Things for an Amateur Astronomer to do when the skies are overcast and/or it is raining

Lorna Simmons

Oh you poor, poor thing! You live in Michigan and it is raining again for the umpteenth time! There is no excuse for being morose about poor viewing conditions. Crying is not going to get the stars (or sun, if that is your specialty) to come out. Think about the fact that living on a desert where the viewing is great can be a bit of a strain, too. Do not forget, the climate and the pesky critters go with the desert.

You have to have a plan and you must be prepared. You will never see me crying over the terrible viewing conditions in Michigan. I think I would rather curl up with a good book on black holes than worry about the temporary loss of a few points of light.

Start with the public library because it is free and is sometimes open. Better yet, try some of your nearby university libraries and browse through the magazines and journals. There are so many articles about astronomy/astrophysics/cosmology that you will not have the time to read them all. If you have paid up our alumni association dues, you might even be able to take out the books. For instance, Wayne State University has special library privileges for paid-up alumni. Its Science Library on Warren, near Cass, is also open on Saturday and Sunday, and on many holidays when other libraries are closed. If you have a yen for mathematics and/or physics, university science library shelves are filled with such books.

Try the used bookstores (go walking in your Yellow Pages). Some of these stores, such as John K. King Books, are huge and, I warn you, people can go nuts in these places!

If you would rather get your books brand new, there are regular bookstores, Borders and Barnes and Nobles comes to mind, some of these store stock anything you want or will order anything in print that is available.

Sometimes it is fun to drool over the list of goodies which are offered in the astronomical catalogs. Watch out, you may find yourself spending money unnecessarily.

If reading is not your idea of pleasure, you can organize your telescopes, binoculars, cameras, CCD's, red flashlights, charts, etc., in preparation for the next clear night.

But never let yourself become bored by the poor viewing. There is so much to do in preparation for your next viewing session.

-Lorna is a first time contributor to the WASP. We welcome her and all members to send in articles for publi-

Computer Chatter

Larry F. Kalinowski

Well, it's here, the month of the great comet crashes. Even if you don't see it happen, it's going to make a lot of news. Some of the possible phenomenon the event might produce are brightness changes in Jupiter's atmosphere, above and below the surface, or changes in satellite brightness. Fireballs are another possibility according to Philip Budine, the ALPO Jupiter recorder, possibly as bright as fourth magnitude. We might even see the birth of another ring around Jupiter. The most fascinating event could be a shock wave that emanates from the points of entry in to the atmosphere and slowly spreads around the planet. Whatever happens, anticipation is high among astronomers, both amateur and professional. At least twenty-two pieces will encounter Jupiter over a period of five and a half days, starting on

Continued on the next page
The Warren Astronomical Society Paper (WASP) is the official monthly publication of the Society. Each new issue of the WASP is made available at the Macomb meeting on the third Thursday. Non-members will be charged $1.00 for each new issue. Back issues, when available, are free. Requests by other clubs to receive the WASP and other correspondence should be addressed to the editor.

Articles for inclusion in the WASP are strongly encouraged and should be submitted to the editor on or before the first Thursday of each month. For further information on contribution, see or call the editor:

Toni Bondono
51054 Kingwood
Shelby Twp, Michigan, 48316-4524
810-731-4706

Disclaimer: The articles presented herein represent the opinions of their authors and are not necessarily the opinions of the Warren Astronomical Society or this editor. The WASP reserves the right to edit or deny publication of any submission.

Stargate Observatory is owned and operated by the Society. Located on the grounds of Camp Rotary on 29 Mile Road, 1.8 miles east of Romeo Plank Road, Stargate features a 12.5 inch f/17 club-built Cassegrainian telescope under a steel dome. The observatory is open to all club members in accordance to the "Stargate Observatory Rules." Those wishing to use the observatory must call the 2nd VP by 7:00 p.m. on the evening of the session. The coordinates for Stargate Observatory are 82°55'04"W, 42°45'29"N.

Library: The Society maintains a library of astronomy-related books and periodicals at the Macomb County Community College meeting room. See the Librarian, Louis Namee, for rules or to check out a book.

Special interest subgroups exist for those interested in specialized areas of astronomy. Contact the chairperson of each subgroup for more information on that group.

