# NMD Hunting Technology

Example: Gamma, Low, Large Radioactive Array in Alaska
Gamma, Medium, Medium Radioactive Array in Nevada

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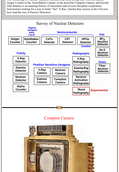
## - Cutting Edge -

The Technology of Nuclear Materials Detection has come a long way. From the humble beginnings of the Geiger Counter, to the Scintillation Counter, to the Photomultiplier Scintillation Counter, to the Gamma Ray Spectrometer, to the Neutron Detector, to the Gamma Ray Imager, to the Neutron Imager, to the Gamma Ray Spectrometer Neutron Detector.

### Survey of Nuclear Detectors




### Compton Camera

The Technology used to determine angle of incoming gamma rays.
In the Compton Camera, the angle of incoming gamma rays is determined by the Compton Scattering Formula.

## Factors influencing Detection of Nuclear Materials

Detecting radioactive nuclear materials is a complicated process that involves many factors. Some of the factors that influence the detection process are listed below.

1). **Intensity** of the radioactive source.

2). **Distance** from the radioactive source and distance between radioactive sources.

3). **Shielding** between the radioactive source and the detector. Shielding can be anything that lies between the source or even something as prosaic as the air between the source and the detector. Shielding can also be the source or even something as prosaic as the air between the source and the detector.

4). **Shielding** of radioactive sources that are close to the detecting source. The natural geometry of shielding materials can be an obstacle that can be exploited to the advantage of the detecting source. Large "Lead Walls" can be used to obscure the radioactive field sources. Lead "Walls" can be used to obscure the radioactive field sources.

5). **Background** radiation from natural sources and from man made sources. Background radiation can be a source of false positives. Background radiation can be a source of false negatives. Background radiation can be a source of false positives and false negatives.

6). **Energy** of the radioactive source. Some radioactive sources are more energetic than other radioactive sources. Some radioactive sources are more energetic than other radioactive sources. Some radioactive sources are more energetic than other radioactive sources.

7). **Exposure Time**. The longer the detector is exposed to the radioactive source, the more accurate the detection process will be. The longer the detector is exposed to the radioactive source, the more accurate the detection process will be. The longer the detector is exposed to the radioactive source, the more accurate the detection process will be. Exposure time can be a source of false positives and false negatives.

## Features that can Improve Detection

1). **Intensity**. 2). **Shielding**. 3). **Background**.

### Intensity

1). **Intensity** (**Dose**).

Intensity is the radiation equivalent of radioactive source. A variety of Detectors measure Intensity. Intensity is measured in units of Roentgen, Rad, Rem, Roentgen Equivalent Man, and Roentgen Equivalent Man. **Spectral Sensitivity and Identification of radioactive sources**. A variety of Detectors measure Spectral Sensitivity and identification of radioactive sources. Spectral Sensitivity and identification of radioactive sources is measured in units of Electron Volts, Kilo Electron Volts, Mega Electron Volts, Giga Electron Volts, Tera Electron Volts, Peta Electron Volts, Exa Electron Volts, Zetta Electron Volts, Yotta Electron Volts, Xenna Electron Volts, Weccka Electron Volts, Vecka Electron Volts, Vecka Electron Volts, Vec