

Object	Date	Time	Seeing	Trans.	Location	Equipment	Description
Adhara - CMa	10/19/2006	3:30 MDT	5	5	My Backyard	Naked Eye	An easy to see white star.
Aldebaran - Tau	10/19/2006	2:25 MDT	5	5	My Backyard	Naked Eye	A nice bright red colored star.
Alnilam - Ori	10/19/2006	2:46 MDT	5	5	My Backyard	Naked Eye	An easy to see white star.
Altair - Aql	7/14/2006	22:38 MDT	6	4	Rocky Mtn National Park	Naked Eye	A nice, bright blue-white star.
Antares - Sco	7/10/2006	22:04 MDT	8	3	My Backyard	Naked Eye	A nice softer red colored star.
Arcturus - Boo	7/10/2006	22:02 MDT	8	3	My Backyard	Naked Eye	A nice bright red colored star.
Bellatrix - Ori	10/19/2006	2:46 MDT	5	5	My Backyard	Naked Eye	An easy to see white star.
Betelgeuse - Ori	10/19/2006	2:46 MDT	5	5	My Backyard	Naked Eye	A nice bright red colored star.
Deneb -Cyg	7/10/2006	22:08 MDT	8	3	My Backyard	Naked Eye	A nice bright blue-white colored star.
El Nath - Tau	10/19/2006	2:25 MDT	5	5	My Backyard	Naked Eye	An easy to see white star.
Rigel - Ori	10/19/2006	2:46 MDT	5	5	My Backyard	Naked Eye	A nice bright blue-white colored star.
Shaula - Sco	7/14/2006	22:30 PM	6	4	Rocky Mtn National Park	Naked Eye	A much dimmer, yet blue-white star shining on the stinger of the Scorpion.
Sirius - CMa	10/19/2006	3:30 MDT	5	5	My Backyard	Naked Eye	A very bright blue-white colored star.
Spica - Vir	7/10/2006	22:00 MDT	8	3	My Backyard	Naked Eye	A softer colored white star.
Vega - Lyr	7/10/2006	22:06 MDT	8	3	My Backyard	Naked Eye	A very bright blue-white colored star.
Aldebaran and Betelgeuse	10/19/2006	1:33 MDT	5	5	My Backyard	Naked Eye	I measured the distance to be almost 25 degrees. Two fists and 3 middle fingers together.
Deneb and Vega	7/14/2006	23:30 MDT	6	4	Rocky Mtn National Park	Naked Eye	I measured about 29 degrees between these two stars with my index and pinky finger, measuring 15 dgrees between them.
Alt/Azm of Capella	10/15/2006	22:48 MDT	4	4	My Front Yard	Naked Eye	While putting the dog out for the final time of the night, I noticed Capella in the NE and did this exercise. I measured an azimuth of 56 degrees and an altitude of 32 degrees.
Alt/Azm of Altair	7/14/2006	22:38 MDT	6	4	Rocky Mtn National Park	Naked Eye	Using my fixt at 10 degrees, I measured the azimuth from under the North star to the horizon under Altair to be about 140 degrees and an altitude of about 51 degrees.
Variable Star Beta Lyrae 1	7/22/2006	23:10 MDT	6	6	John Martin State Park	Naked Eye	Not as bright as 3.3 but much brighter than 4.1, so I estimate a magnitude of 3.5
Variable Star Beta Lyrae 2	8/10/2006	21:27 MDT	6	6	My Backyard	Naked Eye	Its dimmer than the first time I saw it. Estimate its now 3.7.
Variable Star Beta Lyrae 3	8/30/2006	22:10 MDT	6	6	My Backyard	Naked Eye	Its dimmer than the last time I saw it. Estimate its now 3.8.
Variable Star Beta Lyrae 4	9/12/2006	20:35 MDT	6	6	My Backyard	Naked Eye	Its brighter than the last time I saw it. Estimate its now 3.6.
