Longmont Astronomical Society
September 2005

The Home Planet Stellar Views

Hello astronomers,
The CU Mountain Research Station Labor day weekend was a big success again. Julie Carmen gets lots of credit for helping put this BASS and LAS weekend event together. We are getting LAS and BASS families and friends to star gaze in dark skies with this close in dark sky site like the MRS. We would never have gotten that many people to a Remote site like Fox Park or Pawnee. The lack of Facilities like bathrooms and showers makes a big difference. Brian S. Vern R. Andrew P, Mike L, Josh W, Julie Carmen, Mark W ,Allen Kiplinger and so many more to name a few . Dorms there are very nice with huge great room for meetings, nice kitchen area, and comfortable rooms with heat. It is pretty civilized I would say for us dark sky people. It's now a short hike to the Dome from dorms with new trail. One of the reasons we live in Colorado is places like this, a slice of heaven and we get to play there. It's good to see lots of Astronomers actually getting some great views in. The skies have cooperated this past month too.
I went to Fox Park instead over the Labor Day weekend with my wife and several astronomy friends. Max Moe and girlfriend Miranda, his parents Ray and Lorraine Moe, Dan Laszlo, Dan Lafaive, Bill, Ann and Kate Travis. We had one excellent night Friday, Saturday it clouded up and Sunday night was another excellent night, few clouds but plenty of sky so we marched on to other areas. Stayed up till 3 AM that's how good. We did planetary nebula and Neptune, Uranus, many fuzzy little galaxies, Andromeda M 31 is almost blinding for your night vision in 30 scope views. Veil nebula, is always a treat, Crescent nebula and others are so good from the darkness of Wyoming. Dan Laszlo kept us hunting for small faint objects, love the challenge to see if we can see it at all even, sometimes even with big scope.
Mars is back and we should be keeping an eye on it, Mars will get way better yet in Oct. We will be trying to get some pictures, but still pretty small yet in scopes. Solar observing during the day at Fox park was pretty good, no great events going on, not like this weekend with new solar CME and large sun spot grouping. One good thing about solar observing is you do not have to drive to dark skies. Wow!! I wish they could come up with a real light pollution filters for night views from the yard. They do make some but it is also blocking some of the light so I never really got used to using them here in yard, I just switched to larger aperture instead.
The Home Planet Stellar Views have been awesome for those who ventured out this month. Plenty of new events coming up like Erica Ellingson Lyons Elementary school astronomy night Oct 7th. I will make it there. Ray Warren field trip to Nelson road radio astronomy dish tour. I am going and hope to get a large LAS group together for this, maybe even do Burgers and food for barbecue afterwards? I will email all again before these events. The Pawnee grasslands director wants to have us volunteer to do Crow Valley campground on Oct 9th Saturday night for bus group of astronomers from Rely, Natural History Museum. I did it last year and could use some more help. It's in campground by Briggsdale, just 6 miles past where we normally meet. Let me know if you can help.
Pawnee for dark sky views again, Saturday 9/10/05 night, we luck out sometimes and get two weekends in a row where moon is not too intrusive. If new moon happens on like Monday, by Saturday new moon is going down around 10:30 PM so rest of night is dark for great views. See you in the dark! It has been a great month for us astronomers, take advantage of the good nights. Bye, Gary

Calendar

September	Meeting	15th – Bob Spohn - Messier + Mark Bagdy – Night Sky Network
		17th – DSES Open House
		24th – Fiske Planetarium 30th Anniversary celebration
		30th – Burlington Elementary School
October	New Moon:	1st – Pawnee
		7th – Lyons Elementary School
	1st qtr:	8th – Flanders Park and Crow Valley
	Meeting:	20th – Bob Spohn Messier + Large Binocular Telescope
		22nd – Mars observing star party at Gary's place
		TBD – Calwood Observing (Andrew Planck)
November	New Moon:	October 29th - Pawnee
	1st qtr:	5th – Flanders Park
	Meeting:	17th – Swap Meet
December	New Moon:	3rd - Pawnee
	1st qtr:	10th – Flanders Park
	Meeting:	15th – Ray Warren – Stardust Return + Michael Hotka Observing Astro League
January	Banquet	14th - Berthoud
	Meeting	19th – Jim Voss interview – Bob Dornan
	New Moon	29th
February	Meeting	16th
	New Moon	27th
March	Meeting	16th
	New Moon	29th
April	Meeting	20th
	New Moon	27th
May	Meeting	18th
	New Moon	27th
June	Meeting	15th
	New Moon	25th
July	Meeting	20th
	New Moon	25th
August	Meeting	17th
	New Moon	23rd

