

## Thursday, July 28, 2011

Arrived about 1:15 PM at Fox Park, WY for the 2011 Weekend Under the Stars star party. I picked my usual campsite and setup my newly redesigned telescope. This will be its First Light under dark skies. Added one Gary Adler weight to back of mirror cell and this balanced the scope nicely.

At 8:45 PM, it is partly cloudy with a high haze. 58 degrees.

B44            9:58 PM        20x80 Binocs. Nice. Long area void of stars. Opacity 2.

B275           10:01 PM        20x80 Binocs. A narrow, chevron looking dark patch west of M6. Couple of faint stars seen in void. Opacity 3 or 4.

Seeing is OK. Bit of dew in air.

Stem           10:04 PM        20x80 Binocs. B59, B66, B67 and B65. A long, narrow dark area bounded by bright stars. Left to right in FOV and 1.5 FOVs long. Few faint stars seen on void. Opacity 3.

B78            10:07 PM        20x80 Binocs. Fills FOV nicely. Very dark and has a couple of stars in void. For most part, starless. Opacity 4 or 5.

Milky Way is nice tonight.

B64            10:16 PM        32mm – M9 is awesome. To left and in same FOV is this larger area of darkness in a very star rich area. Has a few stars on void. Opacity 2 or 3.

B93            10:33 PM        32mm – This is a dark, round area with a couple of stars on void. Opacity 6.

B92            10:33 PM        32mm – In same FOV as B93, B92 is more vertical linear shaped and not as dark as B93. Has less boundary definition. Could see both B92 and B93 in 20x80 binocs at top of M24. Opacity 5.

Lagoon        10:39 PM        32mm – A darker area above and to the right of the heart of M8. Brighter nebulosity surrounds this. Small. Has few stars on void. Opacity 3.

B296           10:39 PM        32mm – A nice dark area dividing open cluster and nebulosity to top left with Lagoon and it's nebulosity. Has a bit of a dog leg to it. Has 5-8 stars sprinkled on darkness. Opacity 5.

B88, B89, B286	10:39 PM	32mm – Both are very small. Subtle darkening of bright nebula glow above M8. Opacity 2.
Be 157	10:51 PM	20x80 Binocs. A large area, easily seen in FOV that is void of all stars. Circular in shape. Opacity 3 or 4.
SuperNova	11:19 PM	19mm – Observed the super nova in M51 with my own scope. It is very faint. Pops in and out. See this with AV. In other 18” scopes, it is obvious. Dim, yet easy to see. Taking a second look in my scope with AV, easy to see it’s faint glow.
B111	11:24 PM	20x80 Binocs. A large, darker area above the open cluster M11. There are stars on void but void bounded by tons of Milky Way stars. Opacity 3.

Seeing is Great. Transparency is Good.

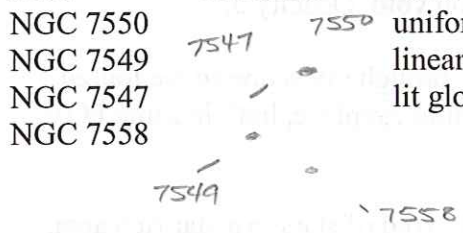
B119a	11:38 PM	20x80 Binocs. To right of B111. A long, large, slender dark area bounded by Milky Way stars with some stars on void. Opacity 2.
B103	11:39 PM	20x80 Binocs. A triangular darker area in amongst stars with more stars on void. Bounded by Milky Way stars. Opacity 2 or 3.
Swans Neck	11:44 PM	32mm – A small, dark oval void of stars with nebulosity over it forming swan’s neck. Opacity 5 or 6. Very dark.
Northern Coalsack	11:46 PM	Naked eye. A very large, dark patch with some stars seen on void. Opacity 4.
LG3	11:48 PM	Naked Eye. Large dark area north of Deneb down Milky Way. Like northern coalsack, Opacity 4. Has some stars in void but not like Milky Way near it.
LDN 935	11:56 PM	20x80 Binocs. A nice, dark lane that has a dog leg kink in it. Easy to see in FOV. Dark. Few stars on void. Opacity 4 or 5.
B171	12:01 AM	20x80 Binocs. A darker rectangular shaped area bonded by a line of bright stars around rectangle edge. Opacity 3 or 4.
B161	12:05 AM	20x80 Binocs. A small, darker oval area bounded by 4 brighter stars in a rhombus shape. Couple of faint stars seen on void. Opacity 4 or 5.