Variable Star Beta Persei 1	11/22/2006	21:11 MST	5	5	My Backyard	Naked Eye	4 hrs before a minimum of Algol. Same brightness as Gamma And. Estimate its magnitude at 2.1.
Variable Star Beta Persei 2	11/22/2006	22:11 MST	5	5	My Backyard	Naked Eye	3 hrs before a minimum of Algol. Little fainter than Gamma And. Estimate its magnitude at 2.3. Next time I went out this night, it had clouded over.
Variable Star Beta Persei 3	12/15/2006	21:30 MST	5	5	My Backyard	Naked Eye	2 hrs before a minimum of Algol. Bit Brighter than Gamma Per. Estimate its magnitude at 2.7.
Variable Star Beta Persei 4	12/15/2006	22:22 MST	5	5	My Backyard	Naked Eye	1 hr before a minimum of Algol. Now Same brightness as Gamma Per. Estimate its magnitude at 2.9.
Variable Star Beta Persei 5	12/15/2006	23:22 MST	5	5	My Backyard	Naked Eye	Algol Minimum. Same brightness as Alpha Tri. Estimate its magnitude at 3.4.
Plot Meteor 1	8/10/2006	21:52 MDT	6	6	My Backyard	Naked Eye	Watching Persied meteors and plotted this one.
Plot Meteor 2	8/11/2006	22:10 MDT	4	4	My Backyard	Naked Eye	Watching Persied meteors and plotted this one.

Observe Sun	7/14/2006	18:30 MDT			Rocky Mtn National Park	8" f/6 Newtonian with Baader filter and Coronada H-alpha and Calcium scopes.	Looking at the Sun with the white light filter, it was very void of sunspots. There was one tiny black spot on the lower right quarter of the Sun. I have never seen it this void of spots. I then looked at it with a friend's H-alpha scope and saw some nice prominences on the lower arc of the Sun. I do like this view. He also had a Calcium-K Coronado scope that I looked thru. I found it very hard to see the blue disk of the Sun, let alone any details on the surface in this wavelength.
Observe Planet 1	6/16/2006	20:45 MDT	8	2	Rocky Mtn National Park	8" f/6 Newtonian	At about 120x, I observed Saturn, low on the western horizon, just above the mountains. It was very close to Mars tonight. I could easily see the ring and Cassini's division and many of its moons.
Observe Planet 2	6/16/2006	20:45 MDT	8	2	Rocky Mtn National Park	8" f/6 Newtonian	At about 120x. Mars is just a red disc. No features were seen as when it's a lot closer to the earth. The western sky was boiling a bit, so if anything might have been visible on the surface, it was being washed out by the turbulence. It was just below Saturn in the western sky.
Observe Planet 3	7/14/2006	20:30 MDT	6	2	Rocky Mtn National Park	8" f/6 Newtonian	At about 120x, I watched Jupiter. It was a good view. At first, there were only 3 moons seen. Io was about to transit the planet's disc and was creeping ever closer to the disc. Then the 4th moon appeared from the shadow of Jupiter. It was in eclipse and when it appeared, it was well away from the planet. I like these...You could see the red bands on the planet's surface easily.
Observe Comet	4/20/2006	23:14 MST	8	6	Pawnee Grasslands, NE Colorado. Suffers from slight light pollution.	12.5" f/8 Newtonian	132x - I observed the fragments of comet S-W3.
Moon Crater Aristoteles	8/2/2006	19:30 MDT	6	8	Berthoud, CO. Moderate Dark Skies.	12.5" f/8 Newtonian	132x - I have never seen this crater before. It's a large, round, older looking crater. Has thick rim walls with lots of roughness (texture) seen on these thick wall tops. Its like multi layered walls and they caved back in towards the crater. The bottom is flat with tiny craters and a valley at the 9 o'clock side but on the flat floor. Top lhs of ring blends in level with moon surface in this area while other 3/4 of ring sticks higher than surface. Nice. Took another look at 10:00 PM now can see the 1/4 that looked level with the lunar surface at 7:30 does stick up above surrounding ejecta a bit, but not by much, its pretty low as compared to ejecta. But the view of the entire crater was better at 7:30 PM.

