

IO - August 2009

Issue 2009-08
Eugene Astronomical Society

Eugene Astronomical Society
Annual Club Dues \$25
President: Sam Pitts - 688-7330
Secretary: Jerry Oltion - 343-4758
Additional Board members:
Jacob Strandlien, Tony Dandurand.

www.eugeneastro.org

EAS is a proud member of:

The Astronomical League
The World's Largest Federation of Amateur Astronomers



Next Meeting: August 27th

A Summer Night's Tour

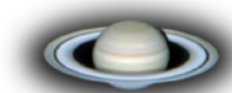
by Sam Pitts

For our August meeting Sam Pitts will give us a tour of the summer sky, showing us what to look for and illustrating his talk with photos he has taken. This will be a great show, so don't miss this meeting!

Last month's meeting didn't have an official topic, but ten members met for an impromptu discussion at which Kit Bradley showed off his new Galileo telescope (the \$15 one available online as part of the International Year of Astronomy), Rick Kang did a Solar Eclipse program, and Jacob Strandlien did his monthly Sky Events program. Bill Murray brought a CD-ROM with a series of presentations by Patrick Moore, but the CD-ROM wouldn't play on Rick's computer and nobody else had a computer along, so that will have to wait for another meeting. Bill says the episode about Speaking Venusian is well worth seeing.

Last month's call for volunteers to put on programs didn't result in a flood of proposals, so we're once again putting out the call. We need more members to talk to the group about their special interests and/or skills. EAS President Sam Pitts has done an amazing job of finding speakers for our meetings and filling in himself when we come up short, but he needs our help to keep the docket filled month after month. Please consider putting on a program on your favorite subject and share your knowledge with the group. And if you know of someone outside the club who could give a good talk, let Sam know about them.

In addition to Sam's August talk on the summer sky, Jacob Strandlien will present the astronomy news for the month. And as always, we encourage the sharing of astronomy-related questions, news, or projects with other members of the club.



Next First Quarter Friday: August 28th

Our next First Quarter Friday star party will be August 28th. These star parties are laid-back opportunities to do some observing and promote astronomy at the same time. Mark your calendar and bring your scope to the College Hill Reservoir (24th and Lawrence in Eugene) and share the view with whoever shows up.

Here are the dates for First Quarter Fridays through December of 2009.

August 28, 2009
September 25, 2009

October 23, 2009
November 27, 2009

December 25, 2009
(Yes, Christmas night!)

The Eugene Astronomical Society meets at EWEB

500 E. 4th Avenue in Eugene.

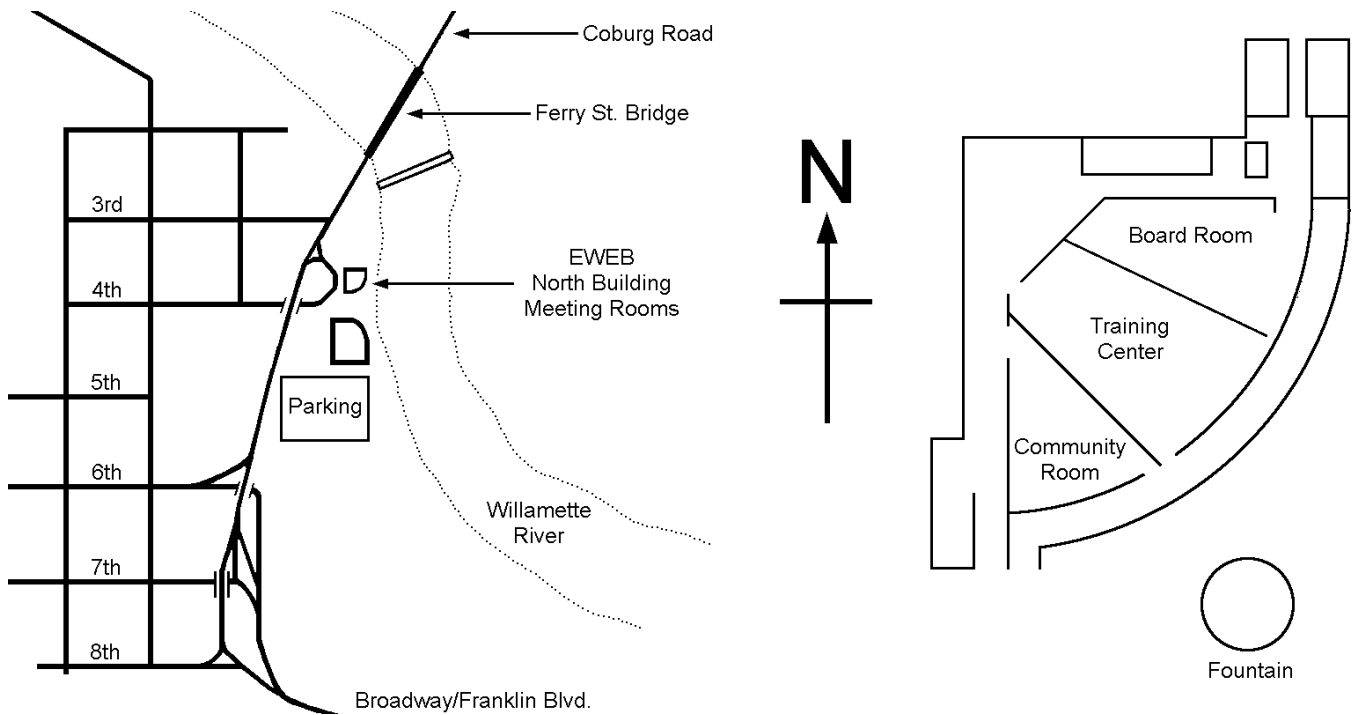
Our next meeting will be on Thursday, August 27th, at 7:00 in the north building's Community Room. This is in the semicircular building to the north of the fountain at EWEB's main campus on the east end of 4th Avenue.

