

Better Than Advertised

by Dave Knisely

A person sometimes has to lower his or her expectations when preparing to observe various astronomical objects. I have long since learned that many faint galaxies look like fuzzy blobs, and Mars rarely shows much fine detail in any telescope. With all this in mind, I prepared for the celebrated event of the century; the impacts of the fragments of Comet Shoemaker/Levy 9 on Jupiter. I am, unfortunately, old enough to remember the Comet Kohoutek fiasco. I groaned at all the SL-9 media hype, mindful of the cautions given by the scientists at the HST Science Institute that we might not see much of anything. I familiarized myself with the impact area near the south edge of Jupiter's south temperate zone, and, when Saturday, July 16th finally rolled around, I lugged out my beat-up ten inch Newtonian, only to be greeted by thick cirrus clouds. I could barely see Jupiter, but I still had hope that the impact of fragment "B" might be visible (or at least, its mark on the planet). I had CNN running on the TV in the kitchen, and suddenly, they broke in to announce the sighting of the mark of fragment "A" by the Hubble Space Telescope. My hopes shot up, and I stared at the dim fuzzy disk of Jupiter until my eyes watered. The "B" fragment impact time came and went with no sign of anything on the limb, or rotating into the field of view. After half an hour, I gave up and drove to Burger King to console myself with a Whopper meal. The next night was clearer, but the seeing was lousy, and although I thought I saw a tiny spot near the right location, I wasn't very certain that it was an impact scar. I concluded that once again, only the keen infrared eyes of the Keck telescope or the HST would see anything of the impacts. Monday night, I had to work, but Tuesday evening, after a hot lawn mowing session, my hope once again got the best of me, and I set up the ten, thinking I would at least get the finder properly aligned this time. I put in a low power eyepiece and was about to monkey with the finder screws, when I saw something small and dark

towards the southeast limb of the planet. I first thought it was some dirt on the field lens of the eyepiece, but then I noticed that there were two of them and they **MOVED WITH THE PLANET!** Madly, I started yelling and fumbling for the high power eyepieces, as disappointment turned to pure joy. 230x showed two large distinct jet-black spots near the southeast limb, and

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By: Dave Scherping

LAST MONTH

At the July meeting, there were two videos presented. The first, presented by Jack Dunn, was an excellent video on the Jupiter/Shoemaker-Levy comet crash. The second video was of the Nebraska Star Party, filmed by Earl Moser. In case you were not there, Tom Miller has a video tape of the meeting for those who are interested. Thanks to both Jack and Earl for their participation and efforts. Also, thanks to Jason Stahl for filling in for me while I was away.

COMING SOON TO A PAC MEETING NEAR YOU

At the August meeting, we'll watch another video. This one will be about the Tunguska meteor impact.

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The Prairie Astronomer

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While You Were Gone...

by Jason Stahl

Good news for all of the club members waiting for the 13.1 inch club telescope to be built. At the July meeting, the club voted on the purchasing of the necessary parts to built the scope. If you would like to help with the construction of our club telescope, contact Dave Scherping, 477-2596. [See the article about the club telescope later in the newsletter]

The PAC Picnic, that was held on August sixth, was hampered by clouds most of the day, but when the picnic started at 6 o'clock, the clouds began to part showing promising signs of clear skies. The gathering of members, family, and friends turned into a fine social event. Many people talked about the trip to Merritt, the upcoming Perseid Shower, and other Astronomy subjects. When the Clear Skies Coordinator arrived, he was quickly escorted to a group of people at Hyde Observatory and was asked to perform his Clear Skies Dance. No I did not dance in front of them, I did say that I would do my best to accommodate their wishes. As it turned out, it was clear until shortly after midnight.

The Perseid Meteor Shower on August 11-12th, ended up as a bust. Unlike last year when we watched over one hundred meteors an hour, this year we saw about thirty in three hours! What went wrong? How could a meteor shower that averages sixty per hour go down to ten an hour in two years? If anyone has some ideas, let us know. We can only wait to see what next year will be like.

At the September meeting, nominations for Club Officers will begin. The elections will be at the October meeting, so if you or someone you know is thinking about running for an office, next month will begin the race.

Reminders for September

- ⊙ Sept. 2nd Joint Star Party with the Omaha Club at the Omaha Observing Site.
- ⊙ Sept. 3rd Alternate night for the Joint Star Party if skies are cloudy on the 2nd.

**See Page 4 for
information on the
Joint Star Party!!!**

Comet Harrington begins its south bound trip through Cetus. See page 65 in ASTRONOMY magazine, September issue for the coordinates. Comet Harrington will peak at magnitude 12.7 on the eighth of September.

