

Sight Reduction Form

Section I: Observations and Corrections

1. Celestial Body	SUN		
2. Apparent Altitude	NA	Index Correction	
	+ -4.1'	Dip Correction	
	+ 26° 18'	Sextant Altitude	
3. Observed Altitude	26° 13.9'	Total Apparent Altitude (<i>ha</i>)	
	+ 14.3'	Altitude Correction	
	+ NA	Additional Corrections (Atmospheric)	
	+ NA	Additional Corrections (Mars/Venus/Moon)	
	26° 28.2'	Total Observed Altitude (<i>ho</i>)	

Section II: Time and Dead Reckoning

4. Date (GMT)	12/25/14
5. DR Latitude	N30° 12'
6. DR Longitude	W60° 10'
7. Time (GMT)	13:35:09

Section III: Latitude and Longitude

8. GHA	14° 59.2'	Tabulated GHA
	+ 8° 47.3'	GHA Increment
	+ NA	SHA (stars) or <i>v</i> -correction (Moon)
	23° 46.5'	Total GHA
9. LHA	W60° 46.5'	(a) Assumed Longitude (E. Long = 60' - GHA min.)
	+ 360°	(b) +/- 360° if LHA less than 0° or greater than 360°
	323°	Total LHA (W. Long. = GHA - a + b; E. Long. = GHA + a + b)
10. Declination	S23° 23.1'	Declination (<i>d</i> -corr'n factor: <u>0.1'</u>)
	+ (-0.1')	<i>d</i> -correction
	S23° 23.0'	Total Declination (Dec.)
11. Assumed Latitude	N30°	Same Contrary (compared to Dec. hemisphere)

Section IV: Determining a Line of Position

12. Computed Altitude	26° 11.2'	Tabulated <i>hc</i> (<i>d</i> <u>-49.0'</u>)
	+ (-18.8')	Declination Increment (Dec. minutes/60 times <i>d</i>)
	25° 52.4'	Total Computed Altitude (<i>hc</i>)
13. Altitude Intercept	26° 28.2'	(<i>ho</i> or <i>hc</i>) whichever is larger. <i>ho</i> = Section I, 3.
	-25° 52.4'	(<i>ho</i> or <i>hc</i>) whichever is smaller. <i>hc</i> = Section IV, 12.
	35.8' (T) A	Intercept (Toward if <i>ho</i> > <i>hc</i> , Away if <i>ho</i> < <i>hc</i>)
14. Azimuth Angle (Z)	141.9°	
15. Azimuth (<i>Zn</i>)	141.9°	N Lat.: LHA > 180°, <i>Zn</i> =Z LHA < 180°, <i>Zn</i> =360°-Z S Lat.: LHA > 180°, <i>Zn</i> =180°-Z LHA < 180°, <i>Zn</i> =180°+Z