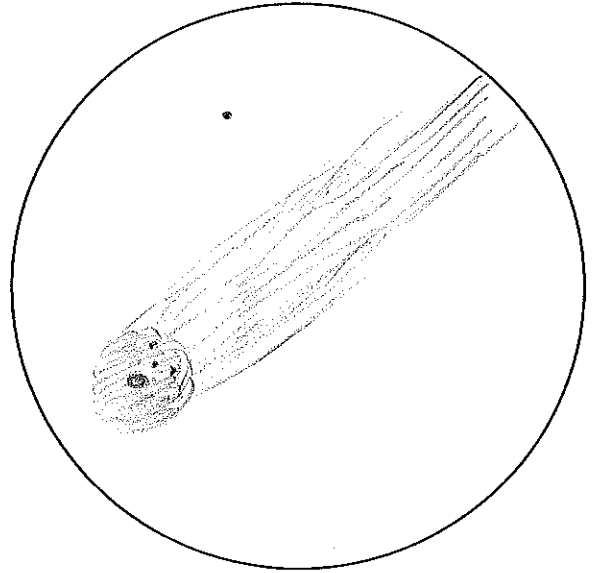
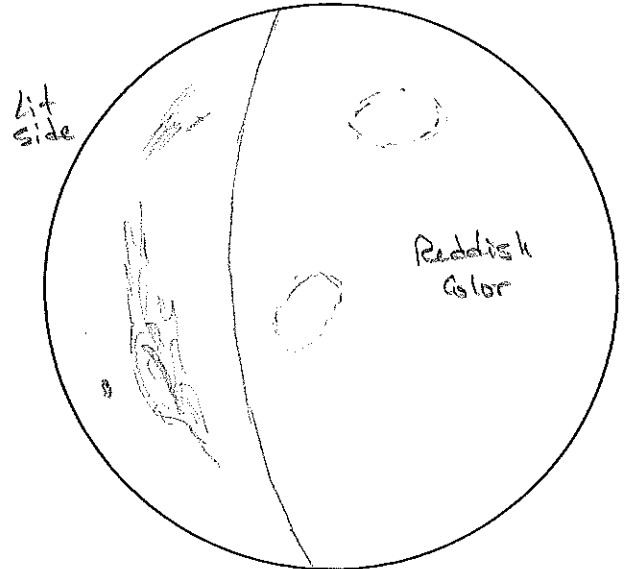


Astronomy Sketch Log

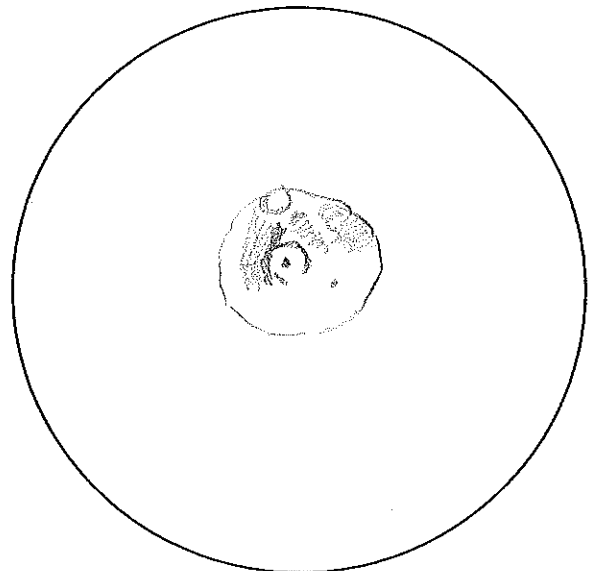
Subject: Comet Lulin		Type: C/2007 N3	
Constellation: Libra			
Date: 2/24/09		Time: 9:12P	
Observing Location: Broomfield, CO			
Instrument: 8" f/6 Newtonian		Aperture: 8"	
EP/Mag: 19mm / 64x		Focal Length: 48"	
Conditions: Good		Seeing/Transp: Good/Good	
Notes: See Bright core that dims slowly into halo glow. Tail 1/2 FOV long			



Subject: Lunar Eclipse		Type: Total	
Constellation:			
Date: 8/16/89		Time: 11:10P	
Observing Location: Tore Haute, IN			
Instrument: Naked Eye		Aperture:	
EP/Mag:		Focal Length:	
Conditions:		Seeing/Transp:	
Notes: Cloudy at beginning but then got to watch it to end			

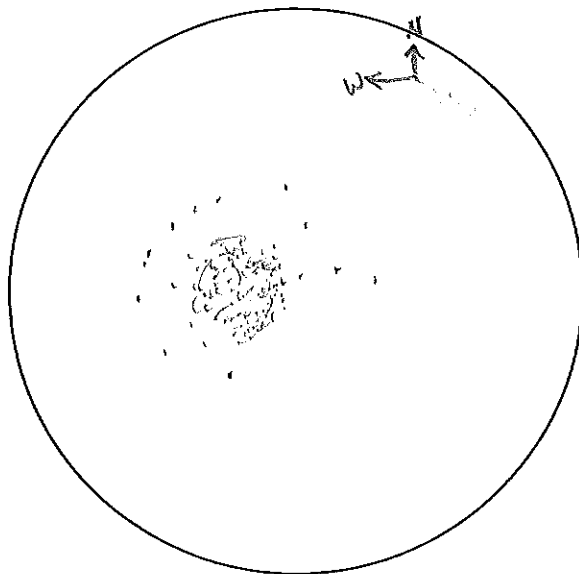


Subject: Mars		Type: Planet	
Constellation:			
Date: 8/22/03		Time: 10:37P	
Observing Location: Pawnee Grasslands Colorado			
Instrument: 12.5" f/8 Newt.		Aperture: 12.5"	
EP/Mag: 9mm / 282x		Focal Length: 100"	
Conditions: Good		Seeing/Transp: Good/Good	
Notes:			

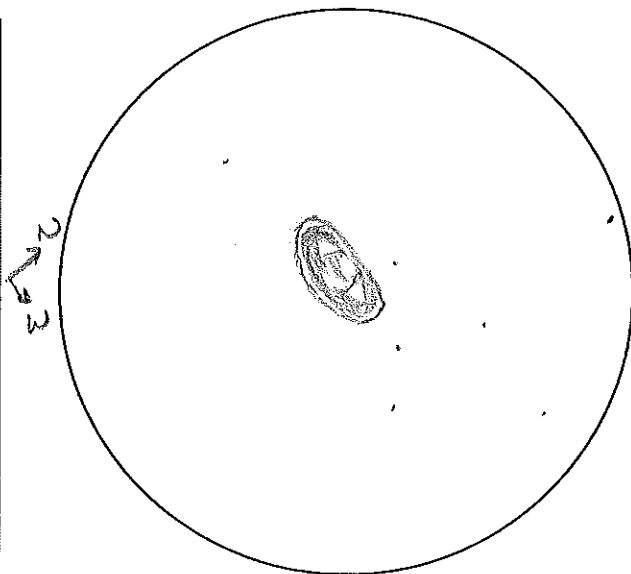


Astronomy Sketch Log

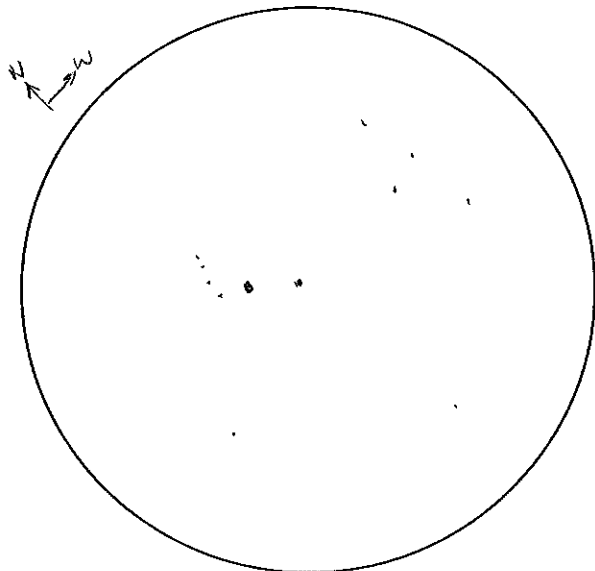
Subject: <u>Bowl of Stars</u>	Type: <u>Asterism</u>
Constellation: <u>Cas</u>	
Date: <u>8/17/14</u>	Time: <u>11:30</u>
Observing Location: <u>Pawnee Grasslands, CO</u>	
Instrument: <u>Telescope</u>	Aperture: <u>8"</u>
EP/Mag: <u>32mm / 38x</u>	Focal Length: <u>f/6</u>
Conditions:	Seeing/Transp:
Notes:	



Subject: <u>Saturn</u>	Type: <u>Planet</u>
Constellation: <u>Libra</u>	
Date: <u>8/17/14</u>	Time: <u>8:20</u>
Observing Location: <u>Pawnee Grasslands, CO</u>	
Instrument: <u>Telescope</u>	Aperture: <u>8"</u>
EP/Mag: <u>6mm / 203x</u>	Focal Length: <u>f/6</u>
Conditions:	Seeing/Transp: <u>Good / Good</u>
Notes:	

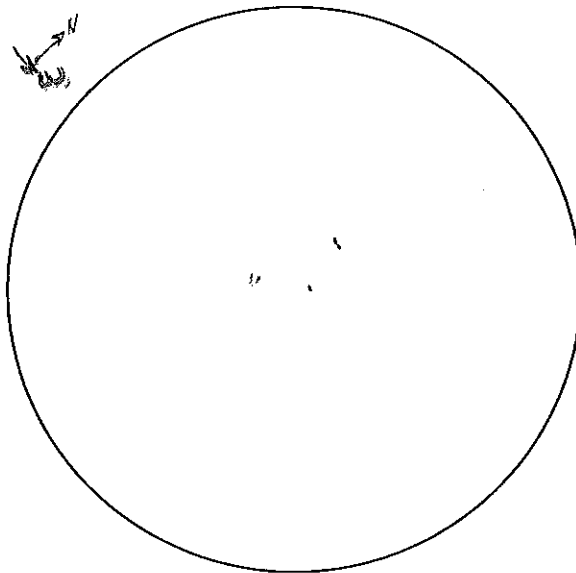


Subject: <u>Alkaid</u>	Type: <u>Double Star</u>
Constellation: <u>Cyg</u>	
Date: <u>8/17/14</u>	Time: <u>8:35</u>
Observing Location: <u>Pawnee Grasslands, CO</u>	
Instrument: <u>Telescope</u>	Aperture: <u>8"</u>
EP/Mag: <u>6mm / 203x</u>	Focal Length: <u>f/6</u>
Conditions:	Seeing/Transp: <u>Good / Good</u>
Notes:	

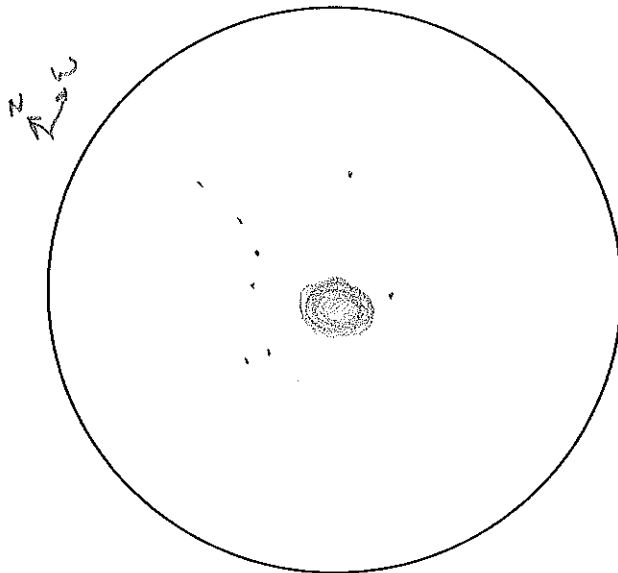


Astronomy Sketch Log

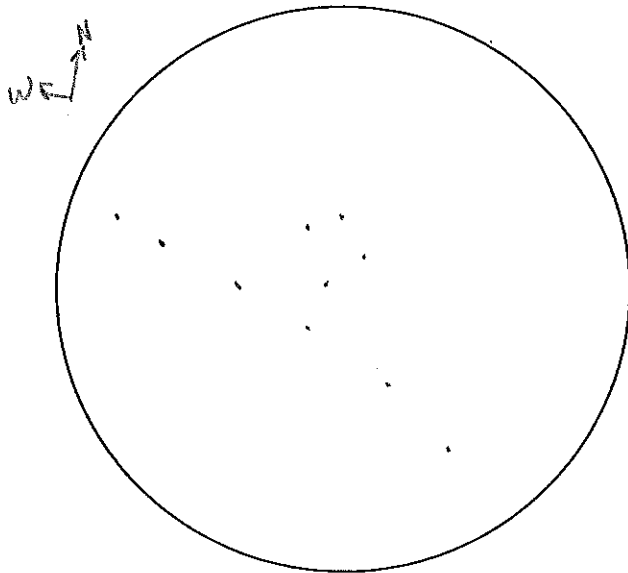
Subject: Epsilon 1 + 2	Type: Double star
Constellation: Lyr	
Date: 8/17/14	Time: 10:12
Observing Location: Pawnee Grasslands, CO	
Instrument: Telescope	Aperture: 8"
EP/Mag: 6mm / 203x	Focal Length: f/6
Conditions:	Seeing/Transp: Good/Good
Notes:	



Subject: M57 Ring Nebula	Type: PN
Constellation: Lyr	
Date: 8/17/14	Time: 10:09
Observing Location: Pawnee Grasslands, CO	
Instrument: Telescope	Aperture: 8"
EP/Mag: 6mm / 203x	Focal Length: f/6
Conditions:	Seeing/Transp:
Notes:	

