



## The Warren Astronomical Society Paper

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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 e-mailed to each member and/or available online [www.warrenastronomicalsociety.org](http://www.warrenastronomicalsociety.org). 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.

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## Astro Chatter

by Larry Kalinowski



Here it is again, the month that everyone loves. Why? It's our banquet month! Everyone has a chance to win prizes, eat hearty, absorb intellectual fare, mingle with the haves and havenots and take a little swill from the open bar. If you haven't signed up for it yet, the December Cranbrook meeting is the last time you'll get a chance to bump into our Treasurer, Phil Martin, to get you and yours signed up for the gala affair. The banquet is on December 20, the third Thursday, so there won't be any meeting that night at MCCC. You can mail your \$25.00 per person to Phil but don't wait very long, because there's a time limit (don't forget to mention your name and your partner's name so the name tags can be done before you arrive), It's at DeCarlo's banquet hall, just east of Mound Rd., on Ten Mile Rd. Our main speaker will be Mike Simonsen, the renowned variable star observer. Meals will be served at 8:00 PM, refreshments at 6:30 PM. Don't forget to wear your award

badges. This is an award banquet! I'll see you there!

It looks as though a new kind of white dwarf has been discovered. Until now, all white dwarf stars were identified with atmospheres rich in hydrogen or helium. This new dwarf has a carbon rich atmosphere. There are only eight known carbon dwarfs. All discovered at Apache Point Observatory in New Mexico. These dwarf stars burn up nearly all of their hydrogen and helium to the point that only carbon is left, which is basically the burned up core. Understanding why so few of these stars exist could explain a new direction in stellar evolution theory.

It's Swap time again! Rider's Hobby Shop and The Ford Amateur Astronomy Club are planning another Swap Shop and lecture series on February 16, 2008, at The Holy Cross Church gymnasium, 30650 Six Mile, in Livonia. There will be more details in upcoming issues. If you can't wait for specific information, contact Rider's or the FAAC by phone or website. You

can set up a table for \$15, if you pre-register before January 21, 2008.

During the hustle and bustle of preparing for my talk during the last MCCC meeting, I failed to mention that five more members and past members have received award badges for their efforts to witness and record total Solar eclipses in the past. The awardees are Dave and Glenna Harrington, Paul and Judy Strong and Tim Skonieczny. The badges were awarded by mail. At the meeting, Mark Kedzior received his award badge for grinding, polishing and testing an eight inch telescope mirror. Congratulations to all. Please don't forget to wear those badges at our award banquet, if you attend.

Mark Kedzior, took the time to give us a short talk about his efforts to reach new individuals for astronomical purposes. He's starting a class, along with Bob Watt, to introduce Lincoln High School members in Warren, to astronomy and telescope building (LHS is where our club started back in 1961). He's going to start kit packages for ten Dobsonian telescopes, which will be assembled by students, at the school, after hours. The four and a quarter inch 'scopes will include a Dobsonian mount, finished mirror, telescope tube, mirror holder, diagonal mirror holder with diagonal mirror, eyepiece holder, one eyepiece and a red dot finder, for \$75.00. The telescope features a rotating tube and a sliding feature that makes carrying the entire package, in one hand. Partial payments can be made by the students if they can't afford to pay all at once. If you are interested in helping Mark and Bob with their efforts or are willing to make a presentation about astronomy to the new student astronomers, contact Mark Kedzior or Bob Watt at 586-758-1339 or 586-757-4741 respectively. If you have any telescope parts to donate to the cause, they can sure use them. Eyepieces, simple eyepiece holders and finders are most wanted because they are the main items raising the cost of the telescopes. Old hockey pucks make a great set of feet for Dobsonians.

Some old timers, from our club, met at Michell's restaurant on November 23rd. My wife (Joann) and I were part of the gettogether along with Jerry and Margaret Alyea, Dave and Glenna Harrington, Ken and Betty Wilson and Tim Skonieczny. We took up a lot of space and time talking about past eclipse expeditions and the comet Holmes. Jerry was presented with an

award badge for making four telescope mirrors. Ken received a copy of When A Man Looks Upward, an astronomical presentation on DVD that was created in 1970, by The Detroit Observational and Astrophotographic Association. It's about amateurs in the Detroit area and the Astronomical League's conventions back then.

Some of you may remember Roger Civic, an active member and past editor of the WASP, a few years ago. I found out just today that he has suffered three strokes over the past year. He has some short term memory loss but is doing well at the present time. If you wish to contact him and give some moral support, you can reach him at 989-473-3677.

