



## The Warren Astronomical Society Paper

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[www.boonhill.net/was](http://www.boonhill.net/was)

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### 2004 WAS OFFICERS

\\ October 2004

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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](http://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](mailto: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 WASP or the editor. The WASP reserves the right to deny publication of any submission.

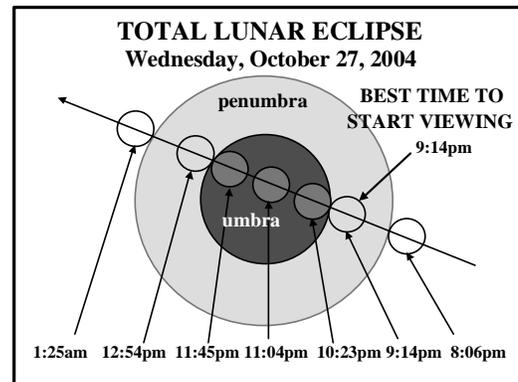


## Astro Chatter

by Larry Kalinowski

Another lunar eclipse will burst forth on Wednesday, October 27. It's very well placed for American observers because it's higher in the sky than the last one in November, 2003. It will also show the Moon deeper in the umbra, causing totality to last longer, about 82 minutes. With the Moon closer to the center of the umbra, the colors produced by the Earth's atmosphere will be deeper and darker. The Moon will be about 40 degrees above the ESE horizon when it starts to enter the umbra that night. Stargate Observatory should be a good place to watch and photograph the event, as our SSE to SSW hasn't much obstruction. If you're new to astronomy and haven't taken the time to fully absorb one in the past, stop whatever you're doing and soak in this rather common but superb event. No optics are required to watch it, so anyone can participate. However, if all you have is binoculars or a pocket telescope, bring it along. Any optics will

increase your enjoyment of the event. The times given in the eclipse graphic are all EDT.

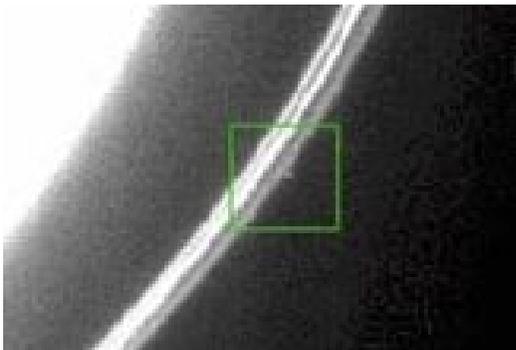


Genesis, the spacecraft that was supposed to bring solar particles back to Earth, completed all but the very last part of its mission. The parachute that was supposed to slow the sample box to the ground, didn't open. As a result, the sample box slammed into the ground at nearly 200 MPH, causing the container to break apart, spilling its contents into the Utah desert. What few particles that can be recovered will still be analyzed, but it was a great

disappointment for NASA scientists. The solar probe had collected particles since its launch in 2001.



Another ring has been discovered between the A and F rings around Saturn. At the present time NASA scientists aren't sure if it's really a ring or just an arc or part of a ring that never fully developed. Along with the new ring is a new moon. The moon has a peculiar motion, similar to the one that was discovered years ago, because it seems to weave in and out of the ring structure it accompanies. See if you can spot the tiny object that is shown in the square, in the center of the picture.



Bill Beers has announced the invitation to come to his Second Annual Cadillac West Halloween Star Party, starting on October 14 and ending on the 17th. This is not a Halloween party, so costumes are not required. See the flyers that have been appearing in the WASP and passed out at the club meetings. The location is about 14 miles west of Cadillac, MI, at the Beers cabin. You are required to RSVP your intentions and Bill will send you a map showing how to get to his place. Telephone numbers of various motels near his property can be found on the circulating flyer. You are also welcome to camp out and tent on his property. RV's are welcome too. You can reach Bill at 586-566-8367 or [beezoll@aol.com](mailto:beezoll@aol.com).



