16th April 1976

Cargo vessel 0454 GMT 41° 52'N 144° 14'W

Pass vessel 0454 GMT 42° 25'N 147° 40'W Co. 075°T, Spd 24kts

Cargo vessel to rendezvous with passenger vessel at sunrise.

Calculate GMT of sunrise, Rendezvous position and Course and speed required to steer by Cargo vessel.

LMT 40° 0521 2° 25' - 03 S'Rise LMT 0518 LIT 0951 GMT 1509 Start 0454 Diff 1015 Speed x 24 Distance 246 nm	D'Lat = Dist x Cos Co = 246 x Cos 75 = 63.66948 = 1° 3.7' N M. Lat = 42° 56.8 Dep = D'Lat x Tan Co = 63.7 x Tan 75 = 237.73164 D'Long = Dep / Cos M Lat = 237.73164/ Cos 42° 56.8' = 324.77523' = 5° 24.8' E Start 42° 25.0'N 147° 40.0' W D'Lat 1° 03.7'N D'Long 5° 24.8' E 1st Approx 43° 28.7'N 142° 15.2'W
LMT 40° 0521 3° 28.6' - 05 S'Rise LMT 0516 LIT 0929 **GMT 1445** Start 0454 Diff 0951 Speed x 24 Distance 236.4 nm	D'Lat = Dist x Cos Co = 236.4 x Cos 75 = 61.18482 = 1° 1.2' N M. Lat = 42° 55.5 Dep = D'Lat x Tan Co = 61.18482 x Tan 75 = 228.34486 D'Long = Dep / Cos M Lat = 228.34486 / Cos 42° 55.5 = 311.84181' = 5° 11.8' E Start 42° 25.0'N 147° 40.0' W D'Lat 1° 01.2'N D'Long 5° 11.8' E 2nd Approx **43° 26.2'N** **142° 28.2'W**

Cargo vessel	41° 52.0'N		144° 14.0'W
RV Position	43° 26.2'N		142° 28.2'W
	01° 34.2'N		001° 45.8'E
D'Lat	94.2 N	D'Long	105.8 E
M Lat	42° 39.1'		

Dep = D'Long x Cos M Lat

= 105.8 x Cos 42° 39.1

Dep = 77.81446'

Tan Co = Dep / D'Lat

= 77.81446/ 94.2 = 39.55861

Course = N 39.5° E

Dist = D'Lat / Cos Co.

= 94.1 / Cos 39.48232

Dist = 122.1 nm

Speed = 122.1 / 9h51m

Speed = 12.4 kts