Noon sight

Ocean Navigator

For want of a chronometer https://oceannavigator.com/article/for-want-of-a-chronometer/

May 26 and there is enough clear sky to take a **noon sight**.

DR is S 35° 20' by E 21° 10'.

Noon sight of the lower limb from a height of 20 feet.

Use a declination of the sun of N 21° 12'.

Hs of the sight is 33° 22.7'.

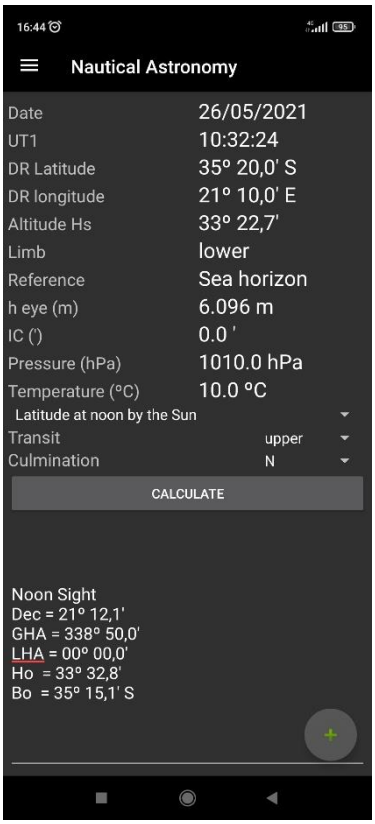
Use the 2021 Nautical Almanac for this sight.

A. What is Ho?

B. Establish the latitude.

Navigational Algorithms – Android Apps

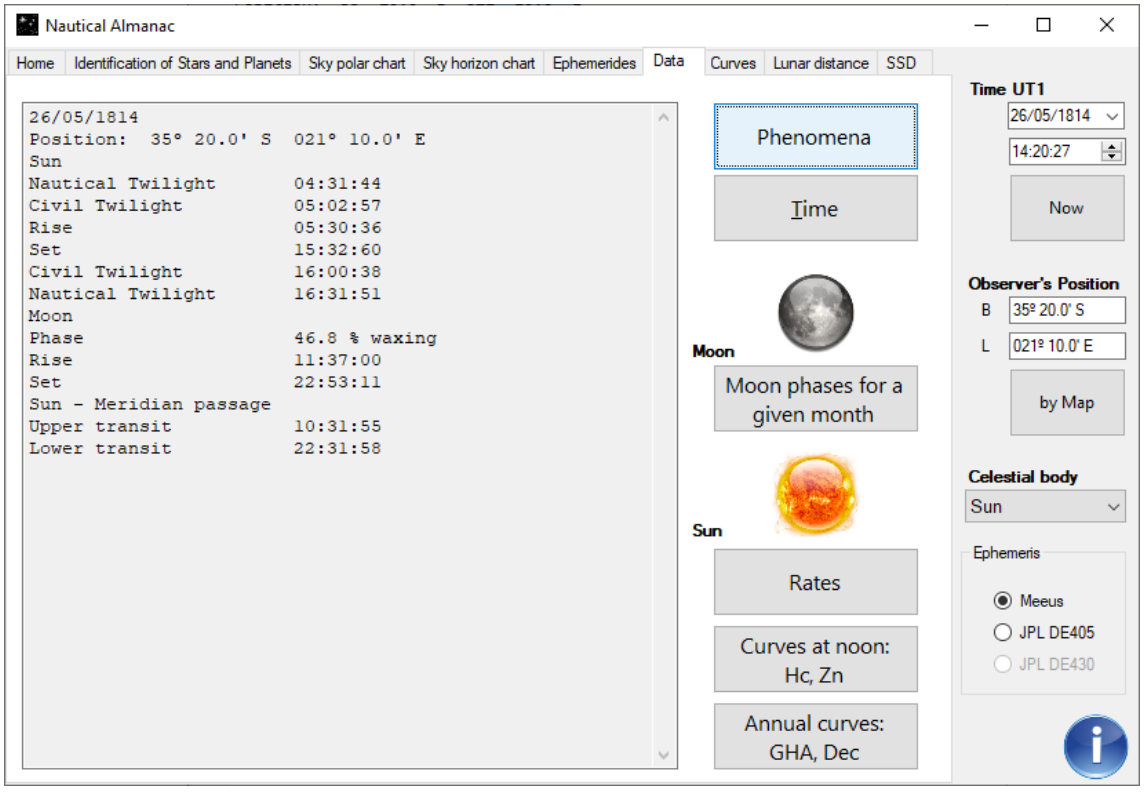
https://sites.google.com/site/navigationalalgorithms/software/android

