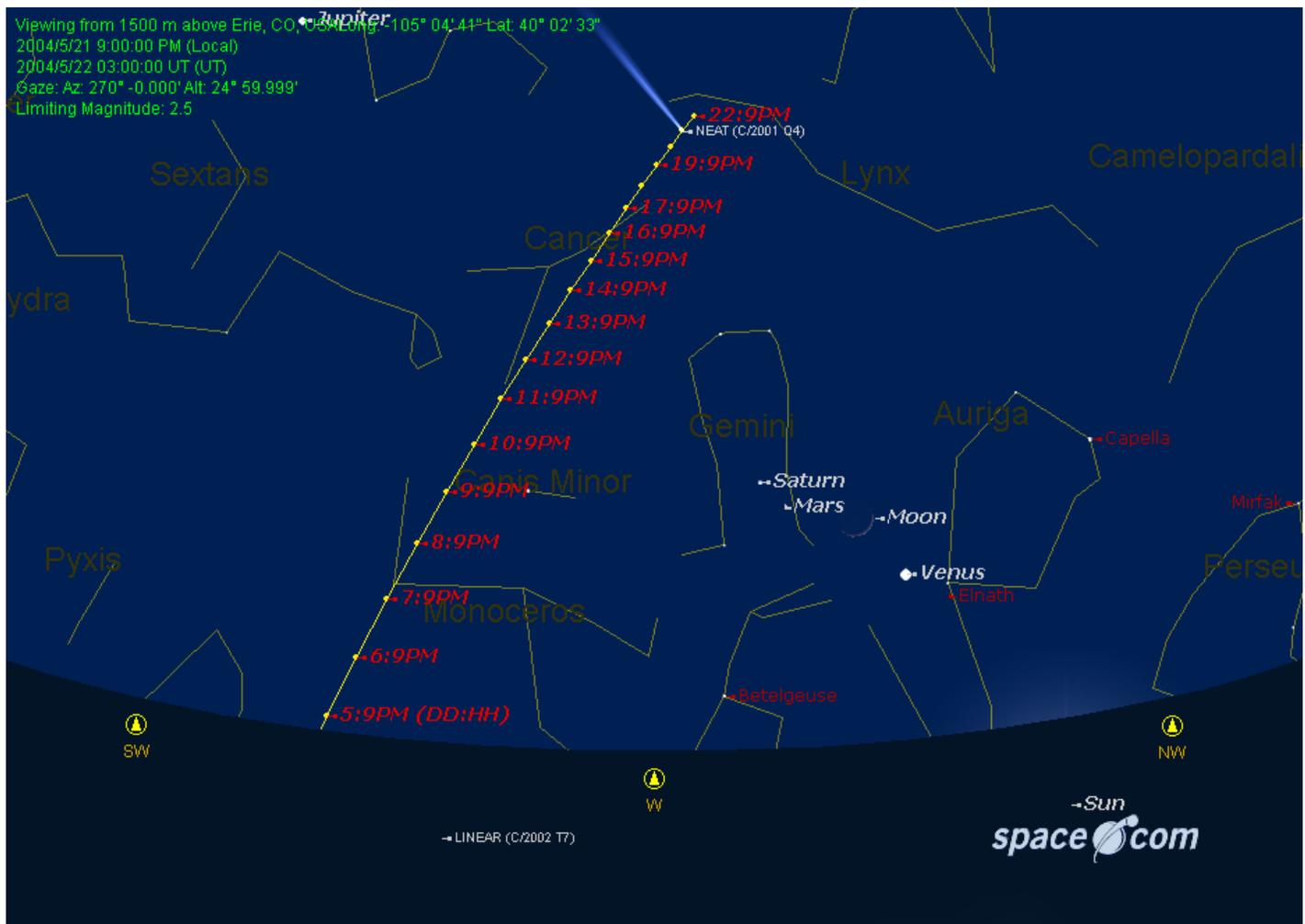


# Longmont Astronomical Society

## May 2004



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## The View From Up Here

Dear members and friends,

I'd like to express my appreciation to all of you who helped support our successful Astronomy Day celebration this month. Thank you for your hard work and taking time out of your busy spring schedules; we had another nice-looking display and a wonderful star party!

Members running the booth at the mall had the wonderful opportunity to select the winners of the Kindergarten children's space drawings – what an amazing selection we had on display! As you all know, this is also our largest public outreach event of the year, and we continue to hear from interested people saying they didn't know we had an astronomy club in Longmont, as well as those who have found us on the web, or who knew people that were members. We also sold quite a few raffle tickets thanks in large part to the suave salesmanship of Ray Warren!