August 2005 Meeting notes

Due to technical difficulties we were unable to publish the meeting notes

Fox Park report by Gary Garzone

Hello all, Labor Day weekend at Fox Park was well worth the drive. We have made the place too popular these days. I always figured Fox Park as our astronomy place only….wrong! The rest of the world is discovering what a great get away place it is. We did not have the entire place to ourselves like usual. We stayed in the north fields like usual, but we had many campers there too. Carol and I showed up early Friday evening about 6:30 PM. We still managed to get darkness with campers going to bed early because it gets cold up there pretty fast after dark. No problem for us die hards, good news even, means rest of 4 wheeler campers will go inside soon after dark. Fox park trips this year have been my best views. 5th trip this year for us. Dan Laszlo, Dan Lafaive, Bill and Ann and Kate Travis, Carol and myself, Ray, Loraine and Max Moe with girlfriend Miranda. Derek and Angie from Wyoming who were there with their 4 wheelers but had been there observing with me before so small world it is. We like neighbors who understand us weird astronomers.
He showed up for viewing thru the nights.

We had very good views once again, spoiled we are from Dark sky views. Dark skies are us. Milky way dark sky test, you can see shadows from Milky Way light only, try it sometime against something white and darn you can see a shadow, you know you are in dark place then.

Friday night Dan Laszlo and Ray Moe, Max was feeling sick, and I searched out some faint stuff with 30 scope. Wow! Great planetary nebulas, and some small galaxies. I just love the contrast and darkness of the skies there. It spoils you pretty bad, just never as good in yard after a trip to dark skies.

Mars is once again spectacular, so I hope all are getting their views in of Mars . Comes up about 11:30 now by 1 Pm it is high enough for descent views. I took some pictures of Mars from Fox Park will send one or two shots.

Three nights under the stars you get to see some pretty good meteors , always a bonus treat for doing the dark sky trips.

I got through at least 70 objects, some we had to hunt for. Best views is always a hard one to say, but M101, M 33, NGC 891 were some of the good Galaxies views, Planetary nebulas, we did many, NGC7008 was most unusual ,strange, comet like PN, brighter on one side then other, in Cygnus. Stephans Quintet, four Galaxies, near NGC 7331 was easy to see .

Dan Laszlo showed us a stationary, Geo-synchronous satellite that never moves, just the stars around it seem to move thru the field, very cool to see .

Dan Lafaive is getting pretty spoiled with all the dark sky trips we have been doing. He drove to Nevada for views last month, Get s the dark sky longest drive award from me. I think he has earned his Dark Sky Marine Tee shirt . Dan Laszlo is so smart a guy, I love to have him help with faint fussy searches, keeps it all going late into the night.

