



Longmont Astronomical Society

December 2003

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The View From Up Here

Dear members and friends,

We find ourselves now at the end of a fantastic year for the LAS!
I hope all of you have enjoyed it as much as I have.

Please join me in thanking those responsible for making this year such a successful year:

Vice President Melinda Diehl: Your commitment and personality are appreciated by everyone – thanks for your help, Number One!

Secretary/Treasurer Monica Martens: Unarguably the most hard-working officer in the club. Your time-consuming efforts were the glue that held us together.

Newsletter Editor Philippe Bridenne: Not only did you put out a great newsletter every month, your endless generosity and efforts at every meeting have not gone unnoticed.

Astronomical League correspondent Jim Crane: Thanks to you, several more LAS members have received observing certificates. And your efforts have inspired many more to pursue their own.

Publicity/Fundraising Chairs Mike Hotka and Kirk Schneider: Mike thanks for your ongoing efforts on behalf of the LAS – they have been an asset over the years. Kirk, thanks for picking up the reigns, and firing up several new programs this year.

Equipment Chair Leigh Pierson: Your generosity in sharing your time, knowledge and home is legendary. The telescope project is incredible; your care and dedication shows in all you do. Thanks also to Don Bunker for his wonder craftsmanship on the scopes as well.

Webmaster Steve Albers: Many people have their first contact with the LAS through the website. The quality of our group is reflected in the website. Thanks for your timely and supportive efforts.

And to all of you who have donated time, money and efforts; have done meeting presentations, attended star parties, talked to school groups and provided suggestions and comments: a heartfelt thank you. Your input and effort is paying visible dividends in the improvement of the LAS.

And a final reminder about the banquet: Saturday, January 3rd at the Wayside Inn in Berthoud. As I'm sure you've heard by now, we are extremely pleased to announce famed astronomer and comet discoverer David Levy as our guest speaker! Please be sure to have your reservations and payment in by December 20th. This is something you certainly don't want to miss!

Thanks again for a great 2003, and may you enjoy the peace and happiness of the holiday season.

With Kindest Regards,

Bob Spohn
President

Calendar

December

LAS meeting 12/18 – Star Party Pawnee 12/20 - New moon 12/23

November meeting notes

Meeting called to order

Welcome and introduction of visitors

Officer reports:

VP – Melinda: Nothing to report – Granddaughter’s heart transplant was successful!

Sec/Treas – Monica: magazine subscriptions due tonight, and will collect dues and banquet money tonight

Editor – Philippe: Send in those articles!

ALCor – Jim: No report

Merchandise Chair – Kirk: not present. Let’s get a t-shirt order in next month

Equipment Chair – Leigh: aluminum cans brought in over \$150 for the telescope fund! Bring in those cans, and also accepting other aluminum

Webmaster – Steve added new links to solar/space weather and a new link to main page solar image.

Old Business:

Annual banquet Jan. 3rd at Wayside Inn in Berthoud. Added kid’s meal for \$5.00!

Star Parties: New moon – Pawnee 11/22

1st quarter - Flanders 11/29

New Business:

1st round of nominations for next year’s officers. Nominated so far:

President:	Bob Spohn
Vice President:	Melinda Diehl
Secretary:	Gary Garzone
	Mark Propp
Treasurer:	Ray Warren
	John Pederson
Newsletter Editor:	Philippe Bridenne
	Ray Warren
Astronomical League Correspondent (ALCor):	
	Leigh Pierson
	Brian Kimball
	Mike Hotka
Publicity/Fundraising:	Ray Warren
	Andrew Planck
	Don Cerow

Break

Mini-Presentation: Bob Noble’s amazing (analog) Technicolor slideshow of his family’s trip to The Big Island, including the spectacular Mauna Kea observatory and a not-quite-so-spectacular moon over Hawaii...

Main Speaker: Ray Warren presented information on the Stardust Mission to collect comet dust and return it to Earth! Ray also passed around samples of the collection medium – Aerogel. Amazing stuff and a great presentation!

Announcements

Banquet Update

David Levy will be speaking at our banquet on January 3rd 2004. David H. Levy is one of the most successful comet discoverers in history. He has discovered 21 comets, eight of them using his own backyard telescopes. With Eugene and Carolyn Shoemaker at the Palomar Observatory in California he discovered Shoemaker-Levy 9, the comet that collided with Jupiter in 1994. That episode produced the most spectacular explosions ever witnessed in the solar system. Levy is currently involved with the Jarnac Comet Survey, which is based at the Jarnac Observatory in Vail, Arizona, with his wife Wendee and with Carolyn Shoemaker.

