

Sol in H-alpha by Vern Raben

**Longmont Astronomy Society Newsletter**  
**March 2012**

## **From the President:**

### **LAS Meeting – Thursday March 15th**

The March meeting of the Longmont Astronomical Society is this Thursday, March 15<sup>th</sup>, at the IHop Restaurant, 2040 Ken Pratt Blvd., Longmont, CO. Please join us for dinner around 6 pm at the restaurant. The general meeting will begin at 7 pm.

The speaker at our March meeting is Dr. Fran Bagenal, professor Astrophysical and Planetary Sciences at the University of Colorado Laboratory for Atmospheric and Space Physics. Fran will talk about the NASA Juno mission which currently on its way to the planet Jupiter.

### **Upcoming Star Parties and Events**

- Star party for Longmont Christian School on Friday March 23<sup>rd</sup>, 7 pm at private residence. Contact Gary or myself for directions.
- Time to start planning for Astronomy Day which is on April 28<sup>th</sup> and Venus transit June 6<sup>th</sup>

### **In the sky this month:**

Meteor Showers

Lyrids night of April 21 New Moon, so it should be decent viewing

<http://astronomy.com/en/News-Observing/Intro%20Sky/Get%20to%20Know%20the%20Night%20Sky/2012/03/Easy%20objects%20in%20the%202012%20spring%20sky.aspx> Astronomy mag's "things to see in the spring sky" video



Comet Garradd continues at magnitude 6.3

Picture by LAS member Gary Garzone

## **Planets**

Mercury: low in the west, sets an hour after the Sun

Venus: high in the west, sets at 11 PM

Mars: pretty close to opposition and improving

Jupiter: right next to Venus, isn't that a nice sight....

Saturn: rises about 10 PM, improving

### **Interesting Stars/Galaxies**

With all the CMEs and Aurora Alerts the past month, how about

[http://www.youtube.com/watch?v=WL\\_-Zz7JDoA](http://www.youtube.com/watch?v=WL_-Zz7JDoA) video explaining aurora from the ISS, with a lot of pictures.

<http://vimeo.com/38094084> nice video of aurora last week...

[http://spaceweather.com/images2012/10mar12/ipad/wave.m4v?](http://spaceweather.com/images2012/10mar12/ipad/wave.m4v?PHPSESSID=74ri2kuq2tv9lu2uoggkf87tn2)

[PHPSESSID=74ri2kuq2tv9lu2uoggkf87tn2](http://spaceweather.com/images2012/10mar12/ipad/wave.m4v?PHPSESSID=74ri2kuq2tv9lu2uoggkf87tn2) CME on March 9 video. The same eruption that hurled the CME toward Earth also produced a monstrous tsunami of plasma on the sun. NASA's Solar Dynamics Observatory recorded the shadowy but powerful wave rippling away from the blast site: The tsunami was about 100,000 km high and raced outward at 250 km/s with a total energy of about 2 million megatons of TNT. Such waves often underlie CMEs like the one en route to Earth now.

Each week, *Astronomy* magazine Senior Editor Michael E. Bakich, a master at explaining how to observe, posts a podcast about three objects or events you can see in the sky.

### **Targets for March 8-15, 2012**

The Golden Earring (NGC 2547)  
Planetary nebula NGC 2867  
Barred spiral galaxy NGC 3109

[Listen to podcast.](#)

### **Club Calendar:**

Star party for Longmont Christian School on Friday March 23<sup>rd</sup>, 7 pm at private residence. Contact Gary or Vern for directions.

April 19 – monthly meeting at IHOP. 7 for meeting, 6 for optional food and fellowship.

**Fiske Planetarium:** Admission costs \$3.50 for kids and seniors and \$6 for adults

Thursday, March 22 7:30 pm *CO Skies: Spring Skies*

Friday, March 23 7:30 pm *Mars Revealed*

### ***April 5 & 6 7:30 pm Exploring the Cosmos of the Moon with Dr. Jack Burns***

As we continue to study the Universe around us we have begun to observe the early Universe, some 13 billion years into the past. Just after the Big Bang that formed our

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Universe, there were no stars, no galaxies, and no black holes present. Just gas. Dr. Burns will discuss this epoch of the Universe known to astronomers as the “Dark Ages”, because there were no traditional sources of light like stars and galaxies. Dr. Burns will not only argue that studying this time frame of the Universe is fundamental to understanding the Universe we see today, but that it can only be done from the Moons.

