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Newsletter is Now Online

The Wehr Astronomical Society's newsletter, *Starry Nights*, is now available on the club's website. To get to the newsletter, click on the Newsletter Archive link from the main page.

Tim Grunewald, the Wehr Astronomical Society's webmaster, has set up a newsletter archive link, which will be available to view older editions of the W.A.S. newsletter as well as the latest version. Currently, there are only four issues online including this one, but this will grow as we add more newsletters as space allows. The most recent newsletter will be available on the web site two weeks before you would receive the print copy in the postal mail.

Ideally, we wanted our online edition to be in Adobe Acrobat format to ease conversion and to make the online version look the same as the print version. Our club did not want to spend \$249 for Adobe Acrobat 5.0. Fortunately, Tim Grunewald located an open source program that easily converts files to Adobe Acrobat Format. Information about this process, for those who want to know how this is done, is available in the newsletter archive section of the web site. Adobe Acrobat Reader is available for free from the Adobe website at www.adobe.com/products/acrobat/readstep.html, which we have conveniently provided a link for you in the newsletter archive section on our website.

The files are somewhat large at about 350Kb and will take about 2 minutes to download with a 56k modem connected at full speed. If you have a cable modem, DSL, or access at work or school from a T1 connection, the newsletter loads in a few seconds. Note that Acrobat Reader takes control when downloading the newsletter inside the browser, so you will not see the animation of the icon that is located in the upper right of your browser like you normally see when a page is loading.

If you would like to be taken off the mailing list for the postal mail newsletter version and/or would like to be notified via email when the latest newsletter is available online, please email Tim Grunewald.

- Tim Grunewald and Adam Machajewski



At the Observatory

If you haven't been to the observatory in a while, you might want to take a look at the new addition. Nope, we haven't added our new observatory or a new slab yet. Our neighbors to the southwest, the Milwaukee Rampage, put up sports lighting for their soccer field. This is every astronomy club's worst nightmare. We have been talking with the Franklin aldermen and the general manager of the Rampage about the lighting.

The observatory schedule conflicts with the Rampage's schedule twice this year – on July 19th and August 2nd. For the July 19th date, they start at 7:00 and we start at 9:30. Since their games go for about two hours, we will probably not have a conflict on that date. On the August 2nd date, they start at 7:30 and we start at 9:00. So there may be a little of a conflict on this date. They have agreed to turn off the lights as soon as possible when we have an observatory session. Normally they have a clean up crew in for about a half an

hour after the game, but they will have them come in the next day. The observatory director will be sending our schedule for next year to the Rampage and we will work with them so that our schedules do not conflict.

Note that the pictures shown here are the condition of the lights as of the first home game of their season this year (May 10th). After we talked with the Rampage and the city officials, they agreed to put in cut-off shields for their lights. By the time you read this article, these cut-off shields should already be in place. The lighting company will also re-aim the lights properly so that they are lighting just the soccer field.

We have more pictures on our web site and we will be taking pictures again after the shields are up to compare how effective they are. Without the shields, these lights are lighting up the surrounding neighborhood. So stay tuned to the web page and the newsletter for further information.

-- Tim Grunewald



Franklin Council Puts Off Decision on Rampage Lights

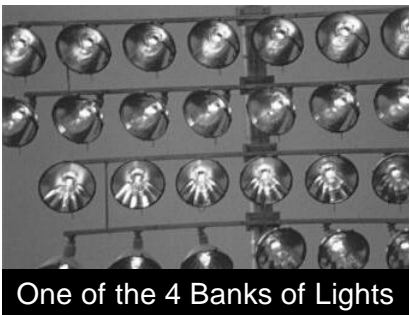
On May 21, 2002 the City of Franklin Common Council sidestepped a decision on whether to take action on the special use permit that allows the Milwaukee Rampage to continue their lease of the Franklin Sports Complex. Other issues surfaced at the meeting, such as illegal alcoholic sales, outside equipment storage and illegal landscaping or bleacher construction depending on whom you believe. The council members discussed the history of the facility and its operation under the Rampage management.