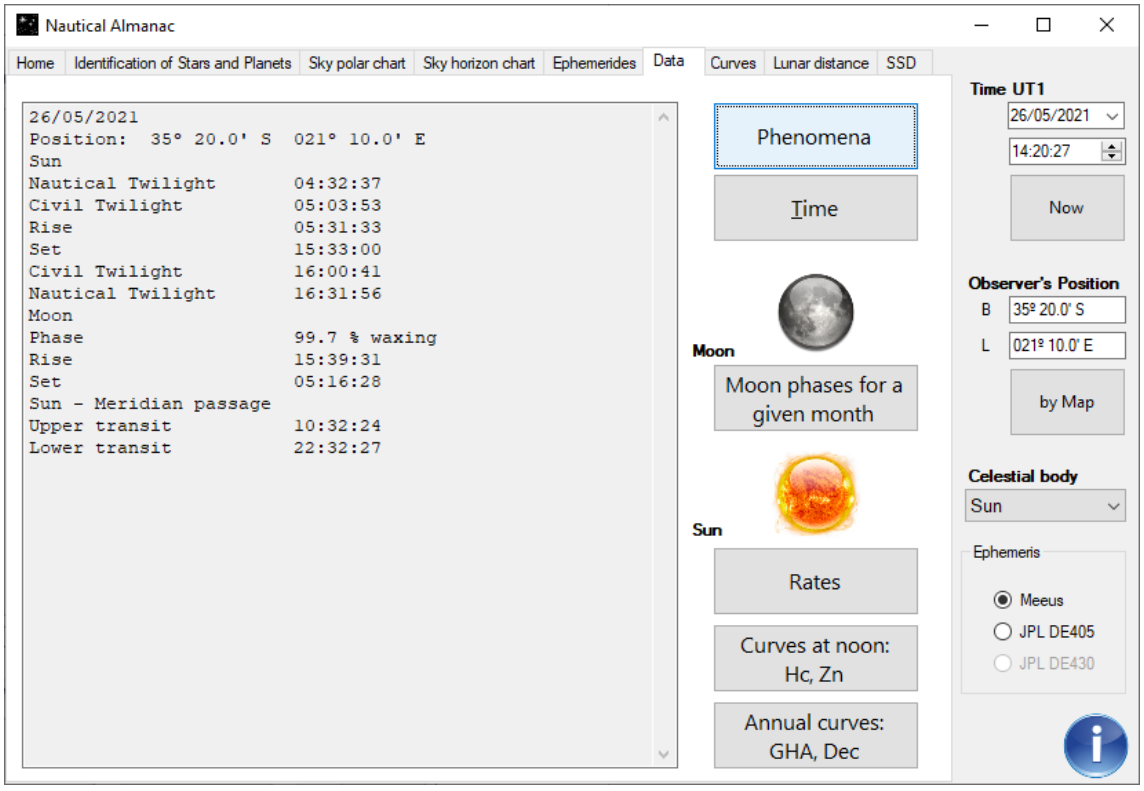


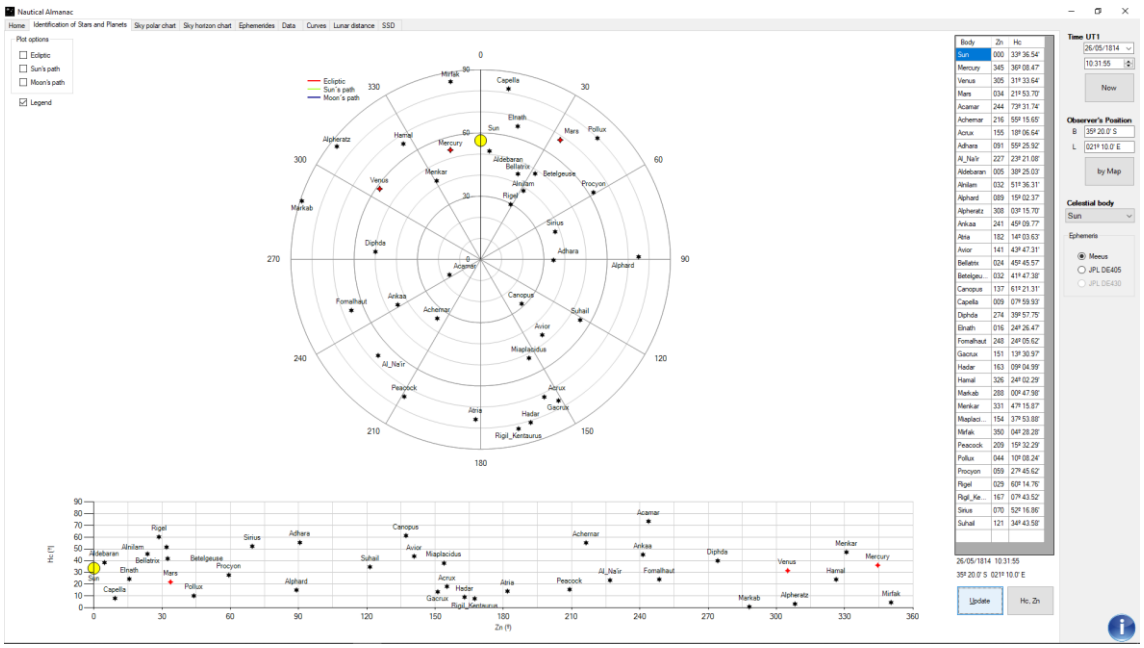
Navigational Algorithms – Windows (.NET)

