



# Liberty Defense

**INNOVATIVE & REVOLUTIONARY THREAT DETECTION**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
THREE AND SIX MONTHS ENDED JUNE 30, 2024**

*(Expressed in U.S. dollars, unless otherwise stated and per share amounts)*

***Dated: August 15, 2024***

Liberty Defense Holdings, Ltd., (“Liberty” or the “Company”) has prepared this Management’s Discussion and Analysis (“MD&A”) as of August 15, 2024, and should be read in conjunction with the Company’s condensed interim consolidated financial statements for the three and six months ended June 30, 2024. Unless otherwise stated, all financial information has been prepared in accordance with IFRS Accounting Standards as issued by the International Accounting Standards Board. All dollar amounts herein are expressed in U.S. dollars unless stated otherwise. References to \$ means U.S. dollars, and CAD\$ are to Canadian dollars.

This MD&A may contain forward looking statements based on assumptions and judgments of management regarding events or results that may prove to be inaccurate as a result of development or other risk factors beyond its control. Actual results may differ materially from the expected results.

Additional information on the Company is available at the Company’s website [www.libertydefense.com](http://www.libertydefense.com) and under the Company’s profile at [www.sedarplus.ca](http://www.sedarplus.ca).

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## 1) Overview

### (a) Description of Business

Liberty Defense Holdings, Ltd., is a public company (TSXV: SCAN, Frankfurt: L2D, OTCQB: LDDFF), that was incorporated under the Business Corporation Act of Ontario on June 8, 2012. The Company's registered and records office address is 1055 West Georgia Street, 1500 Royal Centre, P.O. Box 11117, Vancouver, British Columbia, V6E 4N7, Canada.

The Company, through its wholly owned subsidiary Liberty Defense Technologies Inc. ("LDT"), is principally engaged in the commercialization of an active 3D imaging technology system, HEXWAVE, to detect concealed threats.

### (b) License Agreements

License agreements values and descriptions:

	MIT licenses		Battelle license		Intellectual property		Total	
Balance, December 31, 2022	\$	441,225	\$	59,430	\$	3,229,808	\$	3,730,463
Additions		-		231,805		-		231,805
Amortization		(34,108)		(67,985)		(593,372)		(695,465)
Balance, December 31, 2023	\$	407,117	\$	223,250	\$	2,636,436	\$	3,266,803
Additions		-		-		-		-
Amortization		(17,054)		(105,810)		(343,302)		(466,166)
<b>Balance, June 30, 2024</b>	<b>\$</b>	<b>390,063</b>	<b>\$</b>	<b>117,440</b>	<b>\$</b>	<b>2,293,134</b>	<b>\$</b>	<b>2,800,637</b>

#### i) HEXWAVE Technology (intellectual property)

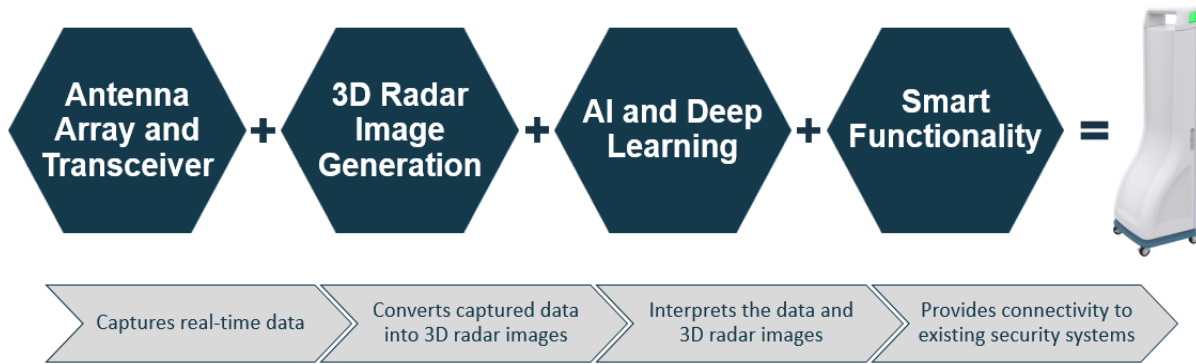
##### a. Active real-time 3D imaging technology licensed from MIT LL

Active video rate imaging technology was developed by the Massachusetts Institute of Technology Lincoln Labs ("MIT LL") and the technology has been in development since 2014. In October 2017, a concept demonstrator (pre-prototype) of the core technology was successfully tested under environmental conditions by MIT LL.

MIT LL undertook 4 years of research and development, including building a working prototype and testing the technology in both lab and real electromagnetic environments. LDT worked with MIT LL to transfer the active imaging technology starting in Q4 2018. In September 2019, Liberty and MIT LL were recognized by the FLC (Federal Laboratory Consortium) for the 2019 Excellence in Technology Transfer Northeast Region.

With the exclusive global license agreement (the "License Agreement") for the use of the active imaging technology, the Company has continued to develop HEXWAVE using the technology and concepts demonstrated by MIT LL. MIT LL, through the Technology Transfer Agreement ("TTA") has transferred the intellectual property and understanding to Liberty's Center of Excellence ("COE") in order for the technology to be further refined and developed. As part of the commercialization and go to market strategy, the Company had identified certain required changes and entered into a Cooperative Research and Development Agreement (CRADA) with MIT LL to leverage off their existing experience and accelerate the development of certain aspects of HEXWAVE. In addition to active imaging technology, the Company is also developing Automatic Threat Detection technology with the help of rich 3-dimension data and deep learning algorithms.

## HEXWAVE Overview:



Since acquiring the License Agreement from MIT LL, Liberty has significantly advanced HEXWAVE which includes the active imaging technology, automated threat detection (“ATD”) and smart IoT technologies. This culminated in the demonstration of the four principal subsystems in September 2019. This step represented a significant de-risking of the product development phase.

### b. Artificial intelligence and Deep Learning – Automatic Threat Recognition (“ATR”)

Automatic Threat Recognition utilizing deep learning algorithms was developed by Liberty to recognize person-borne concealed metal and non-metal threats. The 3-D data and images produced by the HEXWAVE are used to train and enhance the artificial intelligence engine using deep-learning algorithms.

At a frame capture rate of 20 images per second, the algorithms can exploit the changes in person’s positioning from frame-to-frame, thus maximizing the total coverage area and threat detection performance.

ATR improves detection accuracy, reduces resources required for screening, and allows the security personnel to take necessary action instantly. As additional field data and images are collected by the system over time, our goal will be to continuously improve HEXWAVE and its threat detection performance by receiving real time updates to its algorithms as new and emerging threats are identified.

### Global License Agreement – September 2018

The License Agreement for the use of the technology behind HEXWAVE with MIT is to be in effect until December 2035. Under the License Agreement, several milestones are required to be met to keep it in good standing. MIT continues to work closely with Liberty on developing this technology and amended the timeline to develop a beta prototype from on or before December 31, 2019, to removing the deadline entirely and replacing it with an in-plant inspection by MIT at regular intervals with at least six months between each such inspection. The amendment also included additional details in relation to changes on required commercial sales dates, required total net sales by year, and payment dates on its license agreement. Refer to SEDAR+ ([www.sedarplus.ca](http://www.sedarplus.ca)) for further details on the MIT amendment.

### HEXWAVE Key Discriminators

Central to positioning HEXWAVE is building on its key discriminators. These are enabled by the system architecture that aligns to key market needs. These include:

- Detects metal & non-metal threat objects
- Operates in both indoor and outdoor locations including both overt and covert applications
- Protects privacy (no personal data is collected or analyzed)
- ATD in real-time using rich 3D data and deep learning algorithms
- Smart functionality provides connectivity to existing security systems (VMS, door locks, networks)
- Routine software & artificial intelligence updates
- Operationally agile (mobile and deployable across detection space)

- High throughput (over 700 screens per hour) with precise secondary screening

#### About the Explosives and Weapon Detection Market

The aggregate markets associated with the explosives and weapon detection market are expected to total over \$11 billion by 2025. The verticals most relevant to the growing Urban Security Market (“USM”) are public venues, secured perimeters & buildings, land transportation, government, and others (schools, hotels, casinos, places of worship, malls, workplace & community screening).

The complexity of the urban security threat environment has dramatically changed over the last decade, requiring a more proactive approach to preventing violent attacks against communities. Since the 9/11 events, the air transportation community has effectively deployed a combination of detection technologies that are being consistently upgraded in an attempt to “stay ahead” of evolving threats. The array of detection tools has largely been protecting access to aircraft systems as gated or “point” solutions. The public is forced to tolerate the delays associated with such inspections due to the extreme risks that explosives or weapons can have on an aircraft and its passengers.

