

Milky Way Disk 100 - Summer - for Northern Hemisphere Observers

Celestial objects within plus or minus 10 degrees of the Milky Way's galactic equator

Sort order: Catalogue Id plus Galactic Longitude and Latitude. Version 1.0 7/2021

Cat_id_this	Cat_Id	M_Name	Caldwell	Name	Clark#	Common_names	Goto	Slew	Id	Con	mag	V	Type	Simbad	J2000_Position	G2000	Distance_k	parsecs	Position	SubCategory	Catalogue_Source	Comments
MWDS001	NGC6266	M062			479					Oph	7.39		GIC		J170112.00-300636.0	G353.58+07.32	6.7		Galactic halo		DSOs - Clark	
MWDS002	NGC6475	M007			498	Ptolemy's Cluster				Sco	3.3		Cl*		J175348.00-344648.0	G355.87-04.49	0.301		Orion Arm		DSOs - Clark	Arm association per SEDS2000.
MWDS003	NGC6405	M006			496	Butterfly Cluster				Sco	4.2		Cl*		J174016.80-321200.0	G356.62-00.74	0.487		Orion Arm		DSOs - Clark	Arm association per SEDS2000.
MWDS004	NGC6273	M019			480					Oph	7.47		GIC		J170236.00-261536.0	G356.87+09.39	8.5		Galactic halo		DSOs - Clark	
MWDS005	36 Oph					SHJ 243AB; A Oph			SAO185198	Oph	4.32		**		J171521.60-263600.0	G358.28+06.88	0.006		Orion Arm		Dbls Multpls - AstroLeague DS - Supp	Mullaney: triple, all yellowish orange. Sep, PA from AstroLeague list; dist per Hipparcos Cat. (1997) plx; abs mag per Cox2000g; spectral tour star.
MWDS006	39 Oph								SAO185238	Oph	5.2		*j*		J171800.00-241724.0	G000.54+07.70	0.111		Orion Arm		Dbls Multpls - Belmont Society Colorful Supp	Belmont note: blue/orange; Sep, PA from CCDM; dist per Hipparcos Cat. (1997) plx; Duval color contrast double.
MWDS006	omi Oph					WRH 33Aa; AAVSO2010+46			SAO185238	Oph	5.2		*j*		J171800.00-241724.0	G000.54+07.70	0.111		Orion Arm		Dbls Multpls - AstroLeague DS - Supp	Mullaney: orange/blue; Knisely Colorful Double Star list. Sep, PA from CCDM; dist per Hipparcos Cat. (1997) plx; Duval color contrast double.
MWDS007	B078				492	Pipe Nebula bowl				Oph	99.9		DNe		J172228.80-215248.0	G001.23+04.35			None		DSOs - Barnard Dark Clouds	Harrington TUBA listed. Barnard Note: Very large; CD -26 12152 (magnitude 6.2) S of the middle. This vacant region, with its extension to the west running south of Theta Ophiuchi, is visible to the naked eye (see Popular Astronomy, 14, 580, 1906.)
MWDS007	B078				492	Pipe Nebula bowl				Oph	99.9		DNe		J173200.00-253448.0	G001.23+04.35			None		DSOs - Clark	Harrington TUBA listed. Barnard Note: bowl of Pipe Nebula
MWDS007	B072				487	Stem of the Pipe Nebula				Oph	99.9		DNe		J172302.40-233336.0	G001.80+07.16	0.2		Orion Arm		DSOs - Clark	Harrington TUBA listed. Barnard Note: dark S nebula: the Snake
MWDS007	B067A					Pipe Nebula part of				Oph	99.9		DNe		J172057.60-265100.0	G003.14+08.20			None		DSOs - Barnard Dark Clouds	Barnard Note: Irregular; definite; BD -21 4591 (magnitude 9.5) in spot, near SE edge
MWDS007	B059					Stem of the Pipe Nebula				Sco	99.9		DNe		J171521.60-263600.0	G357.07+07.19			None		DSOs - Barnard Dark Clouds	Harrington TUBA listed. Barnard Note: Sink hole; at the W end of a wide broken lane from B 78
MWDS007	B066					Stem of the Pipe Nebula				Oph	99.9		DNe		J171948.00-263748.0	G358.66+05.86			None		DSOs - Barnard Dark Clouds	Harrington TUBA listed. Barnard Note: Definite; extended E and W; CD -26 12082 (magnitude 8.7) 5' from SE edge
MWDS007	B067					Stem of the Pipe Nebula				Oph	99.9		DNe		J172004.80-265212.0	G358.79+05.71			None		DSOs - Barnard Dark Clouds	Harrington TUBA listed. Barnard Note: Definite; extended N and S; connects B 65 and 66

