Club News

May, 2003

John Kocijanski, Editor

Jim McKeegan, President
John Kocijanski, Vice President
Brian Deis, Secretary
Bud Wertheim, Treasurer

The April 5th observation session for the club was canceled due to poor weather but a makeup session was held on April 12th at Walnut Mountain Park. Observing conditions were marginal due to a steady wind and a first gibbous moon. Ten people attended. Despite the moon and wind we viewed a number of objects including the open clusters M36 and M37, the globular cluster M3, the galaxies M81, M82 and M94, and a the double stars Castor and Algeiba. We also viewed Saturn and Jupiter. Jupiter was next to the open cluster M44. We were also able to see the Great Red Spot near Jupiter's central meridian. The picture below shows John Barbarite and his Meade 12 inch SCT at the session.

Due to a poor weather forecast for Saturday April 26th, the observation session scheduled for that day was held on Thursday April 24th. The sky condition that evening was very clear. The seeing was decent after the wind died down. Seven people attended throughout the evening including a student from SCCC and her sons. They were treated to views of Jupiter and its moons, Saturn, some double stars, and the globular star cluster M3. Later in the evening we viewed the Great Red Spot on Jupiter. Most of the session was spent viewing galaxies. We started in the sky around Ursa Major and viewed M51, M94, M63, and M106. We then viewed some of the galaxies in Leo including the trio M65, M66, and NGC 3628. The Sombrero Galaxy (M104) in Virgo was next. We then spent some time viewing some galaxies in the Virgo Cluster including M60, M59, M49, M90, M84, M86, and M85. We ended the evening viewing the globular star clusters M13 and M92 in Hercules. The picture below shows the beginning of the session before sunset.

The observation sessions for May are on the 3rd and 31st. The makeup date is May 10th.

The Northeast Astronomy Forum will be held on May 17th and 18th at Rockland County Community College in Suffern, NY. Our club will have a table set up on the balcony on Saturday. Anyone wishing to volunteer to man the table on Saturday please contact John at kocis@catskill.net. No plans have been made to man the table on Sunday yet. Telescope inventor John Dobson and astronaut Story Musgrave are the featured speakers. Check out www.RocklandAstronomy.com for more details.

Anyone interested in submitting an astronomical observation or photograph for the newsletter, please contact John at kocis@catskill.net.

The club has selection of astronomy books, Stardate audio CDs, a Macintosh computer with astronomy software, and a Meade eight inch reflector for members to borrow. Please contact John at 791-5240 or kocis@catskill.net if you are interested in borrowing any of these.

Astronomy News:

Here are some articles from various sources that might be of interest.

EMBARGOED UNTIL: 9:00 am (EDT) April 10, 2003
PRESS RELEASE NO.: STScI-PR03-12
FAR-FLUNG SUPERNOVAE SHED LIGHT ON DARK UNIVERSE

New NASA Hubble Space Telescope observations of a pair of very distant
exploding stars, called Type Ia supernovae, provide new clues about the accelerating universe and its mysterious “dark energy.” Astronomers used the telescope’s Advanced Camera for Surveys to help pinpoint the supernovae, which are approximately 5 billion and 8 billion light-years from Earth. The farther one exploded so long ago the universe may still have been decelerating under its own gravity.

To see and read more, please click on:
http://hubblesite.org/news/2003/12
http://www.jhu.edu/news_info/news/home03/apr03/supernovae.html
-end-

Guy Webster (818) 354-0880 Jet Propulsion Laboratory, Pasadena, Calif.

IMAGE ADVISORY: 2003-053 April 15, 2003

NASA Orbiter Camera Team Begins Daily Mars Picture Postings

The camera team for NASA's Mars Global Surveyor mission is beginning daily Internet postings of pictures that showcase the rich diversity of martian landscapes. The first "Mars Orbiter Camera Picture of the Day" shows frost-covered sand dunes in the springtime as they begin to defrost. It is available online at the camera team's Web site where a different picture will be posted every day, including weekends and holidays:

http://www.msss.com .

The site will soon add other new features for the public enjoyment of pictures from Mars, said Dr. Michael Malin, principal investigator for the Mars Orbital Camera on Global Surveyor. It already offers access to more than 123,800 images of Mars. The spacecraft has been orbiting Mars since September 1997.

The Jet Propulsion Laboratory, Pasadena, Calif., manages Mars Global Surveyor for NASA's Office of Space Science, Washington, D.C. JPL is a division of the California Institute of Technology in Pasadena. JPL's industrial partner is Lockheed Martin Astronautics, Denver, which developed and operates the spacecraft. The Mars Orbiter Camera is operated by Malin Space Science Systems, San Diego.

Additional information about Mars Global Surveyor is available online at http://mars.jpl.nasa.gov/mgs/ . For more information about NASA and other space science programs on the Internet, visit http://www.nasa.gov .