- B160            12:09 AM      20x80 Binocs. A medium sized oval area with this should be. Lots of faint stars on void but not as many as surrounding the void. Opacity 2 or 3.
- B365            12:21 AM      32mm – An area that is void of lots of stars, yet there are many stars on void. Bounded by much brighter stars. Fills FOV nicely. Opacity 3.
- Neptune        12:37 AM      19mm – Nice, blue and bright. Shows tiny disk.

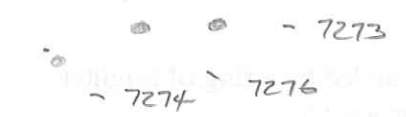
38 degrees. Sky great. Transparency good. Light dew on optics.

- NGC 7433       1:00 AM       19mm – A very small, linear faint glow seen with AV. Looks like a tiny, dim M104 edge on with central bulge.

- H 93            1:43 AM       200x – In Gary’s 30 inch scope. 7550 is a small round uniformly lit glow and is the brightest. 7547 is a dim, small linear glow. 7549 is 2<sup>nd</sup> brightest and is a round, uniformly lit glow. 7558 is the smallest and dimmest round glow.



- NGC 7273       1:47 AM       200x – In Gary’s 30 inch scope. 7273 and 7276 are both tiny round glows with star like cores. 7274 is a tiny, round uniformly lit glow.



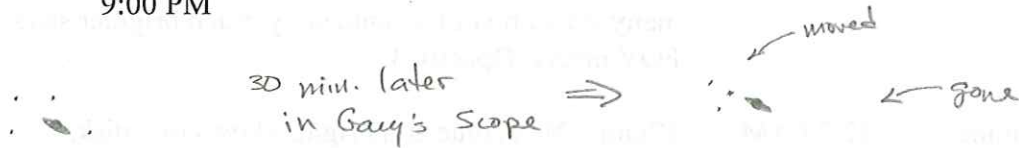
- Uranus          2:30 AM       Off white colored disk.

About 2 AM, Mike Prochoda came over and got my Sky Commander in the correct DOB mode and set the encoders to 10000. Found 3 objects in succession and all in the FOV. This is now working.

## Friday, July 29, 2011

At 9 PM, sky is clear overhead and to NW. Clouds in SE. No wind. 57 degrees.

Saturn 9:00 PM



M51 9:54 PM 15mm - Nice. Still not dark but can easily see super nova.  
Super Nova See nice spiral arms in 32mm and can see SN with AV.

B50 9:59 PM 32mm - A kidney bean shaped void with brighter stars  
bounding void. No stars on void. Opacity 5.

For the past 30 minutes, several friends wanted to look through my scope so we toured the brighter things, M22 and M51. M81 and M82 in 55mm eyepiece, both in same FOV and very nice, crisp image.

B90 10:29 PM 32mm - Small dark patch, void of stars in a star rich area.  
Opacity 6.

Sky overhead great. Transparency good. Clouds along SE horizon.

B303 10:32 PM 32mm - An oval patch void of stars. Not as dark as last 2  
I've seen. Opacity 4.

B84 10:43 PM 32mm - A larger oval area bounded by a ring of brighter  
stars. No stars seen in void. Opacity 5.

B83a 10:43 PM 32mm - Above B84 and in same FOV is this shield shaped  
void outlined with very faint stars on bottom that forms the  
shield look. Opacity 5.

