



Penobscot Valley Star Gazers

An Astronomical Society of Central Maine

<http://www.gazers.org>

December 2007

Distance Vision

The next meeting of the PVSG will be on Monday, December 10, 2007 at 6:30 p.m. in room 310 at John Bapst Memorial High School. This time we will see what the Night Sky Network's newest outreach toolkit "Telescopes: Eyes on the Universe" is all about as Dave guides us through it.

Thanks for last month's program go to Questar expert Ralph for telling us all about Questar Telescope and its history.

A Fine Telescope

November 12, 2007



November 2007

The meeting started at 6:40 PM. There were 11 members present. Wade welcomed everyone to the meeting. Wade quickly turned the meeting over to me for my talk on Questar Telescopes and their history.

The inventor/designer of the Questar telescope was Lawrence Braymer. He was born in 1901 and died in 1965. Mr. Braymer began designing the Questar telescope in about 1946. His goal was to make a telescope that was easily portable and had good optics. The first design was for a 5" telescope. However to ensure portability the design evolved into the 3.5" Questar we presently have.

The first Questar was offered for sale in April of 1954 for \$795.00. It had a carrying case, which held the telescope mounted on forks, 2 eyepieces, three aluminum tubes to

make a small tripod, a power cord for the drive so the Questar could follow the stars at night, a 1.5" off axis filter, and a star chart that doubled as a dew cap with a moon map under the dew cap. This setup fit all in less than one cubic foot. For its day it was a very powerful unit and Mr.

Braymer was a good promoter. Questars are still being sold today.

The first ad for a Questar Telescope appeared in the June 1954 issue of *Sky and Telescope*. There was no ad in the July issue of *Sky and Telescope* but one appeared again in August and continued until early 1993. From July of 1961 until early 1993 there was a full page ad for a Questar inside the front cover of *Sky and Telescope* every month. There were also ads in *Astronomy*, *Star & Sky*, *National Geographic*, *Scientific American* and other magazines. Many who grew up in the 60's and 70's remember seeing these ads.

In about 1967 Questar offered a 7" Questar, and in the late 1970's and early 1980's they offered a 12" version. In 1956 or 1957 Questar offered a Field Model Questar for terrestrial viewing. The Early Field Model did not have the control box at the rear of the Questar. Eventually the Field Model Questar became the same as the Standard Model Questar but without the forks. In about 1965 Questar offered the Questar Duplex Model which allowed one to remove the optical tube from the forks and have a Field Model Questar or leave it on and have the Standard Questar.

I also showed a Questar 700 which was a manual focus 700 mm telephoto lens to use on SLR cameras. I showed samples of the various brochures, instruction books and literature I have collected. I brought several old *Sky and Telescope* magazines to show some of the

On the Schedule

(Items Subject to Change)

PROGRAMS

January: Jesse, U-Maine Student NASA internship 2007, Saturn's temperature oscillations
February: Bill, Okie-Tex Star Party

STAR PARTIES

First date is primary, second is rain date; ? Tentative; (rs) rain or shine; (co) clear only

The PVSG Party and Entertainment Committee asks you to consider having a Christmas party this year. We will discuss it at the meeting.



Questar ads from the 50's, 60's and 70's. There were several Questars set up around the room for people to look at and through. With the Questars were the cases that housed them so the members could see how the case had evolved from the 1950's until current.

The Questar Telescope was very powerful for its day. Back in the 1950's many made their own telescope with mirrors they ground by hand. Now there are many more manufactured telescopes that can out perform the Questar. (Of course there are a few that can under perform the Questar.) However, for ease of portability, quality of optics, and beauty few look better or have more history than the Questar Telescope. At the present time the least expensive 3.5" Standard Questar sells for around \$4500.00 and can go up to about \$7,000, but used Questars are often found on ebay or Astromart and can be purchased for around \$1500.00 to \$2500.00, depending on the age, condition, and accessories that come with the Questar.

