



ASTRONOMICAL LEAGUE
DARK NEBULAE CLUB



11/01/2010

Kathy Machin
4845 N Smalley
Kansas City MO 64119

Dear Brad,

Congratulations on your fine accomplishment in completing the Dark Nebulae list!

I really enjoyed your descriptions and drawings. Well done!

In addition to the Dark Nebulae Club Certificate, the Astronomical League awards a clutch back pin. The design shows The Pipe dark nebulae.

We hope you wear this unique symbol of recognition with pride!

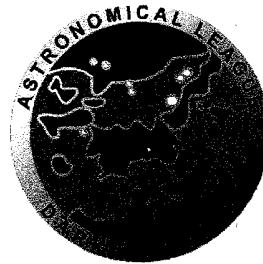
Please let me know if you have any questions. And again---CONGRATULATIONS!!!

Kathy Machin

Kathy Machin
A.L. Dark Nebulae
Observing Award



ASTRONOMICAL LEAGUE
DARK NEBULAE CLUB



11/01/2010

Brad,

Please have a club officer sign the certificate in the "organization official" block.

I am really delighted to send certificate #4 to you!

Clear dark skies,

Kathy

Name	Cons	RA h m s	Dec	Size/Dia	Notes	NE/B/T	SkyAtlas 2000-2nd	Uranometria 2000 1st Ed	Uranometria 2nd Ed	Millennium
Recommended: T - Telescopic, B - Binocular, NE - Naked Eye. The Chart information is from the Uranometria printed in 1996. Earlier printings may not have all the An "N" after the chart number indicates these nebulae are not drawn and/or labeled on the chart.										
✓ The Great Rift					Cygnus to Centaurus	NE	N	N	N	N
✓ B 142	Aql	19h 39 41	+10° 31	40 x 40	B142/3 Barnard's famous "E" cloud	B	16	207	85	III: 1243
✓ B 143	Aql	19h 41 25	+11° 0	26 x 15	B142/3 Barnard's famous "E" cloud	B	16	207	85	III: 1243
✓ B 34	Aur	05h 43 30	+32° 38	20 x 20	West of M37	B	5	98, 97	59	I: 135
✓ B 160	Cep	21h 37 58	+56° 13	30 x 30	On South Side of IC 1396, LDN1088	B	3, 9	57	19	III: 1087
✓ B 161	Cep	21h 40 22	+57° 49	3X13	On North side of IC 1396	T	3	57	19	III: 1073
✓ B 171	Cep	22h 1 18	+58° 52	90 X 90	With B160 and B170	B	3	57	19	III: 1072
✓ B 365	Cep	21h 34 53	+56° 43	15 x 22	On South Side of IC 1396, LDN 1090	T	3, 9	57	19	III: 1087
✓ B 144	Cyg	19h 58	+35° 20	360 x 180	Fish on the Platter	NE, B	8 N	119 N	48	III: 1149
✓ B 145	Cyg	20h 2 49	+37° 40	15 x 45		B, T	9, 8	119	48	III: 1149
✓ B 168	Cyg	21h 53 20	+47° 16	100 x 15	Leads to the Cocoon (IC 5146)	B, T	9	86	31	III: 1104
✓ B 352	Cyg	20h 57 10	+45° 53	19 x 19	North of the North American Nebula	B, T	9	85	32, A1	III: 1106
✓ B 353	Cyg	20h 57 22	+45° 28	12 x 8	In North American Nebula	B, T	9 N	85	32, A1	III: 1106
✓ B 361	Cyg	21h 12 45	+47° 25	21 x 21	Near IC 1369	B	9	86, 85	32	III: 1106
✓ LDN 935	Cyg	20h 56 48	+43° 52	90 x 20	Wide lane separating the North American and Pelican nebula	B, T	9	85	32	III: 1126
✓ LG3	Cyg	21h 00	+53°	12°	Funnel Cloud Nebula; North of Deneb	NE	9 N	56 N	19 N	III: 1088 N
✓ Northern Coalsack	Cyg	20h 40 00	+42°	6°	Northern Coalsack, between Alpha, Beta and Epsilon. B 346, 348 are within it	NE	9 N	85 N	32	III: 1127
✓ B 37	Mon	06h 32	+10° 28	150 x 60	Northwest of NGC 2264 complex	B	11 N	182 N	96	I: 203 N
✓ B 44	Oph	16h 40	-24° 4	35 x 600	A Large Rift	NE	22	336, 337	147, 146	III: 1397
✓ B 64	Oph	17h 17 18	-18° 29	10 x 6	West of M9, causes darkening of M9	S, B	22, 15	337, 338	146	III: 1371
✓ B 78	Oph	17h 32	-25° 35	180 x 180	Bowl of the Pipe Nebula	NE	22	338, 376	146	III: 1394
✓ Stem	Oph	17h 21	-27° 23	300 x 60	Stem of the Pipe Nebula, B 59, B66, B67, B65 are embedded in it	NE	22	337, 338	146 N	III: 1417
✓ Fish's Mouth	Ori	05h 35	-05° 27		Edge of M42 by M43	T	11 N	225	116 N	I: 278 N
✓ Flame	Ori	05h 41.9	-01° 51		In NGC 2024	T	11 N	226	116 N	I: 253 N
✓ B 275	Sco	17h 38 59	-32° 19	13 x 13	West edge of M6	B	22 N	376 N	164, A20	III: 1416
✓ B 103	Sct	18h 39 25	-6° 40	5 x 3	On NW side of Scutum Star Cloud	B, T	16, 15	295, 250	125, 126	III: 1319
✓ B 111	Sct	18h 50	-4° 57	120 x 120	Large dark nebula with other Barnard's nested in it	NE, B	16, 15	250, 251, 295	105, A14	III: 1318
✓ B 119a	Sct	18h 54 39	-5° 10	30 x 30	East of B111	B	16 N	250, 251, 295, 296	105, A14	III: 1318
✓ B 85	Sgr	18h 2 25	-23° 1	7 x 5	Dark Lanes inside the Trifid Nebula (M20)	T	22	339	145, 146, A17	III: 1392
✓ B 86	Sgr	18h 3 1	-27° 52	5 x 3	Ink Spot Nebula, near NGC 6520	T	22	339, 377	145, 146	III: 1415
✓ B 92	Sgr	18h 15 35	-18° 13	12 x 8	On NW edge of Small Sagittarius Star Cloud	T	15, 16, 22	339	145	III: 1368
✓ B 93	Sgr	18h 16 53	-18° 3	9 x 5	NE of B92	T	15, 16, 22	339	145	III: 1368
✓ Lagoon	Sgr	18h 04	-24° 15	2 x 20	The large dark lagoon in M8, NOT B88 or B89 or B296	T	22	339 N	145 N	III: 1392 N
✓ Swan's neck	Sgr	18h 21	-16° 15		Embedded in M17 - forms the inside curve of the neck of the Swan	T	15	294 N	126 N	III: 1367 N
✓ B 22	Tau	04h 38	+26° 3	100 x 100	Taurus Dark Cloud	B, T	5 N	134 N	78	I: 162

