



# Liberty Defense

TSXV:SCAN | OTCQB:LDDFD | Frankfurt:LD2A

**December 2024**

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## NEXT GENERATION SECURITY DETECTION

Protecting communities and preserving peace of mind  
through next generation security detection solutions

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# INCIDENTS AND NEW THREATS AT ALL TIME HIGH



**There have been more mass shootings than days in 2023, database shows**



**Criminal Gangs Exploit Security Gaps to Infiltrate Airports**

**B B C** **Mass shootings on the rise**

**Ghost gun use in U.S. crimes has risen more than 1,000% since 2017, federal report says**



**TSA found a record number of guns at airport security checkpoints in 2023. Almost all of them were loaded.**



**FBI gun seizure orders from people who fail background checks hit historic rates**



**3D-Printed Guns Are Getting More Capable and Accessible**



**DHS Announces \$210 Million of Additional Funds to Protect Faith-Based Institutions and Nonprofit Organizations Against Targeted Attacks**

# THE THREATS OF TODAY AND TOMORROW



An urgent need exists to advance weapon detection security to protect against emerging risks

## CURRENT CLIMATE

- The **security screening market** is valued at US \$11.72B in 2024 and is projected to reach US \$25.70B by 2034.
- Terrorism and geopolitical tensions among several countries are on the rise
- There have been more than 420 mass shootings in the US so far this year.

## EMERGING RISKS

### 3-D printed weapons

Advancements in 3D printing technology have given terrorists the ability to print functioning weapons including guns and knives from plastics & nonmetal composites.

- These weapons are undetectable by conventional metal detectors.



## FUTURE NEEDS

### Evolving detection

To protect ourselves and our communities, security technology needs to advance to match and surpass the development of weapons technology.

It needs to be fast, adaptable, and noninvasive..

**Enter Liberty Defense . . .**



# OUR SOLUTIONS



## Introducing our proprietary, non-invasive weapons detection technology

- **Developing flagship HEXWAVE™** people scanner and shoe screener uses AI to distinguish between harmless objects and potential threats
- **Disruptive AI technology** under exclusive license provides touchless, non-intrusive scanning within seconds.
- **Proprietary design** fueled by Millimeter Wave, is mobile offering flexibility in uses, ideal for airport security, and commercial applications.



<sup>3</sup> North America Physical Security Market Report; Markets and Markets; 2021

\*Compound annual growth rate (CAGR)

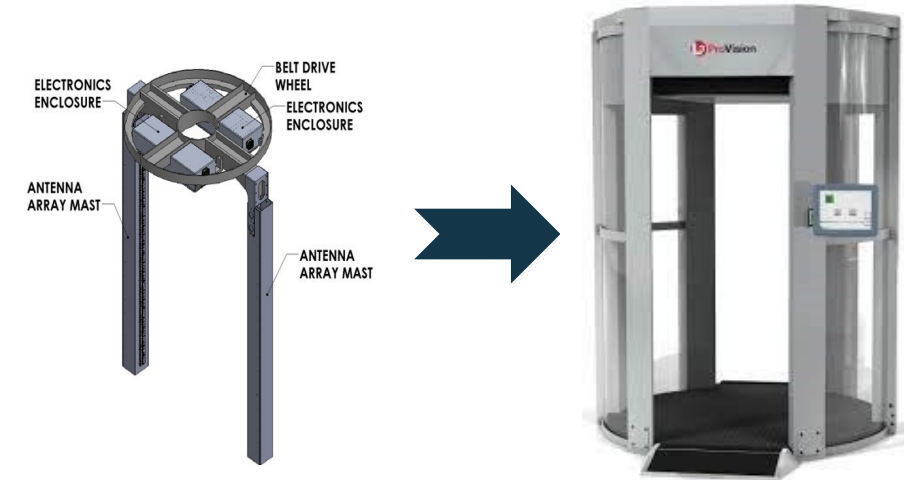
# TSA UPGRADE KIT TECHNOLOGY



Our TSA Upgrade kit was developed as a solution to aging HD-AIT systems currently in use in airports throughout North America and around the globe.

Our HD-AIT Upgrade kits provide:

- ✓ Improved imaging capability to detect new and emerging threats
- ✓ Inexpensive replacement alternatives



## KEY FEATURES

### ➤ Open Architecture Platform

- TSA identified “best in class” partners for optimal performance
- Meets new detection standards issued by Homeland Security



# HEXWAVE TECHNOLOGY

FCC Equipment Certification Approval  
for indoor/outdoor use



=

Antenna Array  
& Transceiver

+

3D Radar Image  
Reconstruction

+

Automatic  
Threat  
Detection  
AI & Deep  
Learning

+

Smart IoT  
Functionality

Captures  
real-time data

Convert captured data  
into 3D radar images

Interprets the data and  
3D radar images with AI

Provides connectivity to  
existing security systems

## EMIT



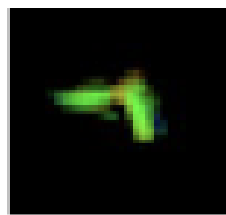
Low power signal  
is transmitted to reflect  
off the individual

## CAPTURE



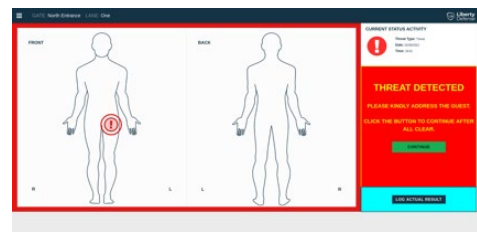
Each standalone unit  
captures **reflected signals**

## RICH DATA



~400,000 datapoints  
create a **3D image**

## INTERPRET



**Artificial intelligence**  
models interpret rich data and  
provide go/no-go decisions

## ACTION



**Smart IoT** functionality allows  
notification & interaction with  
existing infrastructure

# MARKET VALIDATION

A multibillion-dollar opportunity exists in the North America Physical Security Market



## SECURITY SCREENING MARKET



## MARKET GROWTH PROJECTIONS

**CAGR**  
**8.2%**

The security screening market is valued at \$11.72B in 2024 and is projected to reach US\$25.7B by 2034. The demand for security screening is likely to exhibit a CAGR of 8.2% during the forecast period.

## KEY MARKET DRIVERS

- Continuous innovation in security screening technologies, including AI and machine learning
- Increasing awareness of health and safety, particularly in response to global pandemics
- Escalating threats of corporate espionage and insider risks push
- The rise in criminal activities and illicit trade necessitates comprehensive security screening measures to safeguard against potential threats
- Growing concerns about the protection of critical infrastructure, such as power plants and government facilities
- Growing adherence to stringent government regulations and international security standards

## DEMAND DRIVERS

### 2024 TSA Employee Screening Mandate

The TSA has issued a mandate requiring screening of 100% of airport employees to be put in place by 2026.

## MARKET OPPORTUNITIES

- **Aviation** – Employee screening with TSA mandate
- **Correctional Facilities/Prisons** – Screening for non-metallics including weapons, drugs, money, cigarettes, contraband
- **Distribution Centers** – Theft Prevention
- **Critical Infrastructure**
- **Government Facilities** – Screening for all threats, phones, recording devices
- **Hospitals** – all threats
- **Schools** – guns/knives
- **Sports & Entertainment Venues** – all threats



# AVIATION WORKER SCREENING

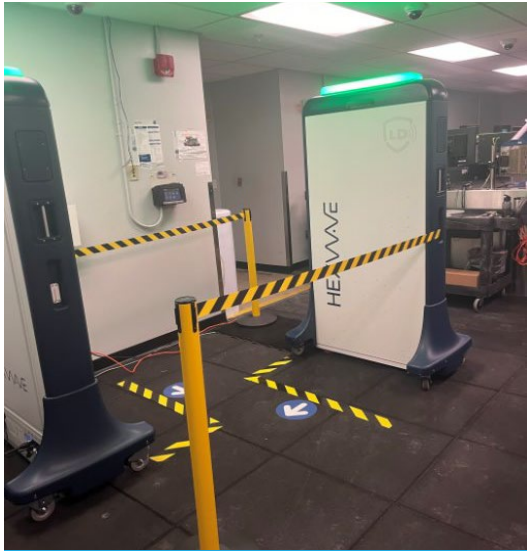
Insider threat poses a real risk with the potential for employees to exploit secure access and insider knowledge to smuggle contraband and weapons.

- TSA mandates call for planning and rapid adoption of next generation, open architecture technology
- HEXWAVE’s portability allows for use at multiple entrances to push the security perimeter out
- HEXWAVE satisfies the security requirements with its easily deployed explosive detection capability

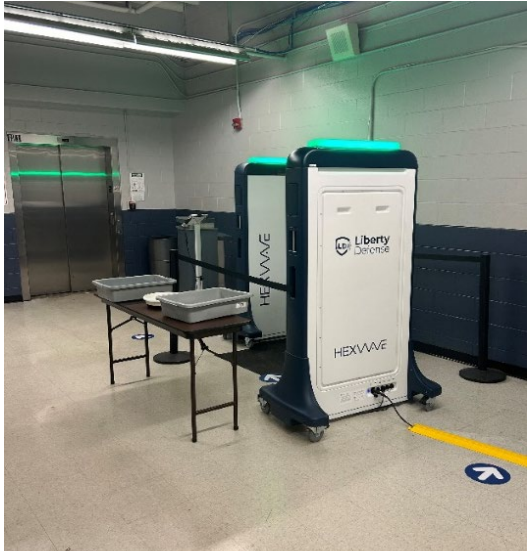
## MARKET OUTLOOK

Airport Category	# of Airports	Average Operating Time (Hours/Week)	Average # of Screening Systems/Airport	Total Minimum # of Screening Systems
X	27	160	7.7	208
I	57	75-90	3.8	217
II	89	36-50	1	89
				514

\$50M OPPORTUNITY



Manchester Airport



Rochester Airport

# COMPETITIVE LANDSCAPE



HEXWAVE System's features provide the most versatile detection solution on the market

Comparables	Liberty HEXWAVE	Traditional Metal Detectors	Airport MMW Systems	Evolv	Xtract Smart Gateway
Metallic Threats	✓	✓	✓	✓	✓
Non-Metallic Threats	✓	✗	✓	✗	✗
Throughput (people/hr)	700/hr	300/hr	150/hr	Up to 4,000/hr	500-2,400/hr
Cost	\$\$	\$	\$\$\$	\$\$	\$\$
Solid Explosives	✓	⚡	✓	⚡	✗
Outdoor Use	✓	⚡	✗	✓	✓
ATD Algorithms (AI)	✓	✗	✓	✓	✓
3D Imaging for ATD	✓	✗	✓	✗	✗

- ✓ Feature
  - ⚡ Limited
  - ✗ Non-Feature
- MMW – Millimeter-Wave  
ATD -- Automatic Threat Detection

# HEXWAVE ADVANTAGE

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## KEY DIFFERENTIATORS

**Touchless, seamless, high throughput** flow (700+ ppl/hr)

**Metallic and non-metallic threats detected** including liquid, powder, and plastic explosives, 3D printed ghost guns, etc.

**No required divestment** of benign items like cell phones, keys, wallets, jackets, steel toe boots, or other clothing

**Real-time automatic** go/no-go decision for operator indicating type and location of threat

Maintains **personal privacy** and no images are seen or stored

**Portable, flexible, cost-effective** deployment. Can be used indoors/outdoors (covered), attended/unattended, inside/outside of the checkpoint

**Millimeter wave** technology is proven safe and effective for people screening

Video-rate **3D imaging powered by AI** delivers enhanced threat detection

**Switchable AI algorithms** for operational flexibility and threat levels

Software updates provide **future proofing** to incorporate emerging threats and new requirements

**Integrates Smart IoT** functionality for connectivity to existing security systems (VMS, access control)

# BUSINESS UPDATE



## Customer Adoption – Growing Interest – Societal Need

### ► HEXWAVE Growing Backlog

#### Recent contracts:

- Fairbanks Int'l Airport (1)
- Nevada Courthouse (1)
- Chile Juvenile Court (1)
- Texas Department of Corrections (20)
- MIT LL Program for Mass Transit

**Total backlog 40 units**

### ► HD-AIT TSA Award - \$460K

**HD-AIT** units will start to ship in 2025 and will grow substantially from 2026 to 2027.

### HEXWAVE Customer Deliveries

- ✓ Los Alamos National Labs
- ✓ Greater Toronto Airport Authority
- ✓ Manchester Airport
- ✓ Rochester Airport
- ✓ Mactan Cebu Airport, Philippines
- ✓ MIT
- ✓ TSA
- ✓ Texas Department of Corrections
- ✓ Netherlands
- ✓ Chile



Transportation  
Security  
Administration



# TRACTION



## TSA Upgrade Kit Development

- ✓ Three Contract awards for **\$5.75M USD**
  - Liberty Defense is the only company to receive an award
  - TSA committed to Liberty with follow-on awards
- ✓ Market Opportunity
  - TSA plans to upgrade **1,042** body scanners installed at US airports
  - Over **\$100M** over the life of the upgrades

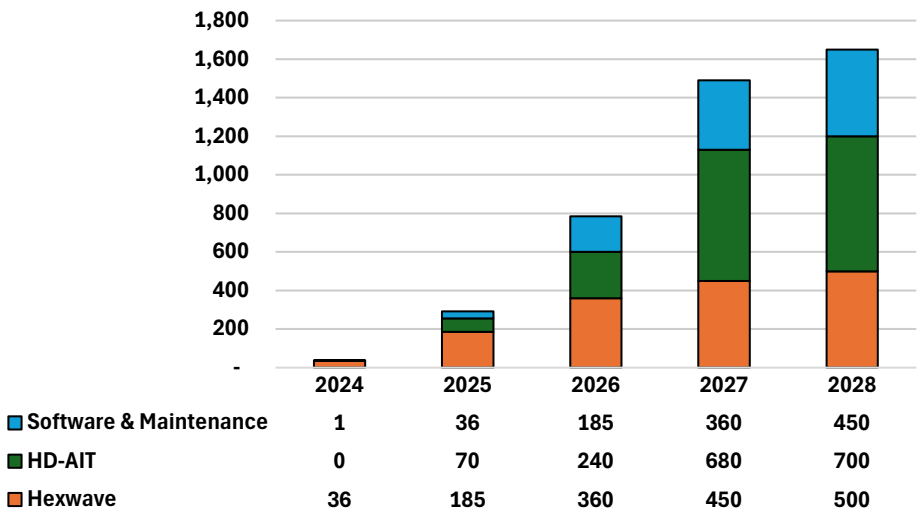
## HEXWAVE

- US employee screening at airports is underway
- Corrections momentum
- National Laboratories investing in advance screening technology
- Israeli Prime Ministers Office Demo
- Replacement of metal detectors at TSA Pre-Check

## UNIT SALES

- Quarter over quarter growth in 2024. Target revenue approximately \$5M. Numerous quotes are still in process to add to the 2024 backlog.
- 2025 Revenue projected \$26M
- 2026 Revenue projected \$57M
- Margin improvements in 2025 with volume purchase of HEXWAVE and Sales of HD-AIT upgrade kits
- Line of site to profitability by Q4 2025

Unit Sold by Product & Fiscal Year





# INDUSTRY PARTNERSHIPS



TSA is investing in Liberty Defense for enhanced detection performance



Transportation  
Security  
Administration

**US\$6M**  
Grants to date

Liberty Defense has partnered with security industry leaders including Viken Detection, Rapiscan and Grasp-Innovations Netherlands

**VIKEN**  
DETECTION

**Rapiscan**  
systems  
An OSI Systems Company



MIT and Pacific Northwest National Labs chose Liberty to commercialize the technology



# CUSTOMER INTERFACE VERTICALS



Customer demand is growing in a variety of sectors

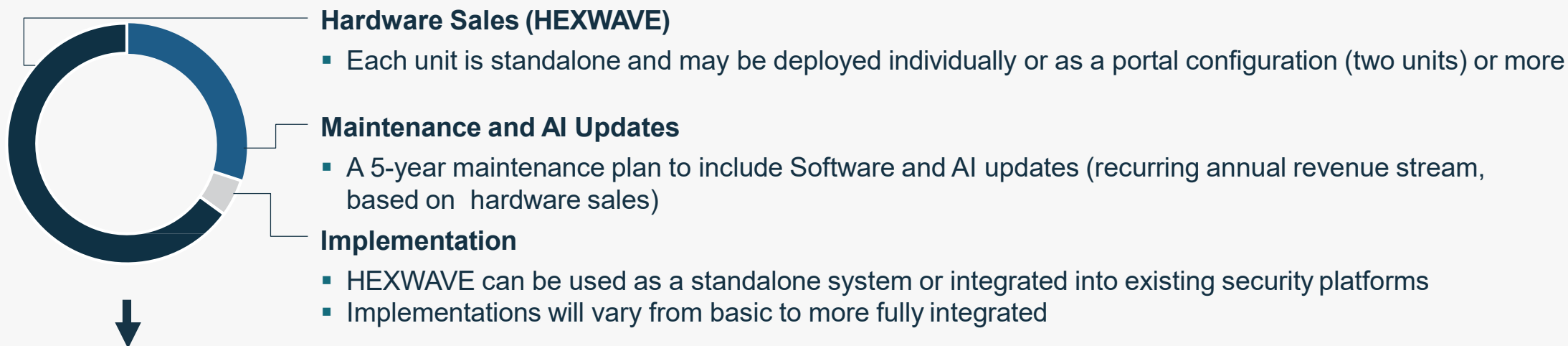


# LIBERTY DEFENSE BUSINESS MODEL



- Liberty aims to improve the customer experience and safeguard clients, customers, employees, students, and property
- Customers have the potential to capture additional revenues through either increased throughput or in-venue sales

## REVENUE STREAMS



### MARGINS

- High product gross margins after 2024
- Volume, technology curve, and value engineering will further enhance margins

### MARKET

- Initial focus will be on US and Canada but there is an international need
- Key partners in place combined with direct sales
- Amsource Capital engaged to facilitate large and small ticket leasing and financing of HEXWAVE

# CAPITALIZATION STRUCTURE



OTCQB:LDDFD; TSXV: SCAN; FWB:LD2A	
Market Cap @ US\$0.08	US\$13.3 M
Shares Outstanding	16,764,347
Warrants Outstanding	6,026,740
Options	6,225,000
RSU's	6,118,250

52-week Price Chart (LDDFD)



Date Closed	Transaction Type	Gross Proceeds		Issuance Price	
		CAD\$M	US\$M	CAD\$M	US\$M
02/28/2024	Private Placement	\$1.3	\$1.0	\$0.15	\$0.11
10/05/2023	Private Placement	\$3.5	\$2.59	\$0.20	\$0.15
05/01/2023	Private Placement	\$2.1	\$1.55	\$0.20	\$0.15
10/27/2022	Private Placement	\$5.3	\$3.92	\$0.27	\$0.20
03/22/2022	Private Placement	\$8.6	\$6.36	\$0.33	\$0.24
06/17/2021	Private Placement	\$7.1	\$5.25	\$0.50	\$0.37
03/12/2021	RTO with DrawDown Detection	\$6.9	\$5.11	\$0.40	\$0.30



# MANAGEMENT & DEVELOPMENT TEAM



Leaders in the security industry, product development, technology and manufacturing

## TEAM

- Led by a **seasoned leadership team** in **security & product development, management, and corporate finance**
- Supported by Board of Directors and advisors who provide **unparalleled market access**

## OUR EXPERIENCE



**BILL FRAIN**  
CEO

Former SVP of L3  
(LHX-NYSE)



**JEFFREY GORDON**  
VP Engineering

Engineering leader with 35+  
years experience in product  
development



**OMAR GARCIA**  
CFO

Public Company Finance  
Executive with 15+ years  
experience



**JAY ADELAAR**  
SVP Capital Markets

Marketing and Capital  
Markets Executive with 15  
years experience

## BOARD OF DIRECTORS



**DARYL REBECK**  
Executive Chairman

Capital Markets Executive  
with 20+ years experience



**BILL FRAIN**  
CEO/ Director

Former SVP of L3 (LHX-  
NYSE)



**LINDA JACKSTA**  
Independent Director

Customs & Border Protection  
Executive with 35 years  
experience



**ARJUN GREWAL**  
Independent Director

President One9 and 19-year  
Veteran of the Canadian  
Armed Forces.



# CAPITAL REQUIREMENTS



**The company is raising  
\$4M USD private placement**

## USE OF FUNDS

- Working capital
- Manufacturing
- Enhanced production cycle time
- Continued marketing and business development
- Research & Development
- Continuous improvement

## Liberty Defense Technologies, Inc

- ✓ Right Company at the Right Time
- ✓ Safety and Security for All
- ✓ Threats are more Prevalent and Advancing
- ✓ LD is making it Safer
- ✓ Well Conceived, Well led Team





# Together we can build a safer future

## CONTACT US

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