The **Warren Astronomical Society** Paper

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<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
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<td><a href="mailto:jupiter1927@aol.com">jupiter1927@aol.com</a></td>
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<td><a href="mailto:riyadmatti@yahoo.com">riyadmatti@yahoo.com</a></td>
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<td>Bob Watt</td>
<td><a href="mailto:rdwatt@comcast.net">rdwatt@comcast.net</a></td>
</tr>
<tr>
<td>Treasurer</td>
<td>Jim Shedlowsky</td>
<td><a href="mailto:jimskeebros@cs.com">jimskeebros@cs.com</a></td>
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The WASP (Warren Astronomical Society Paper) is the official monthly publication of the Society. Each new issue of the WASP is mailed to each member and/or available online www.boonhill.net/was. Requests by other Astronomy clubs to receive the WASP, and all other correspondence should be addressed to the editor, Cliff Jones, email: cliffordj@ameritech.net

Articles for inclusion in the WASP are strongly encouraged and should be submitted to the editor on or before the first of each month. Any format of submission is accepted, however the easiest forms for this editor to use are plain text files. Most popular graphics formats are acceptable. Materials can be submitted either in printed form in person or via US Mail, or preferably, electronically via direct modem connection or email to the editor.

Disclaimer: The articles presented herein represent the opinions of the authors and are not necessarily the opinions of the WAS or the editor. The WASP reserves the right to deny publication of any submission.

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**Astro Chatter**  
by Larry Kalinowski

It’s banquet time again. You know, the time when all the hard working members of the club get some kind of recognition and the rest of us get to have a really good time indulging in food and spirits, as well as meeting some past members that you haven’t seen in a long time. You might even get a chance to take home a raffle prize of some kind, ranging from books and software to telescope hardware, like eyepieces or filters. Yes, it’s our annual holiday awards banquet. The place is DeCarlo’s on Ten Mile Rd. , just east of Mound Road. The featured speaker will be NASA employee Fred Espenak on eclipse astronomy and the price is $23 per person. And guess what? Wives are invited to attend too! Social hour begins at 6:30. Food is served at 8:00 PM. That’s Thursday, December 16. It replaces our regular MCCC meeting. If you have a program or piece of hardware that’s related to astronomy or observing and you’d like to donate it to the raffle, bring it along that evening. See you there!

The December Cranbrook meeting features Richard Szumanski. He’ll be talking about Meteors, comets and deep sky objects.

Our own galaxy, the Milky Way, seems to have another black hole near its center. It’s not too far away from the first black hole that was discovered in it. Several massive stars are orbiting the hole and those stars helped calculate its mass. The new hole is somewhere in the range of an intermediate sized hole. Black holes are now believed to come in at least three sizes, large, medium and small. The new hole has been designated GCIRS 13E.

Northern lights filled the sky on Sunday, November 7. It’s the first time in a long time that I was able to see streamers all the way to the zenith and even further south, in Roseville, near Twelve Mi. Rd. and Gratiot. Intense reds were visible farther north and word spread like wildfire after an announcement on television.
You'll get another chance to see Jupiter occulted by the Moon on December 7th. This time it'll be during the darkened sky of mid morning, instead of the bright, afternoon sky. The pair should be visible about 15 degrees above the eastern horizon when the occultation begins. Quite high enough for observers in the Detroit metro area. Occultation time will be about 3:50 AM, EST. What's even more interesting is, the darkened sky reveals Jupiter's moons, giving a grand show of disappearing bodies, into the lighted limb of the Moon. Like last month's occultation, give Jupiter about a minute to disappear, an hour or so to move behind the Moon and reappear, taking another minute to slip into visibility again.

By the time you read this, the Moon will have another object orbiting around it and the propulsion system is something to talk about. It's an ion propelled engine that uses charged particles to move the satellite into space. Named Smart-1 by the European Space Agency and launched last September, it finally has achieved a lunar orbit after circling the Earth numerous times, in an ever expanding push to the Moon. Ion propulsion engines have a very small thrust but can apply that thrust over longer periods of time because of the engines high efficiency. Out of 181 pounds of fuel on board, only 130 pounds were used up. After performing some experiments to look for water ice at the poles, the craft will be destroyed after crashing into the Moon's surface. An artist's conception of the probe in orbit around the Moon is seen below.

