

The below lists (A, B, C, S) are an amalgamation of 20+ years of effort to compile a nice set of VISUAL deep sky objects for modest (10-25 inch) amateur telescopes. I scoured the web for many different lists, and then shamelessly combined them after cross-referencing, viewing, and rating them myself. I've in some cases modified the original comments, and in other cases, comments remain essentially as I found them. The lists here are my ratings, sorted by ascending RA. The format used was useful for an ARGO NAVIS DSC, but the list is available as a text file and can be reformatted as desired.

The "A" list contains "showpiece/star_party" quality objects. "B" objects are slightly less interesting, being typically fainter/harder. "C" rated objects are challenging / least interesting.

The "S" list is special; it's a list of close or colored double stars, plus a few of the best carbon stars. It is particularly useful for estimating seeing or for "best of the best" color.

The list of original on-line sources (to whom I am hugely grateful for their work) includes the following:

bright200galaxies, caldwell, cozens54, deep_map, menard400, planataries100, rasc110, sea100, sac110, taas200, Hodges, ek150, Herschel400, colored_doubles, pointing_doubles.

I hope this list brings as much joy to others as it has to me over the many years I worked it and used it. For access to a text file (as opposed to this PDF file), contact me directly. With best wishes, and CS...

Doug Summers, TAAA

keckskyguy@yahoo.com

<https://www.astrobin.com/users/dmsummers/>

#Rank	Name	RA	DEC	Type	Mag	Description
A	NGC40	00 13 01	+72 31 19	PLANETARY	10.7	C2 1x0.7' 11.6 MAG WOLF-RAYET CENTRAL STAR
A	NGC55	00 14 54	-39 11 47	GALAXY	7.9	C72 WHALE D=6.5MLY, S=61KLY, 32.4x5.6', T=SB(s)m, SB=13.2, LIKELY BETWEEN MK AND SCULPTOR GROUP. ACTIVE STAR FORMATION, SIMILAR TO LMC.
A	M110	00 40 23	+41 41 07	GALAXY	8.0	NGC205 D=2.3M, S=17KLY, 12.2x6.0', T=pec dE5, SB=13.8, SMALL! DWARF TO ANDROMEDA
A	M32	00 42 42	+40 51 55	GALAXY	8.2	NGC221 ARP168 D=2.3M, S=6.5KLY, 8.7x6.5', T=cE2, SB=12.1 VERY SMALL DWARF OF ANDROMEDA.
A	ANDROMEDA	00 42 44	+41 16 07	GALAXY	3.4	M31 NGC224 192x62', D=2.5M, S=137KLY, 189.1x61.7', T=SA(s)b, SB=13.6, VISIBLE NAKED EYE. HUGE..USE FINDER SCOPE OR LOWEST POWER.
A	NGC246	00 47 03	-11 52 19	PLANETARY	8.5	C56 4.1' LOW SB; 10.9 MAG CENTRAL STAR; EVOLVED WR STAR
A	NGC247	00 47 09	-20 45 37	GALAXY	9.1	C62 D=11.5MLY, S=71.5KLY, 21.4x7', T=SAB(s)d, SB=14.3, LARGE, FAINT, VERY LOW SB. UNUSUAL VOID ON ONE SIDE OF DISK. VISIBLE?
A	NGC253	00 47 33	-25 17 20	GALAXY	7.2	C65 D=11.6MLY, S=93KLY, 27.5x6.8', T=SAB(s)c, SB=13.4, EXCELLENT EDGE ON DUSTY SPIRAL.
A	NGC457	01 19 35	+58 17 12	OPEN	6.4	C13 MEL7 OWL CLUSTER 80*, 13.0' D=8K
A	M103	01 33 23	+60 39 00	OPEN	7.4	NGC581 Cr14 172*, 6', D=8.K
A	M33	01 33 51	+30 39 36	GALAXY	5.7	PINWHEEL GALAXY NGC598 D=2.7M, S=54KLY, 68.7x41.0', T=SA(s)cd, SB=14.1 THIRD LARGEST GAL IN LOCAL GROUP AFTER MW, ANDROMEDA. ARMS, KNOTS.
A	M74	01 36 42	+15 47 01	GALAXY	10.0	NGC 628 PHANTOM D=32M, S=98KLY, 10.5x9.5', T=SA(s)c, SB=14.4 FACE-ON. SPIRAL ARMS VISIBLE IN LG SCOPES?
A	M76	01 42 20	+51 34 32	PLANETARY	10.1	NGC650 LITTLE DUMBBELL 67", D=-3.9K
A	GAMMA_AND	02 03 54	+42 19 47	DOUBLE	2.3/5.5	SEP=9.8 PA= 63 K3/? Y/B
A	DOUBLE_CLUSTER	02 19 04	+57 09 00	OPEN	5.3	NGC869, NGC884 C14 D=7.3K AGE=6/14MY. 29.0' AREA=60LY, USE LOWEST MAG
A	NGC891	02 22 33	+42 20 54	GALAXY	9.9	C23 D=30MLY, S=118KLY, 13.5x2.5', T=SA(s)b?, SB=13.7, NICE EDGEON WITH DUST LANE. LOW SB
A	NGC1097	02 46 19	-30 16 30	GALAXY	10.23	D=45M, S=122KLY, 9.3x6.3', , T=(R'_1:)SB(r'I)bSy1, SB=12.5, HUGE ARMS. KNOTS VISIBLE? COMPANION NEAR MAJOR AXIS VISIBLE?
A	NGC1300	03 19 41	-19 24 41	GALAXY	10.4	D=61M, S=124KLY, 7.0x3.4', T=(R')SB(s)bc, SB=13.3. TWO LARGE ARMED BARRED SPIRAL
A	NGC1365	03 33 36	-36 08 26	GALAXY	9.3	D=62M, S=200KLY, 11.2x6.2', T=SB(s)b, SB=12.7, EXCELLENT BARRED SPIRAL OFFSET FROM FORNAX CLUSTER
A	FORNAX_GAL_CL	03 38 30	-35 27 18	GALAXY_CL	ANY	APPROX 20 GALAXIES BRIGHTER THAN 13; USE WIDE FIELD
A	PLEIADES	03 47 00	+24 07 00	OPEN	1.5	M45 D=407LY 110.0', INCLUDES NGC1435 Merope Nebula, A LARGE TEAR_SHAPED REFLECTION NEBULA
A	NGC1501	04 06 59	+60 55 14	PLANETARY	11.5	1', FAINT, MOTTLED; 14.4 CENTRAL STAR VISIBLE WITH 250X
A	NGC1502	04 07 50	+62 19 54	OPEN	5.7	20*, NEAR SE END OF KEMBLE'S CASCADE
A	NGC1535	04 14 16	-12 44 22	PLANETARY	9.6	11.6 MAG CENT STAR, BRIGHT WITH BLUE-GREY DISK 60.0" MULTIPLE SHELLS. EXCELLENT!
A	NGC1907	05 28 05	+35 19 30	OPEN	10.5	RATING:VG EXCELLENT RICH, COMPACT CLUSTER, 50-100*, WITHIN NEBULOSITY (INVISIBLE?)
A	M38	05 28 43	+35 51 18	OPEN	6.4	120*, NGC1912 15' DIAM, D=4.2K NICE CONTRAST WITH NGC1907 OPEN CL 30' SOUTH
A	M1	05 34 32	+22 00 52	NEBULA	8.4	CRAB NEBULA NGC1952 6.0x4.0' D=6.5KLY NOVA IN 1054AD USE OIII FOR KNOT IN CORE AND USE AVERTED VISION, BUT NOT NECESSARY FOR GOOD VIEW

A NGC1981	05 35 09	-04 25 54	OPEN	4.6	Rating:EX BRIGHT SCATTERED GROUP TO NORTH OF M42
A ORION_NEB	05 35 17	-05 23 28	BRIGHT	3.7	M42 NGC1976 D=1.5K 60.0'x90', AREA=40LY, AGE=1MY
A M43	05 35 31	-05 16 12	BRIGHT	6.8	NGC1982 D=1.4K 7.0x4.0' COMMA SHAPED NEBULA
A M36	05 36 18	+34 08 24	OPEN	6	60*, NGC1960 10', D=4.2KLY AGE=20-30MLY, AREA=12LY
A SIGMA_ORI	05 38 45	-02 36 00	TRIPLE	3.8/7.5/10/6.5	13/11/42 84/236/61 STRIKING
A M37	05 52 18	+32 33 12	OPEN	5.6	NGC2099 15' DIAM, D=4.4KLY AREA=20LY, 1900 MEMBERS! YELLOW HEART STAR, SOMEWHAT WEDGE SHAPED CORE REGION
A M35	06 08 54	+24 20 00	OPEN	5.1	50-100*, NGC2168 MEL41 25', D=2.8K, AREA=20LY, OC NGC2158 NEARBY, USE WIDEFIELD FOR BEST CONTRAST. SOME COLORED STARS IN FIELD.
A NGC2174	06 09 42	+20 30 00	BRIGHT	ANY	NEBULA IN NGC2175 OC (20*), 18', 62nd BEST ON SAA100 LIST, USE OIII FILTER AND WIDE FIELD
A ROSETTE_NEBULA	06 32 36	+04 58 50	BRIGHT	5.5	NGC2237 80'x60', D=4.9K, AREA=90LY, USE FILTER AND LOW POWER; CENTRAL CLUSTER IS NGC2244 MEL 47 23.0' AREA=30LY
A HUBBLES_VAR_NEB	06 39 10	+08 44 10	BRIGHT	ANY	NGC2261 3.5x1.5' D=2600ly. COMET LIKE
A M41	06 46 01	-20 45 24	OPEN	4.5	80*, NGC2287 40', D=2.1K, AGE=100MY, AREA=25LY
A NGC2301	06 51 45	+00 27 36	OPEN	6.0	100*, LARGE BRIGHTNESS RANGE, USE MED-LOW POWER. 67th BEST ON SAA100 LIST
A M50	07 02 47	-08 20 16	OPEN	5.9	100*, NGC2323 D=3.3K 15.0', NICE MAGNITUDE GRADIENT AND COLORED ORANGE STAR OFFSET FROM CORE
A H3945	07 16 36	-23 19 00	DOUBLE	4.8/6.8	SEP=26.6 PA=55 K5/F0 Y/B - A FAVORITE
A THORS_HELMET	07 18 30	-13 13 36	BRIGHT	ANY	NGC2359 9'x6', BRIGHT; LOOK FOR NGC 2360 & 2362 NEARBY (ALSO KNOWN AS DUCK). USE OIII FILTER TO SEE SHELL STRUCTURE AND NEARBY NEBULOSITY
A NGC2362	07 18 41	-24 57 18	OPEN	4.1	60*, AGE=1MY, D=5KLY, AREA=8LY, AGE=220Myr, BRIGHTEST STAR IS A FOREGROUND OBJ. 25th BEST SAA100 OBJECT
A ESKIMO	07 29 11	+20 54 42	PLANETARY	8.6	NGC2392 C39 47"x43" MAG 9.8 CENT STAR, D=4.1K
A M47	07 36 35	-14 29 00	OPEN	4.4	NGC2422 NGC 2478 D=1.6K 50-100*, 25.0' AGE=55MY, AREA=14LY, VERY NICE FINDER SCOPE VIEW OF 3 OPEN CLS, NICE MAGNITUDE CONTRAST W BKGND
A NGC2403	07 36 51	+65 36 09	GALAXY	8.5	D=10M, S=64KLY, 21.9'x12.3', T=SAB(s)cd, SB=14.6 OUTLIER OF M81/M82 GROUP. KNOTS VISIBLE?
A M46	07 41 46	-14 48 36	OPEN	6.1	186*, NGC2437 D=5.3KLY 20.0' 50-100*, AGE=300MY, NICE PLANETARY NGC2438 IN FIELD.
A NGC2516	07 58 04	-60 45 12	OPEN	3.8	80* MEL82 C96 29.0' ORANGE HEART STAR PLUS 3 DOUBLES
A NGC2547	08 09 55	-49 12 18	OPEN	4.7	80*, MEL 84, S=20', BRIGHT
A M48	08 13 43	-05 45 00	OPEN	5.8	80* NGC2548 D=1.5K 30.0', USE LOWER POWER.
A M44	08 40 24	+19 40 00	OPEN	3.1	200*, BEEHIVE NGC2632 D=577LY 75.0' AGE=400MY, AREA=11LY, USE LOWEST MAG
A M67	08 51 18	+11 48 00	OPEN	6.9	50-100* NGC2682 D=2.7K 25.0' AREA=19LY, AGE=4-5BY (OLD!).
A NGC2683	08 52 41	+33 25 18	GALAXY	9.8	D=25M, S=68KLY, 9.3x2.2', T=SA(rs)b, SB=12.9, NEARLY EDGE ON SPIRAL
A NGC2818	09 16 01	-36 37 39	OPEN	10	RATING:VG NICE PLANETARY PHYSICALLY INVOLVED WITH A FAINT CLUSTER. LIKE M46
A NGC2903	09 32 10	+21 30 03	GALAXY	9.0	D=38M, S=139KLY, 12.6'x6.0', T=SB(s)d, SB=12.0, VERY LARGE, BRIGHT ELONGATED SPIRAL WITH 2 MAJOR ARMS. VISIBLE?
A NGC2997	09 45 39	-31 11 28	GALAXY	10.06	D=25M, S=65KLY, 8.9x6.8', T=SA(s)c, SB=13.6, GRAND DESIGN FACE ON ARMS VISIBLE?
A M81	09 55 33	+69 03 55	GALAXY	7.9	NGC3031 D=12M S=90KLY, 26.9x14.1', T=SA(s)ab, SB=13.1. ENCOUNTER WITH M82 200MY AGO
A M82	09 55 52	+69 40 47	GALAXY	8.4	CIGAR NGC3034 D=12M, S=40KLY, 11.2x4.3', T=I0, SB=12.3. PAST INTERACTION WITH M81. DARK LANE SPLITTING CORE PART OF HUGE GAS CLOUD.
A TWIN_QUASAR	10 01 21	+55 53 56	GALAXY	17.1	LENSED! D=8.5-9BLY; LENSING CLUSTER DIST=3.5BLY FIND TRAPEZOID NORTH OF N3079. TWIN IS EAST ABOVE TRAPEZOID. NEED 20" OR GREATER TO GLIMPSE IT
A NGC3114	10 02 36	-60 07 12	OPEN	4.5	RATING:SU VERY LARGE, BRIGHT CLUSTER WEST OF THE Eta Carina NEBULA
A SPINDLE	10 05 14	-07 43 07	GALAXY	8.9	NGC3115 C53 D=33M, S=69KLY, 7.2x2.5', T=S0, SB=12.8, LENS SHAPED. 2B*MASS BLACK HOLE. NEAREST BILLION*MASS BLACK HOLE TO EARTH.
A EIGHTBURST	10 07 02	-40 26 11	PLANETARY	8.2	NGC3132 C74 1.4'x0.9' MAG 10.1 CENT STAR, USE UHC, D=4.1K, S=1/2LY
A GHOST_OF_JUPITER	10 24 46	-18 38 33	PLANETARY	8.6	NGC3242 C59 40"x35" MAG 11.0 CENT STAR, Dist3.6K, AGE=10K
A NGC3293	10 35 49	-58 13 48	OPEN	4.7	93*, MEL 100 VERY PRETTY FIELD. CONDENSED SIZE 5.0'
A HYDRA_GAL_CL	10 36 36	-27 31 06	GALAXY_CL	12.6	HYDRA GL CLUSTER, D=116M, 1.8'x1.5', SB=13, LARGE, 50 MEMBERS? MOST OBJECTS IN AND AROUND FIELD ARE GALAXIES. NGC3309 PROMINENT.
A CARINA_NEB	10 44 19	-59 53 21	BRIGHT	6.2	NGC3372 C92 120.0'x120' D=8K
A M105	10 47 50	+12 34 54	GALAXY	9.3	NGC3379 D=32M S=50KLY, 5.4x4.8' T=E1, SB=12.1 150-200M MASS BLACK HOLE; NGC3384 AND 3389 IN SAME FIELD.
A MRK421	11 04 27	+38 12 32	GALAXY	13.8	QUASAR; D=0.5BLY. EASY ID. LOCATED WITH 2 BRIGHT FIELD STARS, IT IS THE FAINTEST OF THE THREE STELLAR OBJECTS
A NGC3532	11 05 39	-58 45 12	OPEN	3	MEL103 C91 55.0' WIDE SPREAD CLUSTER
A M108	11 11 31	+55 40 27	GALAXY	10	NGC3556 D=46M, S=116KLY, 8.7x2.2', T=SB(s)cd, SB=13.6, NICELY MOTTLED. 400B*, 290 GCs. 24M MASS BLACK HOLE AT CORE.
A OWL	11 14 48	+55 01 09	PLANETARY	12	M97 NGC3587 D=2.5K, 3.4' AGE=ESTIMATED=8Kyr.