MWDS007	B065			Stem of the Pipe Nebula	Oph 99.9	DNe	J171104.80-272400.0	G358.83+06.05	None	DSOs - Barnard Dark Clouds	Harrington TUBA listed. Barnard Note: Definite; elongated; 12' E and W
MWDS008	B072		487	Snake Nebula	Oph 99.9	DNe	J173200.00-253448.0	G001.80+07.16 0.2	Orion Arm	DSOs - Barnard Dark Clouds	Harrington TUBA listed. Barnard Note: S-shaped; this is a striking object. It is a thin, curved black marking, the exact form of the letter S or the figure 5, as the imagination or point of view may dictate. The SE branch runs E for some distance passing close S of the star CD -23 13376 (magnitude 9.1). Its average thickness is about 2'-3'. The position in the catalogue is for the southern part of the figure, or the bottom of the S (see Astrophysical Journal, 49, (1919ApJ....49....1B), Plate III).
MWDS009	NGC6369			Little Ghost Nebula	Oph 9.9	PN	J172919.20-234500.0	G002.44+05.86 1.75	Sagittarius-Carina Arm	DSOs - Herschel400_Supp	Herschel note: round blue-green Pipe Nebula; dist per Acker 1992 average derived
MWDS009	Little Ghost Neb (STScI-PRC2002-025a)			Little Ghost Nebula	Oph 9.9	PN	J172919.20-234500.0	G002.44+05.86 1.75	Sagittarius-Carina Arm	Hubble Famous Photographs	Herschel note: round blue-green Pipe Nebula; dist per Acker 1992 average derived
MWDS010	NGC6523	M008	505	Lagoon Nebula	Sgr 99.9	Cl*	J180312.00-242248.0	G005.92-01.08 1.595	Sagittarius-Carina Arm	DSOs - Clark	Distance per SEDS; Arm association per SEDS2000; contains small globules per Bok (1971)
MWDS010	M8 (STScI-PRC1996-038b)	M008	505	Lagoon Nebula: Giant "Twisters" in the Lagoon Nebula	Sgr 99.9	Cl*	J180312.00-242248.0	G005.92-01.08 1.595	Sagittarius-Carina Arm	Hubble Famous Photographs	Distance per SEDS; Arm association per SEDS2000; contains small globules per Bok (1971)
MWDS011	NGC6514	M020	501	Trifid Nebula	Sgr 6.3	HII	J180221.60-230148.0	G007.00-00.25 1.595	Sagittarius-Carina Arm	DSOs - Clark	Distance per SEDS; Arm association per SEDS2000.
MWDS012	NGC6531	M021	507		Sgr 5.9	OpC	J180412.00-222848.0	G007.68-00.35 1.205	Sagittarius-Carina Arm	DSOs - Clark	Arm association per SEDS2000.
MWDS013	NGC6626	M028	518		Sgr 7.66	GIC	J182431.20-245136.0	G007.80-05.57 5.7	Galactic halo	DSOs - Clark	
MWDS014	NGC6445				Sgr 18.9	PN	J174914.40-200000.0	G008.08+03.91 2.25	Sagittarius-Carina Arm	DSOs - Herschel400_Supp	Herschel note: circular brt blue-green; dist per Acker 1992 average derived
MWDS015	NGC6629		519		Sgr 9.9	PN	J182540.80-231200.0	G009.41-05.04 1.667	Sagittarius-Carina Arm	DSOs - Clark	Clark note: central star mag 13.5; HD169460; dist per Acker 1992 derived average
MWDS016	NGC6494	M023	499		Sgr 5.5	Cl*	J175700.00-185848.0	G009.89+02.85 0.628	Orion Arm	DSOs - Clark	Arm association per SEDS2000.
MWDS017	NGC6656	M022	527		Sgr 6.17	GIC	J183624.00-235400.0	G009.90-07.55 3.2	Galactic halo	DSOs - Clark	
MWDS018	B092		509		Sgr 99.9	DNe	J181531.20-181048.0	G012.73-00.59 0.2	Orion Arm	DSOs - Barnard Dark Clouds and Clark	Harrington TUBA listed. Barnard Note: Black spot; 15' N and S, 9' E and W
MWDS019	NGC6603	M024	512	Open cluster inside of M24, the Small Sagittarius Star Cloud	Sgr 11.1	OpC	J181824.00-182548.0	G012.84-01.31 3.6	Scutum-Crux Arm	DSOs - Clark	Arm association per SEDS2000.
MWDS019	M24	M024	511	Small Sagittarius Star Cloud; Milky Way patch star cloud	Sgr 11.1	OpC	J181824.00-182548.0	G012.84-01.31 3.07	Scutum-Crux Arm	DSOs - Clark	Distance per SEDS; Arm association per SEDS2000.
MWDS020	B093				Sgr 99.9	DNe	J181655.20-180412.0	G012.99-00.83	None	DSOs - Barnard Dark Clouds	Barnard Note: Cometary; a sharply defined black head 2' in diam., with a diffused tail