Levy is the author or editor of 31 books and related products. He won an Emmy in 1998 as part of the writing team for the Discovery Channel documentary, "Three Minutes to Impact."

As the Science Editor for Parade Magazine, he is able to reach more than 78 million readers. A contributing editor for Sky and Telescope Magazine, he writes its monthly "Star Trails" column, and his "Nightfall" feature appears in each issue of the Canadian Magazine Skynews. David Levy has given some 850 lectures and major interviews, and has appeared on many television programs, such as the Today show (4 times), Good Morning America (twice), the National Geographic special "Asteroids: Deadly Impact", and ABC's World News Tonight, where he and the Shoemakers were named Persons of the Week for July 22, 1994. Also, Levy has done nationally broadcast testimonials for PBS (1995_ present), and for the Muscular Dystrophy Association Telethon (1998_1999). He hosts a weekly radio show, aired worldwide at www.letstalkstars.com. He has been awarded three honorary doctorates (Queen's Acadia, and McGill), and asteroid 3673 (Levy) was named in his honor.

If you have not yet registered to attend the banquet, you need to give us your reservation by December 20th. The meeting is the 18th. If you plan on attending, do not delay in sending in your reservation.

You can print a reservation form from the web site (see the web site address at the bottom of this Email). The form is on page 10 of the November newsletter. It is in PDF format. I recommend saving it to your hard drive and then opening it (right click on it to save it). Or you can mail this portion of this Email back to me with your choices circled. They are listed below:

5 pm - social hour
6 pm dinner
\$20.00 person

Entrees:

Chicken kiev
Broiled salmon filet
12 oz rib eye steak
10 oz prime rib of beef
vegetarian lasagne

Includes salad, hot vegetable, drink and dessert. Cash bar available.

Also includes rice or potato- please specify which you would like.

You may bring a guest and children. Not on the order form, but an option, is a kid's entrée - 2-chicken leg dinner for \$5.00. Young people in our club don't have to order the kid's entrée, but it's an option for any young people attending.

The Mars Rovers Are Landing!

Emily Haynes announced that she and some of her students are part of the Mars Rover science team. They just got back from JPL for training, and will be involved running the rovers and doing real science! Watch for a presentation from Emily soon!

Two Mars Explorations Rovers (MER) launched this past summer will soon land on Mars and perform some of the most ambitious off-world explorations ever attempted by robotic spacecraft. The twin rovers, named Spirit and Opportunity, will land on the Red Planet on January 3rd and 24th respectively. Each will drive around on Mars for three months, taking thousands of pictures, drilling into and analyzing the composition of rocks, and looking for signs of ancient water. Spirit and Opportunity will act as “robot field geologists,” allowing scientists back on Earth to rove vicariously across landscapes more than 100 million miles from home.

The Denver Museum of Nature & Science will offer several opportunities in the coming months to take you and your families in-depth into these historic missions. Join us we delve into the fascinating Red Planet.

NASA, the National Science Foundation, and the Denver Museum of Nature & Science have teamed up to take you and your family “behind the scenes” to see and hear firsthand stories from the men and women who worked on the Mars Exploration Rovers (MERs).

Six scientists and engineers who built and will operate these amazing robots after landing will share the inside scoop on MER—how the spacecraft were designed and built, how they will be controlled, what results are anticipated, and personal stories of how they came to be involved in this ambitious exploration of the Red Planet.

For further information, check out the NASA Marsapalooza press releases:

<http://mars.jpl.nasa.gov/events/marsapalooza.html>

http://www.nasa.gov/audience/forstudents/9-12/features/F_Marsapalooza_M_Team.html

<http://mars.jpl.nasa.gov/mer/spotlight/marsapalooza04.html>

Spirit and Opportunity Landing Events at DMNS

"Where were you when we landed on Mars?" When you're asked this question 20 years from now, you might say the Denver Museum of Nature & Science because this is the place to be in January when the Mars Exploration Rovers (MER) land on Mars. A live feed from NASA-TV will let us experience the landings. Museum curators and other experts will provide background information and a narrative of the events as they transpire. Join the Museum community for this memorable event.