After looking at and through the Questars, Wade started the business portion of the meeting. Wade reported that he and Dave took part in a star party and talk by Neil Comins at the Bog Walk off of Stillwater Avenue. While there they believe they got a commitment from Neil to speak at one of our future meetings.

Bill had *Astronomy* Calendars for \$6.50 for those who had preordered them. There are still a few left so check with Bill to see what he has available if you want to purchase one. Alan also had astronomy related publications for those who responded to his email. Both the Secretary's minutes and the treasurer's report were accepted, but it took two votes to accomplish it this month.

Carolyn then spoke about the PVSG clothing she had researched and took orders and money. She showed us the new design that would appear on our apparel. She expects to have clothing items for our December meeting for those members who paid her. There was also a discussion of having coffee cups made with our new logo. There were pros and cons discussed about having a quantity of cups made so we could give one to our speaker each month. Scott said we still had some of the old coffee cups available. The decision to have more coffee cups made was left undecided.

Shirley brought up that Hampden Middle School was looking for us to have a star party for 8th graders. Wade had found a dark site not on Hampden School department property (so we could avoid the insurance hassle with Hampden). The problem is the date they wanted to have it on did not take into account that the moon would be visible for most of the night. Shirley was looking for help, but the last I heard after the

An Okie Goes to a Star Party

(This was meant to be in last month's newsletter)

I am back from the Okie-Tex Star Party and thought you might like to hear a bit about my experiences. To start with this is the darkest site you could ever imagine. I could see stars in excess of 6th magnitude. Somewhere around 6.5 as best as I can determine. There were people there who saw to magnitude 6.8 or 6.9 and they thought with some patience and young eyes it was possible to see 7+. Not only was there a zodiac light there was a zodiac band where the zodiac light extended entirely across the sky. The gegenschein was easily seen within the zodiac band as a wider and brighter oval portion. The Milky Way was so bright that the only thing you needed a red light for was to avoid the power lines on the ground and to read charts. Otherwise you could see well enough to walk anywhere. Imagine the Milky Way reaching completely across the sky from SE to NW with a much fainter zodiac band stretching from east to west and a big oval gegenschein in the band almost overhead. All this gradually moved as different constellations rose and set. To me a large portion of the Milky Way looked like a great shark swimming across the sky ready to devour the North American Nebula and you could easily pick out the "Gulf of Mexico" portion as a dark patch. I looked through a 30" telescope at M81. There was an image enhancer running and you could see all kinds of dust bands within the galaxy. Almost everyone there said this was the best star party they had ever attended including the Texas star party. There were 25 and 30 inch telescopes plus any smaller size and type you could imagine.

There were a lot of vendors selling everything from meteorite jewelry to lenses, space art, software, books, charts, shirts, a 25" mirror, red lights, etc. and even a very detailed working model kit of a large Dobsonian style telescope which uses a 4" mirror (not supplied). It was taken out one night and the users said it is definitely not a toy but a good working wide-field telescope. An Edmund AstroScan mirror can be used although there are plans for a specially ground series of mirrors to be made just for this telescope. I bought the new Sky & Telescope's *Pocket Sky Atlas* with the special paper coating by Astro Systems. I could go on and on about this star party and I haven't even talked about the excellent speakers and accommodations. I have lots of pictures too.

Bill

Astrometry, What Is It?

Mr. Astronomy



By definition, astrometry is the measurement of the real and apparent motions and the positions of celestial bodies. Professional astronomers use astrometry to help understand the origins of the universe by reversing the motions of celestial bodies. The largest barrier to the successful use of as-

strometry has been the lack of accurately archived data and inaccuracies within the data.

Sky images are two-dimensional and the sky is in three-dimensions plus images may have artifacts such as noise in digital images, extra stars or missing stars, asteroids or comets, plus many other extraneous artifacts which may be confused with real objects. In addition all the data has to be labeled with an exact time and location where it was taken to be useful. Lack of time and location is the greatest barrier to the use of amateur images but a new search engine is about to be released and it promises to build an astrometry engine to create correct, standards-compliant astrometric meta data for every useful astronomical image ever taken, past and future, in any state of archival disarray.

