



Panhandle Astronomy Club

"Amateur Astronomy & Education"



THE SCOPE

Volume 2 Issue 8

August 2007

GENERAL MEETING DATE

Tuesday, August 14
PAC Meeting
7:00 pm
Gering Public Library

Join us each month as we explore this fascinating hobby we call astronomy!

Our meetings offer you the opportunity to meet other amateur astronomers, share your experiences, get advice and discuss opportunities to get together and view some of the wonders nature has to offer each month.

August Presentation

Nebraska Star Party Review

Bruce and Virginia Mues will be giving a brief update on the Nebraska Star Party.

PANHANDLE ASTRONOMY CLUB MEETING MINUTES

The July meeting was held on the 10th at the Gering Public Library. The meeting was called to order at 7:05 by Bruce Mues. Six members were present: Bruce Mues, Jon Smith, John Escamilla, Chris Olsen, Amanda Mues and Virginia Mues. The June minutes were approved and it was reported that we have 1414.63 in the Treasury.

The meeting began with a discussion on Astromart, Astronomy Classifieds and Ebay.

The upcoming Star Gaze was also discussed. Virginia distributed the press release and flyers for the event. Jon talked to Tracy Ford with the Jaycees. They have two large tents one is \$100 and the other is \$125. It was mentioned that there is a pavilion on the premises and we may not need the tents. Club members currently planning on attending are Jon, Chris, Bruce, Virginia, Zach and Amanda. Various duties were assigned to club members. Bruce is in charge of the Ice Cream Social. We will be making the Ice Cream on site. Chris has a hand-crank Ice Cream maker and Jon will bring his generator. Virginia is in charge of the Astronomer's Breakfast. Bruce will run the Swap Meet. Jon and Chris will help with registration. Amanda will do the Nocturnal Walk (constellation tours). Bruce is in charge of the Beginners Workshop and Virginia is in charge of the Children's workshop. Jon will bring his display for the astrophotography contest and let people hang their pictures on it. Chris will look for donations to be used as prizes, Jon will ask Karen to donate. Bruce will talk with AstroSystems about donations. Certificates will be given for photography and observing challenges, Bruce will be in charge of this. Jon has solar observing equipment.

We followed up with introductions and then discussed some upcoming events. August 12th is the Perseids Meteor Shower. We will meet at Jon's Farm North of Scottsbluff. Many of us will see Jon's observatory for the first time. If you need directions contact Jon.

Members attending the Nebraska Star Party include Bruce, Virginia, Zach and Amanda Mues. They will be taking the banner with them to hang at their campsite. They will also take flyers with them to distribute. Bruce will report back on the NSP at the August Meeting.

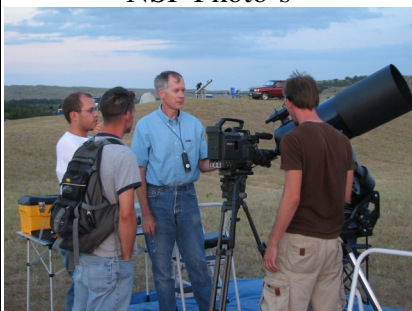
Brief discussion was held on the upcoming Night Sky Network Teleconference. Those not attending NSP may want to catch this.

Discussed doing a Public Star Party around the 28th or 29th. Possibly around the lunar eclipse if that would work. Also advertise the Western Nebraska Star Party.

The meeting was adjourned at 7:55 pm. The stargazing event scheduled for after the meeting was cancelled due to clouds.



NSP Photo's





Total Eclipse of the Moon

August 28, 2007
 GERING, NEBRASKA
 N41 50, W103 40
 Mountain Daylight Time

Moonrise 7:24 pm
 Moon enters penumbra 1:52 am
 Moon enters umbra 2:50 am
 Moon enters totality 3:52 am
 Middle of eclipse 4:37 am
 Moon leaves totality 5:22 am
 Moonset 6:25 am

Award Winner

Let it be known that Virginia Mues completed the requirements of the Nebraska Star Party observing challenge, having successfully sought and observed all the celestial objects on the list of the Southern Summer Messier and Northern Summer Messier Challenges. She was awarded certificates for both awards at the NSP awards ceremony held on July 18th, 2007.

ALCON 2008 Des Moines, Iowa July 17-20, 2008

The Des Moines Astronomical Society proudly welcomes you to the Astronomical League Convention (ALCON) 2008 on July 17-20, 2008 in Des Moines, Iowa. Watch their website for updates at www.alconexpo.com.



