



**Astronom Club News**  
**June, 2003**

**John Kocijanski, Editor**

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## *Catskills Astronomy Club News*

*6/1/03*

### *Club News:*

The Northeast Astronomy Forum was held on May 17<sup>th</sup> and 18<sup>th</sup> at Rockland County Community College in Suffern, NY. Our club had a table set up on the balcony on Saturday the 17<sup>th</sup>. Four members manned the table on and off through the day. Attendance at the show seemed light but a number of people stopped at our table and some expressed interest in joining the club. We handed out observing schedules, newsletters, and NASA brochures. We also had a laptop computer showing a slide show of astrophotos taken by our members as well as some pictures of our observation sessions. Next year we may take a booth on the floor. The following pictures show our table and some of the floor area.



The May 3<sup>rd</sup> observation session was held. We observed the crescent moon before it set as well as Saturn. We also observed Jupiter and the Great Red Spot. Later in the evening we observed galaxies in Leo, Ursa Major, and Virgo. We also observed the globular clusters M13 and M92 in Hercules as well as the Ring Nebula in Lyra. A highlight of the evening was seeing two Iridium satellite flares. We also had a pair of visitors from Brooklyn who brought three scopes including the 16 inch Meade dobsonian reflector shown below. They were very impressed with Walnut Mountain as an observing site and planned to join our club.



The May 31<sup>st</sup> was canceled due to rain.

The observation sessions for June are on the 7th and 28th. The makeup date is June 21st.

Anyone interested in submitting an astronomical observation or photograph for the newsletter, please contact John at [kocis@catskill.net](mailto:kocis@catskill.net).

Each month the photo section of our newsletter will highlight the telescopes and equipment of club members. If you have a photo of your scope or equipment and a brief description of it that you would like to contribute please send it to John at [kocis@catskill.net](mailto: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](mailto: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.

DATE: May 8, 2003

CONTACT: Jade Boyd

PHONE: (713) 348-6778  
EMAIL: [jadeboyd@rice.edu](mailto:jadeboyd@rice.edu)

## METEORITES RAINED ON EARTH AFTER MASSIVE ASTEROID BREAKUP

### Geologists Find Meteorites 100 Times More Common in Wake of Ancient Asteroid Collision

Using fossil meteorites and ancient limestone unearthed throughout southern Sweden, marine geologists at Rice University have discovered that a colossal collision in the asteroid belt some 500 million years ago led to intense meteorite strikes over the Earth's surface.

The research, which appears in this week's issue of Science magazine, is based upon an analysis of fossil meteorites and limestone samples from five Swedish quarries located as much as 310 miles (500 km.) apart. The limestone formed from sea bottom sediments during a 2 million-year span about 480 million years ago, sealing the intact meteorites, as well as trace minerals from disintegrated meteorites, in a lithographic time capsule.

"What we are doing is astronomy, but instead of looking up at the stars, we are looking down into the Earth," said lead researcher Birger Schmitz, who conducted his analysis during his tenure as the Wiess Visiting Professor of Earth Science at Rice. Schmitz is professor of marine geology at Göteborg University in Sweden.

Meteorite activity on earth is relatively uniform today, with an average of about one meteorite per year falling every 7,700 square miles (12,500 sq. km). The new study found a 100-fold increase in meteorite activity during the period when the limestone was forming, a level of activity that was present over the entire 150,000-square-mile (250,000 sq. km.) search area.

Some 20 percent of the meteorites landing on Earth today are remnants of a very large asteroid that planetary scientists refer to as the "L-chondrite parent body." This asteroid broke apart around 500 million years ago in what scientists believe is the largest collision that occurred in late solar system history.

Schmitz and his colleagues looked for unique extraterrestrial forms of the mineral chromite that are found only in meteorites from the L-chondrite breakup. They found that all the intact fossil meteorites in the Swedish limestone came from the breakup. Moreover, they found matching concentrations of silt and sand-sized grains of extraterrestrial chromite in limestone from all five quarries, indicating that meteorite activity following the breakup was occurring at the same rate over the entire area.

The research helps explain why Schmitz and his colleagues at Göteborg have been able to collect so many fossilized meteorites from a single quarry near

Kinneulle, Sweden over the past decade. Fossil meteorites embedded in stratified rock are extremely rare. Only 55 have ever been recovered, and Schmitz's group found 50 of those.

"It is true that we are lucky to be looking in just the right place - a layer of lithified sediments that was forming on the sea floor immediately after this massive collision," said Schmitz. "But on the other hand, we would never have started looking there in the first place if the quarry workers hadn't been finding the meteorites on a regular, yet still rare, basis."

