

For use with artificial horizon and software

Body			
Date			
IE 1			
IE 2			
IE 3			
IE			
Time 1			
SR 1			
Time 2			
SR 2			
Time 3			
SR 3			
SR			
Time			
TC			
GMT			
Ha			
R [']			
SD			
Ho			
HP			
P(arralax)			
H <sub>4</sub>			

**1. Measurements and basic corrections**

Index error

Average IE (IE with – to Navigator)

Time (watches)

Sextant reading

Time (watches)

Sextant reading

Time (watches)

Sextant reading

Average SR

Average Time

Watch error

GMT = Time – TC + Time Zone

Ha=(SR – IE)/2

$R['] = 1 / \tan ( Ha[^\circ] + 7.31 / ( Ha[^\circ] + 4.4) )$

Only for Sun, Moon. Lower limb:+, upper limb:–

Ho = Ha – R (+ SD)

For Moon, Venus and Mars only

$P = \arcsin ( \sin HP \cdot \cos Ho ) \approx HP \cdot \cos Ho$

H<sub>4</sub> = Ho + P

**2. Intercept method**

E: + ; W: –

Lon <sub>AP</sub>			
Lat <sub>AP</sub>			
Hc			
Zn			
ΔH [']			

$\Delta H ['] = 60 \cdot ( Ho[^\circ] - Hc[^\circ] )$

or  $\Delta H ['] = 60 \cdot ( H_4[^\circ] - Hc[^\circ] )$