The public Star Party at Flanders Park was a hit also – I would estimate 30 – 35 non-members attended. It was a great Flanders night with good seeing and clear skies. Comet NEAT was the main attraction, and it was a perfect night for looking at a wide range of objects to show the public.

Thanks again to all involved for a job well done!

Clear skies,

Bob Spohn  
President



**Astronomy Day at Twin Peaks Mall**

## Calendar

May	Astronomy Day New Moon Party Meeting 1st Quarter Party	8th Twin Peaks Mall Longmont 15th – New Moon Party at Pawnee 20th 22nd – Public Observing at Flanders Park at dusk
June	Meeting New Moon Party 1st Quarter Party	17th 12th – Rocky Mountain Star Stare 26th – Public Observing at Flanders Park at dusk
July	Meeting New Moon Party 1st Quarter Party	15th 17th – (Grand Junction Star Party), Fox Park 24th – Public Observing at Flanders Park at dusk
August	Meeting New Moon Party 1st Quarter Party	19th 14th – Weekend Under the Stars 21st – Public Observing at Flanders Park at dusk
September	Meeting New Moon Party 1st Quarter Party	16th 11th – Caribou? 18th – Public Observing at Flanders Park at dusk
October	Meeting New Moon Party 1st Quarter Party	21st 9th – New Moon Party at Pawnee 16th – Public Observing at Flanders Park at dusk
November	Meeting New Moon Party 1st Quarter Party	18th 13th – New Moon Party at Pawnee 20th – Public Observing at Flanders Park at dusk
December	Meeting New Moon Party 1st Quarter Party	16th 11th – New Moon Party at Pawnee 18th – Public Observing at Flanders Park at dusk
Jan 2005	Banquet	15th – Wayside Inn

## April meeting notes

President Bob Spohn called meeting to order.

Secretary Mark Propp recorded minutes.

1. Visitors were introduced:

Elissa Noble, student from Mike Hotka's class

Steve Grove

2. Officers reports:

Vice-President report from Melinda: Astronomy day moved to May 8th due to mall mix up. Melinda re-circulated the sign up sheet. We obtained the same spot as last year by Victoria's Secret. We are also doing the Flanders public star viewing, for astronomy day, in addition to the regularly scheduled one.

Secretary report from Mark: He is working on updated member roster. We experienced several days of web site and email list downtime, due to networking changes on Mark's part, all better now.

No treasurer report.

Newsletter editor report from Philippe: Philippe presented award to Mike Hotka for offering over 10 submissions to the newsletter this year, including his great contribution to the most recent newsletter. This is "your newsletter", we welcome submissions.

Fundraising report: Bob Spohn spoke for Mike Hotka, discussed raffle details.

Astronomical League Correspondent report from Bob Possell: Bob spoke about new observing program "Universe sampler". Bob also talked about open house at Chamberlain observatory May 31st at 7pm. Look for email announcement. Check out the observing programs on the AL web site. One of our members is completing sun spot certificate. Bob would like to encourage a lot of certificates this year.

No webmaster report.

No equipment report.

3. Old business

Regarding new LAS meeting sites, we have run into a couple of stumbling blocks with Front Range Community College (FRCC). The "Student Life" directory now informs us we cannot meet at FRCC every time, because of an internal policy; we have to meet elsewhere one month after every three meetings at FRCC. Also the science club that was going to subsidize our club meetings is not available yet? We are still working these issues, more info to come later.

4. New business

Sterling star party this weekend! See web site for details.

Lyons elementary star party is also this Friday. We have several volunteers for that.

Club 10" scope is available.

Volunteer for May "Constellation of the Month" is Mark Propp.

Terry is giving away a 6" reflector. It has a crude mount, and no spotting scope, but a good mirror.

Michelle wants to plan another "tri-town" star party.

5. Break

Ray Warren, our JPL "Solar System Ambassador," gave a very interesting talk about Messenger Mission to Mercury. For more information visit the following web site <http://messenger.jhuapl.edu>. July 30th is the scheduled launch date

## Agenda:

- Mercury
- Mariner 10
- How to get there
- Mission objectives
- Spacecraft and instruments
- Conclusion

Mercury: Hg, associated with fish poisoning, mercury astronauts "original 7", etc. We didn't know much about the planet Mercury until 1960's.

