dust isn't a nuisance. It's a concentration of elements responsible for the formation of stars throughout the universe.

These opaque, dark knots of gas and dust are called "Bok globules," named after astronomer Bart Bok, who proposed their existence in the 1940's. They're absorbing light in the center of the nearby star-forming region known as NGC 281, ocated nearly 9,500 light-years away in the direction of the constellation Cassiopeia.

Bok hypothesized that giant molecular clouds, on the order of hundreds of light-years in size, can become perturbed and form small pockets where the dust and gas are highly concentrated. These small pockets become gravitationally bound and accumulate dust and gas from the surrounding area. If they can capture enough mass, they have the potential of creating stars in their cores; however, not all Bok globules will form stars. Some will dissipate before they can collapse to form stars. That may be what's happening to the globules seen here. Image Credit: NASA, ESA, and The Hubble Heritage Team (STScI/AURA)



MEETING: April 15, 2006--7:00PM

"Bring Scopes for Lunar and Planetary Observing"

SAN BERNARDINO COUNTY MUSEUM

CALIFORNIA STREET EXIT FROM INTERSTATE 10

PRE-MEETING DINNER: 5:00PM HOMETOWN BUFFET, LOMA LINDA

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April Meeting:

The main feature of Saturday's meeting will be an IMAX film called "Blue Planet," a presentation from The Smithsonian Institution and NASA. The film is 42 minutes long.

On the agenda for discussion will be sites and locations of star parties, outreach events, and whether the members would like to try a different eating place for our traditional monthly Saturday meal before the club meeting. Some of us could use a change.

A discussion of the Club participation at the RTMC in May. We are the closest club to the RTMC and yet we have no visibility at the evnet.

2006 SBVAA Club Phone Directory

Is Completed and will be mailed only to club memberss.

SBVAA

CALENDER OF EVENTS 2006

Meetings held at the San Bernardino County Museum
For information, call Chris Clarke at (909) 888-6511, ex.1458

April 15.....Meeting (3rd Saturday)
April 29.....Star Party
May 20.....Meeting (3rd Saturday)
May 27.....Star Party
June 17.....Meeting (3rd Saturday)
June 23-25.....Star Party (Grandview)
July 15.....Meeting
July 22.....Star Party

RTMC Astronomy EXPO May 26-28, 2005

Camp Oaks, Big Bear, CA

DAY USE
per person.....$15.00
after May 1st...$20.00

Questions...
(909) 948-2205

http://www.rtmcastronomyexpo.org

The Theme for 2006 will be
"Preserving and Observing the Dark Sky."

Keynote Speaker
Dr. Mike Brown: "Beyond Pluto: Discovery of the 10th Planet"

President's Message

By Martin L. Carey
martincarey@sbcglobal.net

The Messier Marathon was cancelled due to high winds and clouds. We seem to be hitting about 50% good weather for this event over the years, as it is well into the rainy season. We haven't had any real deep sky viewing this year, as a matter of fact. I am determined to try to make up for it next time we get clear skies and calm air.

We have a chance to see a fascinating comet next month called Schwassmann-Wachmann 3, or "73P," which has broken up into many pieces, and is to fly by within 6 million miles. That's the closest any comet has come in the last 23 years. The pieces are fairly small, but many of them will be visible in binoculars and even naked eye, the brightest fragment at 4th magnitude. May 11-14, 73P will be visible after 12:30 am between Cygnus and Pegasus. I plan to see it at least once, even if it means leaving my beloved bed and stumbling outside to a pre-cooled telescope. For more info locating 73P: http://www.aerith.net/comet/catalog/0073P/2006.html, and click on "Weekly Information on Bright Comets." Or you can search on Yahoo for "aerith.net," which is Seiichi Yoshida's excellent comet website.

When weather permits, we will have another moon and planet party at our house, when the weather and my aching back permit. Last week I injured it pretty good moving a telescope up and down a hill, and I have to take it easy now. I will have to start attaching wheels to my scopes like most sane people do. Anyway, next month near the moon's first quarter let's plan on a party.

Jupiter is back, coming up about 9:30pm, and high enough for viewing at least an hour later. You may have heard that the big planet now has another red spot in Jupiter's southern hemisphere, close to the Great Red Spot. In our scopes, the GRS looks more like a pale, salmon pink color. The smaller spot resulted from several white ovals combining into one big storm. I have not seen this feature yet. You can view images on Christopher Go's website, he apparently got the first good pictures of the new feature, and his images were used by everyone else on the web. Another amateur making a contribution to astronomy!

