

A.L. Double Star Observing List

Star	R.A.	Dec.	Constellation	Chart	Magnitudes	Sep.	P.A.	Colors/Notes
Eta Cassiopeia η Cassiopeiae	00h 49.1m	+57° 49'	Cassiopeia	1	3.4, 7.5	1980: 12.0" 2000: 12.9" 2020: 13.5"	1980: 307° 2000: 317° 2020: 326°	
65 Pisces	00h 49.9m	+27° 43'	Pisces	4	6.3, 6.3	4.4"	297°	
Psi 1 Pisces φ ¹ Piscium	01h 05.6m	+21° 28'	Pisces	4	5.6, 5.8	30"	159°	
Zeta Pisces ζ Piscium	01h 13.7m	+07° 35'	Pisces	10	5.6, 6.5	23"	63°	
Gamma Aries γ Arietis	01h 53.5m	+19° 18'	Aries	4	4.8, 4.8	7.8"	0°	
Lambda Aries λ Arietis	01h 57.9m	+23° 36'	Aries	4	4.9, 7.7	37.4"	46°	
Alpha Pisces α Piscium	02h 02.0m	+02° 46'	Pisces	10	4.2, 5.1	1980: 2.0" 2000: 1.8" 2020: 1.7"	1980: 284° 2000: 272° 2020: 257°	
Gamma Andromeda γ Andromedae	02h 03.9m	+42° 20'	Andromeda	4	2.3, 5.5	9.8"	63°	
Iota Triangulum ι Trianguli	02h 12.4m	+30° 18'	Triangulum	4	5.3, 6.9	3.9"	71°	
Alpha Ursa Minor α Ursae Minoris (Polaris)	02h 31.8m	+89° 16'	Ursa Minor	1	2.0, 9.0	18.4"	218°	
Gamma Cetus γ Ceti	02h 43.3m	+03° 14'	Cetus	10	3.5, 7.3	2.8"	294°	
Eta Perseus η Persei	02h 50.7m	+55° 54'	Perseus	1	3.8, 8.5	28.3"	300°	
Struve 331 Σ331	03h 00.9m	+52° 21'	Perseus	1, 4	5.3, 6.7	12.1"	85°	
32 Eridanus	03h 54.3m	-02° 57'	Eridanus	10, 11	4.8, 6.1	6.8"	347°	
Chi Taurus χ Tauri	04h 22.6m	+25° 38'	Taurus	5	5.5, 7.6	19.4"	24°	

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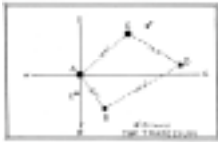
Star	R.A.	Dec.	Constellation	Chart	Magnitudes	Sep.	P.A.	Colors/Notes
1 Camelopardalis	04h 32.0m	+53° 55'	Camelopardalis	1, 5	5.7, 6.8	10.3"	308°	
55 Eridanus	04h 43.6m	-08° 48'	Eridanus	11	6.7, 6.8	9.2"	317°	
Beta Orion β Orionis (Rigel)	05h 14.5m	-08° 12'	Orion	11	0.1, 6.8	9.5"	202°	
118 Taurus	05h 29.3m	+25° 09'	Taurus	5	5.8, 6.6	4.8"	204°	
Delta Orion δ Orionis (A-C)	05h 32.0m	-00° 18'	Orion	11	2.2, 6.3	52.6"	359°	white/ violet
Struve 747 Σ747	05h 35.0m	-06° 00'	Orion	11	4.8, 5.7	35.7"	223°	
Lamda Orion λ Orionis	05h 35.1m	+09° 56'	Orion	11	3.6, 5.5	4.4"	43°	
Theta 1 Orion θ ¹ Orionis The Trapezium	05h 35.3m	-05° 23'	Orion	11	A 6.7-7.7 (var.) B 7.9-8.5 (var.) C 5.1 D 6.7	A-B: 8.8" A-C: 12.8" A-D: 21.5"	A-B: 31° A-C: 132° A-D: 96°	
Iota Orion ι Orionis	05h 35.4m	-05° 55'	Orion	11	2.8, 6.9	11.3"	141°	
Theta 2 Orion θ ² Orionis	05h 35.4m	-05° 25'	Orion	11	5.2, 6.5	52.5"	92°	
Sigma Orion σ Orionis (A-D) (A-E)	05h 38.7m	-02° 36'	Orion	11	3.7, 7.5 3.7, 6.5	12.9" 42.6"	84° 61°	
Zeta Orion ζ Orionis (A-B) (A-C)	05h 40.8m	-01° 57'	Orion	11	1.9, 4.0 1.9, 9.9	2.4" 57.6"	162° 10°	
Gamma Lepus γ Leporis	05h 44.5m	-22° 27'	Lepus	19	3.7, 6.3	96.3"	350°	yellow/ orange
Theta Auriga θ Aurigae	05h 59.7m	+37° 13'	Auriga	5	2.6, 7.1	3.6"	313°	
Epsilon Monoceros ε Monocerotis	06h 23.8m	+04° 36'	Monoceros	11, 12	4.5, 6.5	13.4"	27°	yellow/ blue

