Central axis scatter dose in cylindrical Cobalt beams has been shown to have a region of buildup. Beyond this region scatter attenuates at the same rate as primary. An empirical formula describing scatter dose has a primary attenuation coefficient and a buildup coefficient appearing in an exponential. All parameters in this formula are field size dependent, except for the primary attenuation coefficient. Monte Carlo simulations show that the scatter buildup is due to the lack of scattered photons moving in from above the phantom, whereas backscatter out of the phantom surface is shown to be negligible and can not explain scatter buildup. Thus buildup of scatter dose and primary dose are analogous phenomena. A simple geometrical model is presented which derives the empirical formula. At fixed depth the buildup of Scatter with Field Size (radius < 30cm) is very nearly linear at large depth (d > 50cm) and behaves very closely as 1 - exp(- c*radius) near 18cm depth. These properties are analyzed with the scatter order of photons.