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http://www.ifa.hawaii.edu/~sheppard/satellites/jup2003.html

New Satellites of Jupiter Discovered in 2003 - University of Hawaii
A work in progress: Most recent update April 13, 2003

This page describes the discovery of 20 new satellites of Jupiter, bringing the total of known Jupiter satellites to 60.

Discovery of the New Satellites

The majority of the new satellites were first seen in early February 2003 by Scott S. Sheppard and David C. Jewitt from the Institute for Astronomy, University of Hawaii along with Jan Kleyna of Cambridge University. The satellites were detected using the world's two largest digital cameras at the Subaru (8.3 meter diameter) and Canada-France-Hawaii (3.6 meter diameter) telescopes atop Mauna Kea in Hawaii. Both telescopes and their imaging cameras represent the latest technology

has to offer. Recoveries were performed at the
University of Hawaii 2.2 meter with help from Yanga Fernandez and Henry Hsieh
also from the University of Hawaii. Brian Marsden of the Harvard-Smithsonian
Center for Astrophysics performed the orbit fitting for the new satellites.

The first 7 satellites were formally announced by the International Astronomical
Union on Circular No. 8087 on March 4, 2003 while the eighth was announced on
Circular No. 8088 on March 6, the 9th through 12th on Circular No. 8089 on March 7,
and S/2003 J13 through J20 were announced in early April. The satellites J1 to J19
appear to have distant retrograde orbits (ie. their orbital rotation is opposite to
Jupiter's rotation) like the majority of the known irregular satellites of Jupiter.
The satellite S/2003 J20 appears to be a prograde satellite dynamically distinct
from any other known Jupiter satellite. However these orbits are still preliminary
and may change as new observations are obtained.

Guy Webster (818) 354-6278 - Jet Propulsion Laboratory, Pasadena, Calif.

Donald Savage (202) 358-1547 - NASA Headquarters, Washington, D.C.

News Release: 2003-051 April 11, 2003

NASA Rovers Slated to Examine Two Intriguing Sites on Mars

NASA has chosen two scientifically compelling landing sites for twin robotic rovers to explore on the surface of Mars early next year. The two sites are a giant crater that appears to have once held a lake, and a broad outcropping of a mineral that usually forms in the presence of liquid water.

Each Mars Exploration Rover will examine its landing site for geological evidence of past liquid water activity and past environmental conditions hospitable to life.

“Landing on Mars is very difficult, and it’s harder on some parts of the planet than others,” said Dr. Ed Weiler, NASA associate administrator for space science in Washington, D.C. “In choosing where to go, we need to balance science value with engineering safety considerations at the landing sites. The sites we have chosen provide such balance.”

The first rover, scheduled for launch May 30, will be targeted to land at Gusev Crater, 15 degrees south of Mars’ equator. The second, scheduled to launch June 25, will be targeted to land at Meridiani Planum, an area with deposits of an iron oxide mineral (gray hematite) about two degrees south of the equator and halfway around the planet from Gusev.

Which rover is targeted to a specific site is still considered tentative, while further analyses and simulations are conducted. NASA can change the order as late as approximately one month after the launch of the first rover. The first mission will parachute to an airbag-cushioned landing on Jan. 4, 2004, and the second on Jan. 25, 2004.

“A tremendous amount of effort has gone into evaluating possible landing sites in the past two years, to maximize the probability of mission success,” said Peter Theisinger, Mars Exploration Rover project manager at NASA’s Jet Propulsion Laboratory, Pasadena, Calif.

Images and measurements from two NASA spacecraft orbiting Mars provided scientists and engineers evaluating potential landing sites with details of candidate site topography, composition, rockiness and geological context.

“Meridiani and Gusev both show powerful evidence of past liquid water, but in very different ways,” said Dr. Steve Squyres, principal investigator for the rovers’ science toolkit and a geologist at Cornell University, Ithaca, N.Y. “Meridiani has a chemical signature of past water. Gray hematite is usually, but not always, produced in an environment where there is liquid water. At Gusev, you’ve got a big hole in the ground with a dry riverbed going right into it. There had to have been a lake in Gusev Crater at some point. They are fabulous sites, and they complement each other because they’re so different.”

Mars Exploration Rover site selection began with identifying all areas on Mars that fit a set of engineering-driven requirements, said JPL’s Dr. Matt Golombek, co-chair of a landing-site steering committee. To qualify, candidate sites had to be near the equator, low in elevation, not too steep, not too rocky and not too dusty, among other criteria; 155 potential sites were studied. A series of public meetings evaluated the merits of potential landing sites. More than 100 Mars scientists participated in the meetings.

