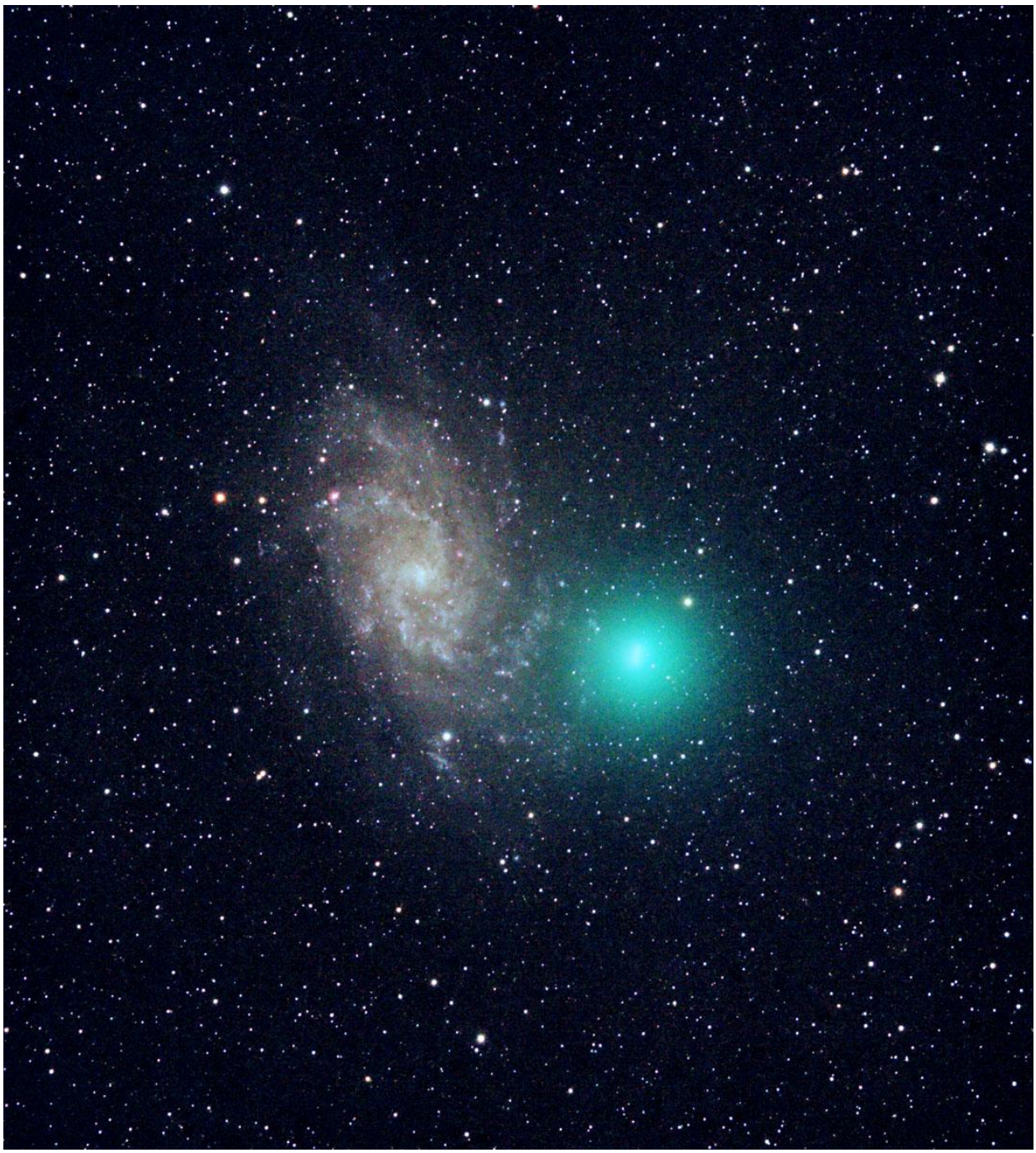

Comet Holmes and M33 (www.spaceweather.com)
Longmont Astronomy Society Newsletter
January 2008

From the President:

The Longmont Astronomical Society was formed 21 years ago in 1987. That year Ronald Reagan was president and challenged Soviet premier Mikhail Gorbachev to tear down the Berlin Wall. The DOW hit 2000 for the first time in history. The Denver Broncos were defeated by the New York Giants in Super Bowl XXI. A lot has happened since then, some things quite wonderful, and a few events extremely tragic. The focus of LAS back then was to promote local amateur astronomy; that continues to be our focus today and will remain so into the future.