Also starting tonight is Comet Borrelly. As it travels through Orion, Comet Borrelly will pass less than one degree south of the Horsehead Nebula on the 16th. Comet Borrelly is estimated to reach a peak magnitude of 9, but Borrelly will be fainter than the visual magnitude implies due to its lower surface brightness. See page 62 in Sept. issue of ASTRONOMY magazine for the coordinates.

- ⊙ Sept. 5th New Moon at 13h 34m.
- ⊙ Sept. 9th PAC Star party at Atlas site.
- ⊙ Sept. 10th The last Mahoney Star party of the year.
- ⊙ Alternate PAC Star party at Atlas Site.
- ⊙ Sept. 12th First Quarter Moon at 6h 35m
- ⊙ Sept. 19th Full Moon at 15h 02m
- ⊙ Sept. 27th PAC Club Meeting at Hyde Observatory beginning at 7:30 pm
- ⊙ Last Quarter Moon at 19h 25m
- ⊙ Sept 30th PAC Star party at Atlas site.

Globulars and more Globulars

This edition to the Observing Chairman's Report is devoted to those small, but huge Globular Clusters in the Southern Milky Way. Here is a list of Globulars ranging from binocular objects to medium to large aperture telescope objects. With a six inch

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The Prairie Astronomer is published monthly by the Prairie Astronomy Club, Inc., and is free to all club members. Membership status and expiration date are listed on the mailing label. Membership dues are: Regular Members...\$10/yr; Family Memberships...\$12/yr; Address all new memberships, renewals, or questions to THE PRAIRIE ASTRONOMY CLUB, INC., P.O. BOX 80553, LINCOLN, NE 68501. For other club information contact one of the following: John Bruce (Lincoln) 483-0389, Lee Thomas (Lincoln) 483-5639, John Lortz (Omaha) 496-1122. All newsletter comments and articles should be sent to Newsletter Editor JOHN LORTZ, 11684 MEREDITH AVE., OMAHA, NE 68164 no later than 10 days before monthly club meetings. Club meetings are held the last Tuesday of each month at Hyde Observatory in Lincoln, NE.

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scope you should see at least twenty of the clusters without straining yourself. For scopes larger, you will see all of the clusters with no problems.

These Globular Clusters will be found in the constellation Sagittarius.

- NGC 6864=M75, 20h 06.1, -21.55deg, mag., 8.6 size 6.0'
- NGC 6715=M54, 18h 55.1, -30.29deg., 7.7mag. size 9.1'
- NGC 6624 18h 23.7, -30.22deg., 8.3mag., size 5.9', X-Ray source
- NGC 6528 18h 04.8, -30.03deg., 9.5mag., size 3.7
- NGC 6522 18h 03.6, -30.02, 8.6mag., size 5.6'
- NGC 6553 18h 09.3, -25.54deg., 8.2mag., size 8.1'
- NGC 6544 18h 07.3, -25.00deg., 8.2mag., size 8.9'
- NGC 6638 18h 30.9, -25.30deg., 9.2mag., size 5.0'
- NGC 6626=M28 18h 24.5, -24.52deg., 6.9mag., size 11.2'
- NGC 6642 18h 31.9, -23.29deg., 8.8mag., size 4.5'
- NGC 6440 17h 48.9, -20.22deg., 9.6mag., size 5.4'
- NGC 6656=M22 18h 36.4, -23.54deg., 5.1mag., size 24'

The rest of these Globulars will be found in the constellation Ophiuchus.

- NGC 6325 17h 18.0, -23.46deg., 10.7mag., size 4.3' Compressed very faint stars.
- NGC 6313 17h 16.6, -28.08deg., 9.0mag., size 4.9' Compressed extremely faint stars.
- NGC 6304 17h 14.5, -29.28deg., 8.4mag., size 6.8'
- NGC 6273=M19 17h 02.6, -26.16deg., 7.2msg., size 13.5'
- NGC 6284 17h 04.5, -24.46deg., 9.0mag., size 5.6'
- NGC 6235 Globular Cluster? (class uncertain) 16h 53.4, -22.11deg., 10.2mag., size 5.0'
- NGC 6287 17h 05.2, -22.42deg., 9.2mag., size 5.1'
- NGC 6293 17h 10.2, -26.35deg., 8.2mag., size 7.9'
- NGC 6342 17h 21.2, -19.35deg., 9.9mag., size 3.0'
- NGC 6333=M9 17h 19.2, -18.31deg., 7.9mag., size 9.3'
- NGC 6356 17h 23.6, -17.49deg., 8.4mag., size 7.2' extremely faint stars
- NGC 6355 17h 24.0, -26.21deg., 9.6mag., size 5.0'
- NGC 6401 Globular Cluster? (class uncertain) 17h 38.6, -23.55deg., 9.5mag., size 5.6'
- NGC 6402=M14 17h 37.6, -3.15deg., 7.6mag., size 11.7'

Since all of these clusters are fairly close to one another, you should be able to find two thirds of them in one night if the weather is suitable. Good Luck and Happy Observing! See you at the August meeting.

