

kolbe -USNO Differences.txt

I had a chance over the weekend to do some sextant readings with an artificial horizon and put together a work form for the Kolbe LTA.

But in the process of doing this, I have observed a difference in the readings found on USNO Celestial Navigation Data (<http://aa.usno.navy.mil/data/docs/celnavtable.php>) vs. what I came up with from the Kolbe work form for the SUN GHA and DEC.

My sight reduction uses an assumed position of N 41 45.0 and W 86 50.0

March 3, 2013 DATA

| UTC Time | SUN GHA  |          | SUN DEC  |          | Ho      | USNO Data |       |
|----------|----------|----------|----------|----------|---------|-----------|-------|
|          | USNO     | LTA      | USNO     | LTA      |         | Hc        | Zn    |
| 20:44:45 | 128 14.4 | 128 14.2 | S 6 30.7 | S 7 14.5 | 28 42.6 | 28 42.9   | 228.5 |
| 19:31:46 | 109 59.5 | 109 59.3 | S 6 31.8 | S 7 13.3 | 37 15.6 | 37 17.0   | 209.4 |
| 17:07:58 | 74 02.2  | 74 02.0  | S 6 34.1 | S 7 11.0 | 40 17.0 | 40 17.0   | 163.2 |

I'm still trying to work out if I've missed anything. The GHA numbers appear to be very close, only 0.2' different for all three. But the DEC numbers are quite different.

Can anyone offer further advice?