

DR long.	36° 50' N		
DR lat.	76° 22' W		
Date	1/29/2011		
GMT	1621:34	1718:02	1842:17
GHA	62° 7.2'	76° 13.6'	97° 17.8'
Assumed long.	76° 7.2' W	76° 13.6' W	76° 17.8' W
Assumed lat.	37° 0.0'		
LHA	346°	0.0°	21°
d	-0.7	-0.7	-0.7
Dec. (hrs)	S 17° 54.1'	S 17° 53.5'	S 17° 52.8'
d corr.	- 0.3	-0.2	-0.5
Declination	S 17° 53.8'	S 17° 53.3'	S 17° 52.3'
Hs	67° 55.2'	70° 5.6'	63° 12'
Apparent Alt.	33° 57.6'	35° 2.8'	31° 36'
Alt. Corr. (LL)	+14.8	+14.9	+14.7
Ho	34° 12.4'	35° 17.7'	31° 50.7'
Dec. increment	53.8'	53.3'	52.3'
d (table)	-58.3'	-60'	-56.5'
Hc (table)	34° 24.5'	36°	32° 29'
Int. Tab. tens	-44.9'	-44.4'	-43.6'
Int. Tab units/dec.	-7.4'	-8.8	-5.7'
Hc	33° 32.2'	35° 6.8'	31° 39.7'
a	T 20.2'	T 10.9'	T 11.0'
Z (table)	163.7°	180°	156°
Zn	196.3	180°	204°

When I put my data in the sight reduction calculator on-line at <http://www.celnav.de/sightred.htm> I got the following results:

a	T 38.7'	T 9.6'	T 9.3
Zn	163° 58'	180°	203°