Penny Pincher Astrophotos

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Newsletter of The Black River Astronomical Society
Guidescope

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May 1 , 2010

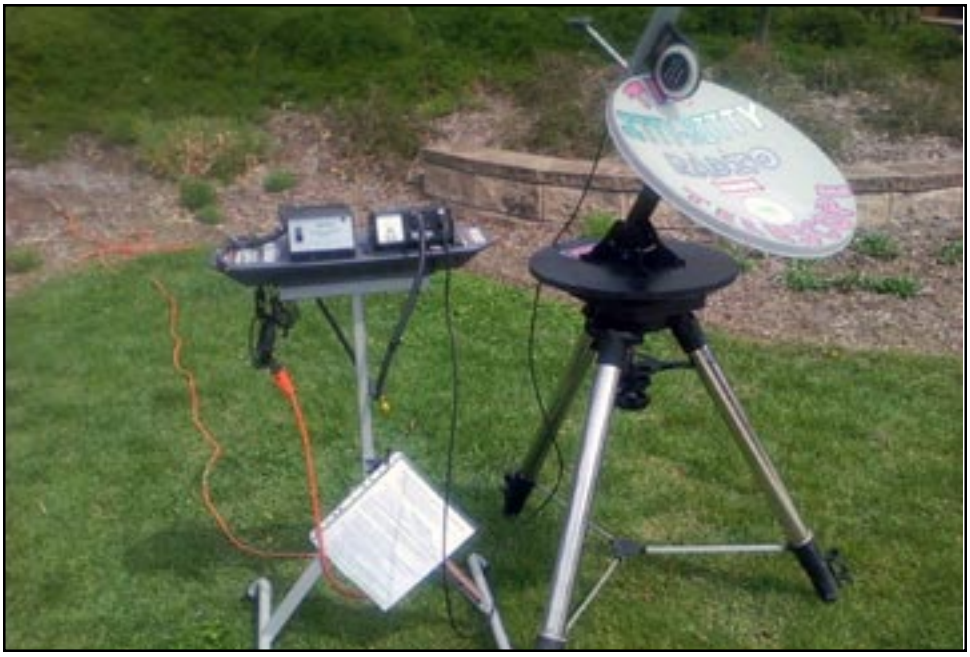


Photo by john O' Neal. radio scopes work regardless of clouds.

Astronomy Day Festivities

by John O' Neal

Astronomy Day was quite a smashing success this year in spite of the abysmal weather. Clouds ruled throughout most of the day, but for about ½ hour the clouds thinned and we actually got a few glimpses of our favorite daytime star. And thank goodness for the radio telescopes, since they dutifully work even when it's cloudy.

In spite of the inclement weather, sustained clouds and sporadic periods of downright rain showers, about 60 people showed up.

While we had anticipated much larger crowds, the good news is that the people who did show up were not simply walk-ins, but interested parties who had read about us in the Arrowhead and/or the Chronicle Telegram and came specifically, in spite of the weather, to about astronomy, space and our club. They were very inquisitive and many stayed for long periods, watching our numerous presentations and asking questions about astronomy in general and about us and the club, too.

Our outdoor presentations were pretty much a bust, but as I mentioned earlier the Itty

CONTINUED ON P. 2
SEE 'ASTRO DAY'

Rental Scopes Available

Want to look at the sky but don't own a telescope? The Black River Astronomical Society is here to help with its loaner scope program. Just ask one of our officers for details.

Solar Viewing is Back!

Starting May 9 and running through October, Black River Astro will be hosting monthly solar viewing sessions at different Metroparks locations. Check out our Web Site under '2010 Public Events' to get dates, locations, and times.

Black River Is Worldwide

Black River Astro now has a worldwide presence through Amsky, which serves as a collection point for astronomy club newsletters from all over the country. To check it out at www.amsky.com

Black River Features

ASTRO DAY CONTINUED

Bitty Radio Telescope performed flawlessly, and provided our guests with an idea of how radio astronomy works. Additionally, Mike Harkey setup his Celestron and offered guests fleeting views of the Sun. In spite of our disappointment, people were very impressed with seeing clouds flying across the face of the Sun.

Inside we had a lot going on, too. Since the weather wasn't cooperating we decided to put on continuous presentations throughout the day. The rear of the Carlisle Room was setup with displays, books, photo albums and even an electronic slide show. The entire western length of the Carlisle Room was lined with tables overflowing with handouts. These included some CD's and NASA handouts provided by the Lorain County Metroparks. We had directions to the Nielsen, our 2010 schedule, FAQ's about the club, our business cards, fliers, club membership forms, etc on tables.