Meeting dates for 2009: (All meetings are at 7:00 in the Community Room)

August 27
September 24

October 22
November 19

December 17



EWEB is located at 500 E. 4th Avenue.

EAS meets in the first room in the semicircular building to the north of the fountain.

CASTLE STORAGE

Unit _____
Code _____

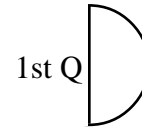
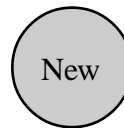
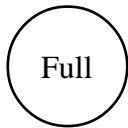
120 S. Danebo • Eugene, OR 97402 • 541.607.3800

Thank You Castle Storage

For over a year now, Castle Storage has generously provided EAS a place to store its telescopes and equipment. EAS would like to thank Castle Storage for their generosity and support for our group. Please give them a call if you need a storage space, and tell your friends. They are great people and offer secure and quality storage units.



Observing in August



August 5	August 13	August 20	August 27
Mercury Set: 9:26 PM	Mercury Set: 9:14 PM	Mercury Set: 8:59 PM	Mercury Set: 8:40 PM
Venus Rise: 3:02 AM	Venus Rise: 3:12 AM	Venus Rise: 3:23 AM	Venus Rise: 3:37 AM
Mars Rise: 1:40 AM	Mars Rise: 1:29 AM	Mars Rise: 1:19 AM	Mars Rise: 1:11 AM
Jupiter Rise: 8:52 PM	Jupiter Rise 8:18 PM	Jupiter Set: 5:54 AM	Jupiter Set: 5:22 AM
Saturn Set: 10:05 PM	Saturn Set: 9:35 PM	Saturn Set: 9:09 PM	Saturn Set: 8:44 PM
Uranus Rise: 10:06 PM	Uranus Rise: 9:34 PM	Uranus Rise: 9:06 PM	Uranus Rise: 8:38 PM
Neptune Rise: 8:55 PM	Neptune Rise: 8:23 PM	Neptune Set: 6:15 AM	Neptune Set: 5:47 AM
Pluto Set: 3:11 AM	Pluto Set: 2:39 AM	Pluto Set: 2:11 AM	Pluto Set: 1:43 AM

All times: Pacific Standard Time (Nov 2, 2008-March 8, 2009) = UT -8 hours or U.S. Pacific Daylight Time (March 8-November 1, 2009) = UT -7 hours.

