



North Jersey Astronomical Group

# The Dark Sky Observer

A Publication of the North Jersey Astronomical Group

April 1998

Vol. XI, No. 2

## Telescope Nights

The spring season of Telescope Nights will be held through April 30th. Weather permitting, telescopes will be set up in front of Richardson Hall from 8:00 to 9:00 p.m. Telescope Nights are free and open to the public. Feel free to bring your friends and your children. If Telescope Night needs to be canceled due to the weather, a message will be left on Starline (973-614-9220) after 6:00 p.m.

## 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) 778 - 3038 or at this address:  
Editor, Dark Sky Observer  
North Jersey Astronomical Group  
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<http://www.csam.montclair.edu/~west/njag.html>

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Publication: Ruth Koenig

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Call the NJAG's StarLine for a weekly update on celestial events.

**(973) 614-9220**  
24 hours a day!

## April Sky Preview

Unfortunately Saturn disappears from the evening sky in late March. Now the Earth is on the opposite side of the Sun from this ringed planet. Saturn reaches its conjunction with the Sun on Monday, April 13. With its disappearance into the Sun's glare, the early evening sky will be devoid of naked eye planets until Jupiter returns in September (except for a brief appearance of Mercury in late July).

Perhaps the prettiest celestial event of April comes during the early morning hours of Thursday, April 23rd. Starting on Sunday April 19th, Venus and Jupiter are a few degrees apart in the eastern sky.

If you watch them over the next few mornings, you will see them draw closer together. On the 23rd, face east between 5:30 and 6:00 a.m. and look for the Moon. The Moon will be a thin crescent (it is only three days away from new). Above and to the right of the Moon are the planets Venus and Jupiter.

After sunset we can still get a glimpse of the winter constellations. The belt of Orion, the great hunter, still gleams brightly. Orion seems to be following Taurus into the western sky. Behind Orion is his faithful hunting dogs Canis Major and Canis Minor. Above Orion is Gemini twins and Auriga the chariot driver. Facing southwest at about 8:30 p.m., Taurus is to the right of Orion, while Canis Major is to the left.

On Tuesday April 28, face west and look for a thin crescent Moon just above Aldebaran, the glaring red eye of Taurus the bull. ☆

“...a horizon is nothing save the limit of our sight.”

*Rossiter Worthington Raymond*

## April Meeting Features The Moon!

The next meeting of the North Jersey Astronomical Group will take place on Wednesday, April 8 at 8:00 p.m. on the campus of Montclair State University, in Richardson Hall, room 226. Our Guest Speaker is Amy Gallagher of the Hayden Planetarium who will give a presentation on the Moon.



*Angelo Restivo's photo of Comet Hale-Bopp was a hit at this year's annual dinner.*

## Dues Due?

This may be your last issue of the Dark Sky Observer! If your name is on the following list, it is time to renew your membership dues!

Grace Casalino  
Anthony Cicerale  
Ronald Damiano & Family  
Mark Ivanovic  
Hilding Johnson  
Doug Kittredge  
Donald Polzo  
Angelo Restivo & Family  
Tom & Claire Vannatta  
Walter Windish & Family

Send a check for \$15.00 made out to the NJAG to: NJAG, PO Box 1472, Clifton, NJ 07015. If you have any questions regarding dues, contact our Membership Chair Ruth Koenig at (973) 340-4640 or [dkoenig@intercall.com](mailto:dkoenig@intercall.com)

## The Practical Observer Magazine

The Practical Observer is a quarterly publication dedicated to the amateur astronomy observer and researcher, is now available at discount rates to members of UACNJ clubs at: \$12 for 1 year (4 issues), or \$23 for 2 years (8 issues).

For more information about The Practical Observer see:  
<http://www.erols.com/njastro/orgs/tpo.htm>

*Dennis Barlow submitted this exquisite photo of Comet Hale-Bopp for NJAG's annual astrophotography contest.*



## 7th Annual Northeast Astronomy Forum and Telescope Show

hosted by the Rockland Astronomy Club

Holiday Inn and Conference Center  
Exit 14B off the New York State Thruway (I-87)  
Suffern, New York

**Sunday, May 3, 1998  
from 8:45 to 6:00 p.m.**

### Topics and Speakers include:

- The Colonization of Space" - Karl Hricko
- Wonders of the Southern Milky Way" - David Eicher
- Predicting and Chasing Solar Eclipses" - Fred Espenak
- A Beginners Guide to Telescope Jargon" - Phil Harrington
- Stars and Starbucks: The Making of the Millennium Atlas" - Roger Sinnott
- Exploring the Night Sky Through Wide Angle Astrophotography" - Terence Dickenson

There will be about 30 dealers and 10 astronomy clubs represented (including UACNJ) and lots lots more.

For more details and registration information, write:

NEAF, c/o Don Urban  
73 Haring Street  
Closter, NJ 07624-1709  
(201) 768-6575,  
[DonaldUrban@Juno.Com](mailto:DonaldUrban@Juno.Com)

## UPCOMING EVENTS



### Sun & Stars at Riker Hill Park

Saturday, May 2

On May 2, NJAG will celebrate National Astronomy Day at Riker Hill Art Park in Livingston. From 5:00 to 7:00 p.m. there will be solar observing. Stargazing will take place from 8:30 to 10:00 p.m. Volunteers are needed! Call Kevin 973-778-3038 or [stargazer@intercall.net](mailto:stargazer@intercall.net) for more information.