This past year has been an extremely active one. LAS members provided their time and telescopic equipment for multiple school star parties such as Meade Junior High, Bear Creek Elementary, Overland Middle School, and Front Range Community College to mention just a few (I counted at least 11 and I probably missed some). Members have supported Astronomy Day at the Twin Peaks Mall, multiple public nights at the Little Thompson Observatory, and spent many hours supporting our parent organization, the Astronomical League. Congratulations to everyone for making this past year a great success!

We had some excellent observing nights this past year as well. We managed to get a clear night or two every dark sky weekend from January through November. We viewed and imaged some amazing comets, Mars, Jupiter, Saturn, and many galaxies and nebulae. Watching the Perseid meteor shower under the dark, transparent skies at Fox Park was a beautiful and memorable experience.

The start of a new year is a time not only to reflect on the past years successes but to think about priorities for the next. Which school star parties should we support and what planning should be done for them? Many would like to see portable restrooms available at the RAC dark sky observing site. What changes would you like to see to the LAS website? We need your input and involvement. Please contact myself, Gary, Birch, Leigh, Dick, or Steve with your ideas and suggestions.

The next public event is the eclipse of the moon on Feb 20. It starts after sunset and the middle of the eclipse eclipse occurs at 8:26 pm. Since it will be conveniently visible in the early evening, there will be lots of public interest. This is a great opportunity to educate the public and recruit new members. We'll try to have more infomation about when and where in a couple weeks. Mark the evening on your calendars, volunteers will be needed!

In the sky this month:

Meteor Showers

Planets

Try to spot Mercury low in the southwest between 5:30-6:00pm -- it will be easier to see later this month.

Venus is still bright before dawn, looking southeast. Look east for Saturn, not far from Venus.

On December 18, 2007, Mars passed within 55 million miles (88 million kilometers) of Earth; close but not as close as in 2003. Still, as 2008 opens, the red planet remains nearby and is visible as a bright, reddish beacon shining at magnitude –1.5 near the Taurus/Gemini border. During January, large backyard telescopes will still reveal a satisfying amount of detail, but Mars is receding, so don't delay your observations. Will an asteroid hit Mars on Jan. 30? Now up to a 4% chance…. If you haven't been following the news, the odds of Mars being hit by 2007 WD5 on Jan 30 at 3:56 AM MST have improved to 1 in 25. Can you see it in a telescope?

Jupiter is just coming from behind the Sun now – look for it in the morning sky. Seeing will improve for the next 6 months, so be patient. I wonder if Gary will take a picture of the thermometer again?
Comet 17P/Holmes is still visible with binoculars in the northeast. Comet 8P Tuttle will be visible through binoculars only until mid-January.

Interesting Stars/Galaxies
Solar Cycle 24 may be starting -- it is expected to peak by 2011

There are two eclipses in February: an annular eclipse of the Sun on the 7th and a total eclipse of the Moon on the night of February 20–21. The lunar eclipse is a fabulous sight for Europeans and North Americans. See our 2008 eclipse article for details. The action starts at 6:43 MST, so you can have a nice dinner first. Totality at 8:01. While you're at it, check out Saturn, only 4 degrees to the lower left. By the end of the eclipse, Saturn has gotten about a degree closer, and that's pretty cool!

Saturn is at opposition on Feb 23-24, so this is the brightest it's going to get. Pick a nice warm night and go for it.

In early March the crescent Moon passes Jupiter on the 2nd and 3rd, and parks itself next to Venus and Mercury on the 5th. During the afternoon of the 5th, the thin lunar crescent occults (hides) Venus for viewers in central Canada and most of the United States. It's a daytime event, so you'll need a telescope to see it. But be very careful not to point your telescope at the Sun nearby, or you may be blinded for life.