35/35

Name	Con s	RA h m s	Dec	Size/Dia	Notes	SkyAtlas 2000-2nd	Uranometria 2000 1st ed	Uranometria 2nd ed	Millennium
B 137	Aql	19h 16 0	- 1° 19	8 x 8		16 N	251 N	105	III: 1293
✓ 582	Aql	36	-01° 56	60 x 10		16, 15	250, 251	105	III: 1294
✓ 617	Aql	30	+01° 04	50 x 10		16, 15	251, 250	105	III: 1294
B 335	Aql	54	+ 7° 36	5 x 3	2000	16	207	85	III: 1268
✓ B 139	Aql	19h 18 0	- 1° 24	11 x 2		16	251	105	III: 1293
✓ B 138	Aql	19h 16	+ 0° 13	140 x 140		16 N	251 N	105	III: 1293
B 337	Aql	19h 37 0	+12° 23	3 x 3		16	207	85	III: 1244
✓ B 136	Aql	19h 8 49	- 4° 0	11 x 11		16	251	105	III: 1317
✓ B 135	Aql	19h 7 32	- 3° 55	17 x 4		16	251	105	III: 1317
✓ B 132	Aql	19h 4 27	- 4° 25	11 x 4		16	251	105	III: 1317
✓ B 130	Aql	19h 1 56	- 5° 34	5 x 3		16	296, 251	105	III: 1317
✓ B 129	Aql	19h 2 4	- 5° 18	7 x 4		16	251, 296	105	III: 1317
✓ B 127	Aql	19h 1 31	- 5° 26	7 x 6		16	251, 296	105	III: 1317
B 334	Aql	19h 35 6	+12° 19	4 x 2		16	207	85	III: 1244
B 26	Aur	38	+30° 37	5 x 3		5 N	96 N	59	I: 137 N
B 226	Aur	34	+33° 42	20 x 20		5 N	97 N	59	I: 113
B 29	Aur	05h 6 23	+31° 35	9 x 4		5	97	59	I: 136
B 28	Aur	52	+30° 38	4 x 2		5 N	96 N	59	I: 137 N
B 27	Aur	04h 55 8	+30° 33	5 x 3		5 N	96 N	59	I: 137 N
B 152	Cep	29	+61° 44	7 x 4		3	33, 56	19	III: 1073
B 150	Cep	39	+60° 18	60 x 60		3	56, 32	20	III: 1074
B 174	Cep	22h 7 19	+59° 4	10 x 6		3	57	19	III: 1072
B 173	Cep	22h 7 28	+59° 40	4 x 2		3	57	19	III: 1072
✓ B 170	Cep	21h 58 2	+58° 57	10 x 5		3	57	19	III: 1072
✓ B 169	Cep	52	+58° 45	60 x 60		3	57	19	III: 1072
B 163	Cep	10	+56° 42	5 x 2		3, 9	57	19	III: 1087
B 162	Cep	21h 41 9	+56° 19	14 x 9		3, 9	57	19	III: 1087
✓ Be 157	CrA	00	-37° 10	60 x 30		22	379, 378	163	III: 1434
✓ 889	Cyg	48	+40° 10	180 x 20		9, 8	85	48, 32	III: 1128
✓ B 362	Cyg	57	+50° 12	11 x 5		9, 3	56, 86	32	III: 1105
✓ B 343	Cyg	26	+40° 16	10 x 7		9, 8	84	48, 32	III: 1128
✓ B 164	Cyg	31	+51° 5	17 x 17		9	57	31, 19	III: 1087
B 228	Lup	15h 44	-34° 30	310 x 80		21, 22	374, 373	165	II: 905
SL 7	Lup	48	-41° 52	160x 10		22, 21	406	182	III: 1462
✓ SL 11	Lup	00	-37° 48	40 x 5		21, 22	374	165	II: 905
✓ B 59	Oph	23	-27° 29	50 x 50		22 N	337, 376	146	III: 1417 N
✓ B 66	Oph	57	-26° 53	12 x 2		22	337, 338, 376	146	III: 1395 N
B 45	Oph	16h 46	-21° 35	120 x 60		22	336, 337	146	III: 1396
✓ B 268	Oph	17h 31	-20° 30	60 x 60		22	338	146	III: 1370
✓ B 83a	Oph	18	-20° 10	4 x 2		22, 15	338	146	III: 1369
B 62	Oph	12	-20° 52	18 x 10		22	337, 338	146	III: 1371
✓ B 67a	Oph	30	-21° 53	11 x 7		22	338, 337	146	III: 1394
B 60	Oph	51	-22° 26	9 x 6		22	337	146	III: 1395
B 262	Oph	17h 25	-22° 36	30 x 30		22	338	146	III: 1394
B 261	Oph	17h 25 4	-23° 2	8 x 8		22	338	146	III: 1394
✓ B 259	Oph	17h 22 1	-19° 17	20 x 20		22, 15	338, 337	146	III: 1370
✓ B 256	Oph	12	-28° 49	40 x 40		22	376, 337, 338	146	III: 1417
✓ B 72	Oph	35	-23° 37	27 x 15	Snake Nebula	22	338, 337	146	III: 1394
B 69	Oph	55	-23° 55	3 x 1		22	338, 337	146	III: 1394
✓ B 68	Oph	36	-23° 47	5 x 3		22	338, 337	146	III: 1394
✓ B 67	Oph	57	-26° 51	12 x 4		22	338, 337	146	III: 1394
✓ B 77	Oph	17h 28	-23° 51	85 x 85		22	338	146	III: 1394
✓ B 65	Oph	36	-26° 42	10 x 4		22	337, 338, 376	146	III: 1395
B 33	Ori	52	- 2° 27	4 x 6	The Horsehead	11, B2	226, 225	116	I: 253

Name	Con s	RA h m s	Dec	Size/Dia	Notes	SkyAtlas 2000-2nd	Uranometria 2000 1st ed	Uranometria 2nd ed	Millennium
B 35	Ori	30	+9° 3	12 x 12		11	181	96	I: 205
B 32	Ori	05h 32 8	+12° 25	6 x 3		11	180 N	96	I: 206
B 31	Ori	05h 32 1	+12° 45	30 x 30		11	180 N	96	I: 206
B 30	Ori	16	+12° 46	70 x 60		11	180 N	96	I: 206
B 36	Ori	05h 49	+7° 25	120 x 120		11 N	181 N	96	I: 229 N
B 4	Per	03h 44 2	+31° 47	45 x 45		4 N	95 N	60	I: 140
✓ B 5	Per	53	+32° 53	60 x 60		4 N	95 N	60	I: 140
B 3	Per	03h 40 1	+31° 58	20 x 20		4 N	95 N	60	I: 140
B 287	Sco	26	-35° 11	28 x 22		22	377	164	III: 1437
B 48	Sco	17h 1	-40° 41	28 x 6		22	407	A22	III: 1460
B 50	Sco	17h 2 54	-34° 23	13 x 11		22	376, 375	164	III: 1440
B 55	Sco	17h 7 33	-32° 0	16 x 6		22	376	164	III: 1417
B 56	Sco	17h 8 48	-32° 5	6 x 3		22 N	376	164	III: 1417
B 231	Sco	24	-35° 25	35 x 12		22	375	165, 164	III: 1441
B 233	Sco	45	-35° 24	22 x 15		22	375	164	III: 1440
B 240	Sco	17	-35° 21	6 x 5		22 N	375 N	164	III: 1440
B 242	Sco	17h 5 6	-32° 25	20 x 14		22 N	376 N	164	III: 1418
B 283	Sco	17h 51	-33° 52	40 x 8		22	377	164, A20	III: 1437
B 117	Sct	42	-7° 24	2 x 1		16, 15	295, 296	125, A14	III: 1318
B 118	Sct	55	-7° 26	4 x 2		16, 15	295, 296	125, A14	III: 1318
✓ B 97	Sct	18h 29 5	-9° 55	55 x 55		15, 16	295, 294	126	III: 1343
✓ B 95	Sct	35	-11° 44	45 x 45		15, 16	295, 294	126	III: 1343
B 115	Sct	19	-6° 39	6 x 2		16, 15	295, 296	125, A14	III: 1318
✗ B 312	Sct	18h 32	-15° 34	75 x 75		15, 16	295, 340	126, 125	III: 1367
B 104	Sct	19	-4° 32	12 x 4		16, 15	250	105, A14	III: 1318
B 116	Sct	32	-7° 10	15 x 15		16, 15	295, 296	125, A14	III: 1318
B 114	Sct	11	-6° 56	7 x 4		16, 15	295, 296	125, A14	III: 1318
B 110	Sct	18h 50 8	-4° 47	15 x 7		16, 15	250	105, A14	III: 1318
B 112	Sct	18h 51 8	-6° 40	14 x 14		16, 15	295	125, A14	III: 1318
B 108	Sct	34	-6° 18	3 x 3		16, 15	295	125, A14	III: 1318
B 101	Sct	40	-8° 48	11 x 4		15, 16	295	126, 125	III: 1343
B 100	Sct	41	-9° 8	16 x 10		15, 16	295	126, 125	III: 1343
B 320	Sct	47	-5° 51	25 x 25		16, 15	251, 296	125	III: 1318
✓ B 314	Sct	18h 37 4	-9° 42	28 x 28		16, 15	295	125, 126	III: 1343
557	Ser	36	-01° 47	60 x 10		16, 15	250	105, 106	III: 1295
B 295	Sgr	18h 4 5	-31° 9	35 x 35		22 N	377 N	163	III: 1415
✓ B 87	Sgr	18h 4 10	-32° 29	28 x 12	Parrot's Head Nebula	22	377	163	III: 1415
✓ B 84a	Sgr	37	-17° 40	14 x 14		15, 22	339, 294	146, 145, 126	III: 1369
B 289	Sgr	36	-29° 1	16 x 16		22 N	377 N	163, 164	III: 1415
B 84	Sgr	25	-20° 15	25 x 13		22, 15	338	146	III: 1369
B 303	Sgr	18h 9 28	-23° 59	2 x 2		22	339	145, A17	III: 1392
✓ B 296	Sgr	18h 4 4	-24° 31	4 x 4		22 N	339	145, A17	III: 1392 N
✓ B 90	Sgr	14	-28° 16	3 x 2		22	377, 339	145	III: 1415
✓ B 88	Sgr	18h 4 35	-24° 6	3 x 0.5		22 N	339	145, A17	III: 1392 N
✓ B 89	Sgr	18h 4 59	-24° 21	2 x 2		22 N	339	145, A17	III: 1392 N
B 214	Tau	55	+28° 32	5 x 2		5 N	133 N	78	I: 138
B 215	Tau	34	+25° 2	20 x 10		5 N	133 N	78	I: 161
B 7	Tau	25	+28° 33	60 x 60		5 N	133 N	78	I: 139
B 10	Tau	41	+28° 16	8 x 8		5 N	133 N	78	I: 139 N
B 211	Tau	12	+27° 48	30 x 30		5 N	133 N	78	I: 139
B 213	Tau	10	+27° 3	28 x 28		5 N	133 N	78	I: 139

