

## Mike Hotka's Solar Neighborhood 100 Telescopic Observations

I observed 100 Solar Neighborhood stars from various locations in Colorado.

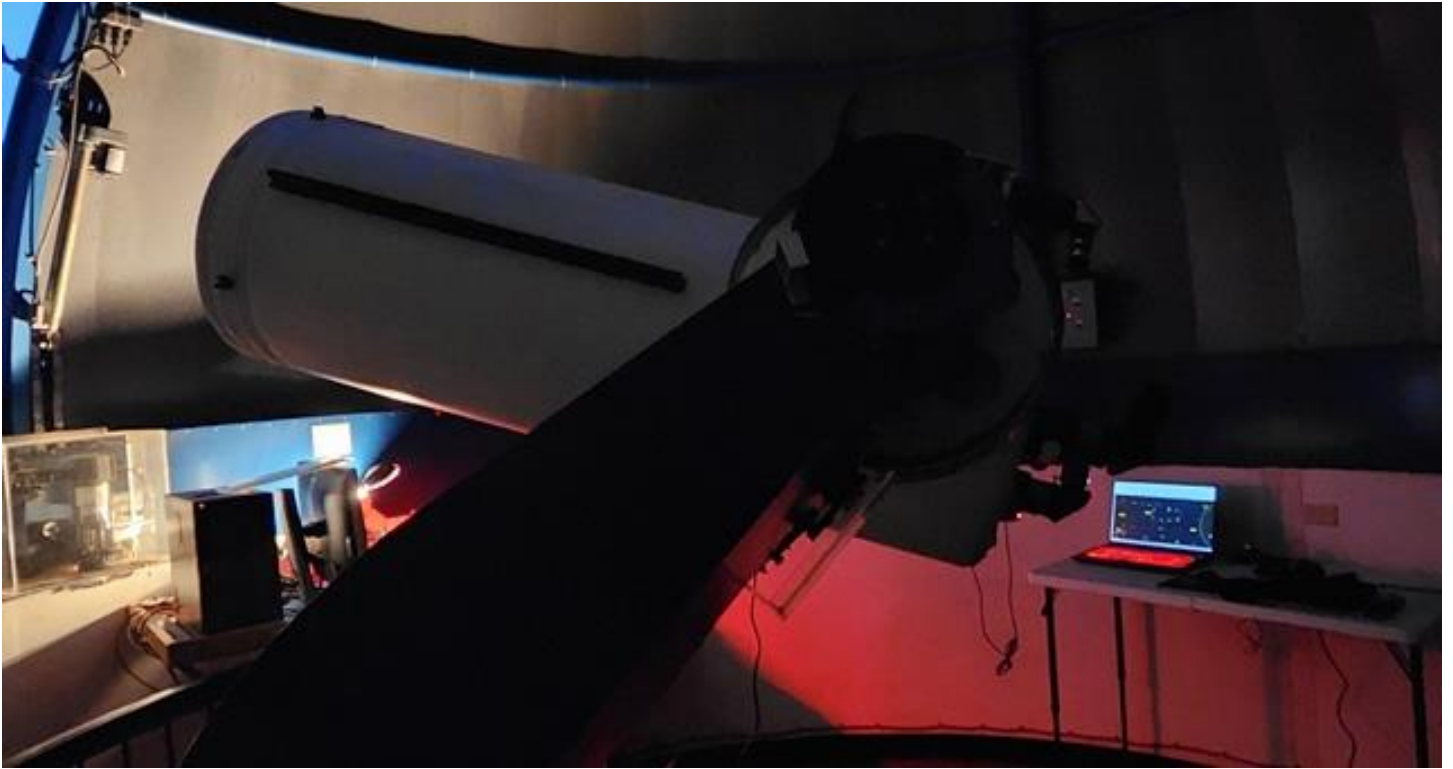
I am a member of the Longmont Astronomical Society. Please have my name read Michael A. Hotka on my certificate.

This is my typical setup to make my observations of these stars.



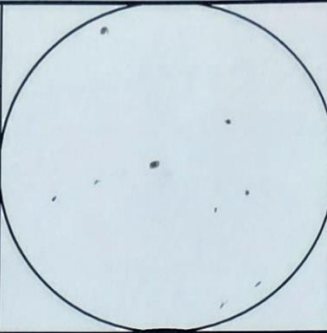


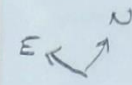
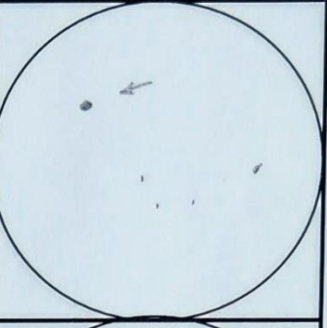



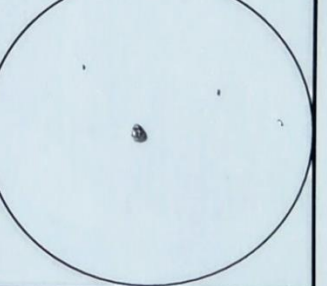
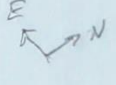
I used my 8" f/6 Newtonian for the Telescopic observations.



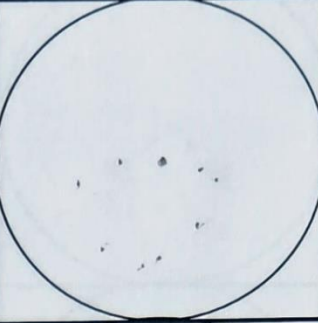
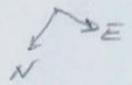
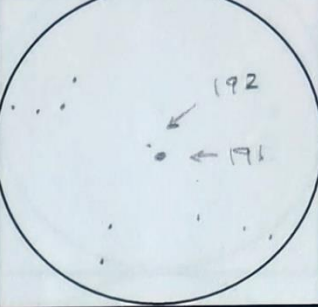

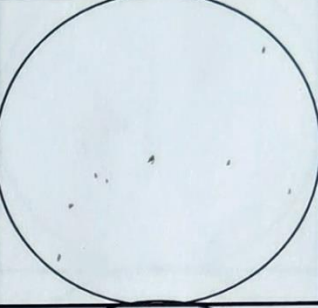

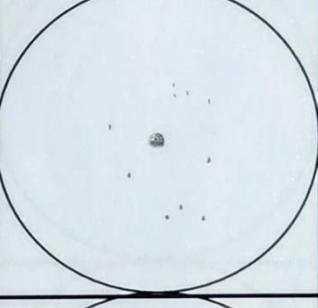
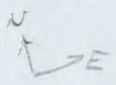
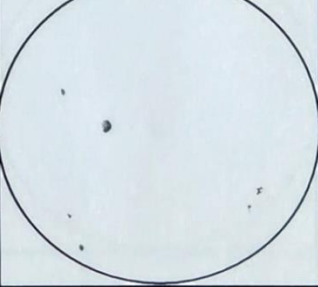



This is the 18" f/14.2 Classical Cassegrain telescope I used for some of my observations. My laptop running Sky Tools 4 helped me identify the star fields the Solar Neighborhood star was located in.

Stars of the Solar Neighborhood Observation Log

288	Name	Oph	Vmag	Distance ly	
	12 Oph	Oph	5.77	32.25	
	Star Type	Location	Latitude	Longitude	
	K1	Near Deer Trail, CO	39° 38.6'	w 103° 55.7'	
Date	Transp SQM or Transp NELM		Seeing		
9/23/22	Good		Good		
Time	Instrument and magnification		Color		
7:54 P	8" f/6 Newtonian 64x		Blue White		
4	Name	Oph	Vmag	Distance ly	
	4 Barnard's Star	Oph	9.51	5.96	
	Star Type	Location	Latitude	Longitude	
	M3.5	Near Deer Trail, CO	39° 38.6'	w 103° 55.7'	
Date	Transp SQM or Transp NELM		Seeing		
9/23/22	Good		Good		
Time	Instrument and magnification		Color		
8:16 P	8" f/6 19mm 64x		Hint of Red		
66	Name	Oph	Vmag	Distance ly	
	70 Oph	Oph	4.03	16.67	
	Star Type	Location	Latitude	Longitude	
	K0	Near Deer Trail, CO	39° 38.6'	w 103° 55.7'	
Date	Transp SQM or Transp NELM		Seeing		
9/23/22	Good		Good		
Time	Instrument and magnification		Color		
8:37	8" f/6 Newtonian 64x		White		
124	Name	Boo	Vmag	Distance ly	
	Xi Boo	Boo	4.68	22.02	
	Star Type	Location	Latitude	Longitude	
	G7	Near Deer Trail, CO	39° 38.6'	w 103° 55.7'	
Date	Transp SQM or Transp NELM		Seeing		
9/23/22	Good		Good		
Time	Instrument and magnification		Color		
8:51	8" f/6 Newtonian 64x		White		
159	Name	Lyr	Vmag	Distance ly	
	Vega	Lyr	0.03	25.03	
	Star Type	Location	Latitude	Longitude	
	A0	Near Deer Trail, CO	39° 38.6'	w 103° 55.7'	
Date	Transp SQM or Transp NELM		Seeing		
9/23/22	Good		Good		
Time	Instrument and magnification		Color		
9:00	8" f/6 Newtonian 64x		Blue White		