As is the tradition at Council meetings the public was invited to speak before the meeting. Several supporters of the Rampage voiced their support for the organization and the Wehr Astronomical Society's (WAS) Greg Gonia, who is also a Franklin resident, informed the Council about the impact of the Rampage lighting on WAS activities. No homeowners or other citizens voiced any complaint about the lights or noise.

Alderman Basil Ryan, whose district the facility is located in, was leading the charge with a prepared series of motions to steer the Rampage into compliance on the existing special use permit. Ryan alleges that the Rampage had ignored the City of Franklin's jurisdiction in the development of their new soccer field and now controversial outdoor lighting and sound system.

Rampage general manager Jim Harwood said, "We did not know all the proper procedures" when pressed by Ryan for a reply. Harwood said it was difficult working with three entities, the Milwaukee County, City of Franklin Council and the Planning Department. He added that he had to work with three different planning administrators over the past 12 months.

Ryan had prepared a motion, which would have required the Rampage to meet with all City of Franklin officials, (Police, Fire, Planning & Engineering Departments and the City attorney) regarding the special use conditions and restrictions. The purpose was to get the Rampage in compliance with the conditions of their current lease. The Rampage said they had sought a zoning change from Milwaukee County and thought they were in the clear. Ryan repeatedly stated that Milwaukee County gave the City of Franklin control over the zoning and permitting procedures. Harwood acknowledged working with officials in the spring of 2001 when code officials found problems with handicap access, and parking.



One of the 4 Banks of Lights

Harwood said he met with planning director Mike Ramasek the day before the council meeting. Ryan was also upset that the Rampage dropped off a packet of information that no one had any time to review before the meeting. Ryan moved on and insisted that the previous obligations continued to be unmet. He referred to a list of 26 unfinished items. One of the items Ryan quoted was number 13 no bleachers are to be built on the East Side. Harwood said they were just leveling the field so they

could put tables on that side. Ryan asked what all the piles of topsoil were for and stated any soil disturbance would require a permit and approval by the Council.



Level-8 shielding

Ryan pressed Harwood on another of the 26 issues, one about not subleasing the property. Ryan said the Rampage's own marketing materials suggest other groups can rent the fields. Harwood denied they would do that. Certainly additional night activities would compromise possible dates with Wehr Astronomical Society (WAS). When Ryan mentioned the outside storage issue, Harwood said after being made aware of the issue he directed that the items be stored indoors.

"... could easily read a map from the light, including the fine print."

Alderman Ryan's plan was to have the Rampage meet with all officials on the special use permit or it would be revoked and a 10-day order would be issued in which they would have to comply with all 26 unfinished items. He added that, he was not trying to hinder the operation and this was not a new set of regulations, rather it was the same list that was agreed to over a year ago. "You guys goofed up, we didn't" said Ryan.

Alderman Tom Taylor commented that in the past he had been in a "state of war" over the lights issue when the sports complex was in his district. He asked if the Rampage was aware of any complaints from the City. Harwood said he did not know of any complaints and no citations were issued. When questioned about the grand opening a year ago, Taylor recalled an incident where the police had to be called regarding a dispute between

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Skywatch

two teams and a raffle.

Taylor also mentioned a master concept plan that Milwaukee County devised for the park area. Harwood said he did not know much about it. Taylor said the reason other parks have lights is they have gone through the process of the concept plan with public hearings and sometimes that process takes 20 years to get lights on a field.

There was a lot of discussion about the impact of the lights. Harwood said that they ordered the top of the line level 8 shielding for their lights. Installation was to begin on Friday, June 7. He hopes it would reduce the light spillage by 95%. He said he was under the impression that after the Franklin board of zoning appeals granted them an extension on the 50 foot light poles to 90 foot light poles that they could go ahead with the outdoor lights. City attorney Jesse Wesolowski said that is not true. Wesolowski said what the board ruled on was the extension from 50 to 90 feet, and that the Rampage had to seek approval from the planning department to see if it was permitted and then get final approval from the Council.

