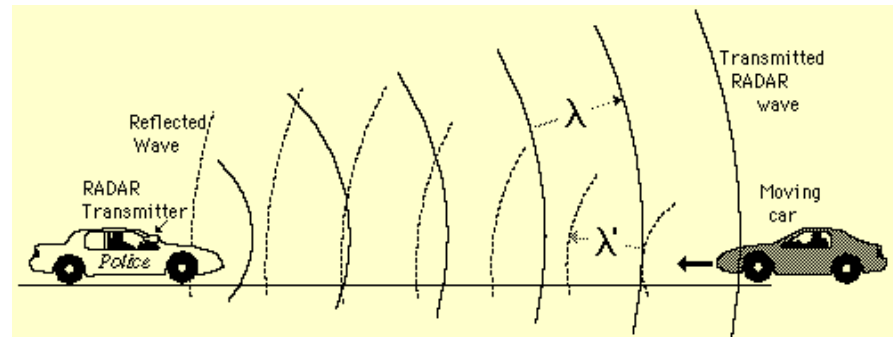


Example



Police radars get twice the effect since the EM waves make a round trip:

$$f' \approx f(1 + 2\beta)$$

If $f = 24,000,000,000 \text{ Hz}$ (k-band radar gun)

$c = 300,000,000 \text{ m/s}$

v	β	f'	$f' - f$
30 m/s (67 mph)	1.000×10^{-7}	$24,000,004,800$	4800 Hz
31 m/s (69 mph)	1.033×10^{-7}	$24,000,004,959$	4959 Hz