Stars of the Solar Neighborhood Observation Log

175	Name	Chi Dra	Constellation	Dra	Vmag	3.58	Distance ly	26.27			
	Star Type	F7	Location	Near Deer Trail, CO	Latitude	39° 38.6'	Longitude	w 103° 55.7'			
	Date	9/23/22	Transp SQM or Transp NELM		Good		Seeing				Good
	Time	9:15	Instrument and magnification		8" f/6 Newtonian 64x		Color				Blue White
191 192	Name	Mu Her	Constellation	Her	Vmag	3.42 10.49	Distance ly	27.18 27.19			
	Star Type	G5 M3.5	Location	Near Deer Trail, CO	Latitude	39° 38.6'	Longitude	w 103° 55.7'			
	Date	9/23/22	Transp SQM or Transp NELM		Good		Seeing				Good
	Time	9:24	Instrument and magnification		8" f/6 Newtonian 64x		Color				White
79	Name	Alsaifi	Constellation	Sig Dra	Vmag	4.68	Distance ly	18.77			
	Star Type	G9	Location	Near Deer Trail, CO	Latitude	39° 38.6'	Longitude	w 103° 55.7'			
	Date	9/23/22	Transp SQM or Transp NELM		Good		Seeing				Good
	Time	9:41 P	Instrument and magnification		8" f/6 Newtonian 64x		Color				White
68	Name	Altaf	Constellation	Aql	Vmag	0.76	Distance ly	16.72			
	Star Type	A7	Location	Near Deer Trail, CO	Latitude	39° 38.6'	Longitude	w 103° 55.7'			
	Date	9/23/22	Transp SQM or Transp NELM		Good		Seeing				Good
	Time	9:49	Instrument and magnification		8" f/6 Newtonian 64x		Color				Blue White
148	Name	Fomalhaut	Constellation	Psa	Vmag	1.16	Distance ly	25.11			
	Star Type	A4	Location	Near Deer Trail, CO	Latitude	39° 38.6'	Longitude	w 103° 55.7'			
	Date	9/23/22	Transp SQM or Transp NELM		OK		Seeing				OK
	Time	10:02 P	Instrument and magnification		8" f/6 Newtonian 64x		Color				White

Stars of the Solar Neighborhood Observation Log

AL #	Name	Constellation	Vmag	Distance ly	<p>A circular diagram showing a star field with two stars labeled 89 and 90. A compass rose indicates North (N) and East (E).</p>
89	Achird	Eta Cas	3.44	19.31	
90	Star Type	Location Near	Latitude	Longitude	
	F9 K7e	Deer Trail, CO	39° 38.6'	w 103° 55.7'	
	Date	Transp SQM or Transp NELM	Seeing		
	9/23/22	Good	Good		
	Time	Instrument and magnification	Color		
	10:12	8" f/6 Newtonian 64x	White		
AL #	Name	Constellation	Vmag	Distance ly	<p>A circular diagram showing a star field with a single star labeled 27. A compass rose indicates North (N) and East (E).</p>
27	Tau Cet	Cet	3.50	11.91	
	Star Type	Location Near	Latitude	Longitude	
	G8.5	Deer Trail, CO	39° 38.6'	w 103° 55.7'	
	Date	Transp SQM or Transp NELM	Seeing		
	9/23/22	OK	Poor		
	Time	Instrument and magnification	Color		
	10:21 P	8" f/6 Newtonian 64x	White		
AL #	Name	Constellation	Vmag	Distance ly	<p>A circular diagram showing a star field with two stars labeled 17 and 18. A compass rose indicates North (N) and East (E).</p>
17	Gamma Cyg	Cyg	5.21	11.40	
18	Star Type	Location Near	Latitude	Longitude	
	K5 K7	Deer Trail, CO	39° 38.6'	w 103° 55.7'	
	Date	Transp SQM or Transp NELM	Seeing		
	9/23/22	Good	Good		
	Time	Instrument and magnification	Color		
	10:37 P	8" f/6 Newtonian 64x	White		
AL #	Name	Constellation	Vmag	Distance ly	<p>A circular diagram showing a star field with a single star labeled 91. A compass rose indicates North (N) and East (E).</p>
91	Beta Oph	Oph	5.08	19.39	
92	Star Type	Location	Latitude	Longitude	
	K2 K1	Berthoud, CO	40.31°	w 105.08°	
	Date	Transp SQM or Transp NELM	Seeing		
	10/5/22	Good	Good		
	Time	Instrument and magnification	Color		
	7:26	18" f/14.2 Casse 124x	Both white		
AL #	Name	Constellation	Vmag	Distance ly	<p>A circular diagram showing a star field with a single star labeled 67. A compass rose indicates North (N) and East (E).</p>
67	Gamma Oph	Oph	6.07	16.64	
	Star Type	Location	Latitude	Longitude	
	K4	Berthoud, CO	40.31°	w 105.08°	
	Date	Transp SQM or Transp NELM	Seeing		
	10/5/22	Good	Good		
	Time	Instrument and magnification	Color		
	7:30	18" f/14.2 Casse 124x	A Cream B Orange		

Stars of the Solar Neighborhood Observation Log

291	Name	CE Boo	Constellation	Boo	Vmag	10.15	Distance ly	32.43		
	Star Type	M1	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	10/5/22	Transp SQM or Transp NELM	Good	Seeing	Good				
	Time	7:42	Instrument and magnification	155mm f/9 Refractor	37x	Color	Reddish			
283	Name	HD 157286	Constellation	Her	Vmag	8.11	Distance ly	32.1		
	Star Type	K5	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	10/5/22	Transp SQM or Transp NELM	Good	Seeing	Good				
	Time	7:51	Instrument and magnification	6" f/9 Refractor	37x	Color	Red			
94	Name	HD 155876	Constellation	Her	Vmag	9.52	Distance ly	19.49		
	Star Type	M3	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	10/5/22	Transp SQM or Transp NELM	Good	Seeing	Good				
	Time	8:13	Instrument and magnification	6" f/9 Refractor	37x	Color	Reddish			
183	Name	HIP 6227	Constellation	Her	Vmag	9.58	Distance ly	26.6		
	Star Type	PM 133635	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	10/5/22	Transp SQM or Transp NELM	Good	Seeing	Good				
	Time	8:17	Instrument and magnification	6" f/9 Refractor	37x	Color	Reddish			
176	Name	Chi Dra b	Constellation	Dra	Vmag	5.7	Distance ly	26.27		
	Star Type	K0	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	10/5/22	Transp SQM or Transp NELM	OK	Seeing	OK				
	Time	8:30	Instrument and magnification	18" f/14.2 Casse	124x	Color	Reddish			

Stars of the Solar Neighborhood Observation Log

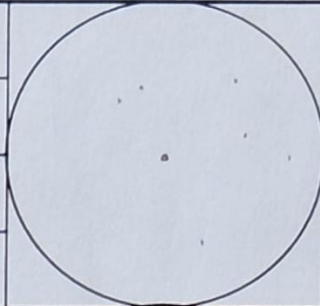
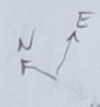
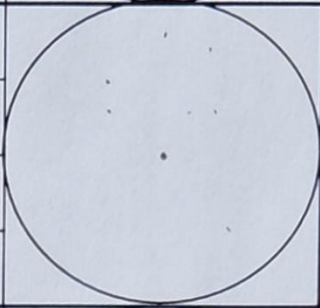
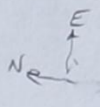
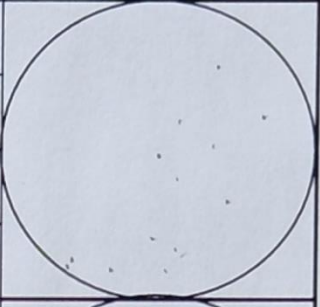
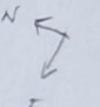
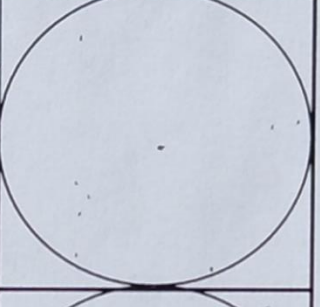
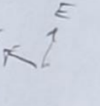
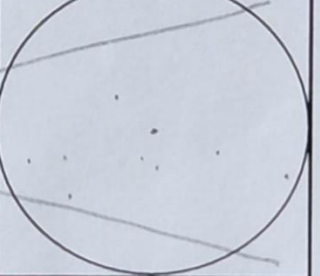
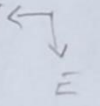
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	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
21	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
268	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
260	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
128	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		

Stars of the Solar Neighborhood Observation Log

132	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
		HD 216899	Peg	8.64	22.39	
		M1.5e	Berthoud, CO	40.31°	w 105.08°	
		10/5/21	OK		OK	
		9:23	18" f/14.2 Cass 124x		Red	
107 108	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
		EQ Peg	Peg	16.27 12.21	26.42 20.39	
		M3.5e M4e	Berthoud, CO	40.31°	w 105.08°	
		10/5/22	OK		OK	
		9:27	18" f/14.2 Cass 124x		Reddish	
225	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
		HD 192310 HR 7722	Cap	5.72	28.73	
		K2	DearTrail, CO	39° 38.6'	w 103° 55.7'	
		10/19/22	Very Good		Very Good	
		19:24	8" f/6 Newtonian 64x		Red	
34	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
		Kruex 60	Cap	9.79	13.07	
		M3	DearTrail, CO	39° 38.6'	w 103° 55.7'	
		10/19/22	Very Good		Very Good	
		19:32	8" f/6 Newtonian 64x		Yellow	
151	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
		Ku Cas	Cas	5.17	25.02	
		G5	DearTrail, CO	39° 38.6'	w 103° 55.7'	
		10/19/22	Very Good		Very Good	
		19:47	8" f/6 Newtonian 64x		Yellow	



Stars of the Solar Neighborhood Observation Log

157	AL #	Name	Constellation	Vmag	Distance ly		
	Star Type	Location	Latitude	Longitude			
	Date	Transp SQM or Transp NELM		Seeing			
	Time	Instrument and magnification		Color			
		107 Psc	Psc	5.24	24.92		
		K0	Dear Trail, CO	39° 38.6'	w 103° 55.7'		
		10/19/22	Very Good		Very Good		
		20:03	8" f/6 Newtonian 64x		Orange		
145	AL #	Name	Constellation	Vmag	Distance ly		
	Star Type	Location	Latitude	Longitude			
	Date	Transp SQM or Transp NELM		Seeing			
	Time	Instrument and magnification		Color			
		HD 4629 HR 222	Psc	5.74	24.24		
		K2.5	Dear Trail, CO	39° 38.6'	w 103° 55.7'		
		10/19/22	Very Good		Very Good		
		20:18	8" f/6 Newtonian 64x		Red		
233	AL #	Name	Constellation	Vmag	Distance ly		
	Star Type	Location	Latitude	Longitude			
	Date	Transp SQM or Transp NELM		Seeing			
	Time	Instrument and magnification		Color			
		GJ 867 FK Agr	Agr	9.08	29.01		
		M2e	Dear Trail, CO	39° 38.6'	w 103° 55.7'		
		10/19/22	Very Good		Very Good		
		20:31	8" f/6 Newtonian 64x		Red		
139	AL #	Name	Constellation	Vmag	Distance ly		
	Star Type	Location	Latitude	Longitude			
	Date	Transp SQM or Transp NELM		Seeing			
	Time	Instrument and magnification		Color			
		HD 1660A HR 753	Cet	5.83	23.57		
		K3	Dear Trail, CO	39° 38.6'	w 103° 55.7'		
		10/19/22	Very Good		Very Good		
		20:58	8" f/6 Newtonian 64x		Red		
<del>          </del>	AL #	Name	Constellation	Vmag	Distance ly	<del></del>	<del></del>
	Star Type	Location	Latitude	Longitude			
	Date	Transp SQM or Transp NELM		Seeing			
	Time	Instrument and magnification		Color			
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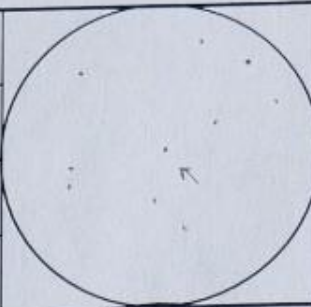

