

09.32AM

SAME

GHA = 330° (15° = 1H, 1° = 4 min)

LHA = GHA - Lon = 272°48'

After 2H 302°48'

That is 57° * 4min + 1min for 12' = 3H49M, i.e at 13H45 UT

On the same Meridian GHA ~ 27°12'.

ZD = 90° - 38°16' = 51°44' * 60NM = 3104 NM.

No, not nearly ...;-)

11'

Closer (TO)

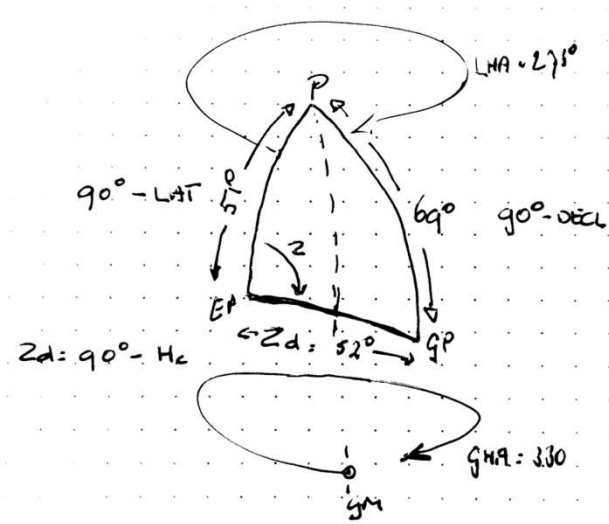
1. Leaving Terceira (EP 38°45' N 027°12' W) for St Malo on May 25, at 07.32AM WEST, what is the time in UTC?
2. Are we during our trip on the same hemisphere as the sun or on opposite hemispheres?
3. The GHA of the Sun is 300° at 07H56M59S UT. What GHA do you expect 2 hours later?
4. What is the LHA at 07H56M59S UT? And 2 hours later?
5. At around what time will the LHA equal 0°? What does this mean in geometrical terms (like Greater/smaller circle, Meridian, ...)? And what is the GHA then?
6. On our EP, the Calculated Altitude of the Sun is 38°16' at 0957H UT, according to the Nautical Almanac app. What is the Zenith Distance? Is the GP nearby?
7. The Declination of the Sun at 0957H UT is 21° 4.4' N. Draw a triangle, like in this example, of the GP, the AP (EP) and the P.
8. We took a sextant reading at 0957H UT and noted an Observed Altitude of 38°27'. What is the Intercept? Are we closer or more away from the Sun, compared with the calculated Almanac value?

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Celestial Nav Exercises & Answers

Principles of Celestial Navigation



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9. In the intercept method, we use an Assumed Position to help us finding our position. At what Lat and Long would the AP be as the best match for our EP?
10. When plotting we will be drawing straight position lines, although the method prescribes to work with position circles. Why may we do that?
11. If we can only use the Sun as celestial object, what will be our navigational approach if sight conditions are unfavourable?

AP - Lat 39°N

AP - Lon between 026°42' and 027°42' W

The scale of the plot is too small compared to the size of the position circle, making the part of the position circle that is visible looking straight.

Gussed positions only....