



What happens when a Space Ship traveling half the Speed of Light Switches on its Headlight?

Space Ship moving toward Observer R at one half Lightspeed. The Wavelength toward that Observer appears halved because as each portion of the Wave is emitted the Ship has moved nearer to that Observer. The Wave emitted toward Observer L appears longer and the Wavelength emitted toward Observer C gets shorter and then longer unless Observer C is moving at the same speed on a parallel course in which case it is unchanged.

A Ray of 32 Cycles of Electromagnetic Radiation with the ship standing still;



... and what it will look like to R with the Ship going half Light Speed.

The back end of the Wave doesn't travel any faster, it just doesn't have to travel as far.