Harwood admitted that being unable to light their field for a night game would make it a hardship and they might cease to function. He added that one developer has asked for a set of marketing materials, because he saw the facility as an attraction for families. Alderman James Bergman said no matter what level of shielding is used the three-story condos to the east will be in the direct line of sight. Alderman Don Dorsan, who was at the Monday night game on May 20th agreed. Dorsan said "while he was [at Froemming Park] he could easily read a map from the light, including the fine print." Alderman Bergmann said, "My wife said she's glad we don't live there," referring to the new condos being built 500 ft away from the field. Bergmann said he favored sending a notice to the neighboring homeowners to give them a chance to be heard.

Before Ryan could enter his motion to require the Rampage to meet with all the City regulators involved with the special use permit, Alderman Tim Solomon made a motion to come back in 30 days. During that time it would give the Rampage time to work out issues with City officials. Ryan was visibly irked by the motion and miffed he never got a chance to make his motion. Fueled by more discussion about the lights, an argument broke out over whom had the floor after a point of order was called. Mayor Fred Klimetz ruled Ryan was still on topic and could continue.

Ryan said this sends a bad signal to all the other people who want to install lights on their fields. "What's to stop Croatia from coming in here and doing the same thing?" asked Ryan as he scolded the council. Harwood said, "They are not a professional team." Ryan said, "All the more reason to give a little local club a break than you guys."

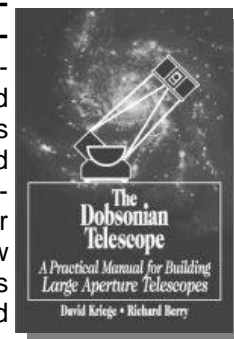
Finally the question was called and Solomon's motion passed with Ryan the lone dissenting vote. None of Ryan's motions were acted on. The date of the next full council meeting will be on July 9, 2002 at 7:15 PM. Franklin City Hall is located at 9229 W. Loomis Rd. in Franklin.



Scope building projects

We have two scope building projects that we would like to involve members in. First, we would like to convert the 16" scope from its German Equatorial mount to a more portable truss tube Dobsonian. Next, we almost have all the parts to build a 6" Newtonian reflector, which we would build as a tube type Dobsonian.

For the 16" project I must point out that **we will NOT be cutting up the tube or destroying any part of the original configuration.** We are planning on building a completely new framework to hold the optics as they currently exist. This means that the new framework will hold the current mirror cell and the secondary spider, along with the focuser and the finderscope. This would allow us to use either configuration as needed. We will be using David Kriege's book, The Dobsonian Telescope: A Practical Manual for Building Large Aperture Telescopes as a guide.



For the 6" scope, we already own the primary mirror and mirror cell and an old focuser. What we need for this project is a secondary mirror, spider and a finderscope.

For both projects, we would like people willing to help out with the project, especially if you have telescope building experience or woodworking skills. If you are interested, contact our observatory director, Tim Grunewald.



BREAKFAST WITH CAPT. JAMES LOVELL

On February 15, 2002, Milwaukee native and Eagle Boy Scout, Captain James A. Lovell returned home to be the Keynote Speaker at the annual Milwaukee County Council Boy Scouts of America Leadership Breakfast. As an Astronomy Merit Badge Counselor for the Boy Scouts, I was one of hundreds invited to partake in this unique opportunity to see and hear one of America's true heroes in every sense of that overused word.

Although his hair is thinner and a lot whiter than most of us remember it being, his voice is still as strong, true, and distinctive as remembered from his Christmas Eve, 1968, Bible reading from Apollo 8, as the Earth rose over the lunar horizon. It really didn't seem possible that almost thirty-two years have passed since the whole world held its collective breath for days on end until Apollo 13 safely returned to Earth after a nearly fatal explosion on its way to the moon. It was also hard to believe that Capt. Lovell was only about five weeks away from his 74th birthday -- he still sounded and looked the picture of the health and vitality of a man decades younger.

He related to us how important Scouting was to him while growing up. His father died when Capt. Lovell was only twelve years old, and it was Scout Leaders who became his surrogate father. He received his Eagle scout award in 1943 as a member of Troop 60 in the Northwest District, and was a Scout Leader and volunteer for years thereafter. He even volunteered in the kitchen at the Indian Mound Reservation campgrounds, for which his mother was "eternally grateful." Many of NASA's astronauts were involved in Scouting, and some were Eagles.