Another "first photo" planet discovery has been announced by a European team of

astronomers using the European Southern Observatory. The team is led by Christopher Dumas. The planet is 55 times farther from its sun than Earth is from ours. The telescope used was a special infra-red type with corrective optics, capable of eliminating or reducing the swimming pool effects caused by the Earth's atmosphere. The planet's sun is really a brown dwarf star. The kind of star that is almost invisible in ordinary light. Most of its energy is given off by heat in the deep red end of the light spectrum. The planet was also detected because of its heat. This is the second photo discovery of a so called extrasolar planet and there will be a sort of battle to determine which discovery is really the first. Neither discovery has been verified yet, so the claim to being first is still up for grabs.

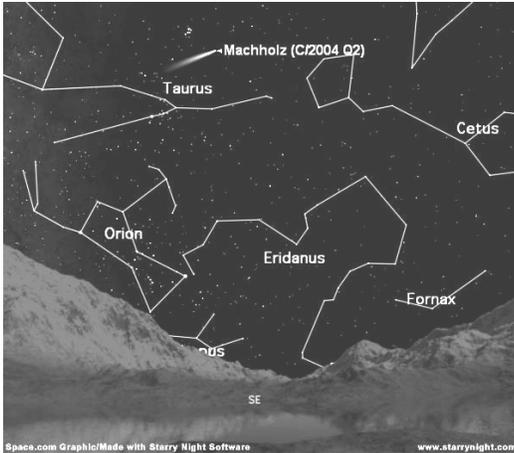
Tony Sivalelli Jr., a past member of the Warren society, has been gracious enough to donate his 3.1 in., (80mm) Celestron refractor to the club. He's looking for some thing a little smaller, that he can put on a tabletop, for occasional observing. His donated 'scope has an equatorial mount, tripod, slow-motion and setting circles on both axes and includes a wide angle twenty-five millimeter eyepiece. He feels that the club would use it more often than he did, if it was placed in the telescope lending program offered by our group. Many, many, thanks Tony. Wish there were more people like you.

Our annual election of officers takes place during the October, Macomb meeting. If you are interested in giving a little more than usual, nominate yourself during our meetings this month. It's your chance to change something you don't like about the way our club is operated. You can also nominate someone beside yourself, if that person is present at the meeting to accept the nomination.

How would you like to own three, two inch diameter eyepieces, with focal lengths of 30, 42 and 50mm, with apparent fields of 70, 65 and 54 degrees respectively? These are five element eyepieces with fully multi-coated and edge-blackened optics. They're available for \$59 each (or all three for \$149) at Owl Services in Bath, Pennsylvania. You can reach them at 610-837-1917 or [owl@owlservices.com](mailto:owl@owlservices.com). Other eyepieces are also available in one and a quarter inch sizes at very good prices.

Another comet has been discovered by an amateur in California. The comet is named New Comet Machholz C/2004 Q2. This is Machholz's tenth

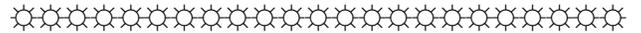
comet discovery and it was made with a vintage six inch, F8, Criterion Dynascope reflector. Brightness predictions state that the comet will reach fourth magnitude during its close approach to the Earth (32,000,000 miles) in January, on the fourth and fifth of that month. Closest approach to the Sun will be on January 24. The graphic included, shows its position during close approach to the Earth. It's going to be well placed for observing in the constellation Taurus, near the Pleiades, about sixty degrees above the SE horizon, at 8:00pm, making it cross the Meridian around an hour before midnight.



On Saturday, last September 18, I was enjoying some communication with members of the WAS, at our observatory. One thing we got into was locating interesting objects in the sky and pointing a green laser at it while others used their binoculars or telescope to follow the beam to the object. With this method of location, we found that more than one person could use the beam to find the object, all at the same time. This brought up an interesting thought. A group of beginners could easily find any object the green laser pointed to. It's an extremely fast method of getting all observers in the group to find the same object in the sky. A quick and easy teaching method. I even considered mounting one of those lasers on a tripod or a telescope and leaving it pointed to a sky object, so that all observers, beginners or advanced, that could see the beam, would be able to use it. This would give everyone, without a GoTo feature, the capability of finding the object in a very short time. We could call it Laser Beam Observing.