15' long running S; 20' NE of B 92

Distance per SEDS; Arm association per SEDS2000.

Arm association per SEDS2000.

Arm association per SEDS2000.

Arm association per SEDS2000.

Arm association per SEDS2000.

Dist. 191 light-years. Distances per Ochsenbein CDS Cat. V/53A; spectral type star.

Arm association per SEDS2000.

Arm association per SEDS2000.

Duval: yellow/green; Sep, PA from CCDM. Primary is type SB.

Mullaney: white & lilac

Sep, PA from CCDM; dist per Hipparcos Cat. (1997) plx

Clark note: central star mag 15.5; dist per Acker 1992 derived average

Sep, PA from CCDM

Mullaney: "Orange and reddish. . . ." Tanguay (1999) reticule calibration double star.

Sep, PA from CCDM

Duval: yellow/blue ; Sep, PA from CCDM.

Mullaney: "Ice-blue gem. . . . Host star setting for sci-fi classic Forbidden Planet." Sep, PA from CCDM; abs mag from Garrison1996.

Skyscanv3_12AlignmentStar spectral tour star; FAAS-

MWDS037	gam Aql			Tarazed	SAO105223	Aql	2.72	*j*	J194614.40+103636.0	G048.72-07.08	0.143	Orion Arm	Dbls Multpls - Belmont Society Colorful Supp	Malpas spectral star.
MWDS038	HD182955			STF 2838	SAO104839	Cyg	5.84	*j*	J192628.80+195324.0	G054.54+01.59	0.134	Orion Arm	Dbls Multpls - Belmont Society Colorful Supp	Sep, PA from CCDM; abs mag from Garrison1996. Skyscanv3_12AlignmentStar; spectral tour star.
MWDS039	15 Sge			Wolf 866; Sapphire Star	SAO105635	Sge	5.8	V*	J200407.20+170412.0	G056.55-07.55		None	Dbls Multpls - Mullaney Harvest - Supps	Belmont note: quadruple; Sep, PA from CCDM; dist per Hipparcos Cat. (1997) plx
MWDS040	NGC6838	M071	558			Sge	6.1	GIC	J195345.60+184612.0	G056.74-04.57	3.8	Galactic halo	DSOs - Clark	Mullaney: sapphire (deep blue-white).
MWDS041	tet Sge				SAO88270	Sge	6.49	*j*	J200957.60+205512.0	G060.58-06.69		None	Dbls Multpls - Mullaney Harvest - Supps	Mullaney: triple, yellow-white/ashen/yellow.
MWDS042	NGC6853	M027	560	Dumbbell Nebula		Vul	7.5	PN	J195936.00+224312.0	G060.83-03.70	0.383	Orion Arm	DSOs - Clark	Distance per SEDS; Arm association per SEDS2000.
MWDS043	NGC6905			Blue Flash Nebula		Del	15.7	PN	J202221.60+200600.0	G061.48-09.57	1	Orion Arm	DSOs - Herschel400_Supp	Herschel note: easy oval silver disk; dist per Acker 1992 average derived