He said that he learned his greatest lesson in life while involved in Scouting. He wasn't sure about one particular Merit Badge, and the Counselor asked him if he knew the answers. He thought about it, and said, "No, not for some". He got the Badge for his honesty. From that time on in his life, he has always held to the credo that "an honest answer is the best answer." Another strong belief which shaped his life is the Scout's motto -

"Be prepared." He told us that most people don't take the time to prepare themselves for adult life, since there are no immediate returns. He had wondered if the astronauts were over-trained for so many contingencies, but he discovered in an instant what it meant to "be prepared" to overcome the obstacles, along with the Ground Crew. (He humorously recalled that his eight-year-old son at the time didn't understand the potential dangers, seeing that Apollo missions had been going off uneventfully for "as long as he could remember.")

His stirring speech earned a standing ovation from all of us

privileged to be there. It was one of those moments that one was "proud to be an American" and proud to be involved with so many others in volunteering our services to the next generation of adult leaders. Despite his planned itinerary, he stayed afterward to sign autographs and be photographed with many beaming Scouts,

dressed in their Class A uniforms with all their awards earned so far. Heroes like James Lovell are few and far between, but they inspire us all to do our best, even in the toughest of times.

-Greg Gonia



Capt. James Lovell takes time for an autograph



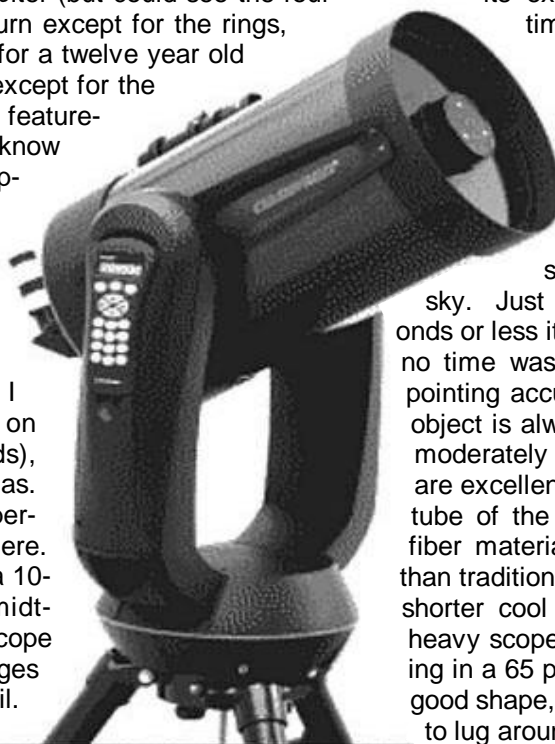


Review of the Nexstar 11GPS by Celestron

I got my very first telescope when I was 12 years old. It was a \$20 3-inch reflector from Toys 'R Us. The optics were obviously inferior for I could not see any detail on Jupiter (but could see the four main moons) or Saturn except for the rings, and that was a thrill for a twelve year old kid. All the objects except for the moon were tiny and featureless. But I didn't know what high quality optics were anyhow. When I was fourteen I got a 6-inch reflector of high optical quality. The difference in images was astounding. I could see detail on Jupiter (cloud bands), Saturn and gas nebulas. But my quest for aperture did not end there. My next scope was a 10-inch Schmidt-Cassegrain. This scope yielded brighter images with a little more detail.

It was about this time GOTO telescopes were starting to come out.

Meade with their famous LX-200 was the first successful GOTO scope that was popular, but it was way beyond my budget at the time. I had the manual version of Meade's 10-inch SCT.