40/35

Dark Nebulae- Visual Observation

Lagoon READ'D
B296 OPT
B89
B88 ↓

Object Name <u>Lagoon</u>	RA	DEC	Constellation <u>SGR</u>
Scope/Binocs <u>XT-12</u>	Power <u>150x</u>	Filter <u>—</u>	Seeing <u>II</u>
Location <u>RMCC</u>	Date <u>8/14/10</u>	Time <u>10:15 CDT</u>	Transparency <u>6.0m</u>
Estimated Opacity <u>4</u>	Drawing FOV <u>2 fids = 0.8</u>	Optional Drawing:	

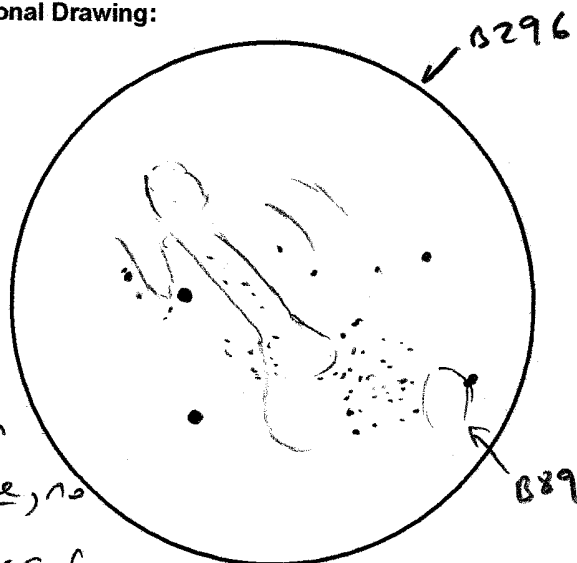
Description:

The burger patty in the bins
Wonderful dark lane, straight
sides w/ cluster & bright neb
(not drawn) well defined.

B296 Op=3, dark "reflection" of Lagoon

B89 Op=3, blob, AV, not easy, fake, none, no

B88 Op=1, no shape, AV, difficult, fakes, few, no



Description:

By far the best

- How does this DN compare with other DN visible during this session? Darker, lower contrast?
Estimate opacity as 1-6 with 6 being the darkest
- Describe Shape/Area/size - (thin lane, circular blob, comma shape, "S" shape?) Long lane
- Direct vision or is indirect vision needed?
- Difficulty in separating it from surrounding area? None
- Does it have abrupt edge(s) or fade out? some fake near ends (w/bs)
- Are stars visible across nebula? How many? ~10
- Are there darker or lighter patches within the dark nebula? Fairly even
- Surrounding area - star fields, clusters, bright nebulae, bright stars, and other dark nebulae?

ALL OF THE ABOVE !!

Transparency

- Dimmest star visible overhead or alternate scale – specify which scale you are using.

Seeing

- Antoniadi or alternate scale – specify which scale you are using.

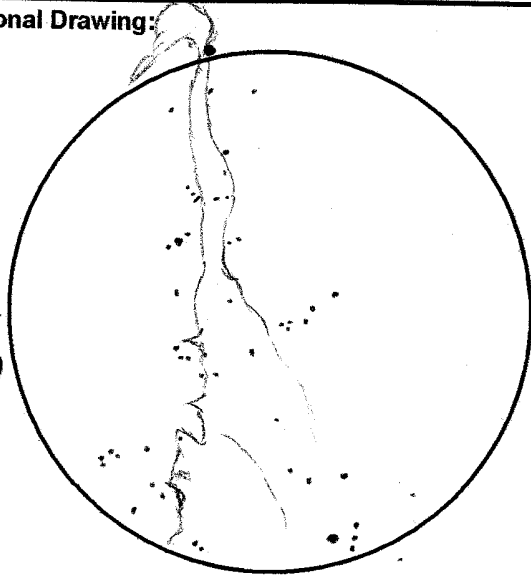
NOTE - ADD
02 DNGS

Dark Nebulae- Visual Observation

Object Name GREAT Rift	RA	DEC	Constellation Cen - Cyg
Scope/Binocs NE	Power 1x	Filter -	Seeing II
Location RMCC	Date 8/14/10	Time 10:50 - 11:05 cor	Transparency 6.0 m
Estimated Opacity 1-6	Drawing FOV 90°	Optional Drawing:	

Description:

The ultimate dark nebula
Gradients on western edge with
several shales and fades, especially
after Bull of Pontowski. E side defined
by star clouds and notches, especially
at Deneb, Antail, M24, Lagoon.



Description:

- How does this DN compare with other DN visible during this session? Darker, lower contrast?
Estimate opacity as 1-6 with 6 being the darkest **BEST**
- Describe Shape/Area/size - (thin lane, circular blob, comma shape, "S" shape?) **Widening**
- Direct vision or is indirect vision needed? **fading "faint"**
- Difficulty in separating it from surrounding area? **No**
- Does it have abrupt edge(s) or fade out? **Yes and yes**
- Are stars visible across nebula? How many? **Many**
- Are there darker or lighter patches within the dark nebula? **Yes**
- Surrounding area - star fields, clusters, bright nebulae, bright stars, and other dark nebulae?
All

Transparency

- Dimmest star visible overhead or alternate scale - specify which scale you are using.

