



The Prairie Astronomer

February, 2010

Volume 51, Issue #2

The Official Newsletter of the Prairie Astronomy Club

PAC Program

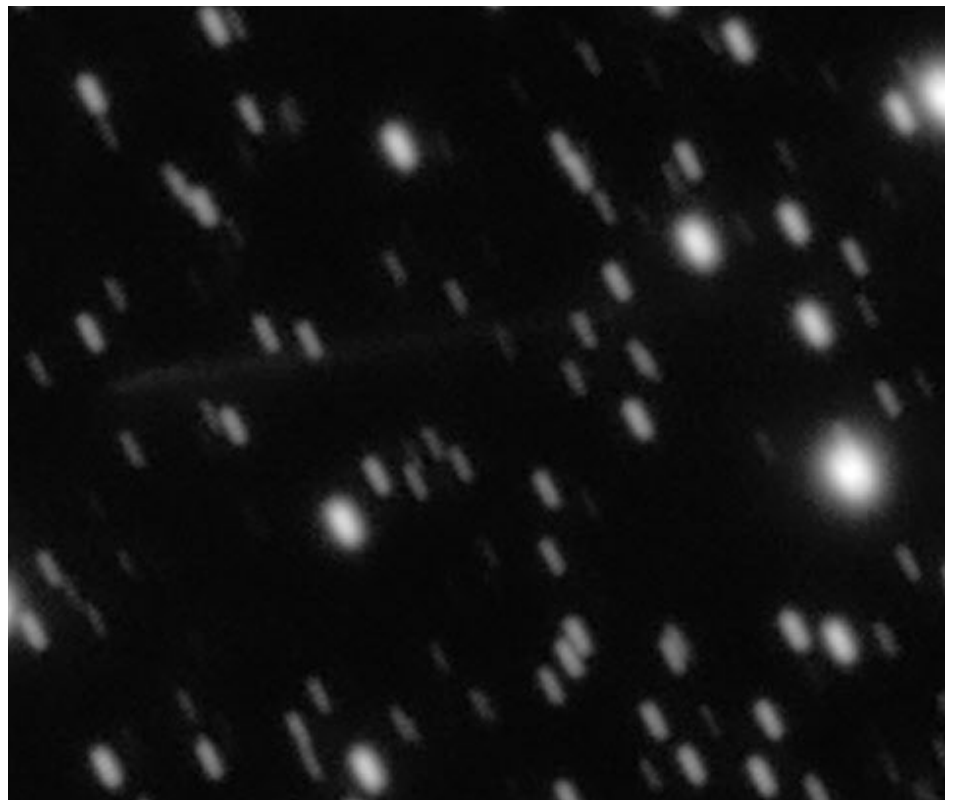
February program: The Astronomical League provides many different observing programs (clubs). These programs are designed to provide a direction for your observations and to provide a goal. Join us at our February Club program and learn about the variety of observing opportunities.”

In This Issue

What to view in March, Focus on Constellations, results of the extraterrestrial life survey, Rick Johnson’s Observatory Update, Clay Anderson, STS-131, Outreach Report, Bad movie night.

Featured Photo

From Rick Johnson: “P/2010 A2 (LINEAR) is cataloged as a comet but it is no comet. It’s the remains of two asteroids that smashed together. I’ve seen no estimate of when this happened. It was discovered in early January. I’ve been wanting to try and image it since then but until a couple nights ago I did have the skies to do it. This is a preliminary processing of the data. It is moving rather slowly but even that motion (about 0.0032" of arc per second) meant I had to have the mount track this motion to get much due to it being so faint. There’s no way to guide on a cloud like this so no guiding was used. I had no way to align the 4 subs so this is just a stack as it came from the camera. It’s been enlarged from the native 1" per pixel to 0.5" per pixel to better show the detail.”



Please send your astrophotos to Mark Dahmke to be added to the PAC website and the newsletter.

Club Business

Minutes from the January Meeting

Announcements:

Dan Delzell called the meeting to order.

The next PAC star parties will be on Feb. 5 & 12

The next PAC meeting will be Tuesday February 23, 7:30 PM at Hyde. It will feature information about the various observing clubs that you can join and also planning an observing party.