NexStar 11 GPS
Complete Go-To with integrated Global Positioning System and computer hand control

Finally the day came when I could afford a large aperture GOTO telescope. I bought Celestron's newest GOTO SCT, the Nexstar 11 GPS, the first of its kind to use a Global Positioning System as a time and location system for easy setup. The Nexstar 11 is a very user-friendly scope in that you don't need to be a rocket scientist to use it. The keypad is simple and easy to understand. You just select GPS align and the scope starts to level itself, links up with the GPS satellites giving its exact location and then records the time. Then it slews automatically to the first alignment star, then a second star after prompting it to and centering the stars in the eyepiece each time, and that's it: you're ready to go! Until you actually see it work you just won't believe how easy a GOTO scope makes finding objects in the sky. Just punch in say M-13 and in ten seconds or less it's in the eyepiece. No star hopping, no time wasted in hunting down objects. The pointing accuracy of this scope is excellent, the object is always in the field of view even with a moderately high power eyepiece. The optics are excellent, yielding sharp, crisp images. The tube of the scope is made of a tough carbon fiber material that has less thermal expansion than traditional aluminum tubes, which makes for shorter cool down times. This is also a fairly heavy scope with the tube and fork arms weighing in at 65 pounds. I can handle it, being in fairly good shape, but someone might find it too heavy to lug around. In short, I love this scope. I went from a \$20 toy telescope to a \$3000 high quality, large aperture GOTO telescope in 25 years.