Seeing

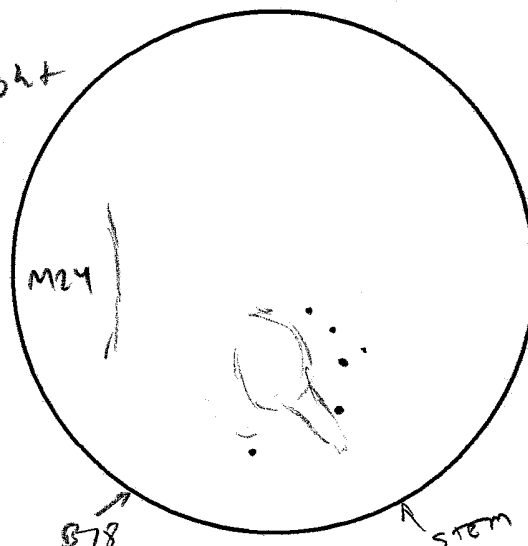
- Antoniadi or alternate scale - specify which scale you are using.

B78 REA'D
STEM REA'D

Dark Nebulae- Visual Observation

Object Name B78 / STEM	RA	DEC	Constellation Oph
Scope/Binocs NE	Power 1x	Filter —	Seeing II
Location RMCC	Date 8/14/10	Time 10:35 PM	Transparency G.O.M.
Estimated Opacity 3	Drawing FOV	Optional Drawing:	

Description: Not well defined tonight with 1x, 12x helps define stem well.



12x
STEM DETAIL

Description:

- How does this DN compare with other DN visible during this session? Darker, lower contrast? Estimate opacity as 1-6 with 6 being the darkest Not well seen tonight
- Describe Shape/Area/size - (thin lane, circular blob, comma shape, "S" shape?) Pipe
- Direct vision or is indirect vision needed? helps
- Difficulty in separating it from surrounding area? Some
- Does it have abrupt edge(s) or fade out? Fairly well discerned
- Are stars visible across nebula? How many? None @ 1x
- Are there darker or lighter patches within the dark nebula? Stem darker in 12x
- Surrounding area - star fields, clusters, bright nebulae, bright stars, and other dark nebulae? Nice "pipe" asterism to N

Transparency

- Dimmest star visible overhead or alternate scale – specify which scale you are using.

Seeing

- Antoniadi or alternate scale – specify which scale you are using.

REVISIT
STEM
FOR OPTIONS

Object Name B275 (@ M6)	RA	DEC	Constellation Sco
Scope/Binocs	Power 12x	Filter —	Seeing II
Location RMCC	Date 8/14/10	Time 10:00 COT	Transparency 6.0 m
Estimated Opacity 5	Drawing FOV 6°	Optional Drawing:	

Description:

Clear north helps form butterfly
Shape of M6. W area less distinct

Op = 5

Shape = notch out of M6

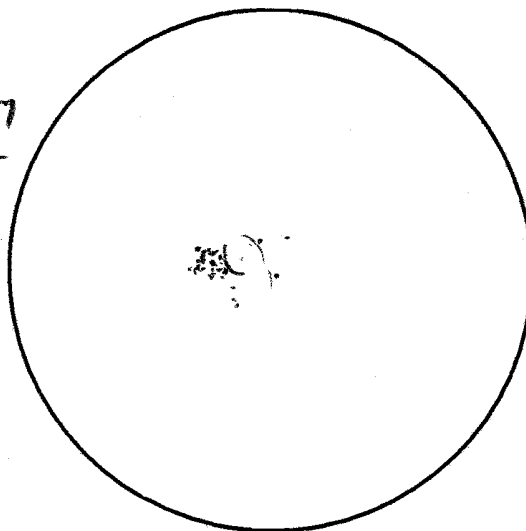
DV, easy to separate

Abrupt edge @ M6 → Fade on W

No stars

Evenly dark

M6 next to it



Object Name B85	RA	DEC	Constellation Sgr
Scope/Binocs XT-12	Power 150x	Filter —	Seeing II
Location RMCC	Date 8/14/10	Time 10:25 CDT	Transparency 6.0 m
Estimated Opacity 6 & 5	Drawing FOV 0.4	Optional Drawing:	

Description:

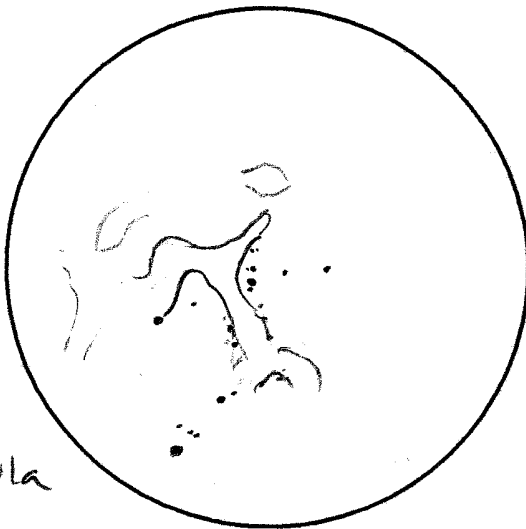
Main trifold in M20 amazing
sight - no bright nebula shown
for clarity

Shape = γ + no shape

DV, easy to discern

Abrupt edges for main sections,
fade out on edges of bright nebula

Amazing sights.



2156'0

Object Name B86	RA	DEC	Constellation SGR
Scope/Binocs XT-12	Power 150x	Filter —	Seeing II
Location RMCC	Date 8/14/10	Time 11:05 CDT	Transparency 6.0m
Estimated Opacity 6	Drawing FOV 0.4	Optional Drawing:	

Description:

Op=6 (min section) w/op=2
area abutting N 6520.

Shape: Notch & blob

DV, no diffraction separating

Abrupt edge @ notch, more faded
@ S edge

Only 2 stars, fairly even in darkness

OC just to E



Object Name B92	RA	DEC	Constellation Sgr
Scope/Binocs XT-12	Power 150x	Filter —	Seeing II
Location RMCC	Date 8/14/10	Time 11:15 CDT	Transparency 6.0m
Estimated Opacity 5	Drawing FOV 0.4	Optional Drawing:	

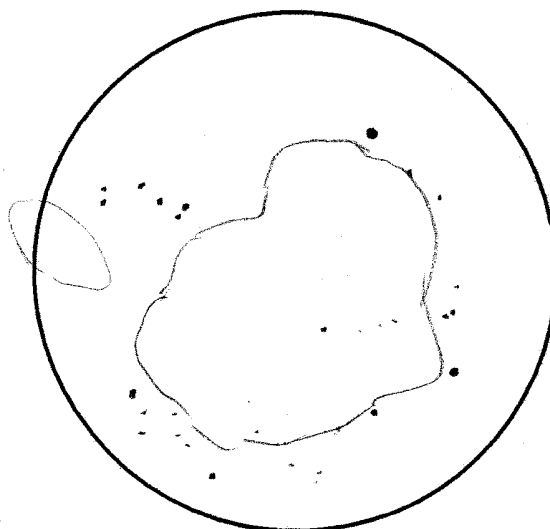
Description: Very obvious blank
spot next to densest cloud
in galaxy.