The October lunar eclipse turned out better than expected. I ventured out to our observatory sight on 29 Mile Rd and found the clouds just beginning to dissipate. By the time the Moon entered the umbra of the Earth's shadow, the sky had cleared and all phases of the eclipse were visible. About thirty people were at the sight, which included three or four that were camping on the grounds. The Moon appeared darker that the last eclipse, but that was expected because it moved closer to the center of the shadow this time.

Marty Kunz reported that Cranbrook had good skies during the eclipse and attendance reached about 50 over the nights viewing.

New Comet Machholz, C/2004 Q2, is getting closer and priming itself for northern hemisphere observers. The comet will be visible all through December and January with closest approach to the Sun during the last week of January, on the 25th of the month. A telescope or binoculars will be needed. Closest approach to the Earth occurs on January 5, near the star group called the Pleiades. The magnitude is expected to be around 4.0, barely visible with the naked eye under urban sky conditions.

A new Gamma ray observatory has been launched into space. The craft is designed to spot Gamma ray bursts that only last for a few seconds. There are only a few dozen known burst sources. Hopefully this probe will be able to detect and relay back information about a possible 200 or more bursters per year. The probe is called Swift, because of its unique ability to quickly turn its detectors to the bursting object and relay information. Gamma ray bursts are thought to be the birth of black holes. An artist's conception of the probe is shown below.

Our constitution has received the OK from the Macomb meeting to add two more members to the board of directors. They will be called Board Members At Large and will handle public relations and overseeing the publication of the WAS newsletter. Marty Kunz will be the just appointed public relations man and Vince Chrisman the just appointed newsletter overseer. They will be officially installed as board members at our next election in October, 2005.

Another air speed record was broken when NASA launched a twelve foot ramjet from a Pegasus rocket off the California coast. After being released from the rocket, the ramjet kicked in to push the small vehicle to 7,000 MPH. That's around ten times the speed of sound. The ramjet vehicle was
not manned and flew under power for about ten seconds before its planned drop into the sea. Ramjets aren’t meant to go into space. They must rely on the Oxygen in the atmosphere to burn their fuel, so they are considered the next step in hypersonic flight within our atmosphere. Fast commercial passenger flights are possible between continents and extra long range bombers are considered to be possible developmental candidates. NASA’s last attempt, in 2001, reached a speed of nearly 5,000 MPH.

There are hints that Saturn’s rings contain more small moons that cannot be seen. Intertwining rings can be found in other parts of the planets rings and many of the rings have very well defined edges, suggesting that a small moon is gathering dust and loose material as it orbits the planet. Some are probably smaller than a football field and difficult to find even with space probes.

The December computer group meeting is scheduled for December 23rd, (the fourth Thursday of the month) at Gary Gathen’s home in Pleasant Ridge. He lives at 21 Elm Park Rd., three blocks south of I-696 and about a half block west of Woodward Ave. Meetings will start at 8:00 pm. You can reach him at 248-543-3366, or me, at 586-776-9720 for any further information.

THE SWAPSHOP

This column is for those who are interested in buying, trading or selling items. Call 586-776-9720 (cometman @my bluelight .com) if you want to put an item for sale or trade in this section of the WASP. The ad will run for six months. The month and year, the ad will be removed, is also shown.

FOR SALE. Parts to build an 8 in. telescope. Includes an 8 in., F7, Pyrex mirror (1/25 wave, 56.3 in f.l.), finished fiberglass tube, 1.83 in. Pyrex, elliptical diagonal mirror (1/16 wave), Tube cradle, heavy duty brass pillow block bearings mounted in pipe fittings, two wooden disks for making the mirror support and a seventy lb. Steel base with a 2 1/2 in. flange, threaded for a 2 1/2 in. pipe post. 586-754-4076. Asking $100 for all. (5-05).

WANTED. A 3.1 inch F-15 refractor (tube assembly only) for a photographic guide ‘scope. Would prefer a Meade (’80’s vintage) or Unitron. Jim Ehlers, 248-628-1615 or e-mail ehlers71@comcast.net. (2-05).