MWDS044	bet01 Cyg			Albireo; MCA 55Aac	SAO87301	Cyg	3.08	**	J193043.20+275736.0	G062.11+04.57	0.125	Orion Arm	Dbls Multpls - Belmont Society Colorful Supp	Belmont note: blue/gold; Kaler: "Showpiece double star"; Knisely Colorful Double Star list; sep, PA from CCDM. Tanguay (1999) reticule calibration double star; spectral tour star; FAAS-Malpas spectral tour star; Duval color contrast double.
MWDS045	NGC6779	M056	544			Lyr	8.9	GIC	J191633.60+301048.0	G062.65+08.34	9.9	Galactic halo	DSOs - Clark	
MWDS046	phi Cyg				SAO68637	Cyg	4.68	SB*	J193921.60+300900.0	G064.95+03.97	0.077	Orion Arm	Spectral - Kaler Stars Spectrum - Supps	Dist. 250 light-years. Distances per Ochsenbein CDS Cat. V/53A; spectral tour star.
MWDS047	NGC6885	Caldwell037				Vul	8.1	Cl*	J201200.00+262848.0	G065.53-04.07	0.597	Orion Arm	DSOs - Herschel400_Supp	Herschel note: 42 stars large a brt star rich
MWDS048	NGC6842		559			Vul	16	PN	J195500.00+291648.0	G065.90+00.60	2.3	Orion Arm	DSOs - Clark	central star mag 14.5; dist per Acker 1992 average derived
MWDS049	khi Cyg				SAO68943	Cyg	6.8	Mi*	J195033.60+325436.0	G068.53+03.28	0.111	Orion Arm	Spectral - Kaler Stars Spectrum - Supps	Kaler: "Brightest S star." Dist. 362 light-years. Distances per Ochsenbein CDS Cat. V/53A; abs mag per Kaler2002 (informal est); spectral tour star.
MWDS050	17 Cyg				SAO68827	Cyg	4.99	PM*	J194626.40+334348.0	G068.81+04.43	0.021	Orion Arm	Dbls Multpls - Belmont Society Colorful Supp	Sep, PA from CCDM; Duval color contrast double.
MWDS051	V1357 Cyg			X Cyg X-1	SAO69181	Cyg	8.95	HXB	J195821.60+351200.0	G071.33+03.07	2.454	Orion Arm	Spectral - Kaler Stars Spectrum - Supps	Kaler: "Black hole candidate."; dist estimate per Kaler (2002); spectral tour star.
MWDS052	STT 394			STT 394	SAO69238	Cyg	7.03	*j*	J200011.45+362450.8	G072.56+03.38		None	Dbls Multpls - Duval RASC Colored DS Supps	Duval: orange/blue; Sep, PA from CCDM.
MWDS053	NGC6960	Caldwell034	574	Bridal Veil Nebula - Western Segment		Cyg	99.9	Neb	J204536.00+304200.0	G073.28-07.63	0.767	Orion Arm	DSOs - Clark	Approx. distance per O'Meara
MWDS054	52 Cyg				SAO70467	Cyg	4.23	*j*	J204539.72+304311.3	G073.30-07.63		None	Dbls Multpls - Duval RASC Colored DS Supps	Duval: yellow/blue; Sep, PA from CCDM.
MWDS055	NGC6992	Caldwell033	576	Bridal Veil Nebula - Eastern Segment		Cyg	99.9	sh	J205619.20+314124.0	G075.51-08.80	0.767	Orion Arm	DSOs - Clark	Approx. distance per O'Meara