Shape: potato

Use AV, no diffraction

Rough edges, wide fades back in
E & S edges more defined

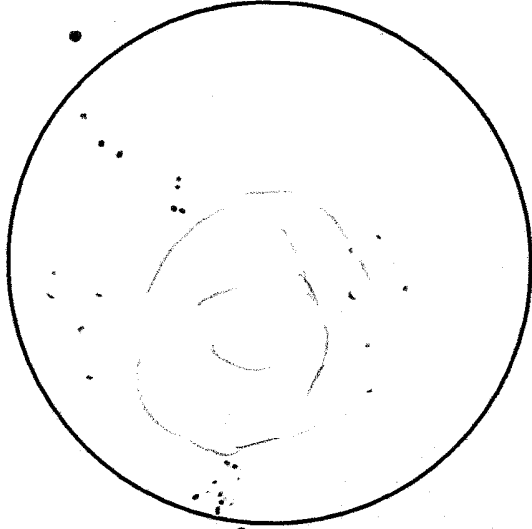
2 stars (!) in hole. M24 to S & E



2 REF'D

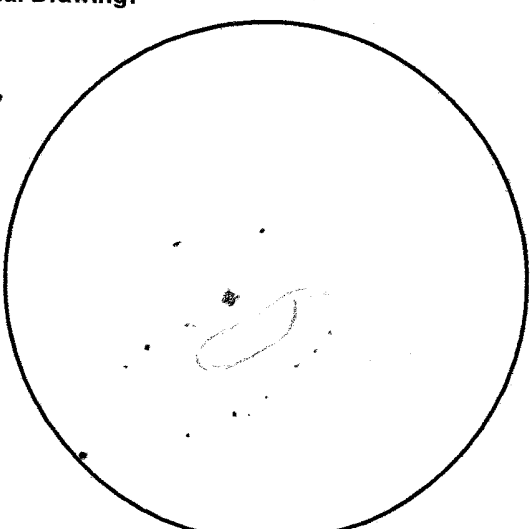
Object Name B93	RA	DEC	Constellation Sgr
Scope/Binocs XT-12	Power 150X	Filter —	Seeing II
Location RMCC	Date 8/14/10	Time 11:20 CDT	Transparency 6.0m
Estimated Opacity 2	Drawing FOV 0°.4	Optional Drawing:	

Description: Fades out - some brightening in center
Blob, AV, difficulty in separating
Very few stars across brighter area in center
M24 to S, B92 to W



Object Name B64	RA	DEC	Constellation Oph
Scope/Binocs	Power 12X	Filter —	Seeing II
Location RMCC	Date 8/14/10	Time 11:30 CDT	Transparency 6.0m
Estimated Opacity 3	Drawing FOV 6°	Optional Drawing:	

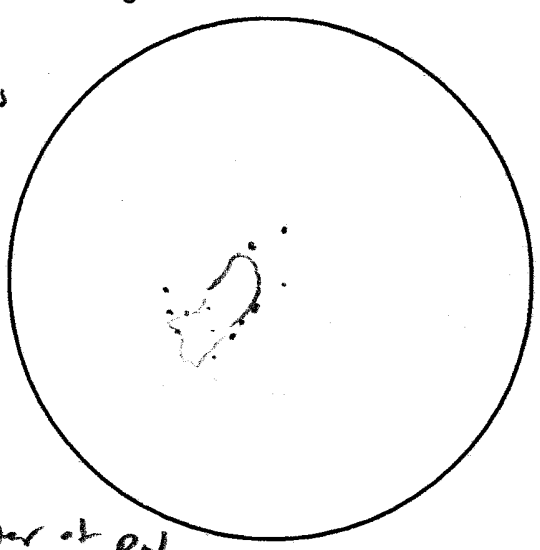
Description: Very subtle - 75x no help
2x1 retro blob, use AV
Difficulty separating
Fades out - no stars
Even opacity, M9 next to it



RECD

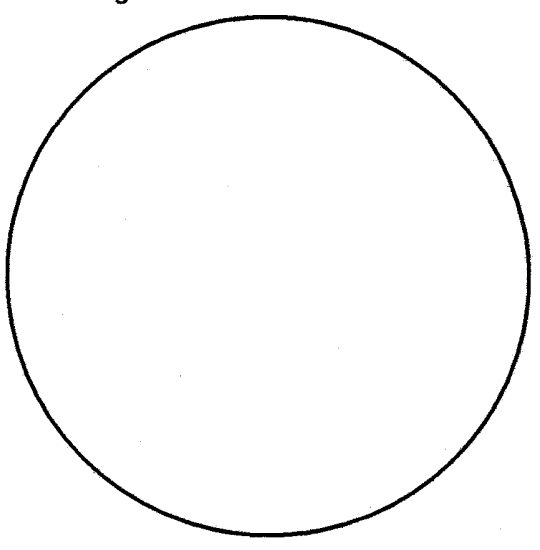
Object Name SWAN'S NECK	RA	DEC	Constellation Sgr
Scope/Binocs XT-12	Power 150x	Filter —	Seeing #
Location RMCC	Date 8/14/10	Time 11:50 CDT	Transparency 6.0m
Estimated Opacity 6	Drawing FOV 0.4	Optional Drawing:	

Description: O3 no real BVT but stands out better
 Shape= distinct "thumb"
 DV, easy to discern
 Abrupt edge in neck, fades to N, very few stars in N part
 Neck op=6, fades to 2 in N
 M17 involved (12) ↓ line @ center of ON



Object Name	RA	DEC	Constellation
Scope/Binocs	Power	Filter	Seeing
Location	Date	Time	Transparency
Estimated Opacity	Drawing FOV	Optional Drawing:	

Description:



B110 OPT

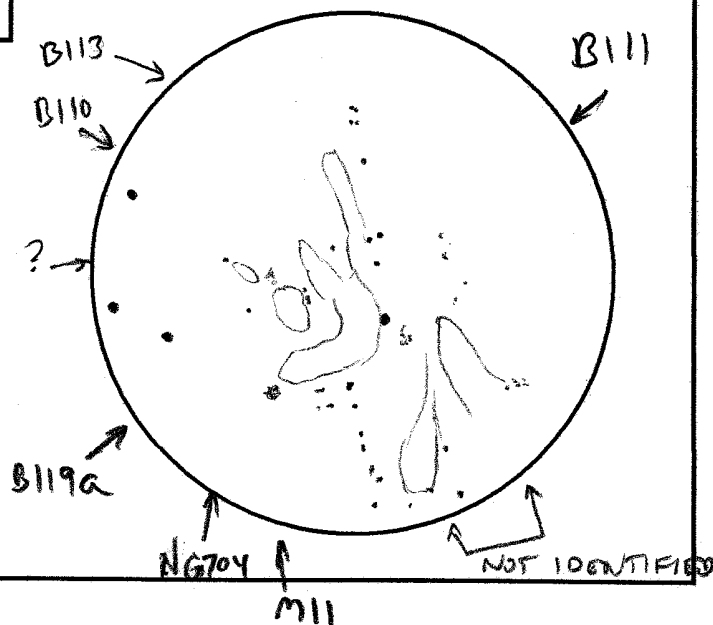
B111 REG'D
B119A ↓

Dark Nebulae- Visual Observation

Object Name B111/119A	RA	DEC	Constellation SCT
Scope/Binocs	Power 12x	Filter —	Seeing II
Location RMCC	Date 8/15/10	Time 1:10 CDT	Transparency 5.8m
Estimated Opacity	Drawing FOV 71 ft ~ 90°	Optional Drawing:	

Description:

B111 easy to see, even 1x
B119a easy in 12x, others
seen as 1 swept.



Description:

- How does this DN compare with other DN visible during this session? Darker, lower contrast?
Estimate opacity as 1-6 with 6 being the darkest

B111	B119a	B110
4	3	3

- Describe Shape/Area/size - (thin lane, circular blob, comma shape, "S" shape?)
Comma Blob Blob
- Direct vision or is indirect vision needed?
DV DV AV
- Difficulty in separating it from surrounding area?
NO Some YES
- Does it have abrupt edge(s) or fade out?
Fairly Abrupt SL. Abrupt Fade
- Are stars visible across nebula? How many?
2-3 0 0
- Are there darker or lighter patches within the dark nebula?
Even Even Even
- Surrounding area - star fields, clusters, bright nebulae, bright stars, and other dark nebulae?

