

President's Report

by Dave Scherping



If you have access to Internet, see the Prairie Astronomy Club web page: <http://infoanalytic.com/pac/>
 E-mail us at: pac@infoanalytic.com
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The Prairie Astronomer

It's been great being President of the Prairie Astronomy Club the past two years. Since I am not running again this year, this will be my last President's Report, which is good because I'm running out of things to say. In the past few years, the club has picked up a lot of momentum and got some great things accomplished. The three things that really stand out are building the 13" club scope, starting the monthly Mahoney Star Parties and, of course, the annual Nebraska Star Party. The 13" scope has got a lot of use by our members who don't have a scope or one of that aperture. It's been a great asset for some of our new members who are just getting started. The Mahoney Star Parties have really brought the PAC and the Omaha Astronomical Society closer together. A few years ago, the clubs rarely crossed paths. It's great to see us doing so much together now. The Nebraska Star Party has exceeded all of our expectations. It's been a great time for those who've helped organize it and for those who've attended it. It's gained national recognition and is quickly becoming one of the premier star parties in the country. Everyone in the PAC and the OAS should be proud to be a part of NSP.

I look forward to the upcoming years with the Prairie Astronomy Club and anticipate many more exciting activities and accomplishments. It's time for someone new to share his or her vision and lead the club in the upcoming year(s). The new club president will be especially challenged with maintaining the momentum and unity of the PAC and making tough decisions, such as maintaining or selling the Atlas Site. I hope everyone will give full support to whomever takes over as President, just as you have given me.

Briefs:

The PAC website received the Eye on the Web Selected Site award. The PAC site is now listed in their Education/Astronomy section. Their URL is www.eyontheweb.com.

I've recently redesigned the website and am in the process of moving it to <http://www.4w.com/pac/> (mainly to shorten the URL; we're also trying to phase out the infoanalytic.com domain).

The home page has a new look and a new logo based on a photo I took at NSP. Also, more photos will soon be added to the NSP site. - Mark Dahmke

(Continued next column)

OCTOBER/NOVEMBER MEETING NOTICES:

GENERAL MEETING
 TUESDAY, OCTOBER 29th, 7:30 p.m.
 at Hyde Memorial Observatory

STAR PARTY NIGHTS
 FRIDAY, NOVEMBER 8th
 SATURDAY, NOVEMBER 9th
 at Atlas Observing Site

GENERAL MEETING
 TUESDAY, NOVEMBER 26th, 7:30 p.m.
 at Hyde Memorial Observatory

(Briefs continued)

A map to the club observing sites (Atlas & Beaver Crossing) are available at the next meeting for anyone that requests it. Just ask me.

Also, the October/November issue of *Air & Space* magazine has an article about the Twentieth Century Castle Company and the transformation of decommissioned Atlas Missile sites into underground homes. - Bryan Schaaf

The meeting programs for the following months are:

October: "Operator's Tour of Hyde Observatory". A how-to of staffing the scopes and observatory for the Saturday night open houses.

November: "Observing Mars" by Martin Gaskell, in honor of the upcoming Mars apparition.

December: (not yet confirmed) "Gemini Telescope Update" by Larry Step

January: "Quasars and Black Holes" by Stephanie Snedden. She is a student of Martin's. She'll tell about their work with quasars and a possible binary black hole. - Doug Bell

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Observing Chairman's Report

by Douglas Bell



For November 1996 observing:

New Moon: November 11th Top 40: Algol
Lunar object: Hadley rille Deep sky: NGC 7009
Planet: Saturn Challenge: IC 443
Messier monthly: M 72

Tip of the month: Vote early and vote often.

Quote: Look Jupiter! Look, another Jupiter!
- Ryan Bell, age 3

Lunar feature: Hadley Rille
Visit the only rille ever seen from ground level; an eerie place of low rounded hills and a long, gently sloping trench. To me, the Apollo 15 pictures from Hadley Rille look just like the sand hills near Merritt Reservoir.

Planet of the month: Saturn
It's a Saturn month. High in the sky, well placed, always fun to see. Show your kids.

Messier Monthly: M 72.... a globular star cluster
Mea culpa, mea culpa. As we all know M 72 is "near the planetary known as the Saturn nebula". I hate it when I do that. A globular in Aquarius. Why is it that I always start humming and feel like a hippie when I say Aquarius?

Top 40: Algol
The Ghoul. I should have used this in the October issue. An eclipsing binary known to the Arabs for centuries. Can you see it vary? Minima times are published in the Royal Astronomical Society of Canada (RASC) handbook.