New Search for Extraterrestrial Intelligence Begins

Planetary Society Opens World's First Dedicated Optical SETI Telescope.

On April 11, 2006, The Planetary Society dedicated a new optical telescope at the Oak Ridge Observatory in Massachusetts. The state-of-the-art telescope is designed solely to search for light signals from alien civilizations.

The Planetary Society's Optical SETI Telescope High on a wooded ridge in Harvard, Massachusetts an odd-looking structure has sprung up recently. Appearing from a distance like a small work shed, a closer inspection reveals some unusual features, including a retractable roof and a large side window with a sliding screen. A look inside is even more puzzling, for there, bolted to the ground, one finds a large elongated object, made of metal bars and mirrors. This strange object, that looks like nothing at all, represents one of the most ambitious SETI projects ever undertaken: an optical telescope dedicated exclusively to the search for extraterrestrial life. On April 11, 2006, the telescope pointed its giant mirror at the sky for the first time, and began a systematic search for light signals from an alien civilization.

MARS ROVERS UPDATES

Stack of Layers at 'Payson' in Meridiani Planum

The stack of fine layers exposed at a ledge called "Payson" on the western edge of "Erebus Crater" in Mars' Meridiani Planum shows a diverse range of primary and secondary sedimentary textures formed billions of years ago. These structures likely result from an interplay between windblown and water-involved processes.

The panoramic camera (Pancam) on NASA's Mars Exploration Rover Opportunity acquired the exposures for this image on Spirit's 749th Martian day (Feb. 10, 2006). This view is an approximately true-color rendering mathematically generated from separate images taken through all of the left Pancam's 432-nanometer to 753-nanometer filters. mage credit: NASA/JPL/Cornell

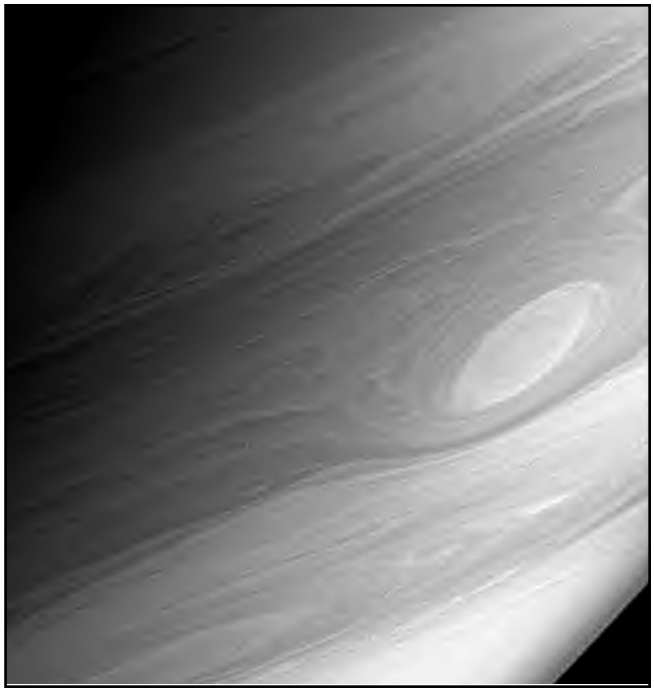
SPIRIT UPDATE: Spirit Seeks Alternate Winter Science Station - sol 796-804, Apr 06, 2006:

On the way to north-facing slopes on "McCool Hill" between outcrops nicknamed "Oberth" and "Korolev," Spirit ran into an impassable, sandy area. To increase solar power output, Spirit's handlers redirected the rover to a closer north-facing slope in an area known as "Low Ridge" or "Low Ridge Haven," about 20 meters away from the rover's position on sol 802 (April 5, 2006). Spirit continued to make progress in that direction after successfully exiting the sandy area on sol 799 (April 2, 2006).

CASSINI UPDATE

Bright Vortex

April 11, 2006



Gaseous Saturn rotates quickly -- once every approximately 10.8 hours -- and its horizontal cloud bands rotate at different rates relative to each other. These conditions can cause turbulent features in the atmosphere to become greatly stretched and sheared, creating the beautiful patterns that the Cassini spacecraft observes. This turbulence and shear is particularly notable at those boundaries where the different bands slide past each other.