In contrast, urban communities are largely unprotected against random acts of violence or use systems that significantly impede the flow of customers into and within business facilities. While the occasional violent act was more often considered an anomaly, the frequency and magnitude of violent attacks is forcing both businesses and governments to rethink how to move to more proactive measures. Since 2015, there have been over 300 mass shootings per year in the United States (“US”) at a pace of nearly one per day. There is a market-driven need for security detection that can be broadly deployed across nearly all public and private facilities. The base requirements are that they be both highly accurate and nonintrusive to our daily lives.

#### Current Alternatives

The current alternatives in the United States market are typically restricted to:

- principally focusing on metal threats, therefore non-metal threats can potentially go undetected
- airport solutions which are not able to be used across other verticals and do not have the requisite throughput
- limited outdoor application and therefore hinder the capability of providing a layered defense for proactive threat detection
- requiring large, dedicated areas or space versus integration into existing infrastructure
- limited capability for integration into existing security systems command & control

#### About Liberty’s Management Team

Central to Liberty’s team is the technical and management expertise are: CEO and Director, Bill Frain, former Senior Vice President for L-3 Security & Detection Systems (NYSE – LHX), the world’s leading supplier of security inspection systems. In this role Bill led global sales, business development and key account management. Vice President of Engineering, Jeffrey Gordon, who spent his last five years working at General Electric Global Research developing roadmaps for imaging and sensor technologies and over 35 years experience leading the development of ground-breaking sensing products for the military, medical, industrial, and commercial markets, including body scanners that can be seen deployed across most United States and European Union airport checkpoints.

#### Liberty’s Advisors

Liberty has assembled a group of Advisors that can provide unprecedented market access to several of our identified market verticals including the National Football League, law enforcement, federal and state government facilities, and former airport executives. A key aspect to Liberty’s success will be gaining access and developing the market for HEXWAVE.

## ii) MIT License Agreement Description and Commitments

The Company, through its wholly owned subsidiary Liberty Defense Technologies Inc. (“LDT”), has entered into agreements with the Massachusetts Institute of Technology (“MIT”) and MIT’s Lincoln Laboratory (“MIT LL”), including an exclusive patent licence agreement between MIT and LDT dated September 10, 2018, as amended from time to time (the “Licence Agreement”), a technology transfer agreement between LDT and MIT LL, effective August 24, 2018 (the “Technology Transfer Agreement”), and a cooperative research and development agreement between LDT and MIT dated as of December 21, 2018 (“CRADA”), such agreements providing LDT with an exclusive licence for patents, design assets and MIT LL technical expertise related to active three-dimensional imaging technology that are the core technology behind the HEXWAVE product.

The obligations under the Technology Transfer Agreement and the CRADA have now been completed. Liberty may consider extending the CRADA (and therefore changing its scope) if it determines that additional MIT LL technical expertise related to active three-dimensional imaging technology is required. Pursuant to the License Agreement, LDT has been granted the exclusive rights to MIT’s patent in “multistatic sparse array topology for FFT-based field imaging” (MIT Case No. 1 8409L) (the “Patent”), which is being utilized in the development and application of the HEXWAVE product. The License Agreement is to be in effect until the expiration of the Patent, which is 11 years (December 2035). In granting LDT such patent rights, the Company shall pay MIT in addition to patent filing costs an annual maintenance fees as follows: 1) \$20,000 for 2019 (paid); \$50,000 for 2020 (paid); \$60,000 for 2021 (paid); \$100,000 for 2022 (paid); \$nil for 2023, \$40,000 for 2024, \$200,000 for 2025, and \$350,000 for 2026 and thereafter; and 2) a royalty of 5.7% of all future net sales of the Company. As at June 30, 2024, the Company accrued royalty payments of \$55,839 (December 31, 2023, \$nil). The Company shall also be required to achieve certain milestones.

## iii) Battelle Memorial Institute License Agreement Description and Commitments

On March 22, 2021, the Company, through its wholly owned subsidiary DrawDown Detection, Inc. has entered into an agreement (“Battelle License Agreement”) with Battelle Memorial Institute (“Battelle”), which operates the Pacific Northwest National Laboratory (“PNNL”), to license the millimeter wave-based, High-Definition Advanced Imaging Technology (HD-AIT) body scanner and shoe scanner technologies. The agreement, as amended from time to time, provides the Company with a three-year exclusive license for certain patents which will convert to a non-exclusive license for the remaining life of the patents. The agreement also provides the Company with non-exclusive license for certain patents for life.

As consideration for the Battelle License Agreement, the Company paid \$30,000 upon signing and \$30,000 six months after.

Under the Battelle License Agreement, the Company shall pay a five percent royalty on net sales and a twenty-five percent royalty on all sublicensing revenues if permitted under the contract guidelines. Any government entity that has revenues would not require a five percent royalty on the net sales. As at June 30, 2024, the Company accrued no royalty payments (December 31, 2023, \$nil). The Company is also required to pay a minimum royalty amount as follows, unless the agreement is terminated:

	<b>Amounts</b>
Year 2021 (paid)	\$ 50,000
Year 2022 (paid)	50,000
Year 2023 (payable)	100,000
Year 2024 and each year thereafter (payable)	200,000

The Company is obligated to achieve certain milestones in the next fifteen months and reimburse Battelle for ongoing patenting expenses, as well as past patenting expenses in the total amount of \$50,000, from which \$50,000 has been paid.

Intangible assets included as MIT and Battelle licenses include payments in connection to reimbursement of global patent filing costs and annual maintenance fees.

#### (d) Recent Developments

From inception, Liberty set itself an aggressive product development timeline by pursuing a concurrent engineering and development approach and prior to its financial constraints had managed to deliver upon this timeline.

In addition to advancing HEXWAVE and the market for it, Liberty achieved several significant corporate milestones which include:

- Liberty and Lexington North Carolina based Point Security Inc. entered into a non-exclusive Strategic Partnership (January 2024)
- Closing of private placement for total gross proceeds of CAD\$886,000 (January 2024)
- Liberty to host Senior Delegates from Vietnam for Aviation Security Solutions (January 2024)
- Liberty Announces US\$1 Million Investment by Viken Detection (February 2024)
- Liberty Receives Formal Federal Communications Commission (FCC) Approval for HEXWAVE (March 2024)
- Liberty Receives Formal Approval from Science and Economic Development Canada (SED) for HEXWAVE from Canadian Government (April 2024)
- Liberty Defense Ships HEXWAVE to a Major Canadian Airport to Provide Enhanced Screening (May 2024)
- Liberty Defense Announces Award of HEXWAVE to Latin America (May 2024)
- Liberty Defense Completes Sale of HEXWAVE to Major US International Airport (May 2024)
- Liberty Defense Receives Contract for Multiple HEXWAVE's from Manchester-Boston Regional Airport (May 2024)
- Texas Department of Criminal Justice Selects Liberty Defense's HEXWAVE for Checkpoint Security Screening at Correctional Facilities Across Texas (Jul 2024)
- Liberty Defense Announces the Completion Of Installations and Start of Operations at Multiple Airports in US and Canada (Aug 2024)

#### (e) Outlook and Going Concern

Expenditure in research and development activities undertaken with the prospect of gaining new scientific or technological knowledge and understanding is recognized in the statement of loss as an expense when incurred.

The Company's expenditures in development activities where research results are used in planning and designing the production of new or substantially improved products and processes are recognized under intangible assets if the product or process is technically and commercially feasible, if there is an intention and ability to complete the project and then use or sell it and expect economic benefits from the project, if the Company has sufficient resources to complete development and if it is able to measure reliably the cost during development. The recognized research and development expenditures incurred are recognized in the statement of loss as an expense when incurred.

The Company incurred in a total loss during the six months ended June 30, 2024, of \$3,996,538 and cash outflows from operating activities of \$1,557,465. In order to fully commercialize HEXWAVE, the Company will require additional funds to achieve its development timeline and bring HEXWAVE to market. The Company has certain committed development milestones over the next twelve months and based on the Company's current forecasted operational and development spend, the Company will require additional funds to meet these milestones. While the Company has been successful in arranging financing in the past, the success of such initiatives cannot be assured. This material uncertainty casts significant doubt upon the Company's ability to continue as a going concern.

The application of the going concern concept is dependent upon the Company's ability to generate future profitable operations and receive continued financial support from its creditors and shareholders. These interim condensed financial statements do not give effect to any adjustments that might be required should the Company be unable to continue as a going concern. If the company cannot generate positive future cashflows, this will delay the production timeline and shipments to backlogged orders, in addition to delaying necessary product cost reductions and improvements caused by the lack of funds to hire, produce, and execute the necessary product updates / revisions. Continued equity and/or debt financing is critical in order to ramp production up in order to become profitable.