13.1" CLUB TELESCOPE

By Dave Scherping

The 13.1" club telescope is underway! At the July meeting, the club voted to spend \$350 on the scope. Five members of the scope building committee met on August 16th to discuss the design and make arrangements to begin construction. The design is 95% complete. The scope will be a portable, truss-tube type telescope.

I'll have the drawings at the next PAC meeting.

To date, we have the following components:

- ☺ Primary Mirror
- ☺ Secondary Mirror
- ☺ Focuser

- ☺ Truss Tubes
- ☺ Tubes For Upper Tube Assembly
- ☺ Teflon
- ☺ Muffin Fan

The following components have been ordered from AstroSystems:

- ☺ Primary Mirror Cell
- ☺ Secondary Holder
- ☺ Telrad
- ☺ Kydex (for upper tube assembly)
- ☺ Ebony Star (formica for bearing surfaces)

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one of them had an eyebrow-shaped arc of darkness east of its center, JUST LIKE IN THE HUBBLE PICTURES! I kicked up the power to 314x, and the arc looked for all the world like half a set of false eyelashes. These spots were HUGE! One was larger than the Great Red Spot, and both showed interesting structure when seeing permitted. I even got several inquisitive neighbors over to see the action. Jupiter rotated slowly, carrying one of the spots over the limb, but even as it did so, ANOTHER dark spot came around the east limb! It was astronomical Nirvana! Jupiter had not just been struck, it had been CLOBBERED, and I was getting a front-row view of it! I alerted a couple of friends in the club by phone, and then went back to the eyepiece to watch the new spot move into viewing position. I went to bed very happy that night, and the next evening, I had the scope ready even before sunset. This time, I saw a dark impact scar near Jupiter's meridian with a few new faint dark spots trailing it. As the week went on, more spots appeared, with the four largest ones remaining visible even in small telescopes. All in all, Shoemaker/Levy 9 had turned in an unexpectedly spectacular performance which may have finally wiped out the "Kohoutek Syndrome" from the minds of the media and the general public.

After reflecting on the SL-9 impacts, I began to assess their value compared to all the other celestial wonders I have experienced. I have seen a few monster solar flares, a spectacular naked-eye comet, two novae and two supernovae (all fairly rare events), but not in my wildest dreams did I ever expect to see what happens when a fragmented comet hits the largest planet in the solar system. Such an event has never been witnessed in all of human history, and I began to appreciate the fact that I had viewed something which I (or anyone else) would very probably NEVER see again. This fact makes the memories of what I saw all the more precious, and puts my involvement with amateur astronomy in a far more important light. This wonderful hobby of ours which takes us to distant worlds and beyond the stars has now given many of us a once-in-a-HUNDRED-lifetimes experience. Think about this every time you are trying to decide whether it is worth the bother of getting your telescope out for an observing session or a star party. If people ever snicker a little or politely dismiss your stargazing, just remember it is THEY, and NOT you, who are really missing out on the real action in the universe.

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In September, we get to hear Part II of Ron Veys' telescope making presentation (Part I was presented in March). Part II will be about constructing telescope mounts.

In October, Dave Knisely plans to give a presentation on optics.

NEBRASKA STAR PARTY....

There are still a few tee-shirts that were ordered and need to be picked up. Please make arrangements to pick them up at the July meeting or contact me asap. For those people who requested ad-

ditional tee-shirts, we did not receive enough interest to generate another order (24 minimum).

Be sure to look for articles on NSP in the next issue of "Clear Skies" and "Amateur Astronomy". Jason Stahl wrote the article for "Amateur Astronomy" and I wrote the one for "Clear Skies".

At the July meeting, we discussed hosting the 2nd annual NSP next year. We will be needing several volunteers to help coordinate the star party. Positions need to be filled by September if we expect to have a successful NSP II. Positions include:

- Star Party Coordinator**
(the title says it all)
- Site Committee** (2-3 people)
(includes finding centrally located observing site)
- Registrations Coordinator**
(collecting registration fees, etc.)
- Reservations Coordinator**
(reserving cabins, etc.)
- Program Coordinator**
(arranging guest speakers, program facility, etc.)
- Tee-Shirt Coordinator**
(ordering, selling, and distributing)
- Publicity Coordinator**
(advertisements, brochures, etc.)
- Door Prizes Coordinator**
(writing letters & coordinating drawings)

Joint Star Party Information

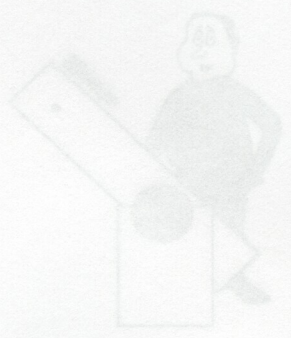
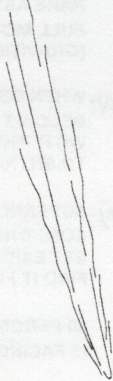
There will be a joint star party with the Omaha club at the Omaha Club Observing Site on Friday, September 2, 1994. If Cloudy, it will be on Saturday, September 3rd.