A M65	11 18 56	+13 05 32	GALAXY	10.3	NGC3623 D=36M S=91KLY 8.8x2.4', T=SAB(rs)a, SB=13.3, SOME STRUCTURE POSSIBLE IN LARGER APERTURES.
A M66	11 20 15	+12 59 29	GALAXY	8.9	NGC3627 D=36M S=95KLY 9.1x4.1', T=SAB(s)b, SB=12.6, MOST PROMINENT MEMBER OF LEO TRIPLET.
A NGC3628	11 20 17	+13 35 22	GALAXY	10.3	D=45MLY, S=95KLY 9.1x4.2', T=SAb pec, SB=12.8, WOBBLY EDGE-ON GALAXY LARGE; SAME FIELD AS M65 AND M66
A LEO_GAL_CL	11 44 45	+19 41 59	GALAXY_CL	14	ABELL1367. MORE GAL>14 MAG THAN ANY GA CLUSTER, D=330MLY, 70+ GALAXIES
A NGC4038	12 01 53	-18 52 03	GALAXY	10.9	ANTENNAE C60 D=65M, S=70KLY, 3.7x1.7', T=SB(s)m pec, SB=13.7, COLLIDING-INTERACTING PAIR. NGC4039 IS OTHER GALAXY.
A NGC4051	12 03 10	+44 31 53	GALAXY	10.83	D=45M, S=62KLY, 4.8'X2.6', T=SABbc, SB=15.4, SEIFERT, 1.7M MASS BLACK HOLE. MOTTLED ARMS VISIBLE?
A M98	12 13 48	+14 54 02	GALAXY	11	NGC4192 D=44.4M, S=126KLY, 9.8x2.7', T=SAB(s)ab, SB=13.5, NEARLY EDGE-ON, SO FAINT AND MORE DIFFICULT TO OBSERVE. RARE BLUESHIFTED GALAXY!
A NGC4216	12 15 54	+13 08 58	GALAXY	9.9	D=64M, S=150KLY, 8.1x1.8', T=SAB(s)b, SB=12.09, NEARLY EDGE ON; WITH NGCs 4206 & 4222 FORMING A VERY PLEASING EDGE ON THREESOME AT DIFFERENT ANGLES
A 2_CVN	12 16 08	+40 39 36	DOUBLE	5.5/8	11 260 R/B
A NGC4244	12 17 30	+37 48 26	GALAXY	10.3	C26 D=15M, S=72KLY, 16.6x1.9', T=Sc, SB=13.5, LARGE DISTINCT EDGE ON SPIRAL
A M99	12 18 50	+14 24 59	GALAXY	10.4	NGC4254 D=50, S=78KLY, 5.4x4.7', T=SA(s)c, SB=13.1, FACE ON SPIRAL, KNOTTED ARMS. LOW MASS RECEDING AT HIGHEST REDSHIFT OF MESSIER OBJs.
A M106	12 18 58	+47 18 13	GALAXY	9.1	NGC4258 D=23MLY, S=124KLY, 18.6x7.2', T=SAB(s)bc, SB=13.5, NGC 4248 IN FIELD
A MRK205	12 21 44	+75 18 38	GALAXY	ANY	QUASAR; D=1BLY. FIELD STAR CLOSEST TO N4319. N4291 IN FIELD HAS 3 BRIGHT POINTER STARS ON OPPOSITE SIDE OF N4319 AS QUASAR
A M61	12 21 55	+04 28 25	GALAXY	10.2	NGC4303 D=52M, S=98KLY, 6.5x5.7', T=SAB(rs)bc, SB=13.3, KNOTS IN ARMS VISIBLE?
A M100	12 22 55	+15 49 21	GALAXY	10.1	NGC4321 D=55M, S=118KLY, 7.4x6.3', T=SAB(s)bc, SB=13.3, FINE GRAND DESIGN; ARMS VISIBLE? EDGE ON NGC4312 IN LOW POWER FIELD
A NGC4361	12 24 31	-18 47 05	PLANETARY	10.3	D=24M, S=100KLY, BRIGHT; WITH 13-MAG CENTRAL STAR
A VIRGO_CLUSTER	12 26 12	+12 56 44	GALAXY	9.8	M86 NGC4406 D=60M, NGC4402 ABOVE, NGC4386 NOSE, NGC4388 MOUTH M84 ALSO IN FIELD. USE LOW MAG
A MARKARIANS_CHAIN	12 26 12	+12 56 44	GALAXY_CL	ANY	START AT M86 AND MOVE THROUGH PAIRS IN FIELD UNTIL REACHING M88
A M87	12 30 49	+12 23 28	GALAXY	9.6	NGC4486 D=60M, S=125KLY, 7.2x6.7', T=E+0-1 pec, SB=12.6, 4 SMALL COMPANIONS IN FIELD
A M88	12 31 59	+14 25 13	GALAXY	10.4	NGC4501 D=47M, S=105KLY, 6.9x3.7', T=SA(rs)b, SEYFERT, SOMETIMES VIEWED AS SMALLER VERSION OF ANDROMEDA GAL
A NGC4536	12 34 27	+02 11 16	GALAXY	11.2	D=53M, S=71KLY, 4.5x2.4', T=SAB(rs)bc, SB=12.9, LARGE 2 ARMED SPIRAL - H2. SMALL COMP IN FIELD.
A NGC4559	12 35 58	+27 57 35	GALAXY	10.5	C36 D=24M, S=75KLY, 10.8x4.3', T=SAB(rs)cd, SB=13.9, LARGE SPIRAL WITH COARSE STRUCTURE
A NGC4565	12 36 21	+25 59 15	GALAXY	10.4	NEEDLE C38 BERNICE'S HAIR CLIP, D=44M, S=200KLY, 15.9x1.8', T=SA(s)b?, SB 15.8, SUPERB EDGE ON SPIRAL WITH DUST LANE. NGC4562 ALSO IN FIELD
A SOMBRERO	12 39 59	-11 37 23	GALAXY	9	M104 NGC4594 D=30M S=76KLY 8.8x3.5', T=SA(s)a, SB=11.4, EDGE-ON WITH PROMINENT DUST AND HALO.
A NGC4631	12 42 08	+32 32 29	GALAXY	9.8	WHALE, C32, D=24M, S=107KLY, 15.4x2.6', T=SB(s)d, SB=12.4, !!LARGE EDGE ON; COMPANION IS NGC4627
A NGC4656	12 43 58	+32 10 13	GALAXY	10.4	HOCKEY STICK, D=23M, S=100KLY, 13.9x2', T=SB(s)m pec, SB=10.6, IN FIELD WITH 4657; NE END CURVES UP
A M94	12 50 53	+41 07 13	GALAXY	9	CROCS EYE NGC4736 D=16M, S=52KLY, 11.2x9.1', T=(R)SA(r)ab, SB=13.0, OUTER RING VISIBLE IN LARGE APERTURES?
A NGC4762	12 52 56	+11 13 51	GALAXY	10.2	D=60M, S=82KLY, 5.1x1.4', T=SB(r)00, SB=12.0, LENTICULAR WITH AGN; FLATTEST KNOWN GALAXY
A JEWEL_BOX	12 53 39	-60 21 42	OPEN	4.2	NGC4755 C94 10.0'
A BLACKEYE	12 56 44	+21 40 57	GALAXY	9.4	M64 NGC4826 D=24M, S=75KLY, 10.7x5.1', T=(R)SA(rs)ab, SB=12.6, 100B*. DISTANCE ESTIMATE IS VERY UNCERTAIN AS GALAXY HAS NO KNOWN CEPHEID VAR STARS.
A COMA_CLUSTER	12 59 49	+27 58 50	GALAXY_CL	12.5	COMA GALAXY CLUSTER; ABELL 1656 C35 2.8x2.2' 300MLY DISTANT, OVER 1000 MEMBERS, USE LOW MAG
A M53	13 12 55	+18 10 05	GLOBULAR	7.7	NGC5024 D=59K S=223LY, 13.0'
A CENTAURUS_A	13 25 28	-43 01 09	GALAXY	7.8	NGC5128 C77 D=12M S=90KLY, 25.8x20.0', T=S0 pec, SB=13.4, CLOSEST ELLIPTICAL WITH EQUATORIAL DUST LANE; COLLISION WITH SPIRAL? - VERY NICE
A OMEGA_CENTAURUS	13 26 47	-47 28 46	GLOBULAR	3.9	NGC5139 C80 D=16K S=255LY, 55.0'
A M51	13 29 53	+47 11 43	GALAXY	9	WHIRLPOOL NGC5194 D=23M, S=75KLY, 11.2x6.9', T=SA(s)bc pec, SB=12.6, NGC5195 COMPANION. LORD ROSSE 1845 SPIRAL NEBULA. HUBBLE LATER PROVED AS GALAXY.
A M83	13 37 01	-29 51 57	GALAXY	7.5	NGC5236 D=15M S=56KLY, 12.8x11.4', T=SAB(s)c, SB=12.7, NICE BARRED SPIRAL. FIRST GALAXY DISCOVERED OUTSIDE LOCAL GROUP.

