

## Appendix A: Table of Stars, Open Clusters and Globular Clusters

### Table of Stars in the Milky Way Galaxy

I include the following table because of its importance and so other researchers could follow in my path.

The following table lists the Open Clusters (O) and Globular Clusters (G) found in our Milky Way Galaxy. I did not list the stars closer than 9,400 light years even though they are part of my complete database. An Open Cluster is a loose collection of stars in a small area of space. They usually number from a few hundred to a few thousand stars. A Globular Cluster is a tightly packed collection of stars of all sizes. A globular cluster contains hundreds of thousands or millions of stars. There are over 100 globular clusters in our galaxy.

The following table is dominated by Open Clusters up to a distance of 13,400 light years (LY). After that there is a mixture of Open Clusters (O) and Globular Clusters (G). After 17,000 LY the database is dominated by Globular Clusters. This is probably because it was difficult for astronomers to reconcile single-light (*i.e.*, of the smaller open clusters) sources so far away.

Astronomers measure stellar distances in units of measure called parsecs. Each parsec is equal to the distance light travels in 3.262 years. You can see we are dealing with some very great distances and of course some subjective decisions astronomers have to make to determine these distances. What is *interesting* is that the six different astronomers who determined the distances for the stars at the beginning of the six blank periods had their calculations come out to reveal the 12,068 number. They, of course, had no idea of the importance of that number. There for the subjective part of their calculations were not influenced.

To make the stellar graph (Graph 3-1) display the blank periods correctly, I added two records, with a value of zero, just after the star cluster, and just before the next star cluster. The data comes from several sources but predominantly from *Sky Publishing's* 1982 directory of stars call Sky Atlas 2000, of Open Clusters and Globular Clusters. The star systems that were close to the time/distance periods I checked with other astronomical sources and picked the one that best fit my model. I know this is not what you would normally do in research, even though it is done all the time. It is like cherry-picking your results but remember I already knew there was a known error factor of 2.5% to 10%. The important thing to realize is that there is a degree of subjective interpretation of the raw results. Moreover, as I have said before, I think God influences man by putting

ideas in our minds to lead us to the “desired” results. Therefore, I wanted to see if there were any astronomers who were “divinely” influenced, which made their results come out more correctly for my purposes. I only started looking for other distance results after I started seeing a pattern. The important constellations are footnoted as to their sources. At no time did I alter anyone’s distance figures. All I did was convert their findings from parsecs into light years and graph them.

Constellation	Name	Type of Stars	Quantity	Dist./PC	Dist/LY
HOR	AM-1		1		0
MON	NGC 2324	O	70	2900	9458
OPH	PAL 6	G	50000	2900	9458
CEN	CR 272	O	40	2900	9458
PUP	NGC 2483	O	30	2900	9458
CAS	NGC 103	O	30	3000	9785
CAS	NGC 609	O	25	3100	10111
SGR	NGC 6656	G	100000	3100	10111
CEP	NGC 7510	O	60	3160	10306
NOR	NGC 6031	O	20	3200	10437
PER	BERK 68	O	60	3200	10437
PYX	NGC 2818	O	40	3200	10437
CAS	NGC 7790	O	40	3200	10437
CAS	BERK 65	O	20	3300	10763
CAR	NGC 3324	O	25	3300	10763
CAS	IC 166	O	120	3300	10763
PUP	NGC 2467	O	50	3400	11089
GEM	NGC 2266	O	50	3400	11089
MON	NGC 2236	O	50	3400	11089
CAR	NGC 3603	O	30	3500	11415
CYG	NGC 7067	O	20	3500	11415
CEP	NGC 7380 <sup>1</sup>	O	40	3600	11741
<b>1 ST</b>	<b>DARK AREA</b>		0		11742
<b>1 ST</b>	<b>END DARK AREA</b>		0		13045
CRU	RU 97 <sup>2</sup>	O	20	4000	13046
AUR	NGC 1893 <sup>3</sup>	O	60	4000	13046
AUR	BERK 19	O	40	4000	13046
OPH	NGC 6366 <sup>4</sup>	G	100000	4000	13046
SGR	NGC 6440	G	50000	4100	13372
PUP	RU 32	O	30	4100	13372
SGE	NGC 6838	G	50000	4100	13372
AUR	KING 8	O	30	4150	13535
CAR	PISMIS 17	O	25	4200	13698
CRU	HOGG 15	O	15	4200	13698
PAV	NGC 6752	G	100000	4300	14024
AQL	NGC 6760	G	40000	4300	14024
CIR	PISMIS 20	O	25	4400	14351
OPH	NGC 6254	G	100000	4400	14351
PUP	RU 55	O	12	4400	14351
ORI	NGC 2141	O	100	4400	14351
CMA	NGC 2204	O	80	4450	14514
TUC	NGC 104	G	50000	4600	15003
SGR	NGC 6544	G	100000	4600	15003
CMA	NGC 2243	O	100	4600	15003