Management plans to continue to pursue equity and/or debt financing to support operations. There can be no assurance that these financing efforts will be successful. Failure to maintain the support of creditors and obtain additional external financing will cause the Company to curtail operations and the Company's ability to continue as a going concern will be impaired. The outcome of these matters cannot be predicted at this time.

## 2) Results of Operations

Certain comparatives in prior periods may have been revised to conform to the current presentation.

During the three and six months ended June 30, 2024, the Company reported a total loss and comprehensive loss of \$2,479,545 and \$3,846,947 respectively (three and six months ended June 30, 2023 – \$2,609,460 and \$4,754,293 respectively), and basic and diluted loss per share of \$0.02 and \$0.03 respectively (three and six months ended June 30, 2023 – \$0.02 and \$0.04 respectively). Despite the accumulated losses, the Company's management is confident in scaling up production and commercialization of its primary technology, HEXWAVE, and is eager to advance the research and development of various potential technologies currently under review.

The net loss for the three and six months ended June 30, 2024, and 2023 is comprised of the following items:

Significant variances affecting the total loss for the period are discussed as follows:

- i) Revenue for the three months ended June 30, 2024, was \$948,532, which was in connection to contract award revenues from the TSA of \$250,000 and HEXWAVE sales of \$698,532. Deferred revenue of \$735,970 was received during the three months ended June 30, 2024. Cost of revenues as for the three months ended June 30, 2024, is \$1,852,111. Cost of revenues consists of contract and production costs including \$795,736 of cost of goods sold, \$237,642 in amortization of intangible assets, \$338,411 in salaries and consulting fees, additions to inventory impairment of \$213,170, rent and insurance of \$34,339, royalties of \$55,839, and a total of \$176,974 in relation to freight, production variances, software, tariffs. The Company has received additional firm purchase orders that are being processed and revenues will be recognized in future periods as soon as performance obligations are met.



	Note	Three months ended June 30,		Six months ended June 30,	
		2024	2023	2024	2023
				\$	\$
<b>Revenue</b>	14 & 15	\$ 948,532	\$ 432,407	1,580,588	943,978
<b>Cost of revenue</b>		1,852,111	299,744	2,339,529	645,954
<b>Gross income</b>		(903,579)	132,663	(758,941)	298,024
<b>Engineering and Research and Development Expenses:</b>					
Product development & technology Costs		122,686	259,532	163,396	310,058
Salaries and consulting fees	17	482,403	848,833	746,282	1,633,860
Stock-based compensation	12 & 17	29,307	20,344	53,404	47,402
Depreciation	6	68,577	131,467	150,341	313,294
Amortization	7	-	168,511	-	327,147
Office, rent & administration, travel and miscellaneous		41,229	52,857	50,905	164,691
<b>General and Administration Expenses:</b>					
Salaries and consulting fees	17	589,577	412,650	880,462	857,792
Legal and professional fees		85,422	147,485	141,304	173,463
Stock-based compensation	12 & 17	145,487	173,035	159,291	366,563
Office, rent & administration, travel, and miscellaneous		(125,920)	456,251	437,264	748,050
		1,438,768	2,670,965	2,782,649	4,942,320
<b>Other expense (income):</b>					
Other income, net of expenses		-	(1,103)	-	(1,103)
Interest expense		270,021	21,899	445,211	40,727
Accretion expense	8	-	582	-	(1,175)
Foreign exchange loss		6,254	201	9,737	201
		276,275	21,579	454,948	38,650
<b>Net loss for the period</b>		<b>\$ (2,618,622)</b>	<b>\$ (2,559,881)</b>	<b>(3,996,538)</b>	<b>(4,682,946)</b>

- ii) Engineering and research and development expenses for the three months ended June 30, 2024, amounted to \$744,202. This represents a decrease from the expenses incurred during the same periods in the prior year, which were \$1,164,328 for the three months ended June 30, 2023. The decrease is primarily related to the manufacturing and contract costs expenses reclassified to cost of revenue. These expenses were attributed to the ongoing research and development of the company's licensed technologies, with a focus on advancing various potential technologies under review. During the three months June 30, 2024, the Company incurred \$482,403 in salaries and consulting fees that relate to HEXWAVE enhanced production development, software development and advancing the technologies under review such as HD-AIT. It also includes stock-based compensation in the amount of \$29,307 in connection to the amortization of the fair value of stock options granted to directors, officers, employees, and consultants, as well as product development and technology costs of \$122,686. During the comparative period, three months ended June 30, 2023, the Company incurred \$259,532 product development and technology costs, \$20,344 in stock-based compensation, and \$848,833 in salaries and consulting fees that relate to software development and general R&D activities in connection to activities undertaken with the prospect of gaining new scientific or technical knowledge and understanding of the licensed technologies. The significant variance in salaries and consulting fees primarily stems from reallocating decreasing consulting during the year and moving production salaries and costs to cost of sales, as the Company commenced production, albeit not at full scale. Shipments of production have continued to ship slowly with the intention to progressively increase production volumes in the near future.
- iii) During the three months ended June 30, 2024, the Company incurred general expenses in the amount of \$694,566 (three months ended June 30, 2023 – \$1,189,421). Expenses of \$549,079 were incurred mainly in connection to consulting fees, salaries and payroll related benefits, legal and professional fees and travel promotion and investor relations. Additionally, the Company recorded a recovery of \$125,920 under office, rent & administration, travel, and miscellaneous, since liabilities in relation to MIT license was nulled as an amendment was signed and the amount owed of \$500,000 was reversed. Stock based compensation decreased from \$173,035 for the three months ended June 30, 2023, to \$145,487 for the same period during the current year. This decrease year over year was in connection to the reversal of stock-based-compensation for employees who left in relation to the stock options and restricted share units forfeited.



Consulting fees, salaries, and benefits for the three months ended June 30, 2024, increased from \$412,650 in 2023 to \$589,577 in 2024, reflecting the Company's increase of contractors to fill necessary roles within the organization. Office, rent & administration, travel, and miscellaneous expenses decreased from \$456,251 to \$(125,920) during the same period. The decrease is mainly due to the reversal of a \$500,000 liability to MIT that was removed as a result of an amended to the license agreement signed.

- iv) During the three months ended June 30, 2024, the Company incurred interest expense totalling \$270,021, compared to \$21,899 in the same period of the previous year. The large increase relates to the increase of interest expense from the interest-bearing loans, as well as the factoring loan. A foreign exchange loss of \$6,254 was recorded for the three months ended June 30, 2024, compared to a loss of \$201 for the same periods in 2023. The increase in foreign exchange loss compared to the previous year can be attributed to lower volatility in foreign exchange rates and reduced transactions affected by foreign exchange, significantly fewer than the prior year. The Company's functional currency is the Canadian dollar, and holding financial assets and liabilities in other currencies, mainly the U.S. dollar, leads to foreign exchange gains or losses.

### 3) Summary of Quarterly Results

Three months ended	Working capital (deficiency)	Total assets	Total loss and comprehensive income loss	Loss per share
	\$	\$	\$	\$
30-Jun-24	(5,435,369)	5,370,395	(2,479,545)	(0.02)
31-Mar-24	(3,928,748)	6,070,238	(1,367,402)	(0.01)
31-Dec-23	(4,435,968)	5,831,652	(2,875,056)	(0.02)
30-Sep-23	(2,889,077)	6,733,550	(1,708,096)	(0.01)
30-Jun-23	(2,851,771)	6,566,697	(2,609,460)	(0.02)
31-Mar-23	(2,032,132)	5,833,069	(2,144,833)	(0.02)
31-Dec-22	(133,516)	6,234,038	(3,670,331)	(0.03)
30-Sep-22	(227,687)	5,687,328	(3,157,109)	(0.03)

During the three months ended June 30, 2024, the Company continued production of HEXWAVE while concurrently advancing research and development efforts on other licensed technologies. The commencement of HEXWAVE production led to the signing additional purchase orders, signaling promising market interest. Notably, sales, marketing, and operational endeavors were expanded in the first and second quarters of 2024 to bolster sales activities. HEXWAVE shipments continued, as well as efforts against the TSA contracts continued with on-time records. Additionally, the Company successfully closed different financings on January 15, 2024, February 7, 2024, June 27, 2024, and an investment on February 28, 2024, generating total gross proceeds of \$2,222,978.

During the three months ended June 30, 2023, the Company continued with prepping for commercialization of the HEXWAVE, as well as research and development on the other licensed technologies. With the commercialization of the HEXWAVE, the first purchase order was signed, as well as letter of intents. The sales, marketing and operational developments have expanded within the first and second quarter of 2023 in preparation to produce the HEXWAVE. The progression of the Company's other technology for HD-AIT, has continued to advance during the research and development stage.