“These two landing sites have been studied more than anywhere else on Mars. Both sites have specific scientific hypotheses that can be tested using the instruments on board each rover. It should be a very busy and exciting time after landing for the scientists analyzing the wealth of new data from the ground,” said Dr. Cathy Weitz, Mars Exploration Rover program scientist at NASA Headquarters.

“Clearly there is tremendous interest in the science community in what these missions can accomplish and eagerness to help see that the rovers go to the best possible sites,” said the National Air and Space Museum’s Dr. John Grant, the steering committee’s other co-chair.

Once they reach their landing sites, each rover’s prime mission will last at least 90 martian days (92 Earth days). The rovers are solar-powered, and in approximately 90 days, dust accumulating on the solar arrays likely will be diminishing the power supply.

The twin Mars Exploration Rover spacecraft are at NASA’s Kennedy Space Center, Fla., in preparation for launch. JPL built the rovers and manages the project for NASA’s Office of Space Science, Washington D.C. JPL is a division of the California Institute of Technology in Pasadena.

Information about the Mars Exploration Project is available online at http://mars.jpl.nasa.gov/mer/ . For more information about NASA on the Internet, visit http://www.nasa.gov .

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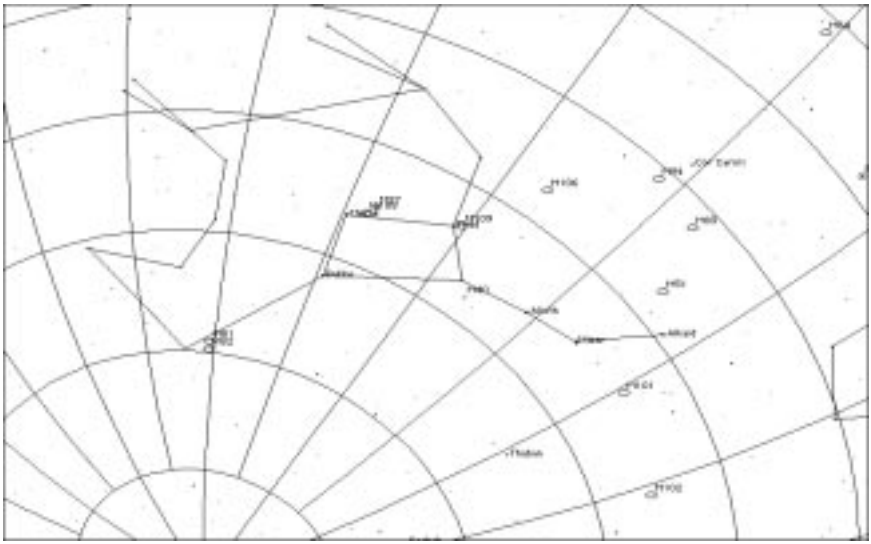
Mid Evening Observing Highlights for April

May is also good month to observe galaxies. Leo, Virgo and Coma Berenices have many galaxies within them to observe. All three constellations are almost directly overhead. The Sombrero Galaxy (M104) in Virgo can be found almost due south in the sky. The Ursa Major is high in the northern sky. The galaxies M81, M82, and M51 are found near it. The bright star Arcturus is high in the eastern sky. The keystone of Hercules is rising in the east. It contains the globular clusters M13 and M92. Gemini is setting in the west. The image below shows the locations of the galaxies M81, M82, and M51 as well as other galaxies around Ursa Major.



On May 7th a transit of Mercury on the sun can be seen ending at sunrise.

New moon occurs on May 1st and full moon occurs on May 15th. A lunar eclipse will occur and can bee seen in the evening on the 15th. Total eclipse will begin at 11:14 PM EDT on the 15th and end at 12:06 AM EDT on the 16th.

Observations and Photographs

If you are interested in submitting an observation or photograph please contact John at kocis@catskill.net.

The following picture is of Mizar and Alcor in Ursa Major taken through a Celestron 102HD refractor with an Olympus OM-1.

Member's Telescopes and Equipment

The Takahashi FS60C

Named “Neko”, this little refractor is a marvel of design, machining and optical excellence. It is a 60mm doublet apo, its front element is fluorite and the rear one is ED glass. It has a 355mm focal length, and out of the box all of my eyepieces from the Nagler 3-6 zoom to the 35mm Celestron Ultima come to focus with room to spare. It splits Castor at 100X with ease, nice blackness between the component stars and nice tight Airy disks around each star. There is essentially no false color in focus. Jupiter is small but highly detailed at 118X. Saturn is also very crisp at this magnification, but I could not make out the Cassini Division. The open clusters in Auriga were beautiful. As the scope has no finder and really no way to mount a red dot finder (unless I made an adapter block which is beyond my paltry abilities to fashion), I use the 35mm Ultima to make the scope into a 10X finder.