For kids we brought astronomy themed pages to color. We even took a bunch of these to the nursery at the Metroparks and donated them.

In the northeast corner of the room Len Jezior had his automated webcam/telescope operating and was available to present it and explain how it worked to visitors.

And we had plenty of live speakers and presentations on hand, including the following:

EVERYTHING YOU EVER WANTED TO KNOW ABOUT TELESCOPES, by Len Jezior
TIPS FOR AVOIDING LIGHT POLLUTION FOR AMATEUR ASTRONOMERS by Steve Johns
MERCURY by Tim Kreja
ANCIENT ASTRONOMY by Denny Bodzash
THE BARRINGER METEOR CRATER AND METEORITE COLLECTION by John O'Neal
BASIC ASTRONOMY by Denny Bodzash
2012, DOOMSDAY DEBUNKED by John O'Neal
OHIO ASTRONOMY by Denny Bodzash
THE SUN, OUR STAR by John O'Neal

Photo by John O' Neal. Try as they might, not even the clouds could dim the atmosphere.

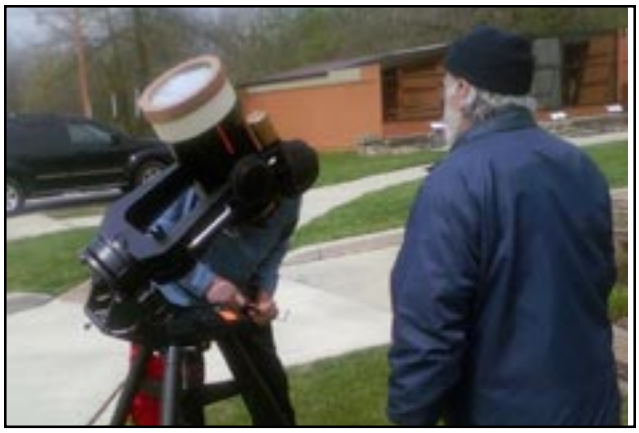


Photo by John O' Neal. A member of the public tries Mike Harkey's solar equipped C-8.

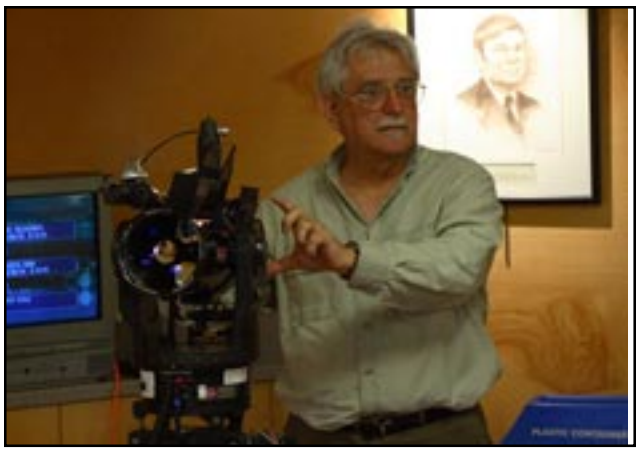


Photo by Denny Bodzash. Len Jezior explains his setup.

For more Astro day photos, visit us on Flickr:
http://www.flickr.com/groups/blackriverastro/

Black River University

Penny Pincher Astrophotography

By Denny Bodzash

Think "astrophotography" and one word, besides "cool" will come to people's minds: "expensive." While dSLRs are the mainstay of serious astrophotographers, sub $100 point and shoots can take some pretty good pictures, too. Just be sure to keep your expectations grounded in reality.

So, how is this done?

First, grab the tripod, there's no way around it. Multi second exposures need tripods. Now, onto the camera itself.

Second: consider the camera setup. Unlike dSLRs, cheap P&S cams probably have no RAW capability, so set the quality setting to finest quality JPEG. Downsizing a 12MP image to 2MP will do wonders for reducing noise, which will be very prevalent.

Third: set the white balance. With no RAW, there is no longer the shoot it and fix it later option: white balance must be right from the get go. Usually, 'auto' will work just fine for dusk. If you live in an area with a lot of lights around, 'tungsten' or 'incandescent' may be the better way to go, as this setting will introduce a bluish cast to offset all the yellow light. Play around to see what works.

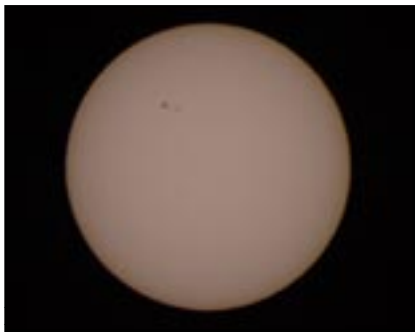
Fourth: ISO is the next concern. To put it plainly, P&S cameras are rarely any good at ISO 400 or higher. To start, set the ISO at its base level, only bumping it up if the picture is underexposed.

Fifth: use the self timer. The cheapest P&S cams come with this function, which is normally 10 seconds. Be sure to enable the timer to avoid camera shake from hitting the shutter button.

Sixth (and most important) focus: what good is a picture if it's not properly focused? Some P&S cams allow for manual focus while others don't. If your camera allows manual focus, set focus to 'infinity' to guarantee in-focus stars. If the camera has no manual focus options, you're not done. Instead, enable the self timer, focus on a distant object, then quickly swing the camera into the sky so that, when the shutter goes off, it will be taking a picture of the desired astronomical target.

Final considerations: experiment, play around with your camera to see what works best for you and don't forget to download Neatimage (WEBSITE) to clean up that ugly noise in your pictures.

So here it is, proof that astrophotography does not require expensive cameras to bring home the photos.



Solar Astronomy 101: Sun Sights

by Denny Bodzash

With the arrival of May comes the return of B;ack River Astro's monthly solar observing sessions held at various Metroparks locations.

So, exactly what isthere to see on the Sun?Plenty given the right kind of filtering.

1. Sunspots. These are cool regions of the Sun's surface (photosphere) that appear black next to the hotter, surrounding area. Seen with any solar scope.

2. Prominances/flares. Giant flames coming off the Sun. THe only difference is that prominances appear as an arc of flame while flaresflares look like giant bursts of fire blasting off the Sun and into space. Requires a specific filter.

3. Granulation. In the right wavelength of light, the Sun ceases to look like a smooth sphere, but trasforms into a boiling cauldron. Requires a specific filter.

So there they are, the sights of the Sun at a quick glance.

The Black Hole

For Sale: Meade f6.3 Focal Reducer?Flattener: $100

An Astrophotographer's dream. Improves edge-of-field correction and reduces exposure times by close to 50%. Effectively reduces focal ratio by a factor of 0.63. Threads into rear cell of any Schmidt-Cassegrain. The f/6.3 Focal Reducer duplicates the rear cell thread of the telescope, allowing you to attach all standard rear cell visual / photographic add-ons.

Contact John O' Neal
johnoneal@onealwebsite.com

For Sale: 8 Inch Newtonian Optical Tube Only: $300

I can't ask more because it just doesn't do what it should, photography. But for $300, it's a bargain visual scope. Optically, it's like new. Comes with mounting rings, finderscope. I also added the heavy duty 2" dual speed Crayford focuser. It's on a Meade Heavy Duty Equatorial Mount, which was for their 12" scopes. It has slow motion controls on both axes, but no motor drives. There are some scratches on the tube. Again, visual use only. I'm offering the entire unit for $500.

Contact John O' Neal
johnoneal@onealwebsite.com.

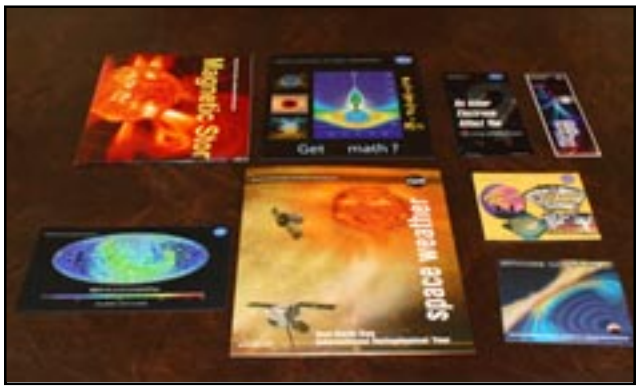
An astronomically-Sized Thank You

by John O' Neal, Black River Astro Vice President

Participants in this event include the following members. Thanks to their willingness to participate in educating the public they have furthered our chartered goals as an organization and made this event a success. I will not be the least surprised when we pick up a few new members as a result of this event. Please join me in thanking these selfless volunteers when you see them.