During the three months ended June 30, 2024, the Company had contractual obligations totaling \$5,703,610. Of these obligations, \$5,125,590 are short-term and are included in accounts payable and accrued liabilities \$3,247,672, loans payable \$633,858, factoring liability \$992,593, and lease liabilities \$251,467. Contractual obligations due within one to three years total \$578,019 and include the CEBA loan \$29,269 and lease liabilities \$548,750. There are no contractual obligations due within four to five years or beyond.

## 4) Liquidity and Capital Transactions Resources

### (a) Liquidity

As of June 30, 2024, the Company maintained a cash balance of \$175,467 and experienced a working capital deficiency of \$5,435,369. Current liabilities amounted to \$7,120,831 as of the same date, primarily attributed to expenses associated with commencing production, ongoing development of the Company's licensed technologies, and maintaining licenses and the Company's public registry in good standing.

	<b>Six months ended June 30,</b>	
	<b>2024</b>	<b>2023</b>
<b>Cash (used in) provided by:</b>		
<b>Operating activities:</b>		
Loss and comprehensive loss for the period	\$ (3,996,538)	\$ (4,682,946)
Items not involving cash:	1,478,310	1,093,416
Changes in non-cash working capital:	960,764	2,305,991
<b>Cash used in operating activities</b>	<b>(1,557,464)</b>	<b>(1,283,539)</b>
<b>Cash provided by (used in) investing activities</b>	<b>(95,144)</b>	<b>(345,554)</b>
<b>Cash provided by (used in) financing activities</b>	<b>1,682,684</b>	<b>1,288,444</b>
<b>Effect of foreign exchange rate changes on cash</b>	<b>144,428</b>	<b>(70,876)</b>
<b>Increase in cash</b>	<b>174,504</b>	<b>(411,525)</b>
<b>Cash, beginning of the period</b>	<b>963</b>	<b>677,473</b>
<b>Cash, end of the period</b>	<b>\$ 175,467</b>	<b>\$ 265,948</b>

During the six months ended June 30, 2024, the Company used cash in operating activities of \$1,557,464 primarily attributed to an addition of impaired inventory of \$213,170, stock-based compensation of \$226,794 (\$14,099 recorded in cost of sales), loss on disposal of property and equipment \$29,233, and amortization recorded in cost of sales of \$466,166. Operating activities also included accrued factoring fees of \$258,667, and other operating activities not involving cash of \$284,280. Operating activities involving non-cash working capital was inventory of \$500,747, receivables and prepaid of \$(710,950) and accounts payable and accrued liabilities of \$(615,003), as well as deferred revenue of \$1,785,970. Additionally, the Company generated a gross loss of \$3,996,538 as a result of incurred engineering and research and development expenditures, as well as general and administrative expenses such as salaries and consulting fees, along with promotional and investor relations activities.

The Company also used \$95,144 in investing activities, which pertains to fixed assets additions. Finally, net cash amounting to \$1,683,536 was provided by financing activities, which is associated mainly with the issuance of common shares through different financings resulting in proceeds net of share issuance cost of \$1,998,063, repayment of loans and factoring \$(803,317), additions of loans \$517,525, warrants exercised for proceeds of \$87,367, and repayment of leases, net of lease payments received \$(116,102).

In comparison, during the six months ended June 30, 2023, the Company used net cash in operating activities in the amount of \$1,283,539 mainly due to the expenses related to research and development, salaries and consulting fees, promotional and investor relations activities. The Company incurred \$345,554 in investing activities which relates to additions to intangible assets from the PNNL patents and additions to the property and office equipment. Also, provided cash by financing activities in the net amount of \$1,288,444 which relates to private placements issuance of common shares and warrants exercised during the period, as well as repayments to the Boston and Atlanta leases.

The Company has not issued dividends to date and has no plans to pay dividends in the foreseeable future.

## (b) Capital Transactions and Resources

### Common share transactions for the six-months ended June 30, 2024

- i) On January 15, 2024, the Company closed the initial tranche of a Listed Issuer Financing Exemption (LIFE) private placement of units, raising gross proceeds of \$662,554 (CAD\$886,000). As of December 31, 2023, the Company had received \$224,915 of these proceeds. This tranche involved the issuance of 5,900,663 units at a price of CAD\$0.15 per unit. Each unit consisted of one common share and one purchase warrant, allowing the holder to purchase an additional common share at CAD\$0.20 per share within 36 months. The warrants were allocated a residual value of \$154,596. Additionally, the Company issued 151,713 broker warrants to agents under identical terms and conditions with a fair value of \$4,508. Agent commissions totaling \$17,110 were paid. All securities issued are subject to a hold period expiring four months and one day after the closing date of the private placement.

Subsequently, on February 7, 2024, the Company closed the final tranche of the same non-brokered private placement, raising an additional \$112,285 (CAD\$150,000). This tranche involved the issuance of 1,000,000 units under the same terms and conditions as the initial tranche. Each unit consisted of one common share and one purchase warrant, allowing the holder to purchase an additional common share at CAD\$0.20 per share within 36 months. The warrants were allocated a residual value of \$37,428.

- ii) On February 28, 2024, the Company closed an investment by Viken Detection Corp. (“Viken”) pursuant to which Viken purchased 9,090,909 units of the Company at an issue price of CAD\$0.15 per unit for total gross proceeds of \$1,000,000 (CAD\$1,363,636). Each unit comprised one common share and one purchase warrant. Each warrant entitles Viken to purchase one additional common share of the Company at an exercise price of CAD\$0.20 for a period of 36 months. The warrants were allocated a residual value of \$166,667. Additionally, the Company also incurred cash costs in connection to filing and legal expenses in the amount of \$11,651 were also paid. These warrants contain blocker language restricting the exercise of the warrants in the event such exercise results in Viken holding more than 9.9% of the outstanding voting securities of the Company.
- iii) March 17, 2024, a total of 1,996,363 finder warrants expired with an exercise price of CAD\$0.33. These broker warrants had a fair value at \$312,816 and the reserve value was reclassified to share capital.
- iv) On March 22, 2024, a total of 50,000 common shares were issued pursuant to the exercise of RSUs with a fair value of \$8,371 (CAD\$11,363).
- v) On April 29, 2024, a total of 36,500 shares were issued pursuant to the exercise of 36,500 warrants, resulting in proceeds of \$5,346 (CAD\$7,300).
- vi) On May 1, 2024, a total of 12,500 shares were issued pursuant to the exercise of 12,500 warrants, resulting in proceeds of \$1,815 (CAD\$2,500).
- vii) On May 7, 2024, a total of 71,000 shares were issued pursuant to the exercise of 71,000 warrants, resulting in proceeds of \$10,377 (CAD\$14,200).
- viii) On May 8, 2024, a total of 480,000 shares were issued pursuant to the exercise of 480,000 warrants, resulting in proceeds of \$69,829 (CAD\$96,000).
- ix) On May 23, 2024, a total of 113,405 shares were issued pursuant to the exercise of 113,405 RSUs with a fair value of \$36,090 (CAD \$49,331).
- x) On June 27, 2024, the Company closed the first tranche of a special warrant financing for gross proceeds of \$508,864 (CAD\$697,550). The Company issued 4,650,000 special warrants of the Company at a price of CAD\$0.15 per Unit. Each special warrant will automatically convert into one Unit. Each Unit shall consist of one common share and one share purchase warrant. Each warrant entitles the holder thereof to purchase one additional common share of the Company at a price of CAD\$0.20 within a period of 36 months. The warrants were allocated a residual value of \$67,971. The Company paid the agents 190,150 broker warrants with a fair value of \$5,756. Each broker warrant will be exercisable to purchase one common share for a period of 36 months at an exercise price of CAD\$0.20. Additionally, the Company also incurred cash costs in connection to private placement in the

amount of \$31,966. All securities issued under the private placement are subject to a hold period expiring four months and one day after the closing date of the private placement.