I initially poked around in Ophiuchus and Sagittarius with my scope, but the prospect of Gary's 30" without a line was too much to pass up. With Ray we did a planetary nebula tour. The big scope brightens everything. M57 has surprising brightness within the Ring. M27 filled over 2/3 of the field in a 20mm Nagler. NGC 7008 in Cygnus has an irregular structure which was readily obvious without an O III filter. Each segment of the Veil Nebula shows fine internal structure, surprisingly bright to me. The Crescent Nebula, NGC 6888, is another target well matched in size with internal structure. We looked at NGC 7009. The Saturn Nebula, with its faint handles and blue-green glow. We also tracked down Jones 1, PK 194-29.1 in Pegasus, a large, 5 arc minute ring. The image in the Night Sky Observer's Guide, vol. 1 p. 289 shows the brighter patches in the rim we could make out. We could also distinguish the remaining part of the rim not shown in the photo, with O III in place. It was impossible to leave the Pegasus region without spotting a few galaxies. Gary found NGC 7331 and its attendants, on the way to Stephan's Quintet. No averted imagination necessary. M33 is my favorite face-on spiral on a good night, and it overfilled the field with clumps and mottling. A great night also to contemplate NGC 891 and its fantastic dust lane, suspended in surrounding stars. M31 threatens to spoil your dark adaptation. Sleep deprivation was catching up to me by then, so I bowed out after a quick look at Mars. The air was not super steady at 0130, but you could make out the little chip of South Polar Cap and a few surface markings. bye, Gary

CU Mountain Research Station BASS/LAS/URSA Mini-Conference/Star Party by Julie Carmen

Labor Day Weekend, Sept 2-5, 2005
The annual BASS/LAS/URSA Mini-Conference/Star Party holiday weekend up at the CU MRS was unseasonably warm for this high altitude facility. At over 9,000 ft, we were expecting bitter cold evenings for observing, but instead, it was light jacket weather! We had 3 fantastic nights for observing with Sunday being the darkest night or the three.

Friday opened up the event with 17 overnight guests plus 6 visiting guests for the first star party. Before the star party got rolling, we enjoyed a beautiful feast of potluck, with a welcome from Alan Kiplinger, research scientist from CIPS and a presentation about the latest research on Mars from CU Research scientist Brian Hynek. Alan gave a brief history of how the Alpine Observatory came to be built at CU MRS and Brian afforded us a report on the latest research known about Mars and his personal research with the two rovers, still active, Spirit and Opportunity. The presentation was wonderful and we hope to see more of Brian and his research in the future.

At the observatory there were 9 telescopes in use including the Alpine Observatory 12" Mead, SCT. There was an interesting twilight in the skies on Friday night. It was near New Moon, but was not exactly dark. The Milky Way was in half fullness for Friday, and many deep space objects were viewed. Friday was our biggest night for spotting satellites. Although bears had been spotted in the vicinity, we had no problems with bears for this event. Alan Kiplinger kept a Bull Horn in the dome for observers, especially those that were walking between buildings.

The new path from the dormitory to the observatory is very well done. We had a short walk to get to the observing site. We also were allowed to park more cars near the dome this time due to the fire exits now in place with the new road. Most observers kept their equipment in their vehicles or in the dome when not in use. We had 5 guests from a CU astronomy class join us for observing. They had a great time. The clouds came in around midnight, and some of us closed up. Then around 1am, the skies were clear again, and folks observed until after 3am.

A lot of folks took advantage of the dark skies (in twilight) to practice their Naked-Eye Astronomy. The Blinking Eye of Medusa, was pointed out, showing Perceus holding up her head and the star that is her eye, fads out every 3rd day? Or something to that rate. The Veiled Nebula looked especially nice this night.

Saturday appeared to be our fullest night, with all 8 rooms in the dorm filled plus a cabin rented. The pot luck was incredible and folks really relished the feast. We had two BASS members stop by and check out the facility, but could not stay for the observing. Andrew Planck gave a short presentation on the Australian aborigine creation myth. It involved the didgeridoo and was quite well received. Then Josh Walawender, CU graduate student, gave a slide show on the observatories and telescopes that he has done research with. Very well done. As the clouds had settled at this point, we improvised by the talent of three high school girls (Tess Adams, Miko Luckow, and Kerry Manley) that sang Irish tunes for us. We also were delighted by a 'rap' by Theo Sully and Brian Nishakawa. Jim Cysper read a poem written by Ray Bradbury, and the title escapes me, but it was very appropriate for a star party, and Andrew again entertained us with his musical spoons! There was some discussion that DVDs were on site and that we could watch some until the clouds clear, however, after a vote to who would like to watch The Princess Bride or season one of Gilligan's Island, everyone sort of vanished to take a quick nap before the viewing began. Observing began at 11:30pm and carried forth until after 3am. We had 9 scopes in use and had great views of Neptune, Uranus, and Mars. Again, an almost eerie twilight evening. Some faint light pollution off of Boulder in the East, but still very dark. Hard to explain. One thing that I remember is that Mike and Marc were observing the same object and realized that it was called two different names. The Double Galaxy is so brilliant and its two main names are; NGC-884 & 889 and Caldwell 14. This is a double cluster and can be seen with the naked eye.