FOR SALE. Celestron C102 HD, 4 inch , F-9 refractor. Comes complete with star diagonal and 20mm eyepiece (standard issue). Very good condition! Asking $265. Jim Ehlers, 248-628-1615 or e-mail ehlers71@comcast.net. (2-05).

MIKE SLASHES PRICES IN HALF!

FOR SALE. Classic 6 in. Criterion RV-6 Dynascope., Newtonian reflector, 110v AC electric drive, aluminum pier with three feet, 6x30 two ring finder and rotating tube. $200. starmikebest@comcast.net. (12-04).

FOR SALE. Refractor, 3 in., metal tube, 1 ½ in. two ring finder scope, Eastman Kodak Aero-Ektar 7.12 in. (178mm) f.l., 5x5, F2.5 camera #EM6294 ($150 estimated value), No mount. $237. Starmikebest@comcast.net. (12-04).

FOR SALE. Mirror cell for ten inch mirror. Plywood, very light weight. Fits 12in. ID tubes or larger with longer bolts. $10.00. 586-776-9720. (12-04).

FOR SALE. Four vane spider, for diagonal bolts 3/8 in dia. or smaller. Fits 12 ½ in. ID tubes or larger with longer bolts. $10.00. 586-776-9720. (12-04).

Message from our President
Ken Bertin

Dear Members:

2004 was a very good year in Astronomy and particularly for the Warren Astronomical Society.

We got to experience the successful Mars Pathfinder mission, with Spirit and Opportunity revealing Mars’ secret past. We also got to watch as the Cassini Space probe opened new information about that glorious planet Saturn. Seeing Saturn for the first time through a telescope was what I call the hook which snagged me and many of you into a lifelong passion for Astronomy. We got to see Venus transit the Sun, something no
one alive today on Earth saw the last time around. An event now seen only six times since the telescope was invented in 1609. And of course, we got to see another Lunar Eclipse even though the weather reports were dismal.

From a club perspective this year has been quite fulfilling. We added dozens of members to our roles, reached out to the community with informative programs at Cranbrook and Stargate. We repaired the roof of the observatory, albeit temporarily. We added a computer and several scopes for use by the membership. Our meetings have been fascinating much due to the speakers and their extraordinary presentations.

I would like to give special thanks to our officers. Norm Dillard carried on the tradition of influencing others of their obligation to impart their considerable knowledge through the giving of presentations at our meetings. Riyad Matti applied his expertise in turning Stargate into a showpiece by bringing groups in to learn of observational Astronomy. Jim Shedlowsky took on the job of Treasury with great enthusiasm and is probably going to be the driving force in getting our database in manageable order. Bob Watt who tirelessly works to get matters organized and has made dealing with outside organizations much simpler. I would also like to thank Mary Kunz, for mentoring me through my first year as President. Also Bill Beers who eased the Treasurer transition for Jim. Cliff Jones for his great work on the WASP and Larry Kalinowski’s contributions to its success. Vince Chrisman and Dave D'onofrio for their help in developing flyers and other publications to get info out to members and others about our organization. Bryan Klaus for supplying snacks for our meeting breaks. Steve Uitti for ably taking over our Library. And of course to all the members who gave of their time to speak before the group, preparing terrific presentations to ever expand our knowledge of the universe.

I look forward to another year with great enthusiasm, knowing it will have go some to equal the enjoyment I received from being your President in 2004.

Respectfully submitted,

Kenneth M. Bertin

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This cartoon from STARIZONA, www.starizona.com, features Bob Berta and his wife with a suggestion on moving to Arizona. Welcome to Michigan Bob! You can't leave now that you are going to be the Society's new secretary!

RIDER'S
Hobby Shops

30991 Five Mile Rd., Livonia, MI 48154
(734) 425-9720 – Ask for John or Dan

Now stocking Vixen telescopes and accessories.
See the new "Sphinx" GoTo Mount with the world's first LCD screen star chart controller. Now taking orders for the new Meade LXD75 telescopes.

For children's fun in space entertainment, try this site: http://saturn.jpl.nasa.gov/kids/index.cfm

Submitted by one of our members, Michael O. Best.