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Thursday, April 12 7:30 pm *CO Skies: Life and Death of a Star*

**Internet Resources:**

It's the annual time for the Messier Marathon – check out some details at:

The Book - <http://www.willbell.com/HANDBOOK/mess.htm>

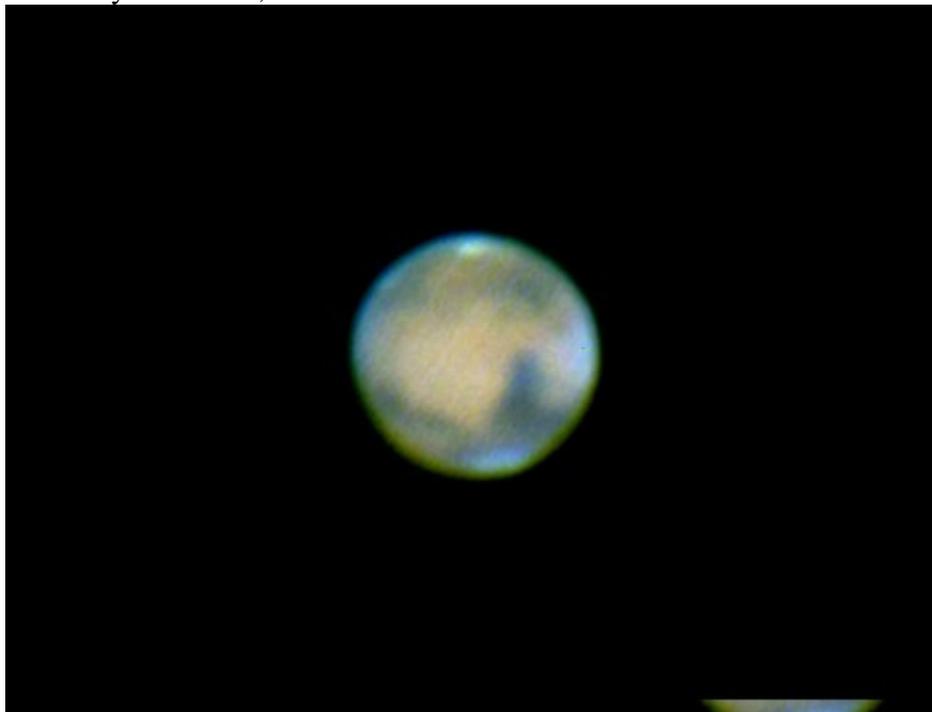
<http://www.richardbell.net/marathon.html> Stargazer Online guide

<http://ferren.aristotle.net/astronomy/messier-intro.asp> free guide

<http://10minuteastronomy.wordpress.com/messier-marathon-tools/> notebook

**Humor Dept:**

Some members have been looking at what they thought was Mars and sending pictures. The editor has gotten pretty good at detecting real pictures of Mars from pictures of melting blueberry ice cream, etc.