February 26 is bad movie night.

Jack Gabel will share his knowledge of black hole research on March 30.

April 24th is Astronomy Day

The Nebraska Star Party is August 8th through 13th, 2010.

Observing Chair Report

Club Observing Chair, Jim Kvasnicka provided a review of recent star party activity and a preview of Jan's observing highlights. Jim also presented that the planets Venus, Mars, Jupiter, Neptune, and Uranus are all visible this month. Mars will be the closest to Earth as it has been for 4 years this month.

Feb. 18 is the 70th anniversary of the discovery of Pluto.

2010 is also the 30th anniversary of the first mass produced dobsonian. It came with a 13.1 inch mirror and costs \$395.

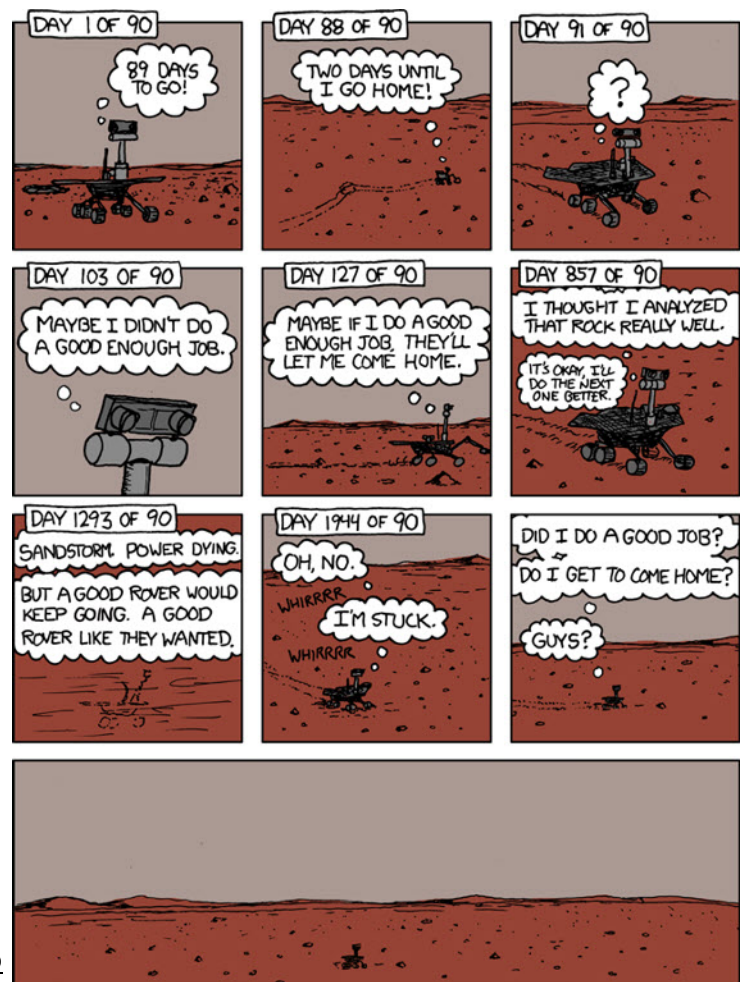
The Galileo Scopes have arrived and you can pick your scope up if you ordered one.

Now a Stationary Research Platform, NASA's Mars Rover Spirit Starts a New Chapter in Red Planet Scientific Studies

After six years of unprecedented exploration of the Red Planet, NASA's Mars Exploration Rover Spirit no longer will be a fully mobile robot. NASA has designated the once-roving scientific explorer a stationary science platform after efforts during the past several months to free it from a sand trap have been unsuccessful.

The venerable robot's primary task in the next few weeks will be to position itself to combat the severe Martian winter. If Spirit survives, it will continue conducting significant new science from its final location. The rover's mission could continue for several months to years.

Spirit and Opportunity landed on Mars in January 2004. They have been exploring for six years, far surpassing their original 90-day mission. Opportunity currently is driving toward a large crater called Endeavor and continues to make scientific discoveries. It has driven approximately 12 miles and returned more than 133,000 images.