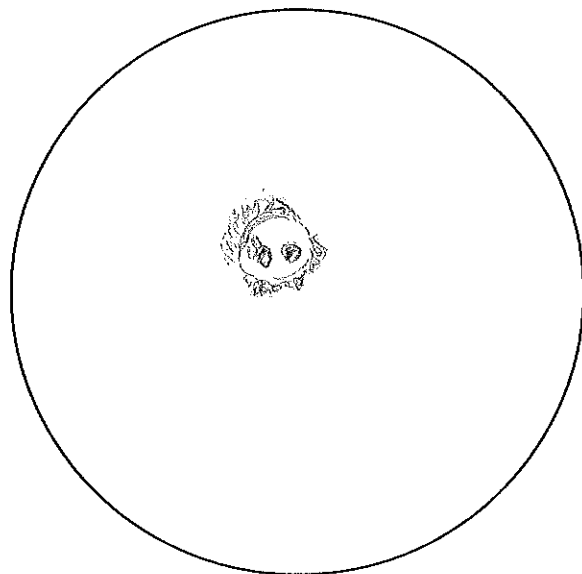


Subject: Coathanger	Type: Asterism
Constellation: Vul	
Date: 8/17/14	Time: 11:35
Observing Location: Pawnee Grasslands, CO	
Instrument: Telescope	Aperture: 8"
EP/Mag: 32mm / 38x	Focal Length: f/6
Conditions:	Seeing/Transp: Good/Good
Notes:	

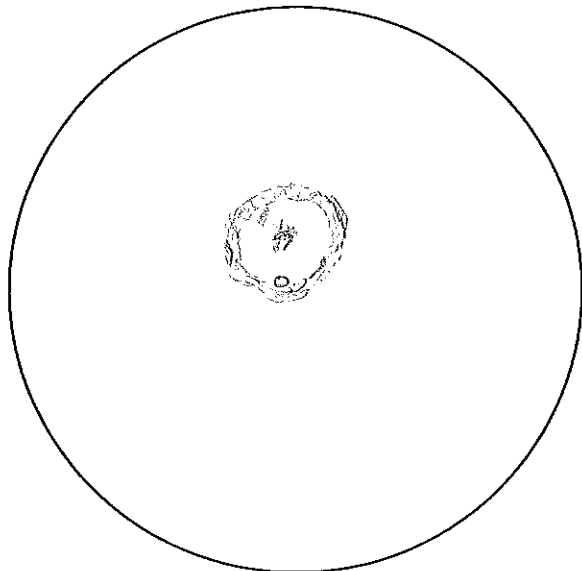


Astronomy Sketch Log

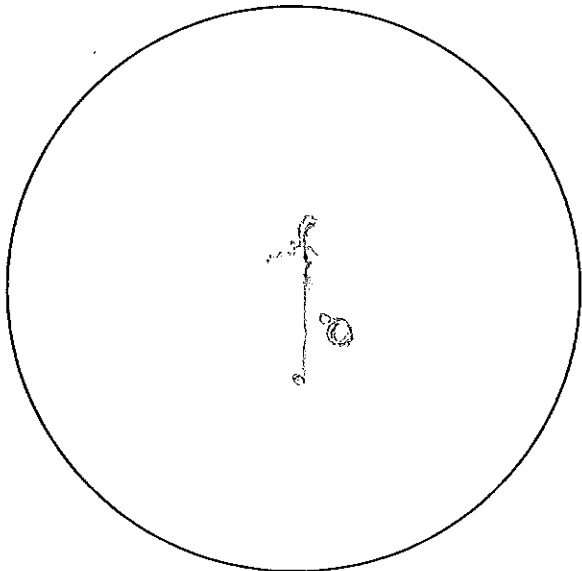
Subject: Cassini	Type: Crater
Constellation: Moon	
Date: 9/1/14	Time: 20:02
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 10mm/122x	Focal Length: f/6
Conditions: Good	Seeing/Transp: Good/Good
Notes: Nice,	



Subject: Theophilus	Type: Crater
Constellation: Moon	
Date: 9/1/14	Time: 20:10
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 10mm/122x	Focal Length: f/6
Conditions: Good	Seeing/Transp: Good/Good
Notes: Nice, Craters are hard to draw	

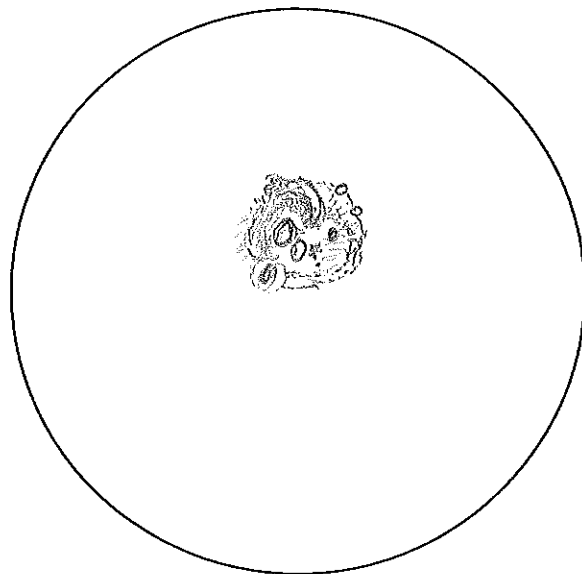


Subject: Rupes Recta	Type: Lunar
Constellation: Moon	
Date: 9/3/14	Time: 19:58
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 10mm/122x	Focal Length: f/6
Conditions: Good	Seeing/Transp: Good/Good
Notes:	

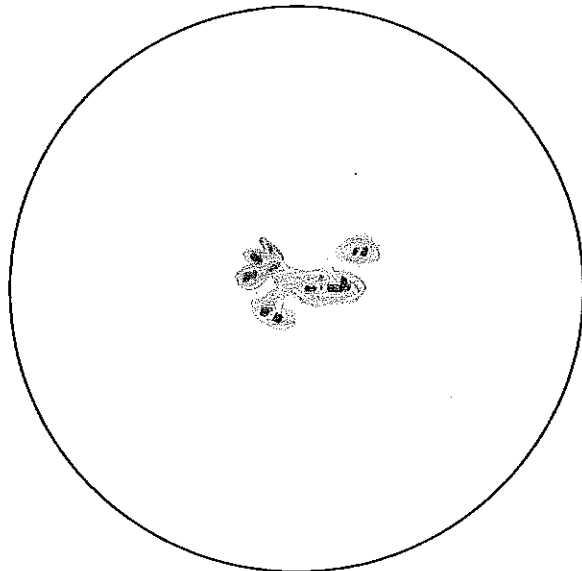


Astronomy Sketch Log

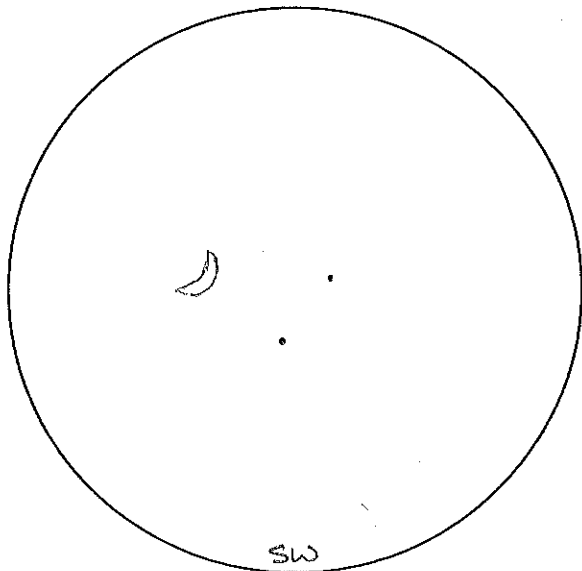
Subject: <u>Clavius</u>	Type: <u>Crater</u>
Constellation: <u>Moon</u>	
Date: <u>9/3/14</u>	Time: <u>20:04</u>
Observing Location: <u>Broomfield, CO</u>	
Instrument: <u>Newtonian</u>	Aperture: <u>8"</u>
EP/Mag: <u>10mm/122x</u>	Focal Length: <u>f/6</u>
Conditions: <u>Good</u>	Seeing/Transp: <u>Good/Good</u>
Notes: <u>Just sunrise over this crater.</u>	



Subject: <u>Sunspots</u>	Type: <u>Sun</u>
Constellation: <u>Sun</u>	
Date: <u>2/27/04</u>	Time: <u>8:23</u>
Observing Location: <u>Boulder, CO</u>	
Instrument: <u>Newtonian</u>	Aperture: <u>8"</u>
EP/Mag: <u>19mm/64x</u>	Focal Length: <u>f/6</u>
Conditions: <u>OK</u>	Seeing/Transp: <u>OK/OK</u>
Notes: <u>Used Baader White Light Filter</u> <u>High thin clouds</u>	

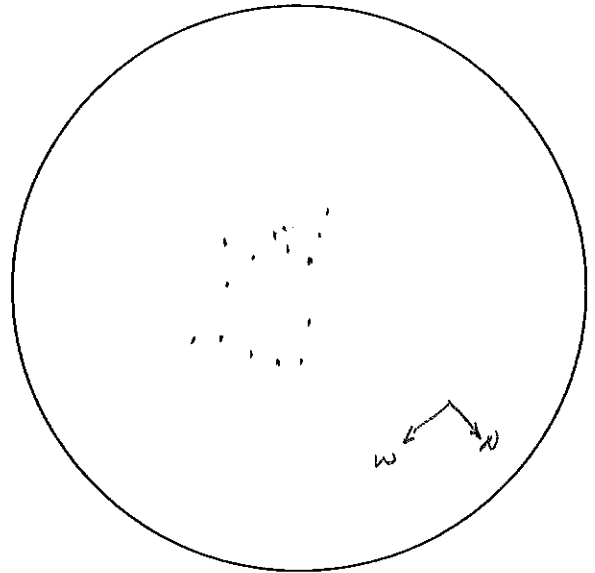


Subject: <u>Conjunction</u>	Type: <u> </u>
Constellation: <u> </u>	
Date: <u>12/1/08</u>	Time: <u>18:23</u>
Observing Location: <u>Broomfield, CO</u>	
Instrument: <u>Naked Eye</u>	Aperture: <u> </u>
EP/Mag: <u> </u>	Focal Length: <u> </u>
Conditions: <u>Good</u>	Seeing/Transp: <u>Good/Good</u>
Notes: <u>Venus, Jupiter & Moon. Venus lower</u> <u>planet. Jupiter upper right one.</u>	

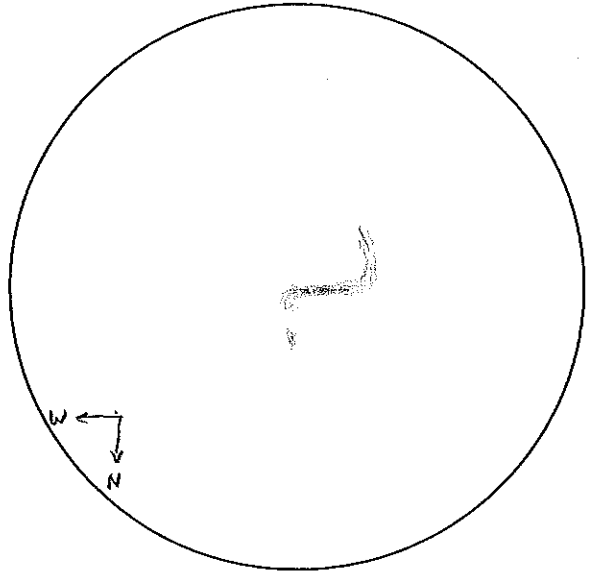


Astronomy Sketch Log

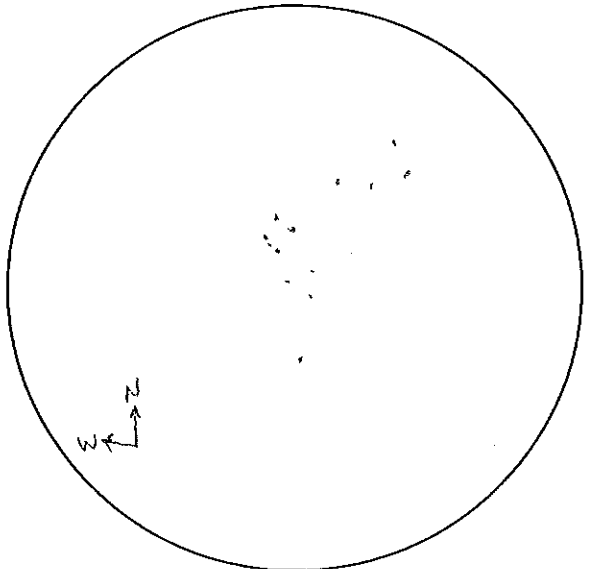
Subject: <i>NGC 2169</i>	Type: <i>OC</i>
Constellation: <i>Ori</i>	
Date: <i>1/2/06</i>	Time: <i>21:24</i>
Observing Location: <i>Rural Colorado E. of Longmont</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>8"</i>
EP/Mag: <i>32mm/64x</i>	Focal Length: <i>f/6</i>
Conditions: <i>Clear</i>	Seeing/Transp: <i>Good/Good</i>
Notes: <i>Nice. 15 stars of 3-4 mags spell the # 37. VERY COOL! 6 stars form the 7 while the rest forms the 3</i>	



Subject: <i>NGC 1365</i>	Type: <i>Gal</i>
Constellation: <i>Fornax</i>	
Date: <i>1/15/15</i>	Time: <i>8:31</i>
Observing Location: <i>Crowell, TX</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>20"</i>
EP/Mag: <i>17mm/149x</i>	Focal Length: <i>f/5</i>
Conditions: <i>Good</i>	Seeing/Transp: <i>Good/Good</i>
Notes:	

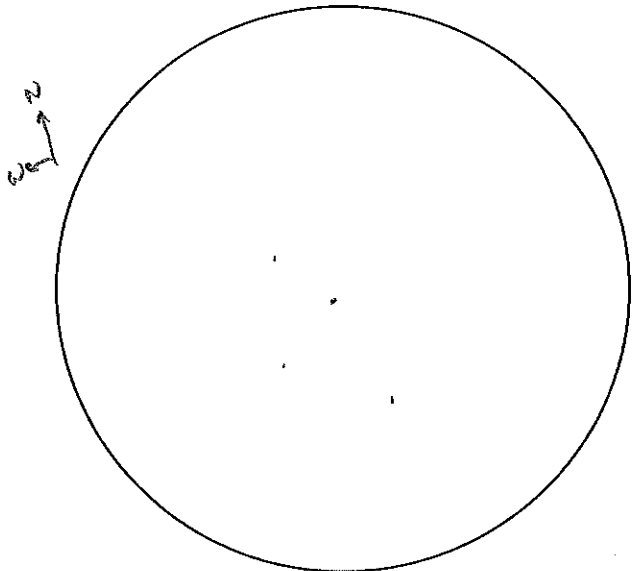


Subject: <i>NGC 1976</i>	Type: <i>OC</i>
Constellation: <i>Ori</i>	
Date: <i>2/8/15</i>	Time: <i>6:18 P</i>
Observing Location: <i>Broomfield, CO</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>8"</i>
EP/Mag: <i>10mm/122x</i>	Focal Length: <i>f/6</i>
Conditions: <i>Good</i>	Seeing/Transp: <i>OK/OK</i>
Notes:	