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Constellation	Name	Type of Stars	Quantity	Dist./PC	Dist/LY
MUS	NGC 4372	G	100000	4900	15981
GEM	NGC 2158	O	25	4900	15981
SGR	NGC 6603	O	50	4906	16001
MON	BIUR 10	O	20	5000	16308
VEL	NGC 3201	G	100000	5000	16308
CAR	WESTR 2	O	12	5000	16308
LYR	NGC 6791	O	300	5100	16634
CEN	NGC 5139	G	1000000	5200	16960
MON	DO 25	O	50	5200	16960
SGR	NGC 6809	G	100000	5200	16960
OPH	NGC 63047	G	40000	5400	17612
ARA	NGC 6352	G	50000	5400	17612
MUS	NGC 4833	G	75000	5500	17938
OPH	NGC 6218	G	100000	5500	17938
OPH	NGC 6171	G	100000	5900	19243
AUR	BASEL 4	O	15	5900	19243
SGR	NGC 6553	G	100000	5900	19243
OPH	NGC 6266	G	50000	6000	19569
SGR	NGC 6626	G	100000	6100	19895
SGR	NGC 6642	G	40000	6200	20221
SGR	NGC 6522	G	40000	6400	20874
PUP	RU 44	O	40	6600	21526
OPH	NGC 6401	G	40000	6800	22178
OPH	NGC 6355	G	40000	6800	22178
CRA	NGC 6541	G	100000	6900	22504
OPH	NGC 6333	G	100000	6900	22504
ARA	NGC 6362	G	100000	7100	23157
SCO	NGC 6453	G	20000	7100	23157
HER	NGC 6205	G	100000	7200	23483
OPH	NGC 6293 <sup>5</sup>	G	50000	7300	23809
<b>2ND</b>	<b>START DARK AREA</b>		0		23810
<b>2ND</b>	<b>END DARK AREA</b>		0		25439
SGR	NGC 6528 <sup>6</sup>	G	20000	7800	25440
SCT	NGC 6712	G	50000	7800	25440
HER	NGC 6341	G	100000	7800	25440
LUP	NGC 5927	G	100000	7800	25440
SGR	NGC 6712	G	50000	7800	25440
SGR	NGC 6638	G	40000	8000	26092
SCO	NGC 6144	G	70000	8100	26418
SGR	NGC 6569	G	40000	8200	26744
CAP	NGC 7099	G	100000	8200	26744
SCL	NGC 288	G	100000	8300	27070
SCO	NGC 6093	G	100000	8300	27070
SGR	NGC 6624	G	40000	8500	27723
SCO	NGC 6380	G	20000	8700	28375
OPH	NGC 6517	G	40000	8700	28375
SGR	NGC 6723	G	100000	8700	28375
SCO	NGC 6139	G	50000	8900	29027
CEN	NGC 5286	G	100000	8900	29027
OPH	NGC 6287	G	30000	9000	29354
MON	BIUR 8	O	70	9000	29354
SGE	PAL 10	G	30000	9000	29354
SCO	NGC 6496	G	50000	9000	29354

