

Upcoming Events

Note: Meetings are at the Bettendorf Public Library @ 6:30 PM

**February 1st
CANCELLED**

**February 15th
Business Meeting**

**March 7th
Pluto/New Horizons
Meeting**

**March 18th
Putnam Museum Family
Night**

**March 21st
Business Meeting**

**April 4th
Presentation by OMI
Meeting**

**April 18th
Business Meeting**

**Looking further ahead:
June 11th
Public Mars Viewing**

Officers

President: Dale Hendricks
dhusna68@mchsi.com

Vice President: Bruce Brooker
brookers3@machlink.com

Secretary: Shawna Duncan
sduncan77@gmail.com

Treasurer: John Baker
johnbsys@aol.com

Director: Dana Taylor
dana@nelsonstaylor.com

Facilities: Dana Taylor
dana@nelsonstaylor.com

Outreach: Matt Neilssen
matt.neilssen@gmail.com

E. IA Star Party: Jeff Struve
pwrhsepro@aol.com

Meridian Editor: S. Duncan
sduncan77@gmail.com

February Skies

Matt Neilssen

February typically starts out as true winter but by the end, in the Quad Cities, we should see the first signs of Spring. January's average low temps tend to hover around the 15 degree mark with around 50% cloud cover. February starts off this way, but tends to see a 10 degree increase in lows with around a 10% decrease in cloud cover by months end. Of course, this is the weather we're talking about so all this needs to be taken with a grain of salt. That reality check isn't going to stop me from getting pumped about astronomy this month though. To me, February marks the beginning of the serious portion of the 2016 observing season. Feb. 1st Comet



c/2013 US10 (Catalina) is an "all night" object at this point. Right around Polaris and probably still in the magnitude 6-6.5 range this one is getting harder to observe but potentially easier to photograph. As long as we get a decent night, this is the month I plan on going after it. By months end, the comet will probably be dimmer than magnitude 8 and fading fast. As the twilight comes in on February 6th, Stellarium shows a nice grouping of a nearly New Moon, Mercury and Venus. At 6:50 am it also shows a magnitude -4.79 Iridium Flare just above the conjunction, popping against a fairly bright sky. (For West Davenport) Mid-February is when Jupiter starts rising at the time I get out of work (8:00pm). I miss this easy target. This month also marks the beginning of a thick series of Double Transit Shadow events for Jove. From here, the first visible is at 3:39 am on the 26th when the shadow of Io joins that of Europa. There are 20 such events visible from Earth between now and May. Eight of these are probably, if not easily, visible from our area. With Jupiter on its way toward opposition in early March, there is a lot to be stoked about.

Board Announcements

The Board met on January 11th and made some decisions that will bring positive changes for the Society. It was unanimously decided to create a new standing committee for the Eastern Iowa Star Party. Jeff Struve will be the chairman of this new committee. Matt Neilssen was also unanimously voted as the new Outreach Coordinator. All outreach opportunities presented to the club should go through Matt. He can be reached at matt.neilssen@gmail.com. Congratulations to Matt and Jeff. Thank you for volunteering your time and talents.

Mayan Astronomy

Jeff Struve

The ancient Mayan spent a lot of time viewing skies and recording what they saw. They believed that solar, lunar, and planetary movements were actions of the Gods. Observations of these movements were of such a critical nature that most all... if not all... important structures were built with some sort of astro-significant alignment involved. The main objects of study included the sun, the moon, Venus, constellations, and star groupings such as the Pleiades. There is a lot of information on the Internet explaining different myths and world stories based on the Mayan belief system. In a nutshell, The Mayan believed the Earth to be the center of everything, and the gods manipulated the heavens in a manner that if deciphered correctly, battles could be won or lost... new rulers would be welcomed... planting of crops would yield the best harvests ... and all other important decisions could be made correctly. One belief was that the Milky Way was the generator of life and the dark rift was the path to the underworld... and planets and other astronomical movements moving through this area were of great significance... again, a lot is found on the Internet regarding these beliefs... for instance, the dark rift in the Milky Way represented Xibalba, the Mayan underworld, and in a story, the Popol Vuh, the hero twins, Hunaphu and Xbalanque, transformed themselves at one point into the Sun and the Moon.

Upcoming Events

Note: Meetings are at the Bettendorf Public Library @ 6:30 PM

**February 1st
CANCELLED**

**February 15th
Business Meeting**

**March 7th
Pluto/New Horizons
Meeting**

**March 18th
Putnam Museum Family
Night**

**March 21st
Business Meeting**

**April 4th
Presentation by OMI
Meeting**

**April 18th
Business Meeting**

**Looking further ahead:
June 11th
Public Mars Viewing**

Officers

President: Dale Hendricks
dhusna68@mchsi.com

Vice President: Bruce Brooker
brookers3@machlink.com

Secretary: Shawna Duncan
sduncan77@gmail.com

Treasurer: John Baker
johnbsys@aol.com

Director: Dana Taylor
dana@nelsonstaylor.com

Facilities: Dana Taylor
dana@nelsonstaylor.com

Outreach: Matt Neilssen
matt.neilssen@gmail.com

E. IA Star Party: Jeff Struve
pwrhsepro@aol.com

Meridian Editor: S. Duncan
sduncan77@gmail.com

Mayan Astronomy continued...