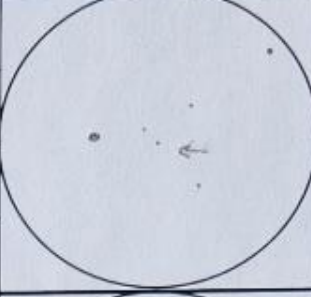

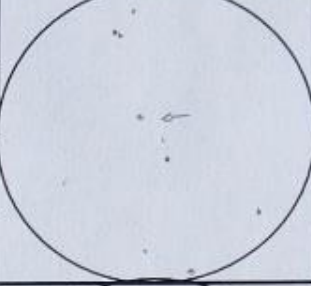
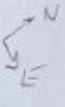
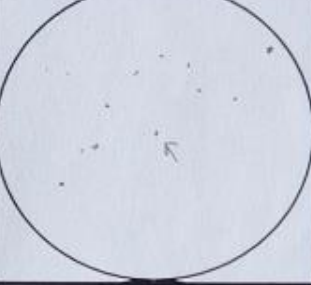

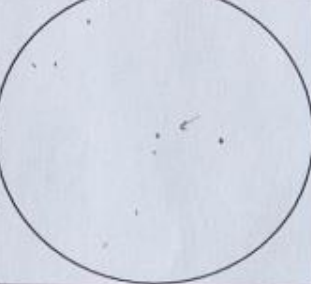

Stars of the Solar Neighborhood Observation Log

36	Name	BR Psc	Constellation	Psc	Vmag	8.99	Distance ly	19.27	
	Star Type	M1	Location	DearTrail, CO	Latitude	39° 38.6'	Longitude	w 103° 55.7'	
	Date	10/19/22	Transp SQM or Transp NELM	Very Good	Seeing	Very Good			
	Time	21:20	Instrument and magnification	8" f/6 Newtonian 64x	Color	Yellow			
23	Name	Gx And Groombridge 34	Constellation	And	Vmag	8.08	Distance ly	11.61	
	Star Type	M1	Location	DearTrail, CO	Latitude	39° 38.6'	Longitude	w 103° 55.7'	
	Date	10/19/22	Transp SQM or Transp NELM	Very Good	Seeing	Very Good			
	Time	21:27	Instrument and magnification	8" f/6 Newtonian 64x	Color	Red			
384	Name	BD+61 195 HIP 4872	Constellation	Cas	Vmag	9.6	Distance ly	32.14	
	Star Type	M1.5	Location	DearTrail, CO	Latitude	39° 38.6'	Longitude	w 103° 55.7'	
	Date	10/19/22	Transp SQM or Transp NELM	Very Good	Seeing	Very Good			
	Time	21:37	Instrument and magnification	8" f/6 Newtonian 64x	Color	Red			
163	Name	HD 165222	Constellation	Ser	Vmag	9.36	Distance ly	25.23	
	Star Type	M0	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°	
	Date	11/25/22	Transp SQM or Transp NELM	Good	Seeing	Good			
	Time	17:45	Instrument and magnification	18" f/14.2 Cass 118x	Color	Red			
44	Name	BD+68 946 SAO 17568	Constellation	Dra	Vmag	9.17	Distance ly	14.83	
	Star Type	M3	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°	
	Date	11/25/22	Transp SQM or Transp NELM	Good	Seeing	Good			
	Time	17:50	Instrument and magnification	18" f/14.2 Cass 118x	Color	Red			

Page T-9 is skipped here  
because it was out of order  
in the blank forms ready to  
record observations.

It is now labeled page T-17.5

Stars of the Solar Neighborhood Observation Log

227	Name	65 745 HIP 93873	Constellation	Sge	Vmag	10.77	Distance ly	28.79		
	Star Type	M2	Location	Berthoud, CO	Latitude	40.31°	Longitude	w105.08°		
	Date	11/25/22	Transp SQM or Transp NELM	Good	Seeing	Good				
	Time	17:58	Instrument and magnification	18" f/14.2 Cass 118x	Color	Reddish				
	AL #	Name	65 745 HIP 93873	Constellation	Sge	Vmag	10.77	Distance ly		
169	Name	Wol 4 922 BB Cap	Constellation	Cap	Vmag	12.01	Distance ly	26.02		
	Star Type	M4.5	Location	Berthoud, CO	Latitude	40.31°	Longitude	w105.08°		
	Date	11/25/22	Transp SQM or Transp NELM	Good	Seeing	Good				
	Time	18:04	Instrument and magnification	18" f/14.2 Cass 171x	Color	Reddish				
	AL #	Name	Wol 4 922 BB Cap	Constellation	Cap	Vmag	12.01	Distance ly		
334	Name	HU Del	Constellation	Del	Vmag	13.04	Distance ly	28.75		
	Star Type	M4.5	Location	Berthoud, CO	Latitude	40.31°	Longitude	w105.08°		
	Date	11/25/22	Transp SQM or Transp NELM	Very Good	Seeing	Very Good				
	Time	18:10	Instrument and magnification	18" f/14.2 Cass 499x	Color	Pale white				
	AL #	Name	HU Del	Constellation	Del	Vmag	13.04	Distance ly		
182	Name	TYC 3980- 1081-1	Constellation	Cep	Vmag	10.64	Distance ly	26.49		
	Star Type	M2	Location	Berthoud, CO	Latitude	40.31°	Longitude	w105.08°		
	Date	11/25/22	Transp SQM or Transp NELM	Very Good	Seeing	Very Good				
	Time	18:15	Instrument and magnification	18" f/14.2 Cass 171x	Color	Red				
	AL #	Name	TYC 3980- 1081-1	Constellation	Cep	Vmag	10.64	Distance ly		
48	Name	65 1245 V1551 Cyg	Constellation	Cyg	Vmag	13.13	Distance ly	15.3		
	Star Type	M5.5	Location	Berthoud, CO	Latitude	40.31°	Longitude	w105.08°		
	Date	11/25/22	Transp SQM or Transp NELM	Very Good	Seeing	Very Good				
	Time	18:21	Instrument and magnification	18" f/14.2 Cass 171x	Color	Pale white				
	AL #	Name	65 1245 V1551 Cyg	Constellation	Cyg	Vmag	13.13	Distance ly		

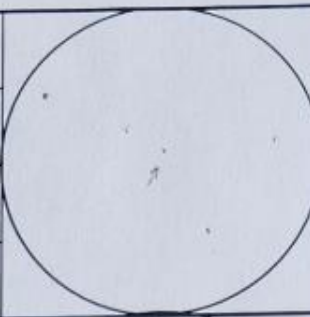

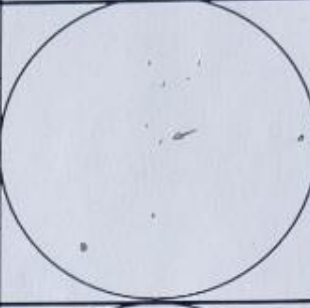

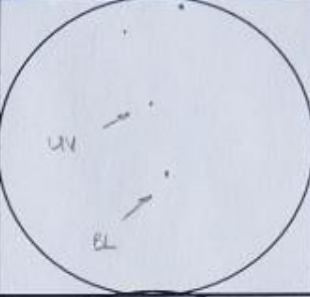
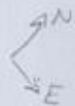
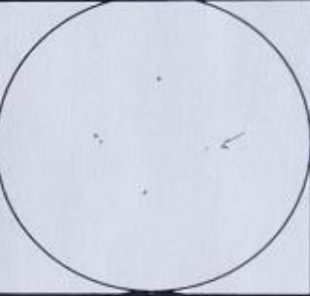

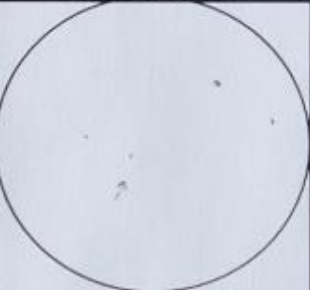

Stars of the Solar Neighborhood Observation Log

246	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
		V374 Peg	Peg	3.5 - 16.0	29.68	
		M3.5e	Berthoud, CO	40.31°	w 105.08°	
		11/25/22	Very Good		Very Good	
		18:25	18" f/14.2 Cass 499x		Pale white very faint	
326	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
		BD-05 5715 HIP 109388	Agr	10.37	28.74	
		M3.5	Berthoud, CO	40.31°	w 105.08°	
		11/25/22	Very Good		Very Good	
		18:34	18" f/14.2 Cass 171x		Red	
16	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
		ZZ Agr	Agr	12.38		
		M5	Berthoud, CO	40.31°	w 105.08°	
		11/25/22	Very Good		Very Good	
		18:37	18" f/14.2 Cass 171x		Reddish very faint	
63	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
		EV Lac	Lac	10.26	16.47	
		M4	Berthoud, CO	40.31°	w 105.08°	
		11/25/22	Very Good		Very Good	
		18:42	18" f/14.2 Cass 171x		Red	
51	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
		ZL Agr	Agr	10.19	15.23	
		M4	Berthoud, CO	40.31°	w 105.08°	
		11/25/22	Very Good		Very Good	
		18:48	18" f/14.2 Cass 171x		Reddish	