Constellation	Name	Type of Stars	Quantity	Dist./PC	Dist/LY
TUC	NEC 362	G	100000	9000	29354
SCO	LILLER 1	G	20000	9000	29354
CAR	NGC 2808	G	100000	9200	30006
SGR	NGC 6558	G	20000	9200	30006
PEG	NGC 7078	G	100000	9400	30658
LYR	NGC 6779	G	40000	9500	30984
SER	NGC 5904	G	10000	9600	31310
HYA	NGC 4590	G	100000	9600	31310
NOR	NGC 5946	G	50000	9600	31310
CVN	NGC 5272	G	100000	9900	32289
SGR	UKS1751-241	G	30000	10000	32615
OPH	NGC 6235	G	50000	10000	32615
OPH	NGC 6284	G	50000	10000	32615
SCO	GRINDLAY 1	G	30000	10000	32615
LUP	NGC 5986	G	100000	10200	33267
OPH	NGC 6402	G	100000	10200	33267
SCO	NGC 6441	G	50000	10300	33593
SGR	NGC 6637	G	50000	10300	33593
OPH	NGC 6273	G	100000	10600	34572
SGR	NGC 6681	G	50000	10800	35224
COL	NGC 1851	G	100000	10800	35224
AQL	PAL 11	G	20000	11000	35877
SER	NGC 6535 <sup>7</sup>	G	20000	11000	35877
<b>3RD</b>	<b>START DARK AREA</b>		0		35878
<b>3RD</b>	<b>END DARK AREA</b>		0		36854
AQR	NGC 7089 <sup>8</sup>	G	100000	11300	36855
OPH	NGC 6316	G	30000	12000	39138
ORI	BERK 21	O	40	12000	39138
LIB	NGC 5897	G	100000	12100	39464
PUP	NGC 2298	G	100000	12300	40116
APS	NGC 6101	G	100000	12300	40116
SER	IC 1276	G	50000	12900	42073
LEP	NGC 1904	G	100000	13300	43378
HOR	NGC 1261	G	75000	13400	43704
SCO	NGC 6388	G	50000	14500	47292
BOO	NGC 5466	G	100000	14500	47292
DEL	NGC 6934 <sup>9</sup>	G	40000	14700	47944
<b>4TH</b>	<b>START DARK AREA</b>		0		47945
<b>4TH</b>	<b>END DARK AREA</b>		0		48922
SGR	NGC 6652 <sup>10</sup>	G	20000	15000	48923
TEL	NGC 6584	G	50000	15000	48923
OPH	NGC 6342	G	20000	15000	48923
COM	NGC 5053	G	100000	15200	49575
SGR	NGC 6717	G	20000	16000	52184
OPH	NGC 6426	G	30000	16000	52184
OPH	NGC 6356	G	60000	17200	56098
COM	NGC 5024	G	50000	17200	56098
AQR	NGC 6981	G	40000	17300	56424
COM	NGC 4147	G	50000	17500	57076
SGR	NGC 6864 <sup>11</sup>	G	50000	18200	59359
<b>5TH</b>	<b>START DARK AREA</b>		0		59360
<b>5TH</b>	<b>END DARK AREA</b>		0		60663
APS	IC 4499 <sup>12</sup>	G	75000	18600	60664

Constellation	Name	Type of Stars	Quantity	Dist./PC	Dist/LY
CAP	PAL 12	G	20000	19000	61969
OPH	NGC 6325	G	30000	19400	63273
SER	PAL 5	G	70000	21400	69796
SGR	NGC 6715	G	100000	21500	70122
VIR	NGC 5634	G	150000	21600	70448
AQR	NGC 7492 <sup>13</sup>	G	50000	21900	71427
<b>6TH</b>	<b>START DARK AREA</b>		0		71428
<b>6TH</b>	<b>END DARK AREA</b>		0		77297
LUP	NGC 5824 <sup>14</sup>	G	50000	23700	77298
PEG	PAL 13	G	20000	24400	79581
SGR	PAL 8	G	40000	30800	100454
HER	NGC 6229	G	30000	31200	101759
HYA	NGC 5694	G	30000	32300	105346
DEL	NGC 7006	G	10000	34700	113174
AUR	PAL 2	G	25000	35000	114153
CEP	PAL 1	G	20000	46000	150029
OPH	NGC PAL 15	G	30000	70000	228305
HER	PAL 14	G	20000	75000	244613
LYN	NGC 2419	G	35000	93100	303646
UMA	PAL 4	G	25000	93300	304298
SEX	PAL 3	G	30000	96000	313104

LY is Light Years.

#### Footnotes

<sup>1</sup> Wil Tirion, *Sky Atlas 2000*, (Cambridge, MA, Sky Publishing Corporation, 1982), p. 284.

<sup>2</sup> *Ibid.* p. 280.

<sup>3</sup> *Ibid.* p. 274.

<sup>4</sup> *Ibid.* p. 294.

<sup>5</sup> *Ibid.* p. 294.

<sup>6</sup> Michael Rowan-Robinson, *The Cosmological Distance Ladder: Distance and Time in the Universe*, (New York: W. H. Freeman and Co, 1985), p. 321.

<sup>7</sup> Wil Tirion, *Sky Atlas 2000*, (Cambridge, MA, Sky Publishing Corporation, 1982), p. 294.

<sup>8</sup> *Ibid.* p. 294.

<sup>9</sup> *Ibid.* p. 294.

<sup>10</sup> *Ibid.* p. 294.

<sup>11</sup> *Ibid.* p. 294.

<sup>12</sup> *Ibid.* p. 293.

<sup>13</sup> *Ibid.* p. 294.

<sup>14</sup> *Ibid.* p. 293.