Until Schmitz's group started working with the quarry crew, the fossilized meteorites were discarded because they blemish the finished limestone. Schmitz believes it's possible that similar concentrations of fossilized meteorites and extraterrestrial chromite grains are present worldwide in limestone that formed during the period following the asteroid breakup. He recently got funding to look for evidence of this in China, and he said there are South American sites that are also favorable.

The research was sponsored by the National Geographic Society and the Swedish Research Council.

FOR RELEASE: May 15, 2003

CONTACT: Ray Villard  
Space Telescope Science Institute, Baltimore, MD  
(Phone: 410/338-4514; E-mail: [villard@stsci.edu](mailto:villard@stsci.edu))

Terry Devitt  
University of Wisconsin, Madison, WI  
(Phone: 608/262-8282; E-mail: [trdevitt@facstaff.wisc.edu](mailto:trdevitt@facstaff.wisc.edu))

PRESS RELEASE NO.: STSci-PR03-17

## BRIGHTER NEPTUNE SUGGESTS A PLANETARY CHANGE OF SEASONS

Springtime is blooming on Neptune! This might sound like an oxymoron because Neptune is the farthest and coldest of the major planets. But NASA Hubble Space Telescope observations are revealing an increase in Neptune's brightness in the southern hemisphere. Astronomers consider this increase a harbinger of seasonal change. The observations, made over six years, show a distinct increase in the amount and brightness of the clouds encircling the planet's southern hemisphere.

To see and read more about Neptune, please click on <http://hubblesite.org/news/2003/17>

FOR RELEASE: May 9, 2003

PHOTO NO.: STScI-PRC03-11

## IRIDESCENT GLORY OF NEARBY PLANETARY NEBULA SHOWCASED ON ASTRONOMY DAY

In one of the largest and most detailed celestial images ever made, the coil-shaped Helix Nebula is being unveiled tomorrow in celebration of Astronomy Day (Saturday, May 10). The composite picture is a seamless blend of ultra-sharp NASA Hubble Space Telescope (HST) images combined with the wide view of the Mosaic Camera on the National Science Foundation's 0.9-meter telescope at Kitt Peak National Observatory, part of the National Optical Astronomy Observatory, near Tucson, Ariz. Astronomers at the Space Telescope Science Institute assembled these images into a mosaic. The mosaic was then blended with a wider photograph taken by the Mosaic Camera. The image shows a fine web of filamentary "bicycle-spoke" features embedded in the colorful red and blue gas ring, which is one of the nearest planetary nebulae to Earth.

Credit: NASA, NOAO, ESA, the Hubble Helix Nebula Team, M. Meixner (STScI), and T.A. Rector (NRAO)

To see and read more about the Helix Nebula, please click on <http://hubblesite.org/newscenter/2003/11>

News Release: 2003-070 May 8, 2003

### Your Name Could Make a 'Deep Impact' on a Comet

People worldwide may celebrate July 4, 2005, as the day their names reach a comet. NASA is launching a campaign to send hundreds of thousands of names to comet Tempel 1.

The names will be carried on board NASA's Deep Impact spacecraft, the first deep-space mission designed to really reach out and touch a comet. Mission scientists are confident an impact on a comet's nucleus will answer basic questions about the nature and composition of these celestial wanderers.

"This is an opportunity to become part of an extraordinary space mission," said Dr. Don Yeomans, an astronomer at JPL and a member of Deep Impact's science team. "When the craft is launched in December 2004, yours and the names of your loved-ones can hitch along for the ride and be part of what may be the best space fireworks show in history."

Deep Impact's larger flyby spacecraft will carry a smaller impactor spacecraft to Tempel 1 for release into the comet's path for a planned collision. The flyby spacecraft will take pictures as the 370-kilogram (816 pound) copper-tipped impactor plunges into Tempel 1 at about 37,000 kilometers (22,990 miles) per hour. The impactor is expected to make a spectacular, football field-sized crater, seven to 15 stories deep, in the speeding comet. Carried aboard the impactor will be a standard mini-CD containing the names of comet, space and other enthusiasts from around the world.

“This campaign will allow people from around the world to become directly involved with Deep Impact and through that get them thinking about the scientific reasons for the mission,” said University of Maryland astronomy professor Dr. Michael A’Hearn, Deep Impact’s principal investigator. “We particularly hope to capture the interest of young students, as they will become the explorers of the next generation.”