MWDS056	NGC6888		Caldwell027	564	Crescent Nebula		Cyg 7.44	WR*		J201228.80+382436.0	G075.56+02.40	1.44		Orion Arm	DSOs - Clark	Approx. distance per O'Meara
MWDS057	P Cyg				Nova Cyg 1600	SAO69773	Cyg 4.79	No*		J201748.00+380148.0	G075.83+01.32	0.419		Orion Arm	Spectral - Kaler Stars Spectrum - Supps	Kaler: "Eponymous windy star and rare luminous blue variable." Dist. 1365 light-years. Distances per Ochsenbein CDS Cat. V/53A; spectral tour star.
MWDS058	NGC6913	M029		568			Cyg 6.6	OpC		J202355.20+383112.0	G076.91+00.61	1.148		Orion Arm	DSOs - Clark	Arm association per SEDS2000.
MWDS059	V1610 Cyg				Egg Nebula; The Egg; Cygnus Egg	GCVS311610	Cyg 14	pA*		J210219.20+364124.0	G080.17-06.51	1.227		Orion Arm	Spectral - Kaler Stars Spectrum - Supps	Kaler: "Rapidly evolving star that is producing a planetary nebula."; dist estimate per Kaler (2002); spectral tour star.
MWDS060	NGC6884			563			Cyg 10.9	PN		J201021.60+462736.0	G082.13+07.10	1.733		Orion Arm	DSOs - Clark	Dist per Acker 1992 average derived
MWDS061	31 Cyg					SAO49337	Cyg 3.79	Al*		J201338.40+464424.0	G082.68+06.78	0.144		Orion Arm	Dbls Multpls - AstroLeague DS - Supp	Sep, PA from CCDM. Tanguay (1999) reticule calibration double star.
MWDS061	omi01 Cyg				STF 518BC	SAO49337	Cyg 3.79	Al*		J201338.40+464424.0	G082.68+06.78	0.144		Orion Arm	Dbls Multpls - Belmont Society Colorful Supp	Belmont note: triple, red/white /blue; and 338"; Sep, PA from CCDM. Tanguay (1999) reticule calibration double star.
MWDS062	NGC7027			585	Stephan's/Webb's Proto Planetary Nebula		Cyg 8.8	PN		J210700.00+421348.0	G084.92-03.50	1.447		Orion Arm	DSOs - Clark	Kaler: "An intensely observed planetary nebula with one of the hottest known central stars."; dist per Acker 1992 derived average; spectral tour star.
MWDS063	NGC7000		Caldwell020	579	North America Nebula		Cyg 99.9	HII		J205845.60+441948.0	G085.50-00.98	0.552		Orion Arm	DSOs - Clark	Approx. distance per O'Meara
MWDS064	NGC7048			587			Cyg 99.9	PN		J211414.40+461648.0	G088.77-01.68	1.867		Orion Arm	DSOs - Clark	central star mag 18; dist per Acker 1992 average derived
MWDS065	NGC7026			584			Cyg 14.2	PN		J210616.80+475100.0	G089.00+00.38	1.896		Orion Arm	DSOs - Clark	central star mag 15; dist per Acker 1992 average derived
MWDS066	NGC7092	M039		590			Cyg 4.6	Cl*		J213148.00+482700.0	G092.41-02.23	0.326		Orion Arm	DSOs - Clark	Arm association per SEDS2000.
MWDS067	NGC7008			581			Cyg 12.8	PN		J210031.20+543224.0	G093.41+05.49	1.063		Orion Arm	DSOs - Clark	Clark note: central star mag 13; dist per Acker 1992 average derived
MWDS068	IC5146		Caldwell019		Cocoon Nebula		Cyg 7.2	OpC		J215331.20+471536.0	G094.40-05.51	1.01		Orion Arm	DSOs - Caldwell_Supp	In and near open cluster; approx. distance per O'Meara
MWDS069	NGC7243		Caldwell016	595			Lac 6.4	Cl*		J221504.80+495400.0	G098.85-05.52	0.808		Orion Arm	DSOs - Clark	
MWDS070	HD206267				STF 2841	SAO33626	Cep 5.62	**		J213857.60+572924.0	G099.29+03.74	0.36		Orion Arm	Dbls Multpls - AstroLeague DS - Supp	Sep, PA from CCDM; dist per Hipparcos Cat. (1997) plx
MWDS071	STF2816					SAO33626	Cep 8.1	*j*		J213900.00+572924.0	G099.30+03.74			None	Dbls Multpls - Mullaney Harvest - Supps	Mullaney: triple in surrounding dim nebula; showpiece triple.
MWDS072	HD208063				STF2840	SAO33817	Cep 6.58	*j*		J215200.00+554724.0	G099.56+01.28			None	Dbls Multpls - Mullaney Harvest - Supps	Mullaney: greenish-white/bluish white.
MWDS073	RW Cep					SAO34387	Cep 6.51	Pu*		J222307.20+555736.0	G103.20-01.12			None	Spectral - Kaler Stars Spectrum - Supps	Spectral tour star.
MWDS074	DO Cep					GCVS200137	Cep 10.3	Fl*		J222800.00+574200.0	G104.69-00.00			None	Dbls Multpls - Belmont Society Colorful Supp	Belmont note: red/red 2 dwarfs; flare star
MWDS074	HD239960				** KR60A; Krueger 60	GCVS200137	Cep 9.59	V*		J222800.00+574200.0	G104.69-00.00			None	Spectral - Kaler Stars Spectrum - Supps	Mullaney: red-dwarf binary, both red; flare star; spectral tour star.

MWDS075	VV Cep			SAO19753	Cep 5.18	M2lape+...	J215639.14+633732.0	G104.92+07.05	0.613	Orion Arm	Spectral - Kaler Stars Spectrum - Supps	Kaler: "Long-period eclipser and the largest star known." Dist per Kaler; spectral tour star.
MWDS076	27 Cep			SAO34508	Cep 4.07	cC*	J222909.60+582512.0	G105.20+00.54	0.466	Orion Arm	Dbls Multpls - Belmont Society Colorful Supp	Belmont note: yellow/blue; Sep, PA from CCDM
MWDS077	ksi Cep		MKT 6	SAO19827	Cep 4.29	PM*	J220348.00+643748.0	G106.16+07.37	0.031	Orion Arm	Dbls Multpls - AstroLeague DS - Supp	Mullaney: both blue-white. Sep, PA from CCDM
MWDS078	HR08752			SAO35039	Cas 5.1	**	J230004.80+565700.0	G108.16-02.69	1.405	Perseus Arm	Spectral - Kaler Stars Spectrum - Supps	Dist. 4579 light-years. Distances per Ochsenbein CDS Cat. V/53A; spectral tour star.
MWDS079	Sh2-155		Caldwell009		Cep 99.9	HII	J225752.80+623036.0	G110.24+02.47	0.73	Orion Arm	DSOs - Caldwell_Supp	Dist Fich (1984)
MWDS080	NGC7635		Caldwell011	607	Cas 99.9	HII	J232048.00+611200.0	G112.24+00.22	3.5	Perseus Arm	DSOs - Clark	Dist Fich (1984) for SH 2-162
MWDS081	NGC7654	M052		608	Cas 99.9	OpC	J232448.00+613448.0	G112.81+00.42	1.421	Perseus Arm	DSOs - Clark	Arm association per SEDS2000.
MWDS082	34 Cep			SAO20554	Cep 4.86	**	J231838.40+680636.0	G114.43+06.78	0.067	Orion Arm	Dbls Multpls - Belmont Society Colorful Supp	Belmont note: yellow/blue; Sep from Belmont Society
MWDS083	rho Cas			SAO35879	Cas 4.51	Em*	J235424.00+573000.0	G115.30-04.52	1.323	Perseus Arm	Spectral - Kaler Stars Spectrum - Supps	Kaler: "Erratically dimming hypergiant." Dist. 4313 light-years. Distances per Ochsenbein CDS Cat. V/53A; spectral tour star.
MWDS084	sig Cas		LAB 4	SAO35947	Cas 4.99	**	J235900.00+554500.0	G115.55-06.37	0.363	Orion Arm	Dbls Multpls - AstroLeague DS - Supp	Belmont: blue/green; Sep, PA from CCDM. Tanguay (1999) reticule calibration double star.
MWDS085	WZ Cas			SAO21002	Cas 7.06	sr*	J000116.80+602136.0	G116.76-01.91		None	Dbls Multpls - Mullaney Harvest - Supps	Mullaney: red/blue
MWDS086	HD224869		STF 761	SAO21002	Cas 8.33	Em*	J000124.00+602136.0	G116.78-01.91		None	Dbls Multpls - Belmont Society Colorful Supp	Belmont note: red/blue; Sep, PA from CCDM; classic STF Orion object near sig Ori; Orion doubles tour member
MWDS087	STF 3053		STF 3053B	SAO10938	Cas 7.34	*j*	J000238.00+660601.0	G118.01+03.70		None	Dbls Multpls - Duval RASC Colored DS Supps	Duval: orange/blue; Sep, PA from CCDM.
MWDS087	HD225010		STF3053; Rival of Albireo	SAO10937	Cas 7.34	*j*	J000238.40+660600.0	G118.01+03.70		None	Dbls Multpls - Mullaney Harvest - Supps	Mullaney: yellow/blue
MWDS088	NGC40		Caldwell002	002	Cep 11.4	PN	J001301.01+723112.0	G120.02+09.87	1.07	Perseus Arm	DSOs - Clark	Clark note: central star mag 11.5; approx. distance per O'Meara
MWDS089	alf Cas		Shedir	SAO21607	Cas 2.25	V*	J004031.20+563224.0	G121.42-06.30	0.071	Orion Arm	Dbls Multpls - Belmont Society Colorful Supp	Belmont note: bluish/orange - multiple; Sep, PA from CCDM; FAAS-Malpas spectral tour star.
MWDS090	gam Cas			SAO11482	Cas 2.39	Be*	J005643.20+604312.0	G123.58-02.15	0.191	Orion Arm	Dbls Multpls - Belmont Society Colorful Supp	Belmont note: yellow/blue /white; Kaler: "1st known 'B-emission' star."; Sep, PA from CCDM; abs mag from Garrison (1996); spectral tour star; FAAS-Malpas spectral star.
MWDS091	35 Cas			SAO11712	Cas 6.32	V*	J012104.80+643936.0	G126.10+01.97	0.073	Orion Arm	Dbls Multpls - Belmont Society Colorful Supp	Sep, PA from CCDM; dist per Hipparcos Cat. (1997) plx
MWDS092	psi Cas		STF2241AB	SAO11751	Cas 4.73	**	J012555.20+680748.0	G126.15+05.47	0.062	Orion Arm	Dbls Multpls - Belmont Society	Belmont note: yellow/blue/blue triple; Sep,