Mariner 10 lander 1973. 3 flybys in 1974 and 1975. Obtained first picture of earth and moon, together. Pictures from 1975 now being reprocessed with digital techniques, looks better and more information. Flybys reveal grooves and cracks in surface, theory is because it is so close to sun?

How to get there? Either straight shot, requiring big booster (Titan 3c), or use gravity assist with much smaller Atlas/Centaur launch vehicle. Ray described how gravity assist from Venus works. Orbital dynamics surveyed, described moving from higher orbit, to lower orbit, going to inner planet, and going to outer planet, launch trajectory. 6 month voyage direct with Saturn V launcher, going indirect will take until 2009 to reach orbit. Messenger will make 12.7 orbits of sun during journey to Mercury.

Ray then described a bit of our knowledge of Mercury, and how it formed.

The Messenger spacecraft and onboard instruments were described. To deal with the different spectra to observe, the spacecraft has many instruments. Many design challenges, including Spacecraft had to be shielded against extreme heat and solar rays and long distance communication using phased array antenna. Many thanks to Ray for the interesting presentation on Messenger and Mercury!

## **My first star party at North Sterling by Philippe Bridenne**

My wife, Rolande and I left home Friday in the early afternoon. It is a nice drive to Sterling and we arrived at the State Park around 5:00PM. Because of the wind, we had a hard time to setup our tent. I setup my Celestron NextStar 11 GPS. Bill Travis came and helped level the tripod with his water level. (I have added this item to my check-list). Garry Garzone came later and few of us helped him setup his 30". Great design Garry!

After dinner, we aligned the telescope and started to go through my list of objects to observe for that night. Using the Celestron go-to function, I was able to see about 45 Messier objects. Bill Travis and others came to see through my telescope. My wife assisted me going through the list of Messier objects and she became quite familiar with the Celestron keyboard. Few local students participated to this event and hovered from scope to scope. Later in the night, Bill came with his 2" eyepiece and we connected the diagonal and the eyepiece to my scope looking at M31. What a spectacular view! You got be hooked Bill!

Around midnight the wind increased and the skies became hazy. It was time to fold for the night.

Back in the tent it was hard to sleep because of the wind shaking the tent.

Next morning after breakfast we went fishing in the lake. A really great sunny day! We did not catch anything, but we had a great time. Since we had to catch a flight to San Jose Sunday morning, we packed in the afternoon (again a hard time to fold the tent with the high winds! Thanks Garry for helping!)

## **Pawnee report by Gary Garzone**

Comet Neat and M44 were very good, I wish I had something to get a picture, I think Tom T tried and Brian Kimball also got some good shots in. Started out very cloudy and rained even a little, but "sucker holes" kept me going and about 1:00 am it cleared pretty nice for views until 3:00 am when I started to fade fast. We got tea pot views of all the summer stuff by early morning. Small group of optimistic dark sky marines showed up and it did turn out to be worth the trip. It was not one of our better viewing nights, but any view is good.



**Comet NEAT by Brian Kimball**

### **Astronomy presentation to the 3<sup>rd</sup> grade kids at Fall River Elementary School by Philippe Bridenne**

One of my colleagues at work, Jeff, has a kid, Ryan, in 3<sup>rd</sup> grade at Fall River Elementary school in Longmont.

Amy Herrman, their teacher, had scheduled a solar system unit for the month of April.

After few emails between Amy and Jeff, we scheduled a 60mn solar system demo with Starry Night for Monday 4/26.

I brought my laptop, a projector, copies of the LAS and Astronomy Day flyers, LAS business cards and my Mead DS144 telescope.

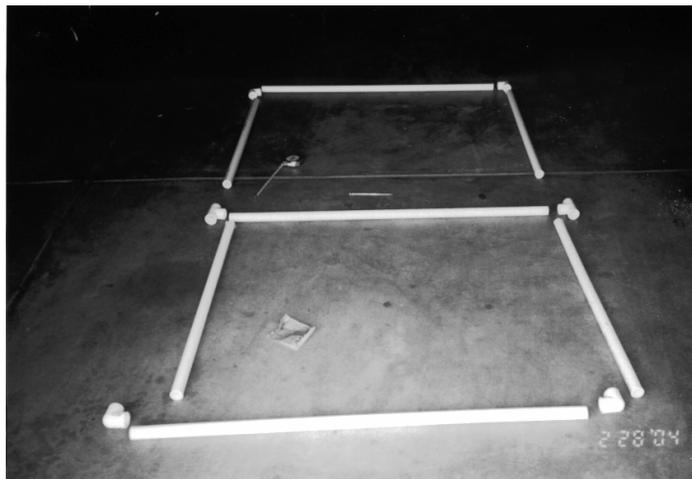
I did a solar system demo with Starry Night, explained the major types of telescopes and explained the scale used to rank celestial object brightness.