Saturday, January 3
8:30 p.m.
Ricketson Auditorium
\$5 per person

Saturday, January 24

9:00 p.m.
Ricketson Auditorium
\$5 per person

2004 Texas Star Party – May 16th 2004 - Sign up Now!

The great tradition of dark sky observing continues with the 26th Annual TEXAS STAR PARTY, May 16 - 23, 2004!

TSP WILL NOT BE MAILING A FLYER this year, so keep this e-mail or print it out!

1. You should submit a Registration/Reservation Request Form to ENTER THE TSP DRAWING before January 19, 2004. This will provide you the highest possible chance of being selected as one of the 700 people who will be able to attend TSP this year. <http://www.texasstarparty.org/draw.html> or fill out the Request Form immediately at: <http://www.alphadata.net/cgi-bin/forms/forms.cgi?form=3>

READ THE REST OF THIS E-MAIL BEFORE SUBMITTING YOUR REQUEST.

2. Participants at the TEXAS STAR PARTY can select from a variety of accommodations on the Prude Ranch, including bunkhouses, private cabins, trailer hookups, and campsites with convenient bathhouses. All accommodations include access to a TV lounge, a western-style dining room, and an indoor swimming pool. And of course the convenience of the observing fields!

For rates and more information on ranch and nearby accommodations, please visit:
<http://www.texasstarparty.org/travel.html>

3. The TSP Registration Fee (DOES NOT INCLUDE your accommodations) is \$50/person if you pre-register before April 15, 2004. (Each additional family member is just \$30 more.) For more information about TSP Registration rates and policies, visit: <http://www.texasstarparty.org/tspreg.html>

The drawing for names is in late January, and if your name is drawn you will get a TSP Registration Form (and optional Prude Ranch Reservation Form) to send in with your payments in February/March.

SIGN UP NOW!

Questions? Visit our website for the latest and complete details! <http://www.texasstarparty.org/>

We look forward to seeing you next May!

Sincerely,
The volunteers for Texas Star Party

Star Talks as Fiske Planetarium in Boulder

Thursday & Friday, January 15 & 16; Black Holes by Professor Andrew Hamilton

Thursday, January 22nd: History of the Space Shuttle; given by Fiske Staff Members; Rob Morris and Sanlyn Buxner

Thursday, January 29; History & Future of Mars by Professor Steven Lee

Friday, January 30; Memories of Columbia by Fiske Staff Members; Rob Morris and Sanlyn Buxner

Athena's Web presents: STARMYTHS FREE!!

Come celebrate The WINTER SOLSTICE

With a night of stargazing and stories!

View SATURN with its rings and many colorful stars and nebulas through large telescopes.

Hear tales of Orion, the Great Hunter and his love for one of the 7 sisters of the PLEIADES.

SUNDAY, DECEMBER 21, 2003 7 PM

Call 303-417-6625 or starmyths@hotmail.com or visit www.AthenasWeb.com

My thoughts about the star party by Michael Hotka

I just returned from the Okie-Tex Star Party, held September 21-28, 2003 this year. My thoughts about the star party on the way down to the panhandle of Oklahoma were different than my thoughts returning home.

Why does one attend star parties? If own a telescope, the answer might be different than if you do not. If you ask 10 people who own a telescope and 10 people who do not, I would guess that you might find an answer that both groups have in common.

On my way down to Oklahoma, I thought about dark skies and the objects that I wanted to see. Would it rain or be clear? Would it be windy? Who would be there that I knew?

On my way home, I thought about all the old friends I got to see, and the new friends I made.

Star Parties are much more than setting up a telescope and observing. It is being with fellow astronomy nuts, all gathered in one spot, sharing stories and ideas. This is true for even our Flanders star parties. The seeing is not that great from northwest Longmont, but just hanging out with people, who are interested in what you are interested in, is priceless.

The skies at Okie-Tex 2003 were soft all week. I arrived Monday afternoon, just ahead of clouds from some hurricane that came in from the Pacific. These clouds hung around until Wednesday evening, when huge sucker holes finally broke into a clear night. But even all night Wednesday and Thursday, I was having trouble seeing 12.5 magnitude anything. Even Friday night, the glow of the sky was such that it was like seeing the observing field under a 1st quarter moon. But from what I understand, this is normal for this part of Oklahoma, this time of year. So why do we all go down there anyway?

I recently heard one club member stated that the fee for the Okie-Tex Star Party was too much and that there were too many rules to abide by.