Deep Sky: NGC 7009, The Saturn Nebula
Will the real Saturn nebula please stand up. This one (still) has extensions which (in photos or a really big 'scope) look slightly like Saturn's rings. How much can you see in your scope? It is also in Aquarius (there's that darn music again!).

Challenge: IC 443
A supernova remnant in Gemini. The book says you need a filter and at least a 10 inch 'scope. I suspect that a good dark site helps too!

Astro trivia: Remember that comet last spring? Can you spell it's name.

Last month's answer: Chromatic aberration dominated telescope design until the achromatic lens and efficient reflecting telescopes were

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TWO IMPORTANT MOTIONS OPEN FOR A VOTE

The following motions were stated at the September 24th PAC meeting. Because of their great importance to the Prairie Astronomy Club as a whole it was decided that they be printed in the Prairie Astronomer newsletter, so that ALL members have the opportunity to read them and attend the November PAC meeting for voting, if desired. If you are a out-of-town member and you have something to express regarding these, I urge you to write to the club PO Box address before voting takes place at the November 26th meeting. - Editor

I would like to entertain a motion that we make available Atlas site keys to any active club members that would like one. This effort may help promote 'ownership' of the site and encourage more use. The cost of making the keys may need to be made up as a one time fee for those requesting a key. The cost of our insurance (which has previously been paid with a annual charge for key owners) would now have to be funded through other methods. - Erik Hubl

First a little background: Twenty some odd years ago, members of PAC made a verbal contract with the city. " If the city would allow the Observatory to be built they (the club) would operate the Observatory as VOLUNTEERS on the nights that it was open for use by the public".

I was not a member of that steering committee. But being a member of the club I am and was obligated to abide by the club's commitment. A contract is a contract.

What could we lose by not fulfilling the contract?

1. Perhaps the city would close the Observatory if funds cannot be found to hire someone to operate it.
2. Perhaps the city would hire someone and then charge a fee for the use of the facilities.
3. Perhaps we in PAC would lose all of our privileges that we now have - most of all we could lose what we call our HOME.

How many volunteers do we need for a public night? Three are needed for the telescopes and one is needed as supervisor - minimum. Ideally we need three more (one each) for constellation talks with the star pointer, at the door directing traffic and answering questions, and someone for relief or to look up information for the questioning public.

Now for the motion: I move that we have a large poster with all the names of the members - posted in a prominent place in the observatory for everybody to see and a place for the volunteers to sign or commit themselves to work for the month - by the month. Also, that a permanent record be kept for the perusal of the public.

I ask for a second, but first that this motion be opened for discussion and amended, if so desired. - DOC MANTHEY

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MEETING ADJOURNED...

Secretary's Report by Bryan Schaaf



There were quite a few visitors that attended the September 24th PAC meeting at Hyde Memorial Observatory including three new memberships!

President Dave Scherping did not have a written agenda for the meeting as he so often does, but the meeting seemed to progress along very well as if there was one.

Dave deferred the "what's up?" portion of the meeting to me, so I described the appearance and position of Tabur 1996Q1, the newest comet discovered August 19th. I said it is a fairly bright comet visible in the morning sky with binoculars and provided a map to show it's current location (in Gemini).

Jack Dunn showed and talked about a new book titled "Everybody's Comet", authored by Alan Hale of Comet Hale-Bopp fame. "The comet is currently about 5.5 magnitude and I hope it will turn into something (to see) equal to or better than Comet Hyakutake. We'll just have to wait and see", Jack said.

There was no Treasurer's report as the treasurer wasn't present at the meeting.

The main point about "Site news" was that the junk at the Atlas Observing Site was finally hauled away, thanks to Allen and Ryan Peters, Bob Opp and Dave Scherping. *Applause.*

Because of the past insufficient attendance of scheduled Atlas Site "work bees" the decision was made not to schedule them anymore, but since there is remaining site maintenance that needs to be done; primarily the repositioning of the outhouse (outlined in the President's Report of the Sept. P.A. issue) Erik Hubl suggested that "we ask for volunteers right now to be at the site next Saturday at noon". After some discussion it was agreed that the day shall be a week later on Sunday, October 6th. Of course, by the time you read this the day will have already come and gone. See the "Update" for more information.

Erik expressed that he wants to "entertain the motion that we find some other way to pay for the site annual insurance other than by the rental of gate keys". Such an alternative would make it possible to have "enough keys for everyone. This would make the site more accessible to all club members and would encourage more use of the site". The money raised by the key method has not been paying all the expenses for quite some time now. More about this matter will be discussed at a future PAC meeting.