Club Calendar:
NO MEETING this month – the annual banquet will take its place
Saturday, January 19th, 2008
Izaak Walton park Clubhouse, 18 South Sunset St., Longmont
Doors open at 4:30
Dinner at 5:30
This year the presentation will be "A Solar System Tour through the Eyes of LASP". Bill Possel, the Director for Mission Operations and Data Systems at LASP, will present an

overview of the past, current, and future space missions being done in our own "backyard." The Laboratory for Atmospheric and Space Physics, at the University of Colorado, was born in 1948 as the Upper Atmosphere Lab (UAL) to initiate the era of space exploration. Researchers and engineers from the UAL flew experiments into space on over 50 rocket flights before Sputnik. By 1965, the UAL had grown substantially and evolved into the Laboratory for Atmospheric and Space Physics or LASP. LASP is now exploring mysteries surrounding our own Earth's atmosphere, the sun, and even sending instruments to every planet in the solar system.
Bonus talk: Dr. Bob Stencel from DU, will do talk at Banquet on New ideas in stellar evolution theory.

February Meeting: Thursday the 21st at FRCC community room
February 20: Total eclipse of the Moon early in the evening. The club is planning some public outreach activities for that time.
Check out www.sidewalkastronomomers.us and www.telescopepictures.com for some information on conducting public outreach programs.

Club Notices:
Member needed to oversee planning / supervise construction of an observatory at the Boy Scout camp near Fort Collins. Probably a "roll-off" type, sized to hold a couple of dozen Scouts at one time, isolated pier. Will operate with an older 16 inch Meade with digital setting circles that we donated to them. You get to use it! From Gary: I just e mailed Kirk Schneider, with the Boy Scouts, the web site and plans to 10 x 20 observatory with roll off roof ,also warm room for computer and future controls of CCD cameras. Here is the web site check it out,
I offered to do the electrical and over see some of the project. LAS would then help teach them to run it themselves. The volunteers could use the scope after the scouts go to sleep about midnight, so some chance for real observing in summer months. Rest of year we could use it they said but with cold and snow not much chance really being so cold up there.
http://www.allaboutastro.com/Articlepages/observatoryonearticle.html

We request that all members to scout out a local site for club viewing - darker the better, obviously. Should have toilet facilities on site. Longmont City parks and Boulder County Open Spaces, probably. Our programs at Flanders Park were getting unacceptable. The upper parking lot at Sandstone Ranch (off 119 a couple miles east of town) is looking good for the eclipse. Take the east entrance next to the car dealership. This will be unsuitable for use in the summer – the ball field lights will be on. For summer, we're looking at Jim Hamm Park, off County Line Rd just north of 17th.

We are pricing / obtaining a PortaPottie for the RAC site to improve the facility. Should be all set for the start of the summer dark sky season.

We are planning a family bbq / picnic in late August, tentatively. Food first, then we can show the spouses and kiddies what's up when the sky darkens.

Start planning for activities and time for Astronomy Day in April. Solar viewing and a booth in Twin Peaks, plus????

Classified ad: Marc Wiley and Julie are looking to sell a Meade LX200 8inch. Contact "Marc Wiley" svmarc.wiley@yahoo.com for information.

Other Clubs:
The Nebraska Star Party is on July 27-Aug 1 at Valentine, NB. Register at www.nebraskastarparty.org
Okie-Tex Star Party is Sep 25-Oct 5 at Kenton OK. Register for that one at www.okie-tex.com

Podcasts:
Fill up that IPOD with some audio to while away the viewing hours. Astronomy magazine this month includes a tour of Canis Major, an overview of the Messenger mission, and a talk about the opposition of Mars.
Sky and Telescope has switched to a "tour the skies of January" kind of thing. Download the podcast at http://www.skyandtelescope.com/observing/5072551.html
Planetary Radio has a little more technical version, and they are featuring another take on Messenger, plus a discussion of ion engines at http://www.planetary.org/radio Check with your kids / grandkids for directions on getting these!

