



OCTOBER MEETING

Please note that the date for the next meeting has been changed from October 11 to October 18. The October meeting of the North Jersey Astronomical Group will feature Bruce Gundlach of the New Jersey Astronomical Association. Mr. Gundlach will give a presentation "Astrophotography with Standard and Telephoto lenses." His talk will feature beautiful photographs of the night sky and a description of his techniques and methods. He will also present some of his latest work taken under dark skies at Stellafane and Jenny Jump State Forest. The meeting will take place Wednesday, October 18 at 8:00 p.m. in Richardson Hall room 226 on the campus of Montclair State University.

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 is produced monthly for NJAG members by NJAG members.

FROM THE EDITOR:

Remember the Dark Sky Observer needs your input! Letters, comments, suggestions, and articles are welcomed and encouraged. Contact the editor at a meeting, at (973) 390-5963, or at this address:

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NIGHT SKIES: THE ART OF DEEP SPACE

Astrophotography by David Malin at The Newark Museum
October 11, 2000 to February 25, 2001

Beginning this fall, Newark Museum visitors will see what the human eye normally cannot - a natural realm that reveals our origins, our destiny and our place in the wider universe.

Enthusiasts of astronomy, photography and art will find wonders to behold in the works of David Malin, the world's leading astronomical photographer. "Night Skies: The Art of Deep Space," opening October 11, 2000, presents forty of his remarkable images taken using the 3.9 metre Anglo-Australian telescope (AAT) and the 1.2m UK Schmidt telescope (UKST) at the Anglo-Australian Observatory in New South Wales, Australia. These unique works may be interpreted and appreciated as scientific records, artistic creations, and photographic wonders.

On loan from the National Academy of Sciences in Washington DC, this series of large-scale photographs captures views of star clusters, nebulae and galaxies that reveal brilliant coloration, fantastical shapes and our universe's haunting beauty. The exhibition "Night Skies," presented at The Newark Museum with support from the Geraldine R. Dodge Foundation and Qantas, remains on view through February 25, 2001.

David Malin has published a large number of scientific papers and popular articles on astronomy and photography since joined AAO and also lectures widely on these topics. Dr. David Malin will be the guest lecturer at the exhibit's grand opening on October 11, 2000. The free lecture will be held in the Johnson Auditorium at 6:00 p.m. A reception and book signing will follow.

In conjunction with the exhibition "Night Skies: The Art of Deep Space," the Dreyfuss Planetarium will present "Galaxies." This planetarium program

inspires an appreciation for the Milky Way Galaxy and all its relatives. Marvel at the beauty of the many galaxies that abide in the Universe on a journey through the stars! "Galaxies" features spectacular astronomical images by Dr. David Malin, a beautiful musical score by Kevin Braheny and was written by award-winning author Timothy Ferris (40 minutes; adults and children ages 10 and up). "Galaxies" will run October 4, 2000 through February 25, 2001 on Wednesdays, Thursdays and Fridays, 2:00 p.m.; Saturdays and Sundays, 2:00 and 4:00 pm.

Admission is free at The Newark Museum, located at 49 Washington Street in the Downtown/Arts District of Newark, New Jersey. Public hours are Wednesdays, Fridays, Saturdays and Sundays from 12:00 noon-5:00 p.m.; and Thursdays from 12:00 noon-8:30 p.m. The Museum Cafe, is open Wednesdays through Sundays from 12:00 noon-3:30 p.m.

Planetarium admission and information: Admission is \$3 adults; \$2 members; and \$1 children, seniors and students with I.D. All children must be accompanied by an adult. The theater seats 50. Tickets are required and are available on a first come, first served basis at the Garden Information Desk beginning at 12:00 noon on program dates. Programs begin promptly at their scheduled times; no visitors will be admitted during a feature.

The Newark Museum is easy to reach by car and by public transportation. Attended parking is available for a nominal fee in the adjacent lot. For general information or directions, call 1-800-7-MUSEUM. Information is available online at www.newarkmuseum.org/planetarium.

STARLINE

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



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).

PHOTO GALLERY

Several nice photos have been added to our photo gallery. Check them out on our web page at: <http://community.nj.com/cc/njag>

DUES

The following members are in arrears on their dues:

Walter Windish
Di Palma Family
Michael Kravetz
Alan Kravetz
Susan Arvat
Marlene Balle
Vernon Jackman
Mr & Mrs Robert Sadur
Mr & Mrs Robert Calvano
Jason Gowers
Enrique Hurtado
Ken Colgate
Rodger Ludwig

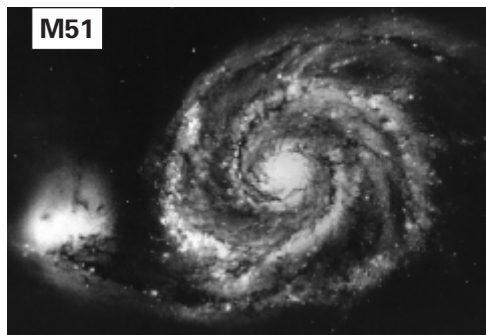
Dues are only \$15.00 per year (\$20.00 family membership). Make checks out to the NJAG and mail to:
North Jersey Astronomical Group
P.O. Box 1472
Clifton, NJ 07015-1472

If you have any questions regarding membership, contact our Acting Membership Committee Chair, Kevin Conod at: kdconod@earthlink.net or 973-340-5963.