- Computers: Larry Kalinowski 810-776-9720
- Deep Sky: Doug Bock 810-750-0273
- Lunar/Planetary: Riyad Matti 810-548-7511
- Solar: Marty Kunz 810-477-0546
- Math: Al Vandermarliere 810-575-9086

Call List: The Call List is a list of people who wish to be alerted of spectacular and unexpected astronomical events, at any time of the day or night. Anyone who notices such an event calls the next person on the call list. That person in turn calls the next person, etc. Any Society member is welcome to join the call list by notifying Marty Kunz at 810-477-0546.
Computer Chatter...continued

July 16. All the impacts occur on the backside of the planet, but close enough to the limb that Jupiter's rotation will bring the entry points within view about half an hour later. Jupiter's well positioned for observing all night long, so if you need an excuse to party, this is it. This may be another once-in-a-lifetime opportunity to witness a unique celestial event.

Microsoft has lost its DoubleSpace battle against Stack. You won't see the present disk doubler in newer versions of MS-DOS because the court has ruled against Microsoft. The disk doubling technology of Stack, Inc. was infringed upon by Microsoft. It's nice to see the little guy win once in awhile, isn't it? The disadvantage of it all is, you'll pay more for the disk doubling capability if you like it and use it. In the long run, you're better off buying a new, larger, hard drive because you avoid the hassle of installing the doubling program and the quirks that another resident program creates. Version 6.3 of PCDOS, by IBM, will continue with disc compression and the compression utility has the capability of transferring data from a compressed disk to an uncompressed disk, unlike MS-DOS. In order for Microsoft to "keep up" with IBM's DOS capabilities, it'll have to license someone else's compression engine or develop it's own. The name DoubleSpace could be retained.

The latest version of THE SKY seems to have everything the well equipped amateur would want in software for astronomy. A planetarium with the capability of calculating orbits for anything in our solar system, as well as CCD software for astrophotography and image enhancement. Add the capability to contact Mr. Wilson Observatory to take and transfer CCD images back to you via modem and you've got just about all the capability any amateur would want.

COMPUTER TIP OF THE MONTH. If you're planning to buy a 486 computer, my advice is hold off a few months. PowerPC technology is opening another price "scramble", or perhaps a better word might be "adjustment". By the end of this year, we should see a great shift in prices, from the slowly dying 486, all the way through the Pentiums to the first models of the PowerPC's. The PowerPC's look extremely promising. The 630 series PowerPC chip will finally merge the world of computers. It'll have the capability of running any x86 software WITHOUT emulation. If you're planning to upgrade from a 386 or 386 motherboard, you can expect 486 motherboards (up to the 66Mhz clock speed) to drop thirty to fifty percent by the end of the year. Look at the DX4 if you want a top of the line 486 desktop computer.

Are you one of those observers past the age of 30 (like me), that has to keep fumbling with your eyeglasses when using an atlas or telescope while observing? You, know, that nearsighted problem or astigmatism problem? The Canadians have the answer. They now have a laser treatment for nearsightedness. The amazing thing is your vision is very nearly restored to normal about an hour after treatment.

The laser removes a thin film of tissue around the cornea, restoring the curvature of your eye lens back to normal shape. The cost...about $2000 per eye. The laser device has been approved for medical use by the Canadian government, but not yet by the American government. Some Americans have crossed the border for treatment already. There's no telling when the treatment will be available here in the states.

Bill Gates, Microsoft's CEO, says Chicago (Windows 4.0) is on schedule and is still expected to be out by the end of this year.

During the last business meeting, copies of LUNAR ECLIPSE were distributed to members who wanted a program to show the circumstances of future lunar eclipses on their home computers. The program was written by a Swiss amateur and distributed as shareware, the "try it before you buy it" method of program distribution. According to the program, the next lunar eclipse will be penumbral, on November 18, 1994.

Add Lincoln Park to the list of upcoming computer shows. The Community Center there will have a show on Saturday, June 25. It's at 3525 Dix Avenue. The next show is right at home at the Van Dyke Park Hotel, on Sunday, June 26, 31800 Van Dyke, north of 13 Mile Rd.