### **Common share transactions during the six-month ended June 30, 2023**

- i) On March 11, 2023, a total of 1,098,125 finder warrants expired with an exercise price of CAD\$0.40. These broker warrants had a fair value at \$186,713 and the reserve value was reclassified to share capital.
- ii) On April 14, 2023, the Company closed the first tranche of a non-brokered private placement for gross proceeds of \$1,007,249 (CAD\$1,341,212). The Company issued 6,706,061 units (each a “Unit”) of the Company at a price of CAD\$0.20 per Unit. Each Unit comprised of one common share and one-half share purchase warrant. Each warrant entitles the holder thereof to purchase one additional common share of the Company at a price of CAD\$0.30 within a period of 24 months. The warrants were allocated a residual value of \$53,595. The Company paid the agents 215,250 broker warrants with a fair value of \$5,464. Each broker warrant will be exercisable to purchase one common share for a period of 24 months at an exercise price of CAD\$0.30. Additionally, the Company also incurred cash costs in connection to private placement in the amount of \$93,430. All securities issued under the private placement are subject to a hold period expiring four months and one day after the closing date of the private placement.
- iii) On May 9, 2023, the Company closed the second tranche of a non-brokered private placement for gross proceeds of \$296,940 (CAD\$397,000). The Company issued 1,985,000 units (each a “Unit”) of the Company at a price of CAD\$0.20 per Unit. Each Unit comprised of one common share and one-half share purchase warrant. Each warrant entitles the holder thereof to purchase one additional common share of the Company at a price of CAD\$0.30 within a period of 24 months. The warrants were allocated a residual value of \$8,463. The Company paid the agents 138,950 broker warrants with a fair valued at \$4,881. Each broker warrant will be exercisable to purchase one common share for a period of 24 months at an exercise price of CAD\$0.30. Additionally, the Company also incurred cash costs in connection to private placement in the amount of \$20,803. The Company also issued 45,000 units for gross proceeds of \$6,732, which were issued in order to offset invoices due to a vendor. All securities issued under the private placement are subject to a hold period expiring four months and one day after the closing date of the private placement.
- iv) On June 8, 2023, the Company closed the third and final tranche of a non-brokered private placement for gross proceeds of \$228,547 (CAD\$305,000). The Company issued 1,525,000 units (each a “Unit”) of the Company at a price of CAD\$0.20 per Unit. Each Unit comprised of one common share and one-half share purchase warrant. Each warrant entitles the holder thereof to purchase one additional common share of the Company at a price of CAD\$0.30 within a period of 24 months. The warrants were allocated a residual value of \$32,043. The Company paid the agents 92,750 broker warrants with a fair valued of \$1,893. Each broker warrant will be exercisable to purchase one common share for a period of 24 months at an exercise price of CAD\$0.30. Additionally, the Company also incurred cash costs in connection to filing and legal expenses in the amount of \$23,146. All securities issued under the private placement are subject to a hold period expiring four months and one day after the closing date of the private placement.
- v) On June 17, 2023, a total of 1,056,900 broker warrants expired with an exercise price of CAD\$0.50. These broker warrants had a fair value of \$218,086, and the reverse value was reclassified to share capital.

Other sources of funds:

Other sources of funds potentially available to the Company are through the exercise of outstanding stock options, and share purchase warrants with the following terms:

As at June 30, 2024 the number of stock options outstanding and exercisable was:

Expiry date	Outstanding		Exercisable	
	Number of stock options	Exercise price	Remaining contractual life (years)	Number of stock options
1-Jul-24	75,000	CAD\$ 0.50	0.00	75,000
8-Jul-24	75,000	CAD\$ 0.50	0.02	75,000
31-Jul-24	50,000	CAD\$ 0.50	0.08	50,000
23-Aug-24	37,500	CAD\$ 0.50	0.15	37,500
25-Sep-24	37,500	CAD\$ 0.50	0.24	37,500
29-Sep-24	75,000	CAD\$ 0.50	0.25	75,000
Apr 9 and Jul 2, 2024	137,097	CAD\$ 4.96	0.01	137,097
7-Apr-26	1,550,000	CAD\$ 0.50	1.77	1,550,000
10-Jun-26	100,000	CAD\$ 0.50	1.95	100,000
28-Jul-26	125,000	CAD\$ 0.55	2.08	125,000
28-Jul-26	90,000	CAD\$ 0.65	2.08	90,000
1-Nov-26	465,000	CAD\$ 0.46	2.34	465,000
14-Jan-27	100,000	CAD\$ 0.36	2.54	100,000
26-Apr-27	1,795,000	CAD\$ 0.41	2.82	1,795,000
26-May-27	250,000	CAD\$ 0.50	2.90	250,000
26-May-27	125,000	CAD\$ 0.38	2.90	125,000
16-Aug-27	185,000	CAD\$ 0.29	3.13	161,875
21-Nov-27	60,000	CAD\$ 0.22	3.39	45,000
26-Apr-28	110,000	CAD \$0.18	3.82	55,000
16-Oct-28	1,120,000	CAD \$0.19	4.30	280,000
<b>June 30, 2024</b>	<b>6,562,097</b>			<b>5,628,972</b>

Total stock-based compensation expense as a result of options granted and vested during the three and six months ended June 30, 2024, was \$17,312 and \$50,736 (three and six months ended June 30, 2023 – \$57,715 and \$139,094). As of June 30, 2024, \$14,099 of stock-based compensation was recorded in cost of revenue (June 30, 2023, \$nil).

Subsequent to the three and six months ended June 30, 2024, the Company had 200,000 stock options expire.

As at June 30, 2024, the number of restricted share units (“RSU”) outstanding and exercisable are as follows:

	Number of equity settled	Deemed Grant Price
Outstanding, December 31, 2022	2,472,155	CAD\$ 0.50
Granted	3,456,975	0.17
Outstanding, December 31, 2023	<b>5,929,130</b>	<b>CAD\$ 0.21</b>
Granted	1,475,000	0.13
Cancelled	(1,122,475)	0.31
Exercised	(163,405)	0.22
<b>Outstanding, June 30, 2024</b>	<b>6,118,250</b>	<b>CAD\$ 0.27</b>

The estimated fair value of the equity settled RSUs granted as of June 30, 2024, was \$141,576 (six months ended June 30, 2023 – \$nil) and will be recognized as an expense over the vesting period of the RSUs. The fair value of the equity settled RSUs as at the grant date was determined with reference to the market value of the common shares of the Company at the grant date.

During the three and six months ended June 30, 2024, the Company recognized stock-based compensation related to RSUs in the amount of \$129,758 and \$109,940 (three and six months ended June 30, 2023, – \$81,877 and \$168,915).

**During the six months ended June 30, 2024, the following transactions occurred in connection to restricted share units:**

- i) On February 28, 2024, the Company granted 1,475,000 RSUs to employees; these RSUs shall be settled with common shares of the Company, are restricted until February 28, 2029, and vest at 100% on February 28, 2025.
- ii) On March 25, 2024, a total of 50,000 common shares were issued pursuant to the exercise of RSUs.
- iii) On March 31, 2024, a total of 1,122,475 RSUs were canceled.
- iv) On May 23, 2024, a total of 113,405 common shares were issued pursuant to the exercise of RSUs.

**During the six months ended June 30, 2023, the following transactions occurred in connection to restricted share units:**

No RSUs were granted during the six months ended June 30, 2023.

**As at June 30, 2024, the outstanding number of share purchase warrants are as follows:**

	Warrants outstanding	Exercise Price
Outstanding, December 31, 2022	46,917,380	CAD\$ 0.40
Issued	24,012,344	0.30
Expired	(17,910,025)	0.64
<b>Outstanding, December 31, 2023</b>	<b>53,019,699</b>	<b>CAD\$ 0.40</b>
Issued	20,984,128	0.17
Exercised	(600,000)	0.20
Expired	(17,977,269)	0.48
<b>Outstanding, June 30, 2024</b>	<b>55,426,558</b>	<b>CAD\$ 0.29</b>

**During the six months ended June 30, 2024, the following transactions occurred in connection to share purchase warrants:**

- i) On January 12, 2024, as part of the brokered private placement the Company issued a total of 6,052,376 shares purchase warrants at an exercise price of CAD\$0.20.
- ii) On February 5, 2024, as part of the brokered private placement the Company issued a total of 1,000,000 shares purchase warrants at an exercise price of CAD\$0.20.
- iii) On February 28, 2024, as part of a private investment the Company issued a total of 9,090,909 shares purchase warrants at an exercise price of CAD\$0.15.
- iv) On March 17, 2024, a total of 17,977,269 share purchase warrants expired without being exercised.
- v) On April 29, 2024, a total of 36,500 warrants were exercised.
- vi) On May 1, 2024, a total of 12,500 warrants were exercised.
- vii) On May 7, 2024, a total of 71,000 warrants were exercised.
- viii) On May 8, a total of 480,000 warrants were exercised.
- ix) On June 27, 2024, as part of the brokered private placement the Company issued a total of 4,840,843 shares purchase warrants to brokers and investors with an exercise price of CAD \$0.15.

**During the six months ended June 30, 2023, the following transactions occurred in connection to share purchase warrants:**

- i) On March 11, 2023, a total of 9,723,125 share purchase warrants expired without being exercised.



