

Double Stars for Binoculars

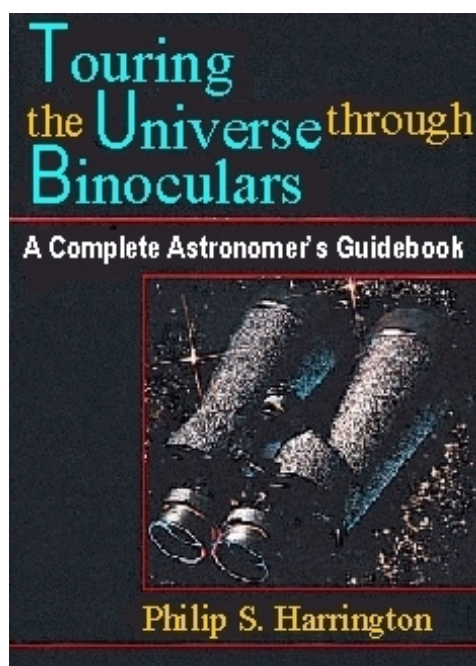
AN OBSERVING PROGRAM

by

The Spirit of 33

(An International Network of Double Stars Observers)

based on the list of celestial objects by Philip S. Harrington



**

2000-1 Edition



PHIL HARRINGTON'S BINOCULARS DOUBLE STARS LIST

for Declination over -30°

Object	Con	R.A. (2000)	Dec (2000)	Mag	Sep	PA	ADS #	Notes	Pg	Chk
56	And	01 56.2	+37 15	5.7 6.0	190"	300 (1928)	1534		7	
15	Aql	19 05.0	-04 02	5.5 7.2	38"	209 (1959)	12007		8	
OSS 178	Aql	19 15.3	+15 05	5.7 7.8	90"	268 (1925)			9	
Lambda	Ari	01 57.9	+23 36	4.9 7.7	37"	46 (1933)	1563	9 Ari	10	
30	Ari	02 37.0	+24 39	6.6 7.4	39"	274 (1937)	1982	colorful	11	
S 656	Boo	13 50.4	+21 17	6.8 7.3	86"	208 (1923)			12	
Iota	Boo	14 16.2	+51 22	4.9 7.5	39"	33 (1942)	9198		13	
Delta	Boo	15 15.5	+33 19	3.5 8.7	105"	79 (1976)	9559		14	
Mu	Boo	15 24.5	+37 23	4.3 6.5	108"	171 (1956)	9626		15	
OSS 36	Cam	03 40.0	+63 52	6.8 8.6	46"	69 (1923)	2650		16	
S 436	Cam	03 49.3	+57 07	6.5 7.3	58"	75 (1975)			17	
11	Cam	05 06.1	+58 58	5.4 6.5	180"	8 (1924)			18	
Struve 1051	Cam	07 26.6	+73 05	7.1 7.8	31"	82 (1935)	6028		19	
OSS 90	Cam	08 02.5	+63 05	6.0 8.4	49"	82 (1924)			20	
Burnham58 4	Cnc	08 39.9	+19 33	6.9 7.2	45" 93"	156 241 (1952)	6915	M44	21	
Iota	Cnc	08 46.7	+28 46	4.2 6.6	31"	307 (1968)	6988		22	
17	CVn	13 10.1	+38 30	6.0 6.2	84"	297 (1922)	8805		23	
Alpha1+2	Cap	20 18.1	-12 33	3.6 4.2	378"	291 (1924)	13645	optical	24	
Beta1+2	Cap	20 21.0	-14 47	3.4 6.2	205"	267 (1922)			25	
OSS 26	Cas	02 19.7	+60 02	6.9 7.4	63"	200 (1925)			26	
OSS 1	Cep	00 14.0	+76 02	7.6 7.9	76"	103 (1923)		optical	27	