Fiske Planetarium:

Explore Mars from a new perspective as Fiske Planetarium unveils its newest public show -- Mars Revealed. Created by CU faculty and students, this show features the latest discoveries and analysis from Mars.

Show Times

- January 25, 2008, 7:30 pm
- March 21, 2008, 7:30 pm
- May 2, 2008, 7:30 pm

SUN WORKS ART EXHIBIT AT FISKE PLANETARIUM!

NASA, The SOHO Mission and Fiske Planetarium bring you art from children and adults from all over the world! Admission is free to the public. Exhibit can be viewed at the planetarium, January 4-February 5.

Feb 7 ►►Colorado
Skies: Celestial Mechanics
(Justin Searles)

8 ►►Searching for Distant Worlds

February 14 & 15:
Science of the Signs
Dr. Matthew Tearle & Dr. Adam Norris (JILA & CU Dept. Applied Mathematics) This Valentine's Day, bring someone adventurous with you to explore the origins of & the science behind the signs of the zodiac. Examine the similarities and differences between astrology and astronomy with Dr. Matt Tearle of JILA & Dr. Adam Norris of CU's Department of Applied Mathematics.

21 ►►Colorado Skies:
Mars Phoenix Mission (Matt Benjamin)
22 ►►Spirits from the Sky
February 28 & 29: **Seven Ways a Black Hole Can Kill You**
Dr. Philip Plait (www.badastronomy.com)
Join the Bad Astronomer himself in this light-hearted presentation as Dr. Phil Plait gives you a tour of all the nasty ways black holes can ruin your day, from swallowing you whole to frying you with exotic radiation.

Internet Resources:
In late December, Comet Tuttle came to visit: The best 'gif movie' of Tuttle passing near M33 is at http://spaceweather.com/comets/tuttle/31dec07/Xiang-Zhan1.gif
And the best picture on the internet is from Austria at
http://spaceweather.com/comets/tuttle/31dec07/michael-jAcger1.jpg

They had a contest (couldn't have been that great, I didn't get to vote) for the most popular pictures taken by Cassini. Take a look at the winners at http://ciclops.org/contest07.php?js=1 Couple of movies in there too, and the Iapetus flyover is a gem….
If you haven't use Google Earth for looking at your backyard (thought you had gotten rid of that car up on blocks?), it now has a 'sky' button, that turns it around and lets you zoom in on the Universe! http://earth.google.com/sky/index.html for the download. And if you're really a geek, you can get it to do a realtime earthquake monitoring.
Johannes Schedler is an outstanding amateur astrophotographer. Check out the pics at www.panther-observatory.com (Note to Vern: need a cool name. "Vern's Driveway" just lacks sex appeal) Check this out – this guy is really good!

This month's field trip:

The Michigan Space Center is located just south of Jackson, Michigan on the campus of Jackson Community College. Once the cat's meow in Space Centers, it was founded when James McDivitt returned from his mission on Gemini 4. (McDivitt is a graduate of then Jackson Junior College) Later, he commanded Apollo 9 as it tested the Lunar Module techniques. The Gemini 4 module is the prize exhibit at the MSC. The MSC fell on hard times from a lack of funding, and the last time I visited in 2004 it was dirty and pretty junky, hadn't been updated in years. All the materials have since been removed to the Kalamazoo Air Zoo, which is building a new 40,000 ft^2 exhibit area with

additional material from NASA. **http://www.airzoo.org** has all the details of the new exhibits, which I haven't seen(yet). They have a 4-D theater which takes you along on a WWII bombing mission, for instance. Admission is just under $20 for adults.

Upcoming Space Missions:

Details of the Hubble servicing mission are discussed at: http://www.space.com/missionlaunches/080108-aas-hubble-service.html Scheduled for August, but that's never going to happen on time. Trying to fit 5 missions in this year, and that's not going to happen either!

And think good thoughts for the MESSENGER spacecraft -- 1st fly-by occurs on January 14, then the downloads begin. NASA predicts the data will be ready for viewing on January 30 or thereabouts. Look for the pictures of the little green men and their colony on the dark side of Mercury to be erased or replaced with an aerial picture of Gary's house.