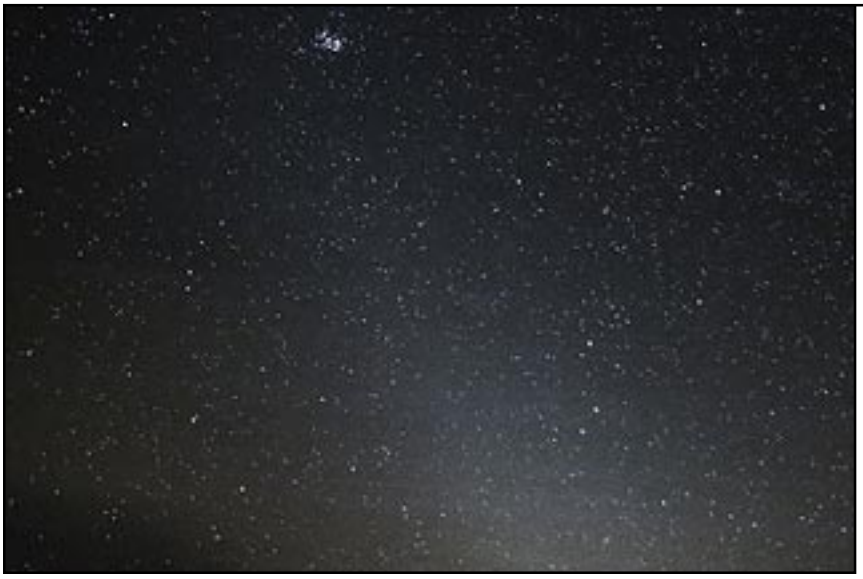
Dave Gulyas	Dave Nocjar
Denny Bodzash	Fred Scharmann
Jim Cunningham	John O'Neal
Len Jezior	Mike Harkey
Mike Plas	Mr. Nagy
Steve Johns	Tim Kreja

I'd also like to thank Pat McCaslin at the Metroparks for her assistance in setting this event up. Thanks to Amy for getting the handouts from NASA. A big thank you also to Tom, the Custodian who was VERY helpful throughout the day and made sure we were not wanting or lacking in any way. And last, but not least, thanks to Mike, our friendly Naturalist/Ranger friend for keeping us feeling safe and secure and checking up on us throughout the day and evening.



The handouts from NASA provided via the Metroparks

Monthly Observers' Guide



The Zodiacal Light

by Denny Bodzash

It's not something that is seen often, especially around this area, but May offers some of the best evening opportunities to see the zodiacal light. So what exactly is the zodiacal light?

The zodiacal light is caused by sunlight reflecting off of particles left over from the formation of the solar system. As best as science can determine, the solar system formation was begun with a collapsing cloud of interstellar dust. As the dust accumulated, the cloud started to flatten and spin. Eventually, the mass at the center of the cloud became so dense that Hydrogen started fusing into Helium. The Sun had been born. Similarly, the planets were created by rocks/gasses accumulating into smaller clumps of rocky and metallic material..

Even with the planets formed, much dust remained leftover in the newly formed solar system. In time, strong solar winds from the young Sun blew most of the leftover material out into space. Key word: some, not all.

The material that was left is what is responsible for the zodiacal light. Much in the way light striking dust particles illuminates them, the Sun's rays striking the leftover cosmic dust does the same thing. That is why the zodiacal light is often seen as a thin pyramid of light sticking up from the horizon along the ecliptic plane.

As a historical footnote, the zodiacal light in one theory as to why the Ancient Egyptians built pyramidsif you believe that they were trying to create in stone the light starway to heavan.

The May Sky

By the time May rolls around, the winter constellations are lost to the twilight of history and the stars of spring are firmly entrenched in the firmament. The days are still getting longer and sunset is nearly 9pm by the end of the month, but the nights are getting warmer and the bugs haven't come out (at least in the start of the month), so May makes for great observing.

May makes the perfect time for the constellation signpost (arc to Arcturus, speed to Spica, continue to Corvus, conclude in Crater) to find one's way around the spring sky. Speaking of Corvus, May is the perfect time to view the constellation. Corvus is low and it doesn't hang around long! In contrast, May is the first month where Hercules can be seen without staying up too late. The Summer Triangle is on Hercules' heels. By late night (or early morning), the stars of summer, Scorpius and Sagittarius, are well up in the South, too.