37	Cet	01 14.4	-07 55	5.2 8.7	50"	331 (1931)	1003		28	
17	Com	12 28.9	+25 55	5.3 6.6	145"	251 (1928)	8568	in Mel 111	29	
32+33	Com	12 52.2	+17 04	6.3 6.7	95"	49 (1922)			30	
H V 38	CrB	16 22.9	+32 20	6.3 8.8	34.7"	19 (1914)	10031		31	
OSS 182	Cyg	19 26.8	+50 09	7.3 8.5	73"	300 (1956)	12470		32	
Beta	Cyg	19 30.7	+27 58	3.1 5.1	34"	54 (1967)	12540	Albireo	33	
Omicron1	Cyg	20 13.6	+46 44	4 7 5	107" 338"	173 338 (1926)	13554		34	
OSS 207	Cyg	20 22.9	+42 59	6.6 8.5	93"	63 (1920)	13786		35	
61	Cyg	21 06.9	+38 45	5.2 6.0	321"	195 (1976)	14636	large p.m.	36	
S 752	Del	20 30.2	+19 25	6.6 7.0	106"	288 (1915)	13921		37	
Struve1516	Dra	11 15.4	+73 28	7.6 8.1	36.2"	102 (1940)	8100		38	
OSS 123	Dra	13 27.1	+64 44	6.7 7.0	69"	147 (1924)			39	
16 + 17	Dra	16 36.2	+52 55	5.4 5.5	90"	194 (1956)	10129		40	
Nu	Dra	17 32.2	+55 11	4.9 4.9	62"	312 (1955)	10628		41	
Psi	Dra	17 41.9	+72 09	4.9 6.1	30"	15 (1958)	10759		42	
Struve2278	Dra	18 02.9	+56 26	7 8 9 10	37" 34" 201"	26 35 191 (1949)	11035		43	
39	Dra	18 23.9	+58 48	5.0 7.4	89"	21 (1956)	11336		44	
Omicron	Dra	18 51.2	+59 23	4.8 7.8	34"	326 (1949)	11779		45	
Gamma	Equ	21 10.3	+10 08	4.7 5.9	353"	153 (1922)	14702		46	
Burnham10 42	Eri	03 58.6	-02 39	7.5 8.5	56"	93 (1913)	2909		47	
Omicron2	Eri	04 15.2	-07 39	4.4 9.5	83"	104 (1970)	3093		48	
62	Eri	04 56.4	-05 10	5.5 9.1	67"	75 (1913)			49	
Nu	Gem	06 29.0	+20 13	4.2 8.7	113"	329 (1924)	5103		50	
Zeta	Gem	07 04.1	+20 34	3.8 8.0	96"	350 (1925)	5742	A=var(3.6-4.2)	51	
Struve1090	Gem	07 26.5	+18 31	7.3 8.2	61"	97 (1921)	6073		52	
Alpha	Gem	07 34.6	+31 53	1.9 8.8	73"	164 (1955)	6175	Castor	53	

37	Her	16 40.6	+04 13	5.8 7.0	70"	230 (1932)	10149		54	
h 99	Hya	08 37.8	-06 48	6.8 9.1	61"	202 (1918)	6900		55	
27	Hya	09 20.5	-09 33	5.0 6.9	229"	211 (1923)	7311		56	
7	Leo	09 35.9	+14 23	6.2 10.0	41"	80 (1946)	7448		57	
Alpha	Leo	10 08.4	+11 58	1.4 7.7	177"	307 (1924)	7654	Regulus	58	
Tau	Leo	11 27.9	+02 51	5.1 8.0	91.1"	176 (1932)			59	
Burnham314	Lep	04 59.0	-16 23	5.9 8.2	53"	34 (1914)	3588		60	
S 476	Lep	05 19.3	-18 31	6.2 6.4	39"	18 (1952)	3910		61	
h 3780	Lep	05 39.3	-17 51	6 9 8 8	89" 76" 129"	136 7 299 (1916)	4254		62	
Gamma	Lep	05 44.5	-22 27	3.7 6.3	96"	350 (1957)	4334		63	
SHJ 179	Lib	14 25.5	-19 58	6.4 7.6	35"	296 (1955)	9258		64	
Alpha1+2	Lib	14 50.9	-16 02	2.8 5.2	231"	314 (1913)			65	
Iota	Lib	15 12.2	-19 47	5.1 9.4	58"	111 (1919)	9532		66	
SHJ 195	Lib	15 14.5	-18 26	7.1 8.1	47"	140 (1916)			67	
5	Lyn	06 26.8	+58 25	5.3 7.9	96"	272 (1924)	5036		68	
Epsilon1+2	Lyr	18 44.3	+39 40	5.0 5.2	208"	173 (1955)	11635	Double-double	69	
Zeta	Lyr	18 44.8	+37 36	4.3 5.9	44"	150 (1955)	11639		70	
Beta	Lyr	18 50.1	+33 22	3.3v 8.6	46"	149 (1955)	11745	A=mag 3.3-4.3	71	
Delta1+2	Lyr	18 54.5	+36 54	5.6 4.5	630"			Optical	72	
OS 525	Lyr	18 54.9	+33 58	6.0 7.7	45"	350 (1935)	11834		73	
OSS 181	Lyr	19 20.1	+26 39	7.6 7.4	58"	3 (1923)			74	
Zeta	Mon	08 08.6	-02 59	4.3 7.8	67"	245 (1936)	6617		75	
Rho	Oph	16 25.6	-23 27	5 8 7	151" 156"	0 253 (1925)	10049		76	
36	Oph	17 15.3	-26 36	5 6 8	732" 208"	280 315 (1905)	10417		77	
53	Oph	17 34.6	+09 35	5.8 8.5	41"	191			78	