-Joe Carlone

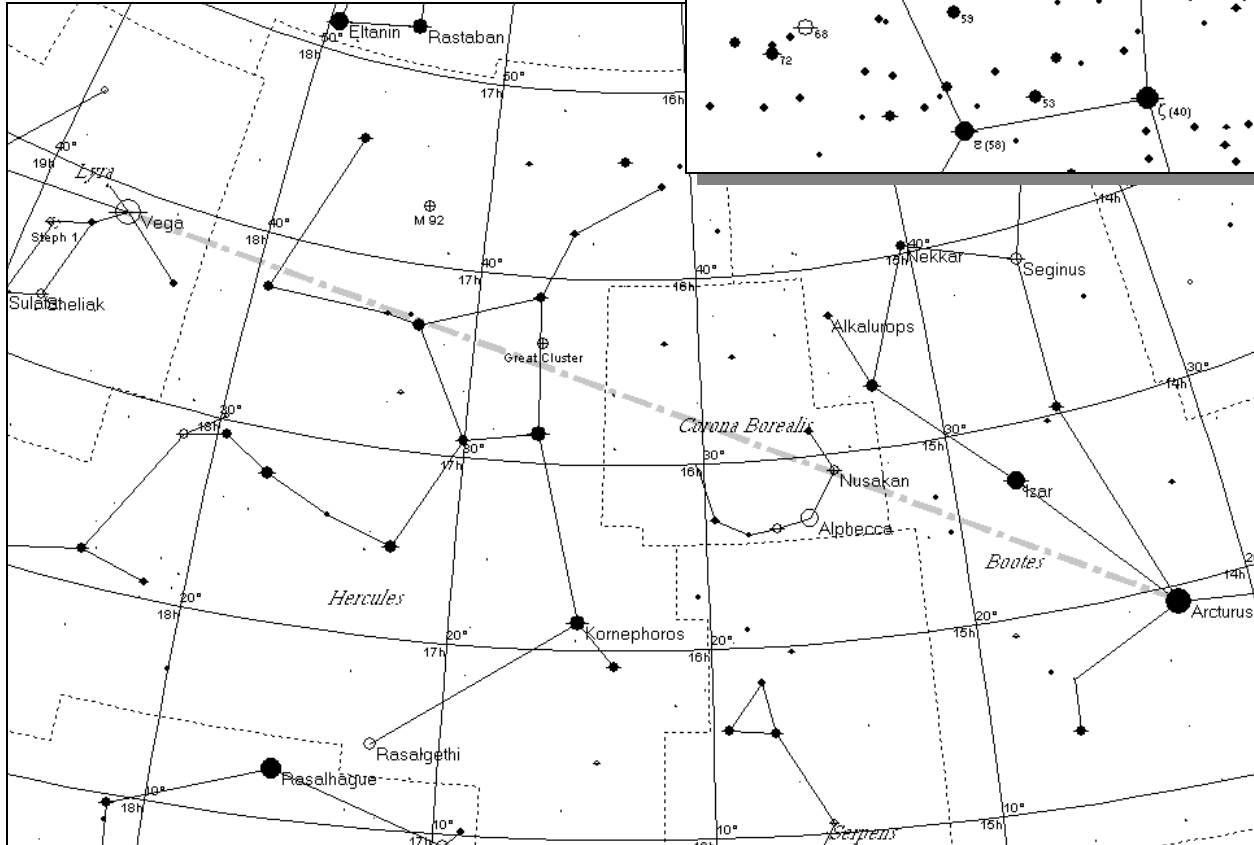


Observer's Corner: Hercules

This quarter we are going to highlight a famous constellation that is not so easy to find, especially if you live in light polluted skies. After all, the brightest star in Hercules is only about 3rd magnitude. The constellation Hercules lies between Lyra and Bootes. To find Hercules, draw a line between the main stars of Lyra and Bootes, namely Vega and Arcturus. To find Arcturus we use the handle of the Big Dipper and "arc to Arcturus". Arcturus is an orange-colored star, while Vega is white. Remember that Vega is one of the stars in the Summer Triangle. Hercules is one-third the distance between Vega and Arcturus, lying closer to Vega. As a marker you can use the star Alphecca in Corona Borealis to mark one third of the distance from Arcturus to give you an idea of what one third of the distance looks like. This distance is about 20°, which is the distance from your thumb to your little finger with your outstretched hand at arm's length. Go that distance again from Alphecca or go the other direction from Vega to find the constellation Hercules.

One of the showpiece objects is in Hercules – the Great Globular Cluster or M13. It is fairly easy to find in binoculars, once you can find Hercules. Once you have located the body of Hercules, which looks like a keystone, put your binoculars on the upper, right star of the keystone. This would be Hercules left shoulder if he is facing us. Go down a little bit along the line between this star and the star that marks his left hip. As the star on the left shoulder either leaves or is at the edge of your field of view, you should see two faint stars next to each other with a small smudge between them as shown. You should see this obtuse triangle in the center of your binocular field of view. The small smudge is the Great Globular Cluster.

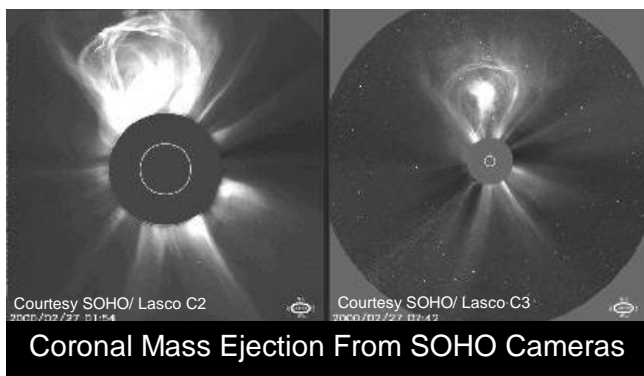
-Tim Grunewald



Long Summer Days

As you all well know waiting for the skies to become dark enough to do any serious viewing requires waiting till near or after ten o'clock. There is nothing to do to beat the anticipation of the slowly darkening skies. Why not look at the Sun?

First, a little safety. As all telescopes state **WARNING: NEVER LOOK DIRECTLY AT THE SUN WITH THE NAKED EYE OR WITH A TELESCOPE. PERMANENT AND IRREVERSIBLE EYE DAMAGE MAY RESULT.** But, there are many different **SAFE** ways to enjoy the beauty of our nearest star.



The safest way by far to watch the Sun is via the Internet, there are many great government as well as private organizations that will keep you informed to any developments involving the Sun. The most popular by far is SpaceWeather.com. This site will keep beginners and advanced solar enthusiast well satisfied. The site's main features are its *What's Up in Space* column which has all the latest news about Coronal Mass Ejections, Auroras, Comets, and any other news related to the Earth – Sun environment. Also, the site displays up to the minute solar environment data like Solar Wind, Sunspot count, as well as pictures of the Sun and will keep you posted the on likelihood of auroras.