DIRECTIONS:

Take "O" street (Hwy 34) East to the intersection of Hwy 34 and Hwy 50 (yellow flashing light). Continue East on Hwy 34 for 4 miles. Turn North on 120th street (a bent over sign is just north of the intersection). Go North on 120th street for 2 1/4 miles until road curves left. Turn right just before the farmhouse on the right. Follow the gravel road to the observing site.

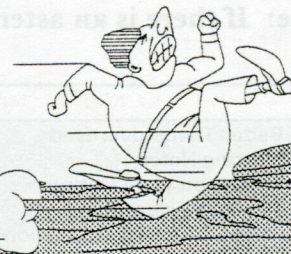
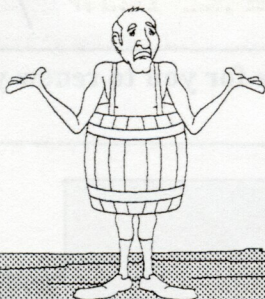
If you have any questions, you can call Roger Besch at 486-1977.

Never before seen images
from Hubble showing how
people on Jupiter are taking
Comet Shoemaker-Levy9
as it approached.



What do I have to lose?

Just a little bit further,
and I'll be home free!



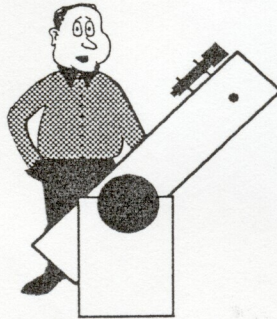
J&S

ASTRO MAN IV

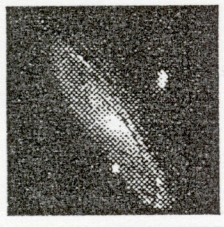
By Dave Scherping

AFTER YEARS OF HARD WORK, ASTRO-MAN SCIENTIFICALLY FORMULATES HIS SOON-TO-BE-FAMOUS LAWS OF ASTRONOMICAL OBSERVING:

ASTRO-MAN'S LAWS



- 1ST LAW:** THE SKIES ARE NEVER CLEAR WITHIN 3 DAYS OF NEW MOON (SINCE THERE IS NOT ENOUGH SOLAR ENERGY REFLECTED OFF THE MOON TO DISSIPATE THE CLOUDS).
- 2ND LAW:** RARE ASTRONOMICAL EVENTS USUALLY OCCUR WITHIN 3 DAYS OF FULL MOON AND/OR WITHIN 30 APPARENT DEGREES FROM THE SUN (GRAVITATIONAL INTERPRETATION OF MURPHY'S LAW).
- 3RD LAW:** WHEN OBSERVING, THE OBJECT YOU WANT TO SEE WILL ALWAYS BE BELOW THE HORIZON OR LESS THAN 10 DEGREES FROM THE HORIZON WITH THE MOST LIGHT POLLUTION (SINCE FRUSTRATION IS RELATED TO ENTROPY, IT MUST ALWAYS INCREASE).
- 4TH LAW:** SUPERNOVAE, COMETS, AND ASTEROIDS ARE ALWAYS DISCOVERED BY SOMEONE ELSE (BECAUSE NO MATTER WHERE YOU ARE, THE SUN WILL SET EARLIER SOMEWHERE ELSE, AND THEREFORE SOMEONE ELSE WILL FIND IT FIRST).
- 5TH LAW:** 90 PERCENT OF METEORS OCCUR BEHIND YOU WHEN EVERYBODY ELSE IS FACING YOU (SO THEY CAN ALL SAY, "OOH! ... YOU MISSED A GOOD ONE!)



The Prairie Astronomer
c/o The Prairie Astronomy Club, Inc.
P.O. Box 80553
Lincoln, NE 68501



First Class

Next Meeting
August 30, 1994

See Page 4 for
information on the
Joint Star Party!!!

94027 9/95 FS 08
Mr. Earl Moser
P. O. Box #162
Hickman NE 68372

8-94

Please Notice: If there is an asterisk on your mailing label it is time for you to renew your PAC membership!

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