S 694	Oph	17 52.1	+01 07	6.9 7.1	82"	237			79	
23	Ori	05 22.8	+03 33	5.0 7.1	32"	28	3962		80	
Delta	Ori	05 32.0	-00 18	2.2 6.3	53"	359	4134		81	
Struve 747	Ori	05 35.0	-06 00	4.8 5.7	36"	223	4182		82	
42 + 45	Ori	05 35.4	-04 50	4.7 5.3	6'				83	
Theta1+2	Ori	05 35.4	-05 25	4.9 5.0	135"	314	4188	Theta1=Trapeziu m	84	
Theta2	Ori	05 35.4	-05 25	5.2 6.5	52"	92 (1937)	4188		85	
75	Ori	06 17.1	+09 57	5.4 8.5	117"	159	4890		86	
85	Peg	00 02.2	+27 05	5.8 8.6	76"	330 (1932)	17175		87	
3	Peg	21 37.7	+06 37	6.0 8.3	39"	349 (1934)	15147		88	
Epsilon	Peg	21 44.2	+09 52	2.4 8.4	143"	320 (1913)	15268	Enif	89	
Struve 3007	Peg	23 22.8	+20 34	6.6 8.9	88"	311 (1956)	16713		90	
57	Per	04 33.4	+43 04	6.1 6.8	116"	198 (1913)			91	
Psi1	Psc	01 05.6	+21 28	5.6 5.8	30"	159 (1832)	899		92	
77	Psc	01 05.8	+04 55	6.8 7.6	33"	83 (1833)	903		93	
H VI 119	PsA	22 39.7	-28 20	6.3 7.3	87"	160 (1951)	16149		94	
Alpha	PsA	22 57.6	-29 37	1.2 6.5	7200"			Fomalhaut	95	
Epsilon	Sge	19 37.3	+16 28	5.7 8.0	89"	81 (1949)	12693		96	
Theta	Sge	20 09.9	+20 55	6.5 7.4	84"	223 (1949)	13442	Optical	97	
54	Sgr	19 40.7	-16 18	5.4 8.9	46"	42 (1932)	12767		98	
Nu	Sco	16 12.0	-19 28	4.3 6.4	41"	337 (1955)	9951		99	
Theta	Ser	18 56.2	+04 12	4 5 8	22" 414"	104 (1973) 56 (1927)	11853		100	
21 + 22	Tau	03 46.1	+24 32	5.6 6.4	168"			Asterope; in M45	101	
Eta	Tau	03 47.5	+24 06	3 8 8 8	117" 181" 191"	289 312 295 (1903)		Alcyone	102	
27 + BU	Tau	03 49.2	+24 03	3.7 5.0	300"	180		Atlas & Pleione;in M45	103	

H VI 98	Tau	04 15.5	+06 11	6.3 7.0	66"	315 (1937)	3085		104	
Phi	Tau	04 20.4	+27 21	5.0 8.4	52"	250 (1925)	3137		105	
Kappa	Tau	04 25.4	+22 18	4.4 5.4	340"	173 (1923)			106	
Theta1+2	Tau	04 28.7	+15 52	3.8 3.4	337"	346 (1921)			107	
88	Tau	04 35.7	+10 10	4.3 8.4	70"	299 (1920)	3317		108	
OSS 67	Tau	05 48.4	+20 52	6.1 8.6	76"	161 (1933)	4392		109	
S 598	UMa	09 28.7	+45 36	5.5 8 10	77" 84"	162 (1924)			110	
65	UMa	11 55.1	+46 29	6.7 6.5	63"	114 (1969)	8347		111	
Wnc 4	UMa	12 22.4	+58 05	9.0 9.3	50"			M40	112	
Zeta	UMa	13 23.9	+54 56	2.3 4.0	709"	71 (1966)	8891	Alcor/Mizar	113	
Struve1831	UMa	14 16.2	+56 43	7.1 6.6	108"	222 (1956)	9197	Optical	114	
Pi1	UMi	15 29.2	+80 27	6.6 7.3	31"	80 (1959)	9696		115	