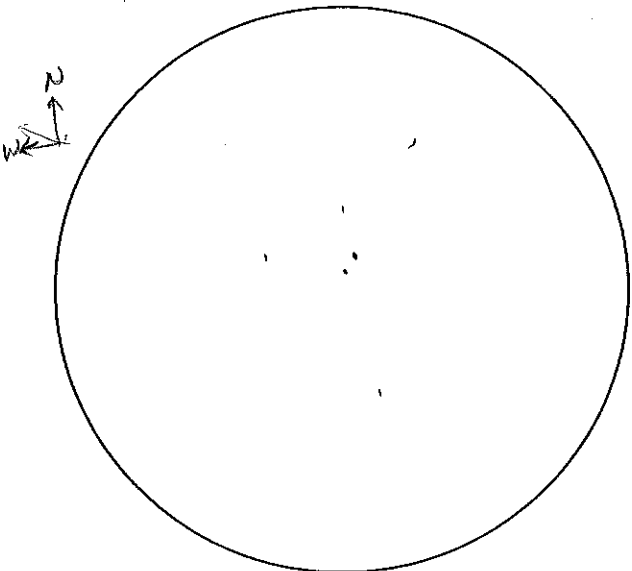


Astronomy Sketch Log

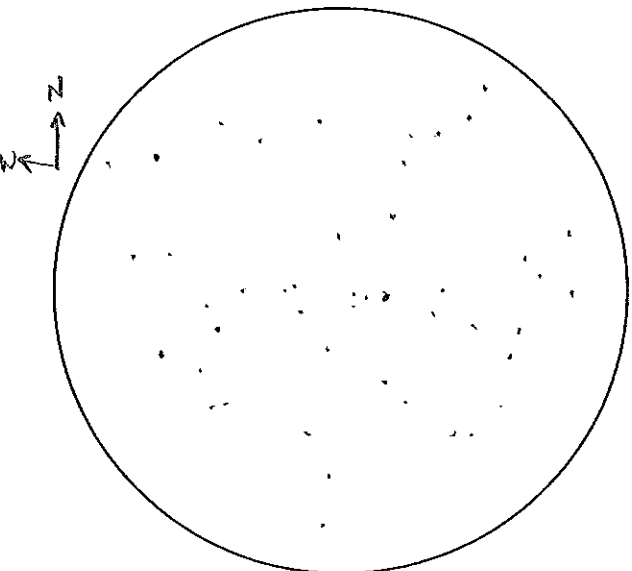
Subject: <i>Hinds Star HR 1602</i> Type: <i>VS</i>	
Constellation: <i>Lep</i>	
Date: <i>2/8/15</i>	Time: <i>7:10P</i>
Observing Location: <i>Brownfield, CO</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>8"</i>
EP/Mag: <i>10mm/122x</i>	Focal Length: <i>f/6</i>
Conditions: <i>OK</i>	Seeing/Transp: <i>Poor/Poor</i>
Notes: <i>Seeing Poor low in South</i>	



Subject: <i>HR 9094</i> Type: <i>DS</i>	
Constellation: <i>Cas</i>	
Date: <i>2/8/15</i>	Time: <i>7:12 P</i>
Observing Location: <i>Brownfield, CO</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>8"</i>
EP/Mag: <i>10mm/122x</i>	Focal Length: <i>f/6</i>
Conditions: <i>Good</i>	Seeing/Transp: <i>OK/OK</i>
Notes: <i>One is yellow (brighter) & dimmer is blue</i>	

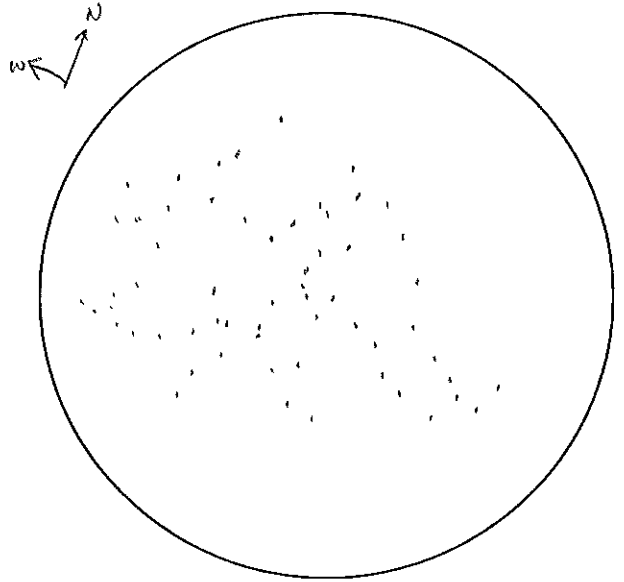


Subject: <i>M45</i> Type: <i>OC</i>	
Constellation: <i>Tau</i>	
Date: <i>2/8/15</i>	Time: <i>7:49 P</i>
Observing Location: <i>Brownfield, CO</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>8"</i>
EP/Mag: <i>32mm/38x</i>	Focal Length: <i>f/6</i>
Conditions: <i>Good</i>	Seeing/Transp: <i>OK/OK</i>
Notes: <i> </i>	

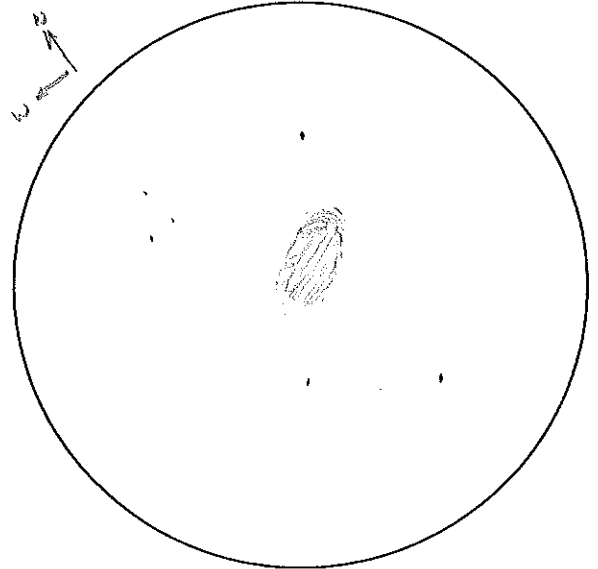


Astronomy Sketch Log

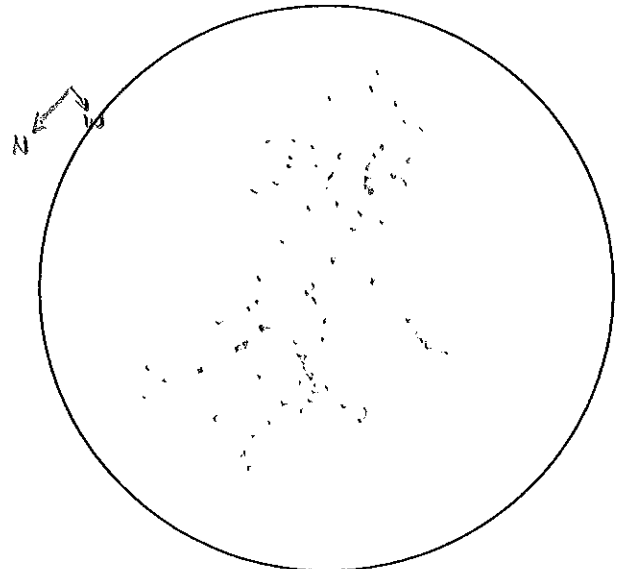
Subject: <i>M41</i>	Type: <i>OC</i>
Constellation: <i>CMa</i>	
Date: <i>2/8/15</i>	Time: <i>8:00P</i>
Observing Location: <i>Broomfield, CO</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>8"</i>
EP/Mag: <i>19mm/64x</i>	Focal Length: <i>f/6</i>
Conditions: <i>Good</i>	Seeing/Transp: <i>OK/OK</i>
Notes:	



Subject: <i>M1</i>	Type: <i>SNR</i>
Constellation: <i>Tau</i>	
Date: <i>2/8/15</i>	Time: <i>8:10P</i>
Observing Location: <i>Broomfield, CO</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>8"</i>
EP/Mag: <i>10mm/122x</i>	Focal Length: <i>f/6</i>
Conditions: <i>Good</i>	Seeing/Transp: <i>OK/OK</i>
Notes: <i>Very Faint.</i>	

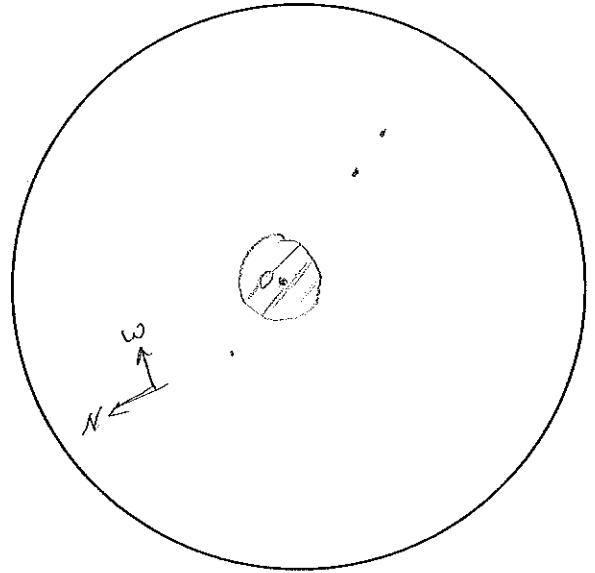


Subject: <i>NGC 869/884</i>	Type: <i>OC</i>
Constellation: <i>Per</i>	
Date: <i>2/8/15</i>	Time: <i>8:30P</i>
Observing Location: <i>Broomfield, CO</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>8"</i>
EP/Mag: <i>32mm/38x</i>	Focal Length: <i>f/6</i>
Conditions: <i>Good</i>	Seeing/Transp: <i>OK/OK</i>
Notes:	

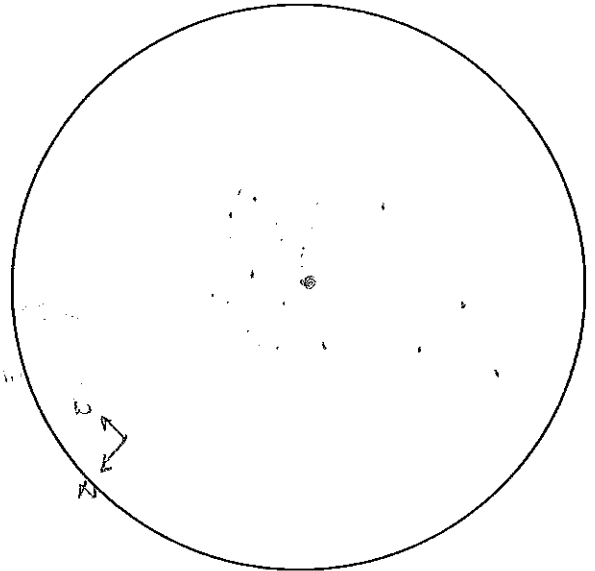


Astronomy Sketch Log

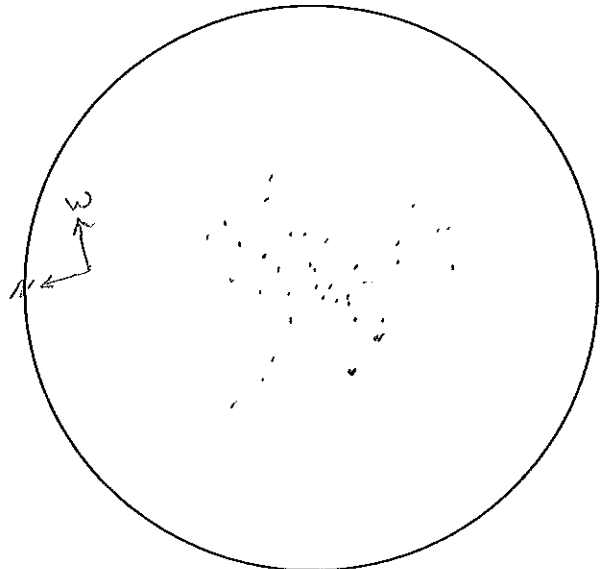
Subject: Jupiter	Type: Planet
Constellation: Leo	
Date: 2/8/15	Time: 9:00
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 10mm/122x	Focal Length: f/6
Conditions: DK	Seeing/Transp: OK/OK
Notes: Saw moon shadow on disc	



Subject: HR 8816	Type: VS
Constellation: Cap	
Date: 2/8/15	Time: 6:35P
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 19mm/64x	Focal Length: f/6
Conditions: Good	Seeing/Transp: Good/Good
Notes: Beautiful Red Star, Nice & Bright	

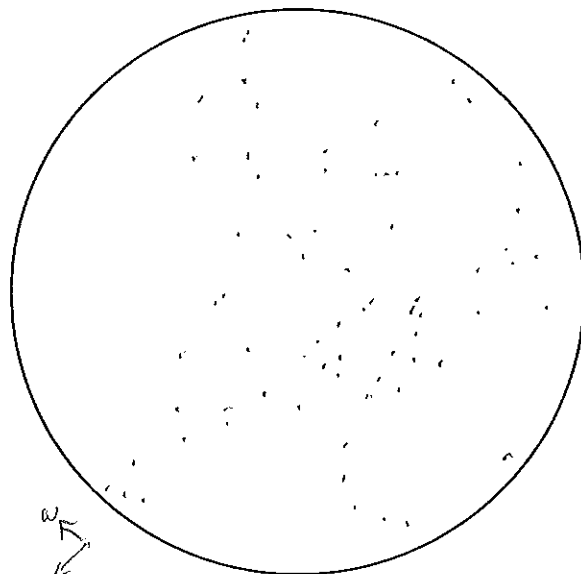


Subject: NGC 457	Type: OC
Constellation: Cas	
Date: 2/11/15	Time: 8:06P
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 19mm/64x	Focal Length: f/6
Conditions: Good	Seeing/Transp: OK/OK
Notes:	