B144 10:50 PM 55mm - A noticeable thick dark ring. Has few stars in void  
and has a tail that comes off the lower right side that is the  
same thickness. Opacity 1 or 2.

B145 10:53 PM 55mm - A small oval void of stars in a very star rich field.  
Opacity 5 or 6.

NGC 4631 11:01 PM  
NGC 4657  
NGC 4627



19mm – Long slender galaxy, uniformly lit and mottled. Field star below center of glow. Then below it is this very faint, tiny circular glow of NGC 4627. Then above and to right in same FOV of 32mm eyepiece is this faint, thin, linear galaxy that is NGC 4657. 19mm shows slender, fat, uniformly lit glow.

34 degrees. Seeing great. Transparency good.

B346 11:19 PM 32mm – A long, horizontal, fat void that tails down a bit on left hand side. Some stars seen on void in a very star rich field. Shaped like an L on its face. Opacity 3.

B352 11:23 PM 32mm – A fat chevron shaped void pointing to upper left. Some stars in void. Opacity 3 or 4.

B361 11:25 PM 32mm – An oval shaped dark area void of stars. Bounded by star rich field stars. Opacity 4 or 5.

B168 11:29 PM 32mm – A long, fat void approx 3-4 FOVs long, snakes up and down as I pan to right and then opens up to a much larger void on right had side. Some stars on void here and there. Opacity 5 or 6.

B353 11:38 PM 32mm – A large circular void with lots of stars on void but not as many as surround star rich field. Opacity 1 or 2.


B157 11:42 PM 32mm – A smaller, vertical oval bounded by brighter stars. Couple extremely faint stars seen in lower right hand side of void. Opacity 5 or 6.


B164 11:43 PM 32mm – A roughly arrow head shaped void bounded by a line of brighter stars. Some faint stars on void on right hand side. Opacity 4 or 5.

Comet Girard 11:49 PM Nice, bright, large core with bright coma around core and small tail extending to the upper left a bit. Nice.

B362 11:51 PM 32mm – Roughly a thick arrow pointing to lower left. Has a line of 4 evenly spaced stars down the middle of the arrow. Otherwise, void of stars. Fills FOV nicely. Opacity 5.



B343	11:54 PM	32mm – Roughly circular with some stars seen on void. Opacity 2 or 3.
LDN 889	11:56 PM	20x80 Binocs. A circular area with some stars on void. Centered on Gamma Cygnus. Surround void is star rich Milky Way area. Opacity 3.
B334-36-7	12:05 AM	32mm – A round void to upper right of a bright star with some stars in void. Opacity 3 or 4. Above B334 are 2 longer, linear patches B336 and B337. Very similar to each other with some stars on void. Opacity 3 or 4.
B335	12:08 AM	32mm – A fat Y shaped void. Y opens to left. Some stars on void and void bounded by line of brighter stars. In lower right part, void bisected by arc chain of faint stars, very close to each other. Opacity 4 or 5.
		
B137	12:10 AM	20x80 Binocs. A large void with some stars seen on void. Fills FOV nicely. Opacity 2.
LDN 617	12:12 AM	20x80 Binocs. A larger, dark area approx 2 FOV in size and somewhat linear from left to right in FOV. Some brighter field stars seen on void. Pretty dark. Opacity 4 or 5.
LDN 582	12:14 AM	20x80 Binocs. A long void with some stars seen on void. Approx 1 FOV wide and a little over 1 FOV in length. Opacity 4 or 5.
LDN 557	12:15 AM	20x80 Binocs. Fills FOV nicely. A dark void with few stars seen on void. Opacity 5.
B139	12:18 AM	32mm – A small boxy void with no stars on void. Opacity 5 or 6.
B135-6	12:21 AM	20x80 Binocs. A larger void. Fills center of FOV nicely. Few stars seen on void. Opacity 4.
B132	12:27 AM	32mm – A roundish void with 1 bright star in center. Opacity 5.
B127	12:28 AM	32mm - A small round void circled by 8 faint stars. Opacity 5 or 6.
B129	12:28 AM	32mm – Below B127 is this long, fat, hot dog shaped void with no stars seen in void. Opacity 5 or 6.