Several clusters/DN in area

Transparency

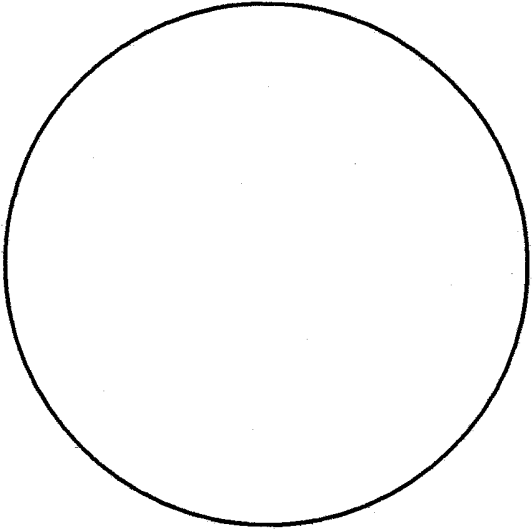
- Dimmest star visible overhead or alternate scale – specify which scale you are using.

Seeing

- Antoniadi or alternate scale – specify which scale you are using.

Object Name	RA	DEC	Constellation
Scope/Binocs	Power	Filter	Seeing
Location	Date	Time	Transparency
Estimated Opacity	Drawing FOV	Optional Drawing:	

Description:



Object Name B361	RA	DEC	Constellation Cygnus
Scope/Binocs	Power 12x	Filter -	Seeing II
Location RMCC	Date 9/4/10	Time 2100 CDT	Transparency I-
Estimated Opacity 3 (main)	Drawing FOV 6°	Optional Drawing:	

Description: AKA LON 970

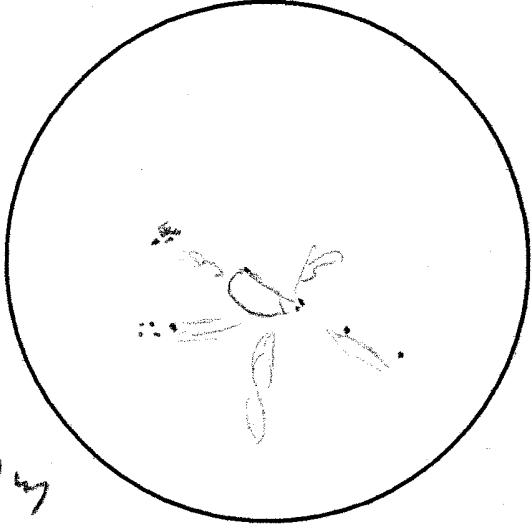
Round dark hole with 5 "arms" reaching out radially

Amazing fields - clumps of stars ends of 2 arms

DV but AV helps

No difficulty separating

Fairly abrupt edges, especially center hub



A few stars across arms - 3 on edge of hole

Fairly evenly dark hole - arms of differing darknesses. Lovely fields surround it.

Dark Nebulae- Visual Observation

REF x2

Object Name LG-3 / N. SACK	RA	DEC	Constellation Cyg
Scope/Binocs EYE	Power 1X	Filter —	Seeing II
Location RMCC	Date 9/3/10	Time 9:37 CDT	Transparency I-
Estimated Opacity see below	Drawing FOV 30°	Optional Drawing:	

Description:

Funnel - I've seen many times but didn't recognize it. Contrasts is great but sure pales to the real one!

FADS

Op=2

Darker "Funnel" Op=4

Northern CRL SACK Op=3

Description:

- How does this DN compare with other DN visible during this session? Darker, lower contrast? **Estimate opacity as 1-6 with 6 being the darkest**
- Describe Shape/Area/size - (thin lane, circular blob, comma shape, "S" shape?) **Funnel / Blob**
- Direct vision or is indirect vision needed?
- Difficulty in separating it from surrounding area? **No**
- Does it have abrupt edge(s) or fade out? **W side of funnel**
- Are stars visible across nebula? How many? **3 or 4 on funnel - 2 on sack**
- Are there darker or lighter patches within the dark nebula? **Yes w/ funnel**
- Surrounding area - star fields, clusters, bright nebulae, bright stars, and other dark nebulae?

All

Transparency

- Dimmest star visible overhead or alternate scale - specify which scale you are using.

6.0

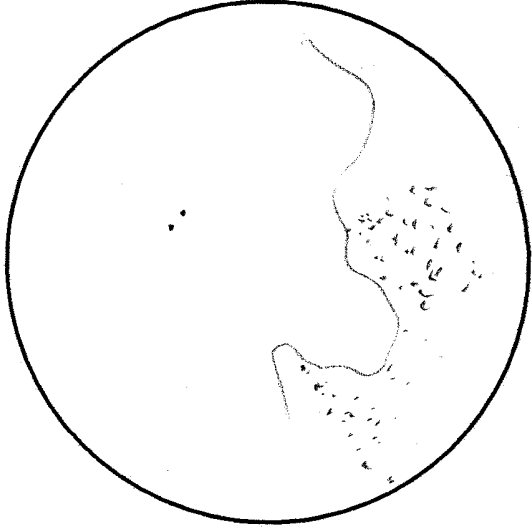
Seeing

- Antoniadi or alternate scale - specify which scale you are using.

II

Dark Nebulae- Visual Observation

REQ . 10

Object Name B103	RA	DEC	Constellation Scor
Scope/Binocs X5-12/P1000	Power 75x/8x	Filter —	Seeing II
Location LMCC	Date 9/3-4/10	Time 10:30-12:15	Transparency 6.0
Estimated Opacity	Drawing FOV 0°.8x2 + 7°	Optional Drawing: ••	
Description: 			

Description:

- How does this DN compare with other DN visible during this session? Darker, lower contrast?
Estimate opacity as 1-6 with 6 being the darkest
- Describe Shape/Area/size - (thin lane, circular blob, comma shape, "S" shape?)
- Direct vision or is indirect vision needed?
- Difficulty in separating it from surrounding area? **No on east side!**
- Does it have abrupt edge(s) or fade out? **fairly abrupt west into R14**
- Are stars visible across nebula? How many? **~ 40**
- Are there darker or lighter patches within the dark nebula? **No - fairly uniformly dark**
- Surrounding area - star fields, clusters, bright nebulae, bright stars, and other dark nebulae?

Transparency

- Dimmest star visible overhead or alternate scale – specify which scale you are using.

6.0

Seeing

- Antoniadi or alternate scale – specify which scale you are using.

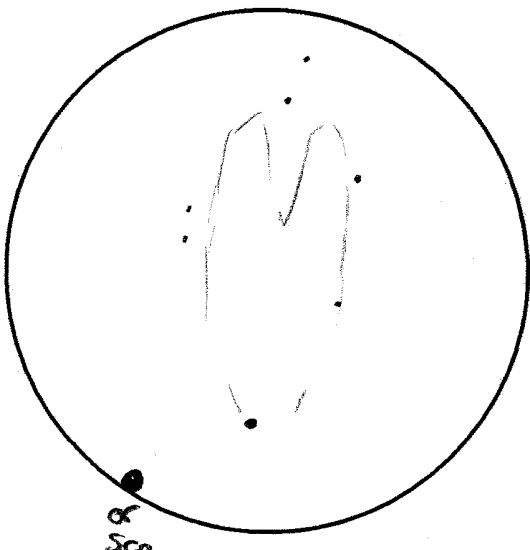
II

Dark Nebulae- Visual Observation

NEB

Object Name B44	RA	DEC	Constellation Sco
Scope/Binocs	Power 60x	Filter —	Seeing II
Location MCC	Date 9/3/10	Time 11:00 CDT	Transparency I-
Estimated Opacity 2	Drawing FOV 6°	Optional Drawing:	

Description:
Very subtle, but there
S side easier



Description:

- How does this DN compare with other DN visible during this session? Darker, lower contrast? Estimate opacity as 1-6 with 6 being the darkest 2
- Describe Shape/Area/size - (thin lane, circular blob, comma shape, "S" shape?) long "hoof"
- Direct vision or is indirect vision needed?
- Difficulty in separating it from surrounding area? Some
- Does it have abrupt edge(s) or fade out?
- Are stars visible across nebula? How many? Very few in 12x60's
- Are there darker or lighter patches within the dark nebula? Yes, it's 2 overlapping
- Surrounding area - star fields, clusters, bright nebulae, bright stars, and other dark nebulae? lanes

ATI

Transparency

- Dimmest star visible overhead or alternate scale – specify which scale you are using.

