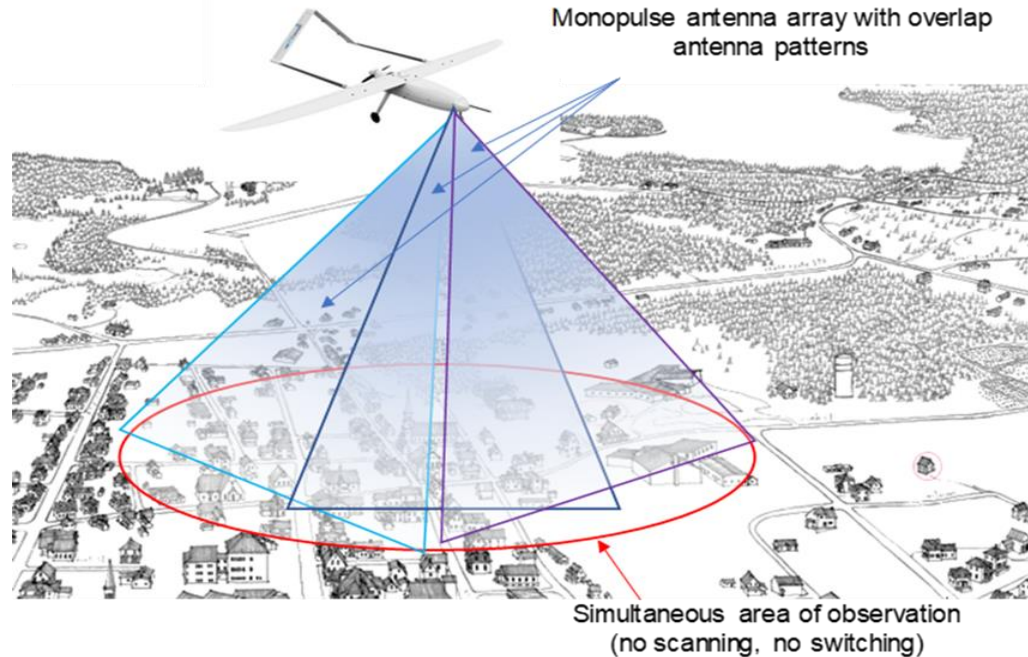


## Handheld & Micro CBRNE RF Sensors for Remote Detection/Imaging of Hazard Materials



### Capability Relevance

Currently available x-ray, infrared or mm-wave radar imaging systems cannot reliably detect some **chemical, biological, organic explosives** or other homemade explosives. Danger objects **can be camouflaged**, because systems based on image contrast. Detection of danger objects or materials based on image recognition **required operator expertise** and **increasing risk** of non-detected danger objects. X-ray and mm wave detectors are slow because required positioning inside scanner or screening machine every passenger or baggage unit. X-ray and powerful mm-wave signals **danger for human health**.

### Capability Description

UHF (Ultra High Radio Frequency) radar detector transmitting **low power** (like cell phone, approx. 100 mW) radio frequency signals and can detect and identify of **CBRNE (Chemical, Biological, Radiological, Nuclear and Explosives)** hazard materials by unique radio waves **spectrum signature**. UHF signals are **not danger for human**, can **penetrate through camouflage and even walls**.

Proposed universal micro sensors system can **remotely** detect and identify CBRNE hazard materials from UAS. Detector provides **alarm signals** and **do not require operator attention** to recognize and **automatically identify** CBRNE materials.

Detector system will allow **quickly to respond to emerging threats** and provides **capability to robustly detect** danger objects and materials pre-recorded to electronic library..

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