ASTRO NAVIGATION SIGHT REDUCTION FORM

using *Nautical Almanac Concise Sight Reduction Tables*

Date 12/5/08 Body Sun Limb U / (L) Log 3847.6

Times		spot mean: 10 20 00
10 19 12	+ / -	- 48
10 19 56		- 4
10 20 47		+ 47
10 21 04		+ 64
10 21 34		+ 94
	sum	+ 163
	sum/n	+ 33

Angles		spot mean: 40 35
40 23	+ / -	- 12
40 29		- 6
40 36		+ 1
40 41		+ 6
40 43		+ 8
	sum	- 3
	sum/n	- 1

Mean (watch) 10 20 33
Zone adj -1 (BST)
watch corr +23 (23s slow)
U T 09 20 56

Mean (sextant) 40 34
I E + 4 (4' OFF)
Dip - 2.5
App Alt 40 35.5
Alt corr 1 + 14.9
Alt corr 2
U Limb corr -30´
True Alt H_o 40 50.4

HP
Dec (09 h) (N) / S 18 16.3
d 0.6 (20 m) + 0.2
Dec (N) / S 18 16.5
G H A (09 h) 315 54.7
Increment (20 m 56 s) 5 14.0
v (m)
G H A 321 08.7
Ass Long E / (W) 9 08.7 (E +)
L H A 312 00´

H_C 41 30
Intercept 39.6 towards/away

Ass Lat (N) / S 47 00´

Ass Lat 47
L H A 312

B + 31 58
Dec + 18 16.5
F 50 14.5

A° 30
F° 50

F´ 14
P° 48

A´ 27
Z_2° 59

H 41 34
$corr_1$ + 10
$corr_2$ - 14
H_C 41 30

Z_2 + 59.2

Z_1 + 50.9
Z 110.1
Zn 110.1

A 30 27 A° = 30 A´ = 27
B + 31 58 -ve if 90° < L H A < 270°
Z_1 + 50.9 same sign as B

-ve if contrary to Lat
= B + Dec F° = 50 F´ = 14

H 41 34
P 48 04 P° = 48
Z_2 59.2 Z_2° = 59

$corr_1$ + 10 -ve if F < 90° and F´ > 29´
OR if F > 90° and F´ < 30´

$corr_2$ - 14 -ve if A´ < 30´

-ve if F -ve

-ve if F > 90°
if F -ve, $Z_2 = 180° - Z_2$

$= Z_1 + Z_2$

N Latitude: if L H A > 180° Zn = Z
if L H A < 180° Zn = 360° - Z
S Latitude: if L H A > 180° Zn = 180° - Z
if L H A < 180° Zn = 180° + Z