The Mayan Sun God was Kinich Ahau and the moon had a number of goddesses, the main were Ix Chel and Ix Ch'up. The most important planet to the Maya was Venus, which they associated with war. Battles and wars would be arranged to coincide with the movements of Venus and captured warriors and leaders would be sacrificed according to the position of Venus in the night sky.



The stars were less important to the Mayans, however, the stars shift seasonally and were used to predict when the seasons would come and go... useful for agricultural planning. For example, the rise of the Pleiades in the night sky occurs at about the same time that the rains come to the Mayan regions of Central America and southern Mexico. The stars, therefore, were of more practical use than many other aspects of Mayan astronomy.

Through all of their observations, the Mayan became expert at predicting solar phenomena, such as eclipses, equinoxes and when the Sun reached its apex. They also recorded the movements of Venus and determined that its year, relative to earth, was 584 days long, amazingly close to the 583.92 days that modern science has determined.

The Mayan basically used two calendars: the Calendar Round and the Long Count. The Maya Long Count calendar was divided into different units of time that used the Haab, or solar year (365 days) as a base. The Calendar Round consisted of two separate calendars: the first was the 365-day solar year; the second was the 260 day Tzolkin cycle. These cycles align every 52 years.



Many key Mayan structures such as temples, pyramids, palaces, observatories and ball courts were laid out in accordance with astronomic observations in mind. These structures were designed in such a way that the Sun, Moon, stars and planets would be visible from the top or through certain windows at important times of the year. There are a number of structures that also cast shadows and/or directed light in a manner that were quite interesting. A favorite of mine is the serpent stairways at the Castillo in Chichen Itza where shadows cast upon the stairway make the serpent appear to move down the stairway... much more on this is also available on the Internet... I have included pictures of two fairly popular Mayan Observatories... Chichen Itza and Mayapan.

New Look

No, you aren't crazy, yes the Meridian has a new Look. I liked Karl's styling, but because we do not use the same word processor, I've had difficulty continuing it. Hopefully, this will be simpler. However, you may see changes for the next few months as I continue to sharpen my editorial skills. Also, you may have noticed this issue says January/February 2016. I've made the command decision that the Meridian should be issued at the beginning of the month, so March will be the next issue and you will get it roughly a month from now. Enjoy the styling changes and thank you to all who contribute to the content...I truly cannot do it alone. So, raise your cup to the contributors and to hoping February will bring some stargazing opportunities.

Upcoming Events

Note: Meetings are at the Bettendorf Public Library @ 6:30 PM

**February 1st
Pluto/New Horizons
Presentation**

**February 15th
Business Meeting**

**March 7th
Astronomy in Numismatics
Meeting**

**March 18th
Putnam Museum Family
Night**

**March 21st
Business Meeting**

**April 4th
Presentation by OMI
Meeting**

**April 18th
Business Meeting**

**Looking further ahead:
June 11th
Public Mars Viewing**

Officers

President: Dale Hendricks
dhusna68@mchsi.com

Vice President: Bruce Brooker
brookers3@machlink.com

Secretary: Shawna Duncan
sduncan77@gmail.com

Treasurer: John Baker
johnbsys@aol.com

Director: Dana Taylor
dana@nelsonstaylor.com

Facilities: Dana Taylor
dana@nelsonstaylor.com

Outreach: Matt Neilssen
matt.neilssen@gmail.com

E. IA Star Party: Jeff Struve
pwrhsepro@aol.com

Meridian Editor: S. Duncan
sduncan77@gmail.com

Groundhog Day!

My informal survey says that the movie Groundhog Day is enjoyed by males and disliked by females - the antithesis of a chick flick. However, except for frigid temperatures, I think males and females both enjoy the night sky as depicted in the Stellarium view below for 9 PM on Groundhog Day, 2016.



So, here are a few things I "observe" about this depiction:

Comet Catalina is high in the northern sky. It's listed as 6.3 magnitude - which should make it easy to see in binoculars or a scope at low power from moderately bright suburban skies.

The **Andromeda Galaxy** in the WNW is at about 34 degrees altitude and you'll soon need to wait until Autumn to see it again in the evening sky.

Orion is well placed for viewing. If you plan to observe it or to image it, then now is the time. The sights of Orion are so well known and written about, I don't need to say more.

After viewing Orion and its sights, slide a little southeastward and check out **Sirius** and **Canis Major** (CMA) - the big dog. I think this constellation, which has many moderately bright stars, is a mostly overlooked constellation - probably because Orion is nearby. I think if CMA was in a less busy part of the sky, we'd all be saying "Look at the Big Dog!" (He won't bite!)

OK, like most of you, I rarely get out in the winter. But if the whole winter goes by without any observing of any significant duration, sometime later in the year I will feel cheated. So don't cheat yourself! One clear night, bundle up with layers of clothes, snag your binoculars or grab-and-go telescope and spend some time enjoying the winter sky!

Then come back inside and enjoy a hot (or other) beverage. Cheers!. -Karl Adlon

Photos from the Putnam...

