

★ Sight Reduction Form ★

To be used with the Nautical Almanac and HO 229 tables

Body			DR Longitude		
Date			Tabulated GHA		
Watch Time			GHA Increment		
Watch Timezone		east - subtract west - add	SHA (stars) or v-corr (Moon)		
Watch Correction		fast watch - subtract slow watch - add	Total GHA		
Time (UTC)			(a) Assumed Longitude		HO 229: minutes = GHA minutes for W.Long; minutes = 60' - GHA minutes for E.Long; other: use DR Longitude
Sextant Altitude					
Index Correction		on the arc - subtract off the arc - add			
Dip (Eye Height)		always subtract	(b) +/- 360°		if LHA < 0° or > 360°
Total Apparent Altitude (Ha)			Total LHA		W Long = GHA-a+b E Long = GHA +a+b
Altitude Correction		Refraction and optional semidiameter	Tabulated Hc		d:
Additional Corrections		Moon	Hc Increment		
Total Observed Altitude (Ho)			Total Computed Altitude (Hc)		
DR Latitude			(a) Larger between Ho and Hc		
Assumed Latitude (B)		HO 229: whole degrees; other: use DR Latitude	(b) Smaller between Ho and Hc		
Declination		d-corr'n factor:	Intercept (a - b)	T / A	Ho > Hc: Toward Ho < Hc: Away
d-correction			Azimuth Angle (Z)		N Lat (B): if LHA > 180° Zn=Z; if LHA < 180° Zn = 360°-Z S Lat (B): if LHA > 180° Zn=180°-Z; if LHA < 180° Zn = 180°+Z
Total Declination (Dec)		Same / Contrary to B	Azimuth (Zn)		

Line of position calculation: $Hc = \arcsin (\sin Dec \sin B + \cos Dec \cos B \cos LHA)$ $Z = \arccos [(\sin Dec - \sin B \sin Hc) / (\cos Hc \cos B)]$