

Watch _____ Date _____
 WE +/- _____
 Zone Time _____
 ZD _____
 GMT _____ Date _____
 DR Lat _____ DR Lon _____

Hs _____
 IC +/- _____
 DIP - _____
 REF - _____
 SD +/- _____ 16' (SUN ONLY)
 Ho _____

STAR

Name -----
 GHA Aries 1st of month _____
 Increment, days & hours + _____
 Increment, minutes & sec+ _____
 GHA Aries + _____
 SHA + _____
 GHA star _____
 Assumed Longitude +/- _____
 LHA _____
 Declination _____

SUN

GMT hour _____ Date _____
 a _____
 Orbit Time _____ Date _____
 E _____ dif _____ Dec _____ dif _____
 b _____
 GHA 0h _____ Dec _____
 INC c + _____
 INC d + _____
 GHA _____
 A. Lon +/- _____
 LHA _____

Refraction

Dip (feet)

Obs. Alt. corr'n	Obs. Alt. corr'n
4°23' -10.9'	9°44' -5.4'
4°26' -10.8'	9°56' -5.3'
4°29' -10.7'	10°08' -5.2'
4°32' -10.6'	10°20' -5.1'
4°36' -10.5'	10°33' -5.0'
4°39' -10.4'	10°46' -4.9'
4°42' -10.3'	11°00' -4.8'
4°46' -10.2'	11°14' -4.7'
4°49' -10.1'	11°29' -4.6'
4°53' -10.0'	11°45' -4.5'
4°56' -9.9'	12°01' -4.4'
5°00' -9.8'	12°18' -4.3'
5°04' -9.7'	12°35' -4.2'
5°08' -9.6'	12°54' -4.1'
5°12' -9.5'	13°13' -4.0'
5°16' -9.4'	13°33' -3.9'
5°20' -9.3'	13°54' -3.8'
5°24' -9.2'	14°16' -3.7'
5°28' -9.1'	14°40' -3.6'
5°32' -9.0'	15°04' -3.5'
5°37' -8.9'	15°30' -3.4'
5°41' -8.8'	15°57' -3.3'
5°46' -8.7'	16°26' -3.2'
5°51' -8.6'	16°56' -3.1'
5°55' -8.5'	17°28' -3.0'
6°00' -8.4'	18°02' -2.9'
6°05' -8.3'	18°38' -2.8'
6°11' -8.2'	19°17' -2.7'
6°16' -8.1'	19°58' -2.6'
6°21' -8.0'	20°42' -2.5'
6°27' -7.9'	21°28' -2.4'
6°32' -7.8'	22°19' -2.3'
6°38' -7.7'	23°13' -2.2'
6°44' -7.6'	24°11' -2.1'
6°50' -7.5'	25°14' -2.0'
6°56' -7.4'	26°22' -1.9'
7°03' -7.3'	27°36' -1.8'
7°09' -7.2'	28°56' -1.7'
7°16' -7.1'	30°24' -1.6'
7°23' -7.0'	32°00' -1.5'
7°30' -6.9'	33°45' -1.4'
7°37' -6.8'	35°40' -1.3'
7°44' -6.7'	37°48' -1.2'
7°52' -6.6'	40°08' -1.1'
8°00' -6.5'	42°44' -1.0'
8°08' -6.4'	45°36' -0.9'
8°16' -6.3'	48°47' -0.8'
8°25' -6.2'	52°18' -0.7'
8°34' -6.1'	56°11' -0.6'
8°43' -6.0'	60°28' -0.5'
8°52' -5.9'	65°08' -0.4'
9°02' -5.8'	70°11' -0.3'
9°12' -5.7'	75°34' -0.2'
9°23' -5.6'	81°13' -0.1'
9°33' -5.5'	87°03' 0.0'
9°44' -5.5'	90°00' 0.0'

HEIGHT OF EYE	
Feet corr'n	Feet corr'n
1.0 -1.0'	46 -6.5'
1.2 -1.1'	47 -6.6'
1.4 -1.2'	49 -6.7'
1.7 -1.3'	50 -6.8'
2.0 -1.4'	52 -6.9'
2.3 -1.5'	53 -7.0'
2.6 -1.6'	55 -7.1'
3.0 -1.7'	56 -7.2'
3.4 -1.8'	58 -7.3'
3.8 -1.9'	60 -7.4'
4.2 -2.0'	61 -7.5'
4.6 -2.1'	63 -7.6'
5.1 -2.2'	65 -7.7'
5.5 -2.3'	66 -7.8'
6.1 -2.4'	68 -7.9'
6.6 -2.5'	70 -8.0'
7.2 -2.6'	72 -8.1'
7.8 -2.7'	74 -8.2'
8.4 -2.8'	75 -8.3'
9.0 -2.9'	77 -8.4'
9.6 -3.0'	79 -8.5'
10.3 -3.1'	81 -8.6'
11.0 -3.2'	83 -8.7'
11.7 -3.3'	85 -8.8'
12.4 -3.4'	87 -8.9'
13.2 -3.5'	89 -9.0'
14.0 -3.6'	91 -9.1'
14.8 -3.7'	93 -9.2'
15.6 -3.8'	95 -9.3'
16.4 -3.9'	97 -9.4'
17.3 -4.0'	99 -9.5'
18.2 -4.1'	101 -9.6'
19.1 -4.2'	103 -9.7'
20.0 -4.3'	105 -9.8'
21 -4.4'	107 -9.9'
22 -4.5'	110 -10.0'
23 -4.6'	112 -10.1'
24 -4.7'	114 -10.2'
25 -4.8'	116 -10.3'
26 -4.9'	119 -10.4'
27 -5.0'	121 -10.5'
28 -5.1'	123 -10.6'
29 -5.2'	126 -10.7'
30 -5.3'	128 -10.8'
31 -5.4'	130 -10.9'
33 -5.5'	133 -11.0'
34 -5.6'	135 -11.1'
35 -5.7'	138 -11.2'
36 -5.8'	140 -11.3'
38 -5.9'	143 -11.4'
39 -6.0'	145 -11.5'
40 -6.1'	148 -11.6'
42 -6.2'	150 -11.7'
43 -6.3'	153 -11.8'
44 -6.4'	156 -11.9'
46 -6.4'	158 -11.9'