Cartoon From XKCD

Club Events

Newsletter submission deadline, March 21, 2010

PAC Club Meeting

Tuesday, February 23, 2010 7:30pm @ Hyde Obsv.

Topic: The Astronomical League provides many different observing programs (clubs). These programs are designed to provide a direction for your observations and to provide a goal. Join us at our February Club program and learn about the variety of observing opportunities.

Bad movie night at Hyde, February 26th.

PAC Club Meeting

Tuesday, March 30, 2010 7:30pm @ Hyde Obsv.

Speaker: Jack Gabel, topic will be black holes and quasars.

2010 PAC Star Party Dates

March	5 th & 12 th
April	9 th & 16 th
May	7 th & 14 th
June	4 th & 11 th
July	2 nd & 9 th
August	6 th & 13 th
September	3 rd & 10 th
October	1 st & 8 th
November	Oct 29 th & 5 th
December	3 rd & 10 th

2010 PAC Lunar Party Dates

April 23rd, May 21st, June 18th, July 16th, September 17th, October 15th, November 12th

Astronomy Day 2010 is April 24th.

2010 Convention of the Mid-States Region Astronomical League

(MSRAL) June 4th, 5th, 6th at UNL

Nebraska Star Party

August 8th – 13th Merritt Reservoir South of Valentine, NE

Volunteer Activities

Astronomy Day – April 24th

Spring Creek Prairie Twilight on the Tallgrass – September (date not set)

Homestead National Monument Halloween on the Prairie – Sat. before Halloween

Hyde Observatory on Saturday nights

Additional volunteer events will occur when they are scheduled.

ON THE NET

PAC:

www.prairieastronomyclub.org

PAC E-Mail:

info@prairieastronomyclub.org

NSP:

www.nebraskastarparty.org

NSP E-Mail:

info@nebraskastarparty.org

OAS

www.OmahaAstro.com

Hyde Observatory

www.hydeobservatory.info

Panhandle Astronomy Club

Panhandleastronomyclub.com

PAC-LIST: You may subscribe to the PAC listserv by sending an e-mail message to: imailsrv@prairieastronomyclub.org. In the body of the message, write "Subscribe PAC-List your-email-address@your-domain.com"

For example:

Subscribe pac-list me@myISP.com

To post messages to the list, send to the address

pac-list@prairieastronomyclub.org

PAC can also be found on Twitter and Facebook.

Buy club apparel through the club website. Shirts, hats, mugs, mouse pads and more.



March Observing: What to View--Jim Kvasnicka

This is a partial list of objects visible for the upcoming month.

Planets

Venus: Shines at magnitude -3.9 in the west and continues to climb higher.

Mercury: By the end of the month Mercury will be high enough in the west to be visible to the lower right of Venus.

Uranus: Invisible in the bright sky after sunset to the upper right of Venus.

Mars: Located in Cancer high in the east at dusk. During March Mars will shrink in size from 12" to 9" and end the month at magnitude 0.1, the same as Capella.

Saturn: Rises at the end of twilight in the head of Virgo. Saturn reaches opposition on March 21st and shines at 0.5 magnitude with a size of 19.5".

Neptune: Just above the eastern horizon at dawn and difficult to see.

Jupiter: Becomes visible low in the bright dawn at the end of March.

March Messier List

M41: Impressive open cluster in Canis Major.

M44: The Beehive Cluster in Cancer, large and bright.

M46/M47: Close pair of open clusters in Puppis.

M48: Open cluster in Hydra.

M50: Open cluster in Monoceros.

M67: Open cluster in Cancer often overlooked because of M44.

M81/M82: Excellent galaxy pair in Ursa Major.

M93: Open cluster in Puppis.

Last Month: M1, M35, M36, M37, M38, M42, M43, M45, M78, M79

Next Month: M40, M65, M66, M95, M96, M97, M105, M108, M109

NGC and Other Deep Sky Objects

NGC 2440: Planetary nebula in Puppis, star-like.

NGC 2452: Greenish planetary nebula in Puppis.

NGC 2539: Open cluster in Puppis near M46 and M47.