Sunday brought forth some scattered showers in the afternoon, but it was still very warm up there! The potluck was again AMAZING! So much food and very good food to boot. Jambalaya, chili, hamburgers, hot-dogs, salads, pie, cinnamon rolls, chips & dips, lasagna, and more. Right after dinner we went outside to see if we could catch an iridium flare, and sure enough, we counted it down and saw it very clear in the daylight! What fun! We were all set to wait out another wave of clouds, so we watched Philippe's copy of Burt Rutan and Space Ship One. To our surprise, the skies cleared up. After we were all set to start observing, the clouds moved in. Steve Hartung had arrived on Sunday and gave us a report that we would have clouds, but that by midnight it should clear up. Sure enough, we had clear skies, the darkest night of the three, and some folks stayed up till dawn observing and imaging. It was a fantastic night. The twilight was gone and the light pollution from Boulder looked as if it was all but gone. We saw the Blue Snow Ball, Veiled Nebula, The Blinking Nebula, Mars, Neptune, just to name a few. It was wonderful. We had two guests that could not stay for the observing, but BASS members that came to check out the facility. It was great to give them a tour.

Thank you to all that supported and participated in this event. Everyone that I talked to was very happy with the weather and the observing. A big thank you to Vern Raben and others that helped with clean up Monday morning. We were out of there by noon.

Members and guests in attendance or just visiting;

John & Guerdie Anderson, Don & Nan Harvey, Will Thornburg, Vern & Vi Raben, Ken O'Toole, Brian, Cindy, and Jennie Simpson, Dick Mallot, Andrew & Susan Planck, Marc Wiley, Julie Carmen, Josh Walawender, Richard & Brian Nishikawa, Dan FeldKuhn, Mike Lucklow, Paul Robinson, Joy Miller, David, Leah, Lana Trumble, and friend Allen, Jim Cypser and family, Archer, Roz, Theo, and Gab Sully, Philippe & Rolande Bridenne, Glenn Frank, Steve, Jessica, Hannah, and Ari Hartung. The URSA students include; Jiada, Heather, and Hannah that also attended. With everyone included, plus the five CU students that came up for observing on Friday only, and our presenter on Friday, we had a total of 52 participants over the 3-day weekend.

Here are some suggestions that I hope the next organizer will utilize to help make this event run very smooth next year.

1) Have a check out time, so that folks that have to move from one room to another, are out of the room in plenty of time for the new bunkies. Make sure that your check out time is on the same schedule as the manager, as dome dorm rooms may be locked until the following day.
2) Make sure that check out time on the last day is earlier than the previous day, so that folks can get clean up done in a manageable time.
3) Have "quiet" hours, when folks are sleeping. As this is designed as a star party for observers, it should be noted that many of us will be up late and will need to sleep in. As children are very welcome to this event, we are looking for a way to help parents remember that this is a small building and noise carries far. Slamming doors and running children are not necessary before 10am If this is posted and announced it may help the sleep deprived
4) Have games and DVDs appropriate for children so that if they are up before the night-owls that they have something to do.
5) Let members know that they can opt to rent cabins, once the limit of dorm rooms has been achieved, and that members can bring their dog(s) to the cabins, but that dogs must be on leaches at all times and are not allowed in the dorm. This may free up some of our members that travel with a dog.
6) Check for alcohol in the refrigerator, and if need be, coolers. One bottle of O'Dul's "Near=Beer" was found in the refrigerator. This is not allowed and raises the issue of some guests or members are not reading all the information sent to them about this event.