The October computer group meeting is scheduled for October 28, (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@mybluelight.com](mailto:cometman@mybluelight.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.

**WANTED.** 12 ½ inch aluminum mirror cell. Call Bob Watt at 586-757-4741. (2-05).

**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](mailto: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](mailto: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](mailto:starmikebest@comcast.net). (10-04).

**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](mailto:Starmikebest@comcast.net). (10-04).

**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).



# Minutes Of Meetings

## Macomb 9/18/04 By Bob Watt

Visitors, Jim Ibes, Brian James. - Members, 23

Meeting started at 7:30 PM

President, Ken Bertin, opened the meeting with an explanation of the new program interruption rules. The speakers have the option of no interruptions during the program, no interruptions with questions & comments at the end of the program & interruptions during the program. Ken asked for officers reports:

First Vice President, Norman Dillard: Tonight's speaker will be Ed Starbuck his talk will be "PLUTO". Norman went over the speakers list for upcoming meetings.

Second Vice President, Riyad Matti, spoke on the observatory roof issue. There will be an Open House this Saturday at Stargate. Next month scouts will be at Stargate. There will be an Open House on Sept 27, for a Lunar Eclipse. The Stargate security box numbers will be available to all members that ask & have a knowledge of their use.

Secretary, Bob Watt: The elections are coming up in October. Here is a chance to become an officer & help maintain our club. The downpayment check for our annual party has been sent in & received.

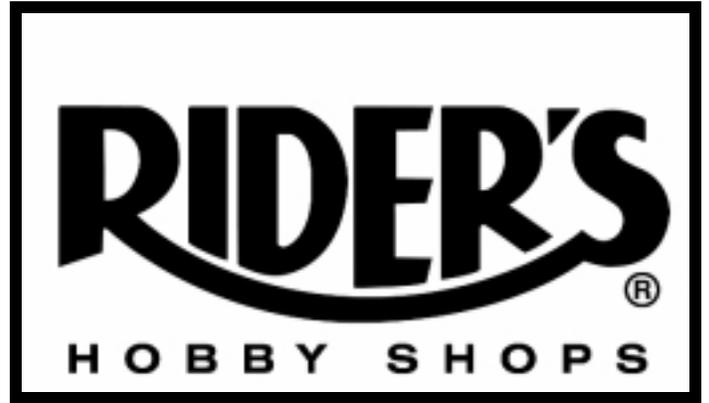
Treasurer, Jim Shedlowsky: no report.

Librarian, Steve Uitti: Donations, a three VHS set of "UNDERSTANDING THE UNIVERSE" what's new in astronomy. Lectures 1 through 8 by Prof. Alex Filippenko, Donated by Richard Gala. Bob Berta donated a VHS on mirror grinding & telescope making, "CELESTRON-A VIDEO TOUR"

Break was at 8:50PM

Tonights program was PLUTO by Ed Starbuck, well done, very interesting.

Meeting ended at 10:00 PM



**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.

***Star Party every clear Thursday from our front parking lot starting at dusk.***  
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### October Eclipse

The Warren Astronomical Society will be sponsoring a free observatory open house on October 27, 2004 for the Lunar Eclipse. The moon will undergo a deep total eclipse lasting for 1 hour 22 minutes, when it is high in the eastern sky. The observatory will be open from 7:00 p.m. to 1:00 a.m.

This event is being advertised in the local press. All members are encouraged to attend and help out with this event. For more information contact Riyad Matti at 586.598.5400. Please bring your scope. See you there!



