

Star & Planet sights are available

Sun, Moon, Planet & Star Data Valid @ Position Shown Below

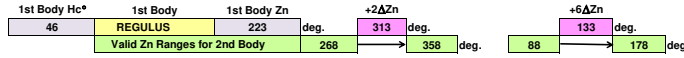
Date & Zone Time @ DR Position  
18-May-17 21:28:24

Altitude of the Sun on the Prime Vertical Circle 27 deg. 3.00 min.

Date & Mean Time @ Greenwich  
19-May-17 4:28:24

DR L 48 deg. 8.50 min. N  
DR Lo 123 deg. 26.00 min. W

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



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

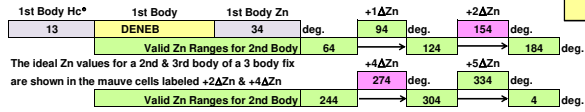
Select Bodies for a Two Body Fix

Altitude of the Sun -5.96 deg.

Bodies flagged as "Valid for Sight Taking" sorted by Zn value

Crossing Angle of LOPs From Body 1 & Body 2 is 87 deg.

Sight Planning Select Bodies from Dropdown List associated with Yellow Cells

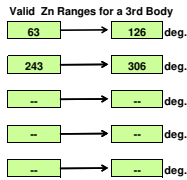


The Ideal Zn values for a 2nd & 3rd body of a 3 body fix are shown in the mauve cells labeled +2ΔZn & +4ΔZn

Select Bodies for a Three Body Fix

Azimuth Spread 238 deg.

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".



Crossing Angle of LOPs From Body 1 & Body 2 is 57 deg.

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

Crossing Angle of LOPs From Body 2 & Body 3 is 65 deg.

HO 2102-D Star Finder

Zn (deg.)	HO 249 Vol. I Star	Names of Bodies Flagged as Valid for Sight Taking	Hc (deg.)	Hc (min.)	Visual Magnitude	GHA (deg.)	GHA (min.)	Dec (deg.)	Dec (min.)	Dec N S	Lunar Distance (deg.)	Lunar Distance (min.)
20.5	Yes	Kochab	58	27.53	2.1	81	27.43	74	5.28	N		
33.7	Yes	DENEBO	13	16.07	1.3	353	37.79	45	20.37	N		
41.0	Yes	Alioth	78	54.68	1.8	110	26.39	55	52.20	N		
50.6	-	Eltanin	36	23.34	2.2	34	52.76	51	29.21	N		
56.7	Yes	VEGA	22	50.55	0.0	24	45.15	38	47.98	N		
76.5	Yes	Alkaid	72	39.36	1.9	97	4.78	49	13.83	N		
86.5	Yes	Rasalhague	13	48.16	2.1	40	12.01	12	32.96	N		
97.9	Yes	Alphecca	43	46.29	2.2	70	16.74	26	39.52	N		
125.4	Yes	ARCTURUS	50	21.30	0.0	90	1.36	19	5.66	N		
137.9	-	Zubenelgenubi	15	31.92	2.8	81	10.47	16	6.74	S		
156.8	Yes	SPICA	27	48.01	1.0	102	36.51	11	15.09	S		
164.2	-	JUPITER	36	35.06	-2.4	110	45.90	4	6.54	S		
176.4	Yes	Giennah	24	8.73	2.6	119	57.69	17	38.37	S		
185.6	Yes	Denebola	56	13.74	2.1	126	39.16	14	28.56	N		
222.3	Yes	Alphard	23	43.43	2.0	162	1.86	8	44.23	S		
222.7	Yes	REGULUS	46	42.33	1.4	151	49.04	11	52.89	N		
254.9	Yes	PROCYON	19	56.72	0.4	189	5.50	5	10.61	N		
271.9	Yes	POLLUX	37	21.04	1.1	187	39.07	27	58.95	N		
276.2	Yes	BETELGEUSE	4	23.42	0.5	215	7.06	7	24.35	N		
295.2	-	MARS	9	29.69	1.5	226	13.19	23	45.80	N		
295.9	-	Elnath	15	27.20	1.7	222	17.95	28	37.09	N		
310.4	-	CAPELLA	26	28.01	0.1	224	39.31	46	0.71	N		
328.6	Yes	Mirfak	17	18.78	1.8	252	45.34	49	55.07	N		
334.1	Yes	Dubhe	74	11.55	1.8	137	56.75	61	39.69	N		
354.5	Yes	Schedar	15	4.64	2.2	293	46.10	56	37.60	N		

Using the HO 2102-D Star Finder & Identifier

LHA of Aries 180.71 deg. GHA of Aries 304.14 deg.

Date & Mean Time @ Greenwich  
19-May-17 4:28:24

Zone Time of Rise	Body	Zone Time of MT	Right Ascension	Declination	SHA	GHA	Zone Time of Set
5:29	Sun	13:10	56.15 deg.	19.80 deg. N	303.85 deg.	247.00 deg.	20:50
2:15	Moon	7:22	332.44 deg.	11.49 deg. S	27.55 deg.	331.69 deg.	12:29
3:41	Venus	10:04	12.91 deg.	4.28 deg. N	347.09 deg.	291.23 deg.	16:26
6:22	Mars	14:24	77.92 deg.	23.76 deg. N	282.08 deg.	226.22 deg.	22:26
16:21	Jupiter	22:06	193.37 deg.	4.11 deg. S	166.63 deg.	110.77 deg.	3:51
22:40	Saturn	2:57	266.11 deg.	22.02 deg. S	93.89 deg.	36.83 deg.	7:13

Note: If the Rise event or Set event displays --- the event does not occur at the DR position on the specified date.

A Sun ~ Moon 2 Body Fix may be possible around the dates shown in Cells V42 & V43

Δ Moon Cycle 0  
New Moon 26-Apr-17 First Quarter 3-May-17  
Full Moon 10-May-17 Last Quarter 19-May-17

See notes attached to Cells V39 & V40 for additional information.

Moon's Age 23 Days

Waning Crescent Moon