The neighbor to the southeast of our property dug a deep trench across our land by the front gate and placed a water line there. Ideas of what to do about it were exchanged. What we'll do was not yet decided, but there were a number of viable options mentioned. More about this matter will be discussed at a future meeting. Beware of the trench!

Doc Manthey brought up that we need more volunteers to help on Saturday nights for public observing sessions. Since Hyde Memorial Observatory was built approximately twenty years ago, we have had a verbal contract that specifies that we manage the observatory for the

city to provide public observing sessions in exchange for our use of the building for our club meetings. Doc suggested that if PAC does not uphold the agreement the city could hire someone to manage the observatory and we would lose it. Right now we aren't fulfilling our obligation completely. Doc made the motion that we better utilize all our (local) members to help staff the observatory, even if an individual only volunteers for two nights a year. If everyone would volunteer two nights a year that would be enough. It was suggested that a volunteer sign-up list be posted at Hyde and that those volunteers be listed in the monthly newsletter. Expect to hear more about this matter at the next meeting or the one after that.

Nominations for 1997 PAC officers were held at the meeting. The nominations will remain open until the October meeting elections. The nominations so far are:

President: Dave Knisely, Doug Bell, Dave Hamilton
Vice President: Ron Veys, Dave Hamilton, Dave Knisely
2nd Vice President (Program Chairman): Larry Hancock, Doug Bell
Treasurer: John Bruce, Liz Bergstrom, Lee Thomas
Secretary: Bryan Schaaf, Dave Hamilton, Liz Bergstrom

The program titled "Observing the Sun in H-Alpha" was provided by Dave Knisely. He showed slides and talked about various features present on the Sun, including many types of prominences and flares and other phenomena associated with the solar magnetosphere. He even described his methods of observing them.

WELCOME NEW MEMBERS!

GREG OLSEN
PETER & MICHELLE CRAWFORD
ANDREW STODDARD
MATT GARTHRIGHT

ATLAS SITE UPDATE:

Project Atlas was a big success. A big thank you goes out to the following individuals for contributing their time (3 hours) and their concerted efforts to position the outhouse securely on October 6th: Harmander Deogun, Matt Garthright, Erik Hubl, Rick Johnson, Fred Miles and Bryan Schaaf.

Harmander and Matt provided the extra muscle power that the older guys couldn't! The task couldn't have been accomplished without their help.

The warm-up shed was tidied up, also.

*WANTED: Ed Furman, of Omaha, wants to buy a good starter scope; preferably a 6" or 8" Dobsonian.
(402) 496-5740 (work) (402) 896-1586 (home)*