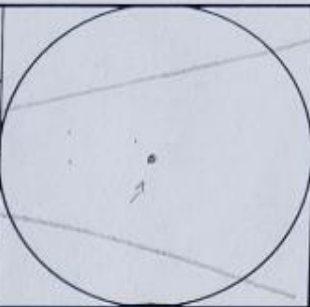
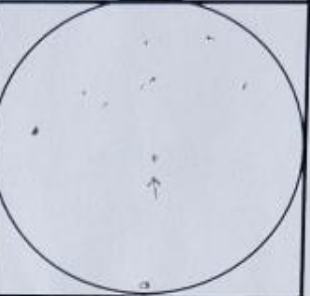
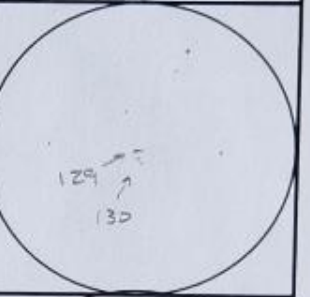
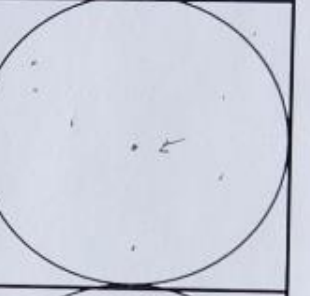
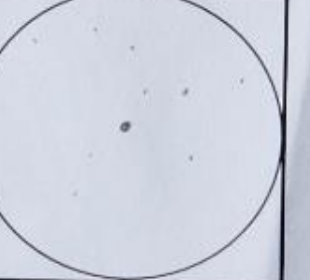
Stars of the Solar Neighborhood Observation Log

AL # 121	Name HD 219134 HR 8832	Constellation Cas	Vmag 5.57	Distance ly 21.33	
	Star Type K3	Location Berthoud, CO	Latitude 40.31°	Longitude w 105.08°	
	Date 11/25/22	Transp SQM or Transp NELM Very Good		Seeing Very Good	
	Time 18:55	Instrument and magnification 18" f/14.2 Cas 17lx		Color Reddish	
AL # 12	Name HH And Ross 248	Constellation And	Vmag 12.29	Distance ly 10.3	
	Star Type M5	Location Berthoud, CO	Latitude 40.31°	Longitude w 105.08°	
	Date 11/25/22	Transp SQM or Transp NELM Very Good		Seeing Very Good	
	Time 19:01	Instrument and magnification 18" f/14.2 Cas 17lx		Color Pale white or Reddish	
AL # 96	Name G 158-50 HIP 1242	Constellation Cet	Vmag 11.6	Distance ly 19.57	
	Star Type M4	Location Berthoud, CO	Latitude 40.31°	Longitude w 105.08°	
	Date 11/25/22	Transp SQM or Transp NELM Very Good		Seeing Very Good	
	Time 19:06	Instrument and magnification 18" f/14.2 Cas 17lx		Color Pale white very faint	
AL # 286	Name V547 Cas	Constellation Cas	Vmag 10.33	Distance ly 32.25	
	Star Type M2	Location Berthoud, CO	Latitude 40.31°	Longitude w 105.08°	
	Date 11/25/22	Transp SQM or Transp NELM Very Good		Seeing Very Good	
	Time 19:12	Instrument and magnification 18" f/14.2 Cas 17lx		Color Red	
AL # 285	Name V328 Cas	Constellation Cas	Vmag 13.21	Distance ly 32.16	
	Star Type M5	Location Berthoud, CO	Latitude 40.31°	Longitude w 105.08°	
	Date 11/25/22	Transp SQM or Transp NELM Very Good		Seeing Very Good	
	Time 19:18	Instrument and magnification 18" f/14.2 Cas 17lx		Color Red	

Stars of the Solar Neighborhood Observation Log

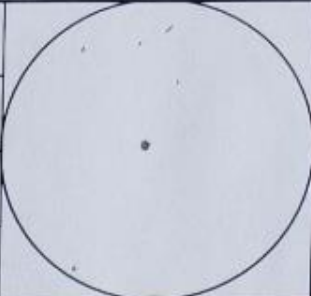

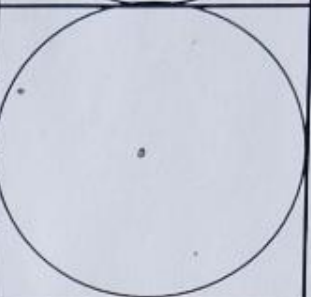

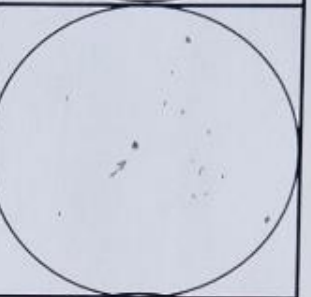

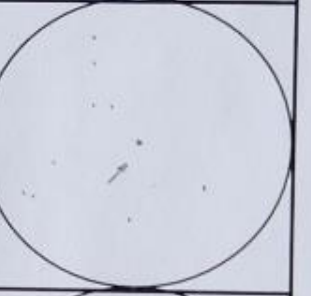

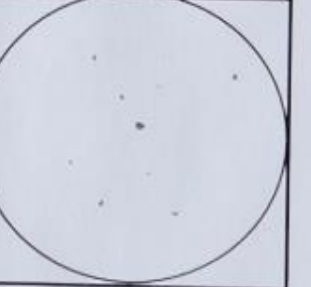

29	Name	Constellation	Vmag	Distance ly		
	Y2 Cet	Cet	12.07	12.12		
	Star Type	Location	Latitude	Longitude		
	M+E	Berthoud, CO	40.31°	w 105.08°		
Date	Transp SQM or Transp NELM		Seeing			
11/25/22	Very Good		Very Good			
Time	Instrument and magnification		Color			
19:37	18" f/14.2 Cass 171x		Pale white very faint			
9	Name	Constellation	Vmag	Distance ly		
	BW Cet	Cet	12.7	8.87		
	Star Type	Location	Latitude	Longitude		
	M5	Berthoud, CO	40.31°	w 105.08°		
Date	Transp SQM or Transp NELM		Seeing			
11/25/22	Very Good		Very Good			
Time	Instrument and magnification		Color			
19:43	18" f/14.2 Cass 171x		Reddish very faint			
10	Name	Constellation	Vmag	Distance ly		
	UV Cet	Cet	13.2	8.72		
	Star Type	Location	Latitude	Longitude		
	M6	Berthoud, CO	40.31°	w 105.08°		
Date	Transp SQM or Transp NELM		Seeing			
11/25/22	Very Good		Very Good			
Time	Instrument and magnification		Color			
19:50	18" f/14.2 Cass 499x		Pale white extremely faint			
43	Name	Constellation	Vmag	Distance ly		
	T2 Ari	Ari	12.3	14.57		
	Star Type	Location	Latitude	Longitude		
	M4.5	Berthoud, CO	40.31°	w 105.08°		
Date	Transp SQM or Transp NELM		Seeing			
11/25/22	Very Good		Very Good			
Time	Instrument and magnification		Color			
20:03	18" f/14.2 Cass 499x		extremely faint			
259	Name	Constellation	Vmag	Distance ly		
	CD-30 731 HIP 9786	For	12.17	30.58		
	Star Type	Location	Latitude	Longitude		
	M2.5	Berthoud, CO	40.31°	w 105.08°		
Date	Transp SQM or Transp NELM		Seeing			
11/25/22	Good		Good			
Time	Instrument and magnification		Color			
20:08	18" f/14.2 Cass 171x		Pale white			

Stars of the Solar Neighborhood Observation Log

AL #	Name	Constellation	Vmag	Distance ly	
	40 For				
	Star Type	Location	Latitude	Longitude	
	Date	Transp SQM or Transp NELM		Seeing	
	Time	Instrument and magnification		Color	
	20:30	18" 38 55		Red	
AL #	Name	Constellation	Vmag	Distance ly	
153	VX Ari	Ari	10.56	25.04	
	Star Type	Location	Latitude	Longitude	
	143	Berthoud, CO	40.31°	w 105.08°	
	Date	Transp SQM or Transp NELM		Seeing	
	11/25/22	Good		Good	
	Time	Instrument and magnification		Color	
	20:38	18" f/14.2 Cass 171x		White	
AL #	Name	Constellation	Vmag	Distance ly	
129 130	80-17 588 PPM 70203	Eri	10.53 11.78	22.38	
	Star Type	Location	Latitude	Longitude	
	M3 M2.5	Berthoud, CO	40.31°	w 105.08°	
	Date	Transp SQM or Transp NELM		Seeing	
	11/25/22	Good		Good	
	Time	Instrument and magnification		Color	
	20:45	18" f/14.2 Cass 171x		Both white	
AL #	Name	Constellation	Vmag	Distance ly	
208	CD Cat	Cat	13.8	28.04	
	Star Type	Location	Latitude	Longitude	
	M4.5e	Berthoud, CO	40.31°	w 105.08°	
	Date	Transp SQM or Transp NELM		Seeing	
	11/25/22	Good		Good	
	Time	Instrument and magnification		Color	
	20:50	18" f/14.2 Cass 171x		Orange	
AL #	Name	Constellation	Vmag	Distance ly	
247	Kappa 1	Cat	4.85	30.24	
	Star Type	Location	Latitude	Longitude	
	G5	Berthoud, CO	40.31°	w 105.08°	
	Date	Transp SQM or Transp NELM		Seeing	
	11/25/22	Good		Good	
	Time	Instrument and magnification		Color	
	20:55	18" f/14.2 Cass 171x		Yellow	