What happens when you take a photo of the sky with an extremely small scale (35mm format) and increase the image size with a microscope? The results may astound you. See the May '94 REFLECTOR for some amazing photos.

Radio Shack announced it would be selling IBM computers along with its Tandy line. That's one way to make sure the product you're selling is IBM compatible. About time too.

All club members who viewed the Solar eclipse last May are disqualified for the 1994 Armchair Observer's Award. I'm sorry, but you've got to learn to avoid looking at the sky when you step out of your house.

The next two WAS computer meetings will be on June 23 and July 28. The June and July meetings will be at Gary Gathen's home in Pleasant Ridge. The meetings will continue to be held there for the rest of the year until and including September. Gary is located at 21 Elm Park, in Pleasant Ridge, three blocks south of I-696 and a half block west of Woodward Ave. He can be reached at 543-3366.

-Larry is a regular contributor to the WASP publication. Thanks for another fine job.
CRANBROOK 5/5/94


Jeff Bondono reported on the observations of M51, M81, and M82. Marty Kunz spoke of attempts to capture the new Supernova in M51, using a CCD Camera. Kim Dyer reported the observations of the Moon, Jupiter, and an Aurora.

The evening continued with announcements. Doug Goudie forecast a media event on May 10, 1994, at Cranbrook for the Annular Eclipse. Members can bring telescopes. Jeff Bondono spoke of the upcoming Fish Lake outing and the Board meeting on May 12, 1994, at Jeff’s home. Riyad Matti reviewed the Stargate clean up plans. David Levy will speak at Cranbrook on Saturday, May 21, 1994. MAY 22, 1994, will be "Astronomy Day" at Cranbrook. Members are encouraged to bring their telescopes. A last call for members to reserve sites for the August Perseids camp trip was made. Marty Kunz announced a meeting of the Solar Group on May 7, 1994. Mike O’Dowd announced the upcoming Miami Valley Star Party and ALCON ’94 to be held in Kansas City this year.

Mike O’Dowd continued with a show and tell related to his Meteorite interests. Also, Doug Goudie, offered to share his extensive data on Comet Shoemaker-Levy with anyone interested.

Members are encouraged to bring telescopes to the Macomb meeting in July. The six inch refractor at Macomb will also be available. Marty commented on the presence of 21 Comets in our neighborhood. He is also offering a "Pluto Challenge" to members.

After the break, Mike O'Dowd put the members into an Eclipse mood with a video recounting the total Solar Eclipse of 1991.

MACOMB 5/19/94

On May 19, 1994, nineteen members of the Warren Astronomical Society met for the monthly Business meeting at Macomb Community College-South Campus.

Prior to club business, members told of their most recent astronomical observations. Reports included Solar Activity, Northern Lights and Radio Observations of Jupiter.

Business commenced with the Secretary and Treasurer reports. Observatory Chairperson, Riyad Matti, followed with Stargate clean up plans and a show of hands of those who plan to participate.


Mike O'Dowd provided a show and tell with his Meteorite specimens. After a snack and social break, members shared their Annular Solar Eclipse experiences and observations.

Respectfully,
John Herrgott

HUNGRY AT SNACK TIME?

The following have signed up to furnish the snack at the meetings

Cranbrook
Macomb

June 16-Mike O’Dowd

July 7-Lorna Simmons
July 21-Jeff Bondono

Aug 4-John Herrgott
Aug 18-Greg Milewski

Suggestions for snacks are:

Cookies
Carrots/Celery
Cheese and Crackers
Brownies
Non-Carbonated Drinks

IN MEMORY

Dean Levine, a young man who was new to the club, succumbed to Leukemia on 5/10/94. Dean was excited learning about astronomy. He recently built a 10" scope. Dean was a quick, enthusiastic study. He will be missed.
CALENDAR