- ii) On April 14, 2023, as part of the brokered private placement the Company issued a total of 3,568,280 shares purchase warrants to brokers and investor with an exercise price of CAD\$0.30.
- iii) On May 9, 2023, as part of the brokered private placement the Company issued a total of 1,153,950 shares purchase warrants to brokers and investors with an exercise price of CAD\$0.30.
- iv) On June 8, 2023, as part of the brokered private placement the Company issued a total of 855,250 shares purchase warrants to brokers and investors with an exercise price of CAD\$0.30.
- v) On June 17, 2023, a total of 8,186,900 share purchase warrants expired without being exercised.

**(c) Performance Shares**

On March 17, 2021, Liberty deposited into escrow, and held in escrow, Operational Performance Shares (“OPS”) and Capital Market Performance Shares (“CMPS”) for certain directors, officers, and consultants of the Company upon the Company achieving certain performance milestones. Once these milestones were achieved the shares would be released. These performance shares included 2,000,000 of OPS and 8,773,000 of CMPS. In order to fair value these performance shares, management estimated the probability that the Company would issue the performance shares.

Operational Performance Shares

During the three months ended March 31, 2024, and 2023, none of the 2,000,000 OPS have been issued as neither of the two milestones have been met. The estimated fair value of the OPS is CAD\$800,000 which had an estimated vesting period between December 2024 and December 2025. During the three and six months ended June 30, 2024, the Company recorded stock-based compensation in connection to OPS in the amounts of \$32,891 and \$66,119 (three and six months ended June 30, 2023, \$53,787 and \$105,957).

	Number of equity settled	Weighted average price
Outstanding, December 31, 2022 and 2023	2,000,000	CAD\$ 0.40
Released from escrow	-	0.00
<b>Outstanding, June 30, 2024</b>	<b>2,000,000</b>	<b>CAD\$ 0.40</b>

Capital Market Performance Shares (“CMPS”)

During the year ended December 31, 2021, the Company issued 2,193,250 of the total 8,773,000 CMPS upon achieving one of the four established milestones. During the year ended December 31, 2022, an additional 6,579,750 CMPS were issued as the remaining three milestones were met. The Company estimated the probability of the number of CMPS to be issued and an estimated vesting period between June 2021 and September 2022. The total estimated fair value of the CMPS was \$2,696,688, which has been fully expensed.

**(d) Reconciliation of use of proceeds from the Special Warrant Financing closed on June 27, 2024 (“PP Q2 2024”)**

Intended use of proceeds of PP Q2 2024		Actual use of proceeds from PP Q2 2024	(Over)/under expenditure	Explanation of Variance and impact on business objectives
Agent’s legal fees, expenses and disbursements	\$11,006	\$11,006	\$ -	N/A
Cash portion of Agent’s corporate finance fee	\$23,555	\$23,555	\$ -	N/A
Further the production of HEXWAVE to support the increase in demand and deliver units in backlog to customers	\$474,303	\$298,836	\$ 175,467	N/A
<b>Total</b>	<b>\$508,864</b>	<b>\$333,397</b>	<b>\$ 175,467</b>	<b>N/A</b>

**(e) Reconciliation of use of proceeds from the Listed Issuer Financing Exemption (“LIFE”) private placement of units closed in two tranches January 15 and February 7 (“PP Q1 2024”)**

Intended use of proceeds of PP Q1 2024		Actual use of proceeds from PP Q1 2024	(Over)/under expenditure	Explanation of Variance and impact on business objectives
Agent’s legal fees, expenses and disbursements	\$36,252	\$36,252	\$ -	N/A
Cash portion of Agent’s corporate finance fee	\$17,035	\$17,035	\$ -	N/A
Further the production of HEXWAVE to support the increase in demand and deliver units in backlog to customers	\$721,552	\$721,552	\$ -	N/A
<b>Total</b>	<b>\$774,839</b>	<b>\$774,839</b>	<b>\$ -</b>	<b>N/A</b>

Notes:

- (1) Such expenses include costs related to funding the further enhancement, development and testing to achieve future commercialization of the Company’s HEXWAVE technology as well as development of the latest technologies exclusively licensed to the Company for aviation checkpoints.

**(f) Reconciliation of use of proceeds from the non-brokered private placement of units closed in three tranches – April 14, May 9, and June 8, 2023 (“PP Q2 2023”).**

Intended use of proceeds of PP Q2 2023		Actual use of proceeds from PP Q2 2023	(Over)/under expenditure	Explanation of Variance and impact on business objectives
Agent’s legal fees, expenses and disbursements	\$60,162	\$60,162	\$ -	N/A
Cash portion of Agent’s corporate finance fee	\$67,135	\$67,135	\$ -	N/A
Research, development, implementation and enhancement <sup>(1)</sup>	\$1,404,615	\$1,404,615	\$ -	N/A
<b>Total</b>	<b>\$1,531,912</b>	<b>\$1,531,912</b>	<b>\$ -</b>	

Notes:

- (2) Such expenses include costs related to funding the further enhancement, development and testing to achieve future commercialization of the Company's HEXWAVE technology as well as development of the latest technologies exclusively licensed to the Company for aviation checkpoints.

**(g) Reconciliation of use of proceeds from October 5, 2023, Listed Issuer Financing Exemption (LIFE) Private Placement of Units (“Oct 5, 2023, Financing”)**

Intended use of proceeds of Oct 5, 2023, Financing		Actual use of proceeds from Oct 5, 2023, Financing	(Over)/under expenditure	Explanation of Variance and impact on business objectives
Agent’s legal fees, expenses and disbursements	\$336,600	\$336,600	\$ -	N/A
Research, development, implementation and enhancement <sup>(1)</sup>	\$2,251,466	\$2,251,466	\$ -	N/A
<b>Total</b>	<b>\$2,588,066</b>	<b>\$2,588,066</b>	<b>\$ -</b>	N/A

Notes:

- (3) Such expenses include costs related to funding the further enhancement, development and testing to achieve future commercialization of the Company's HEXWAVE technology as well as development of the latest technologies exclusively licensed to the Company for aviation checkpoints.

## 5) Commitments

- i) As at June 30, 2024 and December 31, 2023, the minimum lease payments are as follows:

	June 30, 2024	December 31, 2023
Maturity analysis - contractual undiscounted cash flows		
One year or less	\$ 251,469	\$ 247,412
Two to five years	688,651	815,820
Six and thereafter	-	-
Total lease liabilities	\$ 940,120	\$ 1,063,232
Effect of discounting	(139,902)	(176,647)
<b>Lease liabilities included in the statement of financial position</b>	<b>\$ 800,218</b>	<b>\$ 886,585</b>
Current	\$ 251,469	\$ 247,412
Non-current	\$ 548,749	\$ 639,173

As a result of the completion of the RTO and under the new management’s vision, the corporate office is now located in Wilmington, MA. (Boston area). As a result, the Company subleased until the expiry of the headlease (March 2024) the office space located in Vancouver, BC., as it was no longer required. The Company fair valued the lease receivable by present valuing the expected lease receivable payments over the life of the lease. The Company used an interest rate of 5.55%, the interest rate implicit in the lease. Minimum undiscounted sublease payments receivable is: \$nil for the next 12 months and thereafter.

## 6) Revenue

Revenue recognition during the six months ended June 30, 2024, relates to the contract revenue (note 16) from the Transportation Security Administration (“TSA”), as well as HEXWAVE units sales.

As at June 30, 2024, accounts receivable for work completed on contract awards was \$250,000 (December 31, 2023 - \$nil). As at June 30, 2024, the Company has recognized \$1,965,970 as deferred revenue (December 31, 2023 – \$180,000). As at June 30, 2024, the Company has recognized \$1,580,588 as revenue (six months ended June 30, 2023, – \$943,978):

Revenue	Three months ended June 30,		Six months ended June 30,	
	2024	2023	2024	2023
Battelle Contract Award	\$ -	\$ 2,034	\$ -	\$ 2,034
TSA Contract Award HD-AIT	-	425,000	200,000	915,000
TSA OA Development	250,000	-	450,000	-
HD-AIT Phase II	-	-	133,056	-
TSA Hexwave	-	5,374	-	26,945
HEXWAVE units	698,532	-	797,532	-
<b>Total Revenue</b>	<b>\$ 948,532</b>	<b>\$ 432,407</b>	<b>\$ 1,580,588</b>	<b>\$ 943,978</b>

## 7) Contract Awards

During the six months ended June 30, 2024, the Company recognized total contract revenue of \$783,056 recorded in revenue (six months ended June 30, 2023, – \$943,978). Future revenues in connection with these contracts will be recognized as performance obligations are met. It is estimated that future revenues will be recognized under the same basis following these timelines:

Contract Award Revenue Expected	Year ended December 31,	
	2024	2025
TSA Contract Award HD-AIT	\$ 457,905	\$ -
TSA OA Development	591,944	-
<b>Total estimated contract revenues</b>	<b>\$ 1,049,849</b>	<b>\$ -</b>

### i) Battelle (PNNL) HD-AIT Shoe Screener

On May 12, 2022, the Company received a contract award for \$212,697 from Battelle, Pacific Northwest Division’s Contract. The contract award is to work hand in hand with PNNL to develop the High Definition – Advanced Imaging Technology (“HD-AIT”) Retrofit Kits. On July 31, 2023, there was a contract modification decreasing the total allotment from \$212,697 to \$100,000. With developing the HD-AIT Retrofit Kits, the Battelle Memorial License and patent will be utilized in the HD-AIT technology development. The contract award was completed in fiscal year ended 2023 and has been closed. During the six months ended June 30, 2024, as part of the contract award the Company received \$nil and had a receivable of \$nil (June 30, 2023, \$nil and \$2,034).