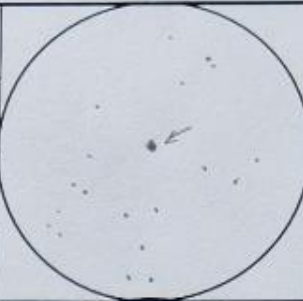

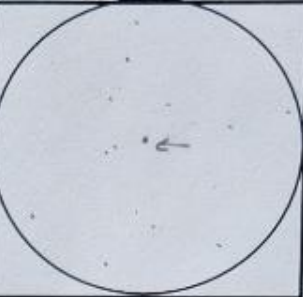

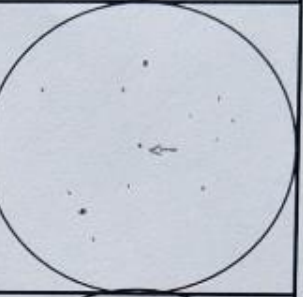

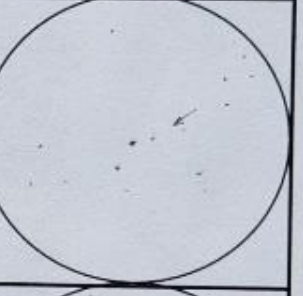

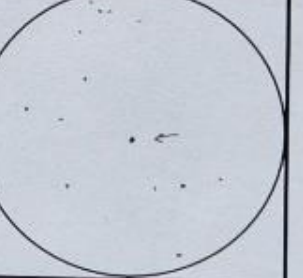

Stars of the Solar Neighborhood Observation Log

13	Name	Epsilon Eri	Constellation	Eri	Vmag	3.73	Distance ly	10.5		
	Star Type	K2	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	11/25/22	Transp SQM or Transp NELM	Good	Seeing	Good				
	Time	20:57	Instrument and magnification	18" f/14.2 Cass 171x	Color	Yellow				
243	Name	Rana	Constellation	Eri	Vmag	3.54	Distance ly	29.63		
	Star Type	K0	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	11/25/22	Transp SQM or Transp NELM	Good	Seeing	Good				
	Time	20:59	Instrument and magnification	18" f/14.2 Cass 118x	Color	Yellow				
290	Name	HD 232979	Constellation	Cass	Vmag	8.65	Distance ly	32.3		
	Star Type	M0	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	11/25/22	Transp SQM or Transp NELM	Good	Seeing	Good				
	Time	21:06	Instrument and magnification	18" f/14.2 Cass 171x	Color	Orange				
264	Name	HD 285968	Constellation	Tau	Vmag	9.95	Distance ly	30.92		
	Star Type	M2	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	11/25/22	Transp SQM or Transp NELM	Good	Seeing	Good				
	Time	21:15	Instrument and magnification	18" f/14.2 Cass 171x	Color	Orange				
60	Name	Keid	Constellation	Eri	Vmag	4.43	Distance ly	16.33		
	Star Type	K0.5	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	11/25/22	Transp SQM or Transp NELM	Good	Seeing	Good				
	Time	21:18	Instrument and magnification	18" f/14.2 Cass 171x	Color	White				

Stars of the Solar Neighborhood Observation Log

170	Name	Tabit	Constellation	Ori	Vmag	3.19	Distance ly	26.16		
	Star Type	FL	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	Transp SQM or Transp NELM		Seeing						
		11/25/22	Good		Good					
	Time	Instrument and magnification		Color						
	21:22	18" f/14.2 Cass 17x		Yellow						
231	Name	HD 32147 HR 1614	Constellation	Eri	Vmag	6.21	Distance ly	28.83		
	Star Type	K3	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	Transp SQM or Transp NELM		Seeing						
		11/25/22	Good		Good					
	Time	Instrument and magnification		Color						
	21:26	18" f/14.2 Cass 17x		Orange						
195	Name	HD 32450	Constellation	Lep	Vmag	8.32	Distance ly	27.26		
	Star Type	M0	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	Transp SQM or Transp NELM		Seeing						
		11/25/22	Poor		Poor					
	Time	Instrument and magnification		Color						
	21:33	18" f/14.2 Cass 17x		Red						
77	Name	HD 36395	Constellation	Ori	Vmag	7.97	Distance ly	18.6		
	Star Type	M1.5	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	Transp SQM or Transp NELM		Seeing						
		11/25/22	Good		Good					
	Time	Instrument and magnification		Color						
	21:37	18" f/14.2 Cass 17x		Orange						
237 236	Name	Gamma Lep b Gamma Lep	Constellation	Lep	Vmag	6.15 3.6	Distance ly	28.99 29.03		
	Star Type	K2.5 F6.5	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	Transp SQM or Transp NELM		Seeing						
		11/25/22	Poor		Poor					
	Time	Instrument and magnification		Color						
	21:41	18" f/14.2 Cass 17x		White White						

Stars of the Solar Neighborhood Observation Log

214	Name	Chi I Ori	Constellation	Ori	Vmag	4.4	Distance ly	28.36		
	Star Type	GD	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	11/25/22	Transp SQM or Transp NELM	Good	Seeing	Good				
	Time	21:46	Instrument and magnification	18" f/14.2 Cass 171x	Color	Green				
78	Name	HD 42521	Constellation	Lep	Vmag	8.13	Distance ly	18.78		
	Star Type	M1	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	11/25/22	Transp SQM or Transp NELM	Poor	Seeing	Poor				
	Time	21:53	Instrument and magnification	18" f/14.2 Cass 171x	Color	Orange				
36	Name	Ross 614	Constellation	Mon	Vmag	11.07	Distance ly	13.42		
	Star Type	M4.5	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	11/25/22	Transp SQM or Transp NELM	Good	Seeing	Good				
	Time	22:01	Instrument and magnification	18" f/14.2 Cass 171x	Color	Reddish				
24	Name	GO And	Constellation	And	Vmag	11.06	Distance ly	11.61		
	Star Type	M3.5e	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	12/8/22	Transp SQM or Transp NELM	Good	Seeing	Good				
	Time	17:30	Instrument and magnification	18" f/14.2 Cass 171x	Color	Deep Reddish				
189	Name	HIP 4856 Ross 318	Constellation	Cas	Vmag	10.0	Distance ly	26.84		
	Star Type	M3e	Location	Berthoud, CO	Latitude	40.31°	Longitude	w 105.08°		
	Date	12/8/22	Transp SQM or Transp NELM	Good	Seeing	Good				
	Time	17:35	Instrument and magnification	18" f/14.2 Cass 171x	Color	Orange				

Stars of the Solar Neighborhood Observation Log

39	AL #	Name <i>Wolf 28</i> <i>HIP 3829</i>	Constellation <i>Psc</i>	Vmag <i>12.37</i>	Distance ly <i>14.07</i>		
	Star Type <i>DZ</i>	Location <i>Berthoud, CO</i>	Latitude <i>40.31°</i>	Longitude <i>w 105.08°</i>			
	Date <i>12/8/22</i>	Transp SQM or Transp NELM <i>Good</i>	Seeing <i>Good</i>				
	Time <i>17:43</i>	Instrument and magnification <i>18" f/14.2 Cass 171x</i>	Color <i>Yellow → Orange</i>				
135	AL #	Name <i>HD 199305</i>	Constellation <i>Cep</i>	Vmag <i>8.6</i>	Distance ly <i>18.32</i>		
	Star Type <i>M1e</i>	Location <i>Berthoud, CO</i>	Latitude <i>40.31°</i>	Longitude <i>w 105.08°</i>			
	Date <i>1/9/23</i>	Transp SQM or Transp NELM <i>OK</i>	Seeing <i>OK</i>				
	Time <i>17:57</i>	Instrument and magnification <i>18" f/14.2 Cass 171x</i>	Color <i>White Red</i>				
178	AL #	Name <i>G 262-15</i> <i>HIP 161180</i>	Constellation <i>Cep</i>	Vmag <i>10.07</i>	Distance ly <i>28.38</i>		
	Star Type <i>M2.5</i>	Location <i>Berthoud, CO</i>	Latitude <i>40.31°</i>	Longitude <i>w 105.08°</i>			
	Date <i>1/9/23</i>	Transp SQM or Transp NELM <i>Good</i>	Seeing <i>Good</i>				
	Time <i>18:02</i>	Instrument and magnification <i>18" f/14.2 Cass 171x</i>	Color <i>Orange</i>				
35 A → 34	AL #	Name <del><i>HD 239960</i></del> <del><i>DO Cep</i></del>	Constellation <del><i>Cep</i></del>	Vmag <del><i>9.79 A</i></del> <del><i>11.41 B</i></del>	Distance ly <del><i>13.07 A</i></del> <del><i>13.04 B</i></del>		
	Star Type <del><i>M3 A</i></del> <del><i>M4 B</i></del>	Location	Latitude	Longitude			
	Date <del><i>1/9/23</i></del>	Transp SQM or Transp NELM <del><i>Good</i></del>	Seeing <del><i>Good</i></del>				
	Time <del><i>18:11</i></del>	Instrument and magnification	Color <del><i>Pale white B</i></del> <del><i>Orange A</i></del>				
35	AL #	Name <i>HD 239960 B</i> <i>DO Cep</i>	Constellation <i>Cep</i>	Vmag <i>11.41</i>	Distance ly <i>13.04</i>		
	Star Type <i>M4</i>	Location <i>Berthoud, CO</i>	Latitude <i>40.31°</i>	Longitude <i>w 105.08°</i>			
	Date <i>1/12/23</i>	Transp SQM or Transp NELM <i>Good</i>	Seeing <i>Good</i>				
	Time <i>17:58</i>	Instrument and magnification <i>18" f/14.2 Cass 171x</i>	Color <i>Red</i>				

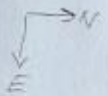
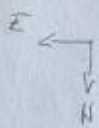
Stars of the Solar Neighborhood Observation Log

258	Name BD-18 359 HIP 9724	Constellation Cet	Vmag 10.19	Distance ly 30.38	
	Star Type M3	Location Berthoud, CO	Latitude 40.31°	Longitude w 105.08°	
	Date 1/12/23	Transp SQM or Transp NELM Good		Seeing Good	
	Time 18:04	Instrument and magnification 18" f/14.2 Cass 171x		Color Reddish	
140	Name HD 16160	Constellation Cet	Vmag 4.0	Distance ly 23.55	
	Star Type K3	Location Berthoud, CO	Latitude 40.31°	Longitude w 105.08°	
	Date 1/12/23	Transp SQM or Transp NELM Good		Seeing Good	
	Time 18:20	Instrument and magnification 18" f/14.2 Cass 171x		Color Yellow	
62	Name DY Eri	Constellation Eri	Vmag 11.17	Distance ly 16.34	
	Star Type M4.5	Location Berthoud, CO	Latitude 40.31°	Longitude w 105.08°	
	Date 1/12/23	Transp SQM or Transp NELM Good		Seeing Good	
	Time 18:31	Instrument and magnification 18" f/14.2 Cass 171x		Color Pale white	
80	Name Ross 47 V1352 Ori	Constellation Ori	Vmag 11.51	Distance ly 19.88	
	Star Type M4	Location Berthoud, CO	Latitude 40.31°	Longitude w 105.08°	
	Date 1/12/23	Transp SQM or Transp NELM Good		Seeing Good	
	Time 18:43	Instrument and magnification 18" f/14.2 Cass 171x		Color Red	
237	Name Gamma Lep B AK Lep	Constellation Lep	Vmag 6.15	Distance ly 28.99	
	Star Type K2.5	Location Berthoud, CO	Latitude 40.31°	Longitude w 105.08°	
	Date 1/12/23	Transp SQM or Transp NELM OK		Seeing OK	
	Time 18:51	Instrument and magnification 18" f/14.2 Cass 171x		Color Pale white	

Stars of the Solar Neighborhood Observation Log

Observed  
Already?