WORLD SPACE WEEK

Last year the United Nations declared October 4 - 10 to be World Space Week. These dates were chosen because October 4 is the anniversary of the launch of Sputnik, the first artificial satellite. October 10 is the anniversary of the signing of the Treaty on Peaceful Uses of Outer Space.

There are now 24 countries planning to participate in World Space Week. Recent additions include Columbia, Libya, Mexico, and Poland. Event calendars for many participating countries are on World Space Week web site: <http://www.spaceweek.org>



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.

North Jersey Astronomical Group Minutes of Business Meeting • September 13, 2000

14 members and 6 guests.

Meeting called to order at 9:45 PM by President Dennis Barlow. This meeting followed a presentation on the History of Astronomy by guest speaker Victor Belanger. Dennis announced that the Criterion 8" telescope is up for loan.

Everyone in attendance introduced themselves to the group. Dennis announced that Dennis Koenig and Ruth Koenig have resigned officially due to their planned relocation to southern New Jersey. Dennis Barlow asked members to act Pro Tem.

VP Report

Kevin Conod announced the September UACNJ Symposium at Jenny Jump State Park on Saturday, September 23, 2000, from 3-11 PM.

Treasurer Report

Ruth Koenig reported the club's balance after paying telephone and postage. She added that membership stood at 50 members.

Corresponding Secretary Report

Dennis Koenig said he had nothing to report.

Library Committee

John Miksits announced the acquisition of two new books for the club's library.

Observation Committee

Mary Lou West said the first public night was held September 7, 2000. The moon was featured. Kevin reported about his trip to Stel-laphane. Jim Coughlin and Walter Windish also attended the convention. There was some discussion regarding satellite transits. Mem-

bers should also be aware that this year Sirius B should be far enough away from Sirius A to be observed.

Newsletter Committee

Kevin said he wanted to publish for Sept/Oct.

Program Committee

Kevin said the NJAG has a guest speaker for October but there is well known astrophotographer speaking at the Newark Museum on October 11.

A motion was made to postpone our business meeting until October 18, 2000. The motion was approved.

New Business

It was noted that John Miksits as well as Ruth Koenig have their signatures on the Valley National Bank account at the Rt 46 branch in Clifton. This will be changed. Ruth will obtain new signature cards for execution.

Kevin accepted possession of the mail box key. Heidi Cramer would become a member and act as Corresponding Secretary. Ruth said all financial records and Correspondence are in Microsoft Works format.

Old Business

Michael Doyle is continuing the telephone program. Ruth said discount magazine subscriptions require club letter head.

Meeting adjourned at 10:55 PM.

*Minutes respectfully submitted by
John Miksits for Jim Piombino,
Recording Secretary, who was
not able to attend this meeting.*

NEW MEMBERS

We welcome the following to the ranks of the NJAG. Please join us at our upcoming meetings and events!

Philip Blanda & Family, Glen Ridge
 Rick Brucato, Ridgefield Park
 Heidi Cramer, Clifton
 Neil Grant, Wayne
 David Miller & Family, Montclair
 Robert & Marlene Palmer, Nutley

UACNJ LIGHT POLLUTION UPDATE

by Gordon Bond, UACNJ Light Pollution Committee Chair

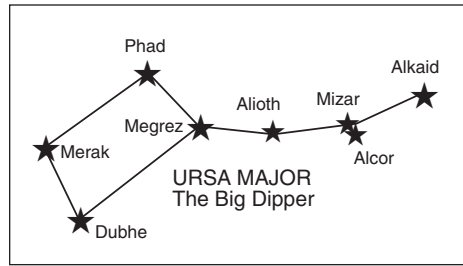
Amwell Township Ordinance as Good as Passed: Though the final reading was delayed, members of the Amateur Astronomers Association of Princeton (AAP) report that the outdoor lighting ordinance they were instrumental in authoring has for all purposes passed the Amwell Township council. The last reading is a formality. Congratulations to the folks at AAP on the fruits of all their hard work. I hope to get some of them to share their experiences so others can learn from it.

JERSEY ASTRO CONFERENCE & SHOWCASE

Union County College, Cranford
 Saturday November 4, 2000
 9:00 a.m. - 5:30 p.m.

Guest speakers including Dr. Ted Williams, Dr. Fred Espinak, and Dr. Larry Marschall. The event also features vendors, exhibitors, astrophotography displays, raffle, and door prizes. Registration is \$12.

