

Date =

Object =

DR = ° ' "

UT = Zone Time
plus minus hrs
ZT

HeightEye above waterline = ft.
Index Error = on off arc
Watch Error = sec fast slow

UT = Watch plus minus sec

a = altitude intercept = intercept
aλ = assumed longitude
aL = assumed latitude
AP = assumed position(aL + aλ)
d = difference in declination from hour to hour
GHA = Greenwich hour angle (=λ).
GHA and Declination define GP of body
GP = geographic position of body, where GHA is equivalent to λ and declination is equivalent to lat.
Hc = height-corrected (corrected altitude)
Ho = height observed/observed alt.
HP = horizontal parallax
Hp = Height Precomputed (can compare directly with hs)
hs = height sextant
IC = Index correction
LHA = Local Hour Angle = angle from the AP longitude to the GHA, measured westward
MA = Meridian angle = angle from the AP longitude to the GHA, measured east or west
MA 10°E = LHA 350°
MainCorr = refraction+semi-diameter combined correction
Tab = tabulated
v = variation in GHA compared to sun
Z = azimuth angle
Zn = azimuth

Table with columns for UT (hrs, min, sec) and If second shot chosen: (hs, GHA day/hour, GHA min/sec, v, Final GHA)

Range:
hs high
- hs low
Range

Main calculation table with columns: GHA, v*, Dec, d, HP. Rows include GHA, Corr. Star, GHA Star, if GHA>360: - 360° 00', GHA Star, d h, m s, v or d Cor'n, True Values.

aL = ° N

aλ = ° 'W
Use if you throw out your first sight, and select another.
aλ² = ° 'W

If object is east of you, Zn = Z
If object is west of you, Zn = 360° - Z

Do one or the other of these calculations for MA, but not both. MA may be abbreviated as "t".

For people in western hemisphere:
If object is west of you, MA = GHA - aλ

GHA
- aλ
MA = °

If object is east of you, MA = aλ - GHA

aλ
- GHA
MA = °

TAB Decl ° Same Contrary

Table for TAB Hc, Cor'n, Hc, -Ho, a, A

Zn = °

Z = °

Next Tab Hc °

Δ Hc during 4 minutes
Tab Hc upper
- Tab Hc lower
Slope

- Slope method of sight averaging:
1. Plot all observed hs on graph
2. Use Tab Hc + Tab Hc of next MA, and plot using 4 minutes along the horizontal axis (4 minutes = 1 degree of MA movement of the sun).
3. Advance line of celestial object slope with parallel rules to determine observed hs'es that rise (or fall) along the same slope as we know the object is actually moving.
4. Pick your best hs...or if need be, you can pick an intermediate point and use a hypothetical hs and observation time.

*v - planets & moon always positive unless explicitly noted

d - positive if decl. increasing negative if decl. decreasing

HP - Moon only - always pos.

Table with columns for hs, IC, hs corr, dip, App. Alt., MainCorr., HP¹, Ho, -Hc, a, T