Moon Apennine Mtns	8/2/2006	19:21 MDT	6	8	Berthoud, CO. Moderate Dark Skies.	12.5" f/8 Newtonian	132x - An arc of a mountain chain. Mare side has steep walls and opposite of mare there is a gradual sloping back down where ejecta landed and piled up. This is the edge of what's left of a huge crater. Very rough, jagged tops. The range is wider on the rhs and quickly thins on lhs of arc and gets lower until mare surface rises up and covers rest of where the rim should have been. Lots of layers of ejects seen on sloping side. The terminator line is just beyond the last tiny peak on lhs. Relooking at this at 10 PM can see the chain of low mountains on lhs now goes past a crater and still has high, single jagged peaks above dark mare floor. Nice view of rest of mountain chain with the nice shadow constrasting the surface.
Moon Crater Copernicus	9/2/2006	20:20 MDT	6	6	My Backyard	8" f/6 Newtonian	64x - Nice round deep crater. 2 peaks on crater floor at center. Rim walls high and very textured (rough). Lots of light colored rays (ejecta) seen all around crater going out radially. Some go as far as maybe 10 crater diameters. Very intricate and filamentary. 121x - See central 2 peaks easier. See terracing of crater walls, very layered. The rim walls are not uniform thickness. There is more, heavier layering from top right thru right side and to bottom where impactor came from left and this heavier blanket of ejecta was thrown on this side. Rays easier to see. About a day after sunrise on this part of the moon so still very shadowed which gives nice contrast.
Moon Crater Grimaldi	12/14/2005	19:06 MST	8	3	My Backyard	8" f/6 Newtonian	121x - Nice, dark flat oval near the terminator line, a bit flatter in shape on rhs.
NGC 404 (Winter Group)	09/30/06	03:18 MDT	8	7	Crow Valley Campground, NE Colorado. Suffers from slight light pollution.	12.5" f/8 Newtonian	134x - Small, round bright galaxy with larger, little brighter core area surrounded by a bit of dim halo. Just above a very bright star, Mirach in Andromedia.
NGC 457	09/29/06	11:59 MDT	6	6	Crow Valley Campground, NE Colorado. Suffers from slight light pollution.	12.5" f/8 Newtonian	134x - 30-40 brighter blue-white stars with 1 real bright one at the top and rest dimmer with 2-3 magnitudes. A red colored star on rhs of this nice OC. Fills FOV of 19mm nicely. Pretty compact. Basically round in shape. Lots of dimmer stars seen underneath these brighter stars.
Gamma Andromedae - Almach	10/13/2006	20:12 MDT	4	4	My Backyard	8" f/6 Newtonian	Very pretty double. Best seen at 80x tonight, although it looked good at 120x. Very vivid colors. The very much brighter yellow colored star, very close, but easy to see black between them, to a very dim, very blue colored companion. A closer pair and more difference of magnitude between the two than Alberio, which I also looked at tonight for comparison.
NGC 1528	10/23/2006	20:57 MDT	10	6	Crow Valley Campground, NE Colorado. Suffers from slight light pollution.	12.5" f/8 Newtonian	134x - Nice. Bright OC, Basically round in shape. Saw it in 8x50 finder scope as a small, found glow. 50+ star, 1/3 of which are of a very bright magnitude and are blue white in color. Lots of fainter magnitudes also seen.

NGC 1952 - M1	10/24/2006	00:49 MDT	10	6	Crow Valley Campground, NE Colorado. Suffers from slight light pollution.	12.5" f/8 Newtonian	134x - Basically a large, oval glow, brighter in center and dims evenly to edges. Mottling texture seen on glow.