7) Children under the age of fifteen should be accompanied by a parent or guardian at all times. This is especially due to the fact that some children that are 'bored' and left at the dormitory while parents are off observing, can be a problem. Any child under the age of fifteen, not interested in observing, will need to have a parent or guardian with them if they choose to return to the dormitory. High school students that happen to be around should not automatically be expected to be baby-sitters. They are here to relax too.

This is all I can remember at this time. I encourage other observers to write about their favorite object observed and what they like the best and least of this type of event. Steve Seibald called to tell me that our group is one of the best groups that use the dormitory and leave it cleaner then we found it. He thanked us for taking good care of the dormitory and observing dome. He also has two items that he added to the "lost and found"; one large pillow and pillow case and a pair of bi-focal eyeglasses.

This was a successful star party. Thanks to all for your support, help, and enthusiasm. Please sign up to be on the planning committee for next year's event. You do that by contacting me, or Steve Hartung, or Gary Garzone. It's o.k. to start planning now. Fresh ideas and good energy are always welcome.

This report has been prepared and submitted by Julie Carmen, September 6, 2005.

CU Mountain Research Station BASS/LAS/URSA Mini-Conference/Star Party by Vern Raben

The LAS/BASS min-conference and star party at the CU Mountain Research station was a huge success! The CU MRS is a beautiful facility with reasonably dark skies and is only a 35 minute drive west of Boulder. Most of were in the newly opened Moores-Collins family lodge. The lodge is a great place to stay and has a large open area which works quite well for meetings or presentations. With the completion of a new path this summer, the observatory is only a short five minute walk away.

Friday evening started off pot luck dinner around 6 and was followed with an introduction by our host, Dr. Alan Kiplinger. Brian Hyneck gave a fascinating presentation on the exploration of Mars with some amazing pictures from the rovers, and information on planned future missions.

Clear skies and clouds came and went through evening with maybe 3 or so hours with mostly clear skies. When the skies were clear, it was quite dark to the north, south, overhead, and west. Not as dark as Fox Park, but the high altitude helps and the scope and binocular views are very good. Unfortunately, the eastern horizon is pretty bright from Denver lights to about 40 degrees, so you have to adjust your viewing schedule so objects are further south and west. I arrived late and as a result wasted some valuable dark time getting my scope setup and equatorial north aligned. Even so I had time to visit some favorites such as M33, M13, M57, and tracked down M29 in binoculars. Alan showed us Uranus and Neptune in the observatory's 12.5 inch scope as well as the dumbbell (M27). The central star in M27 was visible with averted vision as well as some brighter knots.

Saturday morning we got a great view of the sun through Andrew's h-alpha scope. During the rest of the day some of us hiked, napped, or ran home to pick up equipment we'd forgotten. That evening after dinner, Andrew Plank entertained us with an Australian aborigine story about creation of the Milky Way. Josh Walawender gave a very interesting presentation showing images of the observatories he as worked at in Chile, Hawaii, and New Mexico. Some of the kids got into the act too with star wars character impressions. This was followed by some beautiful Irish folk singing, spoon playing, and a poetry reading. The sky cleared around 11:00 pm and we got in some nice views till about 2 am. I visited some late summer favorites such as M8 and the Veil (NGC 6992 and 6960).

Late Sunday morning Mike Luckow and I set up scopes for solar viewing in white light and h-alpha. Not a lot going on the sun, just one spot visible in white light and a few prominences and plage regions visible in h-alpha. Later that evening we all gathered outside to see if we could a spot a daytime Iridium satellite flash

predicted by Heavens-Above.com from a printout that Alan provided. We weren't disappointed -- the flash was on time and wasn't just visible, it was an amazing brilliant white flash.

The skies cleared around 11pm and remained mostly clear until dawn. I worked my way through the Fall Messier objects, M56, 52, 29, 39, 27, 71, 74, 77, 2, 30, 72, 73,15, 74, and 77. I also saw some great views of Mars thru Josh's refractor and beautiful view of M2 through Mark's scope.

Special thanks to Julie Carmen for all her hard work to organize this event and to Alan Kiplinger for making the observatory and facilities available for our use!