A NGC5247	13 38 03	-17 53 03	GALAXY	10.5	D=72M, S=105KLY, 5.5'x4.0', T=Sc, SB=13.9, FACE-ON; ARMS VISABLE?
A M3	13 42 12	+28 22 38	GLOBULAR	6.3	NGC5272 D=34K S=108LY 11.0'
A HICKSON68	13 53 41	+40 19 07	GALAXY_CL	11.8	NGC 5353 NGC5354, NGC5350. D=100M; LARGER NGC5371 OFFSET 30' EAST
A M101	14 03 13	+54 20 55	GALAXY	8.3	NGC5457 D=21M, S=176KLY, 28.6x26.9', T=SAB(rs)cd, SB=14.8, 1TRILLION*, ARMS, KNOTS, H2 REGIONS; USE LOW-MEDIUM POWER FOR CONTRAST
A NGC5634	14 29 37	-05 58 35	GLOBULAR	9.5	5', D=89KLY, S=129LY, TIGHT CORE; LOOK FOR DARK SLICE THROUGH EDGE..VISUAL EFFECT CAUSED BY MISSING LANE OF STARS
A NGC5746	14 44 56	+01 57 17	GALAXY	10.6	D=95M, S=157KLY, 5.7x1.5', T=SB(r)bc, SB=17.8?, FINE EDGE ON NEAR 109 VIRGINIS
A NGC5907	15 15 54	+56 19 44	GALAXY	11.1	D=53M, S=195KLY, 12.7x1.4', T=Sb+, SB=LOW FINE EDGE ON WITH DUST LANE; NEAR 5866
A M5	15 18 33	+02 04 52	GLOBULAR	5.7	NGC5904 D=25K S=167LY 23.0'
A NGC5982	15 38 40	+59 21 21	GALAXY_CL	12.0	D=140M, S=150KLY, 3.2x2.1', T=E3, SB=13.3, TRIPLE SET; NICE FIELD - H764
A M80	16 17 02	-22 58 34	GLOBULAR	7.3	NGC6093 D=33K S=95LY 10.0'
A M4	16 23 35	-26 31 33	GLOBULAR	5.4	NGC6121 D=7.2K S=54LY 26.0'
A M13	16 41 42	+36 27 41	GLOBULAR	5.8	NGC6205 D=22K S=127LY 20.0' AGE=11.6Byr 300K*
A NGC6207	16 43 04	+36 49 57	GALAXY	12.2	D=64M, S=62KLY, 3.3x1.7', T=SA(s)c, SB=12.4, SMALL GALAXY OFFSET FROM M13 FIELD
A NGC6210	16 44 29	+23 48 00	PLANETARY	9.5	D=1-2KLY Rating:VG UNUSUALLY HIGH SURFACE BRIGHTNESS WITH BLUISH COLOR
A M12	16 47 14	-01 56 55	GLOBULAR	6.1	NGC6218 D=16K S=70LY, 16.0'
A NGC6231	16 54 09	-41 49 36	OPEN	2.6	MEL153 C76 14.0' D=4KLY LARGE BRIGHTNESS RANGE, <50*
A M10	16 57 09	-04 06 01	GLOBULAR	6.6	NGC6254 D=14K S=80LY, 20.0'
A M62	17 01 13	-30 06 44	GLOBULAR	6.4	NGC6266 D=22K S=96LY 15.0'
A M19	17 02 38	-26 16 05	GLOBULAR	6.8	NGC6273 D=29K S=143LY 17.0'
A ALPHA_HER	17 14 39	+14 23 26	DOUBLE	3/5.5	5 110 O/BG EXCELLENT CONTRAST
A M92	17 17 07	+43 08 09	GLOBULAR	6.5	NGC6341 D=27K S=109LY 14.0' AGE=14.2Byr 330K* POSSIBLY THE OLDEST GLOBULAR IN MILKY WAY.
A LITTLE_GHOST	17 29 20	-23 45 35	PLANETARY	10.4	NGC6369; LOOK FOR NGC 6309 NEARBY
A M6	17 40 20	-32 15 12	OPEN	4.2	BUTTERFLY CLUSTER NGC6405 D=1.6K 80*, S=12LY AGE=94.2Myr 25.0' USE LOW POWER
A M7	17 53 51	-34 47 36	OPEN	3.3	PTOLEMY'S CLUSTER NGC6475 D=1K 80*, S=25LY AGE=220Myr 80.0', USE MED OR LOW POWER.
A M23	17 57 04	-18 59 06	OPEN	6.9	NGC6494 D=2.1K S=15LY 25.0'
A CATS_EYE	17 58 33	+66 37 59	PLANETARY	8.8	C6 NGC6543 20.0" MAG 11 CENTRAL STAR
A TRIFID	18 02 42	-22 58 18	BRIGHT	9	M20 NGC6514 D=5.2K, S=30LY 20.0' MEDIUM AND LOW MAG WORKS WELL.
A INKSPOT	18 02 59	-27 52 00	DARK	ANY	B86 5.0' INCLUDES NGC6520 60* in field
A LAGOON	18 03 37	-24 23 12	BRIGHT	5	M8 NGC6523 D=4.1K S=107LY 90.0x40.0', USE LOW MAG AND FILTER.
A M21	18 04 13	-22 29 24	OPEN	6.5	NGC6531 16' D=4.25K <60* S=19LY AGE=4.6Myr VERY YOUNG CLUSTER!
A M24	18 16 48	-18 33 00	OPEN	ANY	SMALL-SAG-STAR_CLOUD D=10K S=600LY 90.0' DENSEST CONCENTRATION OF STARS, 1K* IN BINOCs. USE LOW POWER
A M16	18 18 48	-13 48 24	OPEN	6	EAGLE NEBULA NGC6611 D=7K S=70x55LY LARGEST PILLAR IS 4LY TALL. OPEN CLUSTER IS 6.0', 15LY WIDE, WITH 460*, 1-2Myr YOUNG.
A M17	18 20 47	-16 10 18	BRIGHT	6.0	SWAN, OMEGA, HORSESHOE, NGC6618 D=5.5K, S=15LY 11.0x6.0' 800*MASSES, ONE OF LARGEST H2 REGIONS IN MILKY WAY. 1Myr YOUNG.
A M25	18 31 47	-19 07 00	OPEN	4.6	NGC4725 D=2KLY, S=19LY 60* VISIBLE, 600* IN CLUSTER. AGE=90Myr
A T_LYR	18 32 20	+36 59 56	STAR	7.57	CARBON
A M22	18 36 24	-23 54 17	GLOBULAR	5.2	NGC6656 D=10K, S=99LY, AGE=12Byr, 32.0' 83K STARS, 500K COMBINED *MASS. 2 BLACK HOLES IN CLUSTER CORE.
A M11	18 51 05	-06 16 12	OPEN	6.3	WILD DUCK NGC6705 D=6K S=24LY, 2900* TOTAL IN CLUSTER. 14.0' AGE=220Myr
A M57	18 53 35	+33 01 45	PLANETARY	9.7	NGC6720 RING NEBULA D=2.0K, 3.8x2.4"
A V_AQL	19 04 24	-05 41 05	STAR	6.48	CARBON
A NGC6752	19 10 52	-59 59 04	GLOBULAR	5.3	D=13KLY, S=75LY, 20' HUGE, BUT SOUTHERN.
A NGC6781	19 18 28	+06 32 19	PLANETARY	11.8	1.8' PALE VERSION OF M97 (OWL)
A ALBIREO	19 30 43	+27 57 35	DOUBLE	3.1	SUPERB DOUBLE STAR; BLUE/GOLD
A M55	19 40 00	-30 57 53	GLOBULAR	7.4	NGC6809 D=18K S=99LY, 19.0' 270K*MASSES, 100K STARS. AGE=12.3Byr. METAL POOR.
A BLINKING_PLANETARY	19 44 48	+50 31 30	PLANETARY	9.8	NGC6826 C15 38.0", 10.4 MAG CENTRAL STAR
A DUMBBELL	19 59 36	+22 43 16	PLANETARY	7.6	M27 NGC6853 D=1K 6.7'
A H1470_CYG	20 03 39	+38 20 06	DOUBLE	7/9.0	29 337 Y/G
A NGC6946	20 34 52	+60 09 13	GALAXY	8.9	D=22M, S=74KLY, 11.5x9.8', T=SAB(rs)cd, SB=14.5, FAINT, DIFFUSE FACE ON SPIRAL NEAR 6939
A VEIL_WEST	20 45 38	+30 42 30	NEBULA	ANY	NGC6960 C34 D=1.5K, S=95LY FRAGMENT 60.0x9.0', USE LOW MAG AND FILTER
A VEIL_EAST	20 56 19	+31 44 36	NEBULA	ANY	NGC6992 C33 D=1.5K, S=100LY FRAGMENT 80.0x26.0', USE LOW MAG AND FILTER
A B352	20 57 12	+45 53 00	DARK	ANY	20X10 LIES NORTH OF NORTH AMERICAN NEBULA
A NGC7008	21 00 33	+54 32 36	PLANETARY	13.3	S=86X69" CENT STAR=13.2 BRIGHT NEBULAE - H192
A SATURN_NEBULA	21 04 11	-11 21 49	PLANETARY	8.3	NGC7009 C55 70.0" SMALL GREEN OVAL

A M15	21 29 58 +12 10 01	GLOBULAR	6.2	NGC7078 D=33K S=175LY, AGE=12Byr, 18.0', BLACK HOLE CORE. >100K* TOTAL, 30K* IN CORE 22LY AREA.
A M2	21 33 27 -00 49 24	GLOBULAR	6.3	NGC7089 D=37K S=175LY, 16.0' AGE=13Byr 150K*MASS
A M30	21 40 22 -23 10 47	GLOBULAR	7.7	NGC7099 D=27K S=94LY, 12.0' AGE=13Byr 160K*MASS RETROGRADE ORBIT THROUGH MILKY WAY
A MU CEP	21 43 30 +58 46 48	STAR	4.23	HERSCHEL'S GARNET STAR TYPE=M2IA
A IC5148	21 59 35 -39 23 08	PLANETARY	12.9	2.2', CENT STAR=16.5, MULTIPLE SHELLS VISIBLE?
A HELIX	22 29 38 -20 50 14	PLANETARY	7.5	NGC7293 C63 16.0'
A NGC7479	23 04 57 +12 19 22	GALAXY	10.9	C44 D=120M, S=143KLY, 4.1x3.1', T=SB(s)c, SB=13.4, EXCELLENT BARRED SPIRAL
A M52	23 24 48 +61 35 36	OPEN	6.9	NGC7654 200*, S=16.0' D=5.1K AGE=20MY
A BLUE_SNOWBALL	23 25 54 +42 32 06	PLANETARY	8.6	NGC7662 C22 17x14", 13.2 MAG CENTRAL STAR

#Rank	Name	RA	DEC	Type	Mag	Description
B NGC7814	00 03 15 +16 08 45	GALAXY	11.6	LITTLE SOMBRERO D=40M, S=60KLY, 6.3'x2.2', T=SA(S)ab, SB=12.9, SMALL EDGE-ON WITH DUST LANE. PROPERTIES VERY SIMILAR TO SOMBRERO.		
B NGC104	00 24 10 -72 04 37	GLOBULAR	4.0	47 TUCANAE		
B NGC129	00 29 54 +60 13 60	OPEN	6.5	Cl, vL, pR, lC, st 9...13 triangular cluster w/ 10th-mag & fainter stars		
B NGC134	00 30 22 -33 14 44	GALAXY	11.23	D=60MLY, S=147KLY, 8.4'x1.8', T=Sbc, SB=12.9, EDGE ON MOTTLED?		
B NGC157	00 34 47 -08 24 03	GALAXY	11	D=76M, S=90Kly, 4.2x2.7', T=SAB(rs)bc, SB=12.7, SMALL TIGHT SPIRAL. KNOTS?		
B NGC185	00 38 58 +48 20 18	GALAXY	9.2	C18 D=2MLY, S=7Kly, 11.7x10.0, T=dSph/DE3, SB=14.1, DWARF SPHEROIDAL. POSSIBLE SEYFERT AGN. M31 COMPANION; PAIRED WITH NGC 147		
B NGC225	00 43 24 +61 46 60	OPEN	7	Cl, L, lC, st 9...10 fairly bright but scattered group		
B NGC188	00 44 26 +85 20 12	OPEN	9.5	Rating:VG ONE OF OLDEST KNOW OPEN CLUSTERS AGE=5Byr?		
B NGC278	00 52 05 +47 33 01	GALAXY	11.5	D=38M, S=23Kly, 2.1x2.0', T=SAB(rs)b, SB=11.5, HIGH SURFACE BRIGHTNESS FACE-ON.		
B NGC288	00 52 48 -26 34 60	GLOBULAR	9	Rating:EX well resolved globular 1.7 deg SE of NGC 253		
B NGC281	00 52 48 +56 36 00	BRIGHT	ANY	LARGE FAINT NEBULOSITY NEAR ETA CAS WITH EMBEDDED OC USE OIII FILTER		
B NGC300	00 54 54 -37 40 57	GALAXY	8.1	C70 D=6M, S=38Kly, 21.9x15.5', T=SA(s)d, SB=14.2, LARGE, BUT LOW SB. SIMILAR CHARACTERISTICS TO TRIANGULUM GAL.		
B NGC362	01 03 12 -70 51 00	GLOBULAR	6.4	SIZE=18'		
B HR310	01 05 41 +21 28 24	TRIPLE	5.3/5.6	Psi Psc, SA074482, HD6456, Psi Psc, 74 Psc wide separation; similar magnitudes		
B NGC404	01 09 27 +35 43 08	GALAXY	11.2	D=10M, SB=11.6, SIZE=3.4'X3.4', MIRACH'S GHOST, SMALL LENTICULAR.		
B NGC436	01 15 34 +58 48 55	OPEN	9.5	Rating:VG rich and compact - distinctive group		
B NGC520	01 24 35 +03 47 50	GALAXY	12.2	D=80M, S=100KLY, 4.5', T=Pec, SB=12.5, UNUSUAL DISTORED COLLISION STARTING 300Myr AGO. ARP 157.		
B NGC559	01 29 22 +63 16 48	OPEN	9.5	C8 4.4', BRIGHT, PRETTY LARGE, WESTWARD RICH IN STARS		
B NGC613	01 34 17 -29 24 58	GALAXY	11	D=65M, S=100Kly, 5.2x2.6', T=SBbc(rs), SB=15.2, BARRED SPIRAL, ARMS VISIBLE? - H281		
B Tr1	01 35 40 +61 17 07	OPEN	8.1	Cr 15, OCL 328, Lund 48, C 0132+610, OCISM 76 distinctive, small group		
B NGC654	01 44 06 +61 53 00	OPEN	6.5	50*, SIZE=5', 32nd BEST SAA100 OBJECT		
B NGC663	01 46 00 +61 15 00	OPEN	7.1	C10 MEL11 80*, SIZE=16.0' PROMINENT N-S SPLIT THROUGH CENTER		
B NGC672	01 47 53 +27 26 01	GALAXY	11.4	D=27M, S=51KLY, 6.5x1.8', T=SB(s)cd, SB=13.8, LARGE DIFFUSE SPIRAL IN A GROUP		
B NGC752	01 57 47 +37 40 17	OPEN	6.5	Rating:VG very large, bright cluster - good in binocs		
B NGC772	01 59 20 +19 00 22	GALAXY	11.1	D=100M, S=100KLY, 7.2x4.3', T=SA(s)b, SB=13.1, OVAL WITH VERY BRIGHT CORE AND SINGLE ARM - VISIBLE?		
B STOCK2	02 15 00 +59 15 58	OPEN	4.4	50*, MUSTLE MAN CLUSTER		
B NGC908	02 23 05 -21 13 59	GALAXY	11	D=60M, S=105Kly, SIZE=6.0'X2.6' T=SA(s)c, SB=13.0, TIGHT BRIGHT 3 ARMED SPIRAL - H153 ARMS LIKELY NOT VISIBLE.		
B NGC925	02 27 17 +33 34 42	GALAXY	10.6	D=30M, S=92KLY, 10.5x5.9', T=SB(s)d. SB=13.3, LARGE ELONGATED 2 ARM SPIRAL - LOOK FOR BAR SOUTH ARM IS STRONGER THAN NORTH ARM.		
B NGC936	02 27 38 -01 09 17	GALAXY	11.1	D=60M, S=82KLY, 4.7x4.1', T=SB(rs)0, SB=13.3, DARTH VADER'S GALAXY. BARRED LENTICULAR. UNUSUALLY BRIGHT CORE.		
B IC1805	02 32 42 +61 27 00	OPEN	6.5	Cl, co, eL neby extends f bright but scattered cluster, surr by faint nebulosity		
B NGC957	02 33 37 +57 31 34	OPEN	7	Rating:VG fairly rich - near Double Cluster		
B NGC1023	02 40 24 +39 03 46	GALAXY	9.3	D=30-60MLY. S=100KLY, 8.6x4.2', T=SB(rs)0, SB=11.8, THE PERSEUS LENTICULAR. BRIGHT. NEAR M34		
B NGC1055	02 41 45 +00 26 31	GALAXY	11.5	D=60M, S=100KLY, 8'X4', T=Sb, SB=12.9, DUSTY EDGE ON - H6		
B M34	02 42 06 +42 45 00	OPEN	5.2	NGC1039 25', DIST-1.45K AGE=100MY, AREA=10LY DIAM		
B M77	02 42 42 -00 00 48	GALAXY	8.9	CETUS A, NGC1068 D=47M, S=170KLY, 7.1x6.0', T=(R)SA(rs)b, SB=13.2, BRIGHTEST AND NEAREST SEYFERT TYPE 2. ONE OF LARGEST MESSIER GALS.		