NGC 2169	1/1/2006	21:24 MST	6	3	Kim's Place. Rural Colorado, east of Longmont. Somewhat Dark skies.	12.5" f/8 Newtonian	64x - 15 stars of 3 or 4 magnitudes spell the #37. VERY COOL!!! 6 stars form the 7 while the rest are in the 3.
NGC 2362 (Spring Group)	10/24/2006	3:05 MDT	10	6	Crow Valley Campground, NE Colorado. Suffers from slight light pollution.	12.5" f/8 Newtonian	134x - 28-30 stars of approx the same magnitude makeup this downward facing triangle shaped OC with a very bright field star right in the middle of the triangular delta shape. The base of the triangle is on the top and it points down.
Iota Cancri	10/24/2006	2:09 MDT	10	6	Crow Valley Campground, NE Colorado. Suffers from slight light pollution.	12.5" f/8 Newtonian	134x - A nice, yellow and blue double. Yellow star is above blue one and much brighter by about 2 times. Nice. Dimmer blue star with lots of black sky between it and yellow star. A bit farther apart than Alberio
NGC 4361	2/25/2006	2:10 MST	6	4	Pawnee Grasslands, NE Colorado. Suffers from slight light pollution.	12.5" f/8 Newtonian	134x - Larger oval (not circular) glow with central star easily seen with AV in center of glow. OIII shows longated oval better and can see central star.
NGC 5194 - M51	6/24/2006	00:17 MDT	7	5	Camp Jack, Wyoming. Moderate dark skies.	12.5" f/8 Newtonian	134x - Nice display of M51. Spiral arms easily seen tightly winding around a bright nucleus. Much of beidge seen to companion galaxy.
NGC 5907 (Summer Group)	8/23/2006	21:45 MDT	6	8	Deer Trail, CO. Moderately dark skies.	12.5" f/8 Newtonian	134x - Nice. Long slender sliver of light. Fatter and brighter in middle area and tapers slowly ends. Approx 1/3 FOV in length. Nice and bright.
NGC 6441	8/11/2004	21:50 MDT	7	5	Fox Park, WY - Dark Skies.	12.5" f/8 Newtonian	134x - Small, tiny relatively bright nucleus dims evenly into a small halo. Very bright FS to left of it. Maybe a couple member stars seen.
NGC 6624	8/12/2004	22:27 MDT	8	5	Fox Park, WY - Dark Skies.	12.5" f/8 Newtonian	134x - Small, bright nucleus surrounded by larger, dim halo. Easily seen. Mottling seen.
NGC 6720 - M57	6/16/2006	23:15 MDT	8	5	Rocky Mtn National Park	8" f/6 Newtonian	120x - Nice. A small, oval ring, easily seen.
NGC 6760 (Fall Group)	9/25/2003	21:11 MDT	7	5	Okie-Tex Star Party	12.5" f/8 Newtonian	134x - Small, dim, center uniformly lit w/hint of extended halo. No member stars seen, but w/AV can tell the texture is speckled but no individual stars seen.
Beta Cygni (Alberio)	6/16/2006	23:00 MDT	8	5	Rocky Mtn National Park	8" f/6 Newtonian	80x - Nice. A beautiful blue and gold colored double star. One of my favorites.
NGC 6853 - M27	6/16/2006	23:10 MDT	8	5	Rocky Mtn National Park	8" f/6 Newtonian	80x - Nice. A nice bowtie shaped nebula with the central star seen.
NGC 7293	9/21/2005	00:58 MDT	8	4	Pawnee Grasslands, NE Colorado. Suffers from slight light pollution.	12.5" f/8 Newtonian	134x - Huge glow. Uniformly lit. Fills little more than half FOV of 19mm. Can barely see it w/o OIII filter, but with filter, stands right out. Several stars seen on glow w/o OIII filter and a star in the center of glow seen w/o OIII filter. Central star is tiny and faint.