Thu & Fri 6/16 & 6/17 8:30pm MSU 24" Scope Open House. Contact Kim Dyer.
Thu 616 7:30pm Macomb Meeting.
Tues 6/21 7:00pm Math Group Meeting. Contact Al Vandermarliere.
Thu 6/23 7:30pm Computer Group Meeting. Contact Larry Kalinowski.
Tues 7/5 7:00pm Math Group Meeting. Contact Al Vandermarliere.
Thu 7/7 7:30pm Cranbrook Meeting.
Thu 7/14 7:30pm Macomb Meeting.
Thu & Fri 7/14 & 7/15 8:30pm MSU 24" Scope Open House. Contact Kim Dyer.
Sat 7/16 Stargate CleanUp / Comet Bash. Contact Riyad Matti.
Tues 7/19 7:00pm Math Group Meeting. BRING SCOPES FOR THE COMET BASH!
Thu 7/21 7:30pm Stargate Comet Bash. Contact Riyad Matti.
Thu 7/28 7:30pm Computer Group Meeting. Contact Larry Kalinowski.
Tues 8/2 7:00pm Math Group Meeting. Contact Al Vandermarliere.
Thu-Sun 8/4-8/7 SMURFS Star party. Contact Jeff Bondono.
Thu 8/4 7:30pm Cranbrook Meeting.
Thu-Sun 8/11-8/14 Perseid Meteor Shower Party / Campout at Lake Hudson. Contact Jeff Bondono.
Tues 8/16 7:00pm Math Group Meeting. Contact Al Vandermarliere.
Wed 8/17 9:00pm Lecture at Camp Whispering Woods. Contact Toni Bondono.
Thu 8/18 7:30pm Cranbrook Meeting.
Wed 8/24 Lecture at Riverbends Park. Contact Jeff Bondono.
Thu 8/25 7:30pm Computer Group Meeting. Contact Larry Kalinowski.

THANKS

A special THANK YOU goes out to Joe Mihalick. Joe has been the Editor of the WASP for the past few months. He has done a great job. I am quickly learning how much time Joe put into each edition. I appreciate all the hard work he has done and can only hope to 'do this job half as well.

And this is my plug to you, the members of the WAS community. Each of you has a special talent and knowledge. You can share your information with the members by submitting an article of any length to the WASP. Please help us out, otherwise you may have to read my ramblings ....

FROM the PRESIDENT

Believe me, you DON'T want to have to read your new editor's ramblings.
The impact Day/Date/Time is the Eastern Daylight time during July when the impact would be seen at the Earth if the limb of Jupiter were not in the way. Note that the impact of fragment C, for example, is late at night on Saturday night/Sunday morning. +/- is this time's uncertainty, in minutes. Bold events will (might, for U) occur during the period between Sun Set (9pm) and Jupiter Set (1am) from Detroit.

The impact latitude is Jovicentric (measured at the center of Jupiter). Jovigraphic latitudes are about 3.84 degrees more negative. The impact longitude is System III, measured westwards on the planet.

The meridian angle is the Jovicentric longitude of impact measured from the midnight meridian towards the morning terminator. This relative longitude is known much more accurately than the absolute longitude.

Angle E-J-F is the Earth-Jupiter-Fragment angle at impact; values greater than 90 degrees indicate a farside impact. All impacts will be just on the farside as viewed from Earth; the later impacts will be closest to the limb.

Satellite data are given for Amalthea, 10, Europa, and Ganymede. Callisto is omitted, as it is too distant to act as a useful reflector of the impact flashes. The satellite longitudes are measured east from superior conjunction (the anti-Earth direction). A + following the longitude indicates that the impact is visible from the satellite. And means the satellite occults the impact. An e means the satellite is occulted by Jupiter at impact. A t means the satellite is in transit across Jupiter during the impact.

The lunar percentage of illumination (100%=Full Moon) and the sky distance between the Moon and Jupiter at the predicted impact time are given for those impacts which will be between Sunset and Jupiter Set from Detroit.

I strongly encourage everyone to make as much effort as possible to observe these once-in-a-lifetime events. Remember that effects from impacts happening during daylight hours might produce effects seeable during the evening. No one knows what the effects from these impacts might be. You do not need dark skies to observe Jupiter - your back yard will do just fine. For an excellent set of articles on these impacts, see Sky and Telescope, July 1994, pages 18-35. The times in that article match the data from this source as of April 23, so are slightly out of date. Remember to come out to Stargate on Saturday, July 16 and 23, and bring a scope to the Macomb meeting on Thursday, July 21. Good Luck to all observers!
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Detroit, MI

Eastern Daylight Time

Brandi Rondono