The real Mars from Gary Garzone



Mint Chocolate Ice Cream off the internet

# Ancient meteorite standing between one Iowa town and its water supply



By [Eric Pfeiffer](#) | [The Sideshow](#) –

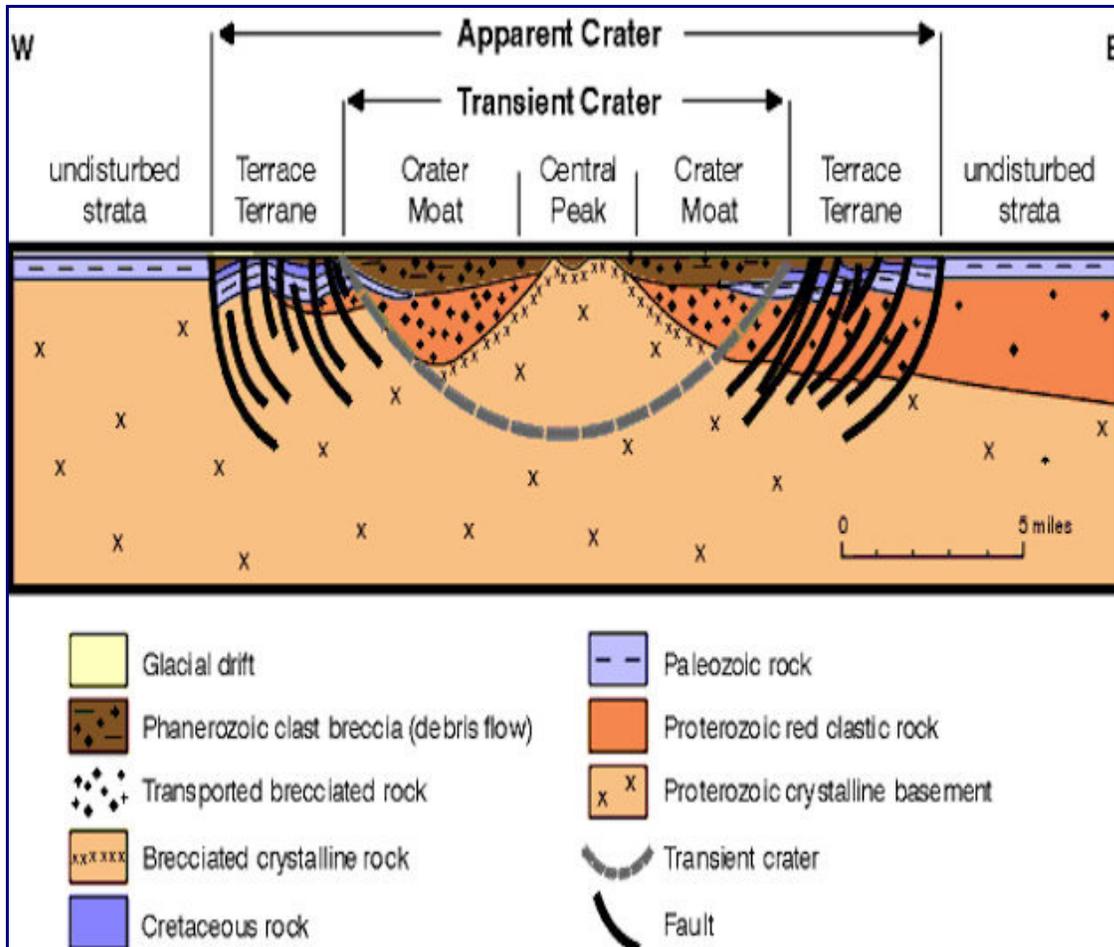


Image via the Iowa Geological and Water Survey

The remains of a 1.5 mile-wide, 10 billion-ton meteorite are causing problems for a small Iowa town, 74 million years after it crashed onto the Earth's surface at 45,000 miles per hour.

The [Des Moines Register](#) reports that the 1,600 residents of Manson, Iowa are struggling to locate a site for the town's well due to the geological impact of the meteorite. The crash created the underground [Manson Crater](#)—which has a diameter of 24 miles and reaches into four neighboring counties.

"It's hard to predict exactly what you are going to hit," state geologist Robert Libra told the Register. "It's a jumbled mess."

For a little context, the asteroid blamed for wiping out the dinosaurs and most life on Earth 65 million years ago is estimated to have been about 9 miles in diameter. According to a 2010 article in the journal [Science](#), that impact was the equivalent of 1,000,000 Hiroshima nuclear bombs, creating tsunamis and earthquakes measuring more than 10 on the Richter scale.

An explainer on the [Iowa Geological & Water Survey](#) site explains that while the Manson Crater meteorite wasn't enough to wipe out the dinosaurs (it hit Earth nearly 10 million years prior), it nonetheless had a comparable effect on prehistoric Iowa. The impact is said to equal 10 trillion tons of TNT, resulting in an electromagnetic blast that incinerated anything within 130 miles and wiped out all life within 650 miles of the blast.

In fact, the Manson Crater meteorite was [long-thought to have been the cause of the dinosaurs extinction](#), until scientists determined that it was too old. Still, it remains one of the largest outer space collision sites in North America.

And now, after years of struggling to find a sustainable water source, engineers at Iowa's Department of Natural Resources say they may have come up with a solution: Drilling for water near the crater's center. They speculate that the crater's center is home to Iowa's softest water source.

"Water that comes out of the central part is naturally soft," Anderson said. "It's the only naturally soft groundwater in the state of Iowa," Anderson said.