

The Dark Sky Observer

The Dark Sky Observer is a publication of the North Jersey Astronomical Group (NJAG), whose purpose is to promote the study and knowledge of the science of astronomy.

The Dark Sky Observer needs your input! Letters, comments, suggestions, book and product reviews, and articles are welcomed and encouraged. Contact the editor at 973-340-5963, kdconod@earthlink.net, or at this address:

Dark Sky Observer
 North Jersey Astronomical Group
 P.O. Box 1472
 Clifton, NJ 07015-1472

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Web Page

Visit our web page at:
<http://community.nj.com/cc/njag>. Mary Lou West also maintains a web page at:
<http://www.csam.montclair.edu/~west/njag.html>

Membership

Dues are only \$15.00 per year (\$20.00 for family and \$10.00 for student memberships). Benefits of membership include: \$10 discount on subscriptions to "Sky & Telescope" or "Astronomy" magazines ("Sky & Telescope" subscribers also get a 10% discount on all books, maps, and products at Sky Publishing); a subscription to this newsletter; an e-mail list for the latest club and astronomy news; use of our dark sky sites; field trips to local planetariums, science centers, and star parties; a lending library of astronomical books; a Telescope Loan Program; and star parties for special celestial events.

Make checks out to the NJAG and mail to: North Jersey Astronomical Group, P.O. Box 1472, Clifton, NJ 07015-1472. If you have any questions regarding membership, contact our Acting Membership Committee Chair, Kevin Conod at: kdconod@earthlink.net or 973-340-5963.

UACNJ

The NJAG is a member of the United Astronomy Clubs of New Jersey (UACNJ), a consortium of more than a dozen astronomy clubs, united to better help support, coordinate, and communicate ideas between stargazers in and around the state. The UACNJ operates an observatory at Jenny Jump State Forest near Hope, NJ which serves as the NJAG's dark sky site.

NOVEMBER MEETING

The November meeting featured guest speaker Walter Windish who gave a presentation "Telescopes: From Hubble to Homemade." He showed some images from the Hubble Space Telescope, comparing members of our own Solar System to galactic objects and to extragalactic components of the Universe. He also discussed amateur telescope makers and their homemade telescopes.

TELESCOPE NIGHTS ENDING

Recently, we've had some nice clear weather for Thursday Night Telescope Nights at Montclair State. On October 19, we had a large group of fifth graders from Franklin, NJ. In all about 150 people enjoyed views of the Coathanger, Andromeda Galaxy, Jupiter, and Saturn. The current series of Telescope Nights ends on December 14, so please join us in front of Richardson Hall at 8:00 p.m. For directions, call 973-680-8420 or visit our web page at: <http://community.nj.com/cc/njag> and click on "Maps." Note there will be no Telescope Night on Nov. 23 due to the Thanksgiving holiday.

DECEMBER MEETING -- WINTER SOLSTICE CELEBRATION

Help us celebrate the longest night of the year! At our annual winter solstice party, everyone gathers for good food and conversation. Brings a snack, morsel, or beverage to share! If the weather is nice, we might do some stargazing as well. The party will take place Wednesday, December 13 at 8:00 p.m. in Richardson Hall room 226 on the campus of Montclair State University.

DECEMBER SOLAR ECLIPSE

There will be a nice partial eclipse of the Sun on December 25, 2000. The event begins at 11:09 a.m. Maximum is at 12:46 p.m. when about 50% of the Sun will be covered by the Moon. After maximum the Sun is slowly uncovered until the end of the eclipse at 2:20 p.m. As always, a solar eclipse should never be viewed directly with the naked eye, binoculars, or telescopes without professional solar filters. Several sources are listed on page 3.



For a weekly update on the night sky, call the StarLine at 973-680-8420.



NEW MEMBERS

We welcome the following to the ranks of the NJAG. Please join us at our upcoming meetings and events!
Robert Iturralde Passaic, NJ
Robert Catalano Cranford, NJ
Dennis Murphy North Bergen, NJ
Mike Wallace Wayne, NJ

CONGRATS

Ken Colgate and his wife recently became the proud parents of a bouncing baby boy. Congratulations!

NEW E-MAIL LIST

To improve communications between NJAG members, we've moved the club's e-mail list to Listbot.com. To join this list, simply go to <http://njag.listbot.com> and enter your e-mail address in the box. You'll then be asked to make up a password and enter your name. If you have any questions, contact Kevin Conod (kdconod@earthlink.net).

