



# Advanced Products Division

## Integrated Stand Off Detection System (ISOD)

(US and International Patents Pending - All rights assigned)

# Elements of National Security

- Domestic Security
- Military Security
- Illicit Drugs Trade
- Countering the National Security Threat
  - NextGen’s revolutionary product is a **safe, simple, and scalable** product that **WILL** play a significant role in protecting our us.
  - It is a clean slate technology; not an incremental improvement of existing technologies.

# Third Street Tunnel Washington, DC



For Release to Authorized Clients  
NextGen, Inc. An 8(a) SDB Entity



### Third street tunnel, Wash. DC

Fumes from police vehicles, freezing temperatures, shivering would-be-spectators





Who is protecting those standing at the ticket counters?



# Outline

1. About NextGen
2. What is this Revolutionary Invention?
3. Timeline to Delivery

# About NextGen

- Established in 1997
- An 8(a) SDB Entity
- Information Technology / Optical Networks, Detection Devices (Explosives, Narcotics)
- Clients:
  - US Army
  - US Department of State
  - ATT and Sprint
- Contracts:
  - GSA 8(a) STARS, Naval Surface Warfare Center
- DoD Clearances (Cage Code 1LKS1)

# The Invention

- **Integrated Stand Off Detection (ISOD)**
- Detects at Terahertz (THz), Microwave, and Neutron Rates
- The Source: Integrated Multi Application Radiation Source (iMars)
  - THz, Microwave, Fast Neutron
- **Integrated** and **Stand Off**
  - Integrated: iMars > Generates Microwave, Terahertz, and Fast Neutron (polarity switch) > One Device for Narcotics and Explosives Detection
  - Stand off: 30 to 100 Meters Away from Threat
- Imaging and Identification Through Barriers
  - Substance Differentiation
- **Safe – Simple to Deploy—Scalable**

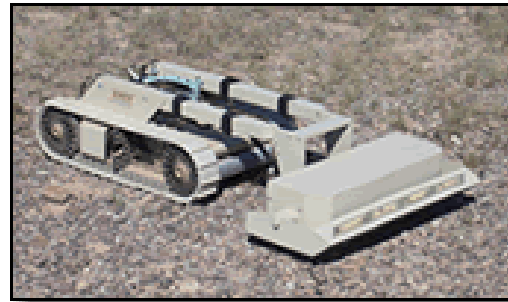
# The Invention

- Relatively Inexpensive: < \$100,000
- Compact
  - iMars is About 8” Long and No More Than 2” in Diameter
  - Total Backpack version <5 lbs
- Tunable
  - Variable Distance and Penetration
- Battery operated
  - 8 Hours of Continuous Operation

