Sight-Reduction Worksheet for precompiled Tables   LoP = _____

Section 4 - "Sight Reduction"

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GHA           _____°  _____'___              Lat/Dec:  SAME - CONTRARY

LonAP     ±  _____°  _____'___              LatAP   ±  _____°

LHA           _____°                        Dec     ±  _____°  _____'___   p(mDec)   _____


H             _____°  _____'___             dH         ±  _____'___  p(dH)    _____
                                                                                 _____
Interp    ±  _____°  _____'___    <-- (sign of dH)  <--          s( )         _____


Hc            _____°  _____'___


                          _____°  __        N-Lat  LHA < 180°: Zc=360°-Z
                                                       LHA > 180°: Zc=000°+Z
                                               S-Lat  LHA < 180°: Zc=180°+Z
Z                         _____°  __                LHA > 180°: Zc=180°-Z


Zc                        _____°  __
```

Remarks and Instructions

    Choose an appropriate Assumed Position (AP) close to the Estimated Position, but such that both "LatAP" and "LHA" are integral numbers. This Assumed Position will be the reference location for drawing the Azimuth Line, Altitude Difference and the Line-of-Position.

    The "LHA" is the angular distance measured westward from the local celestial Meridian to the postition of the celestial object. It is obtained by adding the "GHA" and the "LonAP" using it's correct sign (positive for Easter Longitudes; negative for Western Longitudes).

    The following parts are used to enter the Sight-Redution tables:
- the integral value of the Latitude of the Assumed Position ("LatAP")
- the integral value of the Local-Hour Angle ("LHA") and
- the integral part of the Declination ("Dec")

    The table evaluation gives the following results:
- the Altitude in the Assumed Position ("H") for the integral Declination value
- the variation of "Hc" for one degree increment of Declination ("dH") and
- the Azimuth angle ("Z")

    Use the minutes part of the Declination and the "dH" value to obtain the interpolated altitude correction ("Interp") from the interpolation tables. Adding this correction to "H" eventually yields the Calculated Altitude "Hc".

    Finally, use the correct calculation scheme to obtain the true Azimuth "Zc" from the tabulated value "Z". Select the scheme according to the Latitude of the Assumed Position (North or South) and the value of "LHA".