

The Custer Comment

★ For The Curious ★

April 05

Volume XXXV, Issue 4

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Requiscat in Pacem

Ioannes Paulus PP. II

May 18, 1920 - April 2, 2005



Initially, one may wonder why I would choose to honor Pope John Paul II at his passing on the front page of the Custer Comment. The answer is rather simple and for some of us, here at Custer, quite personal. We had the privilege, at Custer's 2003 Family Astronomy Day, to be host to Brother Guy Consolmagno, SJ, one of the "pope's astronomers", a Detroit native, author, and one of the principal astronomers at the Vatican observatory. He shared with us many insights into the mind of John Paul II, having had many a conversation with the pontiff. Pope John Paul II was more than a steadfast moral voice to the world's 1 billion+ Catholics, presidents, prime ministers, statesmen and politicians, Catholic and non-Catholic, alike. He was a beacon of light in an increasingly dark and uncertain world. They looked to him for guidance and for answers to difficult questions and found them. John Paul II was a preeminent philosopher, scientist and theologian who set the dignity of man as the cornerstone of his philosophy. During his reign, the Vatican Observatory began a Summer School program in Astronomy and Astrophysics. For one month, 25 young scholars, at least a third of them from non-industrialized nations, are invited to Castel Gandolfo to study. He addressed and healed the ages-old misunderstanding between Galileo and the church and was a strong voice in proclaiming that science and religion were not antithetical to each other, but complimentary. He represented the best humanity had to offer and we will sorely miss him.

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Announcements & General Interest

2005 ELECTIONS

Your Board of Directors has selected the 2005 Nominating Committee. They are:
Chairperson Nikki Longo 631-888-6593 and Committee Member Ruth Makofske [REDACTED].
Any member interested in being considered should contact the committee directly.

Hybrid Solar Eclipse, Friday, April 08

On Friday, 2005 April 08, a hybrid1 eclipse of the Sun will be visible from within a narrow corridor which traverses the far Southern Hemisphere. Please see full page article in this issue.

Board Meeting

When: Saturday, **May** 14th, 3:30 PM;
7:30 PM, program to be decided;
8:30 PM, weather permitting;

Clean-up Party

When: Saturday, **May** 21st; further details to follow.

Editor's Column

<p>Tom Madigan, Editor Tom Madigan 99 North Summit Ave. Patchogue, NY 11772-2226 tmadigan@optonline.net 631-447-5339</p> <p>Cutoff for submissions is the 15th of the month preceding publication</p> <p>Visit the new Custer Website at http://www.custerobservatory.org</p>	<p>The Custer Comment is published monthly by</p> <p>Custer Institute P.O. Box 1204 Main Bayview Road Southold, NY 11971 631-765-2626</p>
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For those of you who find this month's front page of interest and would care to read further, please browse to the following sites:

<http://www.detnews.com/2003/religion/0308/25/a09-252313.htm>

<http://www.michaeljournal.org/popenet.htm>

http://www.space.com/scienceastronomy/astronomy/vatican_observe_000716.html

<http://clavius.as.arizona.edu/vo/R1024/GConsolmagno.html>

<http://www.astrobio.net/news/article966.html>

<http://clavius.as.arizona.edu/vo/R1024/VOSS.html>

<http://www.uscatholic.org/2002/12/featb0212.htm>

Best,

Tom

Tom Madigan, Editor

Gift Corner & Classifieds

<p>WE HAVE METEORITES.</p> <p>Great sets mounted in beautiful display cases. Perfect for gifts.</p> <p>Custer coffee mugs, only \$4. Do you have <i>yours</i> yet?</p>	<p>The Gift Shop still has a dwindling number of copies of ASTRONOMY FOR ALL AGES, by Philip Harrington & Edward Pascuzzi, just \$20. As an added bonus, copies are signed by Ed Pascuzzi. We also have copies of PARALLAX by Alan W. Hirshfeld, guest speaker at the 2003 Jamboree. Quantities are limited so hurry and add this well-written and informative volume to your collection while supplies last.</p>	<p>We have Susan Harder's patented & dark sky friendly PARSHIELD® OUTDOOR FLOODLIGHT SHIELDS for PAR 38 type bulbs. Controls glare, reduces light trespass & allows you to direct the light where you need it. Two shields per box in your choice of Off White or Bronze finish for \$20.00, tax incl.</p>
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HEAVENLY EVENTS TO WATCH FOR April 05

“ There was a young lady named Bright,
Who traveled much faster than light.
She started one day
In the relative way,
And returned on the previous night. “

- ?