Comet Holmes is still going strong as of this writing. Much has happened since last month. It has developed a small tail, which shows up as blue in some pictures. Blue is usually an indication of an ion tail (charged particles) which always points directly away from the Sun. The tail has also become detached in the last few days. Internet pictures show the broken tail. It's rated as magnitude 3.4 now and has grown in apparent size, larger than the Moon.

The Cranbrook Science Museum is looking for additional help with their observatory and planetarium programs. If you feel knowledgeable in astronomy and like giving presentations, this might be your chance to really shine in a professional atmosphere. Contact Marty Kunz at [solarmarty@sbcglobal.net](mailto:solarmarty@sbcglobal.net) for more information.

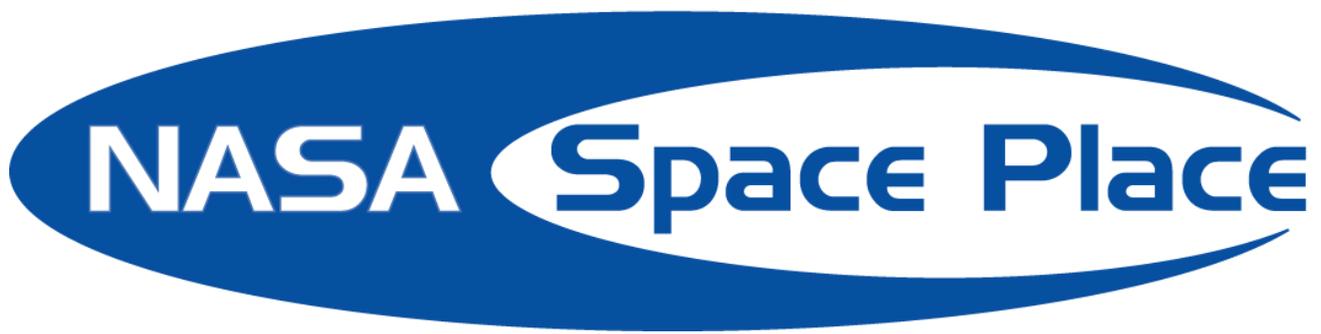
On the last night of the year, New Year's Eve, take a look at the brightest, lasting ember glowing in the southern sky during the fireworks. If the sky is clear, you'll see the brightest star in the sky, directly south, on the Meridian. It's Sirius, declaring our entry into the New Year.

The November Discussion Group meeting, at Jon Blum's house, turned out to be one of, or perhaps, the best meeting we have had, so far. If you weren't there, You missed out on a wide variety of beverages, cookies, chips and large shrimp for appetizers. So much was discussed that I couldn't keep up with all the subjects we hit upon. Ten people were present that night and all were awake for the entire evening. I even









## **The Red (Hot?) Planet**

*by Diane K. Fisher*

Not many endeavors require that you plan the mode of transportation before you even know what it is you are transporting. But weighing the physics and economics of getting any sort of cargo to space is a major part of designing a space mission.

It's one of the first issues that NASA's New Millennium Program (NMP) considers when planning a new mission. NMP has the forward-looking job to identify promising new technologies for space exploration. It then helps to mature the technology so it will be available to space missions of the future. If the technology cannot be tested adequately on Earth, the last part of this process is to actually send the technology into space. With carefully documented test results, future mission planners can confidently incorporate the new technology into their designs.

But where to begin? On call from the start, Linda Herrell is the New Millennium Program Architect. Given a list of proposed technologies, she has the job of figuring out the feasibility of wrapping a mission around them.

"We might be considering six or more technologies, anything from solar panels to imagers to masts for solar sails to more intelligent software. Of those, we may choose four. My job is to answer the question—can the selected technology be transported to and operated in space within the constraints of a low-cost technology validation project?"

Along with the list of possible mission payloads (the technologies), Linda also has a list of spacecraft to put them on, as well as a list of launch vehicle parameters. *All* she has to do is try them out in every possible combination (of which there are thousands) and see what might work.

"Fortunately, we have a software tool to help with this analysis," says Linda. When it comes down to it, her job is primarily to figure out how to get the technologies into space.