## Upcoming Events in 2004

Month	Day	Time	What	Where	Presenter	Subject
October	Mon 4	7:30 pm	<u>Cranbrook Meeting</u>	<u>Cranbrook Institute</u>	Tom Hagen	McMath-Hulbert Observatory
	Thurs 21	7:30 pm	<u>Macomb Meeting</u>	<u>Macomb Community College South Campus</u>	Steve Uitti	Cusky
November	Mon 1	7:30 pm	<u>Cranbrook Meeting</u>	<u>Cranbrook Institute</u>	Jack Szymanski	First Point of Aries
	Thurs 18	7:30 pm	<u>Macomb Meeting</u>	<u>Macomb Community College South Campus</u>	Dave D'Onofrio	Processing CCD images
December	Mon 6	7:30 pm	<u>Cranbrook Meeting</u>	<u>Cranbrook Institute</u>	Richard Szumanski	Meteors / Comets / Deep Sky
	Thurs 16	7:30 pm	Holiday Awards Banquet		Fred Espenak - NASA	Eclipses

### September Calendar

**Sunday, Oct 3** • Dawn: Regulus is  $1/4^\circ$  to the lower left of Venus before dawn.

**Tuesday, Oct 5** • 3:00 pm: Mercury is in superior conjunction; 6:10 pm: The moon is at apogee (251,237 miles from Earth)

**Wednesday, Oct 6** • 6:12 am: Last Quarter Moon

**Thursday, Oct 7** • 6:00 am: The moon passes  $5^\circ$  north of Saturn.

**Saturday, Oct 9** • Evening: Asteroid 4 Vesta (mag 6.6) is  $1.0^\circ$  due south of 97 Aquarii.

**Sunday, Oct 10** • 3:00 pm: The Moon passes  $4^\circ$  north of Venus.

**Tuesday, Oct 12** • 3:00 pm: The Moon passes  $1.6^\circ$  north of Jupiter

**Wednesday, Oct 13** • 10:48 pm: New Moon; 1:00 pm: Asteroid Harmonia is at opposition; partial solar eclipse (Alaska & Hawaii – not visible here)

**Sunday, Oct 17** • 7:53 pm: The Moon is at perigee (228,514 miles from Earth)

**Wednesday, Oct 20** • 5:59 pm: First Quarter Moon.

**Thursday, Oct 21** • Orionid meteor shower is at its peak; 5:00 pm: the Moon passes  $5^\circ$  south of Neptune.

**Saturday, Oct 23** • 4:00 am: The Moon passes  $4^\circ$  south of Uranus.

**Sunday, Oct 24** • Dawn: Jupiter's moons Io, Europa, and Callisto form a compact grouping before dawn.

**Wednesday, Oct 27** • 11:07 pm: Full Moon A total eclipse of the moon is visible: 8:06 pm – enters penumbra 10:23 pm – Total eclipse begins; 11:04 - Mideclipse; 11:45 pm – Total eclipse ends; 2:03 am – Moon leaves penumbra.

**Friday, Oct 29** • 5:55 am to 7:22 am: Only Calisto, one of Jupiter's satellites is visible.

**Sunday, Oct 31** • Daylight-Saving time ends.



## **OFFICER ELECTION TIME**

The third Thursday business meeting in October (21<sup>st</sup>) at Macomb Community College is when we elect officers for the following year. Bill Beers and Vince Chrisman have been selected to be on the nominating committee. The elected positions are:

President	Treasurer
1 <sup>st</sup> Vice President	Program Chair
2 <sup>nd</sup> Vice President	Observatory Chairman
Secretary	

The board appoints the committee subgroup chairs.

Any member in good standing wishing to run for office, please contact Bill at 586-566-8367 [beezoll@aol.com](mailto:beezoll@aol.com) or Vince at 586-997-4057 [TheXXFiles@hotmail.com](mailto:TheXXFiles@hotmail.com) expressing what position you are interested in. You can also see one of us at the Cranbrook meeting on Monday, October 4<sup>th</sup>.

This is a great opportunity to step up and take an active role to make the Warren Astronomical Society the best serving astronomers in SE Michigan.