17th Annual
WEEKEND UNDER THE STARS
 August 9, 10, 11, 2007
 Fox Park, Wyoming

This event is sponsored by CAS and LASSO. The cost is \$10.00 per person. Children 12 and under are FREE. Door prizes are limited to those 13 and older. Events include Observing, 1000 Yard Walk, Door Prizes and a Group Photo. Log on to <http://home.bresnan.net/~curranm/wuts.html> for more information.

PERSEID METEOR SHOWER

The annual Perseid meteor shower is expected to be a great one this year! Meteor showers occur as the earth travels through comet debris, most no larger than sand grains. This debris vaporizes in the Earth's atmosphere, creating "shooting stars". The meteors in this shower emanate from the constellation Perseus, thus the name and are caused by the comet Swift-Tuttle, which passes through the inner solar system every 130 years. Perseid meteoroids are exceptionally fast, entering Earth's atmosphere at roughly 133,200 mph.

The August Perseid's are among the strongest of the readily observed annual meteor showers and can yield 90 to 100 meteors per hour. With the moon out of the way there should be plenty of dark skies and meteors to be seen. The meteor shower could deliver one or two visible streaks every minute during its peak the night of August 12th and morning of August 13th.

One only needs a comfortable spot with a clear view of the northeast horizon, away from local lights and a blanket or lounge chair to view this shower. Panhandle Astronomy Club members are invited to observe the Perseid's at Jon Smith's Observatory north of Scottsbluff the night of August 12.

In the late evening observers may see "earthgazing" meteors that skim the northeast horizon. Earthgazers are long, slow and colorful, but don't expect more than a handful in a hour. Later and during the overnight hours, the shooting stars will be higher in the sky as Perseus rises.

Telescopes and binoculars are no help, as the meteors move too swiftly and are best observed with the naked eye.

Western Nebraska Star Gaze

Panhandle Astronomy Club



**September
7, 8, & 9**

**Camp Clarke Raiders
Black Powder Range**

Located 5 miles South of
Bridgeport, Nebraska
on State Highway 88

**Just below Historic
Courthouse & Jail Rock**

The Western Nebraska Star Gaze is a time to share, to relax and enjoy our heavens. It's a time for amateurs, professionals, families and friends to come together to promote astronomy. It's a time to share the night sky, our experiences and stellar sights with others. It is good clean fun for all ages.

Our observing site provides some of Western Nebraska's darkest skies with light pollution at a minimum. The Milky Way is easily visible from this location and the viewing compares nicely to that of the Nebraska Star Party.

In addition to the dark skies, there will be other scheduled events such as an astronomers breakfast, ice cream social, program for beginners and educational activities for the children. As well as, several area attractions located within an hour drive from the site, including several golf courses, Bridgeport State Lakes, Lake Minatare, Chimney Rock and the Scottsbluff National Monument.

The Western Nebraska Star Gaze is open to anyone interested in astronomy. You do not need to own a telescope in order to attend. Camping is permitted on the observing field. Outhouses and drinking water are available at our site. There is **no** electricity, flush toilet or showers so plan accordingly.

The cost for the entire weekend is \$10.00 for ages 5 through 100. Young astronomers under the age of 5 or over the age of 100 are free.

THE SCOPE

Western Nebraska Star Gaze
PO Box 987
Scottsbluff, Nebraska 69363

Phone: 308-641-5874 or 308-641-1201
Email: info@panhandleastronomyclub.com
Website: www.panhandleastronomyclub.com

Western Nebraska Star Gaze

September 7, 8, & 9, 2007

Registration

*Print this form, fill it in and bring it with you to the Star Gaze Registration Table.
Registration Table open Friday 5 to 7 pm and Saturday 8 to 10 am*

Name _____

Address _____

City _____ State _____ Zip Code _____

Phone _____ Email _____

# of Attendee's	Day	Time	Place	Cost
_____ Registering	Friday/Saturday		Pavilion	\$10.00 (ages 5 to 100)
Name _____				Spouse
Name _____				Age _____
Name _____				Age _____
Name _____				Age _____
Name _____				Age _____

_____ Ice Cream Social Friday 7:00 pm Pavilion Free

_____ Nocturnal Walk Friday Dusk Pavilion Free

_____ Astronomer's Breakfast Saturday 8 to 10 am Pavilion Free

_____ Swap Meet Trader Saturday 8 to 10 am Pavilion Free

_____ Beginner's Workshop Saturday 10 to Noon Pavilion Free

_____ Children's Program Saturday 10 to Noon Pavilion Free

Name _____ Age _____

Name _____ Age _____

Name _____ Age _____

Name _____ Age _____

Name _____ Age _____

_____ Nocturnal Walk Saturday Dusk Pavilion Free

_____ Astro Photography Contest Sunday 8 to 9 am Pavilion Free

_____ Observation Challenges Sunday 8 to 10 am Pavilion Free

_____ Astronomer's Breakfast Sunday 8 to 10 am Pavilion Free

_____ Swap Meet Trader Sunday 8 to 10 am Pavilion Free

Total Due \$ _____

*Make checks payable to the Panhandle Astronomy Club
Registration fees are non-refundable*