NGC 2683: Edge on spiral galaxy in Lynx.

NGC 3242: The Ghost of Jupiter, planetary nebula in Hydra.

Double Star Club List

Epsilon Canis Majoris: Bright white star with blue-white secondary.

Delta Geminorum: Wasat, Yellow and rose colored stars.

Alpha Geminorum: Castor, white primary with a yellow secondary.

12 Lyncis: Close pair of yellow-white stars.

19 Lyncis: Pair of white stars.

38 Lyncis: White primary with a yellow secondary.

Zeta Cancri: Yellow and pale yellow stars.

Iota Cancri: Yellow and pale blue pair.

Challenge Object

IC 2177: Eagle Nebula in Monoceros. Large and faint, contains bright patches Gum1, NGC 2327, and Ced90.



Focus On Constellations - Jim Kvasnicka

Gemini

Gemini the Twins is one of the twelve constellations of the Zodiac. The brightest stars are in two long parallel rows, each representing one of the Twins. The bright stars at the NE end of the rows mark the Twin's heads and bear their names, Castor and Pollux. The Milky Way runs through the feet of Gemini so the constellation contains a wide variety of objects. Gemini's two finest objects are the large open cluster M35 and the bright planetary nebula NGC 2392 the Eskimo Nebula.

Mythology

Although Leda was the mother to both Castor and Pollux they had different fathers. Pollux was the son of Zeus who seduced Leda in the form of a swan. Since he was the son of a god Pollux was immortal, Castor was the son of Leda's husband Tyndareus. Their sister was Helen of Troy and both brothers fought in the Trojan War. They also sailed with Jason and his Argonauts in the Quest for the Golden Fleece. The Twins fell in love with beautiful sisters who were already betrothed to suitors. The twins challenged the suitors in battle and slew them, but Castor was mortally wounded. Overcome with grief, Pollux would have committed suicide to be with his brother, but since he was immortal it proved impossible. Finally, Zeus placed both their souls together in the sky as symbols of brotherly love.

Objects in Auriga Magnitude 12.0 and Brighter

Galaxies: NGC2329, NGC2274, UGC3691

Open Clusters: M35, Cr89, NGC2129, NGC2395, NGC2420, NGC2331, NGC2158,

NGC2266, NGC2356, NGC2355, NGC2304, IC2157

Globular Clusters:

Planetary Nebulae: NGC2392, NGC2372, NGC2371, PK194+2.1, PK189+7.1, PK205+14.1, PK200+8.1

Bright Nebulae:

SNREM: IC443

Dark Nebulae:

Named Stars: Castor (Alpha), Pollux (Beta), Alhena (Gamma), Wasat (Delta), Mabsuta (Epsilon), Mekbuda (Zeta)

Number of Auriga Objects in Various Observing Clubs

Messier Club: 1 object

Double Star Club: 2 objects

Herschel 400 Club: 10 objects

Globular Cluster Club: 0 objects

Open Cluster Club: 1 object

Planetary Nebula Club: 5 objects

Urban Club: 2 objects

ANNUAL MEMBERSHIP DUES

REGULAR MEMBER - \$30.00 per year. Includes club newsletter, and 1 vote at club meetings, plus all other standard club privileges.

FAMILY MEMBER - \$35.00 per year. Same as regular member except gets 2 votes at club meetings.

If you renew your membership prior to your annual renewal date, you will receive a 10% discount.

Club members are also eligible for special subscription discounts on Sky & Telescope Magazine.

Club Telescopes

To check out one of the club telescopes, contact **Jason Noelle**. If you keep a scope for more than a week, please check in with Jason once a week, to verify the location of the telescope and how long you plan to use it. The check-out time limit will be two weeks, but can be extended if no one else has requested use of a club scope.