### DIRECTIONS TO RIKER HILL ART PARK

#### From the East

- Route 280 is accessible from NJ Turnpike Exit 15W or Garden State Parkway Exit 145.
- Take Route 280 West to Exit 4A
- Take Eisenhower Parkway south. Go straight at the first light.
- Cross the railroad tracks and go up the hill.
- Make a left onto Beaufort Ave.
- Make a right turn to continue on Beaufort. A few blocks down make a left at the sign for Riker Hill Art Park.
- Go straight at the stop sign. Keep to the right at the fork in the road.
- Telescopes will be set up at the very top of the hill.

#### From the West

- Take Route 80 to Route 280.
- Route 280 East to Exit 4.
- Take Eisenhower Parkway south and follow directions above.

## Welcome!

We would like to welcome the following new members to the NJAG:

- Paul Tyahala
- Sola Armanious
- Ted Scanlan
- Dennis Barlow

## Committees

Volunteers are needed for the following committees (most are self-explanatory, except where noted):

### Membership

### Newsletter

### Public Night

**Observing** (arranging observing sessions)

### Library

### Computer

### Education

**Program** (making arrangements for guest speakers)

### Astrophotography/

### Darkroom

**Project**  
(telescope building, etc.)

If you are interested, or have any questions, please contact

Joe Marzullo (973-857-1678 or marzullo@saturn.montclair.edu) or

Kevin Conod (973-778-3038 or stargazer@intercall.net).

## Magazine Discounts

Remember that NJAG members get a discount on Astronomy and Sky & Telescope magazines. If you are a subscriber, or would like to subscribe, contact Ruth Koenig at (973) 340-4640.

# VOYAGER 1

## Now The Most Distant Human-Made Object In Space

by Mary Hardin  
*Jet Propulsion Laboratory, Pasadena, CA*

In a dark, cold, vacant neighborhood near the very edge of our Solar System, the Voyager 1 spacecraft has broken another record and become the explorer that has traveled farthest from home.

At approximately 2:10 p.m. Pacific time on February 17, 1998, Voyager 1, launched more than two decades ago, cruised beyond the Pioneer 10 spacecraft and become the most distant human-created object in space at 10.4 billion kilometers (6.5 billion miles). The two are headed in almost opposite directions away from the Sun.

Voyager 1 was launched from Cape Canaveral on September 5, 1977. The spacecraft encountered Jupiter on March 5, 1979, and Saturn on November 12, 1980. Launched on March 2, 1972, the Pioneer 10 mission officially ended on March

31, 1997. However NASA's Ames Research Center, Moffet Field, CA, intermittently receives science data from Pioneer as part of a training program for flight controllers of the Lunar Prospector spacecraft now orbiting the Moon.

On Feb. 17, Voyager 1 will be 10.4 billion kilometers (6.5 billion miles) from Earth and is departing the Solar System at a speed of 17.4 kilometers per second (39,000 miles per hour). At the same time, Voyager 2 will be 8.1 billion kilometers (5.1 billion miles) from Earth and is departing the Solar System at a speed of 15.9 kilometers per second (35,000 miles per hour).

For more information about the Voyager spacecraft see:

<http://vraptor.jpl.nasa.gov/voyager/voyager.html>

### NJAG E-Mail Directory

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Walter Windish	windish@ix.netcom.com

Contact Kevin (stargazer@intercall.net) to be added to the list.

# ASTRO-Poetry

by David Lambert

## Starburst

The violet sky had finally faded to black.  
 And as waving flags slowly disappeared  
 so did the stars resume their rule of the sky,  
 glittering with a serene, silent majesty  
 made remote by unimaginable distance.

But in the seeming defiance of this remoteness  
 suddenly streaks of flame began to leap skyward from the ground,  
 to the delight of the watching crowd,  
 and vanish into the vast darkness overhead.

And as these small missiles began a great journey  
 towards the empty gulfs between the stars,  
 so did I feel a catch in my throat  
 and a strange tightness in my chest  
 as my soul strained to leave my mortal body behind  
 and follow these daring explorers starward,  
 thus to wander forever amidst the countless wonders of the universe,  
 to marvel until the last sun had faded away.

But alas, these heroic odysseys were attempted in vain.  
 For even as the missiles vanished into the blackness of space,  
 so did they soon reappear in an explosion of light  
 whose brief splendor only mocked  
 the indifferent stars that shone overhead.

And as their glowing embers gently fluttered back to Earth,  
 so did my soul reluctantly return to my body,  
 forlornly feeling the cold ground  
 solid beneath my feet.

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## Sky Calendar

- 1 Moon 0.6° S of Saturn, occultation
- 3 First Quarter Moon
- 6 Mercury at interior conjunction
- 10 Moon at apogee
- 11 Full Moon
- 12 Easter Sunday
- 15 NJAG Business Meeting, 8pm
- 13 Saturn in conjunction with Sun
- 19 Last Quarter Moon
- 22 Lyriad Meteor Shower peaks
- 23 Moon 0.2° N of Jupiter, 0.08° S of Venus
- 26 New Moon
- ☉ NJAG PUBLIC NIGHTS  
 Montclair State College  
 8 - 9 p.m.

 <span style="font-size: 2em; font-weight: bold; margin-left: 20px;">April</span>						
Su	Mo	Tu	We	Th	Fr	Sa
			<b>1</b>	<b>2</b> ☉	<b>3</b> ☾	<b>4</b>
<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b> ☉	<b>10</b>	<b>11</b> ☾
<b>12</b> ☾	<b>13</b>	<b>14</b>	<b>15</b> ☾	<b>16</b> ☉	<b>17</b>	<b>18</b>
<b>19</b> ☾	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b> ☉	<b>24</b>	<b>25</b>
<b>26</b> ☉	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b> ☉		