

# The Inter-Stellar News

## Central Montana Astronomy Society

Spring 2005

\$2.00

Vol. # 1 Issue # 4

### New Look

Because of the amount of ink required to print the newsletter, I will no longer use a color fill to code the articles in the newsletter. Instead I will color code just the text boxes themselves. Hopefully this will make the newsletter easier to read, give it a more “professional” look and save some ink as well.

### Message from the President

We are well into the first decade of the new millennium and change continues unabated in the astronomical community. New telescope technologies continue to break on the scene with astonishing regularity. With digital SLR cameras from Canon making perhaps the biggest splash in recent years followed by Coronado’s Personal Solar Telescope and a whole range of new, affordable imaging devices to make photographing the sky a much more rewarding pastime. Meade’s Deep Space Imager – while off to a rocky start – is making waves as a recent entry level imager, while Lunar and Planetary imagers from Meade and Celestron are rapidly becoming commonplace at star parties. Go-to telescopes continue to draw new people to the hobby in amazing numbers with several hundreds of thousands of such scopes sold in just the past few years.

The Central Montana Astronomy Society is keeping pace with these changes as well:

Beginning in 2005, CMAS has a new updated web site that will be updated more frequently and provide more timely and useful information about upcoming events.

### In This Issue:

- 1 Notice  
Message from the President
- 2 Lunar Eclipse 2004  
Beginners Tips  
Club Elections
- 3 Calendar of Events  
The Planets for Spring  
Advertisement
- 4 Meteors
- 5 All Sky Map
- 6 Distances at Light Speed  
Club Information

*Continued on page 4*

## Club Elections

The election of new officers was held in December. Our new officers are:

President – Chip Wright  
Vice President – Jane Surmi  
Secretary – Rollin Grey  
Treasurer – Carol Schile  
Alcor - Jim Krick

The board members are:

Neil Cimo  
Patty Lewis  
Ken Ferguson

Congratulations to our new officers and a big THANK-YOU to our past officers for a job well done.



## Lunar Eclipse 2004

The lunar eclipse of October 27<sup>th</sup>, 2004 was a good show. We were able to see the event from start to finish without a cloud to be seen. The weather cooperated nicely with a comfortably warm night.

John Thomas set up his 6” refractor with a real time camera patched into the Tech Café’s television. The view on the TV was superb. We had 9 telescopes set up for the public and a crowd of about 300 participants. This was a good turn out by the club and the public despite a cover charge of \$2.50 for the show.

Fred Phifer from KRTV did a live telecast on the 5:30 news for us and we had a spot on the 10:00 news as well. This show was well advertised by the Great Falls Tribune and that along with the newscast contributed to the good turn out. Many thanks go to John Thomas for doing the interview on TV. We also thank every member who participated on this memorable night.

*\* footnote: There will be a partial penumbral Lunar eclipse on April 24<sup>th</sup> starting at 00:49 am.*

## Beginner’s Tips

Watching the planets move against the background stars is a fun thing you can do with your naked eye. Once you have learned to identify a planet from the rest of the stars they are easy to follow. The planets position will be in a noticeably different place against the background on a weekly (or sometimes nightly) basis. The brightness of the planets will change too because they get brighter as they get closer to the Earth and dimmer as they move away. Mars and Venus display this effect more noticeably than Jupiter or Saturn but as you train your eye the effect is easy to see.

## CALENDAR OF EVENTS

### SPECIAL EVENT

PLACE – LEWIS AND CLARK INTERPRETIVE CENTER

DATE – MARCH 11<sup>TH</sup>, APRIL 15<sup>TH</sup>

TIME - 6:00 PM TO MIDNIGHT

### PUBLIC STAR PARTIES

### SPECIAL EVENT

PLACE – GEOTZ ROAD SITE

DATE – MARCH 12<sup>TH</sup>

TIME – DUSK TO DAWN

### MESSIER MARATHON

## Some Meteor Showers this Season

Beta Leonids	Feb. 14 <sup>th</sup> to April 25 <sup>th</sup>
Pi Virginids	Feb. 13 <sup>th</sup> to April 8 <sup>th</sup>
<b>Lyrids</b>	<b>April 16<sup>th</sup> to April 25<sup>th</sup></b>
April Ursids	March 18 <sup>th</sup> to May 9 <sup>th</sup>
<b>Eta Aquarids</b>	<b>April 21<sup>st</sup> to May 12<sup>th</sup></b>
No. May Ophiuchids	April 8 <sup>th</sup> to June 16 <sup>th</sup>
So. May Ophiuchids	April 21 <sup>st</sup> to June 4 <sup>th</sup>

Major showers in bold type

## Tin Can Weather Instrument

Take the tin can and fill it half full of water and place outside.

If there is ice in the can – it's freezin' outside.

If its just water in the can – then it ain't.

If the can fills up – its been rainin'.

If the can is dry – it ain't.

If the can blows away – it ain't just dry, it's windy too.

Can also doubles as a bug collector in the summer!

This marvelous instrument can be yours for just 4 easy payments of \$99.99 and if you act now we will throw in 4 dead batteries and double your payments!