Date	Moonrise	Moonset	Sunrise	Sunset	Twilight Begin	Twilight End
8/1/2009	18:09	01:44	06:01	20:36	03:59	22:37
8/2/2009	18:52	02:38	06:02	20:35	04:01	22:35
8/3/2009	19:28	03:37	06:03	20:33	04:03	22:33
8/4/2009	19:57	04:39	06:04	20:32	04:05	22:31
8/5/2009	20:22	05:43	06:05	20:31	04:07	22:29
8/6/2009	20:44	06:47	06:06	20:29	04:08	22:27
8/7/2009	21:04	07:50	06:07	20:28	04:10	22:24
8/8/2009	21:23	08:54	06:09	20:27	04:12	22:22
8/9/2009	21:43	09:58	06:10	20:25	04:14	22:21
8/10/2009	22:04	11:04	06:11	20:24	04:16	22:18
8/11/2009	22:29	12:12	06:12	20:22	04:17	22:16
8/12/2009	22:59	13:23	06:13	20:21	04:19	22:14
8/13/2009	23:37	14:35	06:14	20:19	04:21	22:12
8/14/2009		15:46	06:15	20:18	04:23	22:10
8/15/2009	00:25	16:52	06:17	20:16	04:25	22:07
8/16/2009	01:27	17:49	06:18	20:15	04:26	22:05
8/18/2009	02:41	18:35	06:19	20:13	04:28	22:03
8/18/2009	04:01	19:12	06:20	20:12	04:30	22:01
8/19/2009	05:24	19:43	06:21	20:10	04:32	21:59
8/20/2009	06:46	20:09	06:22	20:08	04:33	21:57
8/21/2009	08:05	20:33	06:23	20:07	04:35	21:55
8/22/2009	09:21	20:56	06:25	20:05	04:37	21:52
8/23/2009	10:36	21:21	06:26	20:03	04:38	21:50
8/24/2009	11:49	21:48	06:27	20:02	04:40	21:48
8/25/2009	13:00	22:19	06:28	20:00	04:42	21:46
8/26/2009	14:07	22:56	06:29	19:58	04:43	21:44
8/27/2009	15:09	23:40	06:30	19:57	04:45	21:41
8/28/2009	16:04		06:31	19:55	04:46	21:39
8/29/2009	16:50	00:31	06:33	19:53	04:48	21:37
8/30/2009	17:28	01:28	06:34	19:51	04:50	21:35
8/31/2009	18:00	02:30	06:35	19:50	04:51	21:33

All times are for Eugene, Oregon, Latitude 44° 3' Longitude 123° 06' for listed date

Other Items of Interest This Month

- 8/02 - 8/05 45 Capricorni looks like extra moon of Jupiter
- 8/6 10:16:30 p.m. Io partially eclipses Europa
- 8/9 Saturn's rings edge on to Sun
- 8/14 00:54:51 a.m. Io partially eclipses Europa
- 8/14 1:00 a.m. onward: Moon in Pleiades
- 8/14 Jupiter at opposition
- 8/18 11:13:48 p.m. Ganymede partially eclipses Europa
- 8/27 Moon very near Antares as it rises (we just miss an occultation).
- 8/28 First Quarter Friday Star Party**

For Current Occultation Information

Visit Derek C. Breit's web site

"BREIT IDEAS Observatory"

<http://www.poyntsource.com/New/Regions/EAS.htm>

Go to Regional Events and click on the Eugene, Oregon section. This will take you to a current list of Lunar & asteroid events for the Eugene area. Breit continues to update and add to his site weekly if not daily. This is a site to place in your favorites list and visit often.

Observing Highlight: Sam's M101

M101 in Ursa Major is one of the closest major galaxies to our own, only 27 million light years away. It's one of two objects often called the "Pinwheel Galaxy" (the other being M33 in Triangulum). It shines at about 8th magnitude and is therefore one of the brightest galaxies in the sky, but its light is so spread out that it can be a real challenge to find in any but the darkest skies. Its spiral arms are barely visible by eye in anything less than a 10" scope, and its core looks almost stellar in a light-polluted sky. Consequently, many amateur astronomers give it a quick glance, if they look at it at all, and move on to tastier eye-candy.



Photo © 2009 by Sam Pitts

Not so for Sam Pitts! The above image is a 4-hour CCD shot that Sam took on the weekend of July 25th. What you see here is just a screen-resolution version; the original shows an astonishing amount of detail, including star-forming regions all through the arms and wispy tendrils of arms extending well beyond what photos normally reveal. If he'd told me this was a Hubble shot I would have believed him.

This is one of four photos that Sam took over four days. He went deep with each one, spending the entire night on each target. The results speak for themselves: incredible detail, rich color, perfectly round stars, and subtlety of shade that only years of experience can produce.

