November 1997

Question 1 Shortest distance is the composite Great circle using 42°N as the limiting Latitude.

cos AV1	=	sin lat A / Sin lat V	cos BV2=	sin lat B / sin lat V	
	=	0.858620378	=	0.8284785	
AV1	=	30° 50.'3	BV2	=	34° 03.'4
	=	1850.'3		=	2043.'4
cos P1	=	tan lat A / tan lat V	cos P2 =	tan lat B / tan lat V	
	=	0.779586663		=	0.7397533
P1	=	38° 46.'6 E	P2	=	42° 17.'4 W
Long A	=	139°43.'0 E	Long B	=	118° 21.'0 W
Long V1	=	178°29.'6 E	long V2	=	160° 38.'4 W

Dlong V1 to V2	=	20° 52.'0	=	1252'
Dep	=	1252 cos 42	=	930.4

Total distance = 1850.3 + 2043.4 + 930.4 + 25.9
= 4850 miles

2. By plane sailing:-

v/l A to TSS	Course	N 73° 07' E
	Distance	506.2 miles
Rescue v/l to v/l A	Course	S 27° 6.'8 E
	Distance	112.3 miles

(see attached plot)

Sunset at RV position	LMT (30°N)	1845
	Inc	+ 8
	LMT	1853
	LIT	58m 23s
	GMT	1951 GMT
	RV	1917
	Daylight	34 minutes

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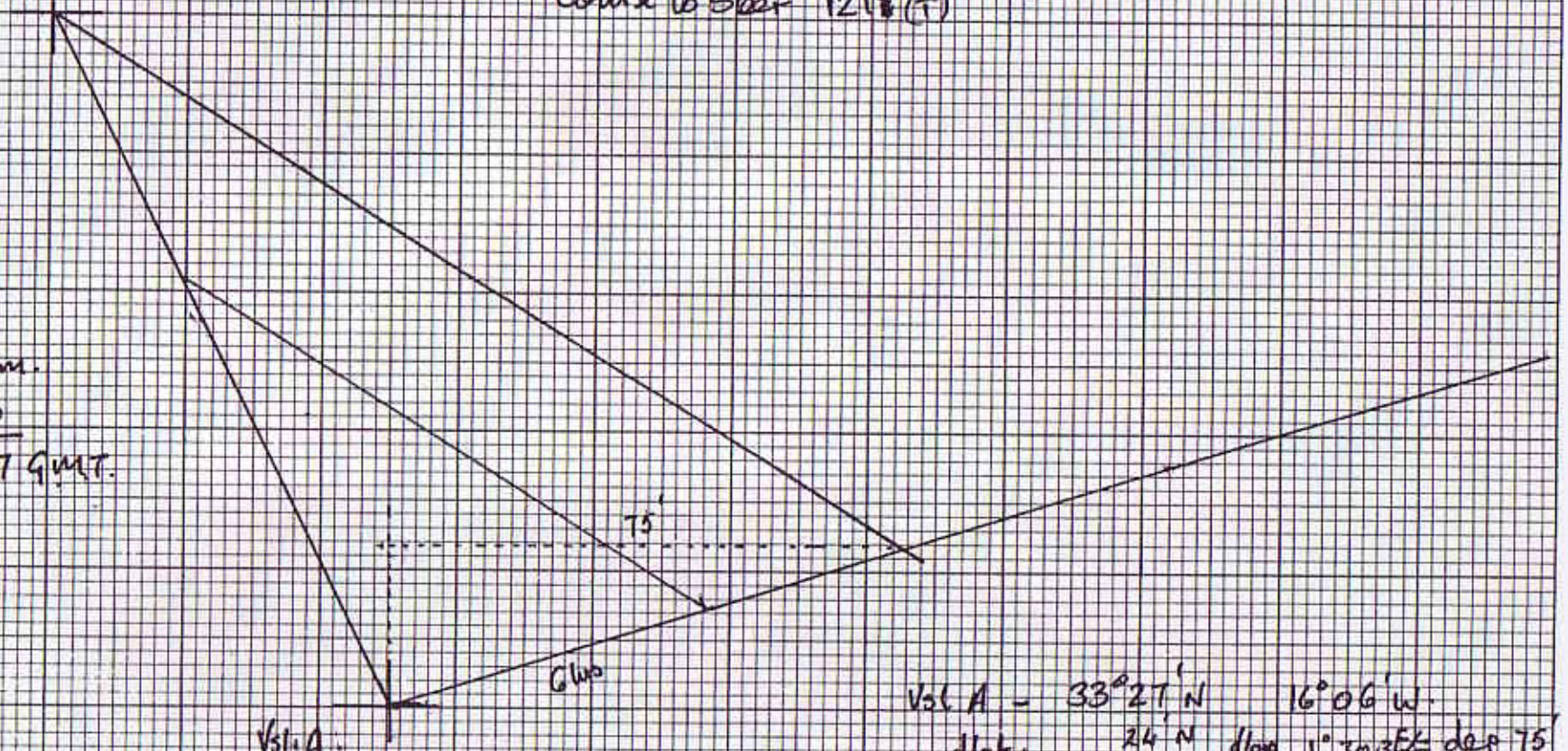
NOV 97

1cm = 10'

6kt plot.

Vsl & 6kts @ 8hrs = 48'

Rescue Vsl 6kts @ 15hrs = 90'



Approach 69' in 6kts
= 11.5hrs

Total Approach = 112.3.

Time = 112.3 / 11.5
= 9h 47m.

E.T.A R/V = 09 30
= 19 17 GMT.

Vsl A - 33° 27' N 16° 06' W.
dlat 24' N dlong 1° 30.3Et dep 75'
R/V - 33° 51' N 14° 35.7W.

Time of Sunset = 1951. - Daylight - 34 mins.