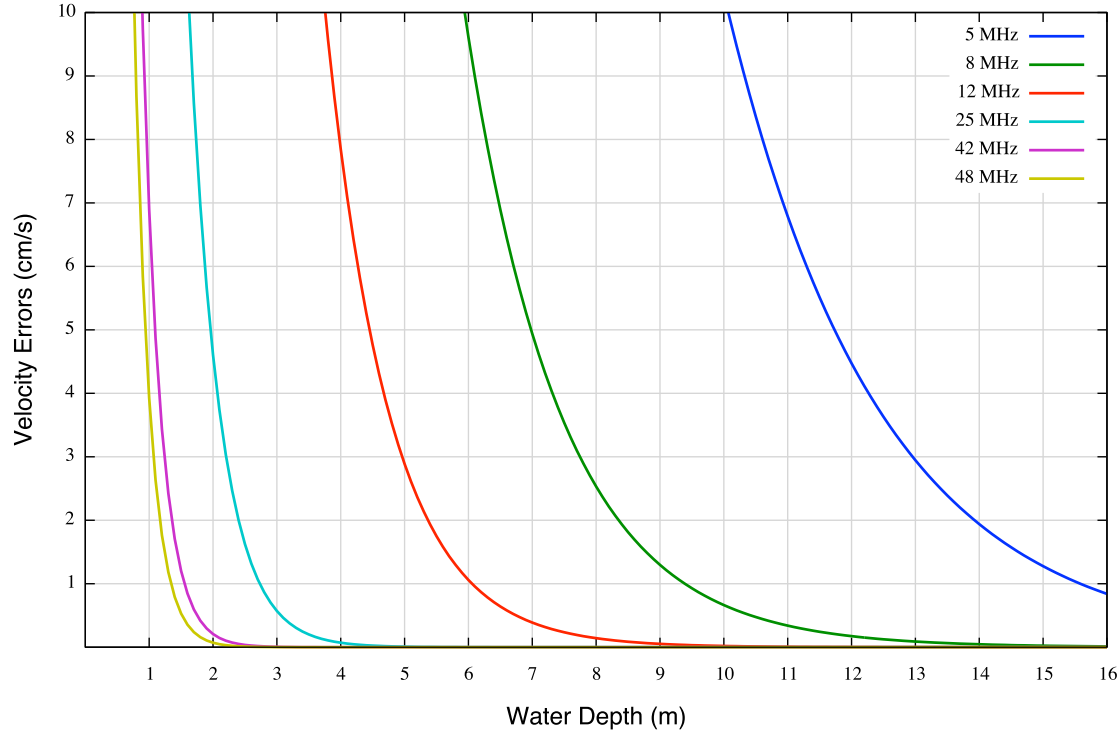
Operating Frequency Parameters

Frequency (MHz)	EM Wavelength (m)	Ocean Wavelength (m)	Wave Period (sec)	Phase Velocity* (m/s)	Maximum Waveheight** (m)
5	60.0	30.0	4.4	9.7	20.0
8	37.5	18.8	3.5	7.6	12.5
12	25.0	12.5	2.8	6.2	8.3
25	12.0	6.0	2.0	4.3	4.0
42	7.1	3.6	1.5	3.3	2.4
48	6.3	3.1	1.4	3.1	2.1

* Phase Velocity is Maximum Current Speed before Bragg peaks cross Zero Doppler

**For wave measurements only. Currents may still be measured if strength of current Doppler spreading does not exceed longest wave periods

Doppler Velocity Resolution (cm/s)

		FFT Length (seconds)				
		128	**256**	**512**	**1024**	**2048**
Frequency (MHz)	**5**	23.44	11.72	5.86	2.93	1.46
	8	14.65	7.32	3.66	1.83	0.92
	12	9.77	4.88	2.44	1.22	0.61
	25	4.69	2.34	1.17	0.59	0.29
	42	2.79	1.40	0.70	0.35	0.17
		2.1	**4.3**	**8.5**	**17.1**	**34.1**
		FFT Length (min)				

Velocity Errors vs. Water Depth (by Frequency)