As if all this weren't astounding enough, Sam also reports that he did something dedicated astrophotographers seldom do: he took the camera off and actually looked through his scope! I bet one of his targets was M101. You should have a look, too, next time you're under a truly dark sky. You may not see it like this, but you can remember this image with your mind's eye while you're at the eyepiece and have the best of both worlds.

Expect to see this photo in much higher resolution, along with many others that Sam has taken, at our August meeting when he gives his presentation on the summer sky.

Dexter Star Party Report

Our July 18 dark-sky star party at Dexter State Park was a great success. We had over a dozen telescopes and 50-100 people came to view the night sky through them. The Davis family joined the club (Welcome Melissa, Nicholas, and Ryan!), and we got several more inquiries from other interested people. All in all, it was a great night for astronomy and a great night for the EAS.

The evening looked a little dubious at sunset, with high clouds over most of the sky, but they dissipated as twilight grew deeper and were mostly gone by dark. And wow, did it get dark! The sky was almost as good as from Eagle's Rest, with the Milky Way so distinct some people thought it was another cloud. Old favorites like M13 and the Ring Nebula that look a little washed-out from town looked stunning under the Dexter sky. We were able to show people galaxies galore, and even see the spiral structure in M51.

Volunteers made the evening run smooth as silk. Rossco Wright directed traffic, Dan Rinnan manned the information table, and the people with scopes provided a steady progression of deep-space objects to observe. We heard many a "Wow!" out there in the dark, and many people asked us to make this an annual event.



Photo © 2009 by Jerry Oltion

Just a few of the astronomers and scopes at the Dexter Star Party. This is a 4-second exposure taken in deep twilight.

Headlights from cars coming and going were a bit of a problem, but our night vision recovered relatively quickly after each blast. We were more concerned that yard lights from the town of Dexter just across the highway would ruin our night vision continuously, but we were successful in getting the most obnoxious yard light turned off for the duration of the star party, and trees blocked the rest. Precisely at 1:00, when our agreement with the owner of the unshielded light ran out, they turned it back on and we were given a graphic example of how intrusive bad lighting can be. Unfortunately most of the general public had gone home by then, and so missed the demonstration. But they all went home happy, and that's the most important thing. Thanks to everyone who made the party such a success!

EAS Camping Trip a Grand Success

by Steve Frankel

Recently, some EAS families enjoyed a few days under terrific skies at Sacandaga Campground in the Umpqua National Forest southeast of Oakridge. Sacadaga is a primitive camp (pit toilets, hand-pumped water), that doesn't seem to get many visitors. Our small band of astronomers stayed not in the campground proper, but in the neighboring group camping area bordering Rigdon Meadows (a historical stopoff for military groups headed to Eastern Oregon to fight native 'Oregonians'.)

Three families showed up with four telescopes and additional family members. The several days were sweet, with good company, good food and cheer, and happy children and dogs to play with.

Longtime club member John Walley brought his redesigned Dobsonian, incorporating an old mirror — dating back, in fact, to the start of our club. He shared a story of that early history (an article written about John in 1959 led to the formation of an astronomy club in Eugene).

Our evening observing was excellent despite some nearby hills. When Jupiter came up, each night, at about midnight, we let that mark the end of the session. Likely, another writer will focus on the observing highlights, so I'll share on another subject: the beauty that surrounded us. Just a few miles away, Indigo springs is the magical, mossy & forested source of the Willamette River, with water gushing out from the ground beneath the trees. Also a must-see, Chuckle Springs, and any number of lakes up the road.

This was an excellent combination of two great pleasures, astronomy and camping. I'd like to make sure this becomes an annual event, so plan on it for next summer!

1st Annual Dark Sky Campout

by Tony Dandurand

"I've found another Glob!" At some point in the evening I began to wonder if that was getting annoying. Oh sure, a person or three would wander over to take a look at another glittering sprinkle of distant starlight, and ask, "Which one is that?" But I'd been doing it quite a bit. Photons from nineteen globulars made it through my scope Saturday night during our EAS Dark Sky Campout.