The interaction with the kids was great! I made the audience participate by having them guessing answers to my questions. Jeff assisted me in “translating” some of the words I was using such as “approximation”, “trajectory” etc.. The kids (and Amy) also asked many questions. At the end, I received a great ovation and few kids choose to stay to ask me questions rather than going on recess! I really had a great time!

### **Building Portable Observatory Panels by Bill Travis**

Even under suburban skies I want to use my backyard for deep sky observing so avoiding stray light is important, and I do suffer neighbor lights. So I built a set of light-blocking portable observatory panels. Arranged in a semi-circle around my observing spot, they create a nice dark area, room for scope, chair, table, etc. and some protection from cold breezes in winter. I made seven, using one inch pvc pipe as a frame with dark cloth attached. I'm not very handy, but the commercial alternative would cost over \$600 for what I made with about \$140 of material.

Here's the recipe: The pipe comes in 120 in. lengths, so I made the panels 74 in. tall (to block light even from a standing position) by 46 in. wide. Cut the pipe at 74 in. (one up-right), and the left-over is one cross-member. You're always one cross-bar short (because you need three per panel) as you cut the pipes. Cut the up-rights in half for a t-connector to add a mid-height, stiffening cross-member. The pipe cuts easily with pretty much any saw that happened to be at hand in the messy garage. Each panel needs four elbow and two “t” connectors. I bought the glue for these but ended up not using it, the pieces fit snugly and I thought I might want to disassemble some panels.



The big challenge is the light-blocking material and attaching it. I went cheap, and used a woven black weed barrier (comes in a big roll, so each panel is just pennies worth of material). I doubled it up on the top (this cuts a nearby street light nicely), used one thickness across the bottom (not as critical because well below eye level), cut it roughly to overlap the frame, and screwed in to the pvc using a small, drilled guide hole, and one inch screws with a wide washer to grab the fabric. As many screws as you like, but I just used corners, intersections, and each cross-bar middle. So, no hemming or sewing! I let the top panel flop over the bottom and all sides hide the white pvc pipe. I first used cheap (97 cent) two inch clamps to hinge the panels together (two per hinge; 12 total for my seven panels), but they didn't work well, so went with better (\$4-5) clamps that have a 2-inch interior space when closed and a lock-release trigger. The panels swing quite nicely on this "hinge." Set up is just a few minutes from the garage, two at a time (can't imagine traveling with them, but they could be broken in half, and depends on vehicle; anyway, light is usually not a problem at star parties). The set-up handles wind up to 10 mph if configured to shed the breeze, but this is a lot of sail area and would need guy lines in any more wind.

### **Meadow Sweet Farm first community Star Party by Philippe Bridenne**

Few weeks ago I discussed with our Home Owner Association (HOA) the possibility to hold a Star Party with the Meadow Sweet Farm community in Erie.

The event was scheduled, posted on the HOA web site, and then few days before the event, we printed flyers that few residents placed under each door mat.

When I searched for a nice spot to setup my scopes, I found the site at the end of a court where the two light poles were out. Great!

On Friday 5/13, I started to setup my Celestron and Meade telescopes. The sky was quite cloudy and I was very nervous about the visibility we would get. Then a resident told me that few days ago Excel Energy came late at night to fix the two light poles.

I tried to find a solution but without the proper tools it was too much risk!

So our observation site was entirely flooded with the light of these two light poles!

Around 8:00 PM, I had already had view visitors showing up. Venus started to show up as well.

At 9:00 PM, we had about 20 people and my wife, Rolande, and I were quite busy showing Venus, Saturn and Jupiter to may kids climbing on our step ladder. I was able to align the Celestron 15 minutes later, and that really helped since the residents could line-up and see a planet with the scope always tracking on the planet. Rolande then helped on the Meade showing Venus, Jupiter and Saturn.

We had many exclamations for the residents. We heard "Way cool!" from few kids.

Later that night, Garry Garzone showed up and with the few residents left and we searched the sky for comet NEAT. After moving my Meade to a darker spot (not really darker with this light pole), we were able to find NEAT and again we had few Ah and Oh!

Since most of the residents had left the site around 10:30 PM, we packed and came back home!