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Beta Monoceros (A-B) β Monocerotis (B-C)	06h 28.8m	-07° 02'	Monoceros	11, 12	4.7, 5.2 5.2, 6.1	7.3" 2.8"	132° 106°	
12 Lynx (A-B) (A-C)	06h 46.2m	+59° 27'	Lynx	1	5.4, 6.0 5.4, 7.3	1.7" 8.7"	70° 308°	
Epsilon Canis Major ε Canis Majoris	06h 58.6m	-28° 58'	Canis Major	19	1.5, 7.4	7.5"	161°	
Delta Gemini δ Geminorum	07h 20.1m	+21° 59'	Gemini	5	3.5, 8.2	1980: 6.1" 2000: 5.8" 2020: 5.4"	1980: 222° 2000: 226° 2020: 230°	
19 Lynx (A-B)	07h 22.9m	+55° 17'	Lynx	1,5	5.6, 6.5	14.8"	315°	
Alpha Gemini (A-B) α Geminorum (Castor) (A-C)	07h 34.6m	+31° 53'	Gemini	5	1.9, 2.9 1.9, 8.8	2000: 4.0" 2020: 5.6" 72.5"	2000: 68° 2020: 55° 164°	
Kappa Puppis κ Puppis	07h 38.8m	-26° 48'	Puppis	19	4.5, 4.7	9.9"	318°	
Zeta Cancer (A-C) ζ Cancri	08h 12.2m	+17° 39'	Cancer	12	5.6, 6.2	1960: 6.1" 2000: 6.0"	1960: 83° 2000: 72°	
Iota Cancer ι Cancri	08h 46.7m	+28° 46'	Cancer	6	4.2, 6.6	30.5"	307°	
38 Lynx	09h 18.8m	+36° 48'	Lynx	6	3.9, 6.6	2.7"	229°	
Alpha Leo (A-B) α Leonis (Regulus)	10h 08.4m	+11° 58'	Leo	13	1.4, 7.7	176.9"	307°	
Gamma Leo (A-B) γ Leonis	10h 20.0m	+19° 51'	Leo	6, 13	2.2, 3.5	1980: 4.3" 2000: 4.4"	1980: 124° 2000: 125°	
54 Leo	10h 55.6m	+24° 45'	Leo	6	4.5, 6.3	6.5"	110°	
N Hydra	11h 32.3m	-29° 16'	Hydra	20	5.8, 5.9	9.2"	210°	
Delta Corvus δ Corvi	12h 29.9m	-16° 31'	Corvus	14	3.0, 9.2	24.2"	214°	
24 Coma Berenices	12h 35.1m	+18° 23'	Coma Berenices	14	5.2, 6.7	20.3"	271°	

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Gamma Virgo γ Virginis	12h 41.7m	-01° 27'	Virgo	14	3.5, 3.5	2000: 1.8" 2010: 0.9"	2000: 267° 2010: 44°	
32 Camelopardalis	12h 49.2m	+83° 25'	Camelopardalis	2	5.3, 5.8	21.6"	326°	
Alpha Canes Venatici α Canum Venaticorum (Cor Caroli)	12h 56.0m	+38° 19'	Canes Venatici	7	2.9, 5.5	19.4"	229°	
Zeta Ursa Major (Mizar AB) ζ Ursae Majoris (Alcor)	13h 23.9m	+54° 56'	Ursa Major	2	2.3, 4.0 4.0	14.4" 709"	152° 71°	
Kappa Bootes κ Bootis	14h 13.5m	+51° 47'	Bootes	2, 7	4.6, 6.6	13.4"	236°	sec. blue
Iota Bootes ι Bootis	14h 16.2m	+51° 22'	Bootes	2, 7	4.9, 7.5	38"	33°	
Pi Bootes π Bootis	14h 40.7m	+16° 25'	Bootes	7, 14	4.9, 5.8	5.6"	108°	
Epsilon Bootes (A-B) ε Bootis	14h 45.0m	+27° 04'	Bootes	7	2.5, 4.9	2.8"	339°	yellow/ blue
Alpha Libra α Librae	14h 50.9m	-16° 02'	Libra	14	2.8, 5.2	231"	314°	yellow/ blue-white
Xi Bootes (A-B) ξ Bootis	14h 51.4m	+19° 06'	Bootes	7, 14	4.7, 7.0	1990: 7.0" 2000: 6.6" 2010: 6.0"	1990: 326° 2000: 318° 2010: 308°	yellow/ red
Delta Bootes δ Bootis	15h 15.5m	+33° 19'	Bootes	7	3.5, 8.7	104.9"	79°	
Mu Bootes (A-B) μ Bootis (B-C)	15h 24.5m	+37° 23'	Bootes	7	4.3, 7.2 7.0, 7.6	108" 2000: 2.3" 2020: 2.2"	171° 2000: 8° 2000: 2°	
Delta Serpens δ Serpentis	15h 34.8m	+10° 32'	Serpens	15	4.2, 5.2	4.4"	176°	
Zeta Corona Borealis ζ Coronae Borealis	15h 39.4m	+36° 38'	Corona Borealis	7	5.1, 6.0	6.3"	305°	