36	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude	
	Date	Transp SQM or Transp NELM		Seeing	
	Time	Instrument and magnification		Color	
AL #	Name	Constellation	Vmag	Distance ly	
Star Type	Location	Latitude	Longitude		
Date	Transp SQM or Transp NELM		Seeing		
Time	Instrument and magnification		Color		
AL #	Name	Constellation	Vmag	Distance ly	
Star Type	Location	Latitude	Longitude		
Date	Transp SQM or Transp NELM		Seeing		
Time	Instrument and magnification		Color		
AL #	Name	Constellation	Vmag	Distance ly	
Star Type	Location	Latitude	Longitude		
Date	Transp SQM or Transp NELM		Seeing		
Time	Instrument and magnification		Color		
AL #	Name	Constellation	Vmag	Distance ly	
Star Type	Location	Latitude	Longitude		
Date	Transp SQM or Transp NELM		Seeing		
Time	Instrument and magnification		Color		



Stars of the Solar Neighborhood Observation Log

30	Name	Constellation	Vmag	Distance ly	
	W47umb Star	CMi	9.87	12.34	
	Star Type	Location	Latitude	Longitude	
	M3.5	Berthoud, CO	40.31°	w105.08°	
Date	Transp SQM or Transp NELM		Seeing		
1/12/23	Good		Good		
Time	Instrument and magnification		Color		
20:41	18" f/14.2 Cass 171x		Reddish		
101	Name	Constellation	Vmag	Distance ly	
	QV Aur	Aur	12.05	19.73	
	Star Type	Location	Latitude	Longitude	
	M5e	Berthoud, CO	40.31°	w105.08°	
Date	Transp SQM or Transp NELM		Seeing		
1/12/23	Good		Good		
Time	Instrument and magnification		Color		
20:34	18" f/14.2 Cass 171x		?		
20	Name	Constellation	Vmag	Distance ly	
	Procyon B	CMi	10.92	11.46	
	Star Type	Location	Latitude	Longitude	
	DQZ	Berthoud, CO	40.31°	w105.08°	
Date	Transp SQM or Transp NELM		Seeing		
1/12/23	Good		Good		
Time	Instrument and magnification		Color		
20:57	18" f/14.2 Cass 1082x		White		
95	Name	Constellation	Vmag	Distance ly	
	YZ CMi	CMi	11.23	19.52	
	Star Type	Location	Latitude	Longitude	
	M4e	Berthoud, CO	40.31°	w105.08°	
Date	Transp SQM or Transp NELM		Seeing		
1/12/23	Good		Good		
Time	Instrument and magnification		Color		
21:03	18" f/14.2 Cass 171x		Pale White		
248	Name	Constellation	Vmag	Distance ly	
	QJ283	CMi	13.06	29.81	
	Star Type	Location	Latitude	Longitude	
	DZA	Berthoud, CO	40.31°	w105.08°	
Date	Transp SQM or Transp NELM		Seeing		
1/12/23	Good		Good		
Time	Instrument and magnification		Color		
21:07	18" f/14.2 Cass 171x		Reddish		

Stars of the Solar Neighborhood Observation Log

232	AL #	Name	Constellation	Vmag	Distance ly	
		G 112-47 HIP 38956	Lyn	13.91	28.85	
		Star Type	Location	Latitude	Longitude	
		M3.5	Berthoud, CO	40.31°	W 105.08°	
		Date	Transp SQM or Transp NELM		Seeing	
	1/12/23	Good		Good		
	Time	Instrument and magnification		Color		
	21:15	18" f/14.2 Cass 171x		Reddish		
233	AL #	Name	Constellation	Vmag	Distance ly	
		G 113-20 HIP 40501	Hya	10.09	29.14	
		Star Type	Location	Latitude	Longitude	
		M2	Berthoud, CO	40.31°	W 105.08°	
		Date	Transp SQM or Transp NELM		Seeing	
	1/12/23	Good				
	Time	Instrument and magnification		Color		
	21:20	18" f/14.2 Cass 171x		Red		
25	AL #	Name	Constellation	Vmag	Distance ly	
		DX Cnc	Cnc	14.9	11.67	
		Star Type	Location	Latitude	Longitude	
		M6.5	Berthoud, CO	40.31°	W 105.08°	
		Date	Transp SQM or Transp NELM		Seeing	
	1/12/23	Good		Good		
	Time	Instrument and magnification		Color		
	21:24	18" f/14.2 Cass 171x		Reddish		
<del>26</del>	AL #	Name	Constellation	Vmag	Distance ly	
		<del>RV Pop</del>	<del>Pop</del>			
		<del>Star Type</del>	<del>Location</del>	<del>Latitude</del>	<del>Longitude</del>	
		<del>Watkins, CO</del>	<del>39.7098°</del>	<del>-104.6°</del>		
		<del>Date</del>	<del>Transp SQM or Transp NELM</del>		<del>Seeing</del>	
	<del>2/19/23</del>	<del>Poor</del>		<del>Poor</del>		
	<del>Time</del>	<del>Instrument and magnification</del>		<del>Color</del>		
	<del>2019</del>	<del>8" f/6 Newtonian 122x</del>		<del>Yellow off white</del>		
263	AL #	Name	Constellation	Vmag	Distance ly	
		G 222-11 HIP 29377	Cam	10.4	30.84	
		Star Type	Location	Latitude	Longitude	
		M2	Watkins, CO	39.7098°	-104.6°	
		Date	Transp SQM or Transp NELM		Seeing	
	2/19/23	OK		OK		
	Time	Instrument and magnification		Color		
	2018	8" f/6 Newtonian 122x		Reddish		



Stars of the Solar Neighborhood Observation Log

64	AL #	Name	Constellation	Vmag	Distance ly		E
	El Cnc	Cnc	13.8	16.79			
	Star Type	Location	Latitude	Longitude			
	M7	Berthoud, CO	40.31°	105.08°W			
	Date	Transp SQM or Transp NELM		Seeing			
	3/17/23	Very Good		Very Good			
	Time	Instrument and magnification		Color			
	21:59	18" f/14.2 Cass 171x		Dark Blue Gardies			
110	AL #	Name	Constellation	Vmag	Distance ly		E
	HD 79211	UMa	7.7	20.65			
	Star Type	Location	Latitude	Longitude			
	M0 M0	Berthoud, CO	40.31°	105.08°W			
	Date	Transp SQM or Transp NELM		Seeing			
	3/17/23	Very Good		Very Good			
	Time	Instrument and magnification		Color			
	22:05	18" f/14.2 Cass 171x		Both Yellow			
280	AL #	Name	Constellation	Vmag	Distance ly		E
	HR 46655	Hya	11.71	32.31			
	Star Type	Location	Latitude	Longitude			
	M3.5e	Berthoud, CO	40.31°	105.08°W			
	Date	Transp SQM or Transp NELM		Seeing			
	3/17/23	Good		Good			
	Time	Instrument and magnification		Color			
	22:14	18" f/14.2 Cass 171x		Very Dim Pale white			
295	AL #	Name	Constellation	Vmag	Distance ly		E
	HR 46706	Hya	10.07	32.64			
	Star Type	Location	Latitude	Longitude			
	M3	Berthoud, CO	40.31°	105.08°W			
	Date	Transp SQM or Transp NELM		Seeing			
	3/17/23	Good		Good			
	Time	Instrument and magnification		Color			
	22:22	18" f/14.2 Cass 171x		Red			
262	AL #	Name	Constellation	Vmag	Distance ly		E
	HR 47103	Hya	10.91	30.76			
	Star Type	Location	Latitude	Longitude			
	M2.5	Berthoud, CO	40.31°	105.08°W			
	Date	Transp SQM or Transp NELM		Seeing			
	3/17/23	Good		Good			
	Time	Instrument and magnification		Color			
	22:28	18" f/14.2 Cass 171x		Pale white			

Stars of the Solar Neighborhood Observation Log

54	AL #	Name	Constellation	Vmag	Distance ly	
		HD 88250	UMa	6.61	15.88	
		Star Type	Location	Latitude	Longitude	
		K7.5e	Berthoud, CO	40.31°	105.08°W	
		Date	Transp SQM or Transp NELM		Seeing	
	3/17/23	Good		Good		
	Time	Instrument and magnification		Color		
	22:34	18" f / 14.2 Cass 171x		Orange to Light Red		
160	AL #	Name	Constellation	Vmag		Distance ly
		SAO 137411	Sax	9.26		25.12
		Star Type	Location	Latitude		Longitude
		M1.5	Berthoud, CO	40.31°	105.08°W	
		Date	Transp SQM or Transp NELM		Seeing	
	3/17/23	Good		Good		
	Time	Instrument and magnification		Color		
	22:45	18" f / 14.2 Cass 171x		Reddish		
57	AL #	Name	Constellation	Vmag		Distance ly
		AD Leo	Leo	9.52		16.19
		Star Type	Location	Latitude		Longitude
		M3	Berthoud, CO	40.31°	105.08°W	
		Date	Transp SQM or Transp NELM		Seeing	
	3/17/23	Good		Good		
	Time	Instrument and magnification		Color		
	22:52	18" f / 14.2 Cass 499x		Both Red		
123	AL #	Name	Constellation	Vmag		Distance ly
		HIP 53767	Leo	10.02		22.0
		Star Type	Location	Latitude		Longitude
		M2.5	Berthoud, CO	40.31°	105.08°W	
		Date	Transp SQM or Transp NELM		Seeing	
	3/17/23	Good		Good		
	Time	Instrument and magnification		Color		
	22:58	18" f / 14.2 Cass 171x		Reddish		
6	AL #	Name	Constellation	Vmag		Distance ly
		Lalande 21185 HD 95735	UMa	7.52		8.3
		Star Type	Location	Latitude		Longitude
		M1.5e	Berthoud, CO	40.31°	105.08°W	
		Date	Transp SQM or Transp NELM		Seeing	
	3/17/23	Good		Good		
	Time	Instrument and magnification		Color		
	23:04	18" f / 14.2 Cass 171x		Orange		