People may submit their names for this historic one-way mission by visiting NASA’s Deep Impact Web site, now through February 2004, at <http://deepimpact.jpl.nasa.gov/> .

The collision between the impactor and Tempel 1 is not forceful enough to make an appreciable change in the comet’s orbital path around the Sun. The comet poses no threat to Earth.

Deep Impact was selected in 1999 as a NASA Discovery mission. The goal of the Discovery Program is to launch many smaller missions with fast development times, each for a fraction of the cost of NASA’s larger missions. The main objective is to enhance our understanding of the solar system by exploring the planets, their moons, and small bodies, such as comets and asteroids.

The University of Maryland in College Park is the home of Deep Impact’s principal investigator, Michael A’Hearn, who oversees scientific investigations. Project manager, John McNamee, from JPL, manages and operates the Deep Impact mission for NASA’s Office of Space Science, Washington, D.C. JPL is managed for NASA by the California Institute of Technology in Pasadena. Ball Aerospace & Technologies Corporation in Boulder, Colo., manages spacecraft development.

More information about the Deep Impact mission is available on the Internet at <http://deepimpact.jpl.nasa.gov/> or <http://deepimpact.umd.edu> .

For information about NASA and other space flight missions on the Internet, visit <http://www.nasa.gov> .

### ***Mid Evening Observing Highlights for June***

The bright star Arcturus is almost directly overhead. The keystone of Hercules is high in the east. This is a good month to observe some globular star clusters. Hercules contains the globular clusters M13 and M92. The globular cluster M5 is high in the southern sky just to the east of Ophiuchus. Ophiuchus contains the globular clusters M10, M14, M107, M9, and M12. In the southern sky Scorpius contains the globular clusters M4 and M80. Leo is setting in the west. The bright stars Vega, Deneb, and Altair are rising in the east. These three stars form the summer triangle. The bright star Antares is rising in the southeast. The Big Dipper can be seen in the northwestern sky. New moon occurs on June 29th and full moon occurs on June 14th. The summer solstice begins on June 21 at 3:10 PM EDT. The locations of some of the globular clusters mentioned are shown in the chart below.



### *Observations and Photographs*

If you are interested in submitting an observation or photograph please contact John at [kocis@catskill.net](mailto:kocis@catskill.net).

This picture of the Big Dipper was taken by John Kocijanski with a Pentax K1000 35mm camera using a 50mm lens on a fixed tripod.



### *Member's Telescopes and Equipment*

The picture below shows a Sirius Minus Violet filter owed by John Kocijanski, The filter can be used to cut down or eliminate blue and violet fringe coloration around bright objects such as the moon or Jupiter due to chromatic aberration in achromatic refractors. It works especially well with Jupiter and bright double stars such as Castor and allows for sharper focusing on bright objects. It does give an object a yellow hue though. It is produced by Sirius Optics at [www.siriusoptics.com](http://www.siriusoptics.com).



## **BARLOW BOB'S CORNER**

Barlow Bob is a member of the Rockland Astronomy Club.

To: "Bob Barrlow" <rgodfrey@bankofny.com>

cc:

Subject: Article Delmarva Stargazers IX Star Party 2003

### **Delmarva Stargazers IX Star Party**

Kent Blackwell

This year's 9<sup>th</sup> annual Delmarva Stargazers star party was once again held in the beautiful Tuckahoe State Park located at Queen Anne, MD. Though the party got under way on Wednesday, April 30, I didn't arrive until the following day. By mid-day Thursday the observing field was already beginning to fill up. Unfortunately, the weather predictions for the weekend were not too optimistic. I've been attending star parties too many years to bother listening to weather forecasts. A star party is mainly a social thing. Sure, it's nice to have clear skies, but it's also fun to just get together and talk shop.

A few stars did shine Thursday night. It was clear enough for me to get a good look at NGC 3242, more aptly known as *The Ghost of Jupiter* and *The Eye Nebula*. I also had a nice view of another planetary nebula NGC 2392 in Gemini, also known as *The Eskimo Nebula*. Slewing to Leo I enjoyed seeing the wonderful spiral galaxy NGC 6203, a galaxy which should have been included in Charles Messier's list. Poor Messier, he must have had too much red wine the night he panned his telescope past this 10<sup>th</sup> magnitude galaxy. Have you seen it? I've managed to see it in a 2.4" Unitron refractor, and even 10x30 binoculars.