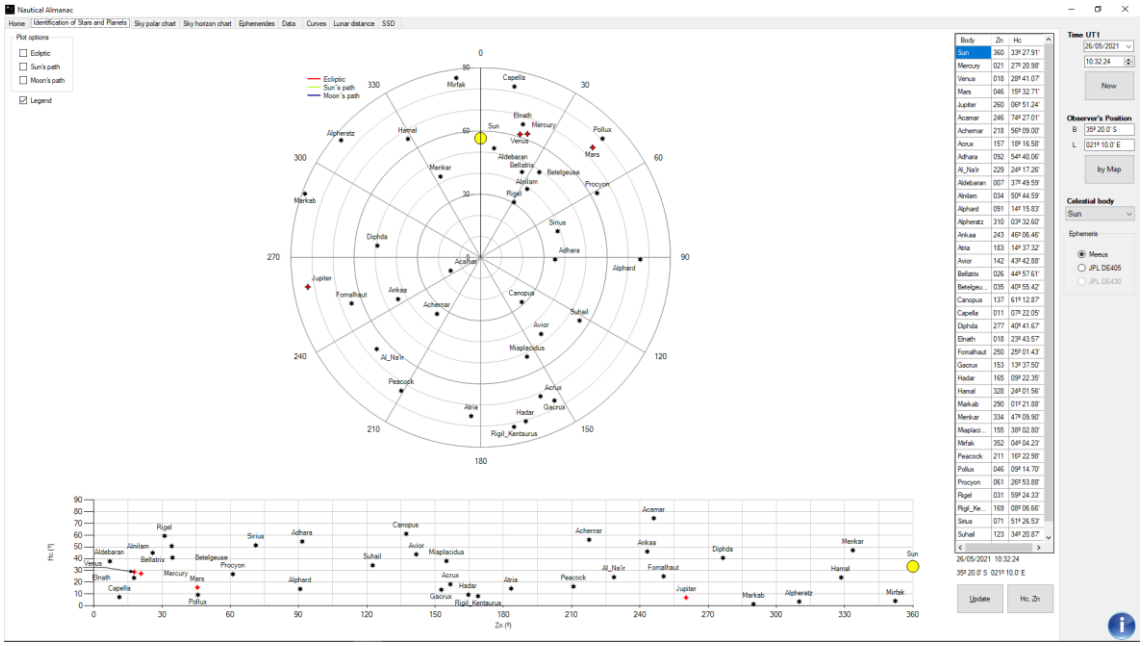
https://sites.google.com/site/navigationalalgorithms/software/Windows