B104	12:33 AM	19mm – A small oval void. Opacity 6.
B108	12:35 AM	19mm – A dark heart shaped void. Very faint stars outline void with bottom of heart to left. Opacity 5 or 6.
B112	12:36 AM	19mm – A small, oval void. No stars on void. Opacity 5 or 6.
B115	12:38 AM	19mm – A horizontal void bounded by a circle of faint stars. Opacity 5 or 6.
B118	12:39 AM	19mm – An irregular void with 1 brighter stars and 10-20 very faint stars on void. Opacity 4.
B314	12:42 AM	32mm – A larger void that fills FOV nicely with some stars seen on void. Opacity 3 or 4.
B100	12:44 AM	32mm – A larger void that fills FOV nicely. Couple of stars seen on void. Opacity 4 or 5.
B97	12:46 AM	32mm – A larger void that overwhelms FOV. 5-10 brighter stars on void. Opacity 5.
B95	12:48 AM	32mm – A roughly circular void with few stars on void. Opacity 4 or 5.
B162	12:51 AM	32mm – A vertical rectangular shaped void bounded by stars. Opacity 4 or 5.
B163	12:51 AM	32mm – Roughly a vertical rectangular with a couple of stars in void. Opacity 4.
B150	12:56 AM	20x80 Binocs. A shield shaped void with 2 sets of 3 stars on bottom. Opacity 4 or 5.
		
B152	12:59 AM	32mm – A larger, roughly circular shaped void with 3 stars right in middle and 5-10 more sprinkled near edge. Opacity 4.
B169	1:00 AM	20x80 Binocs. A roughly circular void. Opacity 4 or 5.
B170	1:02 AM	32mm – An oval shaped void. Starless. Opacity 5 or 6.

B173-4 1:03 AM 20x80 Binocs. A larger, circular void. Opacity 4.

Seeing great. Transparency Good. 33 degrees.

H94 1:29 AM 15mm – Can see glow of parts a (NGC 7578B), b (NGC 7578A), c (P70943) and d (P70936). w/AV, see part c is brighter than d. a and b are together. Have very faint stellar cores surround by tiny bit of halo. Direct vision, see glow of all 4 parts with c highest in FOV.

H99 1:41 AM 19mm – Can see, w/AV, parts a (NGC 7803) and b (M 2-1-12) near each other and extremely faint. Looks like out of focus stars. Barely able to see them. Left and right in FOV.

NGC 7778 1:49 AM 19mm - Top galaxy largest and brightest. Lower right smaller and center is round and dimmest. All 3 uniformly lit. Top and bottom right are ovals. Middle is linear.

 - 7782

 - 7779

 - 7778

Telescope worked great tonight. My Sky Commander found ALL the objects without realignment. Proves my careful construction of altitude bearing and attachment are orthogonal to azimuth. Used the GOTO button on my hand pad and the scope slewed nicely. First time I pushed it was about midnight and I laughed when the slewing started. Someone near me asked what I was laughing at and I said “My new scope is SO COOL!!!”.

Looked at Jupiter, saw lots of meteors.

Lots of old astro buddies where here. David Dunn, Gary, Vern, Dan LaFaive, Steve Lynch, John Figorski, Mike Roos, Cliff, Keith, Randy Cunningham, John from Boulder. Met new astro friends I had chatted with on the FRAC. Dave L.

I really enjoyed this WUTS over past years. My new scope was performing wonderfully. The Jerry Wilkinson figured mirror produced pin point star images and wonderful views of brighter galaxies. I am very pleased with my new scope. People had lots of great ideas on how to improve my new scope. Some of which I will implement soon.