### ii) Transportation Security Administration’s (“TSA”) HD-AIT Upgrade

On September 30, 2022, the Company received a contract award for \$1,747,905 from Transportation Security Administration (“TSA”) for the HD-AIT Wide Band Upgrade Kit. On September 28, 2023, the contract was

modified adding an additional milestone. The new contract award with the modification is \$1,922,905. The contract award is to develop a series of millimeter-wave imaging system prototypes to advance and upgrade the current state-of-the-art imaging technology for the current passenger security screening applications. The project will be performed over a period of eighteen months, and invoices will be issued once the milestones are reached based on the agreed upon timeline. During the six months ended June 30, 2024, the Company received \$200,000 and had a receivable of \$nil (six months ended June 30, 2023, – \$740,000 and \$175,000). The balance remaining on the contract as of June 30, 2024, was \$357,905 (December 31, 2023, – \$657,905). The Company is required to submit quarterly invoices as follows:

<b>TSA HD-AIT Upgrade</b>	<b>Amounts</b>
<b>Year 2023</b>	\$ 1,265,000
<b>Year 2024</b>	
Milestone 5 A (Q1 2024) (payment received)	200,000
Milestone 5B (Q3 2024)	100,000
Milestone 6 (Q3 2024)	357,905
<b>Total</b>	<b>\$ 1,922,905</b>

### iii) TSA Open Architecture

On September 29, 2023, the Company received a contract award for \$1,116,944 from TSA for the Open Architecture Development. The contract award is to develop a system-level approach that addresses TSA’s request for implementation of a Checkpoint Open Architecture for On-Person Screening (OPS) systems that enable modularity and enhances security effectiveness. The project will be performed over a period of thirteen months, and invoices will be issued once the milestones are reached based on the agreed upon timeline. During the six months ended June 30, 2024, the Company received \$200,000 and had a receivable of \$250,000 (six months ended June 30, 2023, – \$nil and \$nil). The balance remaining on the contract as of June 30, 2024, was \$591,944 (December 31, 2023, – \$1,041,944). The Company is required to submit quarterly invoices as follows:

<b>TSA Open Architecture</b>	<b>Amounts</b>
<b>Year 2023</b>	\$ 75,000
<b>Year 2024</b>	
Milestone 2 (Q1 2024) (payment received)	200,000
Milestone 3 (Q2 2024) (invoiced)	250,000
Milestone 4 (Q3 2024)	170,000
Milestone 5 (Q3 2024)	175,000
Milestone 6 (Q4 2024)	175,000
Milestone 7 (Q4 2024)	71,944
<b>Total</b>	<b>\$ 1,116,944</b>

### iv) TSA HD-AIT Phase I

On September 29, 2023, the Company received a contract award for \$133,056 from TSA for the HD-AIT Phase II. The contract award is a follow-on option to the current HD-AIT development program to execute phase II to drive to a final hardware design capable of supporting future compliance efforts. The project will be performed over a period of three months, and invoices will be issued once the milestones are reached based on the agreed upon timeline. During the six months ended June 30, 2024, the Company received \$133,056 and had a receivable of \$nil (six months ended June 30, 2023, – \$nil and \$nil). The balance remaining on the contract as of June 30, 2024, was \$nil, as the agreement was completed on February 20, 2024.

## 8) Collaboration Agreements

### i) Transportation Security Administration’s (TSA) On-Person Screening Capability Program

On October 20, 2021, the Company received a contract award for \$500,000 from TSA as part of the TSA On-Person Screening Capability Program. The contract award is for the demonstration and evaluation of the Company’s HEXWAVE technology and its expanded capabilities for screening aviation workers to enhance detection and throughput performance. In order for the Company to draw down on this award, Liberty is required to have its

HEXWAVE technology working at certain locations to collect and share data with TSA on identified threats to further develop algorithms to improve the recognition of threats with desire probability of detection. During the six months ended June 30, 2024, the Company received \$nil in connection with this award and had a receivable of \$nil (six months ended June 30, 2023, – \$21,571 and \$5,374). The balance remaining on the contract as of June 30, 2024, was \$nil, (December 31, 2023, \$nil) as the agreement was completed on November 30, 2023.

## 9. Off-balance Sheet Arrangements

The Company does not utilize off-balance sheet arrangements.

## 10. Transactions Between Related Parties

### Compensation of key management personnel:

Key management personnel include persons having the authority and responsibility for planning, directing, and controlling the activities of the Company as a whole. The key management personnel of the Company are the members of the Company’s executive management team and Board of Directors. Compensation provided to key management personnel is as follows:

	Three months ended June 30,		Six months ended June 30,	
	2024	2023	2024	2023
G&A Salaries	\$ 171,565	\$ 239,596	\$ 313,422	\$ 476,239
G&A Stock-based compensation	84,127	150,513	420,475	310,315
G&A Consulting fees (1)	24,116	34,908	48,596	78,463
	<b>\$ 279,809</b>	<b>\$ 425,018</b>	<b>\$ 782,493</b>	<b>\$ 865,017</b>

(1) Consulting fees were paid or payable to 1214852 B.C. LTD

As of June 30, 2024, the Company had a balance payable of \$691,902 to key management personnel (December 31, 2023, – \$614,547). This payable balance includes accounts payable and accrued liabilities relating to compensation to directors, officers, or their related companies, included in compensation of key management personnel. These related party balances are unsecured, non-interest bearing and have no specific terms of settlement.

During the six months ended June 30, 2024, the Company paid Nicole Ridgedale Communications, a related party to the Company and amount of \$23,340 (six months ended June 30, 2023, \$42,491) for consulting services and stock-based compensation. As at June 30, 2024 the balance owing to Nicole Ridgedale Communications is \$nil (December 31, 2023 - \$23,340). This related party balance is unsecured, non-interest bearing and have no specific terms of settlement.

During the six months ended June 30, 2024, the Company received working capital loans (note 8) in the amount of \$82,000 (six months ended June 30, 2023 – \$1,473,196) from directors, officers, or their related parties. As at June 30, 2024, the outstanding balance is \$196,623 (December 31, 2023 – \$328,694).

## 11. Subsequent Events

On July 29, 2024, the Company signed an engagement agreement with Titan Partners, a venture capitalist, to be the exclusive financial advisor and underwriter in connection with an offering or series of offerings of the Company securities and the other matters.

## 12. Material Accounting Policies and Accounting Estimates and Judgements

The material accounting policies applied in the Company’s condensed interim consolidated financial statements for the three and six months ended June 30, 2024, are the same as those applied in the Company’s annual audited consolidated financial statements for the year ended December 31, 2023.



In preparing the Company's condensed interim consolidated financial statements for the three and six months ended June 30, 2024, management made significant judgments in applying the Company's accounting policies and identified key sources of estimation uncertainty, which remained consistent with those in the annual audited financial statements. These interim statements should be read in conjunction with the Company's annual audited financial statements for the year ended December 31, 2023.

### 13. Changes in Accounting Policies Including Initial Adoption

The following new standards and amendments to standards and interpretations, which become effective for current periods.

- Amendments to IAS 1 – Classification of Liabilities as Current or Non-current. The amendment clarified the guidance on whether a liability should be classified as either current or non-current. The amendments are applied retrospectively for annual periods beginning on or after January 1, 2024.
- Amendments to IFRS 16 – Lease liability in a Sale and Leaseback. The amendment clarifies how a seller-lessee subsequently measures sale and leaseback transactions that satisfy the requirements in IFRS 15 to be accounted for as a sale. These amendments are effective for annual periods beginning on or after January 1, 2024.
- Amendments to IAS 7 – Requiring entities to provide qualitative and quantitative information about their supplier finance arrangements. In connection with the amendments to IAS 7, the IASB also issued amendments to IFRS 7 requiring entities to disclose whether they have accessed, or have access to, supplier finance arrangements that would provide the entity with extended payment terms or the suppliers with early payment terms. These amendments are effective on January 1, 2024

The Company did not encounter any material effects from the implementation of new standards or amendments during the period ended June 30, 2024.

