

MALRAD SCENARIO 1



Background:

Police receive warning of a bomb placed in a city centre location and due to previous intelligence regarding attempts by the relevant grouping to obtain radioactive materials, request assistance with respect to a suspicious vehicle found near an embassy. A collimated standard 3x3 inch NaI detector was mounted on a remotely controlled vehicle and positioned at the side of the suspect vehicle which had not been opened. The vehicle, a small lorry, was two meters wide and the detector was placed at and up against the side of the cargo compartment (the distance between the detector and the side of the truck is 0 cm). A spectrum was accrued over a period of ten minutes. Two dose measurements were made, one at the same position at which the spectrum was taken and the second at a point one meter further back along the same axis. The background dose in the area was 0.11 $\mu\text{Sv/hr}$. The dose rate at position one (side of the truck) was 0.5 $\mu\text{Sv/hr}$ and at position 2 (1 m away from the side of the truck) was 0.21 $\mu\text{Sv/hr}$. A spectrum for a point source of ^{241}Am , ^{109}Cd , ^{137}Cs , ^{60}Co and ^{88}Y had earlier been taken at a distance of 10 cm from the detector face and is provided.

Note: a background spectral contribution has been added.

Materials provided:

Two spectra, in a number of formats are provided.

Scenario_1_source(range of formats) - the spectrum accrued from the side of the truck.

Scenario_1_point.(range of formats) - spectrum of the point source taken earlier.