Also, check out Mike’s web site: StarMikeBest.com
Mike gives star shows at Vollbrecht Planetarium in Southfield as well as presentations at libraries and for any group, scouts, seniors etc. How about a wedding under the stars, rain or shine at Vollbrecht Planetarium – Call Mike.
The following is a recent list of publications, programs and videos available for loan from the WAS library. Although this list was published in an earlier issue, I felt it would be timely to print it again for winter when the nights are cold, long. Then even the most avid optical astronomer becomes an armchair astronomer.

<table>
<thead>
<tr>
<th>AUTHOR / GROUP</th>
<th>TITLE</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAVSO</td>
<td>Manual for visual observing of variable stars</td>
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</tr>
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<td>Exploration of the universe</td>
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<td>Realm of the universe</td>
<td></td>
</tr>
<tr>
<td>Abetti, Giorgio</td>
<td>The Sun</td>
<td></td>
</tr>
<tr>
<td>Ackroyd. Peter</td>
<td>First Light</td>
<td></td>
</tr>
<tr>
<td>ARCO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Armitage, Angus</td>
<td>William Herschel</td>
<td></td>
</tr>
<tr>
<td>Armitage, Angus</td>
<td>The World of Copernicus</td>
<td></td>
</tr>
<tr>
<td>ARNY</td>
<td>Explorations introduction to astronomy</td>
<td></td>
</tr>
<tr>
<td>Asimov, Issac</td>
<td>The Collapsing Universe</td>
<td></td>
</tr>
<tr>
<td>Baker &amp; Fredrick</td>
<td>An Introduction to astronomy</td>
<td>7th edition</td>
</tr>
<tr>
<td>Baker, David</td>
<td>The Larousse guide to astronomy</td>
<td></td>
</tr>
<tr>
<td>Barnett, Lincoln</td>
<td>The Universe &amp; Dr. Einstein</td>
<td></td>
</tr>
<tr>
<td>Beatty, Petersen, Chaikin</td>
<td>The New Solar System</td>
<td></td>
</tr>
<tr>
<td>Beer, Roy, &amp;White</td>
<td>Vistas in Astronomy</td>
<td></td>
</tr>
<tr>
<td>Begelman Mitchell</td>
<td>Turn right at Orion</td>
<td>Part -1</td>
</tr>
<tr>
<td>Bennett, Jeffrey</td>
<td>On the Cosmic Horizon</td>
<td></td>
</tr>
<tr>
<td>Bergamini, David</td>
<td>The Universe</td>
<td>1969</td>
</tr>
<tr>
<td>Berman, Bob</td>
<td>Secrets of the night sky</td>
<td></td>
</tr>
<tr>
<td>Berry Richard</td>
<td>Telescope Making #41 &amp; # 42</td>
<td>Summer&amp;Fall 1990</td>
</tr>
<tr>
<td>Berry Richard</td>
<td>Build Your own Telescope</td>
<td>1985</td>
</tr>
<tr>
<td>Birney, Scott</td>
<td>Modern Astronomy</td>
<td>2nd edition</td>
</tr>
<tr>
<td>Bok &amp; Bok</td>
<td>The Milkey Way</td>
<td>1981</td>
</tr>
<tr>
<td>Bonano Margaret</td>
<td>Star Trek - Strangers from the sky</td>
<td></td>
</tr>
<tr>
<td>Bonestell Chesley</td>
<td>The conquest of space</td>
<td></td>
</tr>
<tr>
<td>Brandt, J</td>
<td>The International Halley Atlas Watch</td>
<td></td>
</tr>
<tr>
<td>Branley, Franklin</td>
<td>Exploration of the Moon</td>
<td></td>
</tr>
<tr>
<td>Bray R. J.</td>
<td>Sun spots</td>
<td>Gary Walter - donor</td>
</tr>
<tr>
<td>Breuer, Reinhard</td>
<td>Contact with the stars</td>
<td></td>
</tr>
<tr>
<td>Brown, Sam</td>
<td>All about Telescopes</td>
<td></td>
</tr>
<tr>
<td>Burnham, Robert</td>
<td>Great Comets</td>
<td></td>
</tr>
<tr>
<td>Bylinsky, Gene</td>
<td>Life in Darwins Universe</td>
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<td>Chaisson&amp;McMillan</td>
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<td>Chaptman,</td>
<td>The Inner Planets</td>
<td></td>
</tr>
<tr>
<td>Clarke, Arthur</td>
<td>2061 Odyssey Three</td>
<td></td>
</tr>
<tr>
<td>Collins Stewart</td>
<td>The Mariner 6 &amp; 7 pictures of Mars</td>
<td></td>
</tr>
<tr>
<td>Condon, Ed</td>
<td>Scientific study of unidentified flying objects</td>
<td></td>
</tr>
<tr>
<td>Cooke, Donald</td>
<td>The Life &amp; Death of Stars</td>
<td></td>
</tr>
<tr>
<td>Cooper, Henry</td>
<td>A House in Space</td>
<td></td>
</tr>
<tr>
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<td>A Night at the Observatory</td>
<td></td>
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<td>Covington Michael</td>
<td>Asrophotography for the Amateur</td>
<td></td>
</tr>
<tr>
<td>DeNevi, Don</td>
<td>To the edge of the Universe</td>
<td></td>
</tr>
<tr>
<td>Dickinson, Terence &amp; Alen</td>
<td>The Backyard Astronomers guide</td>
<td></td>
</tr>
<tr>