Differences between 1814 and 2021






Nautical Almanac
Home
Identification of Stars and Planets
Sky polar chart
Sky horizon chart
Ephemerides
Data
Curves
Lunar distance
SSD
Plot options
Ecliptic
Sun's path
Moon's path
Legend
Time UT1
26/05/1814
10:31:55
Now
Observer's Position
by Map
Celestial body
Sun
Ephemeris
Meeus
JPL DE405
JPL DE430
Update
Hc, Zn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26/05/2021
10:32:24
Now
Observer's Position
by Map
Celestial body
Sun
Ephemeris
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JPL DE405
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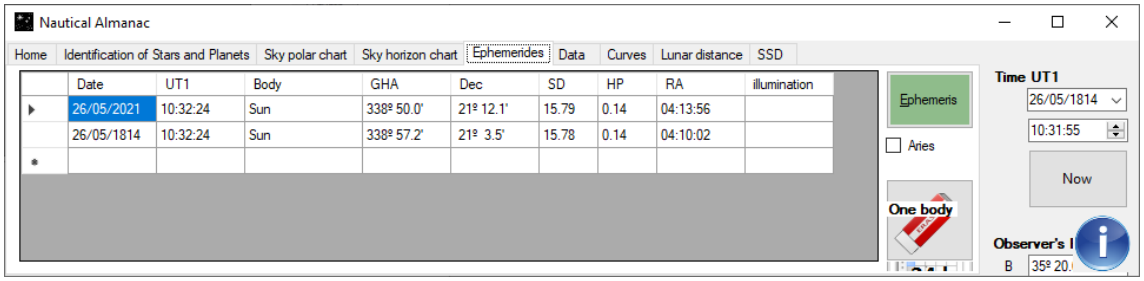
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Sky horizon chart
Ephemerides
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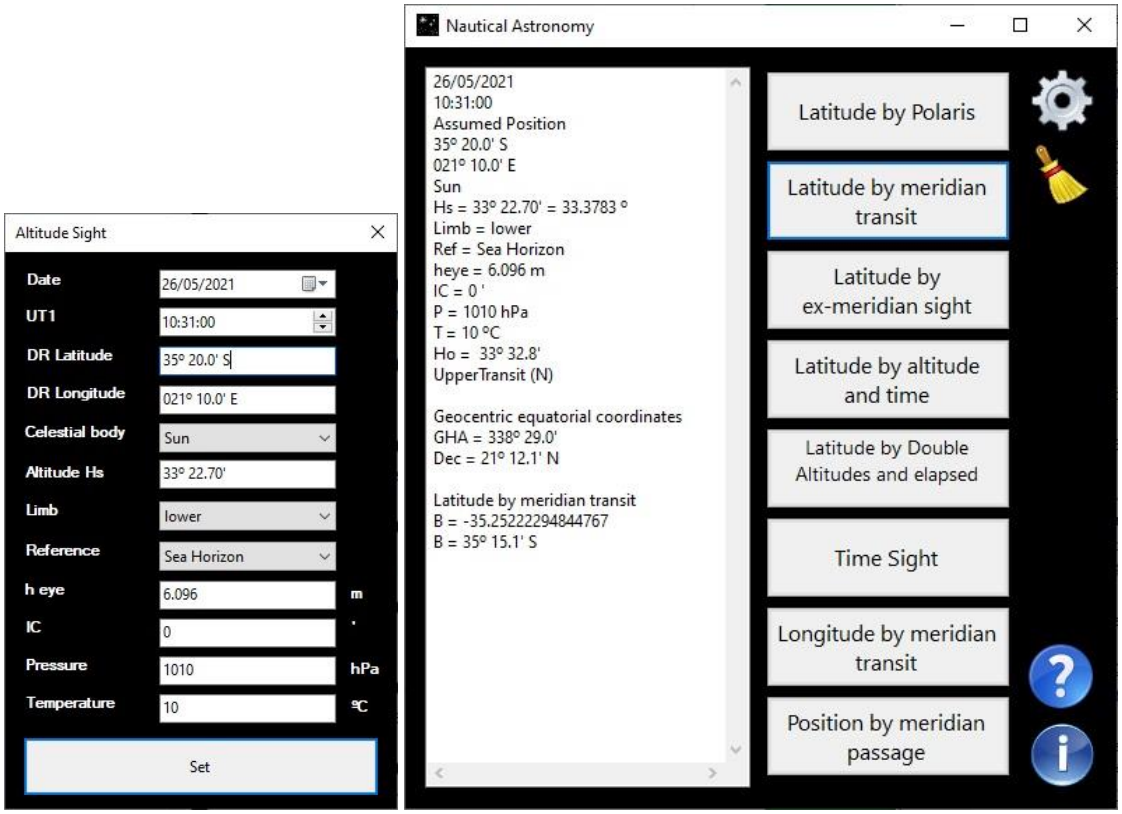
Lunar distance
SSD
Date
UT1
Body
GHA
Dec
SD
HP
RA
illumination
26/05/2021
10:32:24
Sun
338º 50.0'
21º 12.1'
15.79
0.14
04:13:56
26/05/1814
10:32:24
Sun
338º 57.2'
21º 3.5'
15.78
0.14
04:10:02
Ephemeris
Aries
One body
Time UT1
26/05/1814
10:31:55
Now
Observer's
B
35º 20.