The meeting at Macomb Community College starts at 7:30 pm. The address is:

Macomb Community College  
South Campus, Building B, Rm 209  
14500 Twelve Mile Road  
Warren, MI 48088-3896

## **WELCOME NEW MEMBERS!**

In 2004 we had 23 new member/families join the society bringing our total membership to 131. Thanks for joining and we look forward to your involvement at Star Parties, meetings and the many other exciting functions we have. Thanks again.

Dave Bailey	Bryan James
Robert Berta	Bill Kendall
Jon Blum	Allen Kinsey
Chris, Kathy & Kids Brinch	Jerry & Lisa Kuchera
William, Elizabeth & David Carson	Alan Maestri
Edward Cressman	Guy Maxim
Ken & Michelle Crysler	Patrick Mc Dermott
Roy Gruenburg	Dale Partin
Helen, Edward & Frida Pattskyn	Stephen Harvath
Ronald & Marian Hampson	Kate Schavey
Brad Hill	Patricia Stickel
Jim Ives	

Dear members:

After much discussion between the members of the executive board, we have come up with a solution to a dilemma apparently affecting some members considering giving a presentation before the group.

Due to the vast knowledge of some members in the field of astronomy and their desire to reveal just how much they know to the other members, there have been times in the past when one is giving a presentation has been interrupted by another in the audience with either a correction or comment that delays the presentation at best or at worst embarrasses the speaker.

Obviously this is not a healthy situation. It scares members from giving presentations and turns it into a test rather than what it was intended, that is, another source of information and an opportunity for members to become more involved in the club.

With that in mind, the procedure in the future will be as follows. Speakers will be given three choices prior to giving their presentation. They can choose to give their presentation without interruption and bar any audience participation. If members detect inaccuracies they are permitted to take their corrections and comments directly to the speaker privately, away from the group, AFTER the meeting. IF the speaker desires, he or she can choose to discuss it with the board to determine how to get the right information to the membership. I do not expect this situation to occur but extremely rarely. We are always seeking accurate information, but this procedure will encourage more members to speak, thereby adding to the subject matter, involvement by more members and more knowledge gained about astronomy for all.

The second choice available to the presenter is an uninterrupted speech, with a question and answer period to follow.

The third choice is an open discussion. Audience members can participate during the presentation. One caveat in this situation is time restraint related. Members should be aware that there is a finite time allotted to the presentation, and although audience members may wish to impart their considerable knowledge, the time available is really reserved mostly for the presenter. Limiting comments is appreciated. The programming chairman and the president reserve the right to cut off discussion from the audience in the interest of time, and to keep the talk on subject.

Hopefully the above will further enhance our already stimulating and interesting meetings. Your officers are always interested in hearing your thoughts.

Respectfully Submitted,

Ken Bertin  
President



Article Compliments of Nancy Leon of JPL/NASA

## Resisting Retirement: Earth Observing 1 by Patrick L. Barry and Dr. Tony Phillips

Among the mind-blowing implications of Einstein's general theory of relativity, direct verification is still missing for at least one: gravitational waves. When massive objects like black holes move, they ought to create distortions in space-time, and these distortions should spread and propagate as waves--waves in the fabric of space-time itself.

If these waves do exist, they would offer astronomers a penetrating view of events such as the birth of the Universe and the spiraling collisions of giant black holes. The trick is building a gravitational wave detector, and that's not easy.

Ironically, the gravitational waves spawned by these exceedingly violent events are vanishingly feeble. Gravitational waves exert a varying tug on objects, but this tug is so weak that detecting it requires a device of extraordinary sensitivity and a way to shield that device from all other disturbances.

Enter Space Technology 7 (ST-7). This mission, a partnership between NASA's New Millennium Program and the European Space Agency (ESA), will place a satellite into a special orbit around the Sun where the pull of the Earth's and Sun's gravities balance. But even the minute outside forces that remain -- such as pressure from sunlight -- could interfere with a search for gravitational waves.

To make the satellite virtually disturbance-free, ST-7 will test an experimental technology that counteracts outside forces. This system, called the Disturbance Reduction System (DRS), is so exquisitely sensitive that it can maintain the satellite's path within about a nanometer (millionth of a millimeter) of an undisturbed elliptical orbit.