The Prairie Astronomy Club November 1996

S	M	T	W	T	F	S
<p>Venus (mag. -4.0) is the brilliant planet visible 20 degrees above the east-southeast horizon fifty minutes before sunrise. A conjunction of the Moon and Venus occurs on the morning of the 8th. The Moon then lends itself to you as a guide to find Venus in broad daylight! Mars (mag. 1.1) begins the month less than two degrees east-northeast of Regulus (mag. 1.3), the brightest star in Leo and rapidly moves eastward throughout the month. It rises after midnight. Jupiter (mag. -2.0), is the brightest planet in the evening, but it is less than 20 degrees above the southwest horizon as twilight ends. This is the last good month to observe Jupiter as it sets only three hours after sunset, and will be very low in the evening sky next month. Ten degrees east of Jupiter is Neptune (mag. 8.0) a little over 1 degree southeast of fifth magnitude star 56 Sagittarii. You'll need a telescope to see it, as it only appears as a grey-green star telescopically at best. Six degrees farther east is Uranus (mag. 5.8). It is typically visible with binoculars (the larger the better), but appears as a blue-green disk when viewed with a telescope at moderate power. Saturn (mag. 0.8) is very well placed for observing all evening in the south to southwest sky until well after midnight, when it sets. The rings of Saturn are gradually tilting at a greater angle to our line-of-sight, but still remain quite narrow, almost edge-on with a telescope. Saturn appears as a yellowish "star" by direct (unaided) vision south of the "Great Square of Pegasus" in the constellation Pisces. Comet Hale Bopp (4th mag) will be easily visible with binoculars even from city lights low in the south-southwest sky during early evening. It's coma and tail is expected to be readily visible by direct vision from a dark location. It's position is just to the east of the globular star cluster M14 when November opens and moves north-eastward covering a little over six degrees of travel throughout the month. Put another way, the position is roughly 8 degrees south to southeast of Beta Ophiuchi. Hint: Use a star map. <i>Clear Skies!</i></p>						
<p>3 LAST QUARTER MOON 1:50 AM Moon at apogee, 252,500 miles 7:39 AM Comet Tabur perihelion</p>	<p>4 Today and tomorrow: Moon, Mars and Regulus grouped together in morning sky</p>	<p>5 In the news, 1980: Voyager 1 is revealing distinctive Saturnian atmospheric features; oval and halo clouds</p>	<p>6 In the news, 1980: Voyager 1 spacecraft, though still 5 million miles from Saturn is revealing dark spokes in the rings</p>	<p>7 Today through the 9th: Crescent Moon will approach and pass Venus in the early morning sky; Spica is south of Venus</p>	<p>1 Chiron, asteroid 2060, a distant asteroid (?) or comet (?) discovered by Charles Kowal in 1977</p>	<p>2 Harlow Shapley born, 1885 In the news, 1978: Salyut 6 Cosmonauts V. Kovalenok and A. Ivanchenkov return to Earth; 139 days aloft.</p>
<p>10 NEW MOON 10:16 PM</p>	<p>11 Gemini 12 launched with Jim Lovell and Buzz Aldrin aboard, 1966 12 was the last Gemini mission.</p>	<p>12 In the news, 1980: Voyager 1 spacecraft flew past Saturn at 5:46 PM, showed a complex system of ringlets and discovered rings that are weirdly twisted</p>	<p>13 Mariner 9 spacecraft orbits Mars, first craft to orbit a planet, 1971</p>	<p>14 Moon appears to the right of Jupiter in the southwest after sunset Apollo 12 launched with Charles Conrad, Richard Gordon, Alan Bean aboard, 1969</p>	<p>15 Moon at perigee, 239,800 miles 10:43 PM William Herschel born, 1738</p>	<p>16 Today through the 19th: Venus and Spica appear together in morning sky only four degrees apart TODAY IS THE DEADLINE FOR NEWSLETTER SUBMISSIONS</p>
<p>17 FIRST QUARTER MOON 7:09 PM Leonid meteor shower peaks, 8-12 (swift) meteors per hour; meteor storm every 33 years (next 1998 or 1999?)</p>	<p>18 In the news, 1978: A new x-ray space telescope known as HEAO 2 or "Einstein" radioed back it's first image showing Cygnus X-1, a black hole candidate.</p>	<p>19 Apollo 12 lunar module landed on Moon, 1969</p>	<p>20 Edwin Hubble born, 1889 Comet Tabur is expected to be 7.4 magnitude and fading, but it may still be visible near Alpha Coronae Borealis after evening twilight ends</p>	<p>21 In the news, 1990: Hubble Space Telescope photos show a 200,000 mile long storm around the planet's equator. The "white spot" was discovered by amateur astronomers</p>	<p>22</p>	<p>23</p>
<p>24 FULL MOON 10:10 PM Apollo 12 splashdown</p>	<p>25</p>	<p>26 PAC MEETING 7:30 pm at Hyde Memorial Observatory First meteor photograph, 1885</p>	<p>27</p>	<p>28</p>	<p>29 Mercury spacecraft launched with chimpanzee Enos aboard, 1961</p>	<p>30</p>

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PRAIRIE ASTRONOMY CLUB MEMBERSHIP LIST (10/96)

Continued

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Randall Volk		226 D Street	Lincoln	NE 68502	402-477-0081	
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Alan Wedige		4022 D Street	Lincoln	NE 68510	402-489-3886	
Brad Whitten		P.O. Box 21	Peru	NE 68421		
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Every effort was made to insure that the information contained in this list is correct as per each member's expressed wishes. If you find an error, please notify the editor about it soon, so that the error is not repeated in the future.

THE AURORA BOREALIS

from the Hubbard County Enterprise, Oct. 22, 1886
Submitted by Rick Johnson

I found this article yesterday (October 15th) quite by accident. It comes from the Hubbard County (Minnesota) Enterprise of October 22, 1886. Apparently aurora have quieted down quite a bit compared to 110 years ago when they were so noisy they interrupted hunting trips. I've watched many aurora up there, several so brilliant you could read a book in the cabin without turning on a light (except the flickering would drive you nuts) but none have ever made a sound or disturbed any dogs that I know of.

Poetically speaking, Aurora is the goddess of the morning, who opens the gates of light, but in our ordinary language we almost always employ the term in a special and restricted sense.

In places far north, as Sweden, Lapland, Greenland and Siberia, the Aurora is singularly grand, and even terrific. It frequently occupies the whole heavens, and it is so brilliant that it eclipses the splendor of the stars and the planets and the moon.