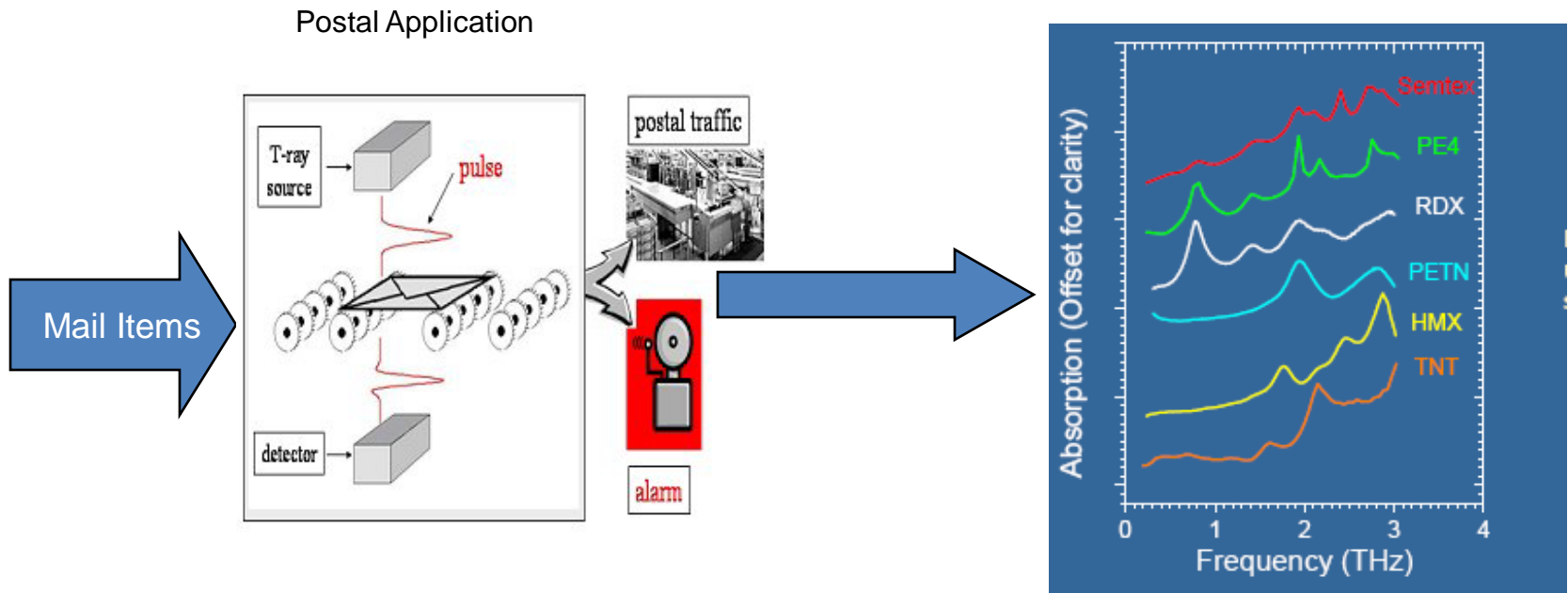
# Issues with Existing Products

1. Pose Serious Health Risks
2. Limited Range and Power
3. No Substance Differentiation
4. Non-Integrated
5. Slow Throughput

# Existing Products!



# ISOD Application



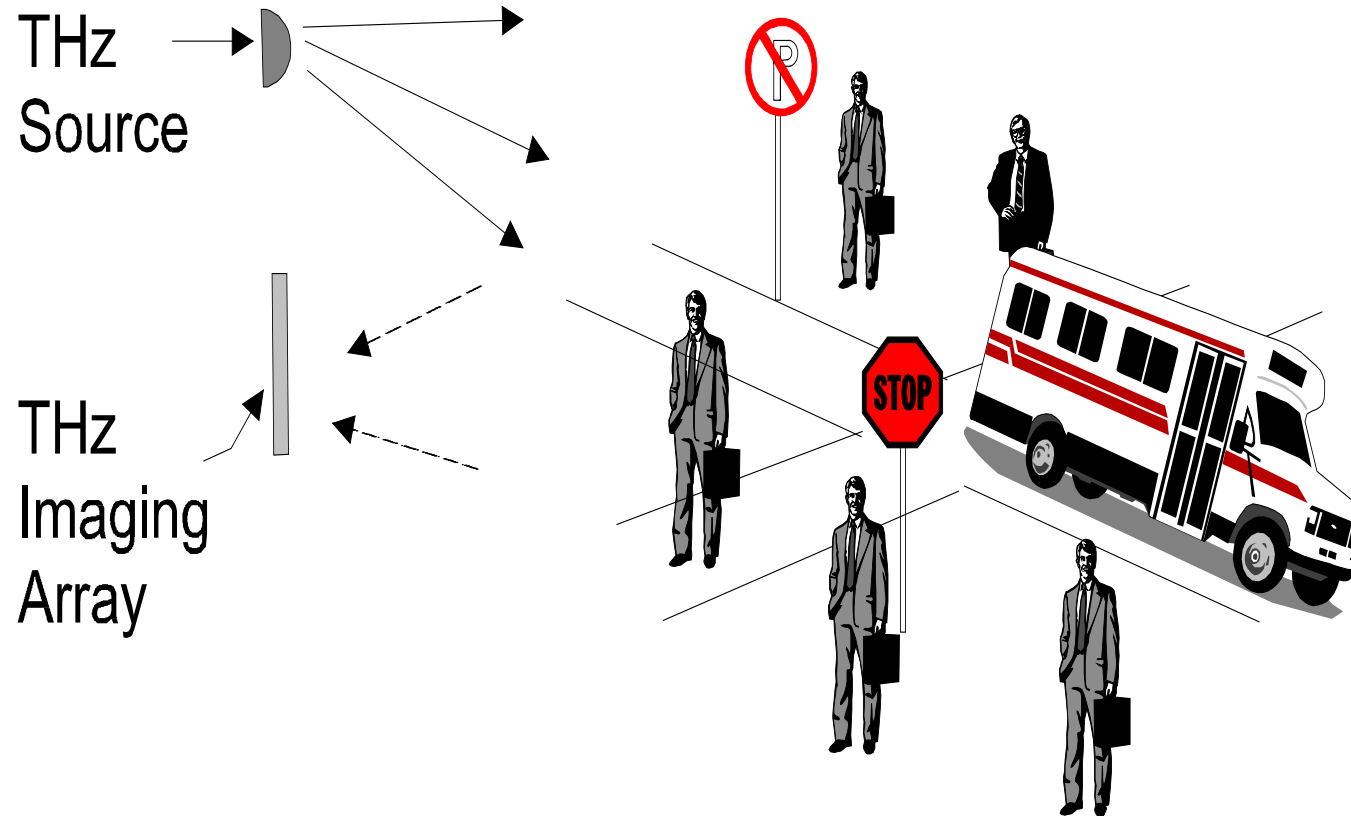
# How ISOD Works?