Auroras by Gary Garzone

Hi All, Auroras are us now. Our lucky group of dark sky astronomers got the show of the year with awesome northern lights Aurora. First it started out with white light band across horizon to north, then turned bright green in color then spikes started to pop up. Soon after that red above bands of greens, so good in darkness of night with no Moon up. Here are a few good shots, Aurora was way better in real life but pictures do show how big. Check out big dipper stars in background. I used a Fuji 3 mega pixels camera 800 ISO, 15 seconds only each frame, not stacked. We all enjoyed the show, what a great treat for those who made it to Pawnee for such an awesome display of Nature. I would have driven there just for this, way cool, bye, Gary

Aurora picture by Gary Garzone

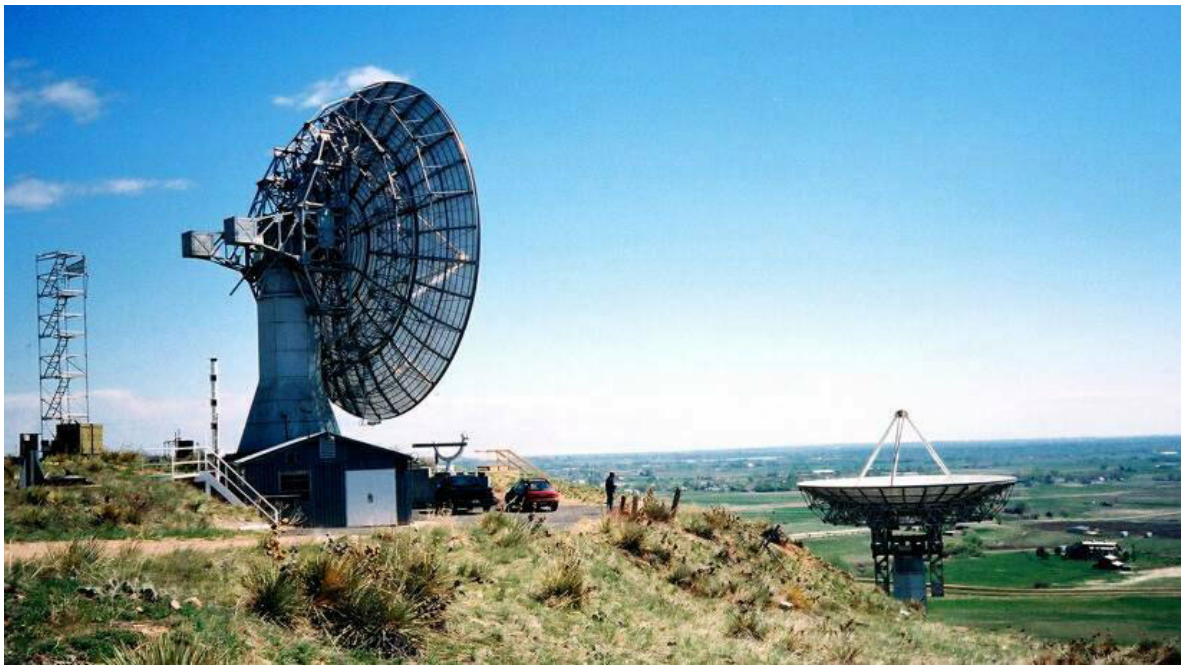
Night Sky Network

We are a nationwide coalition of amateur astronomy clubs bringing the science, technology and inspiration of NASA's missions to the general public. We share our time and telescopes to provide you with unique astronomy experiences at science museums, observatories, classrooms, and under the real night sky.
For more information, visit the web site at: http://nightsky.jpl.nasa.gov/

Deep Space Exploration Society

The Deep Space Exploration Society is a Colorado nonprofit organization that exists to foster the exploration and understanding of space by preparing students, members and the public to participate in that exploration. We facilitate experiments designed to expand our knowledge of space and execute ground based missions designed to support those experiments. The unique contribution we hope to provide to future exploratory missions is a low cost alternative satellite downlink ground station and tool for pursuing radio astronomy.