6.0

Seeing

- Antoniadi or alternate scale – specify which scale you are using.

II

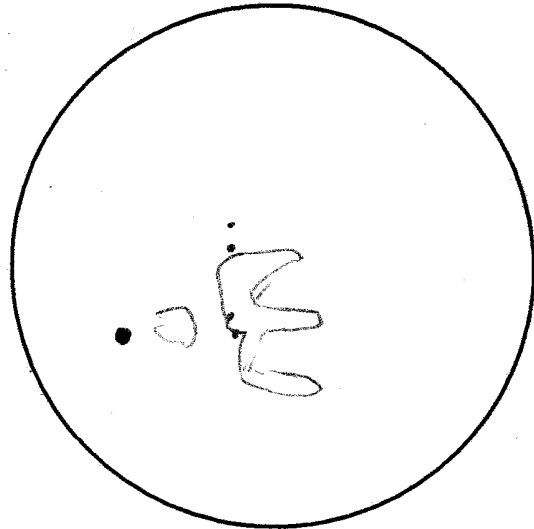
Dark Nebulae- Visual Observation

REF

Object Name B142/B143	RA	DEC	Constellation
Scope/Binocs Binocs	Power 60x	Filter —	Seeing II
Location RMCC	Date 9/4/10	Time 12:30 CDT	Transparency I-
Estimated Opacity 3	Drawing FOV 3°	Optional Drawing:	

Description:

Obvious E shape - not quite even in darkness. Nice round blob (Op=2) to E.



Description:

- How does this DN compare with other DN visible during this session? Darker, lower contrast? Estimate opacity as 1-6 with 6 being the darkest 3
- Describe Shape/Area/size - (thin lane, circular blob, comma shape, "S" shape?) + E
- Direct vision or is indirect vision needed?
- Difficulty in separating it from surrounding area? No
- Does it have abrupt edge(s) or fade out? Faintly
- Are stars visible across nebula? How many? 2 bright, a few dims
- Are there darker or lighter patches within the dark nebula? Slightly
- Surrounding area - star fields, clusters, bright nebulae, bright stars, and other dark nebulae?

Blob

Transparency

- Dimmest star visible overhead or alternate scale – specify which scale you are using.

6.0

Seeing

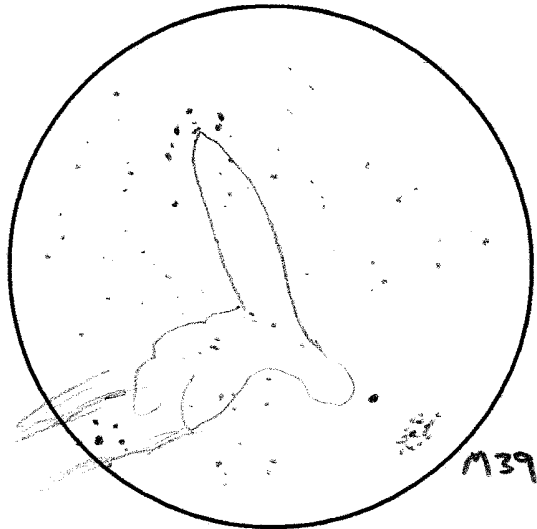
- Antoniadi or alternate scale – specify which scale you are using.

II

R26

Object Name B168+	RA	DEC	Constellation Cyg
Scope/Binos	Power 12x	Filter —	Seeing II
Location LMCC	Date 9/4/10	Time 11:00 CDT	Transparency I-
Estimated Opacity 4	Drawing FOV 80°	Optional Drawing:	

Description: Amazing hand w/ index finger pointing to Cocoon (not seen) with a shrimp shaped ring of stars. Thumb points down to M39. Other fingers seem to have "scratched" out 2 more dark lanes (Op=3) near a clump of stars.



R26/ R26/ R26

Object Name B353 LDN 935/B352	RA	DEC	Constellation Cyg
Scope/Binos	Power 12x	Filter —	Seeing II
Location LMCC	Date 9/4/10 ^{9/12}	Time 11:10 CDT ^{+12:15}	Transparency I-
Estimated Opacity 5/4/3/2	Drawing FOV	Optional Drawing:	

Description:

Shape & surround NA nebula

"Pacific Rim"

nice
dark
Op=5

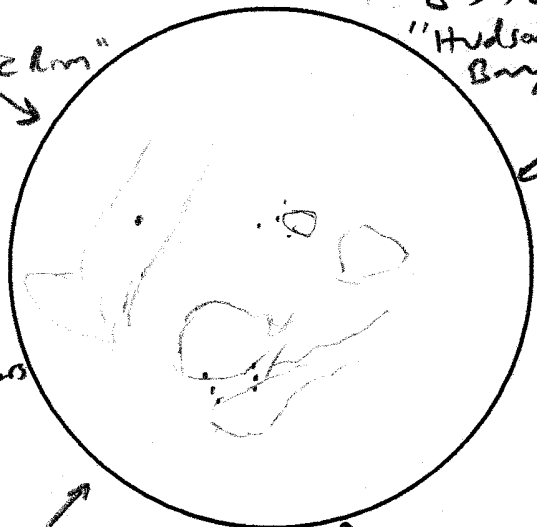
B353
added 9/12
on re-visit
Op=2
no stars

LDN
935

"Gulf of Mexico" with more

Op=4

B 352
"Hudson's Bay"



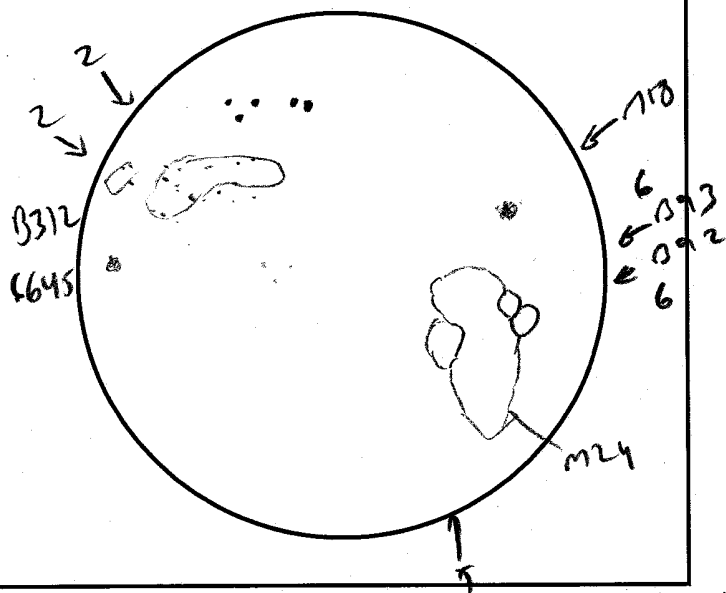
Dark Nebulae- Visual Observation

1 OPT

2 REC

Object Name B312/92/93	RA	DEC	Constellation Sct/Scr
Scope/Binocs Binocs	Power	Filter	Seeing II
Location O-Tex	Date 10/3/10	Time 9:40	Transparency II
Estimated Opacity	Drawing FOV 6°	Optional Drawing:	

Description:



(nothing listed!)