MWDS093	NGC457		Caldwell013	034	Owl Cluster; Phi Cass Cluster; E.T. Cluster; ET Cluster	Cas	6.4	OpC	J011939.84+581648.0	G126.65-04.39	2.43	Perseus Arm	Colorful Supp DSOs - Clark	PA from CCDM
MWDS094	NGC559		Caldwell008		Ghost's Goblet	Cas	9.5	OpC	J012921.60+631648.0	G127.18+00.72	1.258	Perseus Arm	DSOs - Caldwell_Supp	
MWDS095	NGC581	M103		037		Cas	7.4	OpC	J013324.00+603900.0	G128.05-01.80	2.194	Perseus Arm	DSOs - Clark	Arm association per SEDS2000.
MWDS096	HD011092			STF 326	SAO12006	Cas	6.56	*j*	J015116.80+645100.0	G129.24+02.71		None	Dbls Multpls - Belmont Society Colorful Supp	Belmont note: orange/blue; Sep, PA from CCDM
MWDS097	STF0163			STF0163	SAO12007	Cas	9.11	*j*	J015119.20+645136.0	G129.24+02.72		None	Dbls Multpls - Mullaney Harvest - Supps	Mullaney: orange/blue.
MWDS098	NGC663		Caldwell010	044	Horseshoe Cluster	Cas	7.1	OpC	J014612.00+611348.0	G129.47-00.94	1.952	Perseus Arm	DSOs - Clark	Clark note: 80 stars mag 9+
MWDS099	eps Cas				SAO12031	Cas	3.34	V*	J015424.00+634012.0	G129.85+01.65	0.143	Orion Arm	Spectral - Kaler Stars Spectrum - Supps	Dist. 465 light-years. Distances per Ochsenbein CDS Cat. V/53A; abs mag from Garrison (1996); spectral tour star; FAAS- Malpas spectral star.
MWDS100	NGC869		Caldwell014	049	Perseus Double Cluster h and Chi Persei	Per	5.3	OpC	J021906.00+570900.0	G134.64-03.72	2.079	Perseus Arm	DSOs - Clark	Arm association per SEDS2000.