SOLAR FILTER SOURCES

Mary Lou West has some nice Christmas cards with attached eclipse glasses available for \$3.00 each. Contact her at west@pegasus.montclair.edu or 973-744-3221.
ABElexpress - Astronomy Division, 100 Rosslyn Rd., Carnegie, PA 15106. (412) 279-0672
Rainbow Symphony, Inc., 6860 Canby Ave. #120, Reseda, CA 91335 (818) 708-8400
Roger W. Tuthill, Inc., 11 Tanglewood Lane, Mountainside, NJ 07092. (908) 232-1786
Telescope and Binocular Center, P.O. Box 1815, Santa Cruz, CA 95061-1815. (408) 763-7030
Thousand Oaks Optical, Box 5044-289, Thousand Oaks, CA 91359. (805) 491-3642
American Paper Optics, Inc. 3080 Bartlett Corporate Drive, Bartlett, TN 38133. (800) 767-8427

For more information about this eclipse and timings for other areas see NASA's eclipse home page at: <http://sunearth.gsfc.nasa.gov/eclipse/eclipse.html>

KNOWING THE SKY

Thursdays through January 4, 2001 at 6:45 p. m.

What is that next to the Moon? What is that bright star in the west after sunset? For the answers to these questions, and many more, drop by the Newark Museum's Dreyfuss Planetarium every Thursday evening for a weekly update on the night sky. Explore the current sky, learn what constellations and planets are presently visible, and discuss hot topics in astronomy with our astronomy expert. Your questions set the course as you navigate through the stars! This 40 minute workshop is recommended for adults and children ages 10 and up. Free.

Admission is free at The Newark Museum, located at 49 Washington Street in the Downtown/Arts District of Newark, New Jersey. The Museum is open Wednesdays through Sundays from 12:00 noon to 5:00 p.m., with evening hours on Thursdays until 8:30 p.m. The Newark Museum is easy to reach by public transportation and from all major area highways, with attended parking available on-site. For more information or directions, call 973-596-6529 or consult the Planetarium's website at <http://www.newarkmuseum.org/planetarium>.

STUMP THE ASTRONOMERS

Have a question about astronomy?

Send it in to Kevin Conod at the address on page 1 or to kdconod@earthlink.net and we'll try to have an answer in the next newsletter.

AURORA FROM JENNY JUMP

By Kevin Conod

I was up at the UACNJ Observatories at Jenny Jump State Forest on the night of October 28. The view of the razor-thin Moon and Venus setting in the west on the drive out Rt. 80 was alone worth the trip! It was very windy up on the hill at Jenny Jump and therefore quite cold. I didn't bring my telescope because I knew if I brought it, it would have vibrated all night in the wind. I brought my binoculars instead and I really wish I had brought my camera! Not only was the sky crystal clear, but we had a nice display of the Northern Lights (Aurora Borealis). A large greenish "rainbow" was present under the Big Dipper for quite a while. From about 8:20 to 8:25 p.m. there was a group of vivid pink rays which covered the Big

Dipper from the pointer stars to Mizar in the handle. The rays near Mizar reached down to about five degrees above the horizon. Later, from about 8:40 - 8:45, another large ray about 20 degrees high appeared 15 degrees to the west of the Big Dipper's handle. Sometime after 9:00 p.m. a large complex greenish curtain spread across the northern sky...it must've been about 30 degrees wide and 20 degrees high.

A footnote to my aurora report: On the way home on Rt. 46, I saw a fireball (bright meteor) out of the corner of my eye. It must've been at least -1 in magnitude for me to see it inside the car with all those street lights around me. It was very brief, but left a large V-shape wake in the sky.

LIGHT POLLUTION

One of the items on the agenda for our next business meeting we will be light pollution. We will discuss joining the International Dark-Sky Association and forming a local light pollution committee (for which we will need volunteers).