It all started fairly early. After aligning finders on the 1st (magnitude) stars out, the evening began with a quick look at the 3-day-old moon as it approached the treetops in the west. Then a couple of double stars. Some young person asks which star we're looking at. "That one" I point out. "Whoa! What's that thing?" "A laser pointer." "Can I try it?" Rule # 2 of stargazing (right after, don't forget the poles — or eyepieces, or whatever you have once forgotten): 12-year-old males do not get the laser.

The twilight deepens; it's dark enough to start showing off the showpiece globulars. M13, M92, M5. The young fellows that came with the Walley party have calmed down from the initial excitement of lasers and big scope views, and are doing a respectful and surprisingly skillful



Photo © 2009 by Tony Dandurand

job with Louise's scope tracking down stars and Wild Ducks and globs and things they want to see.

The peaceful twilight ends, it's dark, it's quiet, the lawn chair view has gone to Wow. There is nothing quite like the Cygnus to Sagittarius expanse — naked eye or with binoculars. The youngest kids have gone off to bed, leaving quiet talk around the few scopes; even the mosquitoes have (mostly) called it a night.

Time for a showpiece glob in the *dark*. I swing down to M22 left of the Teapot tip; Louise follows with her scope. Sweet, really sweet. We compare views with the different apertures and magnifications. I head off to M28 on the other side of the Teapot tip; Louise, after a bit, finds it too. But it looks — different, where are you pointed? Turns out she'd found 6638 in a different direction from the Teapot tip. Steve (Frankel) turns on his red headlamp, checks his star atlas and pronounces "Hmm — there are a lot of globs in Sagittarius." Yep. Time to change my regular habit of going to well known objects or scanning randomly, and search out the Sag globs systematically.

And in these clear dark skies, this was surprisingly easy. Seven NGC globulars (besides the Messiers I'd previously found) and M55 and M75 were found in short order. All (except one) were easy to spot in a 10X50 finder scope. And in this part of the sky the finder's a wonderful 2nd scope. M7 clears the hill, joins the M6 cluster and the glowing nebulas Lagoon, Trifid, Swan, and other star clouds. The Wild Duck cluster was a favorite among the kids and adults. Yep, it was as good as any night up on the Ridge.

With one major improvement, however. A couple of dozen steps away was camp, bed when tired, cold beer or hot tea when desired (I don't think anyone had hot tea), whatever necessities or comforts were brought. And a decent campsite it was, fitting two trailers, 3-4 tents, and 15 or so people with ease. There was no reason to use the adjoining (less shady) site, or any of the campground spots. The little creek gurgling behind our trailer cooled feet, watered dogs, and provided much entertainment to the young folk. The nearby river provided all the serious cooling needed for those willing to immerse within.



Photo © 2009 by Tony Dandurand

Louise & I had come up two days before others, spending the hot afternoons up at the pass, swimming in a few of our favorite mountain lakes, which ranged from cool to surprisingly tepid. On Friday, we took our canoe up to Summit Lake. The mosquitoes are numerous and on task at this altitude this time of year. Humans need to be efficient at unloading and launching a boat. A few dozen strokes out onto the lake and you're free of them, and suddenly the deep blue sky, distant peaks, sweet breeze, sparkling water, and deep quiet become your environment.

We didn't paddle far, just out and around some small islands. We stopped for lunch and a swim on one that had a little sign proclaiming it 'Blueberry Island' (the underbrush was huckleberries actually). Taking a different way back we marveled at our shadow on the bottom of the lake 20 - 30 feet down.

Friday afternoon, other Club members begin to arrive. Trailers are parked, tents set up, and scopes unloaded. And interesting conversations ensue. John Walley's scope has a 50-year-old mirror in it he made (and there's more to that story). His wife Mona and I worked at the same job 30 some years ago but never met. On Saturday more family and friends arrived. By the time Saturday night darkened, the sharing of stories, meals, and time under the stars make everyone seem like old friends.

It was a good time; I sure hope we do it again, and that more can make it.

(If you ever have the pleasure of camping with the Walley family, and Mona is pulling her Dutch-oven-baked, apple-bottomed cinnamon rolls out of the fire ring, it would be a good time to 'happen by.' Oh — Yumm.)

I neglected to take any photos of camp, but these two are from a previous trip, and show the 'telescope field' and just a portion of the campsite. They were taken from nearly the same spot.

August Star Parties

In addition to our monthly First Quarter Friday (on August 28th), the EAS has two more star parties scheduled for this month:

- Wednesday, August 12 at Camp Wilani. This is out by Veneta, off Bolton Hill Road. Campers range in age from 5-18, mostly older. Past experiences with this group have been very positive, and the site is good and dark.

- Saturday, August 15 at Cascara Campground. This is at the northeast end of Fall Creek Reservoir. Past experience here has been positive as well, and the sky is equally dark.

Not many people have volunteered for either of these parties. If you can make it to either one, please let the rest of us know via the club's email list (general@eugeneastro.org).

Jeff Phillips Photographs Impact on Jupiter

On July 19th, something big hit Jupiter near its south pole. On July 20th, several EAS members met on College Hill Reservoir to look at the impact zone through Jim Jackson's 11" Starmaster, and they could clearly see the dark spot during moments of good seeing.

On July 23rd, EAS member Jeff Phillips photographed the impact scar. Jeff reports: "Last night I took some pictures of Jupiter with a 130mm (5 inch) Newtonian. I expected to pick up the shadow of Callisto near the equator. I was surprised to pick up the dark spot near the south pole where an asteroid or comet impacted Jupiter. Pictures were taken this morning (7/23) between 1:30 and 2:15 AM. Callisto itself is too dark to show up, but on the last image I included Io, which is brighter. Callisto would be just left of Jupiter if it were visible."



Photo © 2009 by Jeff Phillips

College Hill Reservoir Finally Gets a Ramp

After several years of negotiations between EWEB, the City of Eugene, the Friendly Area Neighborhood Association, and various other groups, handicapped people can finally reach the top of the College Hill Reservoir. And people with large scopes can wheel them onto the deck rather than lug them up the steps. The ramp we've all been working for was dedicated on June 30th and is now open for use.

The ramp was a surprisingly contentious issue right from the start. As soon as EAS proposed building one, our contacts at EWEB advised us to move slowly since some people within EWEB would just as soon close the reservoir to public use rather than improve access. The EAS backed off, but the Human Rights Commission declared that they would rather see the reservoir closed than have it continue to be open without handicapped access. EWEB called their bluff and announced plans to fence off the entire reservoir.

They didn't count on the fierce opposition from the Friendly Area Neighbors and the EAS. We went to every EWEB board meeting and talked about the reservoir's value to our city and we countered every one of their arguments, from terrorism threats (in Eugene?) to building codes. We collected signatures on a petition at an EWEB-sponsored Earth Day event and stirred up enough public outrage that EWEB finally realized they were in the midst of a public relations debacle. They finally agreed to leave the reservoir open to the public except for a small area around the pump house, and they agreed to let FAN seek funding and contract for the ramp's construction.

Of course nothing works quite the way you hope it will. The straight ramp we all envisioned that would let us wheel our scopes (and our handicapped observers) directly onto the reservoir deck was deemed too likely to become a motorcycle highway, so EWEB put a kink in the plan — literally. The ramp makes a U-turn between street and reservoir, forcing bikers to take the stairs like they have been doing for years.

Still, it's a huge improvement, and a feather in the collective caps of FAN, EAS, and even EWEB. We managed to find a compromise that gets the primary job done: providing access for everyone to enjoy the stars from the top of the College Hill Reservoir.



Photo © 2009 by Charlotte Conlin

Kathy Oltion Unveils Her New Trackball

July's First Quarter Friday star party on College Hill Reservoir was a hit-and-miss affair, with high clouds blocking most of the sky at any given moment, but sucker holes kept people interested and we ultimately had a successful star party.

Kathy Oltion had an especially successful night showing people the view through her brand new trackball telescope. The scope has been over a year in the making. Her husband, Jerry, ground the mirror last summer and made the fiberglass ball last fall, then slowly assembled the rest of the scope through the winter and spring. First light came a couple of weeks ago in their driveway, but this star party was the first real test of the scope. It split the double-double in Lyra with room to spare, and a steady stream of admiring viewers (both of and through the scope) provided ample evidence that this scope is a keeper.

Jerry points out that this is only the third trackball telescope in the world at the moment. Jerry is currently working on another one that will go into the EAS's lending program, but until that scope is finished or until someone else completes one ("and it ain't a trackball until it tracks!"), Kathy's scope is 1/3 of a kind. Judging by the smile on her face in this photo, she seems okay with that.



Photo © 2009 by Jerry Oltion

A line forms behind Kathy's new trackball telescope at July's First Quarter Friday star party