<td>Ferris, Timothy</td>
<td>Coming of the age in the Milky Way</td>
<td></td>
</tr>
<tr>
<td>Filkin, David</td>
<td>Steven Hawking Universe The Cosmos explained</td>
<td></td>
</tr>
<tr>
<td>Fjermedal, Grant</td>
<td>New Horizons in Amateur Astronomy</td>
<td></td>
</tr>
<tr>
<td>Freeman, Michael</td>
<td>Space Travellers Handbook</td>
<td></td>
</tr>
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<td>French, A. P.</td>
<td>Einstein A Centenary Volume</td>
<td></td>
</tr>
<tr>
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<td></td>
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<td>Star Hopping</td>
<td></td>
</tr>
<tr>
<td>Gatland, Kenneth</td>
<td>Space Technology</td>
<td></td>
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<tr>
<td>Goldsmith, Donald</td>
<td>The Astronomers</td>
<td></td>
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<tr>
<td>Gray, Jerme</td>
<td>Ideas in Space</td>
<td></td>
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<td>Halliday &amp; Resnick</td>
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<tr>
<td>Harper,</td>
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<td></td>
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<tr>
<td>Harris, Sydney</td>
<td>What's so funny about Science</td>
<td></td>
</tr>
<tr>
<td>Harsanyi, Zsolt</td>
<td>The Star Gazer - Galileo</td>
<td></td>
</tr>
<tr>
<td>Hawking, Steven</td>
<td>A brief History of time</td>
<td></td>
</tr>
<tr>
<td>Hawkins, Gerald</td>
<td>Beyond Stonehenge</td>
<td></td>
</tr>
<tr>
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<td>Cataclysmic Variable Stars</td>
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</tr>
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<td>Henbest &amp; Marten</td>
<td>The New Astronomy</td>
<td></td>
</tr>
<tr>
<td>Henden &amp; Kaitchuck</td>
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<td>The Evolution of radio Astronomy</td>
<td></td>
</tr>
<tr>
<td>Hill, Harold</td>
<td>A Portfolio of Lunar Drawings</td>
<td></td>
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<tr>
<td>Hirsch &amp; Trento</td>
<td>The National Aeronautics &amp; Space Administration</td>
<td></td>
</tr>
<tr>
<td>Hockey,</td>
<td>Book of the moon</td>
<td></td>
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<tr>
<td>Holt,</td>
<td>An Introduction to astronomy</td>
<td></td>
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<td></td>
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<td>Hoyle, Fred</td>
<td>Frontiers of Astronomy</td>
<td></td>
</tr>
<tr>
<td>Ingalls, Albert</td>
<td>Amateur telescope making</td>
<td></td>
</tr>
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<td>Jastrow, Robert</td>
<td>Red Giants &amp; White Dwarfs</td>
<td></td>
</tr>
<tr>
<td>Joles, Mark</td>
<td>The Mars one crew manual</td>
<td></td>
</tr>
<tr>
<td>Jones, Ser Harold Spencer</td>
<td>Life on other worlds</td>
<td></td>
</tr>
<tr>
<td>Kirby &amp; Smith</td>
<td>U. S. Observatories</td>
<td></td>
</tr>
<tr>
<td>Klein, Miles</td>
<td>Optics</td>
<td></td>
</tr>
<tr>
<td>Knight, David</td>
<td>Eavesdropping on Space</td>
<td></td>
</tr>
<tr>
<td>Knollwood books</td>
<td>Catalogue's of books</td>
<td></td>
</tr>
<tr>
<td>Kronk, Gary</td>
<td>A descriptive catalog</td>
<td></td>
</tr>
<tr>
<td>Levy, David</td>
<td>Observing Variable Stars</td>
<td></td>
</tr>
<tr>
<td>Lewis, Richard</td>
<td>From Vinland to Mars</td>
<td></td>
</tr>
<tr>
<td>Ley, Willy</td>
<td>Watchers of the skys</td>
<td></td>
</tr>
<tr>
<td>Ley, Willy</td>
<td>Mariner IV To Mars</td>
<td></td>
</tr>
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<td>Liller &amp; Mayer</td>
<td>The Cambridge Astronomy guide</td>
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<td>The Messier Album</td>
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<td>Maloney, Terry</td>
<td>Stars, Suns, Planets</td>
<td></td>
</tr>
<tr>
<td>McAleer, Neal</td>
<td>The Mind Boggling Universe</td>
<td></td>
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<tr>
<td>Meadows, A. J.</td>
<td>Stellar Evolution</td>
<td></td>
</tr>
<tr>
<td>Menzel</td>
<td>Astronomy</td>
<td></td>
</tr>
<tr>
<td>Misner</td>
<td>Gravitation</td>
<td></td>
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<td>Mitton</td>
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December 2004 Calendar