For Long Islanders, no housecat is as shy as the inner planets MERCURY and VENUS in April. Don't bother with them. Red MARS continues to rise in the east-southeast an hour before dawn. It moves from Capricornus to Aquarius after midmonth and is very slowly getting brighter - 0.6 magnitude by month's end. JUPITER is at opposition on the 3rd and is in the sky all night, peaking at -2.5 magnitude, 25 times brighter than the nearby star Spica. SATURN still tarries in Gemini, just north of the Eskimo Nebula. Find it high in the south at dusk, and it will set in the west-northwest around 2 AM at midmonth.

- 2 Daylight Saving Time begins tonight. Set your clocks ahead one hour. (Silly practice, if you ask me.)
- 3 Waning crescent Moon rises to the right of Mars before daybreak.
- 3 Jupiter is at opposition today as Earth passes between it and the Sun. It's about 414 million miles away from us and its equatorial diameter is 44.1 arc seconds as seen through binoculars and telescopes. This is a bit smaller than usual at opposition because Jupiter will be at aphelion (its greatest distance from the Sun in its orbit) ten days from now.
- 8 New Moon. A total / annular / partial solar eclipse is in progress, but not for New York and Long Island. (Philadelphia gets a smidgeon of it.) Most of the central path is in the South Pacific, is only a few miles wide, and the time of totality or annularity is never more than 42 seconds. The brief annular eclipse may be seen near sunset in parts of Panama, Colombia and Venezuela.
- 15 First quarter Moon slides down in the west tonight together with Saturn.
- 18 Albert Einstein died on April 18, 1955, 50 years ago today. Fifty years before that, in 1905, the young Einstein was piecing together the intricacies of what was to become his Special Theory of Relativity.
- 22 Some Lyrid meteors may be seen toward dawn this morning (3 to 5 AM), but the nearly-full Moon will be a nuisance. The Lyrid radiant (the place in the sky the meteors would appear to fan out from) is not far from the bright star Vega, fairly high in the east at daybreak.
- 22 Bright Moon places itself squarely between Jupiter and the 1st magnitude Spica, α Virginis this evening.
- 24 Full Pink Moon drops in the west around daybreak, slightly tarnished by a penumbral lunar eclipse (after 3:50 AM), then sets at sunrise.
- 26 Mercury is at greatest elongation west of the Sun today. However its unfavorable angle relative to the rising Sun makes this the worst of Mercury's four morning appearances this year.

Prepared by Robert Chapin

PRESIDENT'S MESSAGE

Your Board of Directors has placed an order for a new 20' 6" Ash Dome. Teardown of the old wooden dome, building repairs & preparation and the installation of the new dome is anticipated to take place in the late June and July time frame. There will be a great deal of preparation that needs to be done before this construction can take place. The Museum on the second floor and the Library will need to be emptied and the items carefully stored.

Shortly, Chuck Cardona, the project leader, will be announcing the WORK DAYS for our members to get this done. This is by no means a small task we need to accomplish before any repairs and construction can take place. And once the new dome has been installed, we are going to have to put all the items back. The only way this is going to happen is if ALL CUSTER MEMBERS join in the effort and volunteer for these work parties. That means that CUSTER NEEDS YOU!

The new Ash Dome will be magnificent. It is made of electro-galvanized steel and will be fully powered & 360 degree rotatable with no more extension cords required. The old wooden dome, which was erected just over 50 years ago, has had two major rebuilds that I have heard of in that time and constant patching for the last 5 or more years. It is expected that for other than routine maintenance, the new dome should last 50+ years with no major repairs. And, the new dome will eventually house Custer's 25-inch Telescope, when it is completed.

This new dome replacement has only been made possible through the very generous donations made to the Custer Dome Fund in answer to the emergency fund raising call that was made over the last several years. Had it not been for our members and friends generosity, the old dome would have had to be demolished in the next couple of years and a simple roof placed over the observatory tower. I, for one, can't wait to see the new dome in full operation this coming fall.

The AOS Observatory group has installed underground piping from the shed to their observatory and they now have a permanent electrical connection to operate by.

Isn't it GREAT! Things just keep getting better and better with all your help.

Bob Vanson

WELCOME TO OUR NEW OR RETURNING MEMBERS:

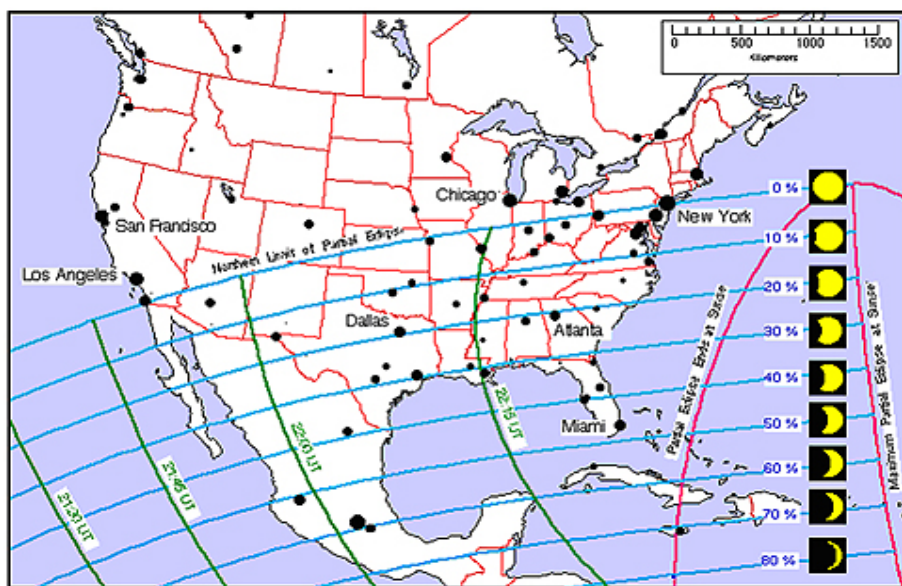
Rian McCarthy & Family of Middle Island; Al Haase & Family of Fort Salonga; Richard Huber of Amityville; David King of Greenport; Robert Deroski of Cutchogue; Alvin & Judy Bicker Family of Southold.

Welcome one and all!

Hybrid Solar Eclipse, Friday, April 08

On Friday, April 8, 2005, the lower United States and the far Southern Hemisphere will witness a Hybrid Solar Eclipse. The path of the Moon's shadow begins southeast of New Zealand and stretches across the Pacific Ocean to Panama, Colombia and Venezuela. A partial eclipse will be seen within the much broader path of the Moon's penumbral shadow, which includes New Zealand, much of the South Pacific, South and North America. To witness even the slimmest slice of the moon's shadow, one will have to travel to Pennsylvania or New Jersey. The following represent the only times and locations for the Northeastern United States:

Location	Eclipse Begins	Maximum Eclipse	Eclipse Ends	Duration		Partial Eclipse
				Sun Mag.	Alt.	
New Jersey						
<u>Trenton, NJ</u>	06:10 PM	06:19 PM	06:29 PM	0.011	13°	00h19m
Pennsylvania						
<u>Harrisburg, PA</u>	06:10 PM	06:19 PM	06:28 PM	0.010	14°	00h18m
<u>Philadelphia, PA</u>	06:07 PM	06:19 PM	06:32 PM	0.019	13°	00h25m
<u>Pittsburgh, PA</u>	06:12 PM	06:18 PM	06:24 PM	0.004	17°	00h12m



Courtesy of Fred Espenak, NASA's GSFC

Image, courtesy Fred Espenak, Goddard Space Flight Center

A hybrid eclipse is a unique type of central eclipse where parts of the path are annular while other parts are total. This duality comes about when the vertex of the Moon's umbral shadow intersects the Earth's surface at some points, but falls short of the planet along other portions in the eclipse path. The curvature of Earth's surface brings some geographic locations along the path into the umbra while other positions are more distant and enter the antumbral rather than umbral shadow. In this case and in most cases, the hybrid eclipse begins annular, changes to total for the central portion of the path, and then converts back to annular towards the end of the path. Please visit

<http://sunearth.gsfc.nasa.gov/eclipse/SEmono/HSE2005/PSE2005city1/PSE2005city1.html> ,
<http://sunearth.gsfc.nasa.gov/eclipse/SEmono/HSE2005/HSE2005.html> and
<http://www.shadowandsubstance.com> for additional information, times and locations.

Custer Family Astronomy Day, 2005

CUSTER INSTITUTE FAMILY ASTRONOMY DAY

Saturday April 16, 2005



- 11:00 AM REGISTRATION VENDOR DISPLAYS
11:15 AM WELCOME / INTRODUCTION
11:30 AM MOVIE: ALBERT EINSTEIN
12:30 PM LUNCH CUSTERDOGS AND OTHER GOURMET DELIGHTS
1:00 PM **Make-it-and-take-it Planisphere**
Learn how to make and use a rotating star map that will show you how to find the constellations and bright stars any time of year.
2:00 PM **Time for the Moon**
Learn more about the Moon, its phases, age, names of features, and then take a closer look. (We have a first quarter Moon that night so there may be observing opportunities.)
3:00 PM **Star Pictures and Stories**
Explore the star mythologies and constellations of different cultures.
4:00 PM **Ringworld and the Red Planet**
View computer animations of the Cassini mission and Mars exploration rovers which show them from alien viewpoints.
5PM Dinner Breck

7:00 PM **Cassini Update**
View up to the minute images from Saturn and its moons with interpretation by David Cohn.
8:00 PM **Observing - Weather Permitting**

\$5 Donation for adults \$1 for kids under 13

Please consider joining Custer
ask for a Membership Application



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