Our facility consists of two fine old 60 ft parabolic dish antennas capable of receiving radio signals over a wide range of frequencies (100 MHz to 10 GHz) from celestial objects or space craft. This facility, located west of Longmont, CO was used for many years in research until its retirement. Our challenge over the last several years has been to restore and update the facility to provide a compelling alternative to the very expensive Deep Space Network antennas (located in the western US) using volunteer effort and the very limited resources available to us.
For more information, visit the web site at: http://www.deep-space.info/



Picture of the antennas

Classified

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

To sell:
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

I got a new (800mHz) computer & wish to sell my 3rd computer. It's a 433mHz, 64meg RAM, 9 Gig HD space, 33.6K modem, and SoundBlaster sound card, with a 15" monitor, programmable keyboard & MS mouse, with Windows 98 SE for sale. $180. No problems with it what-so-ever. Will deliver & setup within 30 miles of Ft. Collins. It would be great for a stand-alone application or a kid's computer.
Contact Tom Teters tomt@starmon.com

Orion telescope EQ 120mm 4.7" lens achromatic refractor; F/8.
This telescope is one year old and is in great condition.
All the following items are included with the telescope:

- ✓ True track dual axis DC motor drive tracking system (is great for doing long exposure astrophotography)
- ✓ EQ mount
- ✓ Tripod
- ✓ Telrad with dew shield
- ✓ 1.25" diagonal mirror (also accept 2" eyepieces)
- ✓ 6X30 Finder Scope
- ✓ Collimation eye piece
- ✓ 25 mm & 4mm eye pieces
- ✓ Astrosystems new waterproof cover
- ✓ A JMI refractor hard case, is able to fir a 5" or 6" refractor. There is a lot of storage space for all types of accessories such as eyepieces, etc..

This is a great and wonderful telescope for any beginner or intermediate astronomer.
All for $1,000 firm! Contact Marc and Julie at (303) 210-3966 (Cell) or (303) 682-5428 (Home) or email if interested; marcwiley@wildmail.com

Couch Potato Binocular chair. It all collapses down for transportation. I built this and it works great. $120.00. Contact Mike Hotka (mhotka@yahoo.com) with questions or comments.

Binocular parallelogram I built. Works great. Tripod not included. $70.00. Contact Mike Hotka (mhotka@yahoo.com) with questions or comments.

To give:
FREE: Monitor, HP D1195A 15" CRT, will display 1024x768.
Clean, like new, works. Contact: Bob Noble nobler@att.net

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

The LAS warehouse

LAS logo T-Shirts:
Crewneck, navy blue, 8" white LAS logon on front
$10 - S, M, L, XL
$12 - 2XL
$13 - 3XL
$14 - 4XL