B NGC1027	02 42 42	+61 32 60	OPEN	6.7	Cl, L, sc st, one 10m mixture of bright & faint stars surr 7th-mag star
B NGC1232	03 09 48	-20 35 00	GALAXY	10.0	D=60M, S=200Kly, 7.4x6.5', T=SAB(rs)c, SB=13.8, FACE ON CCW SPIRAL; LOOK FOR NGC 1300 NEARBY
B Tr3	03 11 48	+63 15 00	OPEN	7	Harvard 1,Cr 36,OCL 366,Lund 101,C 0307+630 several 9th-mag stars in a circular cluster
B NGC1261	03 12 15	-55 13 01	GLOBULAR	8.3	SIZE=6.8', TIGHT CORE
B NGC1245	03 14 38	+47 14 32	OPEN	9	Rating:VG very rich in faint stars
B St23	03 16 18	+60 01 60	OPEN	ANY	OCL 375,Lund 104,C 0312+598 large, loose cluster, nice in binocs
B NGC1291	03 17 18	+41 06 30	GALAXY	9.4	D=33M, S=94Kly, 9.8'x8.1', T=R_1(SB(I)0/a, SB=11.4, LARGE RING (NOT VISIBLE)
B NGC1275	03 19 48	+41 30 42	GALAXY	11.9	C24 PERSEUS A. D=300MLY, S=192KLY, 2.2x1.7' T=cD;pec, SB=14.3, CORE OF PERSEUS GALAXY CLUSTER. 530 MEMBERS; PART OF PP SUPERCLUSTER
B NGC1316	03 22 41	-37 12 28	GALAXY	9.3	D=60M, S=209Kly, 12.0x8.5', T=(R')SAB(s)0, SB=11.6, FORNAX A, BRIGHT WITH INTENSE CORE. 4 th BRIGHTEST RADIO SOURCE IN SKY.
B NGC1350	03 31 08	-33 37 44	GALAXY	11.2	D=87M, S=130KLY, 5.2x2.8', T=Sa(r), SB=12.4, BRIGHT OVAL AT NORTH SIDE OF FORNAX CLUSTER
B NGC1342	03 31 37	+37 20 04	OPEN	7	Rating:VG large, scattered group - use low power
B NGC1360	03 33 18	-25 51 00	PLANETARY	9.4	DIST-1.5KLY, 9'x5', 11.5 MAG CENTRAL STAR
B NGC1380	03 36 27	-34 58 33	GALAXY	10.9	D=60M, S=80KLY, 4.8x2.3', T=SA0, SB=11.5, LENTICULAR, BRIGHT MEMBER OF THE FORNAX CLUSTER
B NGC1399	03 38 29	-35 26 58	GALAXY	10.4	D=65M, S=54KLY, 3.9x3.9', T=Elp, PROMINENT ELIPTICAL IN CORE OF THE FORNAX CLUSTER
B NGC1398	03 38 52	-26 20 11	GALAXY	10.6	D=65M, S=135KLY, 7.1x5.4', T=(R')SB(r)ab, SB=13.2, SLIGHTLY ELONGATED WITH PROMINENT CORE. GALAXY HAS A DOUBLE RING (NOT VISIBLE)
B NGC1433	03 42 01	-47 13 19	GALAXY	10.7	D=32M, S=60KLY, 6.5'x5.9', T=(R'_1)SB(rs)ab, SB=12.8, FACE ON SEYFERT, NICE BAR & RING VISIBLE?
B NGC1448	03 44 32	-44 38 40	GALAXY	11.4	D=55M, S=121KLY, 7.6'x1.7', T=SAcd, SB=12.8, EDGE-ON SPIRAL
B KEMBLESCASCADE	03 57 30	+63 04 13	ASTERISM	ANY	BEAUTIFUL CHAIN OF ABOUT 20 MAG. 8 STARS;
B NGC5112	04 03 54	-43 20 58	GALAXY	12.5	D=114M, S=76Kly, 2.3x0.7', T=SB(rs)cd, SB=12.8, Levy list addition. Round galaxy eF ringed,
B NGC1512	04 03 54	-43 20 59	GALAXY	11.13	D=38M, S=98KLY, 8.9'x5.6', T=SB(r)ab, SB=12.4, DOUBLE RINGED (NOT VIS) AND BAR (THETA), COMPANION IN FIELD
B NGC1532	04 12 03	-32 53 19	GALAXY	10.65	D=50M, S=180KLY, 12.6x3.3',T=SB(s)b pec, SB=12.9, INTERACTING PAIR WITH DUST?
B NGC1528	04 15 24	+51 14 43	OPEN	6.5	Rating:VG larger cluster, use low power
B NGC1566	04 20 00	-54 56 18	GALAXY	10.33	D=12M, S=30KLY, 8.3'x6.6', T=SABbc, SB=12.7, FACE-ON, TWO ARMS VISIBLE? DOMINANT MEMBER OF THE DORADO GROUP. ONE OF BRIGHTEST SEYFERTS.
B NGC1545	04 20 53	+50 15 32	OPEN	8	Rating:VG includes chains of faint stars and a pretty double star
B NGC1672	04 45 42	-59 14 57	GALAXY	10.28	D=60M, S=75KLY, 6.6'x5.4', T=(R')SB(r)bc, SB=12.8, SEYFERT TYPE 2; BAR HAS HIGH BRIGHTNESS IN CORE. ARMS VISIBLE?
B NGC1792	05 05 15	-37 58 47	GALAXY	10.8	D=50M, S=80KLY, 5.5x2.5', T=Sc, SB=12.5, MODERATELY BRIGHT SPIRAL.
B NGC1808	05 07 43	-37 30 52	GALAXY	10.8	D=40M, S=49KLY, 4.2x1.8', T=(R)SAB(s)a, SB=11.8, VERY ELONGATED PLEASING SPIRAL. SEYFERT ACTIVE STARBURST CORE.
B NGC1851	05 14 06	-40 02 50	GLOBULAR	7.3	C73 11.0' AGE=14BY?
B NGC1857	05 20 02	+39 21 29	OPEN	8.5	Rating:VG, 50-100*, includes a mag 7.5 star - rich in faint stars
B M79	05 24 11	-24 31 27	GLOBULAR	7.7	NGC1904 6', DIST=43KLY AREA=75LY, RECEDING AT 143MILES/SEC
B IC418	05 27 28	-12 41 50	PLANETARY	10.7	40TH BEST ON SAA100 LIST
B NGC1973	05 35 06	-04 44 00	BRIGHT	ANY	NEAR M42 AND M43; OFTEN NEGLECTED; PART OF RUNNING MAN NEBULA
B NGC2070	05 38 00	-69 06 00	BRIGHT	ANY	TARANTULA NEBULA, VERY BRIGHT, VERY LARGE, LOOPED
B HORSEHEAD	05 40 59	-02 27 30	DARK	ANY	B33 NEEDS HB FILTER; VERY FAINT.
B FLAME_NEBULA	05 41 43	-01 54 17	BRIGHT	ANY	NGC2024 BRIGHT BUT MASKED FROM GLOW OF ZETA ORI
B M78	05 46 42	+00 03 00	BRIGHT	8.3	NGC2068 8.4x7.8' DIST-1.6KLY
B NGC2129	06 01 07	+23 19 15	OPEN	6.7	40*, SIZE=7.0' COARSELY SCATTERED - H26
B NGC2158	06 07 30	+24 06 00	OPEN	8.6	100*, 5', DIST=13K, NICE CONTRAST TO nearby M35, 60th BEST ON SAA100 LIST
B NGC2169	06 08 24	+13 57 00	OPEN	5.9	30*, 6', 61st BEST ON SAA100 LIST, NICE MAGNITUDE CONTRAST ASTERISM THAT RESEMBLES LEO
B NGC2264	06 41 06	+09 53 00	OPEN	3.9	CHRISTMAS TREE CLUSTER, CONE NEBULA INCLUDED. Dist=1200Ly. Low Power.
B NGC2266	06 43 20	+26 58 12	OPEN	9.5	50-100*, SIZE=7.0' VERY COMPRESSED AND RICH - H21
B NGC2281	06 49 18	+41 04 00	OPEN	5.4	50-100*, Cl, pRi, vlc, st pL bright, loose group contains several doubles, use Med-Low Power
B NGC2353	07 14 41	-10 17 39	OPEN	5	Rating:VG includes mag 6 star on south side - use low power
B NGC2371	07 25 35	+29 29 26	PLANETARY	13.0	GEMINI NEBULA, Dist=1k, 11.3 55", FAINT DOUBLE LOBED; USE FILTER. MAG 14.8 CENT STAR
B MEDUSA_NEBULA	07 29 02	+13 14 15	PLANETARY	10.3	PK205+14.1, CRESCENT SHAPE, USE FILTER; MAG 16 CENT STAR
B NGC2420	07 38 24	+21 34 24	OPEN	8.3	100*, SIZE=10.0' VERY COMPRESSED AND RICH - H1
B NGC2439	07 40 48	-31 38 60	OPEN	7	Rating:EX rich, 100*, pleasing cluster includes mag 6.7 R Puppis on the NE edge
B M93	07 44 30	-23 51 12	OPEN	6.2	NGC2447 DIST=3.6K 50*, 10.0' ARROWHEAD SHAPE
B NGC2451	07 45 24	-37 58 00	OPEN	3.5	Rating:SU bright scattered naked-eye cluster including mag 3.6 c Puppis. Use Med-Low power.
B NGC2477	07 52 18	-38 33 00	OPEN	5.8	200*, MEL78 C71 27.0' AGE=1-1.2BY, Large Brightness Range.
B NGC2467	07 52 30	-26 24 00	BRIGHT	7.1	4'x3' NEBULA IN RICH CLUSTER. Dist=3.2ly, USE UHC OR O-III FILTER
B NGC2506	08 00 12	-10 47 00	OPEN	7.6	150*, MEL80 C54 7.0' AGE=2-3BY?