This month's Wacky Idea:

http://www.rolly.tv/ is the website for the Sony Rolly – a wacky sound activated do nothing device that is the hit of the Consumer Electronics Show in Vegas. No prices available yet, they're still in the "drum up some interest among your kids" stage. As an owner of a green Zuzzle, which does about the same thing, I'm bummed out – now I have to buy one of these….

Humor Dept:
With apologies (?) to Jeff Foxworthy -

You Know You Are A Redneck Astronomer If...

Culled from newsgroups...Original Source Unknown

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(1) The most important part of your instrumentation is the pickup truck.

(2) You have a Tasco refractor up on blocks in the front yard.

(3) Your observing site would be perfect if it weren't for the alligators.

(4) You carry a shotgun to deal with skunks, raccoons, and streetlights.

(5) The board with holes on the side of the DOB mount fit beer cans (the eyepieces already have a little box they came in -duh!).

(6) A cup holder by the eyepiece has a partial beer to balance different eyepieces. (Amazing how many need replacing as they get too light.)

(7) You will fight that SOB trying to find WWV when it was already on a perfectly good country station.

(8) You tell all the guys at the star party about that neat dang drinking fountain next to the toilet in them big fancy hotels.

(9) The counterweight on your Dob doubles as a spit can.

(10) You've used lard to slick those declination bearings.

(11) Others at the star party complain about the smoke when you barbecue spam.

(12) You start to giggle when you tell your buddies that you have a 16-incher.

(13) You ever wonder what your granny's truss has to do with building a telescope.

(14) You've ever tried to use your granny's truss to build a telescope.

(15) You nostalgically refer to Canis Major as Old Duke.

(16) You look at pictures of the Flame Nebula (or the Rosette) to get in the mood.

(17) You lie and tell your buddies the next morning that your red eyes are from drinking and partying rather than stargazing.

Kudos to the Club:
Member Brian Kimball submitted the Lunar Photo of the Day back in December!

The Moon is usually the largest object in the universe that you can easily observe. By large I mean in apparent diameter. But Comet Holmes, still gracing evening skies, was bigger when it and the Moon were photographed with the same scope late last month. These two superposed images give an otherworldly look to our familiar Moon. With the Moon's opacity set at less than 100% the background stars shine through like bright impact craters. And we can fantasize that this could be the Moon soon after a large comet impact emplanted a large temporary atmosphere that is already being lost to space. But we know that the atmosphere in the shadowed craters at the poles condenses out, with snow falling into the ever-dark crater floors. Some condenses onto the remains of Gene Shoemaker and the Lunar Prospector that carried his ashes into the crater now known by his name. Shoemaker is the first man in the Moon. Chuck Wood

Technical Details:
Takahashi Epsilon E180 astrograph and SBIG ST2000XM ccd camera. The moon image was taken on Nov. 24th and the comet was taken on Nov. 26th, 2007.

Report on the LAS star party for Mead Middle School.

On December 18, Mead Middle School 7th graders were treated to a star party by LAS. It was a cold night, about 20 degrees, but close to 40 students showed up for the party. There was about 8 inches of snow on the ground, but the school had cleared out a nice area for the astronomers out of the school light domes on the running track west of the school. That allowed the seeing to be much better for everyone. This was the third year in a row that Mead has sponsored a star party for a class with LAS supporting it.

It was a marginal “seeing” night with high clouds coming in and out all evening, but the enthusiasm made up for any shortcomings of the night. With the moon more than half full lighting up the clouds, it was not a night for serious observation, but to show off the fun of astronomy and the many great objects to view to the crowd.

Ken O’Toole, Marc Wiley, Dick Mallot, Larry Bloom, Jim Gaudio and John Warren all showed up ready to show off Mars, the comet, the moon, and much more. Deep sky objects like M42 in Orion and the three clusters in Auriga-- M36, 37, 38 -- were bright and beautiful. We showed of the Pleiades with 20X80s, split Castor and Albireo and much more.

Mead Middle school teachers provided cookies, cider and hot chocolate to the students and astronomers. LAS once again showed its willingness to come out in any weather to give a great show to our local youth. Thanks to all those who participated.

Dick Mallot