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Star	R.A.	Dec.	Constellation	Chart	Magnitudes	Sep.	P.A.	Colors/Notes
Xi Scorpius ξ Scorpii (A-C)	16h 04.4m	-11° 22'	Scorpius	15	4.8, 7.3	7.6"	51°	
Struve 1999 Σ 1999 (A-B)	16h 04.4m	-11° 27'	Scorpius	15	7.4, 8.1	11.6"	99°	
Beta Scorpius β Scorpii (A-C)	16h 05.4m	-19° 48'	Scorpius	15, 22	2.6, 4.9	13.6"	21°	white/ blue
Kappa Hercules κ Herculis (A-B)	16h 08.1m	+17° 03'	Hercules	15	5.3, 6.5	28.4"	12°	
Nu Scorpius ν Scorpii (A-C)	16h 12.0m	-19° 28'	Scorpius	15, 22	4.3, 6.4	41"	337°	
Sigma Corona Borealis σ Coronae Borealis	16h 14.7m	+33° 52'	Corona Borealis	7, 8	5.6, 6.6	7.1"	236°	
17 Draco 16-17 Draco (A-B)	16h 36.2m	+52° 55'	Draco	3	5.4, 6.4 5.5	3.4" 90.3"	108° 194°	
Mu Draco μ Draconis (A-B)	17h 05.3m	+54° 28'	Draco	3	5.7, 5.7	2000: 1.9" 2020: 2.2"	2000: 8° 2020: 338°	
Alpha Hercules α Herculis	17h 14.6m	+14° 23'	Hercules	15	3.5, 5.4	4.6"	104°	
Delta Hercules δ Herculis	17h 15.0m	+24° 50'	Hercules	8	3.1, 8.2	12.5"	279°	
36 Ophiuchus	17h 15.3m	-26° 36'	Ophiuchus	22	5.1, 5.1	4.9"	146°	orange pair
Omicron Ophiuchus ο Ophiuchi	17h 18.0m	-24° 17'	Ophiuchus	22	5.4, 6.9	10.3"	355°	yellow/ blue
Rho Hercules ρ Herculis (A-B)	17h 23.7m	+37° 09'	Hercules	8	4.6, 5.6	4.1"	316°	
Nu Draco ν Draconis	17h 32.2m	+55° 11'	Draco	3	4.9, 4.9	61.9"	312°	
Psi Draco ψ Draconis (A-B)	17h 41.9m	+72° 09'	Draco	3	4.9, 6.1	30.3"	15°	

