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The View From Up Here

Dear members and friends,

Well, we not only have some talented astronomers in the club, but some fairly passable chefs as well! Over 50 members and their families took advantage of a beautiful summer Saturday afternoon for our barbeque at Flanders Park August 2nd. Thanks to all of you for your help and making it a fun time! (And for putting up with a fairly inept head grill cook!)

Kudos to Roy Martens and Julie Carmen for coming to my rescue!!

And what a star party! I never remember the parking lot being that full. I took off at dusk to haul off some picnic stuff. It was dark when I returned, and when I came around the final curve on the sidewalk, I was blown away by the sight!

Lined up all along the sidewalk was about 100 feet of telescopes!!

Man, that looked so cool - seeing all of those scopes in silhouette against the lake, and the huge crowd eager for views. We counted at least 20 scopes and mounted binoculars!

We ended up sharing the sky with some clouds, but it didn't dampen the enthusiasm. And of course for those who stayed a while, Mars certainly stole the show. Thank you everyone who participated in both the picnic and the star party - I know the public is really enjoying coming out for these - this has been a great year for our Flanders Park parties. Let's do some more gazin' August 30th!

Clear Skies,

Bob Spohn
President



Calendar

August

Star Party Fox Park 8/23 - New moon 8/27 –Star Party Flanders 8/30

September

LAS meeting 9/18- New moon 9/26 – Star Party Pawnee 9/27

October

Star Party Flanders 10/04 - LAS meeting 10/16 - New moon & Star Party Pawnee 10/25

November

Star Party Flanders 11/01 - LAS meeting 11/20 – Star Party Pawnee 11/22 - New moon 11/23 – Star Party Flanders 11/29

December

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

July meeting notes

July 17, 20003, 7pm

There were 6 visitors; from Westminster, Lafayette, Boulder, and Phoenix ,Arizona.

OFFICERS' REPORTS:

Vice-President: Melinda announced that she is a grandmother! Her new granddaughter's name is Kylie Ann.

Newsletter editor: Philip handed out Newsletter and it will also be available on the website.

Secretary: Monica announced that we have 18 new members as of January, 2003. The Reflector magazine has not been mailed out to all members, but will be sent within the week. Sky&Telescope Magazine prices will go up by \$3.00.

When renewals are sent in this fall, be prepared to pay \$32.95.

Our bank balance is \$1,598.57, the Telescope balance is; \$105.18, and our CD balance is \$1,535.44.

OLD BUSINESS: Boulder City Ordinance for Light Pollution passed! The color and types of lighting are currently being debated. The light changes must be made over the next fifteen years. Boulder County has also passed some lighting regulations as well. Single-Family Residence are also being affected by this new ordinance in the city limits of Boulder.

Jim presented the Astronomy League Binoculars Award to Brian Kimball, for observing and recording, Messier objects through binoculars. He used a 10X42 Binoculars.

STAR PARTIES: Flanders Park, August 2nd, we will have a BBQ before the star party, starting at 4pm. A sign-up sheet was passed around for folks to sign up to help with either set up or cleanup-up and who would be bringing scopes.

Hamburgers, Dogs, and drinks will be provided by the club, and everyone attending is encouraged to bring a dish to share. As usual, please remember your mosquito repellent.

Party under the Stars: Concern about the resent fire near or on Fox Park was discussed. This is the location for the Party under the Stars, outside of Laramie, Wyoming. It is still smoky at this time, but may clear up just fine for the event. Those who have gone in the past recommended the event, and did warn others that it gets very cold at night, so dress warmly and bring gloves and head gear.

Jamestown Star Gazing: Will Burton to host a start gazing party at Jamestown, August 9th. Contact Will if you plan on attending at; bburton@usgs.gov

PRESENTATIONS:

Ray Warren gave a presentation on the Serpens 2-part Star Constellation.

Harry Albers explained his success in putting a red LD light into the dome light of his car.

He also mentioned that Uranus will be very close to a star, and fun to watch, especially on August 18th, at 12:30am.

Dr. Don Hassler, from SW Research Institute of Boulder, gave a presentation on the Solar Probe that is hopefully going to be launched sometime in our lifetime.

We ended the meeting by watching a short video, provided by Ray Warren, on the Mars Rover.

NEXT MEETING:

The star constellation presentation will be given by Monica.

Philippe will give a quick demo of the Starry Night software he is using.

Ray Warren will give a presentation related to Mars.

Star Party at Flanders report

Hi Philippe, You missed a good Barbecue and star party at Flanders.

It was the biggest to date that I have ever seen. We had scopes lined up along walk by the lake area, about 15 scopes I would guess or maybe more.

I have been watching Mars a lot and will be sending more pictures soon I hope from high elevation and maybe some half descent seeing nights.

I will give full report from Fox Park when I get back, bye,

Garry Garzone

Star-Hopping by Michael Hotka

Star-Hopping is the art of moving your telescope from a brighter, easier to locate object to fainter and fainter objects. Two items are a must when attempting to star-hop. The first is an accurately aligned finder system and the second is a detailed set of star charts.

I have two finder systems on my telescope. The first is a Telrad, a reflex finder system. A Telrad has a clear window, upon which a red bulls-eye target is projected. When properly aligned with the optical axis of the telescope, you sight through the clear window, and center the bulls-eye onto the part of the sky you wish your telescope to point at. There are three circles to this bulls-eye. The first circle is $\frac{1}{2}$ degree of sky in diameter. The next outer circle one degree of sky in diameter. The outer circle is two degrees in diameter.

Knowing how far to move your telescope aids in star-hopping. For instance, if you want to move two degrees east of a bright star, you use the outer circle of the Telrad. Place the brighter star on one side of the outer circle and the other side of the circle is 2 degrees away. You can then move the center of the bulls-eye to this point.

The second finder system on my telescope is an 8x50 finder scope. This scope has illuminated cross hairs in it to aid me in moving from one point to another when the stars are fainter than you can see through the Telrad.

Before the observing session begins, it is very important to align all of your finder systems with the optical axis of the telescope. This is accomplished by sighting a bright star or planet and centering this object in the telescope's field of view. Then you center each finder system on this object also, moving between the finder system and the eyepiece of the telescope to make sure that the object is still in the telescope's field of view when the finder system is finally aligned.

But star-hopping is not just the act of moving the telescope. It also includes preplanning your observing session before you leave for your observing site. First, know what your destination object is. Using your detailed star charts, find the object. Then locate brighter objects near your destination object and find the easiest set of stars to get you to your destination object. I make a list of the steps I need to reach the objects I plan to observe. Sketches of star fields to be used in the star-hop is always helpful. Then when I am under the dark sky, I do not waste time figuring out how to star-hop to the destination object. I already know. This maximizes your observing time at the eyepiece.

When I am at my observing site and the finder systems are properly aligned, it is time to put your notes and sketches into action. I use the Telrad to star-hop as much as I can. My eyesight is not what it used to be, but I can make the first couple of hops with the Telrad. Once the stars are too faint to see, I move to the finder scope with the illuminated cross hairs. I can easily see the remaining stars I noted to reach the destination object. Once I am very close, I move to the telescope's eyepiece and pan the telescope around the area until the galaxy, star cluster or nebula I am looking for appears.

A final thought is that star-hopping takes some practice, so do become frustrated if at first you don't find the object you wish to observe. If the destination object does not appear in the telescope's field of view, retrace your star-hop map and the next time you will have success. There are many stars and it is easy to become confused as to which star you meant to move to next.

Three good books I use for star-hopping are:

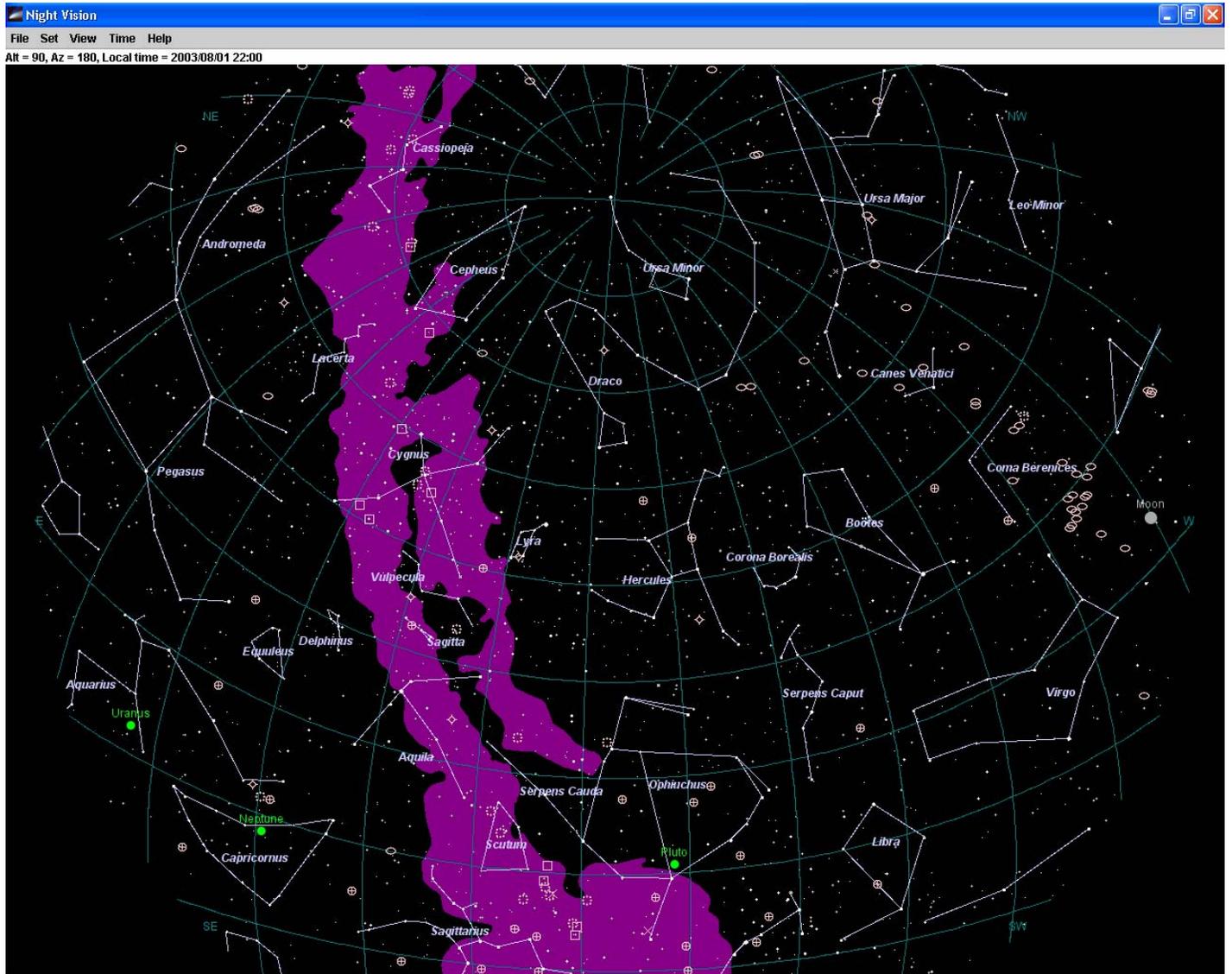
Star-Hopping for Backyard Astronomers, by Alan M. MacRobert. ISBN 0-933346-68-9.

The Night Sky Observer's Guide, Volume 1, by George Robert Kepple and Glen W. Sanner. ISBN 0-943396-58-1.

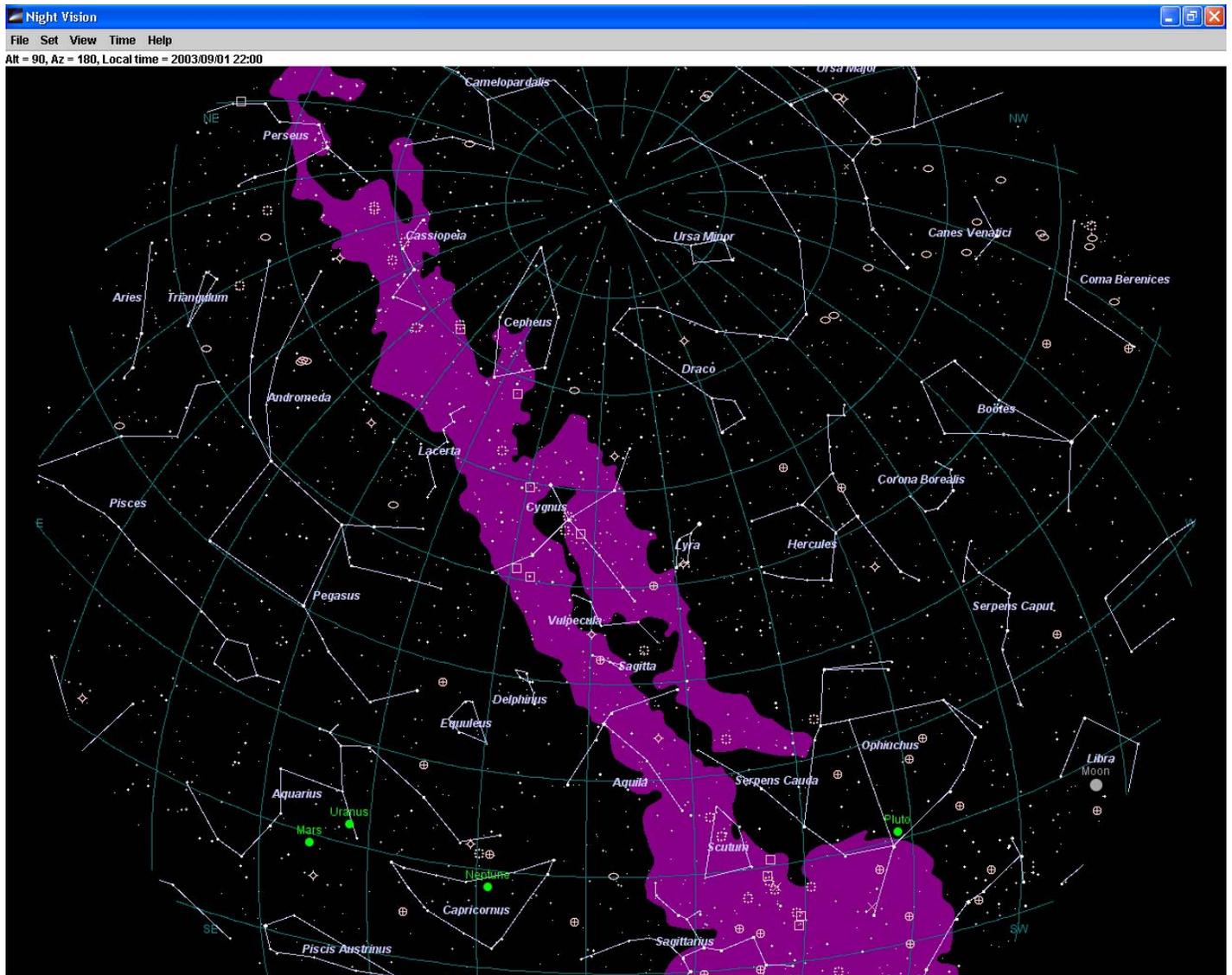
The Night Sky Observer's Guide, Volume 2, by George Robert Kepple and Glen W. Sanner. ISBN 0-943396-60-3.



