# ULTRASONICS-BASED SYSTEM FOR DETECTION OF METALLIC SECURITY THREAT CONTAINERS ON CARGO

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## Description

In prior-art, most security threat detection techniques/procedures use X-ray based detection systems. In general, X-rays are harmful and their prolonged exposure can have devastating effects. Moreover, X-ray based systems are not capable of providing information regarding thickness of the container as X-rays have limited penetration abilities. **This invention relates to a novel detection system comprising use of ultrasonic waves for detection of suspicious metallic containers on cargo.**

## Value Proposition

The system:

- Has a faster scanning speed
- Is highly cost effective as compared to existing systems
- Allows for an ease of implementation along with effective integration capabilities
- Allows for an efficient material characterization from recovered images without any additional hardware requirement
- Comprises the use of ultrasound (non-ionizing, harmless) waves as opposed to X-rays
- Has a better penetration capability as compared to conventional systems; enabling accurate determination of potentially concealed objects
- Allows for detection of high-atomic-number shielding containers, useful for diminishing radiological signature of nuclear threats
- Provides an additional detection capability for cargo inspection, enhancing the probability of detection
- Would be commercially useful as an effective cargo screening system for border crossing, seaports, airports, and logistics centers

## Intellectual Property Status

Provisional Application 62/066,586

## License Status

Available for license

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