Amateur images will be welcomed because amateur astronomers are taking new pictures all the time and these images are needed by professional astronomers to update the data base. The search engine will be able to find the exact time and location each image was taken, the so-called meta-data to make the image useful to the professional. It is not all give and no take for the amateur either. Each submission will be recognized if it is used in any scientific study and a link back to the amateur's web site will be provided.

Currently the project astrometry.net is in beta testing and you can become a beta tester by either submitting an email to code@astrometry.net and receive all the code or email hogg@astrometry.net. All the internal tracking pages are public and can be checked out at trac.astrometry.net. To see more go to www.astrometry.net and go to the project summary page to view a presentation on the project. It is available in power point or pdf form.

Mr. Astronomy

meeting was that the star party was called off for the time being.

Wade said he had been unable to reach anyone to talk to about insurance from the Astronomy League but was still trying.

Several members reported having seen Comet Holmes either with the naked eye, binoculars or telescopes.

The talk then turned to speakers. Bill volunteered to talk about the star party he attended in Oklahoma in February. At the star party was everything from binoculars to 30" telescopes.

The meeting was adjourned at about 8:35 PM.

Ralph

Future Speakers and meetings: January 14th - Jesse, who spoke to us in January of 2007, will speak again on this past summer spent at JPL. Topic will be: Detecting Saturn's non-seasonal low-latitude stratospheric temperature oscillations.

Abstract: Two summer internships at the California Institute of Technology Jet Propulsion Laboratory (JPL) were spent reducing and analyzing data on the temperature fluctuations within Saturn's stratosphere. Based on the discovery of Jupiter's non-seasonal temperature fluctuations, the initial assumption is made that Saturn also has these non-seasonal fluctuations. The process for reducing the data will be discussed, as well as the analysis and findings, which suggest that the predicted temperature fluctuations may indeed exist.

February 11th - Bill will speak on his trip to the Star Party in Oklahoma

To be determined - Wade will speak on his trip to Stellafane.

To be determined - Dave will speak on 6 numbers.



E-mail Excerpts

Club news sent by e-mail since the last meeting.
Simply for the record and for those for whom we have no e-mail addresses.

Where to Party?

Would you all give consideration about a PVSG Christmas party to be discussed at the next meeting? (where/when/etc) Thanks, Wade

Mugs for Sale

Hey gang, First, to those of you who ordered PVSG clothing items...the request has been placed with Logo Motion. I plan to have them for you at the Dec. 10 meeting. Second. The numbers / cost table for PVSG coffee mugs is as follows: 11 oz. white coffee cup with single sided design (our logo)

1 - \$18.95 each; 6 - \$12.95 each;
12 - \$10.95 each; 24 - \$8.95 each;
36 - \$6.95 each; 72 - \$5.95 each;
144 - \$5.00 each; 288 - \$4.45 each

At a future meeting, the club may now consider if it wishes to purchase any cups for guest speakers. Based on the outcome of that discussion, the club can discuss if individual members may speak for (request and pay for) mugs for their personal use.
yours, Carolyn

No Party Here

Alan, Can you send an e-mail thru the listserv that the star party for the Hampden Academy 9th grade science classes scheduled for December 1 has been canceled due to difficulty in getting students together on Sat. Thanks. Shirley

Garden Telescopes

Hi folks, I just got this e-mail from the makers of the Porter Garden Telescope Reproduction. New England Cable News did a nice piece about it. Later, Wade

Dear Wade, A very informative piece on the Porter Garden Telescope was recently shot and aired by New England Cable News. It speaks to the craftsmanship behind the effort and introduces the men who have labored for two years to recreate this beautiful piece, putting a very human face on the project. The segment can be seen at: www.nedreamhouse.com
The telescope story will be towards the top of the list of episodes. Many thanks for looking. Enjoy. Russ Schleipman Telescopes of Vermont info@garden-telescopes.com <http://www.gardentelescopes.com/>