B IC2395	08 41 06	-48 12 00	OPEN	4.6	Cl, co large, bright cluster
B NGC2841	09 22 02	+50 58 40	GALAXY	10.1	D=46M, S=150Kly, 8.1x3.5', T=SA(r)b, SB=12.1, CLASSIC ELONGATED SPIRAL; VERY BRIGHT SB=12.4
B NGC2976	09 47 18	+67 55 00	GALAXY	11.5	D=12M, S=21KLY, 5.9x2.7', T=SAC pec, SB=12.7, NEAR, LARGE, BRT, OVAL, LOOKS LIKE SMALL M1, H285
B NGC3079	10 01 57	+55 40 35	GALAXY	11.5	D=60M, S=150Kly, 8.7x1.6', T=Sbc, SB=12.3, EDGE ON - H47
B NGC3201	10 17 37	-46 24 40	GLOBULAR	6.8	C79 20.0' INTERESTING RETROGRADE GALACTIC ORBIT
B HICKSON44	10 18 00	+21 48 44	GALAXY	11.2	NGC 3190; ARP 316, D=100M, 4.1'x1.6', 4 GALAXIES IN GROUP WITH DIFFERENT SHAPES AND NICE GEOMETRY
B NGC3184	10 18 17	+41 25 28	GALAXY	10.4	D=40M, S=90KLY, 7.4x6.9', T=SA(s)b, LARGE, FAINT FACE ON SPIRAL SB=14.0, ARMS VISIBLE?
B NGC3227	10 23 30	+19 52 00	GALAXY	11.7	D=77M, S=120KLY, 5.4x3.6', T=SAB(s)pec, SB=13.5, INTERACTING WITH DWARF NGC3226. SEYFERT. H29
B NGC3310	10 38 48	+53 30 00	GALAXY	11.2	D=46M, S=25KLY, 3.1x2.4, T=SAB(r)bc pec, SB=12.4, FAINT HALO VISIBLE, LIES NEAR A BRIGHT RED STAR
B M95	10 43 58	+11 42 13	GALAXY	11.4	THETA GALAXY NGC3351 D=33M S=30Kly, 3.1x2.9', T=SBb, SB=13.5 40B*, RECEDING AT 800 KM/SEC
B M96	10 46 46	+11 49 12	GALAXY	10.1	NGC3368 D=31M S=100Kly, 7.6x5.2', T=SAB(rs)ab, SB=12.9 100B*, RINGED FACE-ON SPIRAL; RING NOT VISIBLE
B NGC3395	10 49 48	+32 59 00	GALAXY	12.1	D=85M, S=52KLY, 2.1x1.2', T=IBm pec, SB=12.2, INTERACTING PAIR WITH NGC3396, H116
B NGC3432	10 52 32	+36 37 16	GALAXY	11.7	D=68M, S=122KLY, 6.8x1.5', T=SB(s)m, SB=13.6, NEARLY EDGE ON; FAINT FLAT STREAK
B NGC3521	11 05 49	-00 02 06	GALAXY	11.0	D=35M, S=110Kly, 11.0x5.1, T=SAB(rs)bc, SB=11.8, VERY LARGE, BRIGHT SPIRAL
B NGC3621	11 18 16	-32 48 49	GALAXY	9.9	D=21M, S=93KLY, 10'X6.5' T=SA(s)d, SB=12.9, KNOTS/MOTTILING VISIBLE? - H241
B NGC3631	11 21 03	+53 10 10	GALAXY	11	D=35M, S=60Kly, 5.0'X4.8' T=SA(s)c, SB=15.3, FACE ON WITH 2 LARGE ARMS, 25M*MASS BLACK HOLE. KNOTS?- H226
B NGC3675	11 26 06	+43 35 00	GALAXY	10.4	D=53M, S=91KLY, 5.9x3.1', T=SA(s)b, SB=13.2, IN FIELD OF 56 UMA
B NGC3718	11 32 35	+53 04 05	GALAXY	10.7	D=55M, S=46Kly, 2.9x2.4', T=SB(s)a pec, SB=12.4, MULTI-GALAXY SYSTEM WITH NGC3729. HICKSON56-400MLY IN FIELD 8' SOUTH
B NGC3726	11 33 21	+47 01 45	GALAXY	10.2	D=45M, S=81Kly, 6.2x4.3', T=SAB(r)c, SB=14.2, FACE ON - H730
B NGC3766	11 36 00	-61 37 00	OPEN	5.3	PRETTY LARGE, WESTWARD RICH IN STARS, WESTWARD COMPRESSED, STARS OF MAG 8 TO 13
B NGC3877	11 46 08	+47 29 41	GALAXY	10.9	D=50M, S=64Kly, 4.4x0.8', T=SC, SB=13.5, EDGE ON; SAME FIELD AS CHI UMA
B NGC3893	11 48 38	+48 42 38	GALAXY	10.2	D=50M, S=65Kly, 4.5'x2.7', T=SAB(rs)c, SB=12.4, TWO MAIN ARMS (1 VISIBLE/MOTTLED?) BRIGHT CORE
B NGC3938	11 52 49	+44 07 13	GALAXY	10.9	D=43M, S=67Kly, 5.4x4.9', T=SA(s)c, SB=13.2 GRAND DESIGN FACE ON
B NGC3953	11 53 49	+52 19 36	GALAXY	10.8	D=68M, S=128Kly, 6.5x3.4', T=SB(r)bc, SB=14.5, BRIGHT CORE - H45 MESSIER 109B OBJECT OBSERVED BUT MISTAKENLY RECORDED.
B M109	11 57 36	+53 22 35	GALAXY	10.6	NGC3992 D=83M, S=180KLY, 7.6x4.6', T=SB(rs)bc, SB=14.2, BARRED FACE ON SPIRAL. 1 TRILLION STARS.
B NGC4026	11 59 25	+50 57 43	GALAXY	11.7	D=52M, S=79Kly, 5.2x1.3', T=S0, SB=12.9, EDGE-ON LENTICULAR GALAXY WITH 200M*MASS BLACK HOLE.
B NGC4027	11 59 30	-19 16 05	GALAXY	11.6	D=83M, S=77KLY, 3.2x2.4', T=SB(s)dm, SB=12.8, UNUSUAL ONE-ARMED GALAXY, LIKELY FROM COLLISION IN PAST
B NGC4088	12 05 34	+50 32 23	GALAXY	11.2	D=61M, S=105Kly, 5.9'x2.2', T=SAB(rs)bc, SB=14.1, BRIGHT TIGHT ARMS MOTTILING VISIBLE?- H206. ARP 18 DESIGNATION FOR DETACHED ARM.
B NGC4096	12 06 01	+47 28 31	GALAXY	11.5	D=42M, S=68Kly, 5.6x1.6', T=Sc, SB=14.1, large, elongated spiral with a bright core
B NGC4111	12 07 03	+43 03 56	GALAXY	10.8	D=50M, S=67Kly, 4.6x1.0', T=SA(r)0, SB=10.6, BRIGHT EDGE ON WITH OTHER EDGE-ONS IN FIELD
B NGC4157	12 11 06	+50 29 00	GALAXY	11.9	D=62M, S=108KLY, 6.0x1.7', A THIN SLIVER, NGC4026 AND NGC4088 NEAR
B NGC4217	12 15 59	+47 05 33	GALAXY	11.1	D=60M, S=78Kly, 4.5'X1.5', T=Sb, SB=14.3 NEAR M106. EDGEON WITH DUST LANE
B NGC4256	12 18 43	+65 53 53	GALAXY	12	D=127M, S=125Kly, 3.4x1.0', T=SB, SB=13.5, Levy LIST ADDITION. EDGE-ON.
B NGC4274	12 19 50	+29 36 51	GALAXY	10.4	D=45M, S=95Kly, 6.8x2.5', T=(R)SB(r)ab, SB=12.9, RINGED SPIRAL, RING NOT VISIBLE. NGCs 4278, N4283 IN SAME FIELD
B M85	12 25 24	+18 11 27	GALAXY	9.1	NGC4382 D=60M, S=124Kly, 7.1x5.5', T=E1, SB=13.7, SMALLER BARRED NGC4394 IN FIELD. BLACK HOLE OR NOT? MANY UNRESOLVED QUESTIONS.
B NGC4414	12 26 27	+31 13 21	GALAXY	10.2	D=62M, S=65KLY, 3.6x2.0', T=SA(rs)c, SB=11.5, BRIGHT FLOCCULENT SPIRAL WITH STARLIKE NUCLEUS
B NGC4429	12 27 26	+11 06 29	GALAXY	11.1	D=56M, T=SA0, S=91Kly, 5.6x2.6', SB=13.1, BRIGHT, ELONGATED SPIRAL WITH STRIKING CORE
B NGC4438	12 27 46	+13 00 32	GALAXY	10.1	D=52M, THE 'EYES', PAIRED WITH NGC4435
B NGC4449	12 28 11	+44 05 33	GALAXY	10	C21 D=13M, S=25Kly, 6.2x4.4', T=IBm, SB=12.7, BRIGHT BIZARRE RECTANGULAR SHAPE, SIMILAR CHARACTERISTICS TO LMC
B M49	12 29 47	+07 59 60	GALAXY	9.4	NGC4472 D=56M S=160Kly, 9.3x7.0', T=E2, SB=12.8, FIRST AND BRIGHTEST VIRGO GAL DISCOVERED; 2nd GALAXY DISCOVERED BEYOND LOCAL GROUP.
B NGC4490	12 30 37	+41 38 27	GALAXY	10.2	COCOON GALAXY. D=25MLY, S=46Kly, 6.3x3.1', T=SB(s)d pec, SB=12.2, BRIGHT INTERACTING SPIRAL; NGC4485 IS COMPANION IN FIELD
B NGC4517	12 32 44	+00 06 57	GALAXY	12.4	D=40M, S=125Kly, 10.7'X1.7', T=Sc(dSc), SB=14.0, LONG SLIVER WITH DUST LANE, NGC4127A 15' NORTH
B NGC4526	12 34 03	+07 41 58	GALAXY	10.7	D=55M, S=115Kly, T=SB0s, 7.2x2.4', SB=12.3, BETWEEN TWO 7-MAG STARS; THE "LOST GALAXY"; ONE OF BRIGHTEST LENTICULAR GALAXIES.
B NGC4527	12 34 09	+02 39 14	GALAXY	11.4	D=49M, S=90Kly, 6.2x2.1', T=SAB(s)bc, LARGE HALF TILTED FACE-ON, N4536 lies 30 arcmin SSE