Notes

This is a personal observing list that provides an good guide to the most prominent astronomical structure in the Northern Hemisphere's night sky: The disk of our Milky Way Galaxy. During the July through September, the Milky Way's disk rises along the eastern horizon, then bisects the sky running from the south to north local horizons, and then sets in the local western sky. During this summer observing season, objects along the Milky Way's spine are a favorite of the amateur astronomy community. This observing list begins with objects within 10 degrees of the galactic equator at the local southern horizon, beginning with M62 and Ptolemy's Cluster near minus 15 degrees galactic longitude and then works along the galactic equator (and north towards the northern local horizon) to the Perseus Double Cluster near 135 degrees galactic longitude. Many will already be familiar with the prominent Messier objects, like the Dumbbell Nebula (M27).

This observing list is a subset of a larger 2,000 object list that I developed in 2008. The list was built around five core prior catalogues:

- Clark, R.N., 1990. A Catalogue of Deep Sky Objects, Appendix E in Visual Astronomy of the Deep Sky, Cambridge University Press and Sky Publishing ;
- Mullaney, James. 1998. Celestial Harvest: 300-Plus Showpieces of the Heavens for Telescope Viewing and Contemplation. Dover. http://adsabs.harvard.edu/cgi-bin/nph-bib_query?bibcode=2003Ast....31R..95M ;
- Barnard's Catalogue of 349 Dark Objects in the Sky. CDS Cat Id. VII/200A <http://cdsweb.u-strasbg.fr/viz-bin/Cat?VII/220A> ;
- Georgia Institute of Technology Online Edition of E.E. Barnard's "A Photographic Atlas of Selected Regions of the Milky Way" (1927) http://www.library.gatech.edu/about_us/digital/barnard/index.html.
- Belmont Society. Feb. 2004. Colorful Double Star List. (Webpage) <http://www.belmontnc.4dw.net/dblstrs.htm> ;
- Kaler, James B. 2002. The Hundred Greatest Stars. Springer. (Kaler001-Kaler100) 2002hgs..book.....K http://adsabs.harvard.edu/cgi-bin/nph-bib_query?bibcode=2002hgs..book.....K ; and,
- Kaler, James B. 1997. Stars and their Spectra: An Introduction to the Spectral Sequence. Cambridge Univ. Press.1997stsp.book.....K http://adsabs.harvard.edu/cgi-bin/nph-bib_query?bibcode=1997stsp.book.....K

The Milky Way 100 (Summer) observing list includes colorful double stars beyond the iconic Alberio in order to better round out the summer observing experience. Some objects that readers might expect are omitted by the plus or minus 10 degrees of the galactic equator. These include the Ring Nebula (M57) and the Lyrae Double-Double.

Codebook - Partial

- Cat_id_this - Catalogue number within this catalogue. More than one row may have the same catalogue number. This is intended to capture the one-to-many relationship between references in prior catalogues that comprise one entry in this catalogue. Catalogue id MWD007, the Pipe Nebula is illustrative. The Pipe Nebula consists of several objects that are in Barnard's Dark Sky Catalogue. Objects in this catalogue are denoted "MWDS", meaning "Milky Way Disk - Summer". That designator leaves room for expansion into a future Milky Way Disk 100 - Winter edition catalogue covering galactic longitude 135 through Orion to galactic longitude 220.
- Clark# - Catalogue in Appendix to Clark, R.N. Visual Astronomy of the Deep Sky.
- GotoSlewId - Nearby bright star to catalogue object intended to be used for Goto telescope synching. For higher accuracy Goto pointing, slew to that nearby bright star; resynching your hand-controller, and then proceed to the target.
- Type_Simbad - Object type using 2008 Strausberg Simbad catalogue nomenclature. Current nomenclature can be found at url <http://simbad.u-strasbg.fr/simbad/sim-display?data=otypes> .
 - "V" means variable.
 - "***" means double star.
 - "**" means single star.
 - "*j*" is a deprecated Simbad object type meaning star in multiple star system or in a cluster.
 - "GIC" means globular cluster.
 - "OpC" means open cluster.
 - "Cl" means cluster.
 - "PM" means high proper motion star.
 - "DNe" means dark nebula.
 - Adding a star "*" suffix means to an identifier suspected object classification.
- CaldwellName - Caldwell 100 Object List Id Number.
- PositionSubCategory - Component in Milky Way Galaxy in which - in this writer's opinion - the catalogue object is located based on distances reported in astronomical literature and catalogues. The 2008 distances in this catalogue have not been updated for recent Gaia measurements.

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