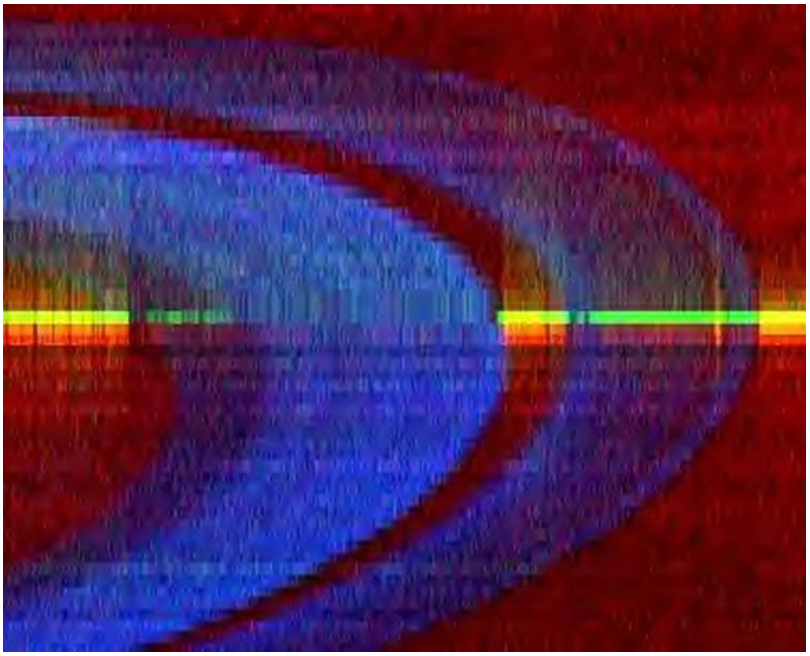
Vortices like the one seen here are long-lived dynamical features that are part of the general circulation of Saturn's atmosphere. They are counterparts to the east-west flowing jets and can last for months or years. They probably grow by merging with other vortices until a few dominate a particular shear zone between two jets.

This image was taken in polarized infrared light with the Cassini spacecraft narrow-angle camera on March 7, 2006, at a distance of approximately 2.9 million kilometers (1.8 million miles) from Saturn. The image scale is 17 kilometers (10 miles) per pixel.

Credit: NASA/JPL/Space Science Institute

Star-Crossed Rings

April 6, 2006



This image is a false-color ultraviolet view of Saturn's B ring (center) and A ring (right), separated by a large gap known as the Cassini Division. It shows a bright horizontal streak, created by a series of time lapse images involving a star named 26 Taurus. The image was made over a nine-hour period as the star drifted behind the rings. The opacity of the outer A ring is most pronounced on its inner edge, indicating more ring debris is present there. The Encke Gap, much smaller than the Cassini Division, is visible near the outer edge of the A ring. The B ring is significantly more opaque than the A ring, indicating a greater density of ring material when imaged from above. The sky behind the rings glows red in the ultraviolet wavelengths from the hydrogen gas that fills the solar system. The images were processed from data taken by the ultraviolet imaging spectrograph aboard the Cassini spacecraft in May 2005. NASA/JPL

An Invitation To Join

The San Bernardino Valley Amateur Astronomers

- **Monthly Meetings/Speakers**
- **Monthly Star Party**
- **The Observer Newsletter**
- **Learn about Astronomy**
- **Learn about Telescopes**
- **Learn about Astrophotography**

Fill out and mail this form along with $30.00 Annual Membership Fee. Add an additional $33.00 to include a one (1) year subscription to “Sky and Telescope” magazine and or $29.00 for one (1) year subscription to “Astronomy” Magazine.

Make check payable to: San Bernardino Valley Amateur Astronomers.

Mail to: Fidel Hernandez, SBVAA Treasurer,
27799 21st St, Highland, CA, 92346

Name_____

Address_____

City and State_____

Zip_____**Phone**_____

Internet E-mail Address_____

STAR PARTY

Saturday, April 29, 2006
at Johnson Valley, CA

See Tom Lawson, Star Party Coordinator,
to receive club online updates and color PDF Newsletter.

MEETING: April 15, 2006--7:00PM

Feature Presentation: An IMAX movie called "Blue Planet"

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SAN BERNARDINO COUNTY MUSEUM

2024 ORANGE TREE LANE, REDLANDS, CA

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PRE-MEETING DINNER: 5:00PM, HOMETOWN BUFFET, LOMA LINDA

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