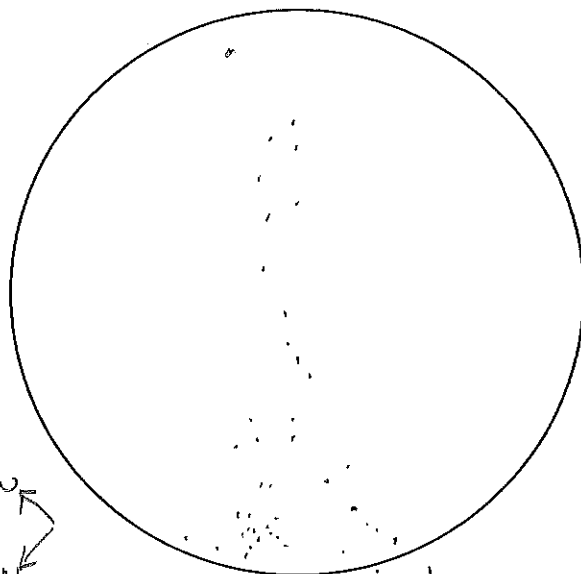


Astronomy Sketch Log

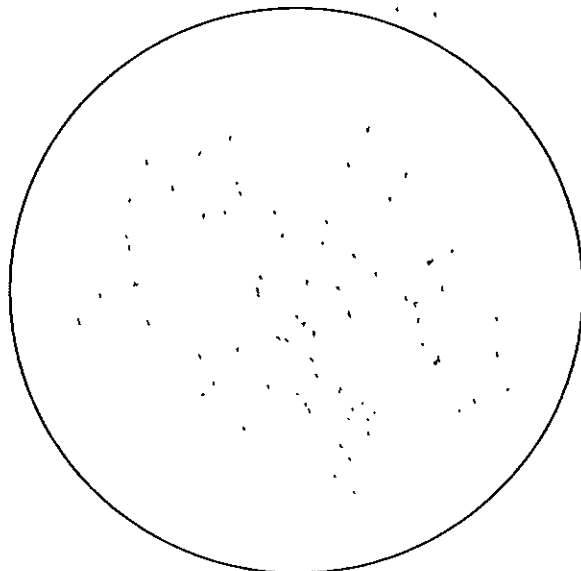
Subject: NGC 752	Type: OC
Constellation: And	
Date: 2/11/15	Time: 8:08P
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 32mm/38x	Focal Length: f/6
Conditions: Good	Seeing/Transp: OK/OK
Notes:	



Subject: NGC 1502 + Rumbles	Type: OC/AST
Constellation: Cam	
Date: 2/11/15	Time: 8:23P
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 32mm	Focal Length: f/6
Conditions: Good	Seeing/Transp: DK/OK
Notes: Drew a bit more outside FOV	

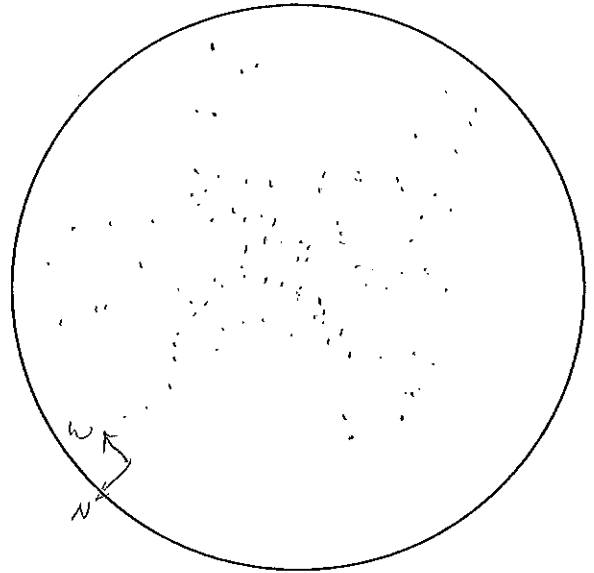


Subject: M34	Type: OC
Constellation: Per	
Date: 2/11/15	Time: 8:30P
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 19mm/64x	Focal Length: f/6
Conditions: Good	Seeing/Transp: OK/OK
Notes:	

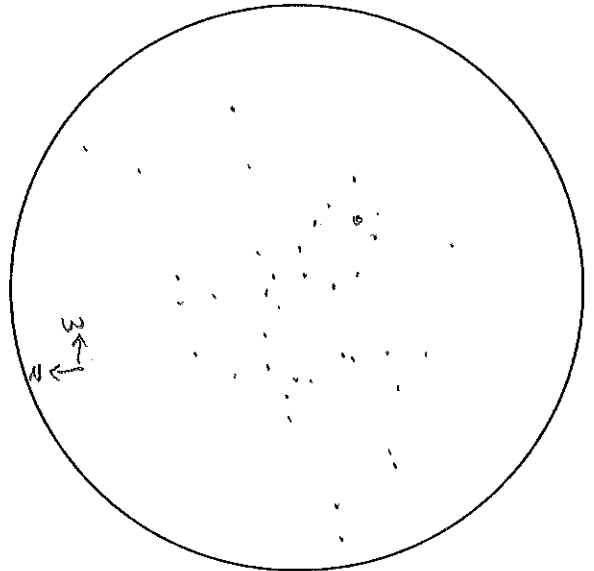


Astronomy Sketch Log

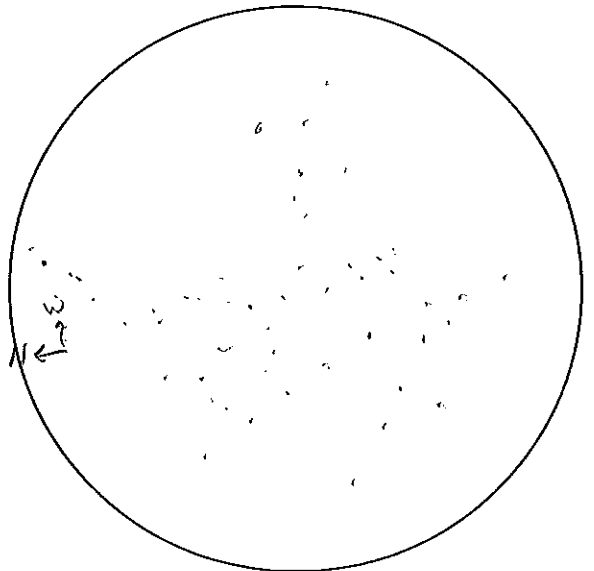
Subject: M38	Type: OC
Constellation: Aur; Aur	
Date: 2/11/15	Time: 8:43P
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 19mm/64x	Focal Length: f/6
Conditions: Good	Seeing/Transp: OK/OK
Notes:	



Subject: M52	Type: OC
Constellation: Cas	
Date: 2/18/15	Time: 6:45 P
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 10mm/122x	Focal Length: f/6
Conditions: Good	Seeing/Transp: Good/Good
Notes:	

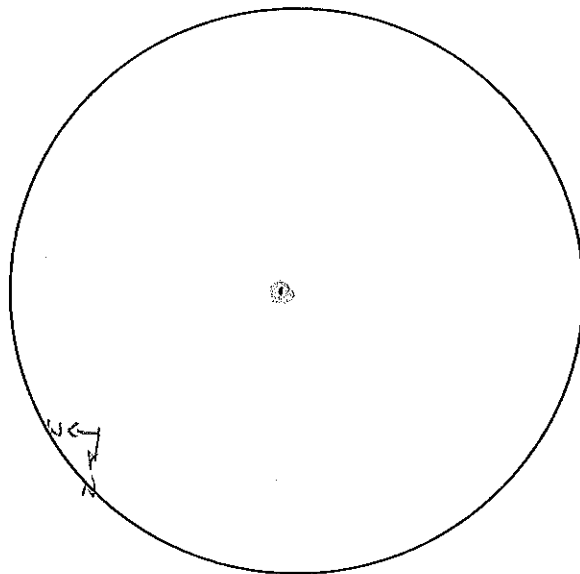


Subject: NGC 7789	Type: OC
Constellation: Cas	
Date: 2/18/14	Time: 6:55 P
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 19mm/64x	Focal Length: f/6
Conditions: Good	Seeing/Transp: Good/Good
Notes: Very faint	

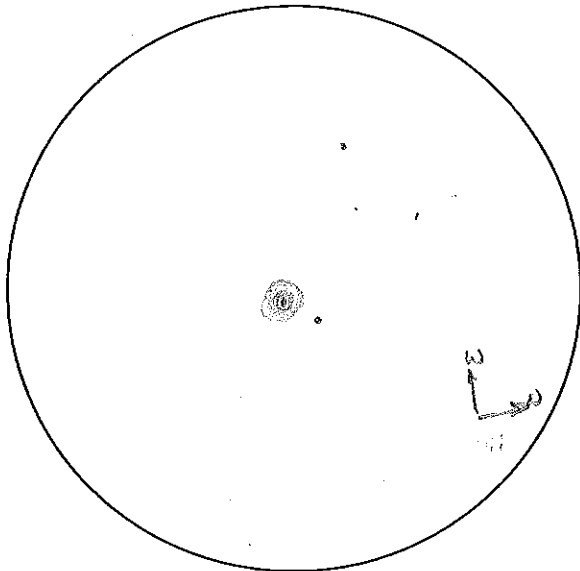


Astronomy Sketch Log

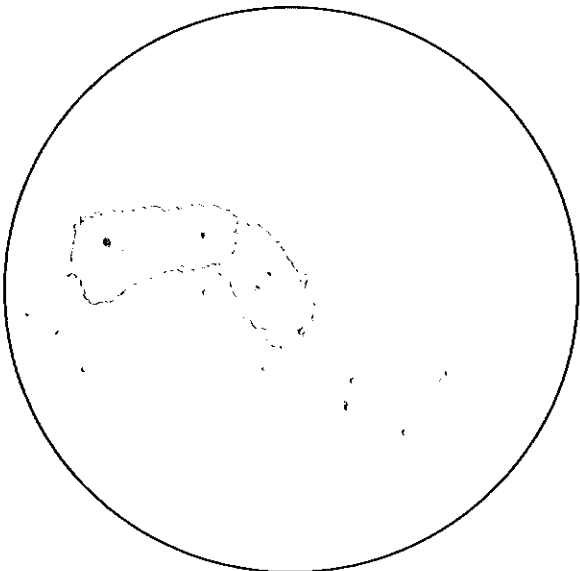
Subject: IC 418	Type: PN
Constellation: Lep	
Date: 2/18/15	Time: 7:05 P
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 10mm / 122x	Focal Length: f/6
Conditions: Good	Seeing/Transp: Good/Good
Notes: Used O3 Filter. Nice. Small. Bright.	



Subject: NGC 2392	Type: PN
Constellation: Gem	
Date: 2/18/15	Time: 7:11 P
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 10mm / 122x	Focal Length: f/6
Conditions: Good	Seeing/Transp: Good/Good
Notes: Used O3 Filter. Nice. Large. Bright	

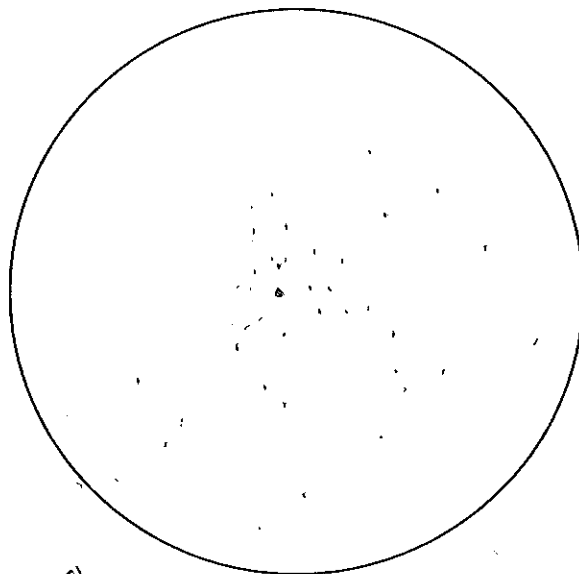


Subject: NGC 2175	Type: BN/OC
Constellation: Ori	
Date: 2/18/15	Time: 7:33 P
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 10mm / 122x	Focal Length: f/6
Conditions: Good	Seeing/Transp: Good/Good
Notes: Used Deep Sky Filter. Extremely faint nebula in upper left part of cluster	

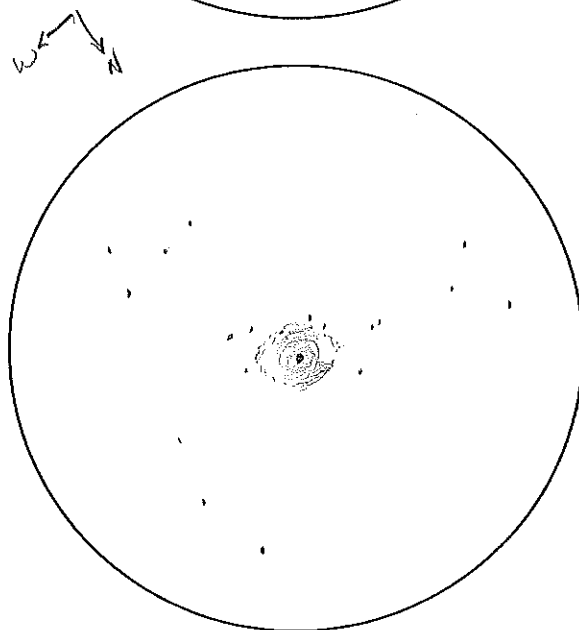


Astronomy Sketch Log

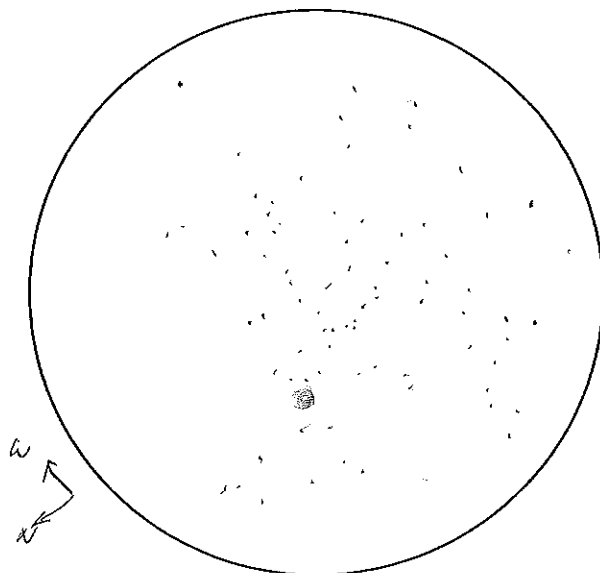
Subject: NGC 2362	Type: OC
Constellation: CMa	
Date: 2/18/15	Time: 7:42P
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 19mm/64x	Focal Length: f/6
Conditions: Good	Seeing/Transp: Good/Good
Notes:	