Another great site is the Solar and Heliospheric Observatory's (SOHO) home page at <http://sohowww.nascom.nasa.gov/>. The SOHO project is a fantastic program funded and operated by NASA and ESA. This site will have many of the same pictures that SpaceWeather.com has, be-

cause that's where they came from, but with much more. The site displays the most recent pictures taken by the spacecraft as well as movies. The pictures and movies are incredible. They will show the Sun in many parts Electromagnetic Spectrum, (i.e. light) dissecting the atmosphere of the Sun to the fullest. If it happens on the Sun SOHO will see it. The site won't leave you overwhelmed either, they explain all the pictures describing exactly what you are looking at and why it looks how it does. But, use extreme caution the site is addicting and there is no cure. If you would like to try some solar viewing through your own telescope there is a wide range of ways to do so. The most inexpensive way is to purchase a sheet of BAADER AstroSolar™ Solar Filter Material from Astro-Physics or Company Seven (See below for contact information). Both companies are trustworthy, respected retailers of solar viewing equipment as well as other astronomical accessories. The Do-It-Yourself filter comes packaged as a sheet of A4 (7.9" x 11.4") and will cost \$30 (minus shipping of course). It will be packaged with instructions on how to construct your own filter. The material produces a white Sun with a black background and will easily show sunspots and many other features. If you don't trust yourself to build your own solar filter there are glass filters. Glass filters are more commonly sold by the major retailers and easier to get a hold of. The glass filters are however more expensive. Companies like Orion telescopes sell the glass filters about \$60 for a 4" telescope to \$140 for a 12". But, the glass filter will be a little more durable. The glass filters generally produce and orange Sun with a black background. Glass filters will produce similar results to the BAADER AstroSolar™ Solar Filter.

Here are a few tips to make your solar viewing safe and enjoyable. Remember to leave your finderscope covered unless you have filters for it as well. If you do not have a filter for your finderscope, here is an easy way to find the Sun. Don't look toward the Sun, look at the shadow your telescope makes on ground. Simply move the telescope around until the shape of the telescope is the smallest (the cross section shadow of the telescope) and look into the lowest power eyepiece in your collection and if the Sun is not perfectly centered make the necessary adjustments and begin you observing. This will take some practice, but it works very well.

SCHEDULED ACTIVITIES

FOR

The Wehr Astronomical Society

<http://www.wehrastro.org>

Regular Meetings

(Free and Open to the Public)



Tuesday, July 9, 2002 6:00 p.m.

At Froemming Park

Annual Picnic Annual Picnic at Froemming Park. Wehr Astronomical Society will furnish the burgers, brats and buns. Members should bring a dish to pass and their own table service and silverware. Bring your telescope and get in some solar viewing before we eat.



Tuesday, August 13, 2002 at 7:00 p.m. *

At Froemming Park

Come watch the Perseid meteor shower with us. Telescopes will be provided to view other celestial objects. Note: For meteor watching all you need are your eyes. Binoculars are helpful for seeing the smoke trails that some meteors leave behind.

*Rain date: Wednesday, August 14, 2002 at 7:00 p.m.



Tuesday, September 10, 2002 at 7:00 p.m.

At the Wehr Nature Center

Members of the W.A.S. will talk about film and CCD astrophotography for beginners through advanced guided exposure techniques.

Observatory Activities

(Free and Open to the Public)

July 12	9:30*	Deep sky observing Locate Serpens the Serpent.
July 19	9:30*	Observing the moon and deep sky objects See a gibbous moon and the brighter deep sky objects.
August 2	9:00*	Deep sky observing Planetary Nebula.
August 16	8:30	Observing the moon and deep sky objects See a 1 st quarter moon and the brighter deep sky objects.
August 30	8:00	Deep sky observing Novice Night – Bring your telescope or binoculars and let us show you what you can see.
September 13	8:00	Observing the moon and deep sky objects See a 1 st quarter moon and the brighter deep sky objects.
September 27	7:30	Deep sky observing Locate the Andromeda Galaxy with a telescope or binoculars.

Note: All observatory dates fall on a Friday, and are held at Froemming Park.

* Come early (after 7:00) to see the sunspots.