apart from a possible dip, table 2 is also a table of refraction, when you enter with eyeheigt 0.
Refr. has always to be subtracted from app.h, and you get *the local height.*.

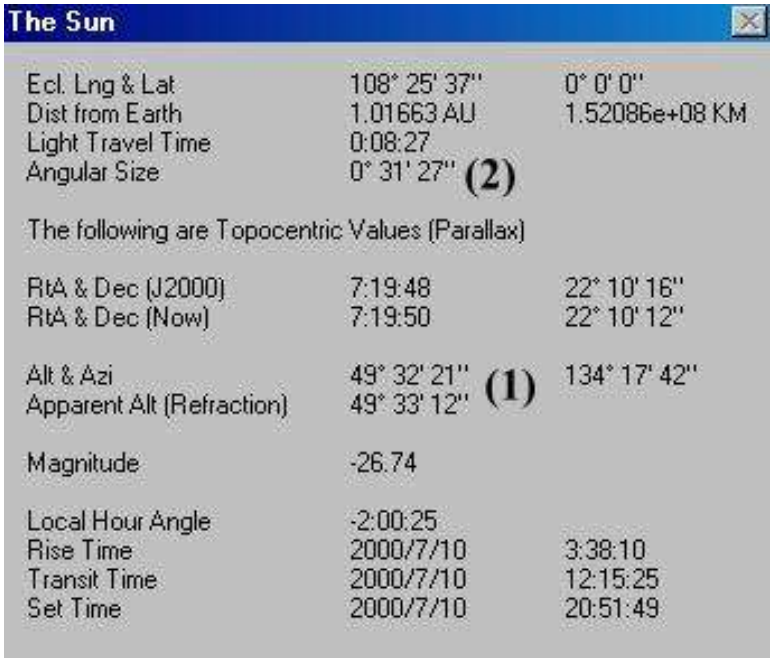
Parallax is the angle of error, that arises from, that you measure from the surface of the earth, while you should be in the centre of the earth.
Parallax is biggest, when * is in the horizon. It is only of importance for sights of the moon and Venus. The parallax for the sun and Mars is about 0'1. Parallax is added to the local h., And you get the *central height.*.

54
Semi Diameter (SD) - In MyStars! the double SD is named **Angular Size.**
This correction is only used for sights of the sun or the moon. If you measure the lower limb, SD must be added to centr. h. to get the *centre central height.* Have you used the upper limb, SD is to be subtracted

Information of refr., parallax and SD you can easily get in MyStars! (fig 30). The difference between the values of height ”Alt” and ”App". "Alt” is the refraction. The difference is here 2’14’’ or 2’2, which is to be subtracted app.h. in your calculation.
The half of ”Angular Size” = 15’7 is to be used to get centre's centr. h., if you have measured lower- or upper limb.

Fig. 30.

55



Artificial horizon and bubblesextant.

Examples of corrections.

Eks. 3.
Sun's lower limb measured over artificial horizon
at July, the 10th, 2000 at 1015. Indexcorrection +2’0.

98^0 50’0 sun's low-limb over art-hor.
+2’0 idc.
98^0 52’0 / 2
49^0 26’0 sun. low-limb. app.h.
- 0’9 refr and parall. (diff. values (1) in fig. 31)
49^0 25’1 sun's low-limb. centr. h.
+15’9 SD (half of (2) in fig. 31.)

$49^0\ 41'0$ sun's centre central height (ho)

Eks. 4.
Sun's upper limb measured by a bubblesextant
July, the 10th 2000 at 1015. Indexcorrection +2'0.

$49^0\ 56'0$ sun's upper limb
+2'0 idc.
$49^0\ 58'0$ sun's upper limb app. h.
-0'9 corr. (diff. values (1) in fig. 31.)
$49^0\ 57'1$ sun's upper limb centr. h.
-15'9 SD (half of (2) in fig. 31.)
$49^0\ 41'2$ sun's centre centr. height (ho)

Fig. 31.

Eks. 5.

$28^0\ 14'5$ * Sirius measured over artificial horizon.
+1'5 idc.
$28^0\ 16'0$ / 2
$14^0\ 08'0$ * app.h.
-3'8 corr. table 2, eyeheight 0 m.
$14^0\ 04'2$ * Sirius centr.h. (ho)

6. Astronomical lines of position.

The altitude-method.

The most used method for computing lines of position nowadays is named *the altitude-method*. This method will also be used in this book.
You choose a *computing-point* - a position near the place you are. To get it easier to draw the lines in the chart, the point can be chosen on a full or a half degree of latitude and longitude.
Then you compute the height of the body - hc - for the point of computing. At the same time you find the direction - azimuth, to the celestial body. These computations are very easy to do with the aid of MyStars!, as you have seen.
Hc is compared with the height - ho - you have measured by the sextant. The difference between the two numbers shows, how long a distance the line of position has to be moved.

Equal circles of height.

Fig. 32 shows a system of *equal circles of height*. The sun is vertical over a point of the earth, *point of pole* (PP) - this is the sun's "position" on the earth.
Every observer on the line AB will measure the same height of the sun - 30^0. This line is called an *equal circle of height*, and it is a line of position, where you are.