Yes, the fee of \$45 might be a bit much, but each year the improvements to the grounds of the star party are noticeable. Portable toilets were everywhere this year. And to accommodate the estimated 300 guests to the star party, a dining tent was added for a large "dining hall". Several thousand feet of electrical cord was provided, with outlets about every 50 feet. These cords were strung through both observing fields so anyone wishing power could have it. You can find all the Ciders "strung out" along these electrical lines.

The Oklahoma City and Tulsa astronomy clubs go out of their way to make this star party a good time. And the fee covers their costs.

As for the rules, with 300 people in one spot, you need some kind of guidelines. The rules are minimal, but need to be there so everyone can enjoy their visit. I did notice that there was music drifting across the

observing field this year, but it quit about 11:00 PM. Other than the occasional snoring from someone turning in early, the evenings were peaceful. Except for that beagle. That dog can bark. I believe it belongs to one of the cooks and it roams the bluffs, barking at anything and everything. He is having a good time like the rest of us.

In an effort to keep my costs down, I opted not to take advantage of the meals provided at the star party. A local group of people prepares breakfast, lunch and dinner for anyone who wishes to eat in the dining hall. I found myself drifting to the dining tent to chat with friends I had not seen for some time. Next year, I will sign up for dinner. I miss just sitting with people and hearing about their local astronomy club, about what they are doing at the star party and the general astronomy discussions that develop.

There is also a midnight grill going every evening. They call it the "Starlight Grill". You can go into the kitchen area and order hamburgers, hotdogs and nachos, along with an assortment of candy bars and cold drinks. This grill is open until 3:00 AM and is a nice place to gather and hear other people complain about the seeing. Then you know that it is not just your eyes that are having trouble seeing galaxies and other faint fuzzies.

There are afternoon and evening speakers, discussing a variety of topics. This year, there were topics on telescope making and CCD image taking and processing.

I found the talk about super nova hunting to be the best. There is a group of people, about 20, scattered throughout North America, who are hunting, as a team, for super novas. About half the team takes pictures of hundreds of galaxies each clear night, and the other half of the team "looks" at these CCD images for super nova signatures. To date, this team has discovered 74 super novas.

There was also an impromptu trip to local archeological sites. I have yet to take this trip for this year it coincided with a talk about CCD image taking that I wanted to also attend. I heard that the group saw a dinosaur fossil pit and ancient native peoples' writings.

The common answer that both groups of 10 people might say is "I attend star parties because of the people that will be there." Making new friendships and renewing old friendships are what star parties are all about.

Cheap thrills: Naked-eye Iridium satellite flashes by Harry Albert

When you can see something without a telescope, spectacularly bright, in a handy time of evening, and as often as once a week, it's worth trying. Tomorrow night, Friday December 19, is such an event.

The Iridium constellation of telephone-communication satellites makes frequent entertaining flashes. These can be seen quite close to wherever you live. The small effort of logging on to a website will allow you to see customized predictions of visibility of various satellites from your latitude and longitude. I'll tell how later on.

On the way to the last LAS meeting, I drove a little out of my way to get onto the "track" along which the flash from an Iridium satellite would be brightest, magnitude -8, about 40 times brighter than Venus (currently -4.0). The flash was on time, and quite interesting, growing rapidly in brightness then fading over a period of ten seconds or so. I had stopped in a little residential area a block from Hwy 287 and a few miles south of Longmont.

A few nights ago another prediction gave my home in Boulder as a good place to see a flash; no driving was needed to be right on the track where the reflection from a panel on the satellite would be brightest. It too was interesting to see, and once again Mars was a good marker for the vicinity of the sky to watch.

How close is "right on" to the best track? I would say a mile or so. Imagine a plot of magnitude versus position error (at right angles to the track).. it would likely have a gently curved, nearly flat top, so within a mile or two brightness would be well within a magnitude of maximum, but several miles off track you would lose more than one magnitude, dropping down on the sides of a nearly parabolic curve.

The predictions, typically for a week in advance, let you select evening or morning events, and those whose tracks are east of your site (handiest for me) or west (mountains). The satellites move along a north-south line, pretty much, so going straight east or west will get you on the track.

Tomorrow night, for example, Dec 19, at 18:19:27

MST, a flash will be magnitude -1 as seen from my Boulder house, but by driving east for 15 miles I could see it as -7 magnitude, altitude 29, and azimuth 173. It will be passing north to south, so I can watch for it north of where the flare will be. The azimuth would be 171 from my house and 173 from the optimum site I might drive to.

