

Star & Planet sights are available

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

Date & Zone Time @ DR Position
26-Dec-17 17:28:00

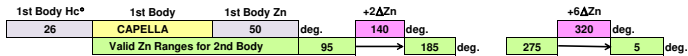
Altitude of the Sun on the Prime Vertical Circle --- deg. --- min.

Date & MeanTime @ Greenwich
27-Dec-17 0:28:00

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

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

Select Bodies for a Two Body Fix

Altitude of the Sun -1.14 deg.

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

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".

Select Bodies for a Three Body Fix

Valid Zn Ranges for a 3rd Body

63 → 126 deg.

243 → 306 deg.

-- → -- deg.

-- → -- deg.

-- → -- deg.

-- → -- deg.

HO 2102-D Star Finder

Crossing Angle of LOPs From Body 1 & Body 2 is 55 deg.

Crossing Angle of LOPs From Body 1 & Body 3 is 51 deg.

Crossing Angle of LOPs From Body 2 & Body 3 is 74 deg.

Using the HO 2102-D Star Finder & Identifier

LHA of Aries 339.25 deg.

GHA of Aries 102.69 deg.

Visual Magnitude of Bodies specified as valid for sight taking 3

Date & MeanTime @ Greenwich

27-Dec-17 0:28:00

Zone Time of Rise	Body	Zone Time of MT	Right Ascension	Declination	SHA	GHA	Zone Time of Set
9:03	Sun	13:14	275.92 deg.	23.32 deg. S	84.08 deg.	186.00 deg.	17:25
13:27	Moon	19:32	13.72 deg.	1.13 deg. N	346.27 deg.	88.95 deg.	1:36
8:40	Venus	12:47	272.46 deg.	23.69 deg. S	87.54 deg.	190.22 deg.	16:54
4:15	Mars	9:13	218.93 deg.	14.26 deg. S	141.07 deg.	243.76 deg.	14:10
4:42	Jupiter	9:33	223.92 deg.	15.65 deg. S	136.08 deg.	238.76 deg.	14:23
6:27	Saturn	12:40	270.67 deg.	22.53 deg. S	89.13 deg.	191.81 deg.	16:54

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

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.)
50.1	Yes	CAPELLA	26	57.62	0.1	23	10.67	46	0.79	N	72	10.59
54.0	Yes	Schedar	69	25.13	2.2	92	18.11	56	38.32	N	55	5.71
59.3	Yes	Mirfak	44	33.19	1.8	51	16.76	49	55.46	N	57	31.04
61.6	-	Elmath	13	13.94	1.7	20	49.60	28	37.16	N	70	11.40
78.8	Yes	ALDEBARAN	12	15.09	0.9	33	26.77	16	32.53	N	56	12.88
101.3	Yes	Hamal	41	52.19	2.0	70	38.34	23	32.78	N	28	5.92
105.1	Yes	Menkar	18	35.47	2.5	56	52.95	4	9.42	N	32	6.33
128.6	Yes	Alpheratz	84	3.13	2.1	100	21.55	29	11.46	N	30	14.98
136.7	-	MOON	34	22.60	-7.2	88	57.26	1	7.71	N	0	0.00
148.1	Yes	Diphda	18	5.35	2.0	91	34.03	17	53.51	S	18	14.48
167.4	-	Markab	56	38.10	2.5	116	16.62	15	18.17	N	30	59.45
175.2	Yes	FOMALHAUT	12	10.63	1.2	118	2.02	29	31.81	S	41	30.46
200.3	Yes	Enif	50	17.01	2.4	136	25.56	9	57.53	N	48	25.86
235.5	Yes	ALTAIR	37	36.93	0.8	164	46.81	8	55.10	N	75	59.87
267.6	Yes	Rasalhague	19	4.85	2.1	198	45.20	12	32.99	N	109	19.28
272.7	Yes	DENEb	70	13.22	1.3	152	10.99	45	20.89	N	71	11.99
280.7	Yes	VEGA	46	41.69	0.0	183	18.55	38	48.19	N	93	19.24
298.9	Yes	Alphecca	10	7.42	2.2	228	49.96	26	39.33	N	132	54.19
301.9	-	Eltanin	46	27.36	2.2	193	26.50	51	29.33	N	98	35.15
329.6	Yes	Alkaid	15	44.26	1.9	255	37.98	49	13.31	N	128	45.23
340.5	Yes	Alloth	17	54.86	1.8	268	59.41	55	51.56	N	124	0.00
341.5	Yes	Kochab	39	21.92	2.1	240	2.25	74	4.79	N	103	5.66
356.5	Yes	Dubhe	19	55.98	1.8	296	29.08	61	38.97	N	114	22.59

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

Δ Moon Cycle 0
New Moon 18-Dec-17 First Quarter 26-Dec-17
Full Moon 2-Jan-18 Last Quarter 8-Jan-18

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

Moon's Age 9 Days

Waxing Gibbous Moon