Saturday, Dec 4  •  Last Quarter Moon
Sunday, Dec 5  •  Venus and Mars are about 1.3° this morning and tomorrow
Tuesday, Dec 7  •  Crescent Moon occults Jupiter in early morning hours.
Thursday, Dec 9  •  Waning crescent moon 5° south of Mars and 7° south of Venus in compact line in predawn sky
Friday, Dec 10  •  3:00 a.m. Mercury is in inferior conjunction
Saturday, Dec 11  •  8:29 pm: New Moon
Sunday, Dec 12  •  4:27 p.m: The Moon is at perigee (22,441 miles from Earth)
Monday, Dec 13  •  Geminid meteor shower peaks under favorable conditions; expect 60 to 100 meteors per hour after midnight, into dawn hours of Dec. 14  •  noon: Pluto is in conjunction with the sun
Wednesday, Dec 15  •  The Moon passes 5° south of Neptune, 6:00 a.m.
Thursday, Dec 16  •  4:00 p.m. The Moon passes 4° south of Uranus
Saturday, Dec 18  •  11:40 a.m. First Quarter Moon
Tuesday, Dec 21  •  Solstice; winter officially begins at 7:42 a.m. EST
Thursday, Dec 23  •  4:00 p.m. Venus passes 6° North of Antares
Sunday, Dec 26  •  10:06 a.m. Full Moon
Monday, Dec 27  •  2:15 p.m. The Moon is at apogee (252,850 miles from Earth)
Tuesday, Dec 28  •  1:00 a.m. The Moon passes 5° north of Saturn  •  Midnight, Mercury passes 1.2° north of Venus

Wednesday, Dec 29  •  Mercury and Venus are within 1.2° of each other for next two weeks, low in morning sky; Mercury at greatest elongation west of Sun (22°) in dawn sky

This new picture of galaxy NGC 6118 caught two interesting sidelights -- an exploded star and a passing satellite. (In this copy I am unable to see the blue streak of the passing satellite, however, the arrow pointing to the supernova is visible. – Cliff)

Credit: ESO/VLT and SPACE.com Staff