Description:

- How does this DN compare with other DN visible during this session? Darker, lower contrast? **Estimate opacity as 1-6 with 6 being the darkest**
- Describe Shape/Area/size - (thin lane, circular blob, comma shape, "S" shape?) **Blobs**
- Direct vision or is indirect vision needed?
- Difficulty in separating it from surrounding area? **No**
- Does it have abrupt edge(s) or fade out? **312**
- Are stars visible across nebula? How many? **Yes, several**
- Are there darker or lighter patches within the dark nebula? **312 yes**
- Surrounding area - star fields, clusters, bright nebulae, bright stars, and other dark nebulae?

All!

Transparency

- Dimmest star visible overhead or alternate scale – specify which scale you are using.

Seeing

6, 2

- Antoniadi or alternate scale – specify which scale you are using.

1256

Dark Nebulae- Visual Observation

Object Name B144	RA	DEC	Constellation Cyr
Scope/Binocs	Power 12x	Filter	Seeing II
Location O-Tex	Date 10/4/10	Time 12:15	Transparency II
Estimated Opacity	Drawing FOV 6°	Optional Drawing:	
Description:			

Description:

- How does this DN compare with other DN visible during this session? Darker, lower contrast?
Estimate opacity as 1-6 with 6 being the darkest
- Describe Shape/Area/size - (thin lane, circular blob, comma shape, "S" shape?) *Wolf spider*
- Direct vision or is indirect vision needed?
- Difficulty in separating it from surrounding area? *No*
- Does it have fair abrupt edge(s) or fade out?
- Are stars visible across nebula? How many? *Yes, esp. γ*
- Are there darker or lighter patches within the dark nebula? *Yes*
- Surrounding area star fields, clusters, bright nebulae, bright stars, and other dark nebulae?

Transparency

- Dimmest star visible overhead or alternate scale – specify which scale you are using.

Seeing

- Antoniadi or alternate scale – specify which scale you are using.

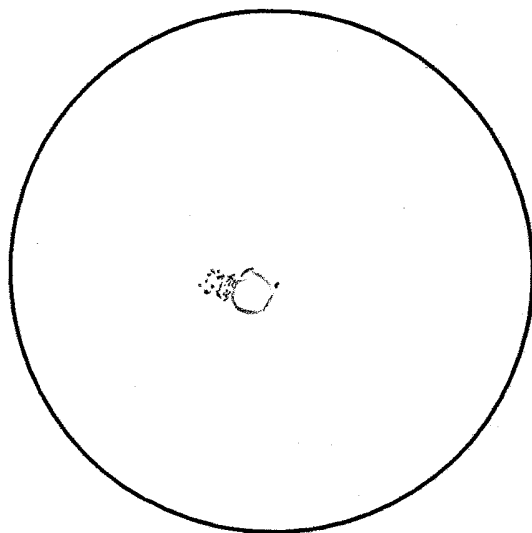
6.2

2xREQ

Object Name B275	RA	DEC	Constellation Oph Sco
Scope/Binocs	Power 12x	Filter	Seeing II
Location O-Tex	Date 10/3/10	Time 9:00	Transparency II
Estimated Opacity 3	Drawing FOV 6°	Optional Drawing:	

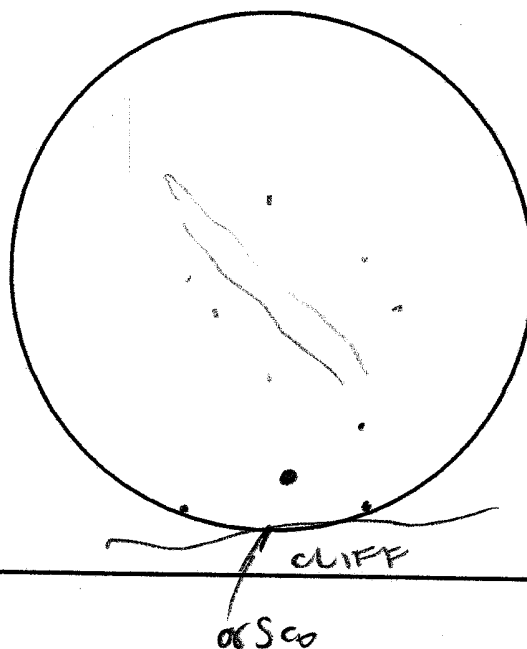
Description:

I don't see darkening of
globular at this power



Object Name B44	RA	DEC	Constellation Sca Oph
Scope/Binocs	Power 12x	Filter	Seeing II
Location	Date 10/2/10	Time 9:05	Transparency II
Estimated Opacity 1	Drawing FOV 6°	Optional Drawing:	

Description: low, difficult but
seen.



REVISIT - DID

4x REG

2x OPT

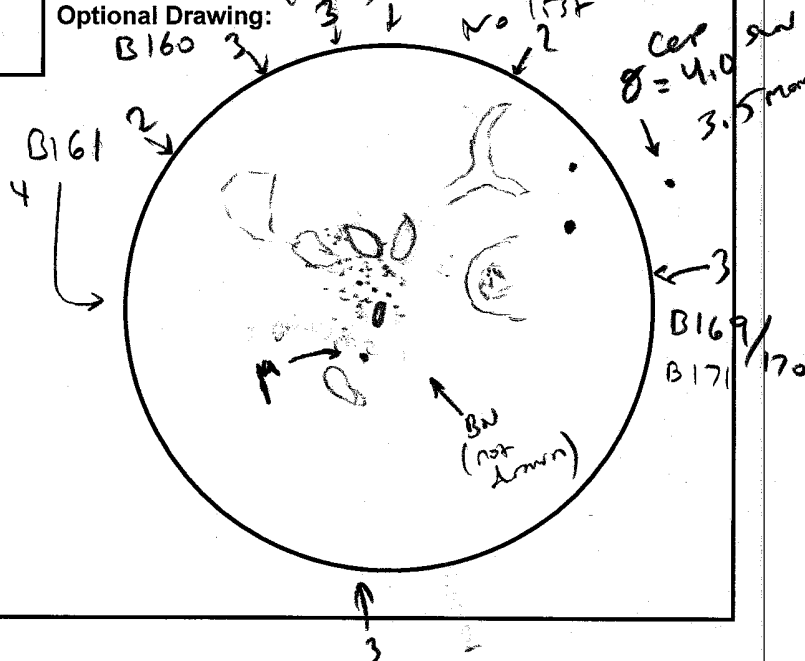
B161/B365

Dark Nebulae- Visual Observation

Object Name B160/169/170/171	RA	DEC	Constellation Cep
Scope/Binos Binos	Power 12x	Filter	Seeing II
Location O-Tex	Date 10/4/10	Time 12:40 (B365)	Transparency II
Estimated Opacity	Drawing FOV 60	Optional Drawing: B160 3, B161 2, B169 3, B171 2, No 15x	

Description:

Revisited
Wonderful (if confusing)
fields of DN w/some
BN & cluster too!



Description:

- How does this DN compare with other DN visible during this session? Darker, lower contrast? **Estimate opacity as 1-6 with 6 being the darkest**
- Describe Shape/Area/size - (thin lane, circular blob, comma shape, "S" shape?)
- Direct vision or is indirect vision needed?
- Difficulty in separating it from surrounding area? **No**
- Does it have abrupt edge(s) or fade out? **mostly except where BN affects view**
- Are stars visible across nebula? How many? **Varies**
- Are there darker or lighter patches within the dark nebula? **Yes**
- Surrounding area - star fields, clusters, bright nebulae, bright stars, and other dark nebulae?

Tons!

Transparency

- Dimmest star visible overhead or alternate scale – specify which scale you are using.

6.2

Seeing

- Antoniadi or alternate scale – specify which scale you are using.

Mon 13.00
13.00
13.00
13.00
13.00