August Sky Map



September Sky Map



Constellation of the month

Cygnus is the Northern Hemisphere's answer to Crux. Looking like a large cross, Cygnus straddles the northern Milky Way, which is at its best in this part of the sky. If you are under a dark sky you may be able to see the Milky Way divide into two streams in Cygnus. A dark nebula between us and the more distant stars causes this apparent divergence.

Since the time of the Chaldeans, many civilizations have seen this constellation as a bird of some sort. One story claims that Cygnus is Orpheus, the great hero of Thrace, who sang and played his lyre so beautifully that wild animals and even the trees would come to hear him. It is said that Orpheus was transported to the sky as a swan, so that he could be near his cherished lyre. Another myth claims that Cygnus is Zeus in the disguise of a swan – the form he took to seduce Leda of Sparta.

Deneb (Alpha Cygni): Deneb means "tail" in Arabic, which is where this star is positioned on the swan. On a par with Rigel in Orion, it is one of the mightiest stars known – 25 more massive and 60,000 times more luminous than the Sun. About 1,500 light years away, Deneb is by far the most distant star of the famous summer triangle, which it forms with Vega and Altair. Vega is 25 light years away and Altair only 16.

Albireo(Beta Cygni): Whether you are observing this star from the dark of the country or from the middle of a city, Albireo, at the foot of the cross, is one of the prettiest sight in the sky. Without a telescope it is seen as a single star; a telescope transforms it into a spectacular double with a separation of 34 arc seconds. One member is golden yellow with a magnitude 3, and the other is bluish with a magnitude of 5.

61 Cygni: Dubbed the Flying Star because of its rapid motion relative to more distant stars, this double is easily separated in small telescopes. The two components resolve around each other over the course of about 650 years. 61 Cygni seems to have one or more unseen companions, objects usually estimated to be 5 to 10 times the mass of Jupiter. If real, these would be large planets, but too small to be true stars.

The North America Nebula (NGC 7000)

One of the sky’s best examples of a bright nebula, this giant cloud is illuminated by Deneb, which lies only 3 degrees to the west. Because of its size, the nebula is difficult to see in a telescope; it is best seen with the naked eye on a dark sky. Photographs show this nebula to look surprisingly like the shape of North America, but this resemblance is not readily apparent to the eye when observing.

M39: This loosely bound open star cluster is seen at its best through a pair of binoculars. On a clear night you may be able to see with the naked eye, as Aristotle apparently did in around 325 BC.

Chi Cygni: At maximum brightness, typically magnitude 4 to 5, this long-period variable star is bright enough to be seen with the naked eye. It fades to about magnitude 13 and then climbs back in a period of a little more than 13 months.

SS Cygni: One of the numerous faint variables in Cygnus, SS Cygni is a dramatic cataclysmic variable star, erupting every two months to magnitude 8 but normally remaining faint at magnitude 12.

The Veil Nebula (NGC 6960, 6992, 6995): The lacy remnants of an ancient supernova, this beautiful nebulosity required at least a 6 inch (150mm) telescope. NGC 6960, the nebula’s western arc, passes through 52 Cygni, which makes it easier to find but harder to see.

The Blinking Nebula (NGC 6826): This planetary nebula has a relatively bright central star. If you concentrate on the star, surrounding cloud disappear.

