

SIGHT FORM KOLBE LONG TERM ALMANAC

Date: _____/_____/_____
 UTC Time: _____ → Page 62 _____ . _____
 Assumed Position: Lat _____ , N Lon _____ , W E (Negative)
 S (Negative)

Body Observed: _____
 Body Position: Upper / Lower / Center

Sextant Measured Altitude
 Eye Height: _____ Ft M → Page 68
 Index Correction:
 Monthly Correction for the Sun's Limbs: → Page 67
 Altitude Correction: → Page 68
 Height Observed:

Hs: _____ ° _____ ,
 Dip: _____ ,
 IC: _____ ,
 Ho: _____ ° _____ ,

KOLBE LTA REFERENCE FOR DETERMINATION OF GHA & DECLINATION

LTA Values **a** and **b** for given year: → Page 61 **a:** _____ **b:** _____

→ PAGES 4 – 51 FOR **b** VALUE LISTED ON UPPER LEFT/UPPER RIGHT OF PAGE:

SUN GHA

GHA SUN for the day: _____ ° _____ ,

Hourly Acceleration: Decimal time x HRLY ACC
 _____ . _____ x _____ , = _____ ,

Quadrennial correction: **a** x QUAD CORR
 _____ x _____ , = _____ ,

HOURS: _____ °

MINUTES: _____ ° _____ ,

SECONDS: _____ ,

SUB TOTAL: _____ ° _____ ,

IF > 360: - 360 °

FINAL GHA: _____ ° _____ ,

SUN DECLINATION

00 HOURS DEC SUN: _____ ° _____ ,

Hourly Rate: Decimal time x HRLY RATE
 _____ . _____ x _____ , = _____ ,

Quadrennial correction: **a** x QUAD CORR
 _____ x _____ , = _____ ,

FINAL DEC SUN: N _____ ° _____ ,
 S (Negative)

SIGHT REDUCTION

$$Hc = \sin^{-1}[\sin(Lat) \times \sin(DEC) + \cos(Lat) \times \cos(DEC) \times \cos(LHA)]$$

$$Zo = \cos^{-1}\{[\sin(DEC) - \sin(Lat) \times \sin(Hc)] / [\cos(Lat) \times \cos(Hc)]\}$$

LHA = GHA - Lon
 Subtract 360 if > 360
 GHA: _____ ° _____ ,
 - Lon: _____ ° _____ ,
 LHA: _____ ° _____ ,

Ho: _____ ° _____ ,
 - Hc: _____ ° _____ ,
 Distance Offset = _____ ,
 Ho - Hc > 0 → Position toward body observed

STAR GHA for _____

GHA Increments → Page 63

GHA ARIES for the day: _____ ° _____ ,

a increment: _____ ,

HOURS increment: _____ ° _____ ,

MINUTES increment: _____ ° _____ ,

SECONDS increment: _____ ,

Year 2000 Star Positions → Pages 54-59

SHA for star in month: _____ ° _____ ,

Annual correction = ANN. CORR. x (YEAR - 2000)

_____ x _____ = _____ ,

SUB TOTAL: _____ ° _____ ,

IF > 360: - 360

FINAL GHA: _____ ° _____ ,

STAR DECLINATION

DEC for star in month: _____ ° _____ ,

Annual correction = ANN. CORR. x (YEAR - 2000)

_____ x _____ = _____ ,

FINAL DEC star: N _____ ° _____ ,
 S (Negative)

GHA Increments:
Page 63

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