**That's right, just 8 easy payments of \$99.99!**

## Planets for Spring 2005

Saturn and Jupiter are well placed for viewing at midnight early this spring. Saturn is in Gemini and sets well after midnight in March and around midnight in May. Enjoy Saturn while you can, Saturn will be gone this summer and won't return until late autumn.

Jupiter rides near Spica in Virgo and is up by 9:00 PM in March. Jupiter will be well placed for observing well into summer this year.

The middle of April brings Pluto into the night sky at midnight. Pluto is still in Ophiuchus at a dim 14<sup>th</sup> magnitude.

Mars rises in the East about 5:00 am floating between Sagittarius and Capricorn. Since the Sun rises about 5:30, catching Mars will be difficult this spring. Mars will be reaching opposition later this year and this will be the second closest approach in 70,000 years. The closest approach was the last opposition in 2003.

Mercury can be found shortly after sunset in early March. Look for Mercury low near the western horizon. Mercury is diving quickly toward the sun's glare to a poor morning apparition in May.

Venus is still lost to the Sun's glare but it is on its way to a nice evening apparition for this summer.

Uranus is in Aquarius and lost to the Sun's glare.

Neptune is in Capricorn and is lost to the Sun's glare.

# Meteors

By David Amdahl

Meteors are stones that race through Earth's atmosphere. In space, they are called meteoroids and on the ground they are called meteorites. Most of them range in size from dust grains to small pebbles, naturally the brighter a meteor, the larger it is. Really bright meteors are sometimes called fireballs or bolides and are larger rocks than the average meteors.

Most meteors enter the Earth's atmosphere about 60 miles up. They decelerate from an average speed of about 25,000 mph to about 300 mph during their flight. Only a few ever reach the ground, most burn up about 50 miles high. Bolides have been known to make sounds as they reach lower altitudes. These range from sonic booms to rumbling or crackling sounds. Listen carefully when you see a bright one and remember there will be a time delay between when you see it and when you can hear it depending on its distance from you.

Although meteoroids are common in space, meteorites are comparatively rare. Of the larger sizes only about 10,000 are in museums or the hands of collectors. Meteors can break up just as they burnout and scatter smaller fragments over a wide area. Sometimes all that is left of a meteor are fragments and it is difficult to locate them. Meteors only cause a crater if they are larger than a pound or two.

Monthly meetings will feature more lectures and presentations to be followed up with demonstrations and Lewis and Clark events. Coming topics will include imaging, autoguiding for astrophotography, seasonal sky highlights and issues relevant to Montana Star Watch at Harley Park.

CMAS will reintroduce mentoring, teaming experienced observers and imagers with those either new to the hobby or those wishing to expand their skills at the scope.

CMAS will implement and expanded series of outreach events over the summer including an ambitious solar observing series at Lewis and Clark.

CMAS will begin planning for a group trip to a major star party during the summer of 2006.

In the aftermath of the Columbia Space Shuttle tragedy, the future of the Hubble Space Telescope remains uncertain, but amazing progress has been made with ground based mega telescopes in Hawaii, Chile, and the Canary Islands. These new telescopes are finding new planets orbiting distant suns on an almost daily basis. Some amateurs are performing real science to help back up these startling discoveries. Modest equipment can be turned to support these efforts and club officers are exploring ways that we can contribute to these efforts so stay tuned.

The coming year should bring an exciting slate of activities so watch the web for some interesting announcements in the coming months. And as always, Clear Skies!





## Club Officers

President - Chip Wright  
[cwroundabout@yahoo.com](mailto:cwroundabout@yahoo.com)

Vice President - Jane Surmi  
[jurmi@bratchnet.com](mailto:jurmi@bratchnet.com)

Secretary - Rollin Grey  
[knollob@starband.net](mailto:knollob@starband.net)

Treasurer - Carol Schile  
[schicara@benefis.org](mailto:schicara@benefis.org)

Alcor - Jim Krick  
[owlob@bresnan.net](mailto:owlob@bresnan.net)

***Reminder: Dues are due at the May meeting!***

## Club Meetings

**The second Wednesday of every month  
7:00pm  
Great Falls High School  
Room SC 201**

**<http://www.cmasweb.com>**

## Distances at the Speed of Light

Here is a simple scale to measure distance in terms of light units.

Distance from the Earth to the Moon =  
**1 light second**

Distance from the Sun to the Earth = **8 light minutes**

Distance from the sun to Jupiter = **43 light minutes**

Distance from the Sun to Uranus = **2 ½ light hours**

Distance from the Sun to Neptune = **4 light hours**

Distance from the Sun to Pluto = **5 light hours**

Distance from the Sun to the nearest star =  
**4 ½ light years**

Distance from the Sun to the center of the  
Milky Way = **30,000 light years**

Distance across the Milky Way =  
**100,000 light years**

Distance between the Milky Way and the Andromida  
Galaxy = **2 ½ million light years**

The distance to the edge of the universe =  
**12 billion light years** give or take a few

*The next issue of*  
**The Inter-Stellar Newsletter**  
*Will be available at the May meeting!*

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Guest articles are always welcome. Write a story about your first time under the stars, your last time, a trip you took, a special sky event, or what a good time you had! Something you want to sell or want to buy? Ad space is available.

Microsoft word format or e-mail is preferred.

Comments? Suggestions?

E-mail to: [knollob@starband.net](mailto:knollob@starband.net)

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