On the planet front, May is still great for viewing planets, sans Mercury. Venus (evening) and Jupiter (morning) continue their month long climbs. Mars moves from cancer and into Leo and is still visible for a good portion of the night as the month begins. Saturn is locked in Virgo and remains virtually an all night object for much of the month.

Fun Stuff

Black River Dates: May 2010

Wednesday, May 5. Regular meeting at 7pm at the Carlisle Reservation in Carlisle Township. Topic: Our Web Site by John O' Neal. RAIN OR SHINE.

Friday, May 7, Maintenance Day at Nielsen. 7-9pm. CLEAR SKIES ONLY

Friday, May 7, (backup date Sat. 8). Public star party at the Nielsen. Featured sight: Eta Aquariad Meteor Shower 9-11pm, CLEAR SKIES ONLY

Sunday, May 9. Solar viewing at French Creek. Theme: Mother's Day "Sun" Treat. 1-4pm, CLEAR SKIES ONLY

Thursday. May 13: Board of Directors meeting at 7pm at the Blue Sky Restaurant in Amherst, Ohio, located on Route 58 North just past the Route 2 bridge. Board members are expected to attend, regular members welcome to attend and help us run the club. RAIN OR SHINE.

Friday, May 21 (backup date Sat. 22). Public star party at the Nielsen. Featured sight: Meet the Milky Way, 9-11pm, CLEAR SKIES ONLY

Friendly Advice. Like in April, temperatures can drop like a rock on clear May nights, so bring a spare coat just in case. The good news is that, as warm becomes the new norm, those windy, warm nights should start to become a thing of the past.

Visual Observing Guide: May 2010

Early May: Venus splits the Hyades and Pleiades, a good Western horizon is a must!
May 1: Venus sets about 2 hours 20 minutes after the Sun, Jupiter rises 1 hour 50 minutes before
May 2: The Moon is above the Teapot's spout
May 3: The Moon is in the Teapot's handle
May 9: The Moon and Jupiter come within 5 degrees just before sunrise
May 14: Try and spot the day old moon at dusk
May 15: The 2 day old Moon is below and right of Venus at dusk, it's about 15 degrees below and 10 degrees right of Venus
May 16: Venus is now below and right of the Moon
May 20: The Moon and Regulus come within 5 degrees of each other
May 28: The Moon scrapes by Antares
May 30: Mercury is as high as it gets in the dawn sky, about 6 degrees up
May 31: Jupiter rises 3 hours 10 minutes before the Sun, Venus sets about 2 hours 45 minutes after!
Late May: Be sure to catch Venus now, the climb is rapidly slowing as June approaches and it won't be getting higher much longer

The Virtual Black River Astro Society

The calendar states when the Black River Astronomical Society meets. The only problem is that the calendar lies. Black River currently has three interactive outlets for members who choose to take part: a Yahoo Tech group, a Flickr photo sharing group, and a Facebook network. Obviously, these can be used to "meet" up with club members at any time.

The oldest of the three is the Yahoo group, started back in 2007 by current VP John O' Neal. On this private group, one can find (among other things) photos, past issues of the Guidescope, a forum, and even polls from time to time.

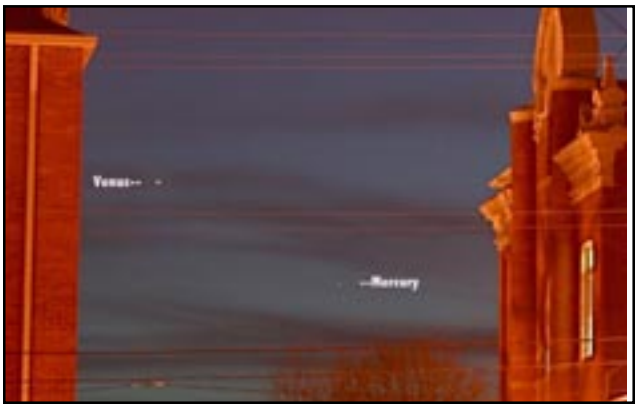
The next group is the Flickr photo sharing group. While the Yahoo site offers photo sharing opportunities, it also has limited space. Preserving our web space and preventing room that could go to documents from being eaten up by photos was the reason I started the Flickr group last month. Simply join the group and start posting your astro and Black River event photos.

