



The Warren Astronomical Society Paper

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2008 WAS OFFICERS

\\ February, 2008

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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. 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.

Astro Chatter

by Larry Kalinowski



(Larry hasn't missed writing the Astro Chatter column in years, at least since I've been editing the WASP.

Receipt of Larry's article has always been my trigger to publish. Last week I received a note from Larry

saying that he would not be able to write the article for this month and possibly the next. He said that he has been in and out of the hospital for tests and is scheduled for major surgery. He did not elaborate or give me an address or instructions to contact him. We wish him a quick recovery. Concerned members may contact the WASP officers listed above for they may have additional information.

For this issue Stephen Uitti, our treasurer, submitted the following article. It's far better than the one I had partially completed and have since scrapped. Thanks Stephen.-(Cliff(Editor))



The discussion group talked about Larry Kalinowski's surgery. We all wish him a speedy recovery. Gary Ross reported that no stars were visible within the Trapezium in a 16"

telescope. The lunar eclipse was a hit. The rings of Saturn, Uranus and Jupiter were discussed, as well as car crash tests and bumpers, and where, if anywhere, should the WAS set up new observatories, and Bob's new \$10 digital astrocamera. Gary Gathen's new extremely tiny 4 GB thumbnail USB drive holds more data than a stack of 23 9-track magnetic tapes. Nine people and a dog attended the third Thursday in February.

The WAS has purchased a new Olympus WS-311M digital voice recorder and ME15 tie-pin style microphone. The idea is to record the talks at WAS meetings. The plan is to make these recordings available in the WAS library and downloadable from the WAS web site. Initial tests are promising. It can download via USB to Windows, Mac or Linux, and the WMA files can be converted to mp3, playable anywhere.

We have several new and returning WAS members. Some are considering new telescopes. My current advice is Jim's 3 P's and a few comments. The 3 P's are Price, Portability and Performance.

Price: You can't buy more scope than your budget. Newtonian reflectors are cheapest, then SCTs, then refractors. Astrophotography can be very expensive. Some suggest two scopes - a light

2008 Stargate Observatory Open House Schedule

NOTE: Depending on weather at the time, open house dates are:

Mar. 15, Apr. 12, May 10, Jun. 14, Jul. 12, Aug. 09, Sep. 06, Oct. 04, Nov. 08, Dec. 06

1. Normal closing time will depend on events, weather, and other variables.
 2. The observatory may be closed one hour after opening time if no members arrive within the first hour.
 3. Contact me for other arrangements, such as late arrival time.
 4. An alternative person will be appointed to open the observatory if I cannot attend a scheduled date or opening time.
 5. Members may arrive before or stay after the scheduled open house time.
 6. Dates are subject to change or cancellation depending on weather or staffing availability.
 7. An e-mail will be posted no later than 2 hours before starting time in case of date change or cancellation.
 8. It is best to email me up to 2 hours before the posted opening with any questions you may have. I will not be able to receive e-mail after 2 hours before open time.
- Generally only strong rain or snow would prevent the open house...even if it is clouded over I plan on being there. Often the weather is cloudy but clears up as the evening progresses.

Marty Kunz
W.A.S. 2nd V.P. (2008)

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Meeting Minutes

Warren Astronomical Society
Minutes of Board Meeting
February 4, 2008
Cranbrook

The meeting was called to order at 6:48 PM.

Attendance: Bob Berta, Gary Ross, Marty Kunz, Stephen Uitti, Jonathan Kade, Larry Phipps

Officers' reports: Bob noted that Guy Maxim installed a web forum for WAS members on his personal webspace at <http://www.altairfour.net/wasforum>.

Gary reported that the presentation slots for 2008 were filling up quickly, surprisingly so. He will be meeting next month with a potential speaker for the 2009 banquet. Larry suggested that board members ought to have backup presentations ready to go in the event of an emergency cancellation; Gary agreed. Bob related that

we were offered a presentation by a Grosse Pointe High Schools group, and agreed to give up his April presentation slot to them.

Marty reported that he finished the observatory schedule and provided it to Cliff. He is planning to bring the 22" Dob to Cranbrook for the lunar eclipse star party on February 20; he will tow the trailer. He was not yet able to begin construction on the observatory, due to the weather. He announced that we will be having the equipment vault rekeyed and new keys provided to the board.

Steve gave the club's treasury balance as \$5486.89. He and Phil transferred the WAS bank account into his name; Bob still needed to be added. He noted that he would be reviewing the membership roster and ensuring that members were up-to-date on their dues.