WHO'S WHO AT NJAG

Officers

President: Dennis Barlow
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Public Night: Mary Lou West
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Astrophotography: Angelo Restivo
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Acting Membership: Kevin Conod
kdconod@earthlink.net

ELECTIONS COMING SOON

Elections will be coming up in January. Volunteers are needed for officers and committees. If you are interested in nominating someone or yourself, contact the nominating committee:

Dennis Barlow procrastin_8@hotmail
973-632-7809
Thomas Boud 973-838-6121
John Miksits johnmiksits@erols.com
973-249-8522

PHOTO GALLERY

Several nice astrophotos by Joe Marzullo, Gene Faulkner, and Kevin Conod have recently been added to our photo gallery. The Cocoon nebula, Blackeye galaxy, Owl nebula, M33, and NGC 6369 are just a few of the celestial objects featured. Check them out on our web page at: <http://community.nj.com/cc/njag>. Note Mary Lou has posted some photos of the 5th grade class which recently attended Telescope Night. See: <http://www.csam.montclair.edu/~west/njag.html>



BOOK REVIEW

By John Miksits

Two new books were recently acquired by the NJAG for its library: **Moons and Planets** by William K. Hartmann (reviewed below) and **The Birth of Time** by John Bribbin. Both can be borrowed from the NJAG library.

Moons and Planets

Fourth Edition
By William K. Hartmann
Hard Cover ISBN 0-534-54630-7
Free interactive CD-ROM (1998)
"Voyage through the Solar System"
Published by Wadsworth.com 1999
428 pages with illustrations in monochrome.

Textbook like. Concepts delivered in the chapter are listed at the end of each chapter as well as several problems and more difficult problems.

Planetary science is an interdisciplinary field. This book is useful for students of meteorology, astronomy, geology, chemistry, spectroscopy, and physics. There is a need for these sciences to understand others' terminology and worldviews. This book is arranged according to some basic topics: origins, small bodies, planetary interiors, planetary surfaces, planetary atmospheres, etc . . . The latter chapters end with wrap-up sections that describe applications of the general principles to specific worlds. The final chapter is a case study of Mars, since so many missions were planned for Mars. The book includes discussion of the Pathfinder landing on Mars, Galileo photography and measurements of Jovian satellites, the NEAR Flyby of asteroid Mathilde, the Mars meteorites, and the discovery of extrasolar planets.

He devotes an entire chapter to the continuum of various types among small bodies (asteroids, comets, etc.). The text is mostly nonmathematical, starting with background on basic facts and planetary motions, and moving into the topical areas. Numerous equations are developed in isolated mathematical notes. As the preface states, "Using the book without the math notes should give a good descriptive overview. Using the book with the math notes should allow a moderate level of physical sophistication."

The CD-ROM requires Windows 95 or later. MAC OS is also supported. Presented is a graphical representation of the solar system and the objects we know of. Choose the planet Jupiter and you can refer to a written narrative. This feature does have a window with videos activated by clicking the highlighted word within the text. You can print from the written narrative, but you can't cut and paste. There is a slide show for each object depicted with narration. You can review a factoid menu with a glossary without a search engine, more references, and web references. Jupiter has an overview video, a video about its moons, and an atmosphere video.

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THE ASTRONOMER'S JOURNAL

The NJAG is making copies of "*The Astronomer's Journal*" available to its members at cost. The journal is a great 100 page notebook for writing down info and sketching objects while stargazing. Price is only \$7.00 (Please include \$4.00 for postage and handling if you want it mailed to you).

The Astronomer's Journal is a daily log designed to be used at the eyepiece by amateur astronomers of all skill levels. Each page has 16 fields of entry, two sketching circles, and ample room for detailed notes. In addition, The Journal has a blank table of contents that the user fills in with a brief description of each entry; it acts as a valuable reference for information contained in the book. Spiral bound and three-hole punched for observing convenience.

Make checks or money orders out to the North Jersey Astronomical Group and send to: Astronomer's Journal, NJAG, P.O. Box 1472, Clifton, NJ 07015-1472.

JERSEY ASTRO CONFERENCE & SHOWCASE

Amateur astronomers from all over the state gathered on Saturday, November 4 for the Jersey Astro Conference & Showcase (JACS). NJAG members Anthony Barra and Mike Doyle enjoyed the programs. Kevin Conod manned the club's info table which included a display of astrophotos and brochures for prospective members. Guest speakers included Dr. Ted Williams, Dr. Suzanne Staggs, and Dr. Larry Marschall. The event also featured vendors, exhibitors, astrophotography displays, portable planetarium shows, raffles, and door prizes. Attendance for this year's event was not as high as in years past, and there were few telescopes for sale, but attendees seemed to enjoy the day's activities.