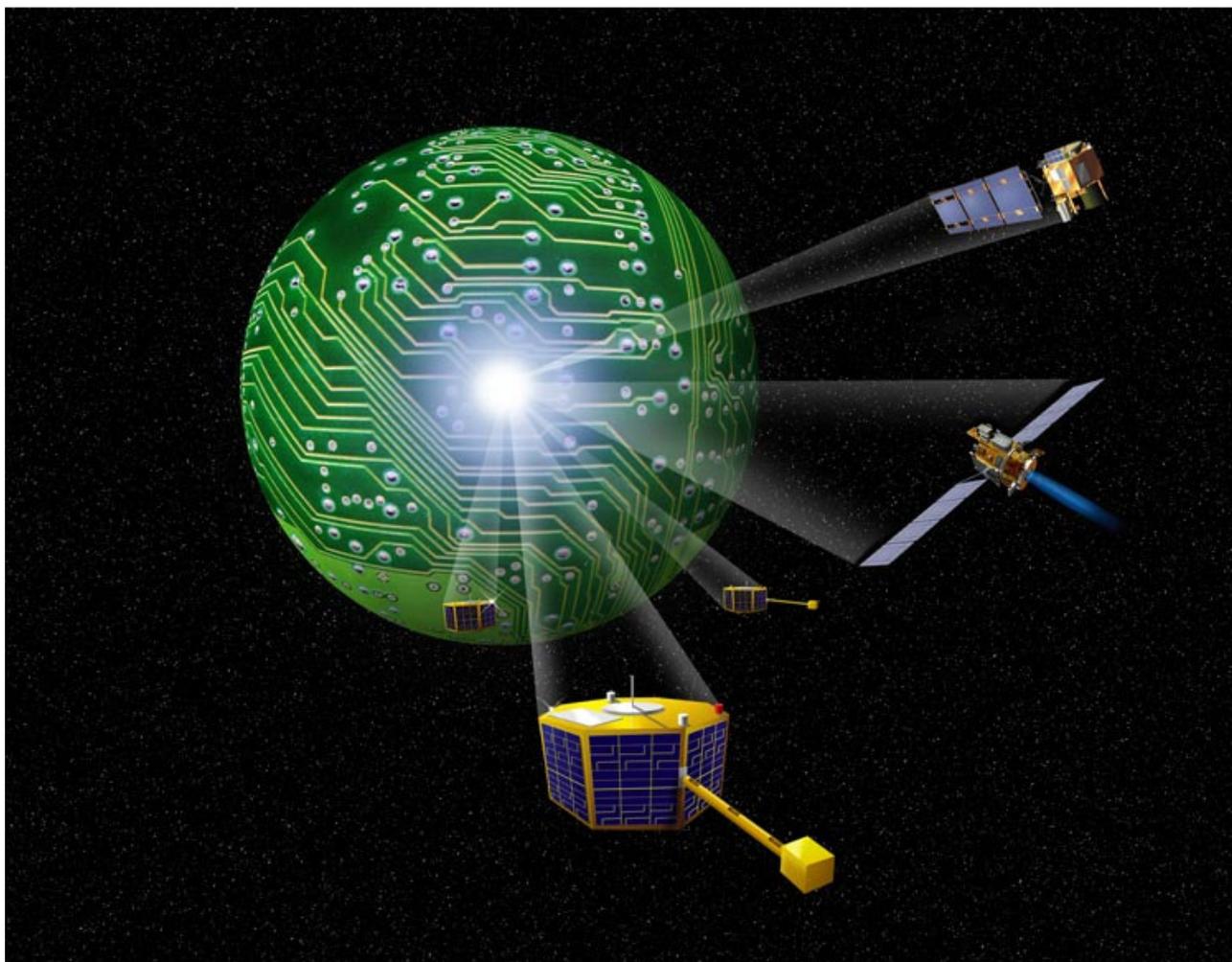
"Sometimes, it's like figuring out how to get across town when you don't have your own car. You have to get creative."

She keeps a database of all possible options, including riding piggyback on another spacecraft, hitching a ride on a launch vehicle as a secondary payload, or sharing a launch vehicle with other NASA, Department of Defense, or even commercial payloads.

Her assessment is but one of a gazillion factors to be considered in planning a mission, but it is indeed one of the very first “details” that forms the foundation for the rest of the mission.

Find out some of the technologies that NMP has already validated or is considering at [nmp.nasa.gov/TECHNOLOGY/innovative-tech.html](http://nmp.nasa.gov/TECHNOLOGY/innovative-tech.html). Kids will enjoy watching Linda’s cartoon alter-ego talk about her job at [spaceplace.nasa.gov/en/kids/live](http://spaceplace.nasa.gov/en/kids/live).

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



***NASA’s New Millennium Program selects breakthrough technologies that will be of the greatest use to future space and Earth science missions and that are perceived to be risky to the first user.***