Jonathan asked if the previous month's minutes were acceptable. Steve motioned to accept the minutes, Gary seconded, and the board voted unanimously to accept them.

Larry reported that he is continuing to investigate how best to help Cliff freshen up the WASP and is looking into publishing tools. He suggested that the club produce a keepsake item for members: a photo yearbook. He had found a publisher that charged \$30 per copy for a 20-page, 2 sided color photobook. He had also looked into calendar publishing, and noted that he would talk to Phil to confirm whether Phil planned to continue putting together the WAS calendar.

Old business:

Steve found the necessary 501(c)(3) forms and said that he would file them soon.

Per Marty's request at the last meeting, Steve said that Phil's best estimate was that we had last paid Cranbrook a fee for auditorium use in the middle of 2006. Marty asked for the specific date, if we retain a record of it.

New business:

Gary asked for the most up-to-date membership roster, so that he might write letters to WAS members without email access. Bob asked Steve to provide it.

Marty noted that the club had purchased a laptop in the past five years or so to ensure that club treasurers had access to all necessary computer software. Steve did not remember such, but agreed to look into it.

Bob noted that Gary Gathen had recorded the audio of Gary Ross's talk at the previous meeting with an \$80 digital voice recorder. He proposed that the club buy such a device, with the maximum expenditure being set at \$100. After discussion of the proposal, Jonathan motioned to purchase the device; Larry seconded the motion. The board voted unanimously to approve the purchase.

Bob asked Jonathan to keep a running list of board action items for quick verification of progress. Jonathan agreed.

Paul Goldsmith:-

Bob went over the purpose and details of the Paul Goldsmith special presentation. He noted that Dr. Goldsmith would be speaking at a special event, a general assembly of Michigan astronomy clubs, and not at a WAS meeting. Mike Narlock of Cranbrook had suggested the possibility, and with enough participation might be able to secure funding from Cranbrook for the speaker. The officers agreed on the general date range proposed in email, and Bob said he would follow up with his contacts on specific dates and questions about whether we would be able to record the presentation. He noted that we must publicize the event everywhere, as it will be open to the public.

Outreach:-

Bob found a newly-published Braille astronomy book that he suggested we might add to our library for outreach events. He wrote a note to NASA, the book's publisher, to ask whether we could obtain free or discounted copies for public outreach. He suggested that we might donate copies to local libraries for the blind.

Marty agreed to check with the Cranbrook store to see if we could obtain discounted copies; however, he suggested that we offer our services to local organizations for the elderly, blind, and disabled and find out what they want us to do for them. The motion to buy the book was tabled pending a response from the library.

Larry announced that he may be giving a presentation on astronomy to a conference of activity therapists; this may lead to more outreach opportunities for the club.

Bob has gotten some new scouting leadership contacts and will be following up with them.

Jonathan gave an overview of his plans for a website redesign.

The board meeting was adjourned at 7:28 PM.
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**Warren Astronomical Society
Minutes of General Meeting
February 4, 2008
Cranbrook**

The meeting was called to order at 7:38 pm.

Visitors: a boy and his father.

Officers' reports:

Gary read the list of presentations already promised for 2008; he noted that a few 2009 slots are already taken.

Marty noted that the next open house would be February

16, and that Cranbrook is hosting an observing party for the lunar eclipse on February 20th, from roughly 6-11pm. They would like to get as many telescopes set up as possible.

Steve reported \$5486.89 in the treasury. He announced that the board voted to buy an audio recorder for at most \$100.

Interest groups:

Solar - Marty announced that there new sunspots had appeared.

Discussion - Larry K. interviewed Gary Gathen about the goings-on at the last discussion group meeting, as he wasn't in attendance. He noted that the Ford Amateur Astronomy Club and Rider's Hobby were having their annual Astronomy Expo in Livonia on February 16. He stated that the computer group was henceforth to be officially known as the discussion group.

Directorships:

Public Outreach - John reported that he had begun putting together a mailing list of schools and other organizations that might be interested in presentations.

General meeting:

Jonathan gave a general overview of the website redesign initiative and asked for suggestions. Anyone who would like to contribute or test the site should contact him.

Bob recapped his progress in working with local libraries.

Members shared news stories covering comet dust, galactic "highways," the "spider" crater in Caloris Basin on Mercury, the tiny Mars sasquatch, and more.