Subject: NGC 2264	Type: OC/BN
Constellation: Mon	
Date: 2/18/15	Time: 7:53P
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 10mm/122x	Focal Length: f/6
Conditions: Good	Seeing/Transp: Good/Good
Notes: Used Deep Sky Filter nice. Brighter nebula around bright central star & extremely faint glow extends from this	

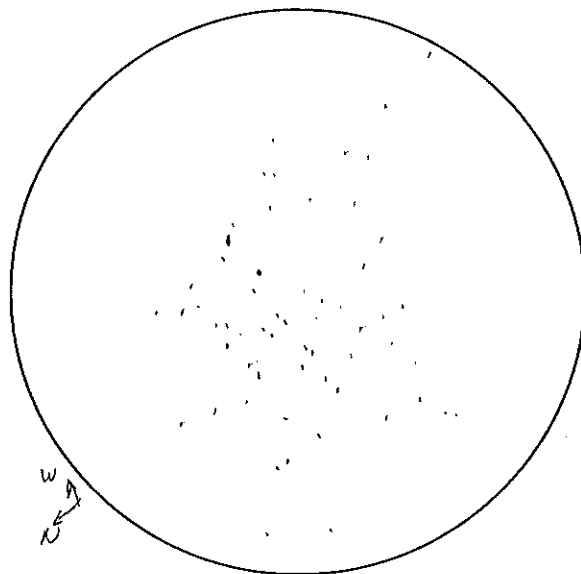


Subject: M46	Type: OC
Constellation: Pup	
Date: 2/18/15	Time: 8:17P
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 19mm/64x	Focal Length: f/6
Conditions: Good	Seeing/Transp: Good/Good
Notes: Pretty faint. Low in South just over neighbor's yard. Only see DN w/03 filter where it stands out notably.	

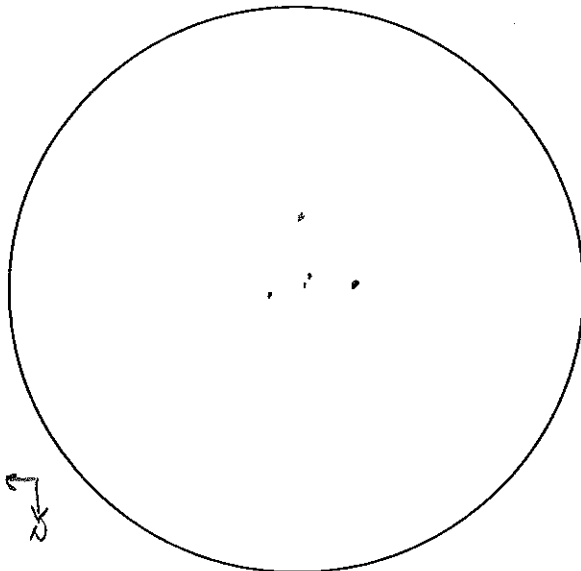


Astronomy Sketch Log

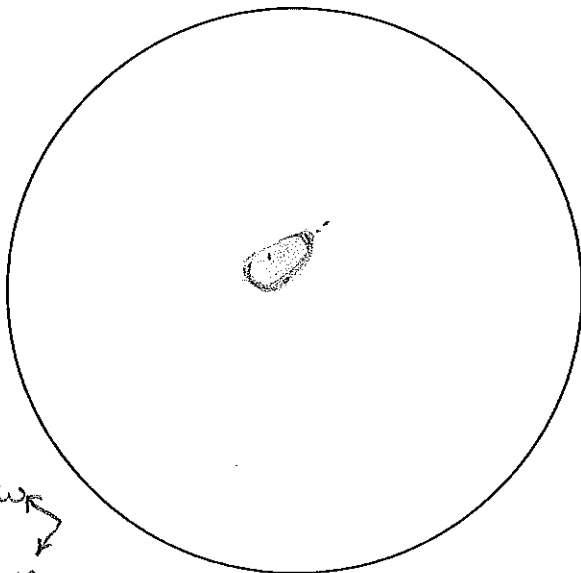
Subject: M93	Type: OC
Constellation: Pup	
Date: 2/18/15	Time: 8:33 P
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 19mm/64x	Focal Length: f/6
Conditions: Good	Seeing/Transp: Good/Good
Notes:	



Subject: Struve 1659	Type: Ast
Constellation: Cor	
Date: 1/9/13	Time: 4:16 A
Observing Location: Benthall, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 32mm/38x	Focal Length: f/6
Conditions: Good	Seeing/Transp: Good/Good
Notes: Stargate. Observed as part of the Asterism observing program.	

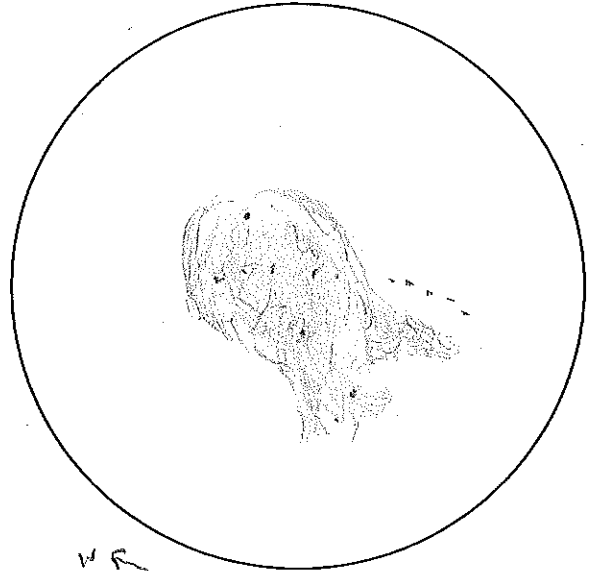


Subject: NGC 7008	Type: PN
Constellation: Cyg	
Date: 12/3/04	Time: 20:54
Observing Location: Pawnee Grasslands	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 10mm/122x	Focal Length: f/6
Conditions: Good	Seeing/Transp: Good/Good
Notes: Used O3 filter. Saw central star pop in once in a while above center on glow.	

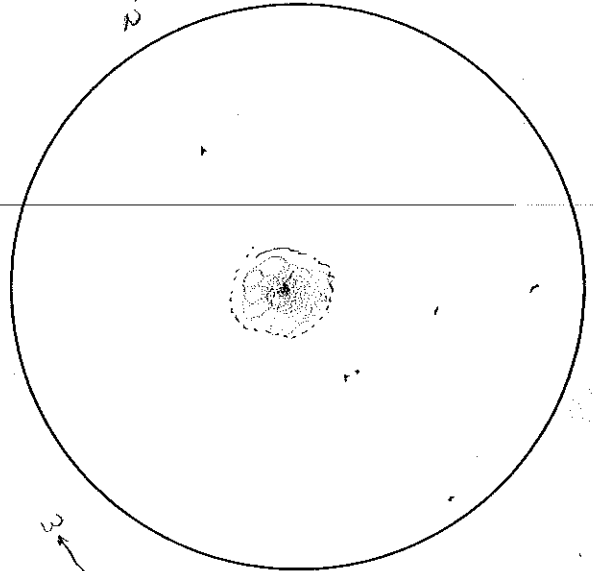


Astronomy Sketch Log

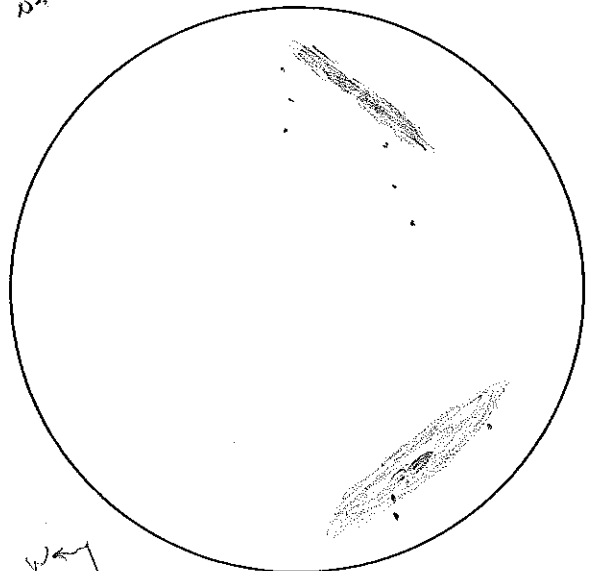
Subject: N2359	Type: Neb
Constellation: CMa	
Date: 3/10/15	Time: 20:20
Observing Location: Berthoud, CO	
Instrument: Newtonian	Aperture: 24"
EP/Mag: 9mm / 282x	Focal Length: f/4
Conditions: Warm, Clear	Seeing/Transp: Good / Good
Notes: Best seen w/ DSE, Nebula best seen near stars	



Subject: IC 405	Type: EN
Constellation: Aur	
Date: 3/10/15	Time: 21:18
Observing Location: Berthoud, CO	
Instrument: Newtonian	Aperture: 24"
EP/Mag: 9mm / 282x	Focal Length: f/4
Conditions: Warm, Clear	Seeing/Transp: Good / Good
Notes: Using DSE to really bring out nebula	

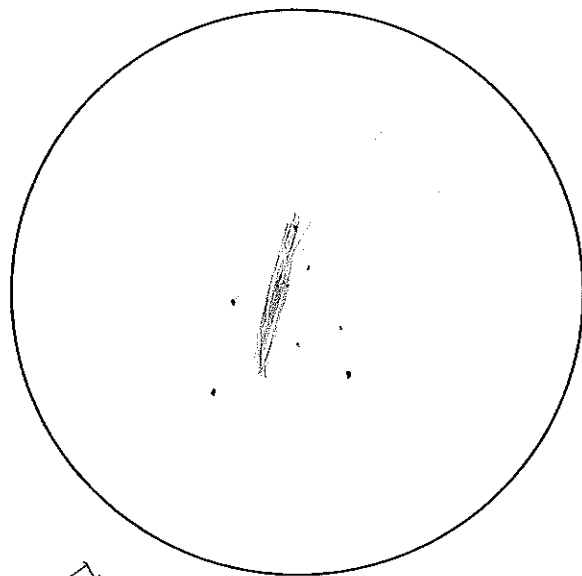


Subject: M81 / M82	Type: Gal
Constellation: UMa	
Date: 3/18/15	Time: 21:27
Observing Location: Crowell, TX	
Instrument: Newtonian	Aperture: 20"
EP/Mag: 35mm / 73x	Focal Length: f/5
Conditions: Warm	Seeing/Transp: Good / Good
Notes:	

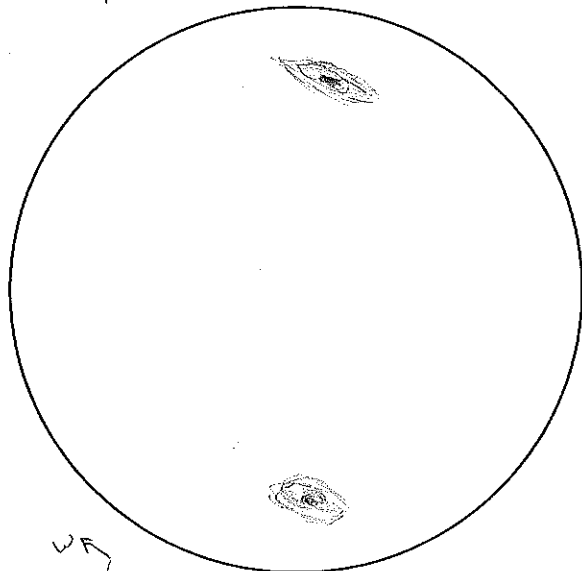


Astronomy Sketch Log

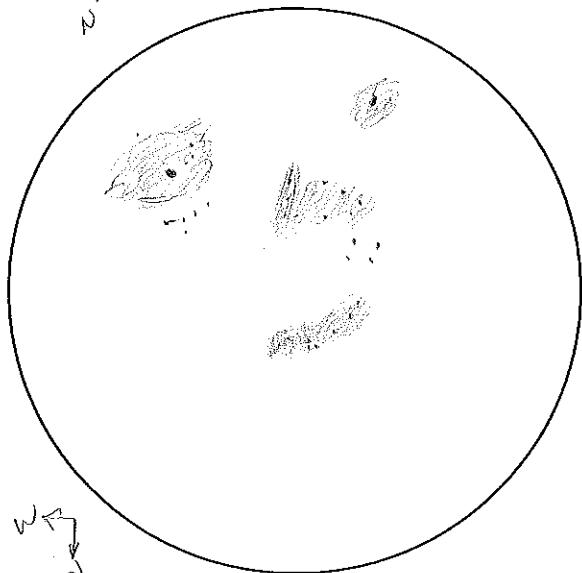
Subject: <i>N3079</i>	Type: <i>Gal</i>
Constellation: <i>UMa</i>	
Date: <i>3/18/15</i>	Time: <i>21:39</i>
Observing Location: <i>Crowell, TX</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>20"</i>
EP/Mag: <i>17mm/149x</i>	Focal Length: <i>f/5</i>
Conditions: <i>Warm</i>	Seeing/Transp: <i>Good/Good</i>
Notes:	