Stars of the Solar Neighborhood Observation Log

55	Name HIP 54211 SAO 43699	Constellation UMa	Vmag 8.77	Distance ly 15.99	
	Star Type M1	Location Berthoud, CO	Latitude 40.31°	Longitude 105.08°W	
	Date 3/17/23	Transp SQM or Transp NELM Good		Seeing Good	
	Time 23:10	Instrument and magnification 18" f/14.2 Casse 17x		Color Red	
	AL #	Name	Constellation	Vmag	
56	Name 6x UMa	Constellation UMa	Vmag 14.45	Distance ly 15.99	
	Star Type MS.5	Location Berthoud, CO	Latitude 40.31°	Longitude 105.08°W	
	Date 3/17/23	Transp SQM or Transp NELM Good		Seeing Good	
	Time 23:20	Instrument and magnification 18" f/14.2 Casse 499x		Color Almost not there	
	AL #	Name	Constellation	Vmag	
217 216	Name Xi UMa	Constellation UMa	Vmag 4.77 3.79	Distance ly 26.47	
	Star Type G2 F8.5	Location Berthoud, CO	Latitude 40.31°	Longitude 105.08°W	
	Date 3/17/23	Transp SQM or Transp NELM Good		Seeing Good	
	Time 23:27	Instrument and magnification 18" f/14.2 Casse 499x		Color Yellow	
	AL #	Name	Constellation	Vmag	
241	Name SZ UMa	Constellation UMa	Vmag 9.3	Distance ly 29.57	
	Star Type M4.5	Location Berthoud, CO	Latitude 40.31°	Longitude 105.08°W	
	Date 3/17/23	Transp SQM or Transp NELM Good		Seeing Good	
	Time 23:45	Instrument and magnification 18" f/14.2 Casse 17x		Color Pale White	
	AL #	Name	Constellation	Vmag	
271	Name 61 UMa	Constellation UMa	Vmag 5.34	Distance ly 31.22	
	Star Type G8	Location Berthoud, CO	Latitude 40.31°	Longitude 105.08°W	
	Date 3/17/23	Transp SQM or Transp NELM Good		Seeing Good	
	Time 23:50	Instrument and magnification 18" f/14.2 Casse 17x		Color Cream	

Stars of the Solar Neighborhood Observation Log

282	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
		HIP 57087	Leo	10.61	31.87	
		M2.5	Berthoud, CO	40.31°	105.08°W	
		3/17/23	Good		Good	
		23:56	18" f/14.2 Cass 17x		Pale White	
70	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
		HIP 57544	Cam	10.79	17.13	
		M4e	Berthoud, CO	40.31°	105.08°W	
		3/18/23	Good		Good	
		00:02	18" f/14.2 Cass 17x		Dim Reddish	
134	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
		HIP 51317	Sax	9.65	22.94	
		M2	Berthoud, CO	40.31°	105.08°W	
		3/18/23	OK		OK	
		00:09	18" f/14.2 Cass 17x		Yellow	
133	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
		EE Leo	Leo	11.68	22.71	
		M4	Berthoud, CO	40.31°	105.08°W	
		3/18/23	OK		OK	
		00:13	18" f/14.2 Cass 17x		Faint Orange	
221	AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude		
	Date	Transp SQM or Transp NELM		Seeing		
	Time	Instrument and magnification		Color		
		HIP 57802	UMA	9.8	29.9	
		M1.5	Berthoud, CO	40.31°	105.08°W	
		3/18/23	OK		OK	
		00:27	18" f/14.2 Cass 17x		Yellow	



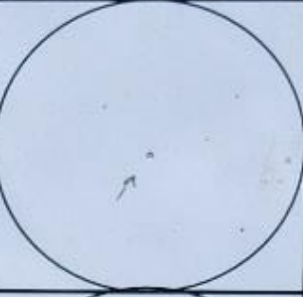


Stars of the Solar Neighborhood Observation Log

249	Name	Constellation	Vmag	Distance ly	
	CFUma	Uma	6.45	29.9	
	Star Type	Location	Latitude	Longitude	
	K1	Berthoud, CO	40.31°	105.08°W	
Date	Transp SQM or Transp NELM		Seeing		
3/18/23	OK		OK		
Time	Instrument and magnification		Color		
00:34	18" f/14.2 Cass 171x		Cream		
	Name	Constellation	Vmag	Distance ly	
	Bernards <sup>Star</sup>	Oph			
	Star Type	Location	Latitude	Longitude	
		3RF			
Date	Transp SQM or Transp NELM		Seeing		
4/15/23	Good (windy)		Good		
Time	Instrument and magnification		Color		
1:54	20" f/5 Newtonian 246x				
5	Name	Constellation	Vmag	Distance ly	
	Wolf 359	Leo	13.51	7.85	
	Star Type	Location	Latitude	Longitude	
	M6	Deer Trail, CO	39°38'	w/103°56'	
Date	Transp SQM or Transp NELM		Seeing		
5/21/23	OK		OK		
Time	Instrument and magnification		Color		
9:37	8" f/6 Newtonian 203x		Reddish		
15	Name	Constellation	Vmag	Distance ly	
	F1 Vir	Vir	11.15	11.0	
	Star Type	Location	Latitude	Longitude	
	M4	Deer Trail, CO	39°38'	w/103°56'	
Date	Transp SQM or Transp NELM		Seeing		
5/21/23	OK		OK		
Time	Instrument and magnification		Color		
9:52	8" f/6 Newtonian 203x		White		
114	Name	Constellation	Vmag	Distance ly	
	GL Vir	Vir	13.9	21.07	
	Star Type	Location	Latitude	Longitude	
	M4.5c	Deer Trail, CO	39°38'	w/103°56'	
Date	Transp SQM or Transp NELM		Seeing		
5/21/23	OK		OK		
Time	Instrument and magnification		Color		
10:04	8" f/6 Newtonian 203x		Pale White		

Stars of the Solar Neighborhood Observation Log

AL # 235	Name Ross 645 HD 60559	Constellation Crv	Vmag 11.27	Distance ly 28.93		N ↓ E
	Star Type M2	Location Dear Trail, CO	Latitude 39°38'	Longitude w/103°56'		
	Date 5/21/23	Transp SQM or Transp NELM OK	Seeing OK			
	Time 10:13	Instrument and magnification 8" f/6 Newtonian 122x	Color Yellow			
AL # 40	Name WDR 424 FL Vir	Constellation Vir	Vmag 13.25	Distance ly 14.11		N ↓ E
	Star Type MS.5	Location Dear Trail, CO	Latitude 39°38'	Longitude w/103°56'		
	Date 5/21/23	Transp SQM or Transp NELM OK	Seeing OK			
	Time 10:20	Instrument and magnification 8" f/6 Newtonian 122x	Color Yellow			
AL # 177	Name WDR 437 HIP 62452	Constellation Vir	Vmag 11.4	Distance ly 26.34		N ↓ E
	Star Type M3.5c	Location Dear Trail, CO	Latitude 39°38'	Longitude w/103°56'		
	Date 5/21/23	Transp SQM or Transp NELM Dew Settling In OK	Seeing OK			
	Time 10:32	Instrument and magnification 8" f/6 Newtonian 203x	Color Reddish			
AL # 203	Name 61 Vir B	Constellation Vir	Vmag 10.73	Distance ly 27.82		N ↓ E
	Star Type G6	Location Dear Trail, CO	Latitude 39°38'	Longitude w/103°56'		
	Date 5/21/23	Transp SQM or Transp NELM OK	Seeing OK			
	Time 10:46	Instrument and magnification 8" f/6 Newtonian 203x	Color Reddish			
AL # 155	Name BD+11 2576 PPM 129864	Constellation Vir	Vmag 9.03	Distance ly 24.97		N ↓ E
	Star Type M1c	Location Dear Trail, CO	Latitude 39°38'	Longitude w/103°56'		
	Date 5/21/23	Transp SQM or Transp NELM OK	Seeing OK			
	Time 11:20	Instrument and magnification 8" f/6 Newtonian 203x	Color Orange			

Stars of the Solar Neighborhood Observation Log

198	Name	Constellation	Vmag	Distance ly	
	Chara B	CVn	10.7	27.62	
	Star Type	Location	Latitude	Longitude	
	GO	Deer Trail, 60	39° 38'	w 103° 56'	
	Date	Transp SQM or Transp NELM		Seeing	
5/21/23	Heavy Dew OK		OK		
251	Name	Constellation	Vmag	Distance ly	
	Beta Com B	Com	10.1	29.98	
	Star Type	Location	Latitude	Longitude	
	GO	Deer Trail, 60	39° 38'	w 103° 56'	
	Date	Transp SQM or Transp NELM		Seeing	
5/21/23	OK		OK		
244	Name	Constellation	Vmag	Distance ly	
	HD 115953	CVn	8.54	27.82	
	Star Type	Location	Latitude	Longitude	
	G7	Deer Trail, 60	39° 38'	w 103° 56'	
	Date	Transp SQM or Transp NELM		Seeing	
5/21/23	OK Heavy Dew		OK		
250	Name	Constellation	Vmag	Distance ly	
	K023 1015 HIP 66906	CVn	11.98	29.97	
	Star Type	Location	Latitude	Longitude	
	M3.5	Deer Trail, 60	39° 38'	w 103° 56'	
	Date	Transp SQM or Transp NELM		Seeing	
5/21/23	OK		OK		
72	Name	Constellation	Vmag	Distance ly	
	HD 119850	Boo	8.5	17.71	
	Star Type	Location	Latitude	Longitude	
	M1.5	Deer Trail, 60	39° 38'	w 103° 56'	
	Date	Transp SQM or Transp NELM		Seeing	
5/21/23	OK		OK		
	Time	Instrument and magnification		Color	
	11:28	8" f/6 Newtonian 122x		Reddish	
	Time	Instrument and magnification		Color	
	11:37	8" f/6 Newtonian 122x		Dim Red	
	Time	Instrument and magnification		Color	
	11:44	8" f/6 Newtonian 122x		Red	
	Time	Instrument and magnification		Color	
	11:50	2" f/6 Newtonian 122x		Reddish	
	Time	Instrument and magnification		Color	
	11:56	8" f/6 Newtonian 122x		Yellow	

