

Long Baseline Navigation Activity

An AUV is navigating with LBL. The transponders A and B are 0.81 km apart. The speed of sound in water is 1500 m/s. Use the data provided to map the path of the AUV using the scale legend below.

Ping #	Ping round trip time in seconds		One way time to AUV		Distance to AUV in meters	
	Transponder A	Transponder B	Transponder A	Transponder B	Transponder A	Transponder B
1	0.340	0.753	0.170	0.377	255	565
2	0.387	0.777	0.194	0.389	290	583
3	0.464	0.819	0.232	0.410	348	614
4	0.579	0.741	0.290	0.371	434	556
5	0.693	0.676	0.347	0.338	520	507
6	0.747	0.555	0.374	0.278	560	416
7	0.813	0.436	0.407	0.218	610	327