Subject: <i>M45, M96</i>	Type: <i>Gal</i>
Constellation: <i>Leo</i>	
Date: <i>3/18/15</i>	Time: <i>21:45</i>
Observing Location: <i>Crowell, TX</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>20"</i>
EP/Mag: <i>55mm/146x</i>	Focal Length: <i>f/5</i>
Conditions: <i>Warm</i>	Seeing/Transp: <i>Good/Good</i>
Notes:	



Subject: <i>N2467</i>	Type: <i>BN/OC</i>
Constellation: <i>Pup</i>	
Date: <i>3/18/15</i>	Time: <i>22:12</i>
Observing Location: <i>Crowell, TX</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>20"</i>
EP/Mag: <i>16mm/159x</i>	Focal Length: <i>f/5</i>
Conditions: <i>Warm</i>	Seeing/Transp: <i>Good/Good</i>
Notes: <i>Best Seen w/DSF. Nice.</i>	

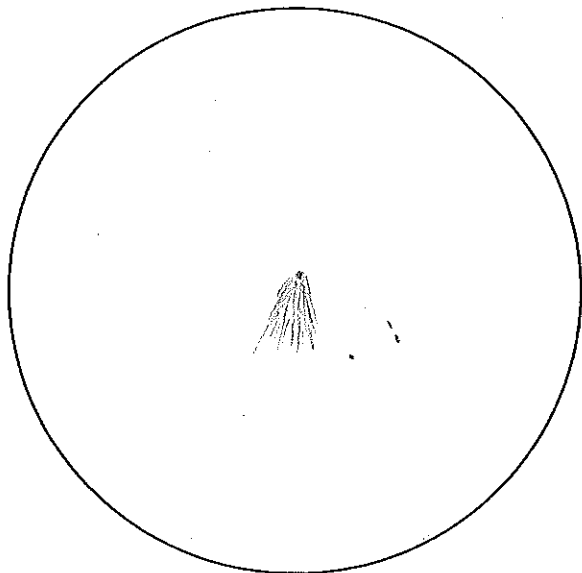


Astronomy Sketch Log

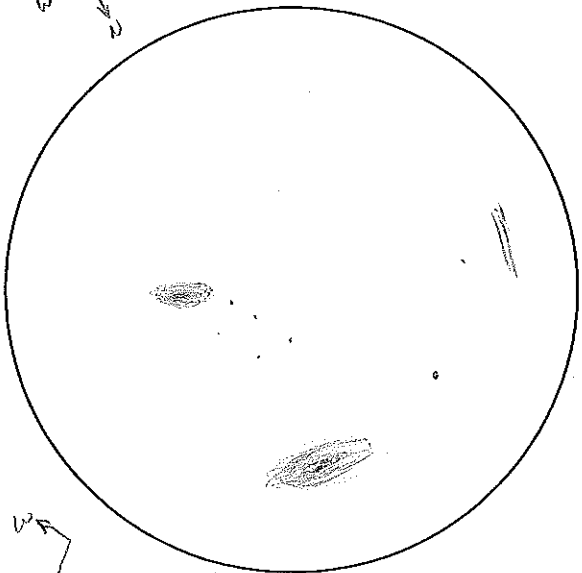
Subject: <i>N2024</i>	Type: <i>EN</i>
Constellation: <i>Ori</i>	
Date: <i>3/18/15</i>	Time: <i>22:21</i>
Observing Location: <i>Crowell, TX</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>20"</i>
EP/Mag: <i>16mm/159x</i>	Focal Length: <i>f/5</i>
Conditions: <i>Warm</i>	Seeing/Transp: <i>Good/Good</i>
Notes: <i>Very Low Seen w/DSF.</i>	



Subject: <i>N2261</i>	Type: <i>EN/RN</i>
Constellation: <i>Mon</i>	
Date: <i>3/18/15</i>	Time: <i>22:27</i>
Observing Location: <i>Crowell, TX</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>20"</i>
EP/Mag: <i>16mm/159x</i>	Focal Length: <i>f/5</i>
Conditions: <i>Warm</i>	Seeing/Transp: <i>Good/Good</i>
Notes: <i>Nice & Bright w/DSF</i>	

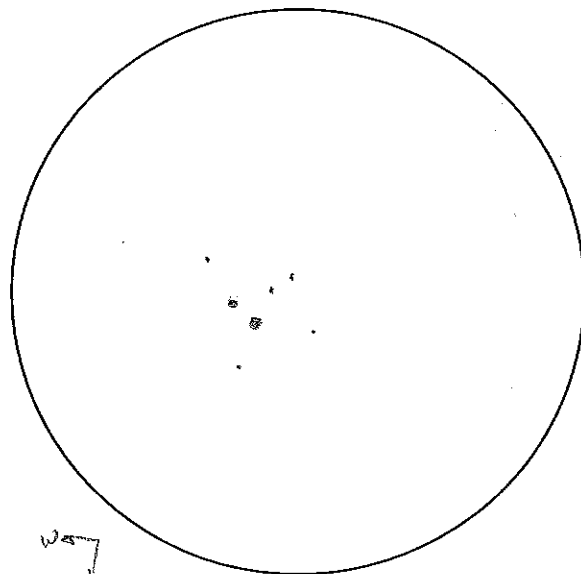


Subject: <i>M65, M66, N3628</i>	Type: <i>Gal</i>
Constellation: <i>Leo</i>	
Date: <i>3/18/15</i>	Time: <i>22:33</i>
Observing Location: <i>Crowell, TX</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>20"</i>
EP/Mag: <i>55mm/46x</i>	Focal Length: <i>f/5</i>
Conditions: <i>Warm</i>	Seeing/Transp: <i>Good/Good</i>
Notes:	



Astronomy Sketch Log

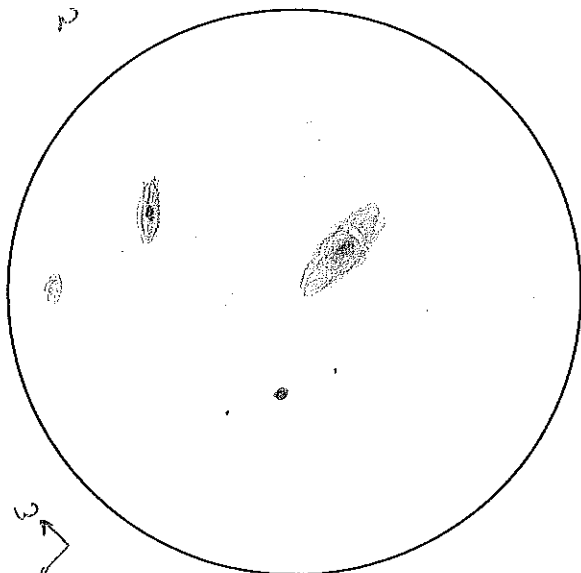
Subject: <i>Regor</i>	Type: <i>DS</i>
Constellation: <i>Vel</i>	
Date: <i>3/18/15</i>	Time: <i>22:41</i>
Observing Location: <i>Crowell, TX</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>20"</i>
EP/Mag: <i>17mm / 149x</i>	Focal Length: <i>f/5</i>
Conditions: <i>OK</i>	Seeing/Transp: <i>OK/OK</i>
Notes: <i>Just above horizon. Bright easy to see</i>	



Subject: <i>NGC 3115</i>	Type: <i>Gal</i>
Constellation: <i>Sax</i>	
Date: <i>4/12/15</i>	Time: <i>8:30 P</i>
Observing Location: <i>Deer Trail, CO</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>8"</i>
EP/Mag: <i>9mm / 135x</i>	Focal Length: <i>f/6</i>
Conditions: <i>Good / Clear</i>	Seeing/Transp: <i>OK/OK</i>
Notes: <i>Light wind from E making it feel cold</i>	

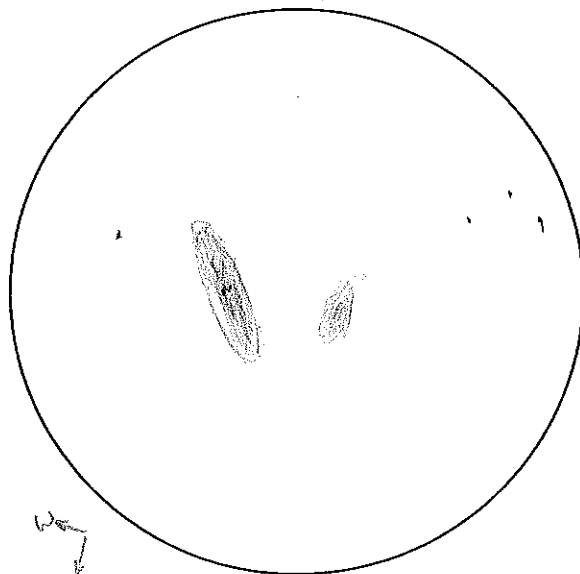


Subject: <i>M84, M86</i>	Type: <i>Gal</i>
Constellation: <i>Vir</i>	
Date: <i>4/12/15</i>	Time: <i>8:45 P</i>
Observing Location: <i>Deer Trail, CO</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>8"</i>
EP/Mag: <i>9mm / 135x</i>	Focal Length: <i>f/6</i>
Conditions: <i> </i>	Seeing/Transp: <i>OK/OK</i>
Notes: <i> </i>	

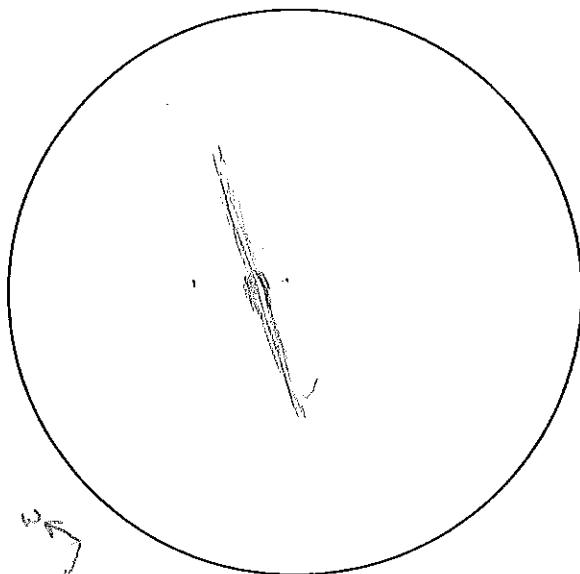


Astronomy Sketch Log

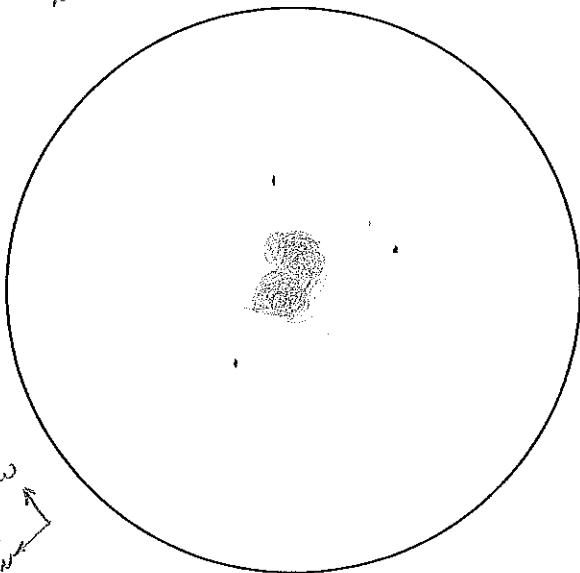
Subject: <u>N4490, N4485</u> Type: <u>Gal</u>	
Constellation: <u>CVn</u>	
Date: <u>4/12/15</u>	Time: <u>8:56 P</u>
Observing Location: <u>Deer Trail, CO</u>	
Instrument: <u>Newtonian</u>	Aperture: <u>8"</u>
EP/Mag: <u>9mm/135x</u>	Focal Length: <u>f/6</u>
Conditions: <u>Clear, wind stopped</u>	Seeing/Transp: <u>OK/OK</u>
Notes:	



Subject: <u>N4565</u> Type: <u>Gal</u>	
Constellation: <u>CVn</u>	
Date: <u>4/12/15</u>	Time: <u>9:03 P</u>
Observing Location: <u>Deer Trail, CO</u>	
Instrument: <u>Newtonian</u>	Aperture: <u>8"</u>
EP/Mag: <u>9mm/135x</u>	Focal Length: <u>f/6</u>
Conditions:	Seeing/Transp:
Notes: <u>Nice.</u>	

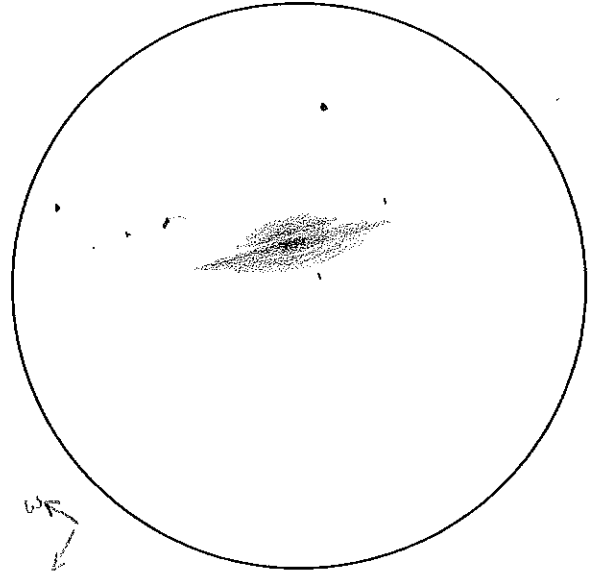


Subject: <u>N4038, N4039</u> Type: <u>Gal</u>	
Constellation: <u>Cor</u>	
Date: <u>4/12/15</u>	Time: <u>9:12 P</u>
Observing Location: <u>Deer Trail, CO</u>	
Instrument: <u>Newtonian</u>	Aperture: <u>8"</u>
EP/Mag: <u>9mm/135x</u>	Focal Length: <u>f/6</u>
Conditions:	Seeing/Transp: <u>OK/OK</u>
Notes:	

