

Sight Reduction

Fill out the top-left box as indicated.

Find dead-reckoning (DR) position using previous fix, heading and speed, using the time of observations. Write into the top-center box.

Perform observations.

For each,

- Write body (1), indicate UL/LL for Upper Limb/Lower Limb for moon and sun.
- Height Sextant (Hs, 2).
- For watch time, subtract known error and write GMT time into (2).

Find dip from yellow sheet using Height from top-left info (3)

Write known Index Correction (IC/I.C.) in (4)

For Apparent Altitude (App.Alt or Height Adjusted, Ha), add 3 & 4 and add to 6, write result in 7 and copy to below 12 to make later addition easier.

Use +/- columns.

For moon:

- Lookup Horizontal Parallax (HP) in almanac and write in 8 (What's that for again, page 150?)
- Write Altitude Correction (Alt.Corr.) in (9) from page XXX, using the App.Alt to lookup correction.
- Additional Altitude Correct (Adtl.Corr, 10), from the HP correction, see instructions in almanac for picking the column (use same as for alt.corr.)
- If Upper Limb observation, write -30' in (11)
- Add 9 + 10 + 11 into 12, add to 7 into 13 for Ho. Copy to below 29

For Planets:

- Add 9 + 10 + 11 into 12, add to 7 into 13 for Ho. Copy to below 29
- **TODO**

For Stars:

- Add 9 + 10 + 11 into 12, add to 7 into 13 for Ho. Copy to below 29
- **TODO**

For Sun:

- Add 9 + 10 + 11 into 12, add to 7 into 13 for Ho. Copy to below 29
- **TODO**

For Polaris:

- Lookup Alt.Corr for stars in almanac yellow pages, write in (9)
- Look Q in almanac table 6.
- Add 9 + 10 + 11 into 12, add to 7 into 13 for Ho.
- This is the latitude, **stop**, this can be drawn as a LOP onto the UPS

Terminology

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|----------------------------------------------------------------|--------------------------------------------|
| • (X) Cell labelled X | • GMT Greenwich Mean Time |
| • Y Aries | • Hc Altitude = angle over horizon |
| • CT Civil Twilight | • LHA Local Hour Angle |
| • “ Daily page ” Almanac page for GMT Date (G) | • UPS Universal Plotting Sheet |
| • DR Dead Reckoning | • SHA Sidereal Hour Angle |
| • GHA Global Hour Angle | • RA Right Ascension |
| | • Zn Azimuth = direction on horizon |