For more information contact:
 jacs@asterism.org, or write:
 Amateur Astronomers Inc.
 JACS Registration, P.O. Box 111
 Garwood, NJ 07027-0111
 www.asterism.org



Middle Eastern Myth (Babylonian, Greek, Roman)

Callisto was a young woman training to be a hunter with Diana (Artemis, Cynthia). Zeus (Jupiter) saw her and fell in love with her. One day she became separated from her hunting group and Zeus saw his chance. He disguised himself as Diana in order to get close to the unsuspecting Callisto. A while later she was sent away from the hunting class in disgrace and had her son in the forest. She raised Arcas to be a hunter.

Eventually Zeus' jealous wife Hera (Juno) found Callisto and turned her into a bear. She set the bear in front of Arcas when he was out hunting, so that he would shoot his mother in ignorance. However, Zeus snatched the big bear (Ursa Major) away and placed her among the stars. Arcas was also changed into a little bear (Ursa Minor) and put into the sky. Hera was very angry and persuaded the god of the sea to forbid the bears to ever wash. They circle the north pole of the sky but never set below the horizon.

Reference: Edith Hamilton, "Mythology", New York, Mentor Books, 1940

| Major Stars of the Dippers | | | | | |
|----------------------------|---------------|------|--------|----------|----------|
| NAME | URSAE MAJORIS | MAG | TYPE | TEMP. °K | DISTANCE |
| Dubhe | alpha | 1.79 | K0 III | 4800 | 100 ly |
| Merak | beta | 2.37 | A1 V | 9680 | 62 ly |
| Phad | gamma | 2.44 | A0 V | 10000 | 80 ly |
| Megrez | delta | 3.31 | A3 V | 9040 | 53 ly |
| Alioth | epsilon | 1.77 | A0 | 10000 | 65 ly |
| Mizar | zeta | 3.95 | A1 | 9680 | 74 ly |
| Alcor | — | 4.01 | A5 V | 8400 | 72 ly |
| Alkaid | eta | 1.86 | B3 V | 20800 | 140 ly |
| NAME | URSAE MINORIS | MAG | TYPE | TEMP. °K | DISTANCE |
| Polaris | alpha | 2.02 | F7 1 | 6360 | 820 ly |

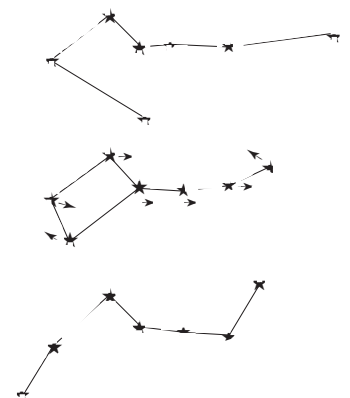
URSA MAJOR MYTHS

by Mary Lou West

Native American Myth (Wasco, Oregon)

Long ago there were five wolf brothers who were friends with Coyote. One evening the wolves looked up and saw two animals far above them. Coyote thought of a way to visit them. He gathered a large number of arrows and shot one into the sky where it stuck. Then he shot the next arrow into the end of that arrow and another into the end of that one until there was a ladder reaching down to earth. The five wolf brothers, their dog, and Coyote climbed for many days and night until they reached the sky. They found that the two animals were grizzly bears. The wolves sat down and looked at the bears, but Coyote didn't trust them and climbed back down again. He took out the arrows as he went so that no one could return, saying, "They all look pretty good sitting there like that." You can still see the grizzly bears (the pointer stars, farthest from the handle), and the wolves with their dog sitting next to the oldest wolf in the middle of the handle. When Coyote saw how good this looked he put all the rest of the stars in the sky in various pictures.

Reference: Richard Erdoes and Alfonso Ortiz, "American Indian Myths and Legends", Pantheon Books, New York, 1984, p 171 ☆



Above:
 The stars in Ursa Major are not all moving in the same direction, so over time the big bear's shape changes. The arrows on the center figure show direction of movement.


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Sky Calendar

- 5 First Quarter Moon
- 6 Moon at apogee 3:03am
- 6 Mercury at greatest elongation
- 7 Moon 1.3° south of Neptune
- 8 Moon 1.5° south of Uranus
- 9 Yom Kippur
- 9 Columbus Day observed
- 11 Newark Museum
Lecture & Reception
- 13 Full Moon 4:53 am
- 16 Moon 2° south of Jupiter
- 18  NJAG Business Meeting,
8pm
- 20 Last Quarter Moon 3:59 am
- 21 Orionid meteor shower peaks
- 27 New Moon 3:58 am
- 31 Halloween

 NJAG PUBLIC NIGHTS

|  <h1 style="margin: 0;">October</h1> | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------|
| Su | Mo | Tu | We | Th | Fr | Sa |
| 1 | 2 | 3 | 4 | 5  | 6 | 7 |
| 8 | 9  | 10 | 11  | 12  | 13  | 14 |
| 15 | 16 | 17 | 18  | 19  | 20  | 21 |
| 22 | 23 | 24 | 25 | 26  | 27  | 28 |
| 29 | 30 | 31  | | | | |