$2 - 5" LAS vinyl sticker, black or white

$5 - 4" LAS embroidered patch

$5 - VHS tape, "An Evening With David H. Levy", 3 January 2004

$1 - LAS Planisphere

2/$1 - LAS un-bumper sticker

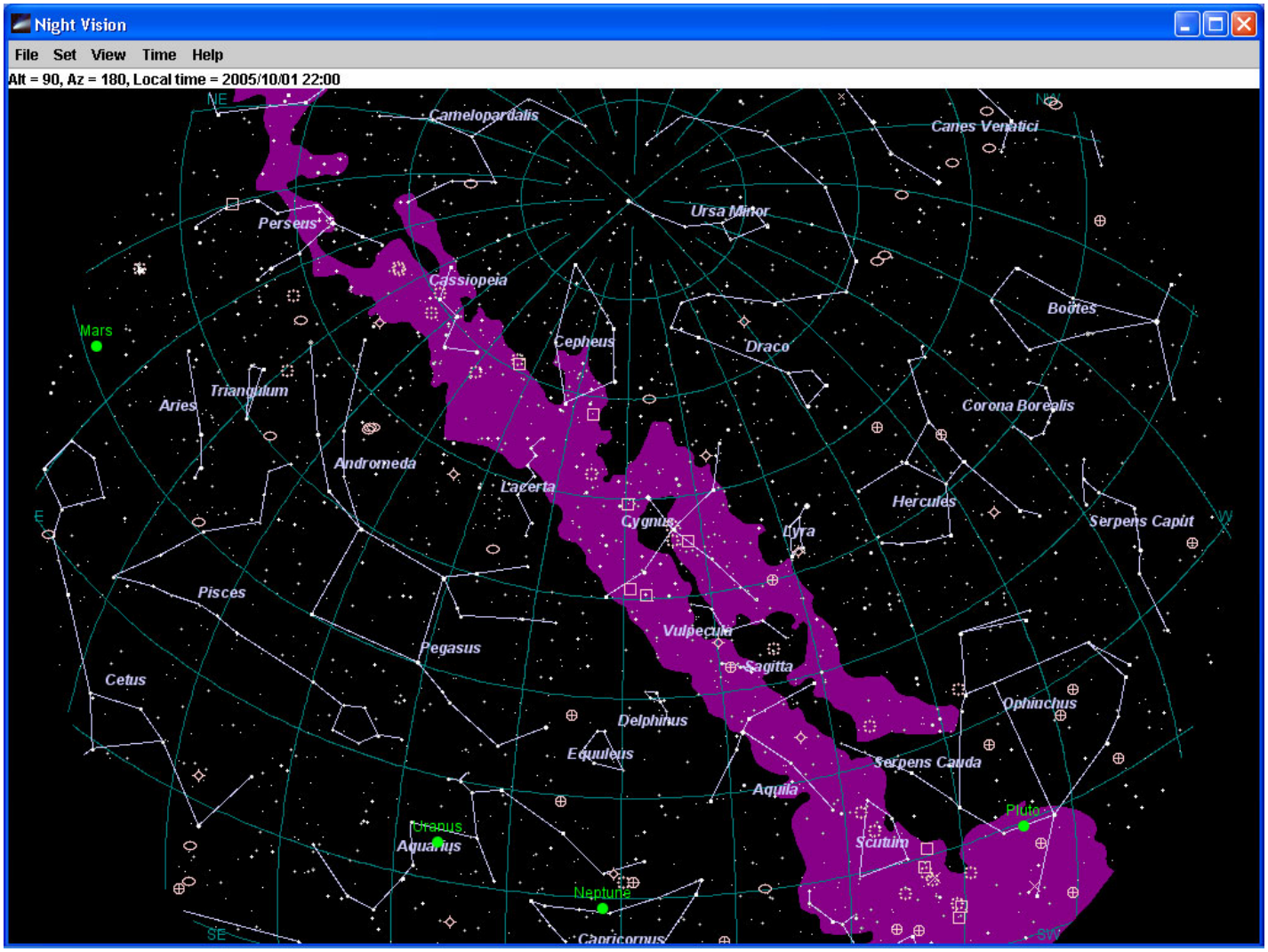
Hi all,

DAS Dark Sky report by Josh
About half a dozen of us were at the DAS Dark Sky Site on Saturday night. We got treated to a very nice view of the aurora. We first caught it sometime around 10pm. It was subtle at first (though that could be due in part to the presence of the moon) and low to the horizon. Sometime around midnight (moon now down) it flared up dramatically and lasted for a good 30-60 minutes before fading.
Sometime in the early morning (2am?) it got good again, not so big or bright as the midnight show, but the streamers were undulating rapidly -- waves were moving up and down the streamers about once per second.

I snapped some photos, the best of which can be seen here:
http://solo.colorado.edu/~walawend/Aurora_Sept2005.shtml

It was an odd night. Aside from the Aurora, the conditions were extremely variable. Both the seeing and the transparency were all over the place, but it was still a nice night. Some tantalizing glimpses of Mars looked pretty good, but the seeing was generally poor, so it wasn't as nice as it could have been.

October Sky Map



For more information on the Fiske Planetarium 30th Anniversary, visit the following web site:
http://www.colorado.edu/fiske/temporary%20pages/30thAnniversary.html