B M91	12 35 27	+14 29 45	GALAXY	11	NGC4548 D=63M, S=99Kly, 5.4x4.3', T=SBb(rs), SB=16.7, BARRED FACE ON SPIRAL. FAINTEST MESSIER OBJ. DIFFICULT TO OBSERVE.
B SIAMESE_TWINS	12 36 33	+11 15 27	GALAXY	12.1	NGC 4568, NGC4567 D=60M, 3.3x2.0', COLLIDING AND MERGING PAIR
B M90	12 36 50	+13 09 46	GALAXY	10.3	NGC4569 D=59M S=160Kly, 9.5x4.4', T=SAB(rs)ab, SB=13.3, BLUESHIFTED MOVING TOWARD LOCAL GROUP.
B M58	12 37 44	+11 49 06	GALAXY	10.5	NGC4579 D=62M, S=106Kly, 5.9x4.7', T=SAB(rs)b, SB=13.0, FURTHEST MESSIER OBJECT, ONE OF BRIGHTEST VIRGO GALAXIES.
B M68	12 39 28	-26 44 35	GLOBULAR	7.3	NGC4590 D=30K S=87LY, 10.0'
B M59	12 42 02	+11 38 45	GALAXY	10.6	NGC4621 D=60M, S=94Kly, 5.4x3.7'. T=E5, SB=13.6, 270M*MASS BLACK HOLE IN CORE. 2.2K GLOBULARS.
B M60	12 43 40	+11 33 09	GALAXY	9.8	NGC4649 D=55M, S=118Kly, 7.4x6.0' T=E2, SB=13.6, 3RD BRIGHTEST VIRGO ELIPTICAL. 4.5B*MASS BLACK HOLE - ONE OF LARGEST DISCOVERED.
B NGC4654	12 43 54	+13 08 00	GALAXY	11.1	D=55M, S=83KLY, 5.2x1.4', T=SAB(rs)cd, SB=14.1, H126 VIRGO CORE MEMBER BEING STRIPPED VIA RAM-PRESSURE.
B NGC4666	12 45 09	-00 27 43	GALAXY	10.8	D=63M, S=60Kly, 3.3x0.9', T=SABc, SB=12.7, SUPERWIND GALAXY. VIGOROUS STAR FORMATION. Bright edge-on with a mottled appearance
B NGC4697	12 48 00	-05 48 00	GALAXY	9.3	D=40M, S=51KLY, 4.4x2.8', T=E6, SB=13.4, VERY BRIGHT, LARGE, LITTLE EXTENDED 45 DEG, ABRUPTLY MUCH BRIGHTER MIDDLE NUCLEUS
B NGC4710	12 49 39	+15 09 55	GALAXY	11.6	D=55M, S=78Kly, 4.9x1.2', T=SA(r)0, SB=12.6, BEAUTIFUL EDGE-ON WITH MOTTLED APPEARANCE
B NGC4725	12 50 27	+25 30 02	GALAXY	10.1	D=40M, S=125Kly, 10.7x7.6', T=SAB(r)ab pec, SB=15.9, VERY BRIGHT, LARGE SPIRAL WITH 2 NEARBY FIELD COMPANIONS
B NGC4866	12 59 24	+14 10 00	GALAXY	11.9	D=80M, S=75KLY, 3.2x1.0, T=S0-a, SB=12.9, LENTICULAR, H162
B NGC4945	13 05 26	-49 28 15	GALAXY	9.3	C83 D=11.7M, S=70Kly, 20.5x3.8', T=SB(s)cd, SB=13.7, NICE LARGE SEMI-EDGEON SPIRAL WITH DUST
B NGC5005	13 10 56	+37 03 29	GALAXY	10.6	C29 D=65M, S=109Kly, 5.8x2.8', T=SAB(rs)bc, SB=15.4, large, bright oval with an elliptical core
B M63	13 15 49	+42 01 46	GALAXY	9.3	SUNFLOWER NGC5055, D=37M, S=135Kly, 12.6x7.2', T=SA(rs)bc, SB=13.22, FLOCCULENT SPIRAL.
B NGC5248	13 37 32	+08 53 06	GALAXY	11	C45 D=59M, S=106Kly, 6.2x4.5' T=SAB(rs)bc, SB=14.3, FACE-ON SPIRAL WITH 3 MAJOR EXTENDED ARMS IN PHOTOGRAPHS.
B NGC5286	13 46 26	-51 22 24	GLOBULAR	7.4	C84 11.0' D=36Kly, OLD 12.5Byr. INTERMEDIATE 6K*MASS BLACK HOLE IN CORE?
B NGC5822	15 05 12	-54 21 00	OPEN	6.5	Rating:EX large, bright and scattered cluster
B M102	15 06 30	+55 45 48	GALAXY	9.9	SPINDLE NGC5866 D=50M, S=68Kly, 4.7x1.9', T=S0, SB=12.9, LENTICULAR WITH UNUSUAL INVISIBLE? DUST LANE
B NGC5882	15 16 48	-45 38 60	PLANETARY	10.5	GHOST OF URANUS, Rating:GD small, round disc with high surface brightness
B NGC5897	15 17 24	-21 00 37	GLOBULAR	8.4	6' FAIRLY LOOSE CORE; POSSIBLE TO RESOLVE WITH POWER?
B NGC5986	15 46 06	-37 46 60	GLOBULAR	8.5	5' Rating:VG bright but difficult to resolve
B NGC6067	16 13 12	-54 13 00	OPEN	6.5	Rating:EX beautiful open cluster in the rich Norma starcloud, incl striking double star
B NGC6087	16 18 54	-57 53 60	OPEN	6	Rating:EX large, bright cluster including mag 6.7 S Normae
B RHO_OPHIUCHI	16 25 35	-23 26 50	DARK	ANY	B42 20.0x6.0'
B NGC6124	16 25 36	-40 40 00	OPEN	6.5	Rating:EX DIST-1500LY, 50-100*, large bright cluster, richer in center
B NGC6144	16 27 18	-26 02 00	GLOBULAR	9.1	SIZE=9.3', FAIRLY LARGE, BUT FAINT. NICE FIELD WITH ANTARES 0.5 DEG S.E.
B NGC6153	16 31 30	-40 15 00	PLANETARY	11.5	Rating:FR small, bright planetary forming a kite asterism with 3 mag 10 stars
B M107	16 32 32	-13 03 13	GLOBULAR	7.8	NGC6171 DIST-21KLY, SIZE=80LY, 13.0'
B NGC6167	16 34 24	-49 36 00	OPEN	6.7	Cl, L, lC, iF rich mixture of faint & bright stars
B NGC6193	16 41 18	-48 46 00	OPEN	5.5	Rating:EX large, bright, scattered cluster with a bright double star, inv in neb
B NGC6200	16 44 12	-47 28 60	OPEN	7.4	Cl (in Milky Way) many 9-11th-mag stars over a carpet of faint stars
B NGC6242	16 55 36	-39 30 00	OPEN	8	Rating:EX 50-100* rich in faint stars, includes red mag 7.3 star
B Tr24	16 57 00	-40 40 00	OPEN	8.6	Harvard 12,Cr 318,OCL 999,Lund 733,C 1653-405 bright, large, scattered group 1 deg NNE of N6231
B NGC6281	17 04 48	-37 53 60	OPEN	5.4	Cl, L, pRi, lC, st 9...11 two dozen mag 9-12 stars in distinctive group
B BUG	17 13 44	-37 06 11	PLANETARY	12.8	NGC6302 C69 85.0x44.0"
B NGC6322	17 18 30	-42 57 00	OPEN	6	Cl, vL, pRi incl three 7.5-mag stars w/dozen stars nearby
B M9	17 19 12	-18 30 59	GLOBULAR	7.8	NGC6333 DIST-26K SIZE=90LY 12.0'
B NGC6352	17 25 30	-48 25 00	GLOBULAR	9	Rating:VG fairly low surface brightness globular, partial resolution in 20cm
B NGC6383	17 34 48	-32 34 00	OPEN	5.5	Rating:EX faint stars surrounding a mag 5.7 star which has several companions
B NGC6388	17 36 18	-44 43 60	GLOBULAR	8.5	Rating:EX high surface brightness globular but very difficult to resolve
B M14	17 37 36	-03 14 45	GLOBULAR	7.6	NGC6402 DIST-30K SIZE=95LY 11.0'
B NGC6397	17 40 41	-53 40 25	GLOBULAR	5.3	C86 31.0' ONE OF THE NEAREST GLOBULARS
B Tr29	17 41 36	-40 06 00	OPEN	7.5	Harvard 17,Cr 343,OCL 1009,Lund 768,C 1738-400 about two dozen mag 10-13 stars 70 arcmin W of Iota Sco
B IC4665	17 46 18	+05 43 08	OPEN	4.2	41st BEST ON SAA100 LIST CHERRY BOMB ASTERISM IN CLUSTER

B NGC6445	17 49 15	-20 00 40	PLANETARY	11.8	SMALL, BRIGHT AND ANNULAR; NEAR M23
B NGC6503	17 49 27	+70 08 40	GALAXY	10.2	D=20M, S=27KLY, 4.7x1.5', T=SA(s)cd, SB=12.8, BRIGHT ELONGATED SPIRAL
B NGC6541	18 08 02	-43 42 20	GLOBULAR	6.3	C78 DIST-23K, SIZE-100LY 15.0'
B NGC6563	18 12 00	-33 52 00	PLANETARY	14	Rating:PR faint planetary in a rich star field, use filter
B B92	18 15 32	-18 10 48	DARK	0	Barnard92, LDN 326, [CB88] 125 large, dark cloud form a similar pair with B93 about 25 arcmin E
B NGC6603	18 18 24	-18 25 00	OPEN	11.5	Rating:GD >100* beautifully rich compact cluster set in the NE corner of M24
B M18	18 19 57	-17 07 18	OPEN	8	Black Swan, NGC6613, Rating:EX bright but scattered cluster with brightest stars in a V asterism
B NGC6624	18 23 42	-30 22 00	GLOBULAR	8.3	SIZE=5.9', SMALL, FAIRLY BRIGHT, HAS STRONG CORE. IN RICH MILKY WAY FIELD.
B M28	18 24 33	-24 52 11	GLOBULAR	6.9	NGC6626 DIST-20K 13.8'
B NGC6633	18 27 31	+06 33 59	OPEN	5.5	Rating:SU 50-100* large and bright cluster but scattered, naked-eye in dark sky
B M69	18 31 23	-32 20 53	GLOBULAR	7.7	NGC6637 DIST-30K 9.8'
B IC4756	18 38 60	+05 27 00	OPEN	5	Cl, C 50-100* unusually large naked-eye cluster, use lowest power
B B103	18 39 24	-06 36 16	DARK	ANY	40X40 ON NORTH PRECEDING SIDE OF SCUTUM STAR CLOUD
B M70	18 43 13	-32 17 31	GLOBULAR	7.8	NGC6681 DIST-30K 8.0'
B NGC6709	18 51 30	+10 21 00	OPEN	6.7	Cl, pRi, lC, 50-100 stars in 20 arcmin field, use low x
B NGC6712	18 53 04	-08 42 21	GLOBULAR	8.2	SMALL GLOBULAR; LOOK FOR IC1295 PLANETARY IN FIELD
B NGC6716	18 54 36	-19 52 60	OPEN	6.9	Cl, pRi, st 9...13 bright, scattered group between two 8th-mag stars
B M54	18 55 03	-30 28 43	GLOBULAR	7.7	NGC6715 DIST-80K 12.0'
B NGC6723	18 59 33	-36 37 54	GLOBULAR	6.8	SIZE=4' FAINT GLOBULAR
B NGC6726	19 01 42	-36 53 00	BRIGHT	ANY	SIZE=5' REFLECTION NEBULA
B H5082	19 03 12	-19 18 00	TRIPLE	6.0/9.5/10.7	8/20 88/113 ELEGANT TRIPLE
B NGC6744	19 09 00	-63 51 00	GALAXY	8.3	D=30M, S=175KLY, 16x10', T=SAB(r)bc, SB=14.0, LARGE FLOCCULENT, WITH LOW SURFACE BRIGHTNESS. MILKY-WAY SIMILARITY.
B M56	19 16 35	+30 11 04	GLOBULAR	8.4	NGC6779 DIST-33K SIZE-84LY 8.8'
B COATHANGER	19 25 24	+20 11 18	ASTERISM	3.6	BROCCHI'S CLUSTER; CR399
B St1	19 35 48	+25 13 00	OPEN	5.3	OCL 127,Lund 896, bright but scattered 1 degree field, use low x
B B142	19 38 46	+10 28 48	DARK	0	Barnard142, LDN 688 well-defined dark nebula forming a large dark E with B143
B NGC6819	19 41 18	+40 11 17	OPEN	7.3	150*; FAINT BUT RICH CLUSTER IN MILKY WAY
B LITTLE_GEM	19 43 58	-14 09 09	PLANETARY	9.9	NGC6818; ANNULAR; NGC 6822 0.75 DEGREES S
B M71	19 53 46	+18 46 42	GLOBULAR	8.4	NGC6838 DIST-13K, SIZE-27LY 7.2'
B NGC6871	20 05 54	+35 46 60	OPEN	5.2	Cl, st L and S, double star inv incl two sets of bright multile stars in rich star field
B M75	20 06 06	-21 55 00	GLOBULAR	8.5	NGC6864 SIZE=6 L/Y=61.3K
B NGC6885	20 12 00	+26 28 60	OPEN	6	Cl, vB, vL, Ri, lC, DIST-2K, SIZE-11LY Less than 50*, st 6...11 triangular group incl 5.9 mag star 20 Vul
B CRESCENT_NEB	20 12 30	+38 25 00	BRIGHT	ANY	NGC6888 C27 18.0x8.0', USE OIII FILTER
B IC4996	20 16 30	+37 37 60	OPEN	7.3	Cl, st 8...13 three 9th-mag stars, rich in faint members
B NGC6905	20 22 25	+20 06 51	PLANETARY	12	Blue Flash Nebula, Rating:FR Blue Flash Nebula, slightly elongated with a uniform brightness
B NGC6910	20 23 06	+40 47 00	OPEN	7.4	50*, SIZE=8.0 - COARSELY SCATTERED CLUSTER - H56
B M29	20 23 54	+38 32 00	OPEN	7.1	NGC6913 SIZE=10' DIST-13K, SIZE-37LY Less than 50* but large brightness range.
B NGC6907	20 25 07	-24 48 30	GALAXY	11.9	D=120M, S=115Kly, 3.3x2.7', T=Sbc, SB=13.4, BARRED SPIRAL WITH 2 ASYMETRIC ARMS. ARMS POSSIBLY VISIBLE IN LARGE SCOPES
B NGC6934	20 34 12	+07 24 15	GLOBULAR	8.9	C47 7.1'
B NGC6940	20 34 33	+28 18 12	OPEN	6.5	100*, Rating:EX rich star field including the orange variable star FG Vulpeculae
B M72	20 53 28	-12 32 13	GLOBULAR	9.2	NGC6981 DIST-60K 6.6'
B M73	20 58 56	-12 38 08	OPEN	8.9	NGC6994 DIST-2K 2.8'
B NGC7006	21 01 29	+16 11 15	GLOBULAR	10.6	C42, SIZE=3.6', DISTANT
B NGC7039	21 11 12	+45 38 60	OPEN	7.6	Cl, vL, pRi, E, st 10... large, triangular group in excellent low-x field
B M39	21 32 12	+48 26 40	OPEN	5.5	Rating:SU; large, very bright cluster, use low power or binocs
B NGC7090	21 36 29	-54 33 27	GALAXY	11.4	D=30M, S=60Kly, 6.9x1.8', T=Sbc, SB=13.0, LARGE EDGE-ON
B NGC7129	21 41 16	+66 05 52	OPEN	11.5	Small Cluster Nebula, Rating:FR small group of stars in nebulosity
B NGC7160	21 53 42	+62 36 00	OPEN	6.1	Cl, P, vlc approx 30 stars incl two 7-8th mag & several pairs
B NGC7184	22 02 40	-20 48 50	GALAXY	11.1	D=100M, S=175Kly, 6.0x1.5', T=SB(r)c, SB=13.2, BARRED SPIRAL WITH RING - NOT VISIBLE. SEVERAL(3) OTHER SML GALS IN FIELD
B NGC7243	22 15 17	+49 52 29	OPEN	6.5	Rating:EX excellent low power field, incudes double star 2890
B NGC7331	22 37 04	+34 24 58	GALAXY	9.4	C30 D=40M, S=122Kly, 10.5x3.7', T=SA(s)b, SB=13.2, BRIGHTEST GAL IN PERSEUS, MISSED BY MESSIER, BUT ONE OF HERSCHEL'S EARLIEST DISCOVERIES.
B CY_AQR	22 37 47	+01 32 05	STAR	10.4/11.2	DELTA SCUTI SHORT PERIOD VARIABLE=88 MINUTES!
B NGC7380	22 47 00	+58 06 00	OPEN	7.2	SIZE=12.0', COARSELY SCATTERED, H77

B NGC7410	22 55 01	-39 39 41	GALAXY	11.3	D=65M, S=85Kly, 4.5x1.5', T=SBA, SB=13.6, VERY ELONGATED BRIGHT SPIRAL
B NGC7424	22 57 18	-41 04 09	GALAXY	11.0	D=37M, S=100KLY, 9.5x9.5', T=SAB(rs)cd, SB=14.5 GRAND DESIGN FACE ON.
B NGC7510	23 11 34	+60 34 10	OPEN	9.5	Rating:VG striking wedge-shaped cluster
B NGC7582	23 18 24	-42 22 18	GALAXY	11.4	D=70M, S=100KLY, 5.4x2.3', T=SB(s)ab, SB=11.9, TRIPLE (N7590, N7599 IN FIELD)
B NGC7606	23 19 05	-08 29 08	GALAXY	11.5	D=100M, S=165KLY, 5.8'x2.6', T=Sb, SB=14.1, H104 15-20M*MASS BLACK HOLE IN CORE.
B NGC7619	23 20 15	+08 12 23	GALAXY	12.1	D=175M, S=102Kly, 2.0x1.5', T=E2, SB=12.4, BRIGHTEST PEGASUS I CLUSTER MEMBER. NGC7626 IS INVOLVED IN SUBGROUP COLLISION TO FORM PEGASUS 1 GROUP.
B BUBBLE	23 20 42	+61 11 00	BRIGHT	8.6	NGC7635 C11 15.0x8.0', 1 DEG SW FROM M52, DIFFICULT - USE OIII FILTER
B NGC7662	23 25 54	+42 32 15	PLANETARY	9	Blue Snowball Nebula, Rating:VG Blue Snowball, very bright with unusually high surf br, annular at high x
B NGC7686	23 30 12	+49 07 60	OPEN	5.6	C1, P, 1C, st 7...11 large, surr 6.3-mag star, elongated E-W
B NGC7789	23 57 04	+56 43 21	OPEN	9.5	Rating:EX remarkably rich and uniform in faint stars
B NGC7793	23 57 49	-32 35 30	GALAXY	9.63	D=13M, S=35Kly, 9.3x6.3', T=SA(s)d, SB=13.1, FACE ON FLOCCULENT SPIRAL.

