



Liberty  
**Defense**  
Holdings

**INNOVATIVE & REVOLUTIONARY WEAPON DETECTION**

**MANAGEMENT’S DISCUSSION AND ANALYSIS (“MD&A”) FOR THE PERIOD  
ENDED JUNE 30, 2019**  
*(Expressed in U.S. Dollars)*

*Dated: August 1, 2019*

Information is available at the Company’s website [www.libertydefense.com](http://www.libertydefense.com). In addition, reference should be made to Company’s audited consolidated financial statements for the period ended December 31, 2018.

Financial information included in this MD&A has primarily been derived from the consolidated financial statements of the Company, which are prepared in accordance with International Financial Reporting Standards (IFRS). All amounts are presented in United States dollars, unless otherwise noted. This MD&A should be read in conjunction with the Company’s unaudited interim condensed consolidated financial statements for the period ended June 30, 2019.

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, including the Company’s Annual Information Form (“AIF”) for the year ended December 31, 2018 is available under the Company’s profile at [www.sedar.com](http://www.sedar.com).

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**Our Mission:** protecting communities and preserving peace of mind through superior security detection solutions.

**Our Vision:** Provide the most effective leading edge sensor capability for stand-off layered threat detection with the flexibility to be deployed as a stand-alone system or integrated into a full security solution.



# 1 OVERVIEW

## **About Liberty Defense Holdings Ltd.**

Liberty Defense Holdings Ltd. (the “Company” or “Liberty”), is a public company (TSXV: SCAN, Frankfurt: L2D, OTC: LDDFF), that was incorporated under the Business Corporation Act of Ontario on June 8, 2012. The Company undertook a reverse takeover (“RTO”) transaction with Liberty Defense Holdings Inc. (“LPC”) on April 3, 2019 and subsequently renamed itself from Gulfstream Acquisition 1 Corp., to Liberty. 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 threats. The Company’s corporate office is located at Suite 1030, 200 Granville St, