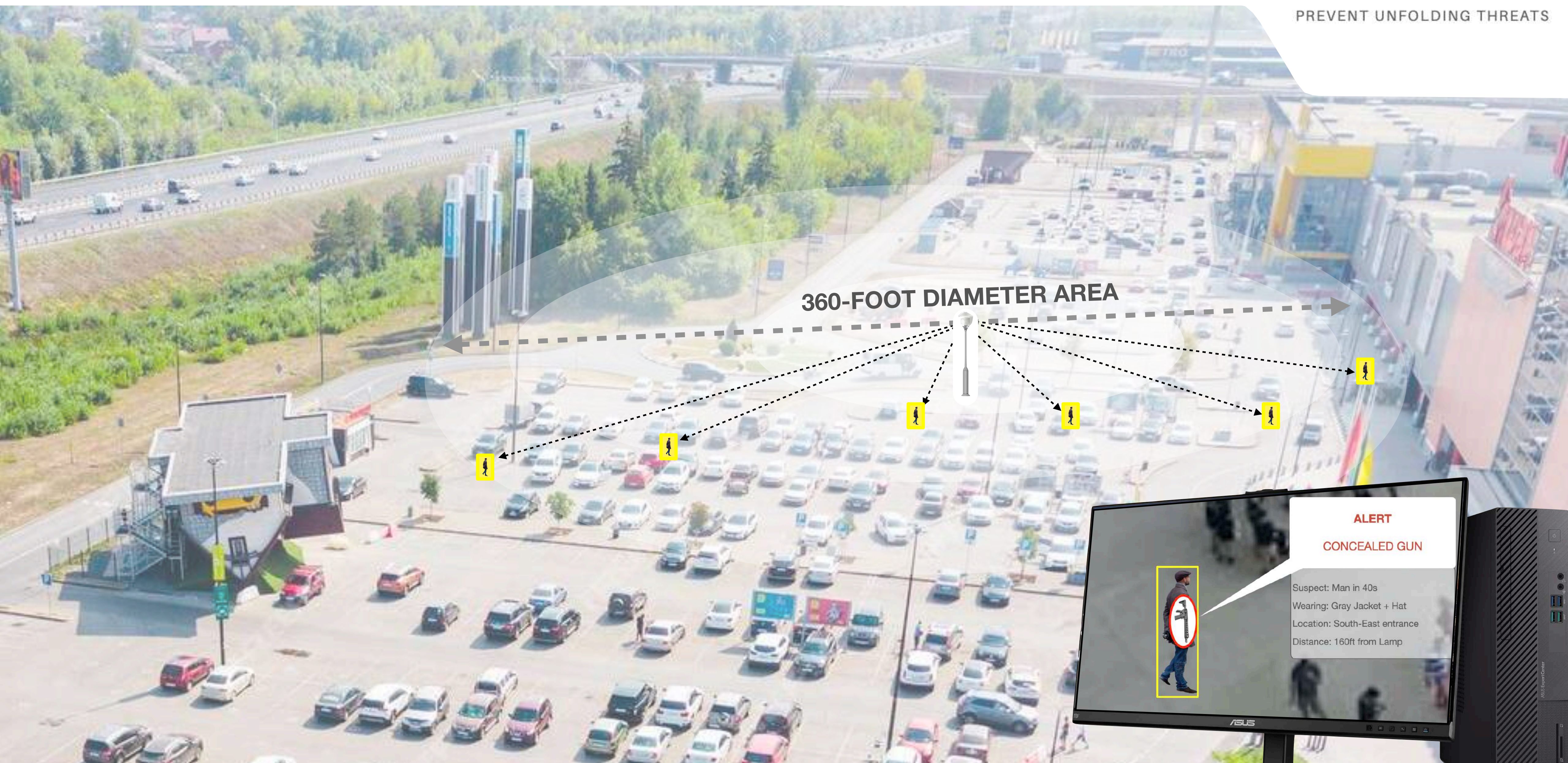


CONCEALED THREAT DETECTION FROM A DISTANCE



SPACE *Weapons concealed under clothes and backpacks in open uncontrolled areas*

PROBLEM *Need to detect and classify a number of types of weapons from a distance in open uncontrolled areas*

SOLUTION *Identify, locate and track people to then scan, detect and classify concealed threats with a proprietary mm-wave polarimetric radar within a 360-foot diameter area*

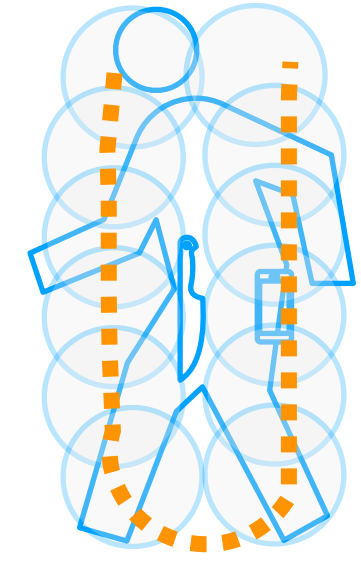
RESULTS *Improve PD and lower PFA
by rescanning at different locations for uncorrelated measurements*

TRL 5/6 *Booking paid trials and product orders for delivery 6-12 months out
Standalone solution or can integrate with third-party systems*

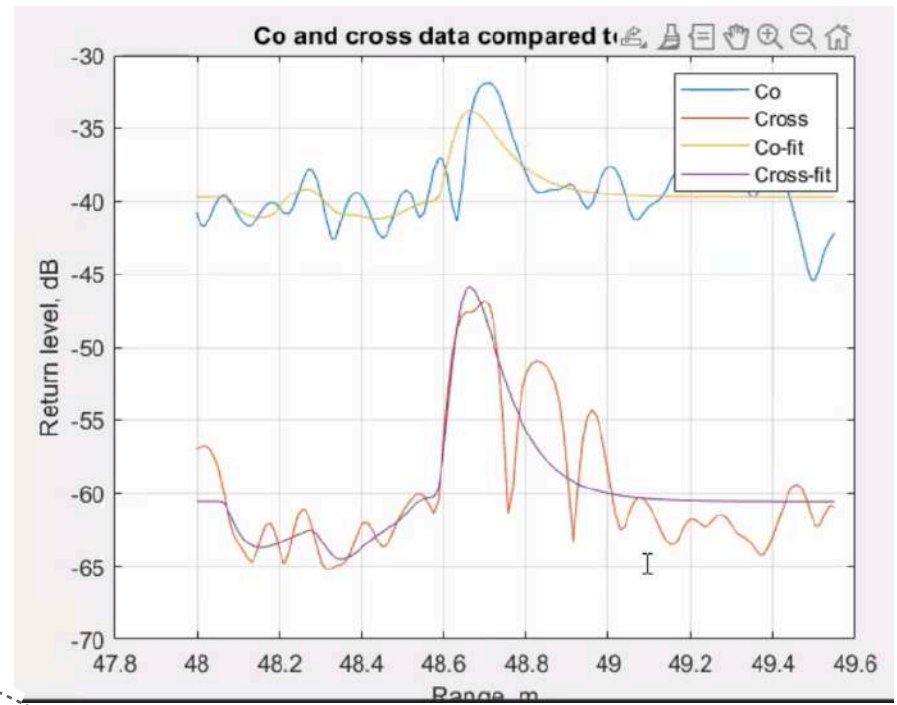
PROPRIETARY MM-WAVE RADAR (NOT IMAGING) WITH REPEAT SCANS

1. AI SOFTWARE UNIQUELY IDENTIFIES, LOCATES AND TRACKS PEOPLE ON CCTV CAMERAS

2. PROPRIETARY RADAR SCANS INDIVIDUALS SAFELY, WITH NO PRIVACY CONCERNS

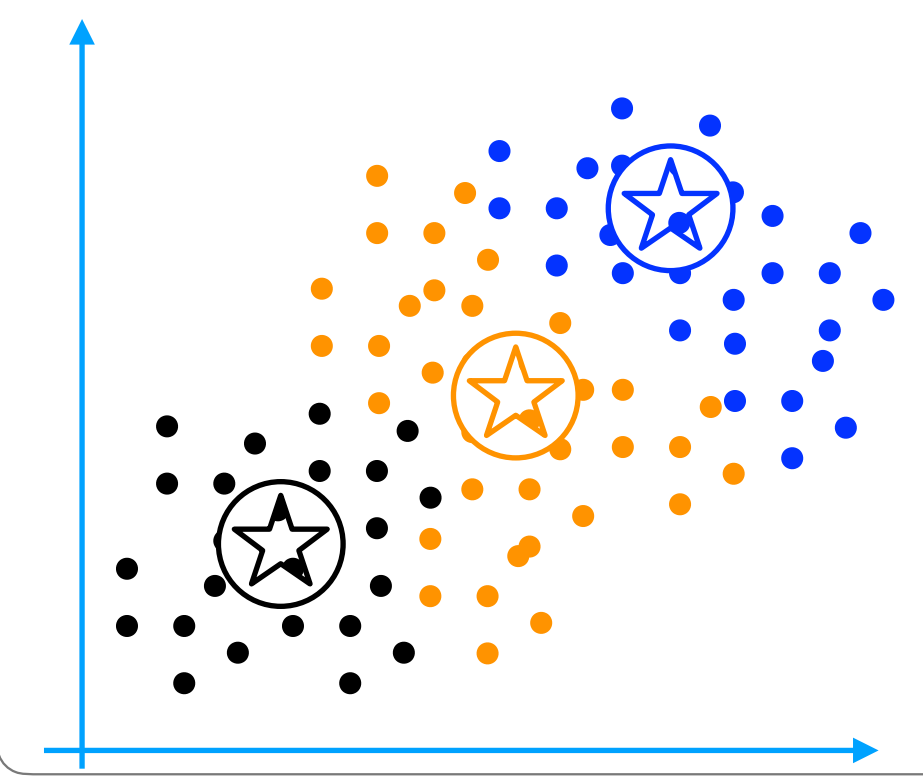


3. SYSTEM MEASURES MULTIPLE POLARIZED PARAMETERS OF THE RADAR RETURN SIGNALS TO DETECT CONCEALED OBJECTS

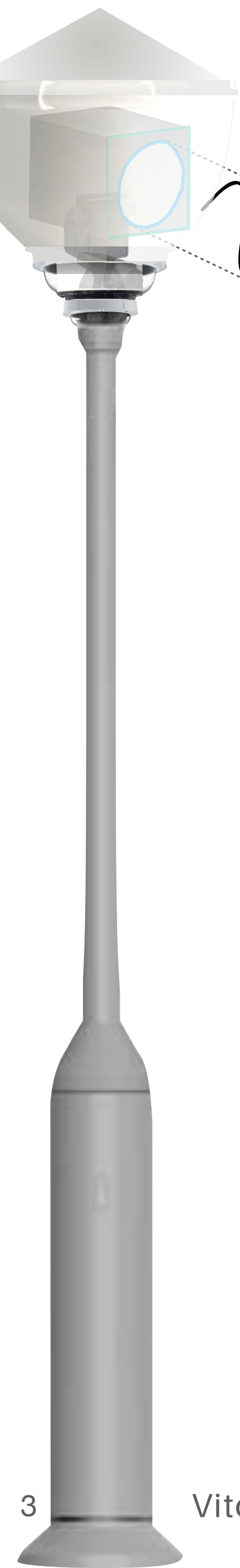


4. SOFTWARE AUTOMATICALLY DISCRIMINATES BETWEEN THREAT AND NON THREAT ITEMS

5. REPEAT SCANS ARE KEY TO THE SOLUTION (NEXT SLIDE)



6. SYSTEM ALARMS ON PEOPLE CONCEALING THREATS IN CONTROL UNIT



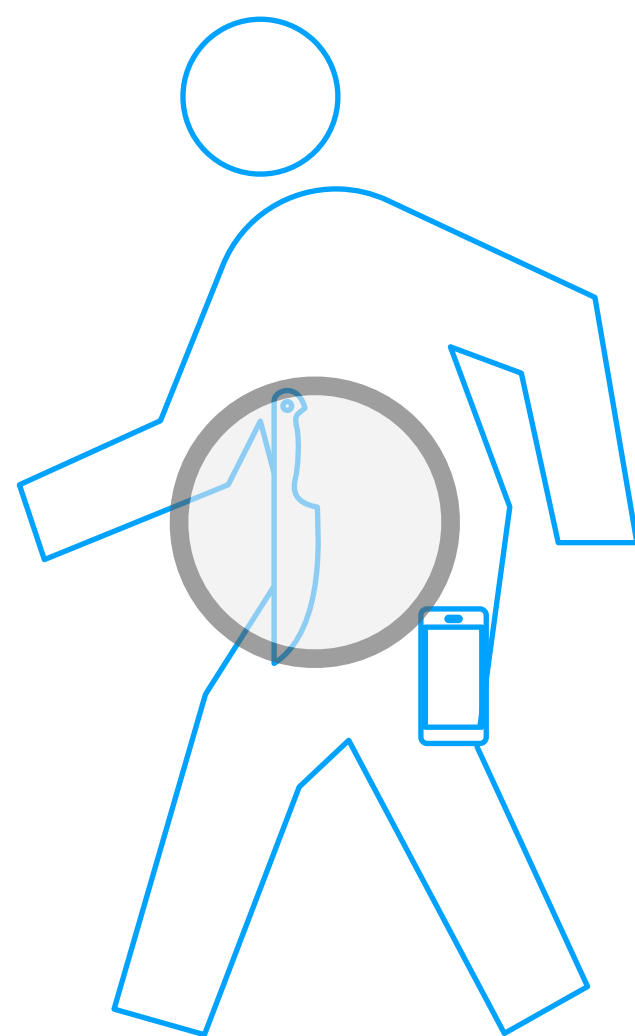
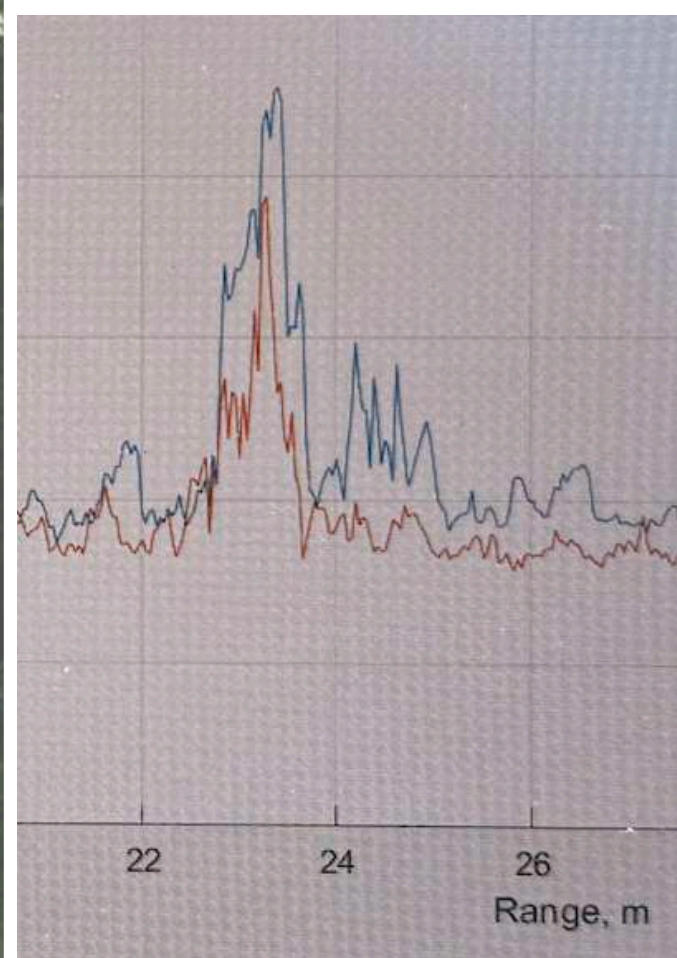
82-86GHz frequency band where clothes are transparent

safe: 100 less power than an iPhone

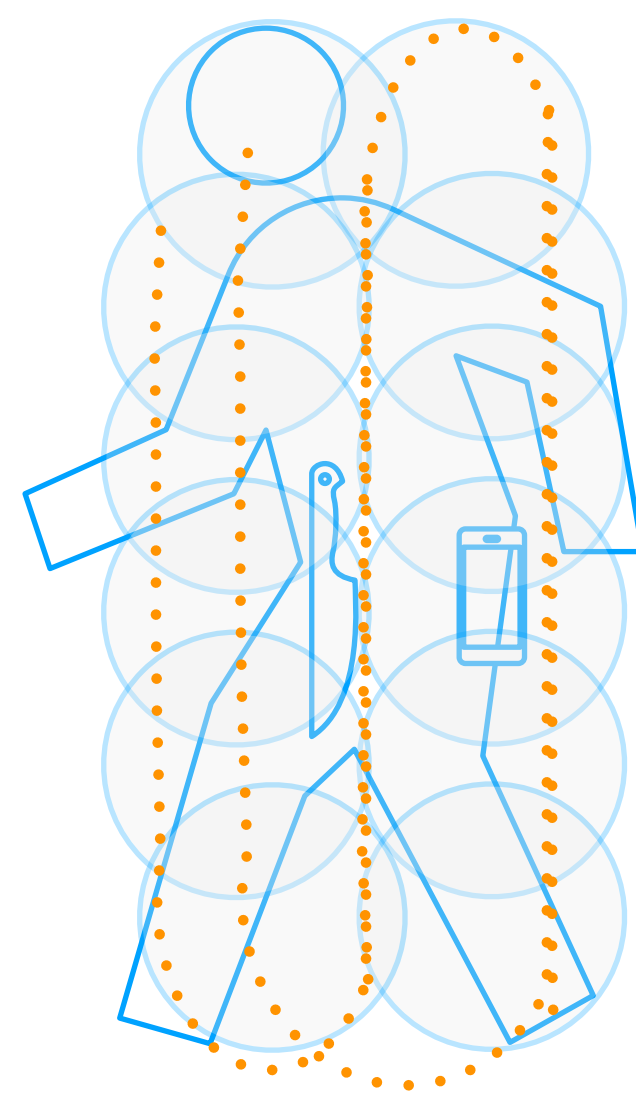
range gating: to reduce false +

area diameter: up to 320 feet

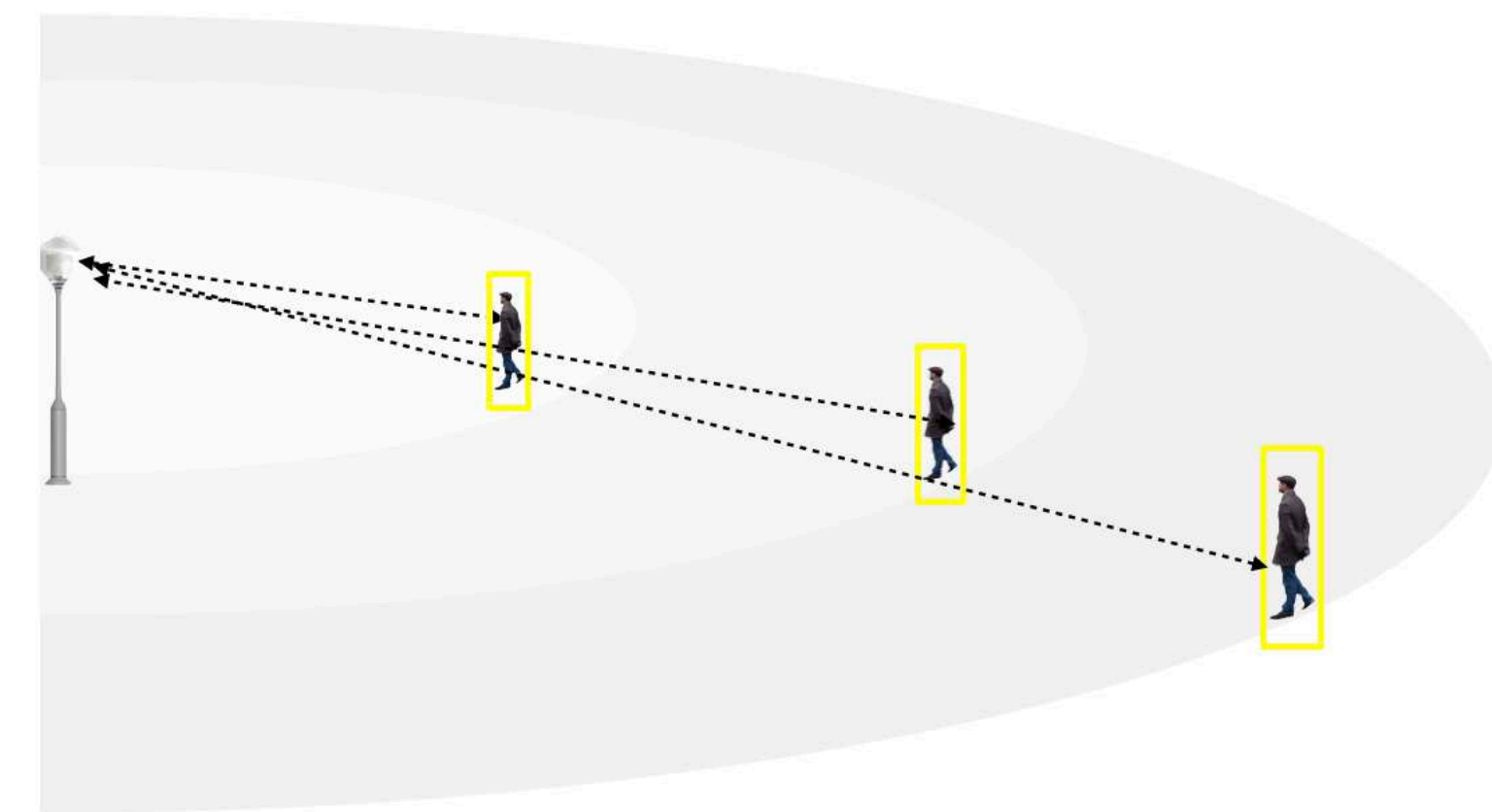
AUTOMATIC ANALYSIS OF MULTIPLE POLARIMETRIC RADAR RETURN IN EACH SCAN



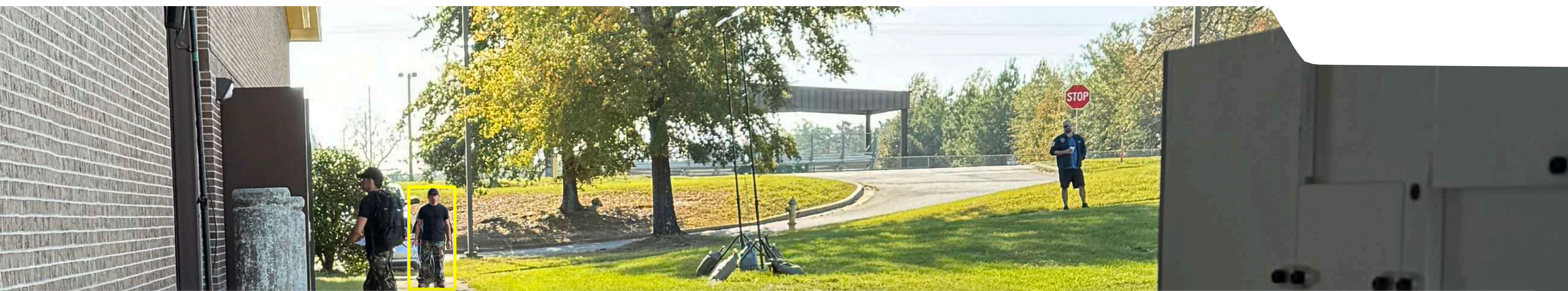
REPEAT SCANNING WITH EMBEDDED MICRO-SCANNER



RESCAN AT DIFFERENT LOCATIONS FOR UNCORRELATED MEASUREMENTS



IN OCTOBER 2023, MANTACUS DETECTED CONCEALED PBIEDs AND VARIOUS GUNS UNDER DIFFERENT TYPES OF CLOTHES AT A NATO SCOPING TRIAL



**360
FEET**

**THE ONLY SYSTEM CAPABLE OF
DETECTING CONCEALED THREATS
WITHIN A 360-FOOT DIAMETER AREA**

**AUTONOMOUS
OPERATIONS**

**NO GATES, NO CRUSH POINTS,
NO COSTLY OPERATORS TO
INTERPRET SYSTEM OUTPUTS**

**HIGH
THROUGHPUT**

**DESIGNED TO SCREEN
UP TO 1'000 PEOPLE
PER HOUR PER SYSTEM**