#Rank	Name	RA	DEC	Type	Mag	Description
C	MEL20	03 22 00	+48 37 00	OPEN	1.2	ALPHA PERSEI MOVING GROUP. 100*, D=540LY.
C	NGC1491	04 03 36	+51 18 00	BRIGHT	ANY	EMISSION NEBULA, 21' USE HBETA FILTER
C	NGC1647	04 46 10	+19 04 40	OPEN	6	Rating:VG scattered cluster with several bright stars
C	NGC1746	05 03 37	+23 49 04	OPEN	6	Rating:VG large cluster in two subgroups
C	NGC2175	06 10 54	+20 29 00	OPEN	ANY	SMALL, WITH DOUBLE STAR IN MIDDLE, A LITTLE LIKE M71 - ARROW SHAPED
C	NGC2232	06 26 36	-04 45 00	OPEN	3.9	20*, 29', 63rd BEST ON SAA100 LIST, SUBTLE NEBULOSITY EVIDENT AROUND SOME STARS, SOME Y/O COLOR IN SW HEART STAR
C	NGC2360	07 17 48	-15 37 00	OPEN	7.2	80*, MEL64 C58 13.0' D=4.7KLY, AGE=1.3BY
C	Me171	07 37 30	-12 04 00	OPEN	7.1	Cr 155,Raab 58,OCL 587,Lund 362,C 0735-119 dense open cluster, very rich in faint stars
C	NGC2567	08 18 18	-30 38 00	OPEN	7.4	COMPRESSED CLUSTER 10' - H64
C	NGC2613	08 33 23	-22 58 24	GALAXY	11.16	D=70M, S=120KLY, 6.2'x1.7', T=SAB(rs)cd, SB=12.6, ALMOST EDGE ON, FAINT COMP IN FIELD
C	NGC2655	08 55 36	+78 13 00	GALAXY	10.1	D=60M, S=190KLY, 4.9x4.1, T=SAB(s)0/a, SB=13.3, LENTICULAR; BRIGHT ELLIPSE WITH STARLIKE NUCLEUS
C	NGC2835	09 17 53	-22 21 26	GALAXY	11.01	D=35M, S=65KLY, 6.6'x4.3', T=Sbc, SB=14.4 FACE-ON SB TYPE; ARMS VISIBLE?
C	HICKSON40	09 38 54	-04 51 06	GALAXY	13.4	ARP 321; MCG-1-25-9; D=300MLY, SMALL 2.5' FIELD
C	NGC3003	09 48 48	+33 25 00	GALAXY	11.7	D=74M, S=107KLY, 5.0x1.7', T=Sbc, SB=13.2, FAINT ELONGATED STREAK
C	NGC3109	10 03 06	-26 09 26	GALAXY	10.39	D=4.2M, S=23KLY, 19.1x3.7', T=SB(s)m, SB=9.2, LARGE EDGE-ON MOTTLED. INTERACTION WITH ANTILA DWARF 1Byr AGO.
C	NGC3169	10 14 12	+03 28 00	GALAXY	11.9	D=75M, S=91KLY, 4.2x2.9', T=SA(s)a pec, SB=14.0, H4 GALAXY COLLISION with NGC3166
C	NGC3198	10 19 54	+45 33 00	GALAXY	10.9	D=47M, S=116KLY, 8.5x3.3', T=SB(rs)c, SB=12.8, BARRED SPIRAL; MOTTLED APPEARANCE, HIGHLY OVAL TO ALMOST RECTANGULAR
C	NGC3486	11 00 24	+28 58 00	GALAXY	11.2	D=27M, S=56KLY, 7.1x5.3', T=SAB(r)c, SB=12.5, H87
C	BOX	11 12 25	+29 09 57	GALAXY	ANY	NGC4169 HICKSON 61 D=, 3.8', NGC4173, NGC4174, NGC4175 MEMBERS. INTERESTING GEOMETRY
C	NGC4030	12 00 24	-01 05 00	GALAXY	10.6	D=64M, S=71KLY, 3.8x2.9', T=SA(s)bc, SB=13.9, ROUND, SMALL FACE-ON SPIRAL, WITH CONDENSED CENTER. H121
C	NGC4236	12 16 00	+69 28 00	GALAXY	9.7	D=12M, S=76KLY, 21.9x7.2', T=SB(s)dm, SB=15.7? VERY FAINT, VERY LARGE, BUT CLOSE. MEMBER OF M81 GROUP
C	NGC4450	12 28 36	+17 06 00	GALAXY	11.2	D=50M, S=76KLY, 5.2'x3.9', T=SA(s)ab, SB=12.6, FAINT - H56
C	NGC4494	12 31 24	+25 46 29	GALAXY	9.8	D=45M, S=60KLY, 4.8x3.5', T=E1-2, SB=11.9, SMALL BRIGHT ELLIPTICAL
C	NGC4535	12 34 20	+08 11 51	GALAXY	9.8	D=54M, S=185KLY, 11.8x11.0, T=SAB(s)c, SB=12.6, NEAR M49 AND 3/4 DEGREES N OF NGC 4526 - BARRED SPIRAL; 2 MAIN ARMS
C	NGC4605	12 40 00	+61 36 32	GALAXY	9.6	D=15M, S=25KLY, 5.8x2.2', T=SB(s)c pec, SB=12.9, BRIGHT DISTINCT EDGE ON SPIRAL ASSOCIATED WITH M81 GROUP.
C	NGC4618	12 41 32	+41 09 02	GALAXY	11.5	D=25M, S=30KLY, 4.2'x3.5', T=SB(rs)m, SB=11.9, INTERACTING PAIR; BOTH ODD SHAPES- H178. SINGLE ARMS.
C	NGC4756	12 52 53	-15 24 47	GALAXY	12.4	D=192M, S=100KLY, 1.8'x1.4', T=E2, SB=13.0, BRIGHTEST MEMBER OF 25-30 MEMBER CORVUS CLUSTER
C	NGC5033	13 13 28	+36 35 38	GALAXY	10.9	D=40M, S=100KLY, 11.5'x5.5' T=SA(s)c, SB=13.8, SEYFERT; FAINT ARMS (NOT VISIBLE?) - H97
C	NGC5068	13 18 55	-21 02 21	GALAXY	10.7	D=22M, S=46KLY, 7.2'x6.3', T=SB(s)d, SB=13.2, FACE ON SAB
C	NGC5566	14 20 24	+03 56 00	GALAXY	12	D=65M, S=83KLY, 4.4x1.5', T=SBab, SB=12.1, OVAL, HAZY DISK. COMPANION N5560 IS 5' NW. H144 ARP286.
C	ABELL2151	16 05 14	+17 44 54	GALAXY	15	HER GAL CLUSTER; D=500MLY, CLUSTER SIZE-6MLY! VERY FAINT

C NGC6309	17 13 60	-12 54 41	PLANETARY	11.5	Box Nebula, Rating:GD Box Nebula, small but irregular planetary
C NGC6546	18 07 12	-23 19 60	OPEN	8.5	Rating:VG scattered group includes 3 mag 9 stars
C NGC6572	18 12 07	+06 50 25	PLANETARY	9.5	Rating:VG very high surface brightness planetary with a bluish color
C NGC6642	18 31 54	-23 28 60	GLOBULAR	10.5	Rating:VG compact globular, needs large aperture to resolve
C NGC6645	18 32 33	-16 53 51	OPEN	8.5	Rating:VG striking rich cluster of faint stars with a hole in center
C NGC6664	18 36 42	-08 13 00	OPEN	7.8	Cl, L, pRi, vLc large, scattered group 30 arcmin E of Alpha Sct
C R Aql	19 06 22	+08 13 48	DOUBLE	5.5/12	GCVS50001, R Aql, Spect:M5e-M9e gets redder as mag decreases
C NGC6755	19 07 48	+04 13 60	OPEN	7.5	Cl, vL, vRi, pC, st 12...14 stars arranged in two groups separated by dark rift
C NGC6800	19 27 08	+25 08 05	OPEN	ANY	large cluster but not concentrated
C NGC6804	19 31 48	+09 14 00	PLANETARY	11.0	CSTAR IS 14.4, 63x50 ARCSECS
C NGC6811	19 38 09	+46 33 27	OPEN	9	Hole In A Cluster, Rating:EX fairly large, rich group in milky way
C NGC6823	19 43 12	+23 18 00	OPEN	7.1	30*, SIZE=12.0' PRETTY MUCH COMPRESSED + DARK NEB - H18 BOK GOBS; TRY FILTER TO BRING OUT
C NGC6822	19 44 58	-14 48 11	GALAXY	10.3	Barnards Galaxy, D=1.6M, S=7KLY, 15.5x13.5', T=IB(s)m, SB=13.6, IRREGULAR. LARGE VISUAL SIZE, BUT VERY SMALL AND LOW SB. MEMBER OF LOCAL GROUP
C NGC6830	19 51 00	+23 04 00	OPEN	7.9	Cl, L, pRi, pC, st 11...12 most stars arranged in two intersecting rows
C NGC6866	20 03 43	+43 59 17	OPEN	9	Rating:VG rich and appealing cluster with many stars in an elongated string
C IC1318	20 16 48	+41 57 24	BRIGHT	ANY	NEARBY AROUND GAMMA CYG
C NGC6939	20 34 12	+60 38 00	OPEN	7.8	VERY COMPRESSED AND RICH CLUSTER OF STARS H42, SIZE=8.0'
C NGC7000	21 01 48	+44 11 56	DARK	ANY	North American Nebula, North American Nebula, excellent in dark skies with low power and filter
C NGC7026	21 06 21	+47 51 03	PLANETARY	12.5	Rating:FR small but with double condensations at high power
C NGC7063	21 24 24	+36 30 00	OPEN	7	Cl, P, st 10... incl ten 9-10.5-mag stars in loose group
C IC1396	21 38 09	+57 26 48	BRIGHT	3.5	39TH BEST SAA100 OBJECT
C IC5146	21 53 29	+47 15 41	BRIGHT	ANY	COCOON NEBULA, C19, 11x10', IRREGULAR FIGURE, 9.5 MAG STAR IN MIDDLE
C NGC7209	22 05 12	+46 29 19	OPEN	8	Rating:EX large, fairly rich and uniform