The next day few residents told me that they had a great time! Most of them had seen pictures of our planets, but they all said they were impressed to see the 'real thing' through a telescope!

### **Astronomy Day by Gary Garzone**

Thanks to those who showed up and helped with LAS display at Mall, it is always appreciated by the few who always seem to show up and do all the work. We had 8 inch scope with solar filter outside for viewing and Mike Hotka brought the JPL display, Bob Spohn brought the Saturn doors and Melinda posted two classes of art work from kinder garden kids. Michelle brought big Meade 12 inch scope for nice display for public. We had lots of people looking and asking questions. Pretty good astronomy day again! LAS is the best!

### **Announcements**



#### Events, Lectures, and Programs

Wednesday, May 26

Mars Exploration Update

Dr. Steven Lee, curator of planetary science

12:15 p.m., Ricketson Auditorium, Denver Museum of Nature & Science

Admission is free.

Dr. Lee will give an update on recent results from the Mars Exploration Rovers, Mars Global Surveyor, Mars Odyssey, and Mars Express missions. Dr. Lee also will give a progress report on the Mars Color Imager and Context Imager, two camera systems that will be launched to Mars in 2005 aboard the Mars Reconnaissance Orbiter. Dr. Lee is a member of the science team building the cameras. Call 303-370-6073 for more information.

#### Upcoming Events

Wednesday, June 2

The Best Images of 2003/2004

Robert Nemiroff, author

7:00 p.m., Phipps IMAX Theater

\$10 member; \$13 nonmember; \$8 student

Robert Nemiroff is co-founder of the hugely popular astronomy Website called Astronomy Picture of the Day which currently receives more than 2 million hits per week. Nemiroff and co-founder Jerry Bonnell have recently published The Universe: 365 Days, a collection of 365 of the most stunning images featured on their site over the past eight years. Mr. Nemiroff's talk will include a presentation of selected images and the story behind each picture, followed by questions from the audience. The book will be available for sale and signing following the lecture. Call 303-322-7009 for reservations 9am-5pm M-F.

Friday, June 25

60 Minutes in Space: Beyond the Headlines

Curator from the Department of Space Sciences

7:00 P.M., VIP Room, Denver Museum of Nature & Science

Admission is Free

Dr. Steven Lee, and/or Dr. Dimitri Klebe will take you behind the headlines and give you details on breaking news in space science. Find out what's happening in the cosmos with up-to-the-minute reports of breakthroughs and events in astronomy and space exploration. Call 303-370-6073 for more information.

Wednesday, June 30

Saturn Live!

7:30 p.m., doors open at 6:30 p.m., Phipps IMAX Theater

\$5 member; \$6 nonmember

Seven long years after launch from Earth, the Cassini/Huygens mission will finally reach its destination: Saturn! Over the course of this evening, Cassini will fire its onboard rockets to slow down and be captured into orbit by this "ringed giant." Background information and commentary from Museum curators and a live NASA-TV feed from Mission Control will give you a ringside seat as the action unfolds. In addition to the live coverage, Space Odyssey will be open for your family's enjoyment and refreshments will be served. Join us at the Museum for this historic evening! See <http://saturn.jpl.nasa.gov/operations/saturn-arrival.cfm> for more information. Call 303-322-7009 for reservations 9am-5pm M-F.

### **Classified**

*To sell:*

I am trying to sell 10" Sears Craftsman table saw

Price: \$200 sends email to Brian [bnimball@msn.com](mailto:bnimball@msn.com) or calls him at 303-678-0525

I am trying to sell a Celestron Ultima 9.25. If the deal were local I would expect closer to \$1,600 or so and accept credit cards.

<http://www.astromart.com/viewad.asp?cid=233874>

Jared Workman

JMI NGF-DX1 focuser. Has 2 inch to 1 ½ inch adapter. \$150.00. Contact Mike Hotka.at [mhotka@yahoo.com](mailto:mhotka@yahoo.com)

*To buy:*

Wanted: Large dob, say 14-15 inches, in good working order, preferably with digital settings circles. Thanks!

Bill Travis, 303-530-5010, [wtravis@colorado.edu](mailto:wtravis@colorado.edu)

Do you have a radio that receives the WWV time signal, collecting dust in your basement? Do you wish to sell it? If so, contact me. I am looking for one. [mhotka@yahoo.com](mailto:mhotka@yahoo.com)

If you have stuff to buy or to sell, send an email to your newsletter editor [philippe\\_bridenne@yahoo.com](mailto:philippe_bridenne@yahoo.com)