26/05/2021
10:32:24
Assumed Position
35º 20.0' S
021º 10.0' E
Sun
Hs = 33º 22.70'
Limb = lower
Ref = Sea Horizon
heye = 6.096 m
IC = 0 '
P = 1010 hPa
T = 10 ºC
Ho = 33º 32.8'
UpperTransit (N)

Geocentric equatorial coordinates
GHA = 338º 50.0'
Dec = 21º 12.1' N

Latitude by meridian transit
B = 35º 15.1' S

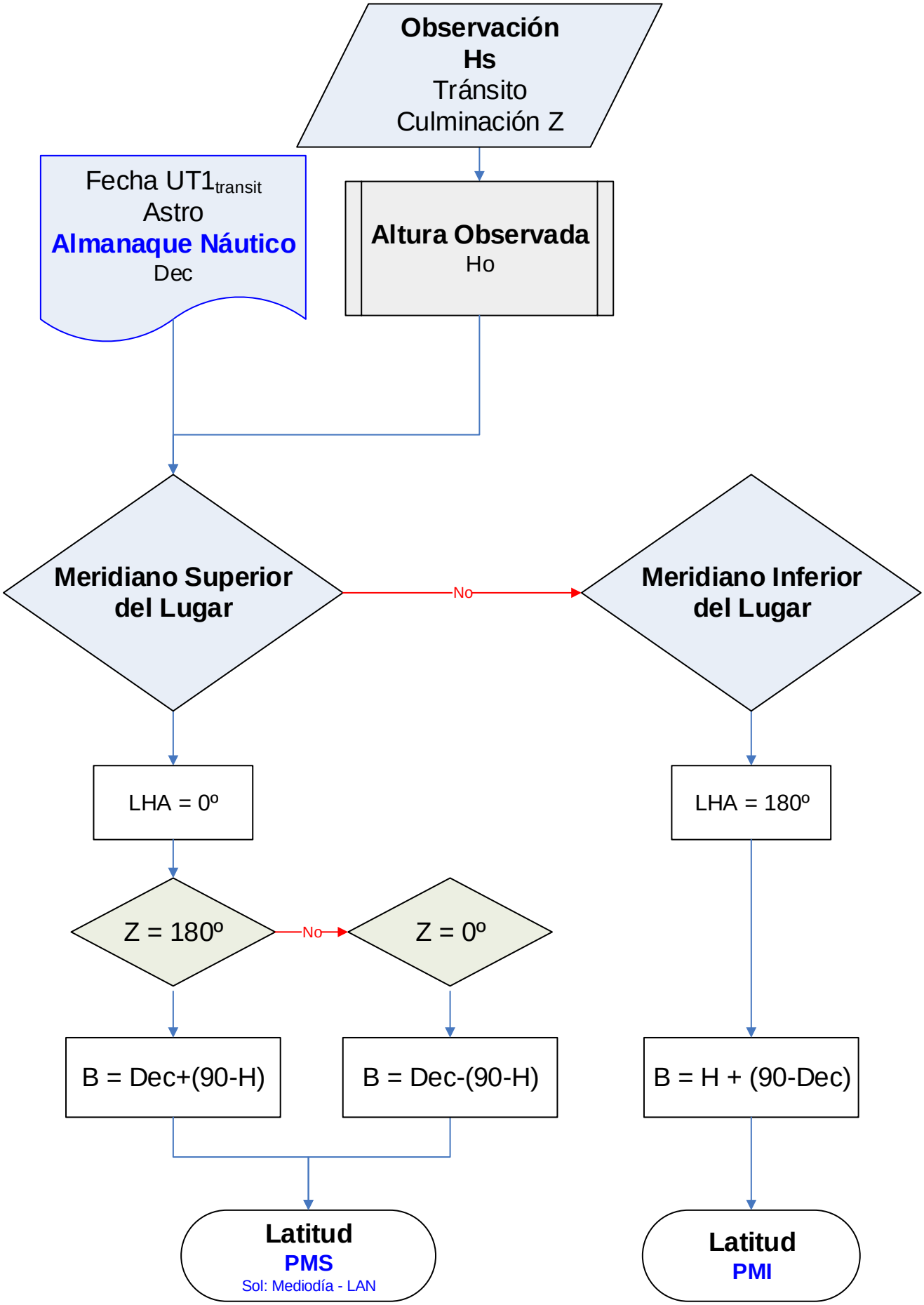
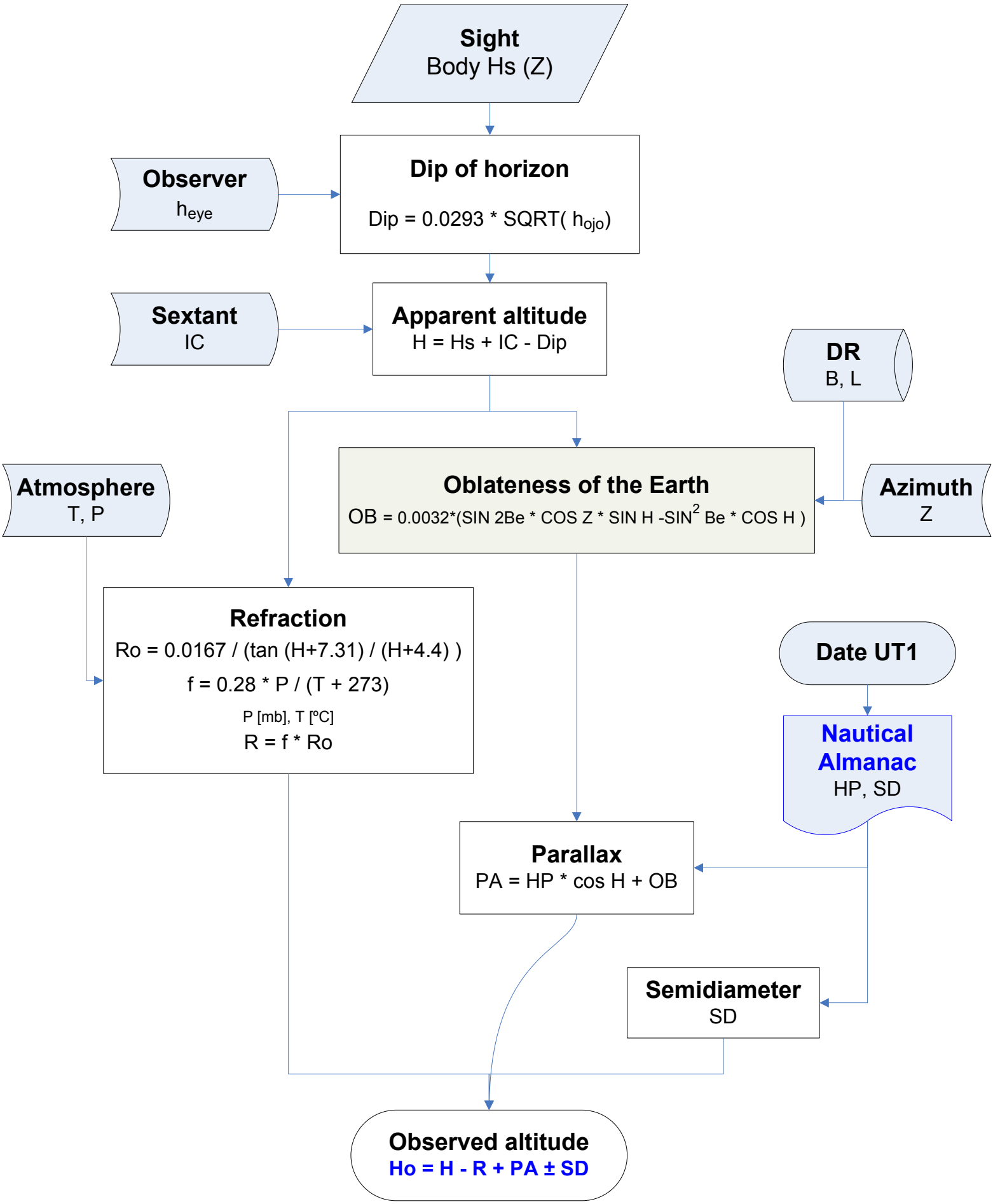
Introducing an error in the time of meridian transit of the Sun

10:00:00
Geocentric equatorial coordinates
GHA = 330º 44.1'
Dec = 21º 11.9' N
Latitude by meridian transit
B = 35º 15.4' S

10:30:00
Geocentric equatorial coordinates
GHA = 338º 14.0'
Dec = 21º 12.1' N
Latitude by meridian transit
B = 35º 15.1' S

10:25:00
Geocentric equatorial coordinates
GHA = 336º 59.0'
Dec = 21º 12.0' N
Latitude by meridian transit
B = 35º 15.2' S

Latitud al paso por el meridiano del lugar



Corrections for Sextant Altitude