The flash prediction site is 8 degrees to the left of the zeta sculptoris cluster (open, magnitude 4.5), and about 29 degrees below Mars, a little to the left. I will start watching a few minutes early, and expect to see the dim satellite as it goes southward past Mars.

The website to begin with is called <http://www.heavens-above.com/>. It's developed and maintained by Chris Peat, Heavens-Above GmbH, the site is hosted by the German Space Operations Center. Once you are there, do the log-on drill, then bookmark the logging-on page so you can get there fast. If you, as I, are annoyed by cookies or pop-up ads, you will be glad to know that you do not have to have either feature turned on in your browser. There are many satellite observations predicted by this site, but I have only played with the spectacular Iridium ones so far. Happy Observing!

Classified

To sell:

Sell Compaq Presario with Windows 98, keyboard, mouse, monitor, speakers and a lot of software including Starry Night Pro.

CPU AMD-k6-2 350MHz with 128Mb memory and 7.468Gb disk

Include StarryNight Pro application

Price: \$300 sends email to philippe_bridenne@yahoo.com

10" Sears Craftsman table saw

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

Complete set (3 books) of 1st edition of Uranometria 2000.0 Observing Guides. Excellent condition. Contains Volume 1 and 2 and Deep Sky Guide. Sells as a set only. \$80.00 for set which is 50% of price for a new set of these guides. Contact Mike Hotka.

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

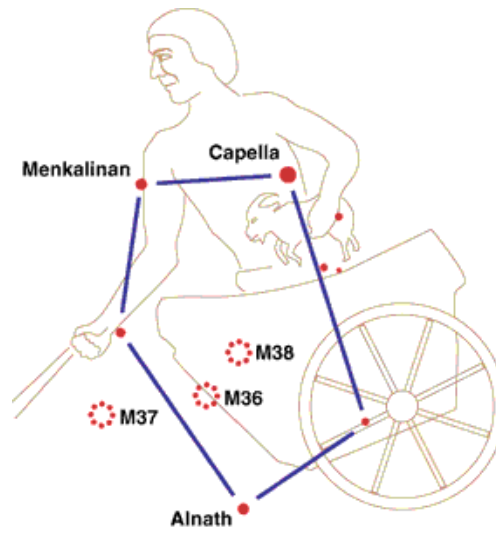
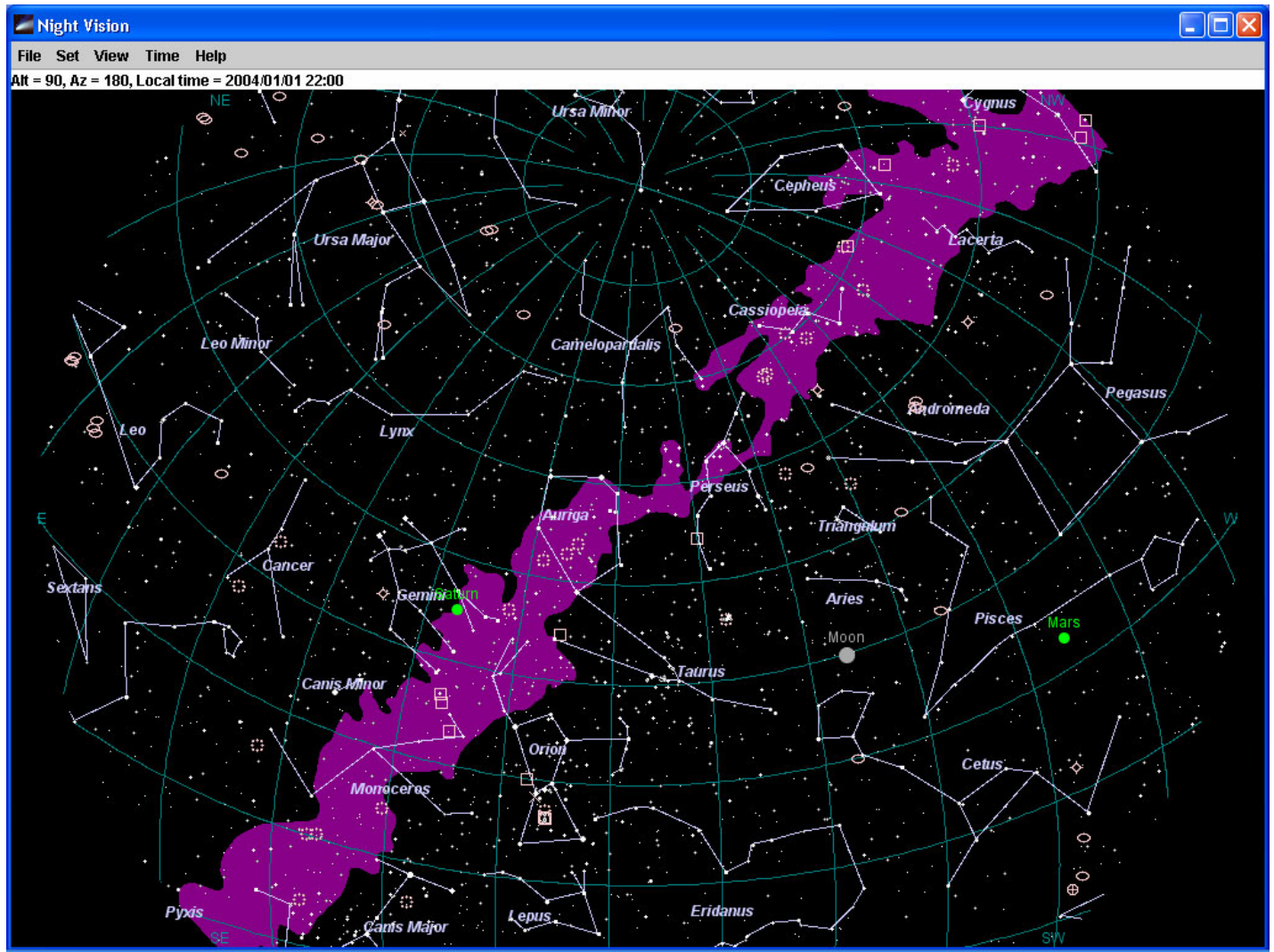
To buy:

I am looking to buy a 1 1/4" rack and pinion focuser. It is for a 10" Dobsonian scope.

Send email to Bob Spohn jviews@mindspring.com

If you have stuff to buy or to sell, send an email to your newsletter editor philippe_bridenne@yahoo.com

January Sky Map



Constellation of the month - Auriga

This lovely multi-sided figure is easy to find in the sky, largely because of bright Capella, the she-goat star, and her retinue of three little kids. Ancient legends portrait Auriga as a charioteer carrying a goat on his shoulder and two or three kids on his arm. The charioteer is also seen as Erechtheus, the son of Hephaestus (the Roman god Vulcan) who invited a chariot to move his crippled body about.

Capella has been seen as the she-goat star since Roman times. Almost 50 light-years away, Capella is similar to our Sun, only larger.

Epsilon Aurigae: An extraordinary variable system, this supergiant star fades when its companion passes in front of it once every 27 years. During an eclipse, its brightness drops by 2/3 of a magnitude. The deepest phase of the eclipse lasts a full year, which may indicate that the companion is surrounded by an enormous disk of gas and dust.

M36: This bright open star cluster is some 5 degrees southwest of Theta Aurigae, and contains about 60 stars of 8th magnitude and fainter.

M37: This is an exceptional open star cluster, almost the size of the Moon, and one of the finest in the northern sky. Binoculars will show this cluster as a misty spot. A small telescope will reveal its large number of stars.

M38: This small cluster of stars resembles the Greek letter π when seen in a small telescope.



17th Annual LAS Banquet

Saturday, January 3rd, 2004

Wayside Inn, 505 Mountain Ave., Berthoud

5:00 Social Hour
6:00 Dinner
\$20.00 Per Person

Entrees:

Chicken Kiev – Herbed butter rolled up in a chicken breast – owner’s favorite!
Broiled Salmon Fillet
12 oz. Rib-eye Steak
10 oz. Prime Rib of Beef
Vegetarian Lasagna

Includes salad, potato or rice, hot vegetable, drink & dessert. Cash bar available.

Bring your reservations and check to the meeting, or mail them in to:
L.A.S.; P.O. Box 806; Longmont, CO; 80502

*** Please have reservations in by December 20th ***
Bring a guest and have fun at our big social event of the year!

Include number of entrees, potato or rice pilaf and total cost

<u>Name</u>	<u>Entrée</u>	<u>Potato or Rice</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
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Total: _____