Bob asked for comments from the assembly on meeting structure, dates, and content. A general discussion followed, inspired by the visitors who had to leave the meeting early and centered around how to reach a wider audience, especially parents and children. Options discussed included: an intermittent Friday evening meeting; indoor presentations at Stargate before observing for open houses; publicizing meetings during school breaks; and offering special child-friendly presentations at area libraries on Saturday afternoons.

Intermission: 8:45-9:03p

Before the presentation, three new members joined: Brian [no last name given], a former member; John Kosmel[?], his friend; and John Mullenbridge, a recent visitor.

Presentation:

Gary, in his second consecutive presentation - an event he cautioned us not to expect again any time soon - gave a thoughtful and sometimes elegiac discourse centered around the southern constellation Crux and the many treasures within its compact borders. He

bookended the talk with his accounts of his second observation of Crux, from British Honduras; and his first, in Florida, around 26 deg. latitude.

28 people attended the meeting.

The meeting adjourned at 9:55 PM.

**"At the edge of the sea were the signs of the dove
But the wrong way out and the wrong way up"**

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**Warren Astronomical Society
Minutes of General Meeting
February 21, 2008
Macomb**

The meeting was called to order at 7:33 pm.

Visitors: Erica, who is interested in making a telescope.

Officers' reports:

Bob opened the meeting.

Gary informed the assembly that Larry Kalinowski is ill. Our thoughts are with him. The club agreed to buy a card to pass around at the Cranbrook meeting.

Bob, filling in for Marty, gave an account of WAS participation in Cranbrook's lunar eclipse event the night before. The sky was clear and the public was enthusiastic. Around 600 people attended the event; eleven known WAS members brought telescopes or other optics.

Bob and Marty held the open house February 16; our new member John and returning member Brian also attended. They observed for an hour and a half and saw a 22deg moon halo. Later Bob and Marty began an inventory of the club's equipment. The next open house is March 15, the Ides - a soothsayer bids you, "Be there!" (Apologies to Shakespeare and Julius Caesar.)

Steve reported the club's treasury at \$5578.89. He said that he had ordered an Olympus digital voice recorder per the board's decision at the last meeting, but it had not arrived in time for the meeting. He reminded members who have not yet picked up or paid for their WAS calendars to do so.

Jonathan gave a recap of the month's Cranbrook meeting.

Old business:

Bob related a change in the proposed date for the Paul Goldsmith (former head of Arecibo) special presentation. Cranbrook requested that it be held in late October or early November.

Bob reviewed his communications with the Clinton Library and the Macomb Library for the Blind. The latter

was very excited by the offer, and called the day prior to propose ideas for a WAS event there. They do not have the Braille astronomy book 'Touch the Invisible Sky,' so at the next board meeting Bob will request that we purchase a copy to donate.

New business:

Bob related that Ken Bertin suggested recording an astronomy talk show for a local television station in Shelby Township.

Interest groups:

Discussion - Gary Ross announced that the group would meet next week at Chateau Gathen.

Double Star - Riyad set up at Stargate for the lunar eclipse in case any members of the public showed up. A few locals joined him for a little while. Riyad observed from nine until just after midnight. The next double star group meeting will be at the next Stargate open house.

General meeting:

WAS members are invited to several (unfortunately concurrent) star parties in the spring:

- the official WAS spring star party, Bill Beers's seventh annual Cadillac West Spring Star Party, April 30-May 4.
- the Michiana star party, May 2-4, by the Michiana Astronomical Society of South Bend, Indiana (http://home.comcast.net/~michiana_astro/).
- the Hidden Hollow star party at the Warren Rupp Observatory, May 2-4, by the Richland Astronomy Society of Mansfield, OH (<http://www.wro.org>).