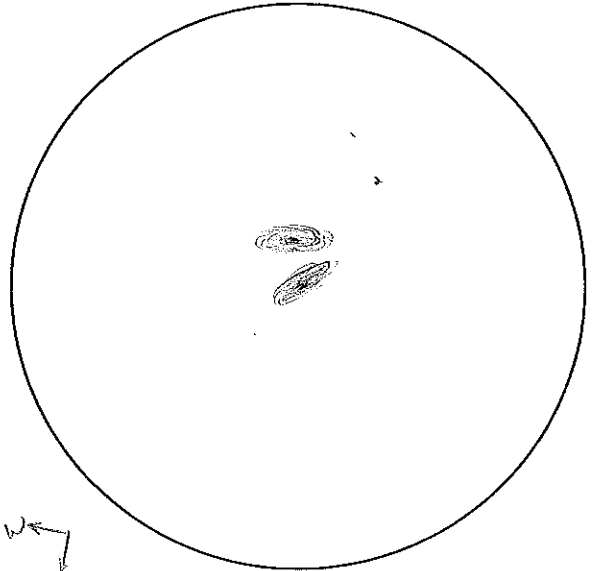


Astronomy Sketch Log

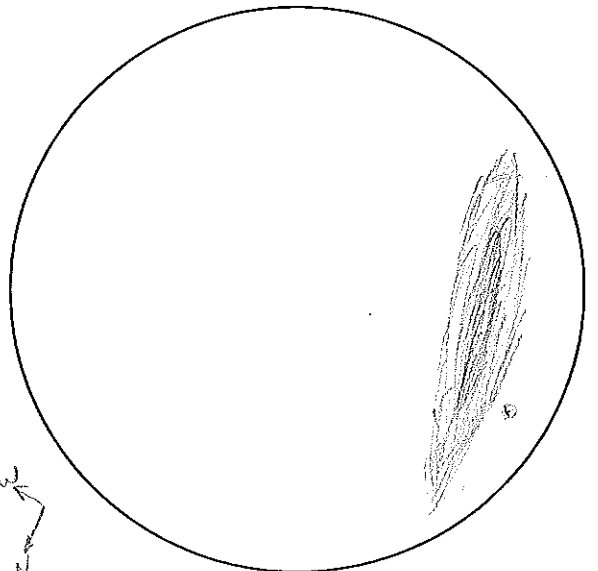
Subject: M104	Type: Gal
Constellation: Vir	
Date: 4/12/15	Time: 9:23 P
Observing Location: Deer Trail, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 9mm / 135x	Focal Length: f/6
Conditions:	Seeing/Transp: OK/OK
Notes:	



Subject: N4567, N4568	Type: Gal
Constellation: Vir	
Date: 4/12/15	Time: 9:30 P
Observing Location: Deer Trail, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 9mm / 135x	Focal Length: f/6
Conditions:	Seeing/Transp: OK/OK
Notes: Pretty faint	

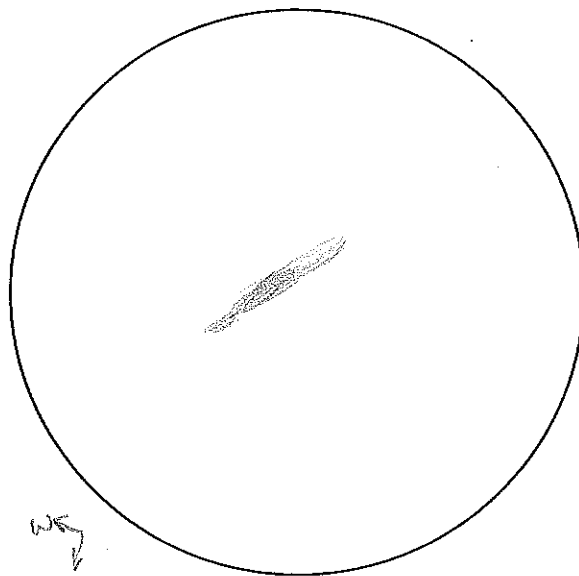


Subject: N4631, N4627	Type: Gal
Constellation: CVn	
Date: 4/12/15	Time: 9:40 P
Observing Location: Deer Trail, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 9mm / 135x	Focal Length: f/6
Conditions:	Seeing/Transp: OK/OK
Notes:	

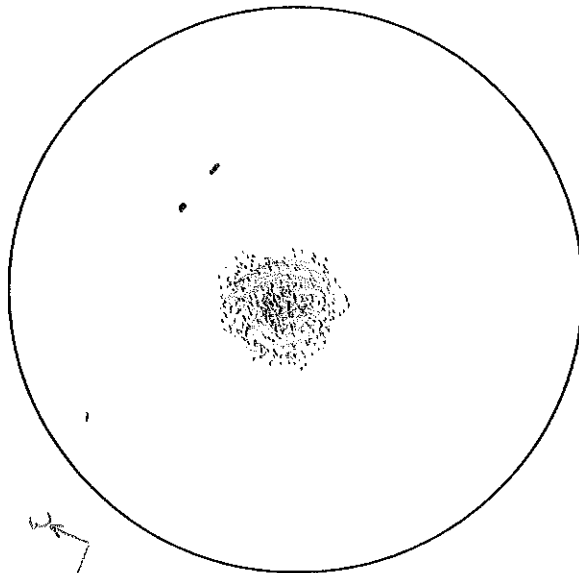


Astronomy Sketch Log

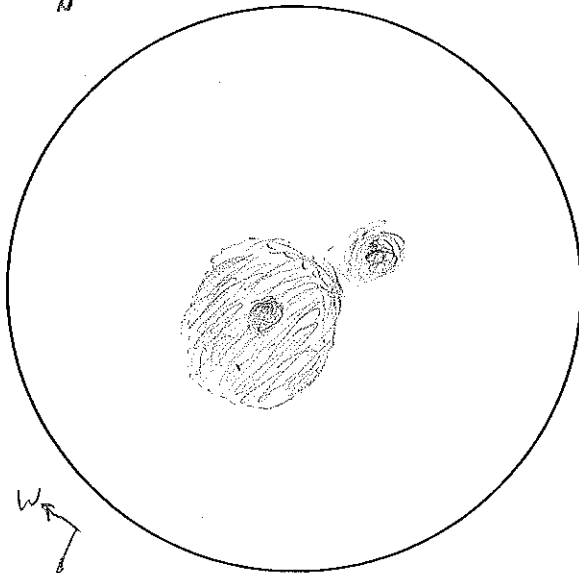
Subject: <i>M46 SB</i>	Type: <i>Gal</i>
Constellation: <i>CVn</i>	
Date: <i>4/12/15</i>	Time: <i>9:48 P</i>
Observing Location: <i>Deer Trail, CO</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>8"</i>
EP/Mag: <i>9mm / 135x</i>	Focal Length: <i>f/6</i>
Conditions:	Seeing/Transp: <i>Good / OK</i>
Notes:	



Subject: <i>M53</i>	Type: <i>Gb</i>
Constellation: <i>Com</i>	
Date: <i>4/12/15</i>	Time: <i>9:55 P</i>
Observing Location: <i>Deer Trail, CO</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>8"</i>
EP/Mag: <i>9mm / 135x</i>	Focal Length: <i>f/6</i>
Conditions:	Seeing/Transp: <i>OK / OK</i>
Notes:	

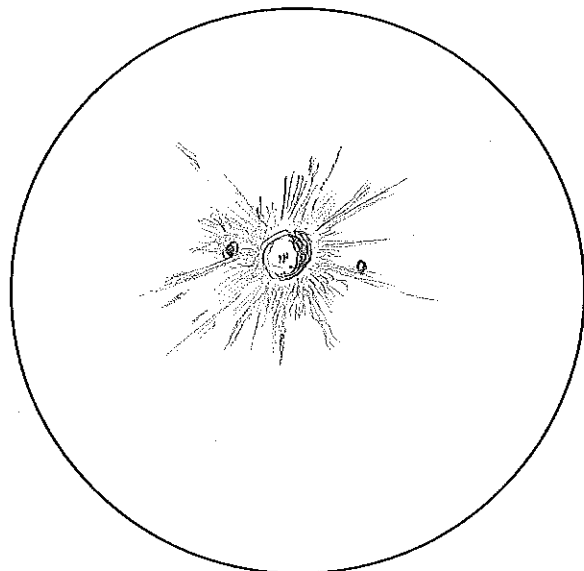


Subject: <i>M51</i>	Type: <i>Gal</i>
Constellation: <i>CVn</i>	
Date: <i>4/12/15</i>	Time: <i>10:03 P</i>
Observing Location: <i>Deer Trail, CO</i>	
Instrument: <i>Newtonian</i>	Aperture: <i>8"</i>
EP/Mag: <i>9mm / 135x</i>	Focal Length: <i>f/6</i>
Conditions:	Seeing/Transp: <i>OK / OK</i>
Notes: <i>No spiral arms seen, just a glow.</i>	

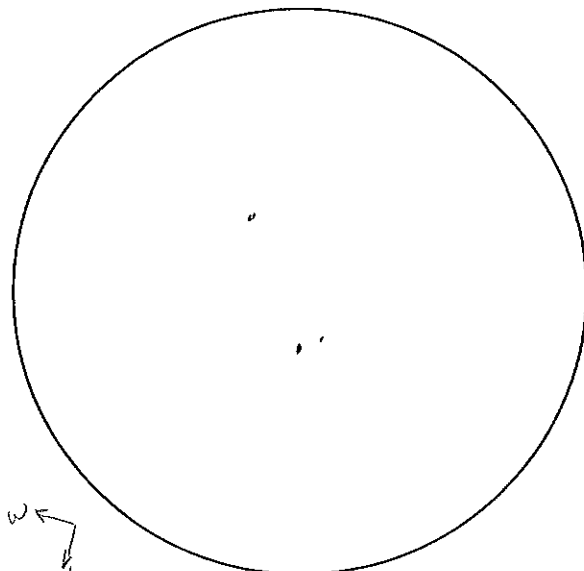


Astronomy Sketch Log

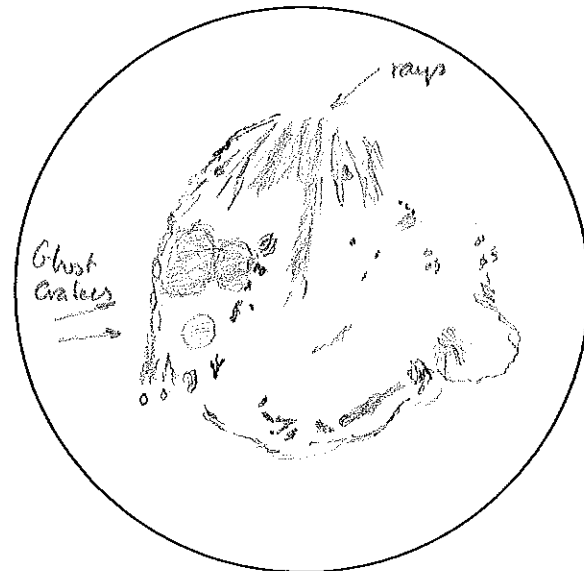
Subject: Kepler	Type: Crater
Constellation: Moon	
Date: 5/3/15	Time: 9:27 P
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 6mm / 203x	Focal Length: f/6
Conditions: Clear Calm	Seeing/Transp: Good/Good
Notes: Nice. Lots of rays radiating from crater. RHS Bright arc on crater wall. Moon Filter made rays harder to see.	



Subject: 17821 Boo	Type: DS
Constellation: Boo	
Date: 4/12/15	Time: 10:06 P
Observing Location: Deer Trail, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 15mm / 81x	Focal Length: f/6
Conditions:	Seeing/Transp: J/K/O/K
Notes: Brighter stars with a fainter companion bluish.	

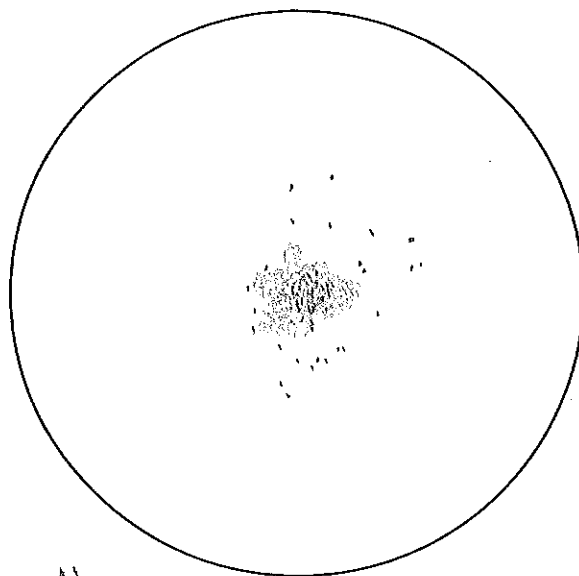


Subject: Mare Imbrium	Type: Crater
Constellation: Moon	
Date: 5/3/15	Time: 10:06 P
Observing Location: Broomfield, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 6mm / 203x	Focal Length: f/6
Conditions: Clear Calm	Seeing/Transp: Good/Good
Notes: Incredible. Ghost craters & lots of shadings I didn't capture very well. The darkest markings are the brightest. Moon filter made features harder to see.	



