

©

**Star & Planet sights are available****Date & Zone Time @ DR Position**

18-May-03 21:18:14

**Date & MeanTime @ Greenwich**

19-May-03 4:18:14

1st Body Hc      1st Body      1st Body Zn

27      CAPELLA      308.9 deg.

Valid Zn Ranges for 2nd Body 354

**Sun is below the horizon****Moon is below the horizon****Sun, Moon, Planet & Star Data Valid @ Position Shown Below**

DR L 48 deg. 8.50 min. N

DR Lo 123 deg. 26.00 min. W

Use "Nav Bodies" Worksheet to specify Position, Date & Time

List of Bodies Flagged as "Valid for Sight Taking"

The ideal Zn values for a 2nd Body of a 2 Body Fix are shown in the mauve cells labeled +2ΔZn &amp; +6ΔZn

2nd Body Hc      2nd Body      2nd Body Zn

48      REGULUS      218.9 deg.

Select Bodies for a Two Body Fix

Altitude of the Sun -4 deg. 43.86 min.

Crossing Angle of LOPs From Body 1 &amp; Body 2 is 90 deg.

1st Body Hc      1st Body      1st Body Zn

12      DENEBO      31.9 deg.

Valid Zn Ranges for 2nd Body 62

+1ΔZn      +2ΔZn

92 deg. 152 deg.

The ideal Zn values for a 2nd &amp; 3rd body of a 3 body fix

are shown in the mauve cells labeled +2ΔZn &amp; +4ΔZn

Valid Zn Ranges for 2nd Body 242

+4ΔZn      +5ΔZn

272 deg. 332 deg.

**Sight Planning**  
Select Bodies from Dropdown List associated with Yellow Cells

Note: The Valid Zn Ranges for a 3rd Body are not valid until you run the "ValidZnRanges" macro by clicking on this box.

This must be done each time after entering a new name for either the "1st Body" and/or the "2nd Body".

Valid Zn Ranges for a 3rd Body

62 → 124 deg.

242 → 304 deg.

-- → -- deg.

-- → -- deg.

-- → -- deg.

2nd Body Hc      2nd Body      2nd Body Zn

27      SPICA      153.6 deg.

Select Bodies for a Three Body Fix

Azimuth Spread 237.9 deg.

3rd Body Hc      3rd Body      3rd Body Zn

39      POLLUX      269.7 deg.

LHA of Aries 177.6 deg.

Crossing Angle of LOPs From Body 1 &amp; Body 2 is 58 deg.

HO 2102-D

Crossing Angle of LOPs From Body 1 &amp; Body 3 is 58 deg.

Crossing Angle of LOPs From Body 2 &amp; Body 3 is 64 deg.

Zn (deg.)	Visual Magnitude	Names of Bodies Flagged as Valid for Sight Taking	Hc (deg.)	Hc (min.)
21.2	2.1	Kochab	57	40.69
31.9	1.3	DENEBO	12	7.68
45.4	1.8	Alioth	77	29.62
49.3	2.2	Eltanin	34	49.17
54.9	0.0	VEGA	21	9.43
75.5	1.9	Alkaid	70	42.71
84.3	2.1	Rasalhague	11	49.22
95.4	2.2	Alphecca	41	48.68
121.8	0.0	ARCTURUS	48	44.97
153.6	1.0	SPICA	27	2.38
180.4	2.1	Denebola	56	24.76
218.9	1.4	REGULUS	48	3.72
219.5	2.0	Alphard	25	4.92
245.4	-2.0	JUPITER	43	39.83
252.5	0.4	PROCYON	21	52.54
269.7	1.1	POLLUX	39	20.08
274.0	0.5	BETELGEUSE	6	21.53
285.3	1.1	SATURN	16	49.16
293.9	1.7	Elnath	17	13.20
308.9	0.1	CAPELLA	27	56.64
326.9	1.8	Mirfak	18	18.35
338.6	1.8	Dubhe	74	55.05
352.8	2.2	Schedar	15	13.07