

## Longitude Meridian by Equal Altitudes

<b>Ap. Latitude</b>	°	'	<b>Ap λ</b>	°	'
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### AM Sights

Date		UTC	:	:	Hs	°	'	1A
Date		UTC	:	:	Hs	°	'	2A
Date		UTC	:	:	Hs	°	'	3A
Add up time of the sights			:	:	<i>Total time</i>			
Divide <i>Total time</i> by number of sights			:	:	<i>AM averaged time</i>			

### PM Sights

Date		UTC	:	:	Hs	°	'	3P
Date		UTC	:	:	Hs	°	'	2P
Date		UTC	:	:	Hs	°	'	1P
Add up time of the sights			:	:	<i>Total time</i>			
Divide <i>Total time</i> by number of sights			:	:	<i>PM averaged time</i>			

### Determine Longitude

<i>AM averaged time</i>	:	:	
<i>PM averaged time</i>	:	:	
Sum of AM & PM averaged times	:	:	<i>Total of averaged times</i>
Divide AM & PM averaged times by 2	:	:	<i>Averaged time</i>
Get Sun GHA for <i>Averaged time</i> *	°	'	<i>Your Longitude</i>

### Notes

UTC = GMT  
Hs = Height of sextant

Hs of sight 1A and 1P should be the same.. Hs of sight 2A and 2P should be the same. Hs of sight 3A and 3P should be the same.

*Longitude by equal altitudes* requires that you make and record AM sights and then wait for the Sun's meridian passage (at your longitude). Make and record individual PM sights when the Sun's altitude is the same as each of the AM sights.

A quantity of three AM and three PM sights are sufficient for determining Longitude by equal altitudes. One AM sight and one PM sight are acceptable if that's all you can get.

\*Use the Sun's GHA for the date and time of the final step above to obtain your longitude.