A more beautiful spectacle can not be painted, but whoever should see such a northern light for the first time could not behold it without terror, for, however brilliant the illumination may be, it is attended, according to the testimony of many witnesses with a hissing, cracking, rushing noise, which resembles the discharge of the largest fireworks. The hunters who pursue the white and blue foxes on the confines of the icy sea, are frequently overtaken by these northern lights, and their dogs are so frightened that they will not move, but lie obstinately on the ground till the noise has passed.

Respecting the cause of this beautiful phenomenon, a great variety of theories have been proposed, but the most scientific authorities now assume that the Aurora is in some way connected electrically and magnetism, but in what manner no one ventures to decide. Whatever it is, it must be purely earthly phenomenon, as the height of its columns or arch, as the case may be, is seldom more than ninety miles above the earth's surface.

Do you have a funny or interesting story to share?
If so, please send it in for the newsletter.

Behlen Open night (October 11th) was a big success. Because of good publicity and a warm night we had an ENORMOUS crowd. I counted almost 200 signatures in the guest book alone. This suggests that we had over 400 people!

One Omaha Astronomical Society member counted 150 people looking through his scope in the first hour alone! The wind which had been high during the day dropped to almost nothing for most of the evening, so it was a real pleasant time. Thanks to PAC and OAS members for all the help, especially since we were a bit short-staffed on the University side. - Martin Gaskell

IT'S A [SPACE] SHUTTLE WE'RE TALKING ABOUT?

Submitted by Bryan Schaaf

In the news, November 16, 1981:

Charles Johnson, President of the Flat Earth Society and resident of Lancaster, California, called the whole space program "a continuing giant rip-off of the taxpayers of America." As he watched the Columbia Space Shuttle land at Edwards Air Force Base, he yelled "Hoax!" and added "Sure it landed, but it didn't orbit the Earth. That can't be done. The Earth is flat.

"Are they hanging by their feet in Australia? No they aren't." Johnson said Columbia took off from Cape Canaveral and landed at sea a few minutes later. Landed at sea? "Of course", he said, "those big [fuel] tanks keep it from sinking."

The films purportedly taken from space where done in a studio, he said, just like they do in "Buck Rogers".

Saturday's spectacular landing was accomplished by hauling the shuttle aloft and dropping it over the desert air base. He isn't sure how it gets from the Atlantic Ocean to Edwards. "We don't know all the details", he said. "Magicians saw ladies in half".

Johnson said the space program is run by professional criminals. "You know how Florida is, riddled with crime".

He said the round Earth myth is an old superstition. Intelligent people know it is flat, but reactionaries don't believe it, he said. "People prefer weird."

OBSERVING AT THE ATLAS SITE

By Bryan Schaaf

Liz Bergstrom and I talked about going out to the Atlas Site earlier in the week and hoped the weekend weather would be good. Saturday night, October 5th was a gorgeous night for observing. The waning crescent moon wasn't to rise until about 2 AM. There wasn't a cloud in the sky.

I invited neighbors to meet us out at the site later and when we arrived just after dark we found the site gate wide open. Dan Delzell was set up and he informed us that John Tobler would arrive a while later. Including my neighbors, there were eight of us and we all had a great time!

We observed Jupiter, Saturn, M31, M32, NGC 205, M20, M8, M36, M38, M37, M27 (the "Doug Bell Nebula"), NGC 869 & 884 (Double cluster), M13, M92, M57 and others I can't remember. We particularly wanted to observe Comet Hale-Bopp. It's fan shaped tail was obvious.

Around 12:30 AM everyone had left except Liz and me. We were determined to stay long enough to see Comet Tabur and we did. It rose above the trees to the northeast at about 12:45 AM and we watched it move northward 1/3 degree in an hour. The coma was irregular shaped. We left at about 2:30 AM, after the moon rose.

(Observing Chairman's Report continued from page 2)

invented. Since coma is reduced by using a very flat lens, early designers equated focal length with optical performance. That is, the longer the focal length, the better the scope. Scopes stretched to f30, f40... up to f100! Christian Huygens had a two inch objective in a twelve foot tube! Real scopes were built up to 65 meters. Dream scopes were designed that stretched to over 300 meters! Wow.

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By Dave Scherping

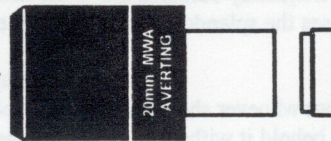
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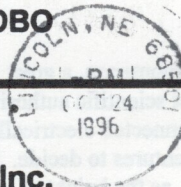


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