

Weekend Under the Stars 2001-August 16, 2001 through August 19, 2001 at Fox Park, WY.

I left home on Thursday August 17 and arrived at Fox Park at about 3:30 PM. I setup the camper just in time to get inside and wait out a pea-sized hail storm. Got the scope setup and under the tarps before the next rain shower set in. This continued for the rest of the afternoon and by dark, the sky had started to clear. The seeing improved to yield a fair to good seeing night. Dew set in real heavy and by midnight, there was a coat of ice on my telescope. The dew removal system helped me keep observing until early in the morning.

Thursday August 16, 2001

Watched the ISS pass from the NW to the NE at about 8:55 PM. It was a long, bright flyover. At 10:31, was treated by a bright Iridium Flare just south of Casseopia.

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| M4 | 9:15P | Looked great. South is clearing real nice. Overhead is nice. Thin clouds from overhead to the NW that are disappearing. |
| NGC 6440 | 9:45P | Very faint globular. 32mm - faint smudge. 19mm-faint. Easy to see. w/AV, has a bright star like nucleus the fades out into an extended dim halo. In between two faint stars. 1/3 of distance closer to the star on the left. It is still small in FOV. |
| NGC 6445 | 10:28P | Just under 6440. Faint field star next to PL. Very faint. Uniform brightness. Has an extended shape, possibly circular. w/19mm-put 6445 on bottom of FOV and 6440 is on the top of FOV. |
| NGC 6520 | 10:42P | It is very small, yet bright cluster. Has 5 stars of same brightness and then remainder of stars are much dimmer giving the OC a dim glow. Bright field star to the left of this cluster. |
| NGC 6522 | 10:45P | 32mm-faint smudge. 19mm-very easy to see. Very faint field star next to it that might be a member star. Very bright, almost star-like nucleus that dims out evenly into the halo. Hard to see any member stars though. |
| NGC 6528 | 10:50P | Barely moved the scope. Both are in the same FOV of 19mm. Much dimmer than 6522. Uniform brightness. |
| NGC 6540 | 11:07P | Went to 6520 and moved to this object as chart showed. 19mm-2 smudges in the FOV. Bottom smudge is this guy. Very small and faint. Can see member stars w/AV. |
| NGC 6544 | 11:09P | Cool globular. In star rich field. 19mm-wAV, can see member stars. Dim, circular yet mottled with member stars. |

Sky is good now. Milky Way is awesome.

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| NGC 6553 | 11:20P | Faint, uniformly lit. Circular. cannot see any member stars. Can see field star to the left that is easy to see. No nucleus seen. |
| NGC 6568 | 11:23P | 19mm-fills FOV. All little blue-white stars. Fairly compact. In a star rich field yet you can tell which stars belong to the OC. Could easily be 30-40 stars. |
| NGC 6569 | 11:26P | 19mm-Dim glow. May be a hair brighter in the center than the halo. Circular. Small. w/AV something (little stars) keeps popping inside the halo disk but am not sure. |
| NGC 6583 | 11:29P | This is very faint. Cannot see w/ 32mm. Faint smudge. w/AV can see lots of member stars. Looking directly at it is a faint glow, yet easy to see in FOV. |
| NGC 6624 | 11:35P | Very bright. Nucleus is a lot brighter than an extended halo. Circular in shape. Cannot see member stars w/ AV. |
| NGC 6645 | 12:08PA | Very cool as OC go. Dominates center of FOV. Looks like a loose globular. Fills $\frac{3}{4}$ FOV. Could easily be 60-80 blue-white stars. # levels of magnitude in this OC. |
| NGC 6664 | 12:10A | Very loose association of very bright stars in a star deficient area. Bright field star to the W of it. 20-30 stars with 2 levels of magnitude. 15-16 stars of the brighter magnitude and the rest are a bit dimmer. |
| NGC 6712 | 12:15A | Easy to see. Large in the 19mm. w/AV can see member stars popping out all over the place. In a star rich field. |
| NGC 6939 | 12:34A | Fairly dim in 19mm. Centers the FOV nicely. 30-40 stars in the OC. Fairly compact. Seems to be a glow with it. Cannot tell if it's a nebulosity or a fainter set of stars that are not being resolved. |

Realign setting circles. When sighting Polaris w/32mm, saw satellite drift lazily across the FOV.

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| NGC7789 | 1:01A | 32mm-Faint OC. Very small and dim. Linear in shape. Has a faint glow to it which sets it apart from field stars. Small and compact. Maybe about 15 stars. |
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1:15A. Ice is forming on my telescope. The OCs in Cass. are hard to find. I'm tired so I am going to call it a night.

Friday August 17, 2001

Visited the WIRO 92" f/27 telescope on Jelm Mountain. This is an IR telescope, run by the University of Wyoming. They put an eyepiece on this giant and let us look at 4 objects. In the warm area of the observatory, they played tapes of Star Trek. The drive up the mountain was over an unimproved road that was bumpy and steep. The sky is dark, clear and steady.

At 9:34P, saw the ISS pass directly overhead from the NW to the SE. Picked it up low in the NW just in the tops of the trees.

Saw a large bolide light up the inside of the dome of the 92" as if someone turned on the lights. People outside said it broke into two pieces and headed for the horizon.

First looked at Alpha Hercules. A double star that was like Alberio, yet the separation was huge between the stars. Then when it got darker, looked at Mars. It was HUGE. Could not see any surface details, yet you could see a blue tint on the limb. The heat and atmosphere washed out the surface details.

Next we looked at the Cats Eye Nebula. A PL that had a bright central star, and many loops of gas that looked like petals of a flower. It had a nice blue-green color.

Then we looked at the Little Gem (NGC 6818). This PL had no central star and 2 loops in the blue-green glow were easily seen.

Last we looked at the Saturn Nebula. The central star was easily seen. There were two overlapping oval loops of gas in the overall blue-green glow, with two triangular shapes on each side of the PL that may have been jets.

Got back to Fox Park at about 1:30P and was too tired to get my scope out.

Saturday, August 18, 2001

Philip showed up about 3:15P. Listened to 3 great speakers. One lady talked about her space mission to comet Sewift-Tuttle to smash a probe into the comet. The Second guy was a professor at UW and talked about the Sloan Digital Sky Survey. the third guy talked about Mayan astronomers. Had hamburgers for dinner. The sky didn't clear up until 11:00P. Sucker holes dominated the sky. Saw 2 ISS flyovers tonight. One (about 8:38P) that went almost overhead from the NW to the SE, which got extremely bright at the end in the SE before it disappeared. Could easily see it thru the clouds. Visited Gary's 30". Saw the Lagoon Nebule and M51 thru his scope. Awesome spiral structure in M51. Saw the 2nd ISS flyover at 9:15P. It was low in the NW to the W before it disappeared.

Looked at M4, M13 and M51 thru sucker holes w/ my scope. Philip did some aligning. Tried to fire up the setting circles and the azimuth counter wouldn't count very fast. Too bad. Philip was excited to use the computer. He crashed about 12:45A and I followed about 1:30A.

NGC 6229 11:30P 32mm-Very small. Uniformly lit yet bright. 19mm-fairly bright. Tell it has a little brighter nucleus than halo. For the most part, it is uniformly lit.

12:10A Veil Nebula-Around 52 Cygni, one side tapers out to a point. The other side you can follow the arc left and right. Can see the mottling.

Sunday August 19, 2001

Broke camp and left Fox Park about 9:45A and headed home. I have a great time at this years' WUTS. Can't wait till next year.