PAC History Book Reminder–Mark Dahmke

I'm currently going through all the old newsletters looking for "Best of PAC" articles to include in the book. All the newsletters will be on the DVD version, but the printed book will contain only content that is relevant to club history or significant contributions from club members, for example, an article about building a telescope, tutorials, etc. I've started assembling the content and it looks like the book will be around 200 pages, but that's just a rough estimate. The goal is to have it finished in time for the MSRAL Convention. Given the content that I now have available, I've decided to format the book as a 6 x 9 trade paperback. The book will be published through lulu.com, which I've used for several other book projects. It will have an ISBN number and will be available for purchase through the Lulu website, or through any book store, and it'll be listed in *Books in Print*. We can also place a bulk order to get a discount. In addition to the history of PAC and Hyde, the book will include a transcript of Rick Johnson's 2005 program on the history of the club, plus photos, various other documents from Earl Moser's files, selected newsletter stories and observing reports, art and cartoons.

What I'm looking for now are other stories (they don't have to be long) from club members on a topic that is of special interest to them. For example, how the club got started, building the club scope, Astronomy Day, outreach activities, building and operating Hyde Observatory, observing sites, field trips, the Nebraska Star Party. Please take time to write about your experiences as a PAC member– a funny story, a trip to NSP, a night at the old Atlas observing site. The new deadline for stories is March 15. The proof copy will have to be ordered by April 1, so I will need to edit and finalize the content by the last week of March.

Bad Movie Night, Friday, February 26th–Jack Dunn

Would you enjoy seeing a really, really bad space movie - one that makes you groan and want to talk back to the screen?

PAC will have "Bad Movie Night" out at Hyde on Friday night, February 26th starting around 7 p.m.

We will have at least one short from Rifftrax - that's the folks who did Mystery Science Theater. The short is "Lunchroom Manners." Came from the '50's and probably horrified various elementary school children.

The movie of the night is called *Star Crash*. This was produced soon after the original *Star Wars*. Therefore they had to have a light-sabre battle. However, even though "Star Wars" was made on a budget that was small by effects movie standards, "Star Crash" looks like it was made on about \$100. That doesn't include "talent." Unfortunately "talent" and the actors who appeared in this 90 minute travesty really shouldn't be used in the same sentence.

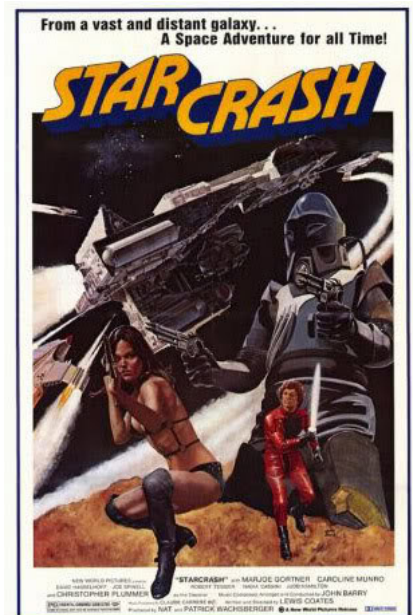
One name actor who appears is Christopher Plummer, who must have sunk to needing a paycheck. I'm pretty sure this film never was shown in actual theaters - maybe a drive-in somewhere.

Some other tidbits: The movie's female lead plays a character named "Stella Star" - and before you get any ideas, it is PG rated. She has a robot sidekick which has a Texas accent: "because he was made in Houston." Marjoe Goertner - a former child evangelist - has a lead role as some sort of part-time mystical being. And - to guarantee it's bad - need I say more: David Hassellhoff.

We will show this for free. Bring popcorn and snacks. Yes, you can groan and yell at the screen. It doesn't exist on any commercial DVD or release.

"What's that?"








"It's a spaceship."







Extraterrestrial Life - Survey Results- Mark Dahmke

We had a total of 23 responses to the survey. Thanks to everyone who participated.

“Extinct Martian microbes (any variety) in-situ” and “In an ocean of a moon in this solar system” tied at 6 votes each. The question of “when” was more evenly spread across all the responses, with the exception of 2010 which received no votes.