DRS works by letting two small (4 cm) cubes float

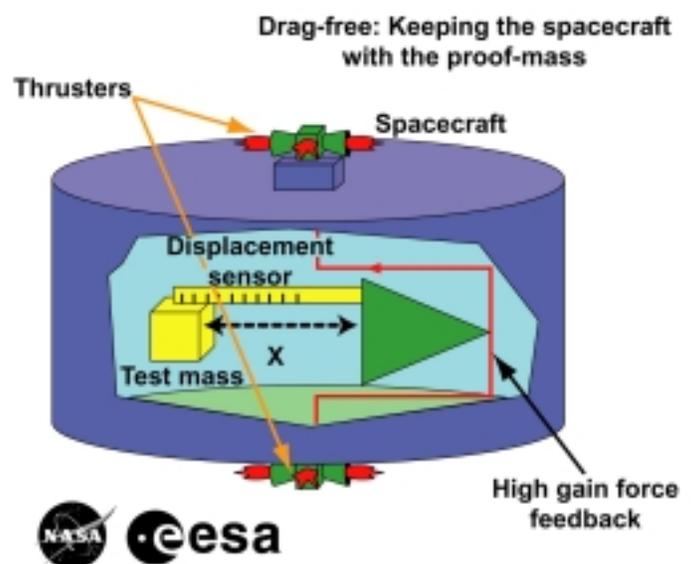
freely in the belly of the satellite. The satellite itself shields the cubes from outside forces, so the cubes will naturally follow an undisturbed orbit. The satellite can then adjust its own flight path to match that of the cubes using high-precision ion thrusters. Making the masses cube-shaped lets DRS sense deviations in all 6 directions (3 linear, 3 angular).

ST-7 is scheduled to fly in 2008, but it's a test mission; it won't search for gravitational waves. That final goal will be achieved by the NASA/ESA LISA mission (Laser Interferometer Space Antenna), which is expected to launch in 2011. LISA will use the DRS technology tested by ST-7 to create the ultra-stable satellite platforms it needs to successfully detect gravitational waves.

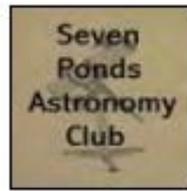
If ST-7 and LISA succeed, they'll confirm Einstein (again) and delight astronomers with a new tool for exploring the Universe.

Read more about ST-7 at <http://nmp.jpl.nasa.gov/st7> . For kids in a classroom setting, check out the "Dampen that Drift!" article at [http://spaceplace.nasa.gov/en/educators/teachers\\_page2.shtml](http://spaceplace.nasa.gov/en/educators/teachers_page2.shtml) .

*This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.*



*Space Technology 7 will test a technology to be used in detecting gravitational waves in space.*



PRESENTS

# The 2nd Annual CADILLAC WEST – HALLOWEEN STAR PARTY

(no dress up)



Oct. 14 – 17, 2004

Hosted By: Bill Beers (Warren Astronomical Society)  
Located 14 Miles West of Cadillac Mich. at Bill Beers Cabin (RSVP for Map)

**\*\*\*DARK SKIES\*\*\***

**\*\*Saturday Barbecue\*\***

**Accommodations Available:**

Limited Floor Space in Cabin  
Plenty of Space for Tents/Campers  
Best Value Inn (231-775-2458) 12 miles east  
Driftwood Lodge (231-775-2932) 12 miles east  
Caberfae Peaks (231-862-3300) 1 mile east

----- A/C POWER AVAILABLE -----  
(Donations accepted)

1 For More Info Contact: Bill Beers Phone #586-566-8367 or E-mail "BEEZOLL@aol.com"  
John Lines Phone #248-969-2790 or E-mail "JELINES@yahoo.com"  
Doug Bock E-mail "DBOCK1@chartermi.net"

(PLEASE RSVP IF YOU ARE THINKING OF ATTENDING)

**\*\* This will be a "Hunt for the Witch head Nebula" event \*\***



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