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Star	R.A.	Dec.	Constellation	Chart	Magnitudes	Sep.	P.A.	Colors/Notes
41 Draco (A-B)	18h 00.2m	+80° 00'	Draco	3	5.7, 6.1	19.3"	232°	
95 Hercules	18h 01.5m	+21° 36'	Hercules	8	5.0, 5.1	6.3"	258°	
70 Ophiuchus	18h 05.5m	+02° 30'	Ophiuchus	15, 16	4.2, 6.0	1990: 1.5" 1995: 2.5" 2000: 3.8" 2005: 4.9"	1990: 224° 1995: 168° 2000: 148° 2005: 138°	yellow/ red
Epsilon Lyra (ϵ^1 - ϵ^2) ϵ Lyrae ϵ^1 (A-B) Double-Double ϵ^2 (C-D)	18h 44.3m	+39° 40'	Lyra	8	5.1, 5.2 5.1, 6.0 5.2, 5.5	208" 2.6" 2.3"	173° 350° 82°	
Zeta Lyra (A-D) ζ Lyrae	18h 44.8m	+37° 36'	Lyra	8	4.3, 5.9	43.7"	150°	
Beta Lyra (A-B) β Lyrae	18h 50.1m	+33° 22'	Lyra	8	3.4, 8.6	45.7"	149°	
Struve 2404 Σ 2404	18h 50.8m	+10° 59'	Aquila	16	6.9, 8.1	3.6"	183°	
Otto Struve 525 (A-C) O Σ 525	18h 54.9m	+33° 58'	Lyra	8	6.0, 7.7	45.2"	350°	yellow/ blue
Theta Serpens (A-B) θ Serpentis	18h 56.2m	+04° 12'	Serpens	16	4.5, 5.4	22.3"	104°	
Beta Cygnus β Cygni	19h 30.7m	+27° 58'	Cygnus	8	3.1, 5.1	34.4"	54°	yellow/ blue
57 Aquila	19h 54.6m	-08° 14'	Aquila	16	5.8, 6.5	35.7"	170°	
31 Cygnus (A-C) (A-D)	20h 13.6m	+46° 44'	Cygnus	9	3.8, 6.7 3.8, 4.8	107" 337.5"	173° 323°	
Alpha Capricornus (α^1 - α^2) α Capricorni (α^1 -AC) (α^2 -AB)	20h 17.6m 20h 18.1m	-12° 30' -12° 33'	Capricornus	16	4.2, 3.6 4.2, 9.5 3.6, 11.0	377.8" 45" 6.6"	291° 221° 172°	
Beta Capricornus (A-B) β Capricorni	20h 21.0m	-14° 47'	Capricornus	16	3.4, 6.2	205.3"	267°	

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Star	R.A.	Dec.	Constellation	Chart	Magnitudes	Sep.	P.A.	Colors/Notes
Gamma Delphinus γ Delphini	20h 46.7m	+16° 07'	Delphinus	16	4.5, 5.5	9.6"	268°	
61 Cygnus	21h 06.9m	+38° 45'	Cygnus	9	5.2, 6.0	30.3"	150°	
Beta Cepheus β Cephei	21h 28.7m	+70° 34'	Cepheus	3	3.2, 7.9	13.3"	249°	
Struve 2816 (A-C) Σ2816 (A-D)	21h 39.0m	+57° 29'	Cepheus	3	5.6, 7.7 5.6, 7.8	11.7" 19.9"	121° 339°	
Epsilon Pegasus (A-C) ε Pegasi	21h 44.2m	+09° 52'	Pegasus	17	2.4, 8.4	142.5"	320°	
Xi Cepheus ξ Cephei	22h 03.8m	+64° 38'	Cepheus	3	4.4, 6.5	7.7"	277°	
Zeta Aquarius ζ Aquarii	22h 28.8m	-00° 01'	Aquarius	17	4.3, 4.5	1996: 2.0" 2000: 2.1" 2004: 2.2"	1996: 199° 2000: 192° 2004: 188°	
Delta Cepheus (A-C) δ Cephei	22h 29.2m	+58° 25'	Cepheus	3	A 3.6-4.3 C 7.5	41"	191°	The A star is variable
8 Lacerta	22h 35.9m	+39° 38'	Lacerta	9	5.7, 6.5	22.4"	186°	
94 Aquarius	23h 19.1m	-13° 28'	Aquarius	17	5.3, 7.3	12.7"	350°	
Sigma Cassiopeia (A-B) σ Cassiopeiae	23h 59.0m	+55° 45'	Cassiopeia	1,3	5.0, 7.1	3"	326°	

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This table was put together to provide more accurate values for the data in the Astronomical League's Double Star list. In completing the program, we found that the list as published on the A.L. Website had several instances of outdated or incomplete data. For example, several of the double stars orbit fast enough that the position angle and/or separation change over time intervals of ten, five, or as little as one year, but the published list only had one set of values. To address that problem, we listed values for a number of years. Our primary reference for this data was *Sky Catalogue 2000.0, Volume 2: Double Stars, Variable Stars, and Nonstellar Objects*, edited by Alan Hirshfeld and Roger W. Sinnott, Sky Publishing Co. 1985.

Edwin T. Lurcott

A.L. Double Star Certificate #50
Observing Chair, past President, and Founder
Chester County Astronomical Society

James J. Anderson

A.L. Double Star Certificate #97
ALCor and Newsletter Editor
Chester County Astronomical Society