		Response Percent	Response Count
Oxygen rich atmosphere		8.7%	2
Martian microbes in meteorite		0%	0
Extinct Martian microbes		26.1%	6
Living Martian microbes (not related to Earth life)		13%	3
Living Martian microbes related to Earth-life		4.3%	1
Signals from another planet		13%	3
Ocean of a moon in solar system		26.1%	6
Atmosphere of Saturn or Venus		0%	0
Monolith on Moon		0%	0
When aliens visit us		8.7%	2

		Response Percent	Response Count
2010		0%	0
2011		26.1%	6
2015-2019		21.7%	5
2020-2029		30.4%	7
2030-?		21.7%	5

From the Newsletter Archives, February, 1985 – Mark Dahmke

Postponed from last month is Jack Dunn’s program from the planetarium entitled “Halley’s Comet Show.” (Hey, by the time the comet hits our skies, we may even know something about it!!)

“Learn How to Use Your Telescope” Program –Dave Churilla

In November we sponsored a program on “How To Buy a Telescope”. It was thought that a program like that would help people with useful information on purchasing that first telescope, or even upgrading a present one. This past January we had had our now annual “Learn How To Use Your Telescope” program and it was quite successful. We had 7 telescopes set up from people wanting help and 17 people, although 5 of the 17 were new club members who were looking for help with their equipment.

This year, Dan Delzell was the MC and he and Jason Noelle put together a very good presentation. Dan had the idea of breaking the program up into smaller presentations about topics to help the guests then have Club Members help our guests with that portion of the presentation. Once that was done another piece of the presentation was given and then members helped the guests and so on. Jason did an excellent job of explaining using star charts and atlases with very good visual aids.

I was really encouraged by the guests and their comments, some of which didn't have telescopes. There were quite a few comments on how helpful not only the program was but just how much above and beyond members went to help the beginner Club Members and Non-Club Members alike.

These 2 programs help people get the right equipment as well as assist new club members who are just starting out to learn how to use it. Thanks to all for their help on both nights.



STS-131 is currently scheduled to launch on April 5th.

Commander Alan Poindexter will lead the STS-131 mission to the International Space Station aboard space shuttle Discovery. Jim Dutton will serve as the pilot. Mission Specialists are Rick Mastracchio, Clay Anderson, Dorothy Metcalf-Lindenburger, Stephanie Wilson and Naoko Yamazaki of the Japan Aerospace Exploration Agency.

Discovery will deliver a multi-purpose logistics module filled with science racks to be transferred to laboratories on the International Space Station. The mission will feature three spacewalks.

Mastracchio and Anderson will conduct three six-and-a-half-hour-long spacewalks on flight days 5, 7 and 9 to replace an ammonia tank assembly, retrieve a Japanese experiment from the station's exterior and switch out a rate gyro assembly on the S0 element of the station's truss.



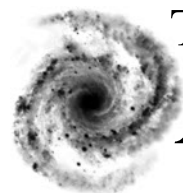
Twitter: Clay is tweeting...look for [@astro_clay](https://twitter.com/astro_clay) at http://twitter.com/astro_clay

Blogs: Clay and Susan Anderson both blog at this location <http://www.1011now.com/spaceblog> (If you are planning a trip to Florida, there is info on this site to help you).

http://www.nasa.gov/mission_pages/shuttle/shuttlemissions/sts131/catr.html (click on STS-131 imagery to the left and see the crew in action)

<http://www.netnebraska.org/extras/astronaut/>

A great resource of information on Clay Most of it is related to his previous mission and the premiere of the movie, but it still great background data.



THE *Prairie* *Astronomy* *Club*

Amateur Astronomy --
A Hobby as Big as the Universe

The Prairie Astronomer is published monthly by the Prairie Astronomy Club, Inc. Membership expiration date is listed on the mailing label. Membership dues are: **Regular \$30/yr, Family \$35/yr.** Address all new memberships and renewals to: **The Prairie Astronomy Club, Inc., PO Box 5585, Lincoln, NE 68505-0585.** For other club information, please contact one of the club officers listed to the right. Newsletter comments and articles should be submitted to: **Mark Dahmke, PO Box 80266, Lincoln, NE 68501 or mark@dahmke.com,** no less than ten days prior to the club meeting. The Prairie Astronomy Club meets the last Tuesday of each month at Hyde Memorial Observatory in Lincoln, NE.

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Next PAC Meeting
TUESDAY
February 23, 2010
7:30 PM
Hyde Observatory