

SOA-NAV-2/1 - 2000 Nov Q 4. CT.

24 April '76 @ 1840 GMT, pos'n $62^{\circ} 16' N$ $002^{\circ} 35' E$ @ $035^{\circ} T$ @ $17k$.

a) Calc. GMT of CT. next morning. (25th April)

b) Calc $\frac{1}{2}$'s DR @ CT.

a) Start time 24d 18h 40m GMT. NA25th 68° 01 58
 Approx long $3^{\circ} E$ 12 m 66° 02 30
 Approx start 24d 18h 52m LMT. 64° 02 52
 Approx CT $64^{\circ} N$ 25d 02h 52m LMT. 62° 03 10
 1st Approx run time 08h 00m @ $17k = 136'$.

$D. lat = Dist \cos Co = 136 \cos 35 = 111.4 N$ $Dep = Dist \sin Co = 136 \sin 35 = 78.01 E$ $Dlong = Dep / \cos M. lat = 78.006 / \cos 63^{\circ} 11.7 = 173' E$	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Start lat $62^{\circ} 16' N$</td> <td style="width: 50%;">lg $002^{\circ} 35' E$</td> </tr> <tr> <td>D. lat 1 51.4 N</td> <td>Dlg $2^{\circ} 53' E$</td> </tr> <tr> <td>1st App. Lat $64^{\circ} 07.4' N$</td> <td>Lg $005^{\circ} 28' E$</td> </tr> <tr> <td>M. lat = -55.7</td> <td></td> </tr> <tr> <td>M. lat = $63^{\circ} 11.7$</td> <td></td> </tr> </table>	Start lat $62^{\circ} 16' N$	lg $002^{\circ} 35' E$	D. lat 1 51.4 N	Dlg $2^{\circ} 53' E$	1 st App. Lat $64^{\circ} 07.4' N$	Lg $005^{\circ} 28' E$	M. lat = -55.7		M. lat = $63^{\circ} 11.7$	
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M. lat = -55.7											
M. lat = $63^{\circ} 11.7$											

$D. lat = 132.9 \cos 35 = 108.9 N$
 $Dep = 132.9 \sin 35 = 76.23 E$
 $Dlong = 76.23 / \cos 63^{\circ} 10 = 168.9 E$

Start 24d 18h 40m GMT.	
App. lg $5^{\circ} 28' E$ 22m	
24d 19h 02m LMT.	($\frac{7}{120} * 22 = 1.3$)
CT @ $64^{\circ} 07' N$ 02h 51m LMT.	
2 nd App run time. 7h 49m @ $17k = 132.9$	

Start lat $62^{\circ} 16' N$ lg $002^{\circ} 35' E$
 D. lat 1 48.9 N Dlg 2 48.9 E

b) ** 2nd App. Lat $64^{\circ} 04.9' N$ Lg $005^{\circ} 23.9' E$
 M. lat = $63^{\circ} 10'$

CT @ $64^{\circ} 05' N$ 02h 51m LMT.
 LIT $005^{\circ} 23.9' E$ 22m

a) ** CT @ 25d 02h 29m GMT