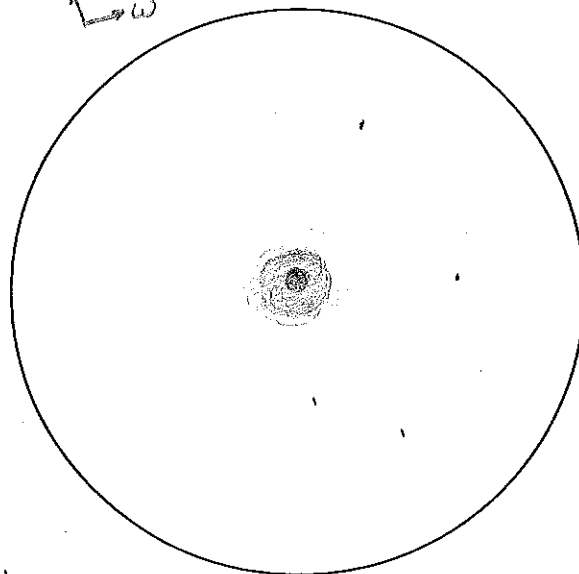
Astronomy Sketch Log

Subject: M14	Type: GC
Constellation: Sco	
Date: 7/11/15	Time: 9:46
Observing Location: Deer Trail, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 15mm/81x	Focal Length: f/6
Conditions: Clouds Drifting By Seeing/Transp: Poor/OK	
Notes: Lots of member stars seen Very loose association	



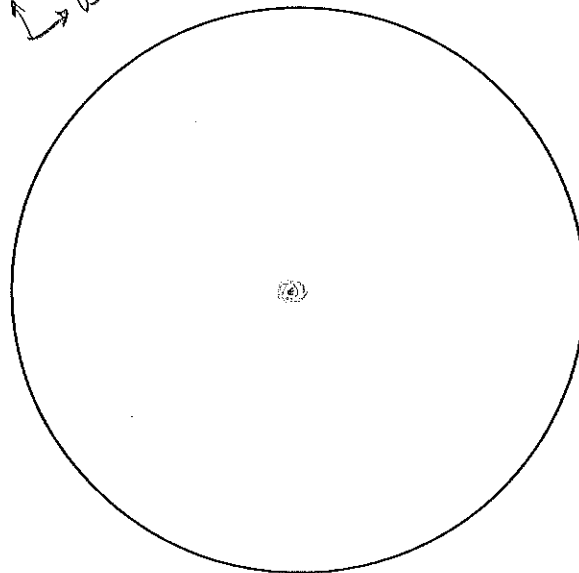
N
↙ ↘
W

Subject: M90	Type: GC
Constellation: Sco	
Date: 7/11/15	Time: 9:54P
Observing Location: Deer Trail, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 15mm/81x	Focal Length: f/6
Conditions: Clouds Drifting By Seeing/Transp: Poor/OK	
Notes: Has small bright core & dim halo around it. No member stars seen. Just the glow	



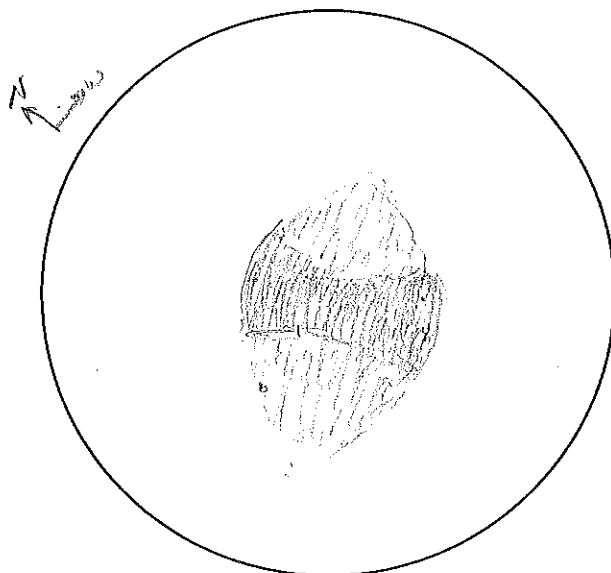
N
↙ ↘
W

Subject: N6210	Type: PN
Constellation: Her	
Date: 7/11/15	Time: 10:14P
Observing Location: Deer Trail, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 10mm/122x	Focal Length: f/6
Conditions: Hazy Seeing/Transp: OK/OK	
Notes: w/o 03 filter, a bright central star w/a tiny bit of halo around it. It's a bright pale white star w/o 03 filter	

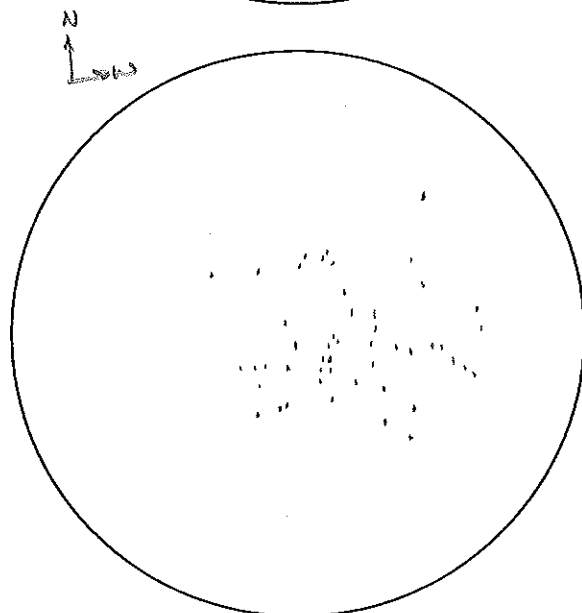


Astronomy Sketch Log

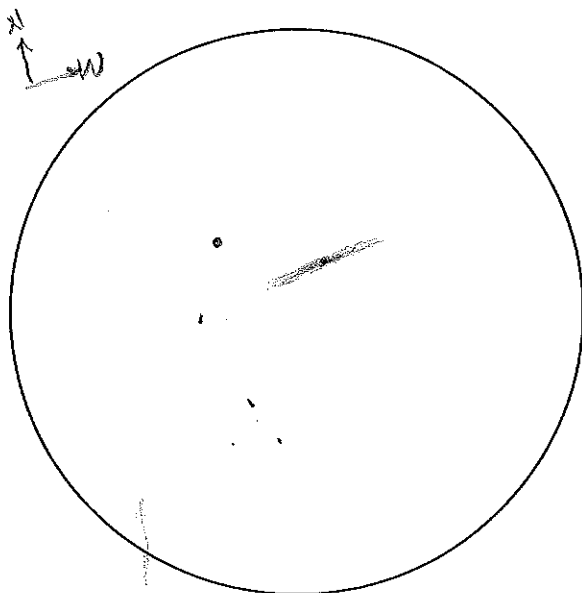
Subject: M27	Type: PN
Constellation: Vul	
Date: 7/11/15	Time: 10:27 P
Observing Location: Deer Trail, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 10mm / 122x	Focal Length: f/6
Conditions: Clear	Seeing/Transp: OK / OK
Notes: Nice bright central bow tie w/ light nebulosity above & below it. Nice.	



Subject: NG231	Type: OC
Constellation: Sco	
Date: 7/11/15	Time: 10:43 P
Observing Location: Deer Trail, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 15mm / 81x	Focal Length: f/6
Conditions: Clear Now	Seeing/Transp: OK / OK
Notes: Very low in south yet easy to see 30+ blue white stars of 5 magnitudes. Nice.	

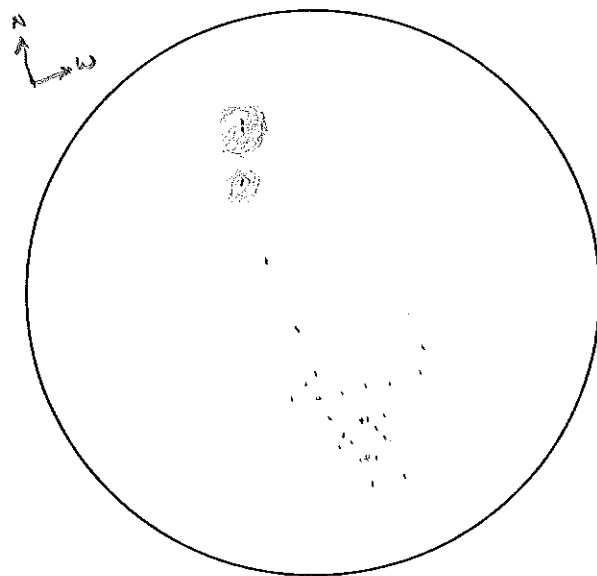


Subject: NG746	Type: Gal
Constellation: Vir	
Date: 7/11/15	Time: 10:51 P
Observing Location: Deer Trail, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 10mm / 122x	Focal Length: f/6
Conditions:	Seeing/Transp: Good / Good
Notes: A nice, thin edge on w/ thin dim tapered arms all brighter long core w/ central much brighter central core.	

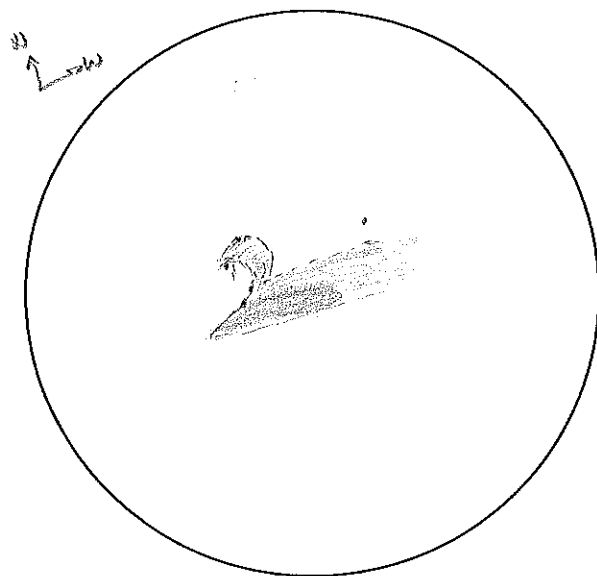


Astronomy Sketch Log

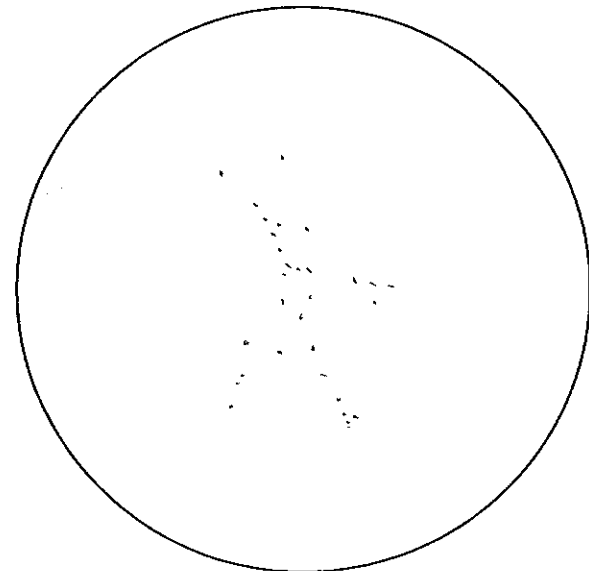
Subject: M20/21	Type: OC/EN
Constellation: Sgr	
Date: 7/11/15	Time: 11:07P
Observing Location: Deer Trail, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 32mm	Focal Length: f/6
Conditions: Clear/Hazy	Seeing/Transp: OK/OK
Notes:	



Subject: M17	Type: BN
Constellation: Sgr	
Date: 7/11/15	Time: 11:15P
Observing Location: Deer Trail, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 15mm / 81x	Focal Length: f/6
Conditions: Clear & Hazy	Seeing/Transp: OK/OK
Notes: Used Deep Sky Filter. Nice shape. Lots of nebula glow	

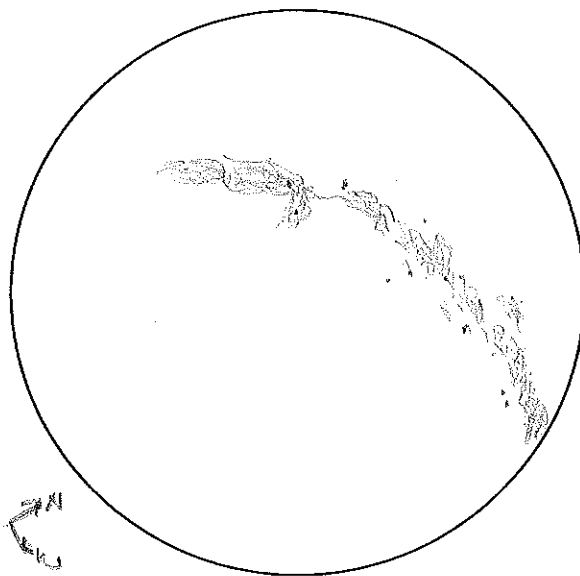


Subject: M16910	Type: OC
Constellation: Cyg	
Date: 7/11/15	Time: 11:24P
Observing Location: Deer Trail, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 15mm / 81x	Focal Length: f/6
Conditions: Clear & warm	Seeing/Transp: Good/Good
Notes:	

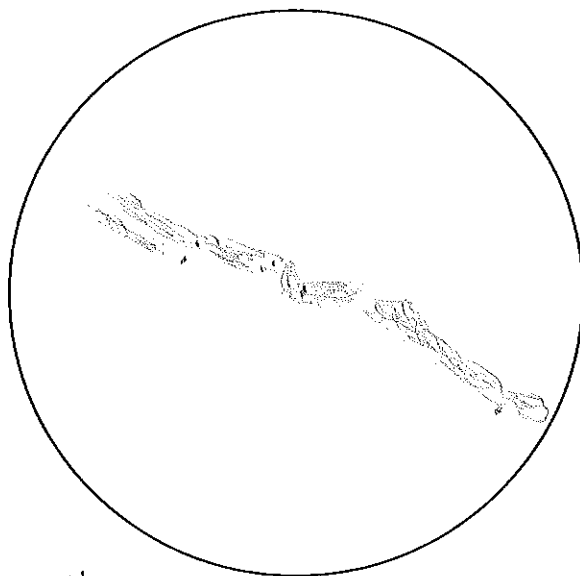


Astronomy Sketch Log

Subject: N6995	Type: SUR
Constellation: Cyg	
Date: 7/11/15	Time: 11:35 PM
Observing Location: Deer Trail, CO	
Instrument: 8" Newtonian	Aperture: 8"
EP/Mag: 15mm / 81x	Focal Length: f/6
Conditions: Clear & warm	Seeing/Transp: Good/Good
Notes: w/o3 filter	



Subject: N6960	Type: SNR
Constellation: Cyg	
Date: 7/11/15	Time: 11:39 PM
Observing Location: Deer Trail, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 15mm / 81x	Focal Length: f/6
Conditions: Clear & warm	Seeing/Transp: OK/OK
Notes: Used O3 very faint.	



Subject: N6819	Type: OC
Constellation: Cyg	
Date: 7/11/15	Time: 11:43 PM
Observing Location: Deer Trail, CO	
Instrument: Newtonian	Aperture: 8"
EP/Mag: 10mm	Focal Length: f/6
Conditions: Clear & warm	Seeing/Transp: OK/OK
Notes: A small dense dim cluster There is a faint glow of nebulosity under these stars. Glow not any better w/ Deep Sky filter. Very faint yet obvious.	