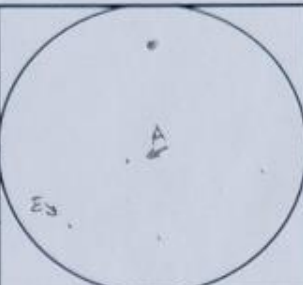

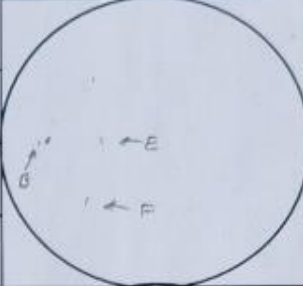

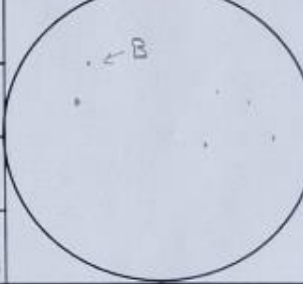
Stars of the Solar Neighborhood Observation Log

106	Name	HN Lib	Constellation	Lib	Vmag	11.32	Distance ly	20.38	
	Star Type	M3.5	Location	Deer Trail, W	Latitude	39° 38'	Longitude	w 103° 56'	
	Date	5/22/23	Transp SQM or Transp NELM	OK	Seeing	OK			
	Time	12:05	Instrument and magnification	8" f/6 Newtonian 122x	Color	Yellow			
81B 81A	Name	HR 5568 HD 131976	Constellation	Lib	Vmag	8.1 5.72	Distance ly	19.19	
	Star Type	K4 M1.5	Location	Deer Trail, W	Latitude	39° 38'	Longitude	w 103° 56'	
	Date	5/22/23	Transp SQM or Transp NELM	OK	Seeing	OK			
	Time	12:11	Instrument and magnification	8" f/6 Newtonian 122x	Color	Yellow Orange			
109	Name	H0 Lib Gliese 581	Constellation	Lib	Vmag	10.56	Distance ly	20.54	
	Star Type	M3	Location	Deer Trail, W	Latitude	39° 38'	Longitude	w 103° 56'	
	Date	5/22/23	Transp SQM or Transp NELM	Heavy Dew OK	Seeing	OK			
	Time	12:20	Instrument and magnification	8" f/6 Newtonian 122x	Color	Yellow			
115	Name	G 202-48 HIP 80459	Constellation	Dra	Vmag	10.07	Distance ly	21.12	
	Star Type	M1.5	Location	Deer Trail, W	Latitude	39° 38'	Longitude	w 103° 56'	
	Date	5/22/23	Transp SQM or Transp NELM	OK	Seeing	OK			
	Time	12:30	Instrument and magnification	8" f/6 Newtonian 122x	Color	Pale white			
38	Name	V2306 oph Wol # 1061	Constellation	Oph	Vmag	10.07	Distance ly	14.04	
	Star Type	M3	Location	Deer Trail, W	Latitude	39° 38'	Longitude	w 103° 56'	
	Date	5/22/23	Transp SQM or Transp NELM	OK	Seeing	OK			
	Time	12:49	Instrument and magnification	8" f/6 Newtonian 122x	Color	Orangeish			

GJ 570B  
GJ 570A  
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Stars of the Solar Neighborhood Observation Log

AL #	Name	Constellation	Vmag	Distance ly	
116E	H3 156024 V1054 Oph	Oph	6.34 9.02	21.17	
116A	Star Type K5 H3e	Location Deer Trail, CO	Latitude 39° 38'	Longitude w 103° 56'	
	Date 5/22/23	Transp SQM or Transp NELM OK	Seeing OK		
	Time 12:57	Instrument and magnification 8" f/6 Newtonian 122x		Color Both Reddish	
AL #	Name	Constellation	Vmag	Distance ly	
2	Alpha Cen	Cen	0.01 1.53	4.39	
3	Star Type G2 K1	Location Coona, NSW Australia	Latitude 31° 17' S	Longitude 149° 17' E	
	Date 4/1/16	Transp SQM or Transp NELM Good	Seeing Good		
	Time 8:33	Instrument and magnification 16" f/4 Newtonian 125x		Color Both Yellow	
AL #	Name	Constellation	Vmag	Distance ly	
125	B, F, E X: Boo	Boo	6.95 B 8.45 E 7.2 F	22.0	
	Star Type K5	Location Deer Trail, CO	Latitude 39° 38'	Longitude w 103° 56'	
	Date 7/10/23	Transp SQM or Transp NELM Good	Seeing Good		
	Time 9:24	Instrument and magnification 8" f/6 Newtonian 122x		Color All Orange	
AL #	Name	Constellation	Vmag	Distance ly	
	BCE X: Boo				
	Star Type	Location	Latitude	Longitude	
	Date	Transp SQM or Transp NELM	Seeing		
	Time	Instrument and magnification 10"		Color Yellow	
AL #	Name	Constellation	Vmag	Distance ly	
240	B SZ UMa	UMa	10.7	2.57	
	Star Type M1	Location Deer Trail, CO	Latitude 39° 38'	Longitude w 103° 56'	
	Date 7/10/23	Transp SQM or Transp NELM Good	Seeing Good		
	Time 9:53	Instrument and magnification 8" f/6 Newtonian 122x		Color Both Reddish	

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291	AL #	Name B CE Boo	Constellation Boo	Vmag 10.15	Distance ly 32.43		
	Star Type	M1	Location Deer Trail, CO	Latitude 39°38'	Longitude w103°56'		
	Date	Transp SQM or Transp NELM Good		Seeing Good			
	Time	Instrument and magnification 8" f/6 Newtonian 122x		Color Yellow			
277	AL #	Name HIP 76401	Constellation L' b	Vmag 11.86	Distance ly 31.6		
	Star Type	M3	Location Deer Trail, CO	Latitude 39°38'	Longitude w103°56'		
	Date	Transp SQM or Transp NELM Good		Seeing Good			
	Time	Instrument and magnification 8" f/6 Newtonian 122x		Color Reddish			
164	AL #	Name HIP 80346	Constellation Her	Vmag 10.26	Distance ly 25.57		
	Star Type	M3c	Location Deer Trail, CO	Latitude 39°38'	Longitude w103°56'		
	Date	Transp SQM or Transp NELM Good		Seeing Good			
	Time	Instrument and magnification 8" f/6 Newtonian 122x		Color Pale white Very faint			
116 117 119	AL #	Name B, C, E HD 152751	Constellation Oph	Vmag 9.02 B 11.76 C 9.02 E	Distance ly B, E 21.17 C 21.19		
	Star Type	B, E M3c C M3c	Location Deer Trail, CO	Latitude 39°38'	Longitude w103°56'		
	Date	Transp SQM or Transp NELM Good		Seeing Good			
	Time	Instrument and magnification 8" f/6 Newtonian 122x		Color Yellow			
92 93	AL #	Name B, D 36 OPH	Constellation Oph	Vmag 5.03 B 6.34 D	Distance ly 19.40 B 19.41 D		
	Star Type	K1 B K5 D	Location Deer Trail, CO	Latitude 39°38'	Longitude w103°56'		
	Date	Transp SQM or Transp NELM Good		Seeing Good			
	Time	Instrument and magnification 8" f/6 Newtonian 122x		Color All Yellow			

Stars of the Solar Neighborhood Observation Log

161	Name	HD 157881	Constellation	Oph	Vmag	7.56	Distance ly	25.15			
	Star Type	K7	Location	Deer Trail, W	Latitude	39° 38'	Longitude	W 103° 56'			
	Date	7/10/23	Transp SQM or Transp NELM		Good		Seeing				Good
	Time	10:43	Instrument and magnification		8" f/6 Newtonian 122x		Color				Red
192	Name	M6 Her B	Constellation	Her	Vmag	9.78	Distance ly	27.19			
	Star Type	M3.5	Location	Deer Trail, W	Latitude	39° 38'	Longitude	W 103° 56'			
	Date	7/10/23	Transp SQM or Transp NELM		Good		Seeing				Good
	Time	10:49	Instrument and magnification		8" f/6 Newtonian 122x		Color				White
11	Name	V1216 Sgr	Constellation	Sgr	Vmag	10.43	Distance ly	9.7			
	Star Type	M3.5e	Location	Deer Trail, W	Latitude	39° 38'	Longitude	W 103° 56'			
	Date	7/10/23	Transp SQM or Transp NELM		Good		Seeing				Good
	Time	10:57	Instrument and magnification		8" f/6 Newtonian 122x		Color				Red
125	Name	Xi Boo - D	Constellation	Boo	Vmag	11.73	Distance ly	22.0			
	Star Type	K4Ve	Location	Jackson Lake SP	Latitude	40.4°	Longitude	W 104.1°			
	Date	7/13/23	Transp SQM or Transp NELM		Good		Seeing				Good
	Time	10:03	Instrument and magnification		8" f/6 Newtonian 122x		Color				Reddish
125	Name	Xi Boo C	Constellation	Boo	Vmag	13.83	Distance ly	22.0			
	Star Type		Location	Rocky Mountain NP	Latitude	40.37°	Longitude	W 105.61°			
	Date	7/21/23	Transp SQM or Transp NELM		Good		Seeing				Good
	Time	11:02	Instrument and magnification		8" f/6 Newtonian 203x		Color				Pale White

Stars of the Solar Neighborhood Observation Log

93	Name	Constellation	Vmag	Distance ly	
	V 22150phi	Ophi	6.34	19.41	
	Star Type	Location	Latitude	Longitude	
	K5	RMNP	40.37°	w/05.61°	
	Date	Transp SQM or Transp NELM		Seeing	
7/21/23	Good		Good		
Time	Instrument and magnification		Color		
11:20	8" f/6 Newtonian 122x		Orange		
AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude	
	Date	Transp SQM or Transp NELM		Seeing	
	Time	Instrument and magnification		Color	
AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude	
	Date	Transp SQM or Transp NELM		Seeing	
	Time	Instrument and magnification		Color	
AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude	
	Date	Transp SQM or Transp NELM		Seeing	
	Time	Instrument and magnification		Color	
AL #	Name	Constellation	Vmag	Distance ly	
	Star Type	Location	Latitude	Longitude	
	Date	Transp SQM or Transp NELM		Seeing	
	Time	Instrument and magnification		Color	

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