1. Populate Memory
2. Scan
3. Identify

# Where Can ISOD be Deployed?

- Airports
- Government and Commercial Buildings
- Border Crossings
- Seaports
- Battlefields

# Constant Scan



# Key Considerations

- **Safety**
  - Masers (Microwave Amplification by Stimulation of Radiation)
  - NOT Lasers or X-Rays, or Gamma Rays!
- **Simplicity**
  - Heart of Product is a Device Called iMars
  - Simple LCD Screen
  - Software for Differentiation of Various Target Objects
- **Scalability - When size matters...**
  - Transportable (vehicle, plane)
  - Portable (back pack)
  - Handheld
    - Eventually Fit into a Cell Phone! or Two-way Radio
      - The law enforcement Sends Data to a Centralized Location (FBI HQ or DHS) for Analysis

# Typical iMars Terahertz Source (about 8 inches)



# Phase I - Lab Version





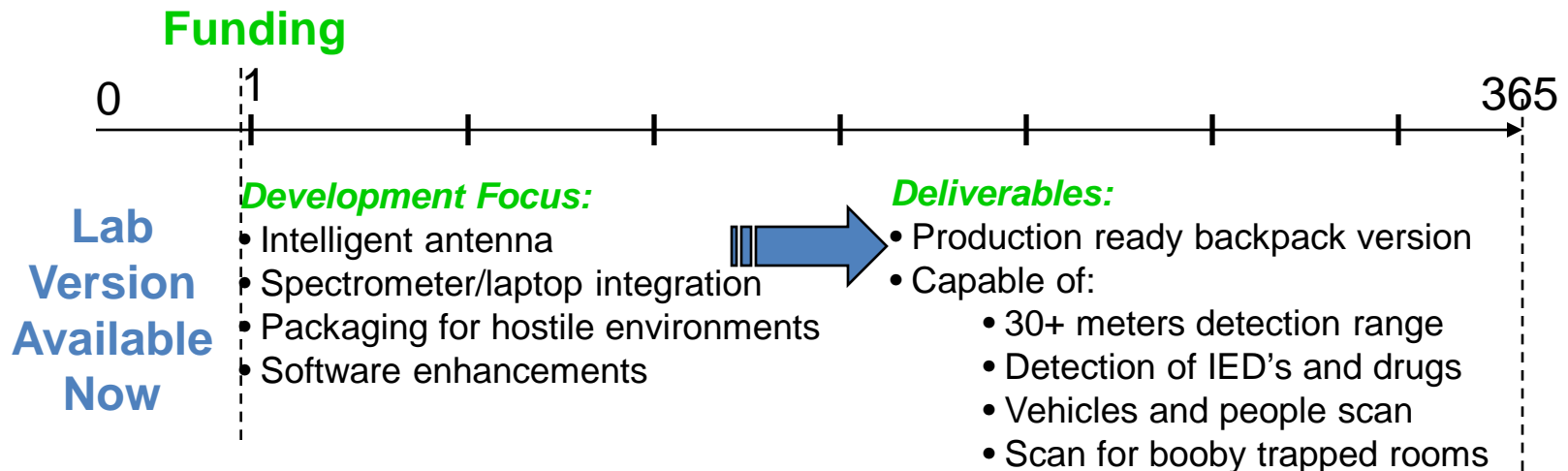
# Phase II – Backpack Version

- Seed Funding ~ \$5000,000
- \$\$ + 365 days - Production Ready Backpack Version
  - Design Focus upon funding:

Antenna - Smaller / Intelligent	In House - 90 days
Imaging Unit - Laptop + Spectrometer Integration (Ghz/Thz)	Outsource – 90 days
Hostile Environments – Package Source (iMars) for	Outsource – 60 days
Battery	Mil spec. Available
Image Processing Software Enhancement	In House – 90 days

# Backpack Version Delivery

- Today - Demo Proof of Concept - Detection of RDX, Other Explosives, Drugs
- \$\$ + 1 year Production Ready Backpack Version



# Conclusions

- NextGen's ISOD is a safe, scalable, and simple-to-deploy device that will revolutionize how we approach our National Security and law enforcement concerns.
- So **REVOLUTIONARY** that it will have the same impact on our national security the microwave has had in our kitchens!
- Next steps: Demos, investment funds, production



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