#Rank Name	RA	DEC	Type	Mag	Description
#	-----	-----	-----	-----	-----
S BETA_CAS	00 09 11	+59 09 12	DOUBLE	8.8/9.3	SEP=3.8"-8.9" TRIPLE!
S STF33	00 30 58	+34 05 53	DOUBLE	8.8/8.8	SEP=2.7" PERFECT PAIR
S ALPHA_CAS	00 40 31	+56 32 14	TRIPLE	2.5/9/13	SEP=64/38", PA=280/105, O/B
S ETA_CAS	00 49 06	+57 48 55	DOUBLE	3.5/7.5	SEP=11, PA= 297, COLORS=Y/P, STRIKING COLOR CONTRAST
S 65_Psc	00 49 53	+27 42 39	DOUBLE	7	65 Psc, Spect:F4III evenly matched pair
S HR361	01 13 44	+07 34 31	DOUBLE	5.2/5.3	Zet Psc, SA0109739, HD7344, Zet Psc, 86 Psc easily split bright couplet
S STF155	01 44 15	+9 29 01	DOUBLE	7.2/7.4	SEP=5.1" PART OF TRAPEZOIDAL ASTERISM
S 1 Ari	01 50 09	+22 16 31	DOUBLE	5.9	1 Ari, Spect:K1III+A6V gold/blue pair
S HR545	01 53 32	+19 17 45	TRIPLE	4.8/4.9	Gam Ari, SA092680, HD11503, Gam Ari, 5 Ari identical pearly twins
S Lambda Ari	01 57 56	+23 35 46	DOUBLE	4.8	Lam Ari, Meade264, Lam Ari, 9 Ari, Spect:F0V striking color contrast
S Alpha_Psc	02 02 03	+02 45 49	DOUBLE	4.3/16	Alrischa, Meade265, Alp Psc, 113 Psc, Spect:A0pSiSr close pair, use high power
S IOTA_TRI	02 12 24	+30 18 11	DOUBLE	5.3/6.9	SEP=3.9, PA= 71, G0 Y/B COLOR CONTRAST
S IOTA_CAS	02 29 04	+67 24 09	TRIPLE	4.6/6.9/7	SEP=2.3,7.3 230/114 W/B/B
S POLARIS	02 31 49	+89 15 51	DOUBLE	2/8.8	SEP=18.4, HR424, SA0308, HD8890, Alp UMi, 1 UMi Polaris - fainter companion
S STF283	02 40 32	+61 29 02	DOUBLE	8.2/9.0	SEP=1.8"-5.5" AND 7.9, 9.9 TWO IN THE VIEW
S GAMMA_CET	02 43 18	+03 14 09	DOUBLE	3.5/7.3	SEP=2.8, PA=294, A2 W/Y
S HR897	02 58 16	-40 18 17	DOUBLE	3.2/4.3	The Eri, SA0216113, HD18622, The Eri bright, dazzling pair
S STF389	03 30 11	+59 21 57	DOUBLE	6.5/7.5	SEP=2.7"
S STF419	03 42 45	+69 50 44	DOUBLE	7.9/7.9	SEP=2.8"
S 32 ERI	03 54 18	-02 57 14	DOUBLE	4.8/6.1	SEP=6.8, PA=347, G5/A2, Y/GB VIVID
S STF485	04 07 54	+62 18 00	TRIPLE	7.0/7.1	SEP=18, PA=304, Y/B/B IN OPEN CL. NGC 1502
S OMICRON_ERI	04 15 12	-07 39 00	DOUBLE	4.4/9.4	SEP=83.4, PA=105, G5/A? YO/B/ AT 165X FASCINATING
S R_LEP	04 59 36	-14 48 22	STAR	8.08	HIND'S CRIMSON STAR, VARIABLE 6-11MAG, PERIOD 430 DAYS.
S BETA_CAM	05 03 25	+60 26 32	DOUBLE	4/8.6	SEP=81, PA=208, G0/A5, Y/B IN DARK NEB
S STF644	05 10 18	+37 18 00	DOUBLE	6.7/7	SEP=1.6, PA=221, B2/? Y/B COLOR CONTRAST
S RIGEL	05 14 32	-08 12 6	DOUBLE	0.1/9.5	SEP=9.5, VERY LARGE MAG CONTRAST
S WNC_2	05 23 51	-00 52 02	DOUBLE	6.9/7.0	SEP=3.1" PERFECT PAIR
S GAMMA_LEP	05 44 28	-22 26 54	DOUBLE	3.7/6.3	SEP=96.3, PA= 351, F8/G5 Y/YO
S STONE15	06 45 28	-20 50 23	DOUBLE	9.6/9.6	SEP=2.6" RICH STAR BACKGROUND

S STF958	06 48 12	+55 42 15	DOUBLE	5.9/5.9	SEP=4.6", PERFECT PAIR
S STF1009	07 05 54	+52 43 28	DOUBLE	6.9/7.0	SEP=4.2", PERFECT PAIR
S HJ3949	07 18 33	-30 47 52	DOUBLE	7.7/8.0	SEP=2.9"
S ALPHA_GEM	07 34 36	+31 53 18	DOUBLE	1.6/2.6	SEP=4.5, CASTOR, VERY BRIGHT
S 2_CNC	08 00 56	+25 23 34	DOUBLE	6.2/6.2	SEP=5.2" PERFECT PAIR
S HR3207	08 09 32	-47 20 12	DOUBLE	1.8/4.1	gam Vel, SAO219504, HD68273 blazing pair in milky way field
S ZETA_CNC	08 12 13	+17 38 53	TRIPLE	5.5/6/5.5	SEP=0.9,5.8 1/6 337/83 Y/O/W DIFFICULT TRIPLE
S THETA_CNC	08 31 36	+18 05 39	DOUBLE	ANY	SEP=5.0"
S IOTA_CNC	08 46 42	+28 45 37	DOUBLE	4.2/6.6	SEP=30.5, PA=307, G5/A5, Y/B COLOR CONTRAST
S HD75353	08 50 44	+35 04 17	DOUBLE	7.5/7.5	SEP=3.6", PERFECT PAIR
S 38_LYN	09 18 51	+36 48 09	DOUBLE	3.9/6.6	SEP=2.7, PA=229, A2/? W/WR
S STF1413	10 12 19	+16 20 54	DOUBLE	9/9	SEP=2.1"
S STF1417	10 15 09	+19 07 27	DOUBLE	8/8	SEP=2.3"
S GAMMA_LEO	10 19 58	+19 50 29	DOUBLE	2.2/3.5	SEP=4.4, PA=125, K0/G7 O/Y
S STF1447	10 33 47	+23 21 02	DOUBLE	7.3/9.1	SEP=4.2", MAG CONTRAST
S RMK14	12 14 03	-45 43 26	DOUBLE	5.5/6.5	SEP=2.9"
S SS_VIR	12 25 14	+00 46 11	STAR	7.32	CARBON
S DELTA_CRV	12 29 52	-16 30 55	DOUBLE	3/8.5	SEP=24, PA=214, Y/RP
S 24_COM	12 35 08	+18 22 37	DOUBLE	5/6.5	SEP=20, PA=271, O/B NICE
S GAMMA_VIR	12 41 39	-01 26 58	DOUBLE	3.6/3.6	SEP=4.7", SAME COLOR
S HR4825	12 41 40	-01 26 58	DOUBLE	3.6/3.8	Porrima, Gam Vir, SAO138917, HD110379, Gam Vir, 29 Vir Porrima - beautiful look-alike pair
S THETA_VIR	13 09 57	-05 32 20	DOUBLE	4.5/9	SEP=7, PA=343, W/W
S STT261	13 12 02	+32 05 07	DOUBLE	7.2/7.7	SEP=2.2"
S STF1831	14 16 09	+56 42 41	DOUBLE	7.1/9.8	SEP=6.2" IN A RICH STAR FIELD
S PI_BOO	14 40 44	+16 25 06	DOUBLE	4.9/5.8	SEP=5.8, PLEASING CLOSE DOUBLE. ALMOST EQUAL MAG.
S EPSILON_BOO	14 44 59	+27 04 27	DOUBLE	2.5/5	SEP=3, PA=338, RW/W
S XI_BOO	14 51 23	+19 06 01	DOUBLE	5/7.0	SEP=7 PA=347, W/WR
S V_CRB	15 49 31	+39 34 18	STAR	10.1	CARBON
S Xi_Sco	16 04 22	-11 22 23	DOUBLE	4.8/7	Meade319, Xi Sco, Spect:F5IV double star, also extremely close primary
S HR5984	16 05 26	-19 48 20	DOUBLE	2.6/3.9	bet Sco, SAO159682, HD144217, 8 Sco beautiful, bright, easy doublet SEP=10"?
S BETA_SCO	16 05 26	-19 48 20	DOUBLE	2/9/5	SEP=0.5", 13.7", COLOR CONTRAST
S HR6026	16 11 59	-19 26 59	DOUBLE	6.3/8.8	Nu Sco, SAO159763, HD145501, Nu Sco, 14 Sco very difficult double-double SEP=2" W/WR
S SIGMA_CRB	16 14 41	+33 51 31	TRIPLE	5/6/10.5	6/71 229/85 Y/W/B CLOSE PAIR NEEDS 200X
S ALPHA_SCO	16 29 24	-26 25 55	DOUBLE	1/6.5	SEP=3, PA=275, O/G ANTARES, DIFFICULT
S STF3106	16 55 38	-05 09 57	DOUBLE	9.6/9.6	SEP=2.0", COLOR CONTRAST
S Mu_Dra	17 05 20	+54 28 13	DOUBLE	5.8/19	Arrakis, Meade325, Mu Dra, 21 Dra, Spect:F7V very close with identical magnitudes
S STF2132	17 12 45	-04 03 11	DOUBLE	8.9/9.6	SEP=2.1", MAG CONTRAST
S ALPHA_HER	17 14 39	+14 23 25	DOUBLE	3/5.5	SEP=5, PA=110, O/W EXCELLENT COLOR CONTRAST
S DELTA_HER	17 15 02	+24 50 21	DOUBLE	3/8.5	SEP=9, PA=241, W/W
S 36_OPH	17 15 21	-26 36 10	DOUBLE	5.5/5.5	SEP=4, PA=163, Y/W EQUAL PAIR
S HR6484	17 23 41	+37 08 48	TRIPLE	5.5/6.5	Rho Her, SAO66000, HD157778, Rho Her, 75 Her bright white pair SEP=3"?
S STF2245	17 56 24	+18 19 37	DOUBLE	7.4/7.4	SEP=2.6" COLOR CONTRAST
S HR6693	17 59 05	-30 15 11	DOUBLE	5.2/6.9	SEP=5.5"
S H5003	17 59 06	-30 15 11	DOUBLE	5/7.0	SEP=6, PA=106, R/R
S ALDS76	18 00 12	+80 00 00	DOUBLE	5.7/6.1	40/41 Draconis, 40 Dra easily resolved pair
S 95_HER	18 01 30	+21 35 45	DOUBLE	5/5.0	SEP=6.3, PA=258, W/WR NICE
S 70_OPH	18 05 27	+02 29 30	DOUBLE	4/6.0	SEP=3, PA=72, Y/RO COLOR CONTRAST
S STF2368	18 38 51	+52 20 38	DOUBLE	7.6/7.8	SEP=1.9"
S EPSILON_LYR	18 44 20	+39 40 12	TRIPLE	5.5/6.5//5/5.5	W/W, DOUBLE DOUBLE, SPECTACULAR TWO PAIRS
S HU936	18 48 42	+34 01 05	DOUBLE	9.4/9.7	SEP=1.9"
S ALDS82	18 50 48	+10 58 60	DOUBLE	6.9/8.1	CLOSE PAIR. Struve 2404, 40 arcmin N of open cluster NGC 6709
S SAO67566	18 54 52	+33 58 07	DOUBLE	6	OS 525, Spect:G8III,A2 wide separation with good colors
S STF2486	19 12 06	+49 54 00	DOUBLE	6.6/8.8	SEP=8, PA=210, IN BEAUTIFUL FIELD!
S STF2513	19 25 11	+02 27 29	DOUBLE	9.2/9.8	SEP=2.1"
S 57_Aql	19 54 38	-08 13 38	DOUBLE	5.7	57 Aql, Spect:B7Vn wide well-matched duo
S STT390	19 55 07	+30 11 50	DOUBLE	9.5/9.5	SEP=2.8",9.7" AND 6.6, 8.9 TWO IN THE VIEW
S H1470	20 03 36	+38 18 00	DOUBLE	7/9.0	SEP=29, PA=337, Y/G COLORI SUPERBI!!
S STF2644	20 12 35	+00 52 01	DOUBLE	6.9/7.1	SEP=2.7"
S GAMMA_DEL	20 46 39	+16 07 38	DOUBLE	6.1/9.8	Y/G, NICE PAIR, SLIGHT COLOR CONTRAST

S 61_Cyg	21 06 55	+38 44 45	DOUBLE	5.2/5.3	Meade346, 61 Cyg, V1803 A Cyg, Spect:K5V well separated double star
S STF2807	21 17 34	+82 31 05	DOUBLE	8.5/8.6	SEP=1.9"
S STF2801	21 18 32	+80 21 15	DOUBLE	7.7/8.5	SEP=2.2"
S STF2801	21 18 32	+80 21 15	DOUBLE	7.7/8.5	SEP=2.2"
S STF2799	21 28 48	+11 07 05	DOUBLE	7.3/7.4	SEP=1.8"
S S_Cep	21 35 13	+78 37 28	STAR	7.4/12.9	GCVS200002, S Cep, Spect:C7,4e(N8e) striking deep red color; also a double star
S EPSILON_PEG	21 44 11	+09 52 30	TRIPLE	2.5/8.5/11	143/82 321/325 W/LY/LY PENDULUM EFFECT
S LW_CYG	21 55 14	+50 29 50	STAR	9.23	CARBON
S Xi_Cep	22 03 47	+64 37 40	DOUBLE	4.3	Alkurhah, Xi Cep, 17 Cep, Spect:A3/6Vm bright double star
S 18_CEP	22 03 53	+63 07 11	STAR	5.29	CARBON STAR TYPE=M5III COMPARE TO MU CEP. REDDER BUT FAINTER
S ZETA_AQR	22 28 50	-00 01 12	TRIPLE	4.8/4.8	SEP=2.1", Y/B, PRIMARY IS CEPHEID VARIABLE
S DELTA_CEP	22 29 10	+58 24 55	DOUBLE	4/6.5	SEP=41, PA=192, O/B
S 8_Lac	22 35 52	+39 38 03	DOUBLE	5.7	8 Lac, Spect:B2Ve easy in all scopes
S STF2963	22 54 15	+76 20 16	DOUBLE	8.0/8.5	SEP=2"
S STF2990	23 13 18	+22 05 02	DOUBLE	9.6/9.6	SEP=2.4" PERFECT PAIR
S OMICRON_CEP	23 18 37	+68 13 08	DOUBLE	5/7	SEP=3.1"
S 94_AQR	23 19 07	-13 27 31	DOUBLE	5.1/?	NICE CONTRAST
S SIGMA_CAS	23 59 00	+55 45 18	DOUBLE	5.5/7.5	SEP=3, PA=326, B/G GLORIOUS FIELD Spect:B1V close with good color contrast
S EB_365 CRU	12 47 00	-59 42 00	STAR	10	CARBON