This scope really shines during the day, where it does most of its work. With a Coronado SolarMax 40 firmly affixed to it, this scope shows gorgeously crisp images of the hydrogen-alpha sun. The image quality is noticeably crisper than the Televue 76, which I have been using as a solar scope for the last eight months. The diagonal attaches to the scope with a twist-tightening compression ring and the Sol Searcher that I use attaches to the tube ring via velcro. The tube ring attaches to a Borg alt-az “fork” mount onto my Bogen 3036 tripod. It makes for a smooth mount that is rock-stable. The Borg slow-motion controls are awesome.

I cannot recommend this scope enough. The whole thing, including the OTA, SolarMax filter, blocking filter diagonal, regular star diagonal, three eyepieces, SolSearcher and sketch book all fit into an aluminum camera case that is 38 linear inches. I paid $750 for the scope and tube ring on Astromart. It’s not cheap, but for what it is, I could not ask for me. I have reached solar scope heaven.

Mark

BARLOW BOB’S CORNER

Barlow Bob is a member of the Rockland Astronomy Club.

John,
For your newsletter.
Barlow Bob

To: “RAC-Urban-12-03” <donurban@earthlink.net>
Subject: RAC Summer Star Party

To all RAC members:

On May 1 all campsites for which reservations have not been received will be available on a first come, first served basis. If you’ve thought about attending SSP, this is a great opportunity for you to do so. For information about your clubs own star party, you may click on the link below. Then, if you have any questions, please contact me.

Don Urban

http://www.rocklandastronomy.com/events/SSP2003/index.html

John,

Here are more stories from Audry Salvatore. Please also pass this information on to your local Boy Scout and Girl Scout organizations too.

Bring the Sun across the sky.

All the animals had gathered in the woods to see what they could do about it being dark all the time. The fox claimed, he heard that in the east they had light all the time and it was called the sun. He said “Maybe we could steal some of it and bring it across to the west. But I don’t want to go; someone else will have to do it.

Opossum said, “I’ll go; I have a very big bushy tail, and I can hide the sun in it and bring it back. The animals thought this was great, so off opossum went. As he went toward the east it got brighter and brighter and opossum started to squint. His eyes got smaller and smaller.

And if you notice the opossum today, his eyes are very small and squinty. And he only comes out at night.

When he got to the sun, he grabbed a piece of it, hid it in the big bushy tail and started back toward the west. Only, the sun was so-o-o-o hot

that it burned all the hair of poor opossums tail.

That's why the opossum has no hair on his tail today.

The buzzard then said "I'm not as stupid as the opossum, I won't put the sun in my beautiful tail feathers, I'll carry it on my head." So off he went, he flew high up in the sky, got a piece of the sun, and put it on top of his head. He headed back towards the west. The sun being so hot burned all his head feathers off.

That's why the buzzard has no head feathers today.

All the animals mumbled and grumbled when suddenly they heard a tine little voice say. "I'll go, I'll go." The animals wondered whose voice it was. They looked down in the grass and there was a grandmother spider. The animals laughed at her and wanted to know what she could possible do, when the animals had failed. " But what difference does it make if I fail, I'm only a little spider." So the animals agreed to let her try. Grandmother spider gathered up a little bit of damp clay, and made it into a bowl. She carried the bowl with her towards the east, letting out a silk thread behind her, so she could find her way back. When she got there she took a piece of the sun and placed it in the bowl. She crawled back on her silk thread carrying the pot in front of her spreading the light from east to west. While she crawled back the sun baked her little clay pot.

If you will notice even today a spider's web is shaped like the sun's disk and its rays. The spider will always spin her web in the morning, very early, before the sun if fully up.

"Thank you, Grandmother," the people said when she returned, "We will always honor you and we will always remember you."

From then on pottery making became women's work, and all pottery must be dried slowly in the shade before it is put in the heat of the firing ovens. Just as Grandmother spider's bowl dried in her hands, slowly, in the darkness, ash she traveled toward the east, before the sun baked it.

This is a Cherokee tale.

The dues are changed as shown below. Please snip off the voucher and return it as soon as possible. Thank you,

Bud Wertheim, Treasurer

We have been informed by the Astronomical League that to participate as a full member club. Every member of the club must be assessed three dollars and fifty cents ($3.50).

The Executive Board has voted on this. The assessment is added in the new dues rate.

Please make out check to: Catskills Astronomy Club

Mail to: Bud Wertheim, Treasurer
143 Covered Bridge Road
Livingston Manor, NY 12758

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[ ] Individual Membership……..…..$28.50

[ ] Renewal Individual…….$23.50

[ ] Family Membership……..…$33.50 .

[ ] Renewal Family……..$28.50

Name_____

Address:_____

City_____State_____ Zip_____

email: _____

Names of family members_____