After viewing a few more objects I walked around and enjoyed looking a Jupiter in a number of exotic refractors, each costing more than my car (that's an inside joke). By now it was time for a few late-night hot dogs, which were served all night under the canopy at the pavilion located at the south end of the field. By now I was just about ready to tuck myself in for the night, since it had been nearly a 5-hour drive from Virginia Beach to the star party.

I woke up Friday morning to unsettled weather. It never rained, but the sky was mostly overcast, very hot and extremely humid. Just before lunch the sun came out and I became enamored by the absolute best view I have ever had of it. "Barlow Bob" from NY had his fancy Televue refractor fitted with twin 90mm and 60mm Coronado hydrogen alpha filters. Bob's rig was also fitted with a Televue binocular attachment, allowing stereo views of prominences and solar surface detail. Wow, that's all I can say! That, dear readers made the trip to this lovely territory on the Eastern Shore of MD all the more worthwhile. Bob had more invested in his telescope than I in my car (another inside joke).

Though Friday evening's forecast wasn't promising we could only hope for the best. Thunderstorms and possible high winds were heading our way. In fact, the weather looked so threatening as to cause an optional wine and cheese river cruise to be cancelled. Roy and Dee Diffrient invited me to accompany them to dinner in the quaint town of St. Michael's, MD. As we headed back to the observing field after dinner a light rain began to fall, but quickly ended, and the sky began clearing.

Soon after sunset the sky was not all that bad, as most of the clouds had moved on. This evening I

glimpsed M 104 (*The Sombrero Galaxy*), M 108 and M 97 in Ursa Major and even the beautiful face-on galaxy NGC 4030 in Virgo. The moderately clear skies remained until 11:00 pm. When it clouded again most people retired for the night. But wait; by 12:30 am it cleared again. I was treated to a great view of M 3 and M 27 in Ralph Gruen's new homemade high-definition 10" f/6 Newtonian reflector. A handful of people remained optimistic during the next cover of clouds that rolled in, but I decided to get some rest, since tomorrow night (Saturday) was predicted to be the best of all. That prediction proved to be inaccurate.

Saturday morning was quite cold and blustery, with thick clouds lurking in the sky all day. About one half of the participants apparently heard a revised gloomy forecast and opted to pack up and go home. But towards the end of the day the sun began filtering through the clouds, and by sunset all that could be seen approaching from the west was clear, blue sky. Though the clear skies only lasted a few hours we still had ample opportunity to view many good objects. One highlight for me was viewing the globular cluster M 3 in my 25" with Russ Lederman's new *Denkmeier Two* binocular viewer fitted with matched Televue 16mm Nagler Type 5 eyepieces. Russ is involved in the manufacture of this fine optical accessory. Yes, it's expensive, and yes there are still some people with understandable reservations about binocular viewers. However, I must say the view of M 3 was the finest I can recall ever seeing. The Denkmeier's merge better than any binocular viewer I have ever use, and their adjustable optical corrector allows them to be used with any telescope, including reflectors.

Just I was preparing to seriously star gaze clouds moved in, and remained in the sky all night. Even if the weather didn't totally cooperate the star party still proved to be rewarding. I've been observing nearly 40 years, yet ever time I attend a star party I walk away with newly acquired knowledge.

Hats off to all the Delmarva Stargazers who worked so hard to make this one of the best star parties around. I shall look forward to their fall gathering.

### *NASA Space Place*

#### **Eggs in the Air**

By Patrick L. Barry

The sky will be filled with flying eggs on May 10, 2003, when a thousand students converge on The Plains, Virginia, for the first-ever national high school rocketry competition.

Called the Team America Rocketry Challenge (<http://www.rocketcontest.org>), the competition sets the goal of flying a custom-built, two-stage rocket carrying two raw eggs to a height of exactly 1,500 feet, and then returning the eggs to the ground unbroken. The team that comes closest to 1,500 feet without breaking their eggs will win the national title.

The competition is being organized by the Aerospace Industries Association and the National Association of Rocketry (NAR). NASA administrator Sean O'Keefe will attend the final event.

"The idea is to get kids interested in the world of aerospace," says Trip Barber, director of the competition and vice-president of the NAR. "And they will learn some important lessons about the power of math and science-and cooperation and teamwork-along the way."

To develop their designs, the students first used computer simulator software provided by NAR. Then they had to apply old-fashioned ingenuity and craftsmanship to bring the design to life and flight testing to refine it.



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



Individual Membership.....\$28.50

Renewal Individual.....\$23.50

Family Membership.....\$33.50

Renewal Family.....\$28.50

Name \_\_\_\_\_

Address: \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

email: \_\_\_\_\_

Family members \_\_\_\_\_

(names)