Certain other accounting standards or amendments to existing accounting standards that have been issued but have future effective dates are either not applicable or are not expected to have a significant impact on the Company's financial statements.

### 14. Financial Instruments

As of June 30, 2024, the Company's financial instruments comprise cash, accounts receivables, accounts payable and accrued liabilities, loans payable, factoring liability and the CEBA loan. The fair values of the Company's financial instruments approximate their carrying values due to their short-term maturity.

The Company's financial instruments are exposed to certain financial risks including, credit risk, liquidity risk, foreign currency risks, equity price risk and capital risk management. Details of each risk are laid out in the notes to the Company's condensed interim financial statements as at June 30, 2024. Details of each risk are summarized below:

#### a) Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company manages liquidity risk through the management of its capital structure. To mitigate this risk, the Company has a planning and budgeting process in place to determine the funds required to support its ongoing operations and capital expenditures. The Company ensures that sufficient funds are raised from equity offerings or debt financings to meet its operating requirements, after considering existing cash balances, expected exercise of share purchase warrants, and stock options. The Company's ability to continue as a going concern involves significant judgements and estimates while determining forecasted cashflows and is dependent on the Company's ability to obtain financing (note 1). As at June 30, 2024, the Company had cash of \$175,467 (December 31, 2023 – \$963) to settle current liabilities of \$7,120,831 (December 31, 2023 – \$5,956,941). Most of the Company's financial liabilities have contractual maturities of 30 days or less and are subject to normal trade terms.

#### b) Credit risk

Credit risk is the risk of an unexpected loss if a customer or third party to a financial instrument fails to meet its contractual obligations, including accounts receivable terms. The Company's cash is held through large Canadian,

international, and foreign national financial institutions. The Company's receivables primarily consist of trade receivables that the Company continues to collect. These trade receivables are primarily with government agencies and are not subject to significant credit risk. The Company's maximum exposure to credit risk is limited to the carrying amount of cash and receivables of \$1,056,838.

c) Market risk

Market risk is the risk of loss that may arise from changes in market factors such as interest rates and foreign exchange rates.

i. Interest rate risk

Interest rate risk arises from changes in market rates of interest that could adversely affect the Company. The Company currently has interest-bearing financial instruments in relation to loans and the factoring agreement (note 8 & 9). The Company's exposure to interest rate risk is minimal as the interest rates are at a fixed percentage on the term of the loan and factoring.

ii. Foreign currency risk

The Company is exposed to currency risk by having balances and transactions in currencies that are different from its functional currency. The Company operates in foreign jurisdictions, which uses the U.S. dollar. The Company does not use derivative instruments to reduce upward, and downward risk associated with foreign currency fluctuations.

	<b>Amounts US dollars</b>
Financial assets denominated in foreign currencies	\$ 1,429
Financial liabilities denominated in foreign currencies	(609,715)
<b>Net exposure</b>	<b>\$ (608,286)</b>

A 10% change in the U.S. dollar exchange rate relative to the Canadian dollar would change the Company's profit or loss by \$60,829.

d) Price risk

The Company is exposed to price risk with respect to equity prices. Equity price risk is defined as the potential adverse impact on the Company's earnings due to movements in individual equity prices or general movements in the level of the stock market. The Company closely monitors individual equity movements, and the stock market to determine the appropriate course of action to be taken by the Company.

Capital Risk Management

The Company manages common shares and share purchase warrants as capital. The Company's objectives when managing capital are to safeguard the Company's ability to continue as a going concern in order to pursue the development of its products and to maintain a flexible capital structure which optimizes the costs of capital at an acceptable risk.

The Company manages its capital structure and makes adjustments to it in light of changes in economic conditions and the risk characteristics of the underlying assets. To maintain or adjust the capital structure, the Company may attempt to issue new shares, issue debt, acquire or dispose of assets, or adjust the amount of cash on hand.

In order to facilitate the management of its capital requirements, the Company prepares expenditure budgets that are updated as necessary depending on various factors, including successful capital deployment and general industry conditions.

In order to maximize ongoing development efforts, the Company does not pay out dividends. The Company's investment policy is to keep its cash treasury on deposit in an interest-bearing chartered bank account. Cash consists of cash on held with banks.

The Company expects its current capital resources will be sufficient to carry its operations, and product development plans for the foreseeable future. The Company is not subject to externally imposed capital requirements.

There has been no change to the Company's approach to capital management during the six months ended June 30, 2024.

## 15. Other requirements

Outstanding common share data:

Authorized: Unlimited number of common shares

Number of common shares issued and outstanding as at June 30, 2024: 162,183,079

Number of common shares issued and outstanding as at August 15, 2024: 166,833,412

Number of stock options outstanding and exercisable as at August 15, 2024:

Expiry date	Outstanding		Exercisable	
	Number of stock options	Exercise price	Remaining contractual life (years)	Number of stock options
23-Aug-24	37,500	CAD\$ 0.50	0.02	37,500
25-Sep-24	37,500	CAD\$ 0.50	0.11	37,500
29-Sep-24	75,000	CAD\$ 0.50	0.12	75,000
7-Apr-26	1,550,000	CAD\$ 0.50	1.64	1,550,000
10-Jun-26	100,000	CAD\$ 0.50	1.82	100,000
28-Jul-26	125,000	CAD\$ 0.55	1.95	125,000
28-Jul-26	90,000	CAD\$ 0.65	1.95	90,000
1-Nov-26	465,000	CAD\$ 0.46	2.21	465,000
14-Jan-27	100,000	CAD\$ 0.36	2.41	100,000
26-Apr-27	1,795,000	CAD\$ 0.41	2.69	1,795,000
26-May-27	250,000	CAD\$ 0.50	2.78	250,000
26-May-27	125,000	CAD\$ 0.38	2.78	125,000
16-Aug-27	185,000	CAD\$ 0.29	3.00	161,875
21-Nov-27	60,000	CAD\$ 0.22	3.27	45,000
26-Apr-28	110,000	CAD \$0.18	3.70	55,000
16-Oct-28	1,120,000	CAD\$0.19	4.17	280,000
	<b>6,225,000</b>			<b>5,291,875</b>

Number of share purchase warrants as at August 15, 2024:

	Warrants outstanding	Exercise Price
<b>Outstanding, December 31, 2023</b>	<b>53,019,699</b>	<b>CAD\$ 0.40</b>
Issued	20,984,128	0.17
Exercised	(600,000)	0.20
Expired	(17,977,269)	0.48
<b>Outstanding, August 15, 2024</b>	<b>55,426,558</b>	<b>CAD\$ 0.31</b>

Number of restricted share units as at August 15, 2024:

	Number of equity settled restricted share units	Weighted average market price
<b>Outstanding, December 31, 2023</b>	<b>5,929,130</b>	<b>CAD\$ 0.21</b>
Granted	1,475,000	0.13
Cancelled	(1,122,475)	0.31
Exercised	(163,405)	0.22
<b>Outstanding, August 15, 2024</b>	<b>6,118,250</b>	<b>CAD\$ 0.27</b>

There are 1,858,750 restricted share units that are currently exercisable. The remaining units are not exercisable as they vest in the future.

Number of operational performance shares not issued as at August 15, 2024:

	Number of equity settled performance share units	Weighted average price
Outstanding, December 31, 2022 and 2023	2,000,000	CAD\$ 0.40
Released from escrow	-	0.00
<b>Outstanding, August 15, 2024</b>	<b>2,000,000</b>	<b>CAD\$ 0.40</b>

## 16. Disclosure Controls and Procedures and Internal Controls over Financial Reporting

Disclosure controls and procedures are intended to provide reasonable assurance that information required to be disclosed is recorded, processed, summarized, and reported within the time periods specified by securities regulations and that the information required to be disclosed is accumulated and communicated to management. Internal controls over financial reporting are intended to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. In connection with National Instrument 52-109 (Certificate of Disclosure in Issuer's Annual and Interim Filings) ("NI 52-109"), the Chief Executive Officer and Chief Financial Officer of the Company have filed a Venture Issuer Basic Certificate with respect to the financial information contained in the interim consolidated financial statements for the three and six months ended June 30, 2024 and 2023, and this accompanying MD&A (together, the "Interim Filings").

In contrast to the full certificate under NI 52-109, the Venture Issuer Basic Certificate does not include representations relating to the establishment and maintenance of disclosure controls and procedures and internal control over financial reporting, as defined in NI 52-109. For further information, the reader should refer to the Venture Issuer Basic Certificates filed by the Company on SEDAR+ at [www.sedarplus.ca](http://www.sedarplus.ca).