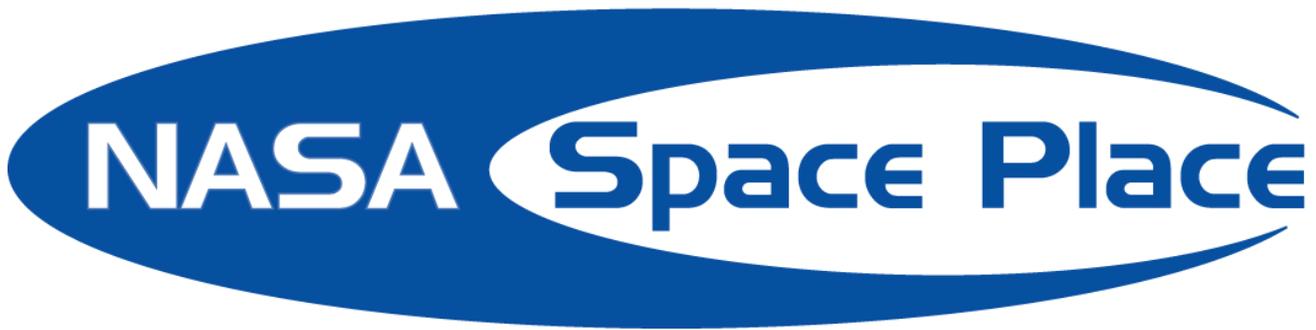
In the News -

What wasn't in the news was the main topic of discussion: Ken Bertin observed that the Detroit Free Press mentioned nothing about the lunar eclipse of the day before either in their Wednesday or Thursday editions. He lodged a complaint with the newspaper and received an apology from their public relations director, whose defense was, "Nobody got to us."

Ken said that we, as a club and as individual amateur astronomers, have a duty to inform the public of events - even precisely predictable events like lunar eclipses - and this means informing the media, since so little attention is paid to science and nature. He suggested that we produce a list of local media contacts and keep them informed of these events. (The board has a PR position under discussion whose responsibility is essentially this.)

Astronomical stories we discussed ranged widely, but among the most exciting were the discovery of a "mini solar system" with two gas giants, a red dwarf star, and a strong potential for rocky inner planets; new calculations with readily available data that put the milky way's bulge "height" at 12 kly, double the previous figure; and the discovery of a pulsar that flips back and forth into being a magnetar.

Break: 8:15-8:29



Invisible Spiral Arms

by Patrick L. Barry

At one time or another, we've all stared at beautiful images of spiral galaxies, daydreaming about the billions of stars and countless worlds they contain. What mysteries—and even life forms—must lurk within those vast disks?

Now consider this: many of the galaxies you've seen are actually much larger than they appear. NASA's Galaxy Evolution Explorer, a space telescope that “sees” invisible, ultraviolet light, has revealed that roughly 20 percent of nearby galaxies have spiral arms that extend far beyond the galaxies' apparent edges. Some of these galaxies are more than three times larger than they appear in images taken by ordinary visible-light telescopes.

“Astronomers have been observing some of these galaxies for many, many years, and all that time, there was a whole side to these galaxies that they simply couldn't see,” says Patrick Morrissey, an astronomer at Caltech in Pasadena, California, who collaborates at JPL.

The extended arms of these galaxies are too dim in visible light for most telescopes to detect, but they emit a greater amount of UV light. Also, the cosmic background is much darker at UV wavelengths than it is for visible light. “Because the sky is essentially black in the UV, far-UV enables you to see these very faint arms around the outsides of galaxies,” Morrissey explains.

These “invisible arms” are made of mostly young stars shining brightly at UV wavelengths. Why UV? Because the stars are so hot. Young stars burn their nuclear fuel with impetuous speed, making them hotter and bluer than older, cooler stars such as the sun. (Think of a candle: blue flames are hotter than red ones.) Ultraviolet is a sort of “ultra-blue” that reveals the youngest, hottest stars of all.

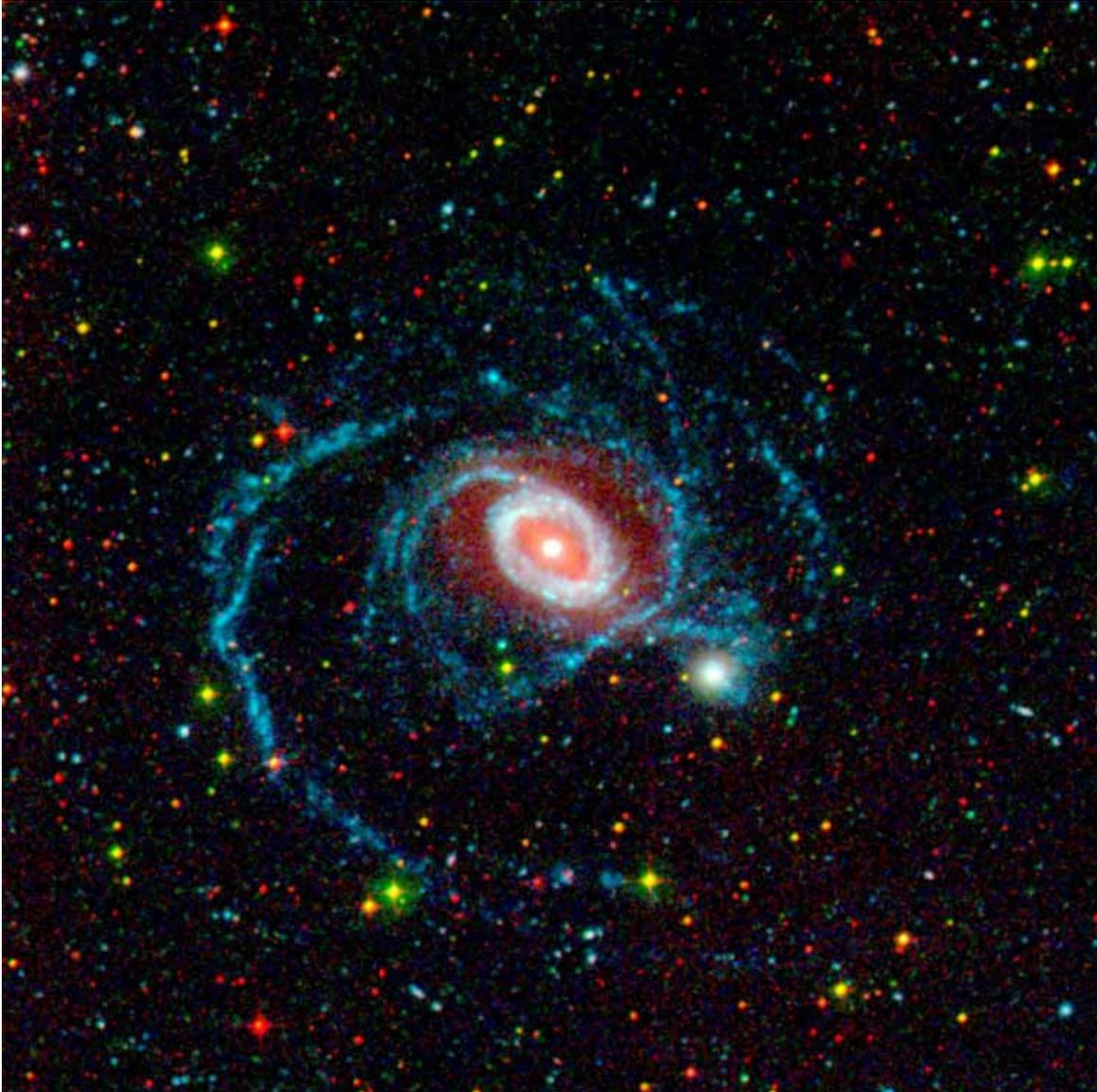
“That's the basic idea behind the Galaxy Evolution Explorer in the first place. By observing the UV glow of young stars, we can see where star formation is active,” Morrissey says.

The discovery of these extended arms provides fresh clues for scientists about how some galaxies form and evolve, a hot question right now in astronomy. For example, a burst of star formation so far from the galaxies' denser centers may have started because of the gravity of neighboring galaxies that passed too close. But in many cases, the neighboring galaxies have not themselves sprouted extended arms, an observation that remains to be explained. The Galaxy Evolution Explorer reveals one mystery after another!

“How much else is out there that we don't know about?” Morrissey asks. “It makes you wonder.”

Spread the wonder by seeing for yourself some of these UV images at www.galex.caltech.edu. Also, Chris Martin, principle scientist for Galaxy Evolution Explorer—or rather his cartoon alter-ego—gives kids a great introduction to ultraviolet astronomy at spaceplace.nasa.gov/en/kids/live#martin.

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



In this image of galaxy NGC 1512, red represents its visible light appearance, the glow coming from older stars, while the bluish-white ring and the long, blue spiral arms show the galaxy as the Galaxy Evolution Explorer sees it in ultraviolet, tracing primarily younger stars. (Credit: NASA/JPL-Caltech/DSS/GALEX).



PRESENTS

The 7th Annual
**CADILLAC WEST - SPRING
STAR PARTY**
April 30–May 4, 2008



Hosted By: **Bill Beers (Warren Astronomical Society)**

Located 14 miles west of Cadillac, Mich. at Bill Beers cabin (Register for map)

DARK SKIES

Raffle Prize Drawing - sponsored by:
★ *Meridian Telescopes* ★
Riders Hobby Shop of Livonia

Saturday Barbecue

Registration donation fee:
\$15 per person
\$20 per family

Contact Bill Beers to register before April 26

----- A/C POWER AVAILABLE -----

Accommodations Available:

Plenty of Space for Tents/Campers

Caberfae Peaks (231-862-3300) 1 mile east

Coyote Crossing Resort (231-862-3212) 3 miles east

Roadway Inn (231-775-2458) 12 miles east

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