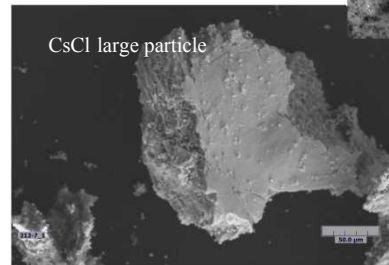
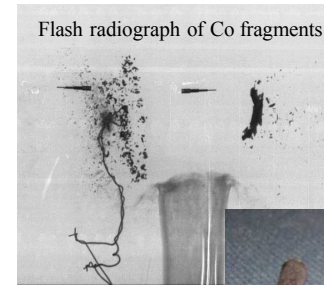
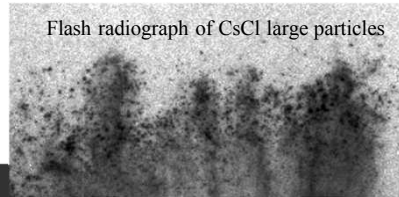
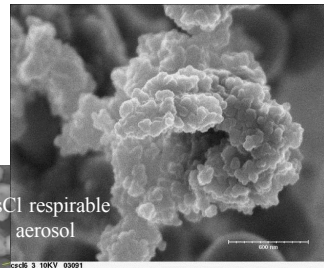


Respirable aerosol ($< 10 \mu\text{m}$)
Can go kilometers
Very little health effect, cleanup problem

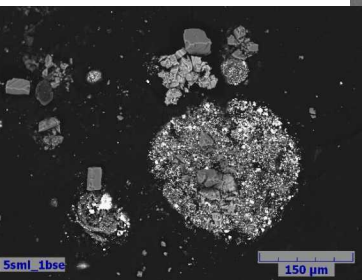
Large particles ($> 100 \mu\text{m}$)
Will not go further than a few hundred meters
Localized groundshine problem

Fragments
Will generally not go further than 500 m
Local SAND2007-7026C

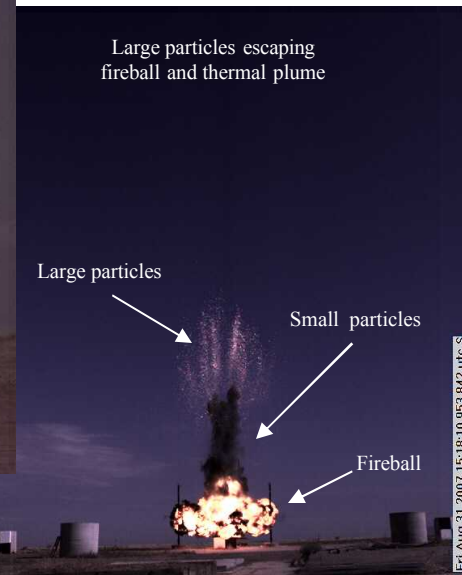
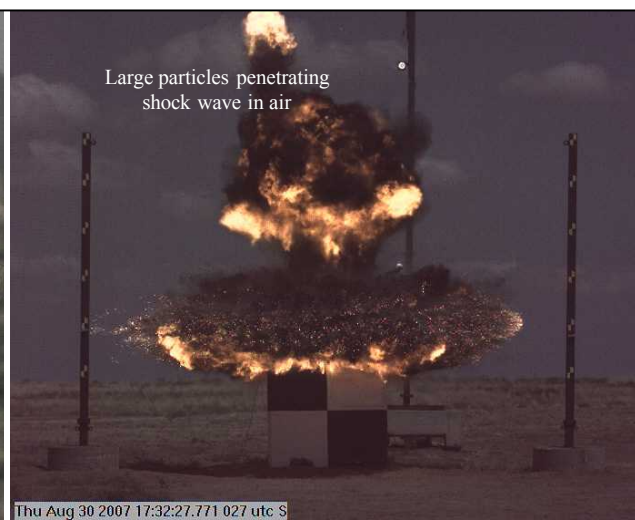
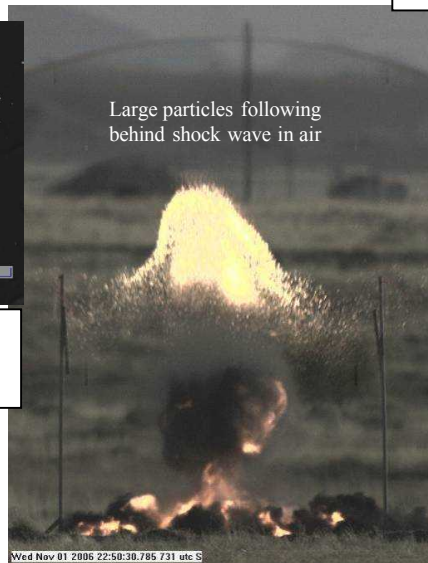


**Radiological Dispersal Devices produce respirable aerosol, large particles, and fragments
(amount and fractions depend on material properties and device design)**

Large particles escape buoyant plume and disperse ballistically



Small $1 \mu\text{m}$ WC particles
Shock sinter to become large particles
($> 100 \mu\text{m}$) in explosive environment



Radiological Dispersal Devices: Physically Based Dispersal Characteristics and Limitations
Dr. Fred Harper, Sandia National Laboratories