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Twelve Month Tour of The Messier Catalog

August Messier Objects

This is the month that we begin to sneak into the summer Milky Way and the heart of our galaxy as we find 12 more objects. Some are visible to the naked eye, all are possible in binoculars. There are six globular clusters, four open clusters, and two diffuse nebula. Many of these objects also appear to be in pairs, either in visual appearance or location.

M10, M12

This pair of globular clusters in the middle of Ophiuchus are easily swept up in binoculars looking like small blue snow balls. Through an 8" telescope M12 is well resolved while M10 is slightly more fuzzy looking. Both become very bright towards the center.

M107

A small, fairly faint globular cluster in Ophiuchus. It is a tough binocular object, appearing as a very small faint patch of light possibly requiring averted vision. In a telescope, M107 is a larger and brighter fuzzy patch of light than what can be seen in binoculars.

M9

Another small, relatively faint globular cluster in Ophiuchus. M9 is very similar to M107, only slightly brighter. Another tough, but possible, binocular object.

M19, M62

Another pair of globular clusters in Ophiuchus separated by about four degrees. Fairly easy to find in binoculars, they are smaller than M10 and M12 thus not quite as obvious. These clusters are not resolvable through small scopes, and appear as round fuzzy patches brightening towards the center. M19 is slightly brighter than M62.

M6, M7

This is a pair of large, bright open clusters in Scorpius visible to the naked eye. Binoculars provide the best view of these clusters. Both are completely resolvable in 10x50 binoculars and can be fit into the same field of view. M7 is the larger and brighter of the pair.

M8

This is a bright emission nebula in Sagittarius, easily visible to the naked eye. The common name of M8 is the Lagoon nebula. In binoculars M8 is an oval cloud of light larger than the full moon with several bright stars embedded within it. A telescope makes this nebula larger and brighter but does not really improve the view.

M20

Another diffuse nebula in Sagittarius only 1.4 degrees northwest of M8 and is called the Trifid nebula. This is easily seen in binoculars looking like a cloud of smoke around some bright stars. A view through a telescope appears much the same, although try to pick out the three dust lanes that gives M20 its name. This is a somewhat difficult object to see right away, at first glance it looks like the optics are in need of cleaning and are causing the light from the bright stars to "smear".

M21

This is a small, but bright open cluster in Sagittarius right next to M20. Binoculars show a very small bright patch partially resolvable. Small telescopes easily resolve all of the clusters members. M8, M20, and M21 are all within the same binocular field and lie in a very rich region of the Milky Way. This view is one of the finest to be found.

M23

The last object of the month is a large open cluster in Sagittarius. through binoculars M23 is a large, hazy patch of light almost the size of the full moon. A telescope at low powers easily resolves this cluster among a rich background of other stars.

Scottsbluff, Nebraska 69363-0987
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c/o Newsletter Editor
The Scope

Panhandle Astronomy Club

PANHANDLE ASTRONOMY CLUB

The Panhandle Astronomy Club was founded in the Fall of 2005. Anyone with an interest in astronomy is welcome. Members are not required to own any equipment or have prior knowledge of astronomy. For more information on the Panhandle Astronomy Club log on to any of the following:

PAC Email: info@panhandleastronomyclub.com

PAC Website: www.panhandleastronomyclub.com

PAC Discussion Forum: groups.yahoo.com/group/PanhandleAstronomyClub

The Scope

Virginia Mues, Newsletter Editor

The Scope is an official monthly publication of the Panhandle Astronomy Club.

Submissions to *The Scope* are due by the Fourth Tuesday of the month. Guest columns are welcome.

Subscriptions for *The Scope* are \$20.00 per year for Individual Membership, \$15.00 per year for Student Membership (under age 18) and \$30.00 per year for Family Membership. *The Scope* is printed year round, January 1 through December 31.

Contact the Panhandle Astronomy Club c/o Virginia Mues, Newsletter Editor at P.O. Box 987, Scottsbluff, Nebraska 69363-0987; 308-641-1201.

The views and opinions expressed in *The Scope* do not necessarily represent the views or opinions of any of the members of the Panhandle Astronomy Club. All mistakes are included for your entertainment!

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