Accessing both these web sites requires a Yahoo account.

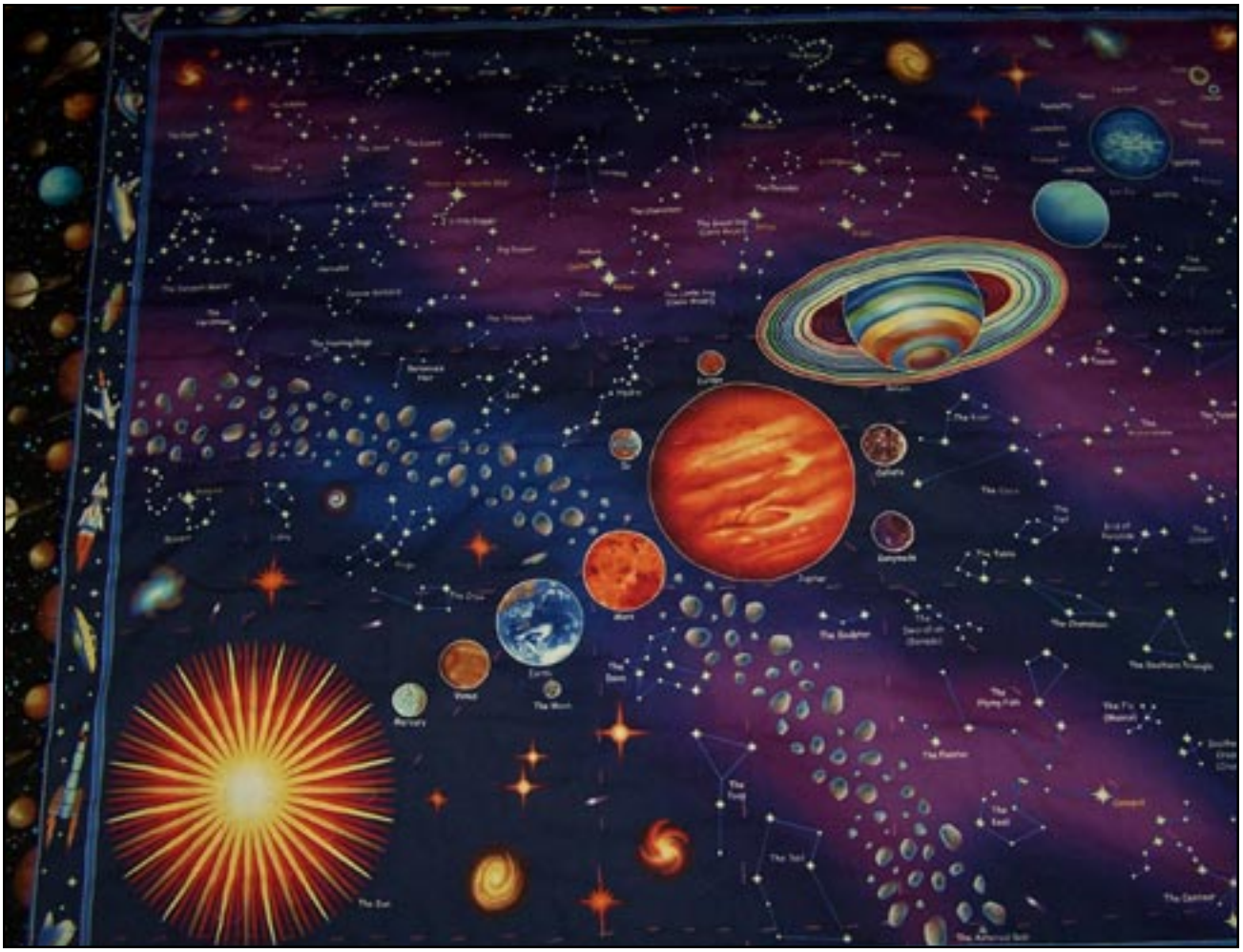
The last of the interactive groups is the Facebook group. On it, users can share photos, send messages, and take advantage of all of Facebook's other functions, too.

Black River Photo Gallery

The Whirlpool Galaxy by Denny Bodzash



Mercury and Venus by dave Lengyel.



Stunning quilt made by member Kathryn French. Photo by Dave Lengyel.

Hey Group! It's Clear, So Start Sending Some Photos!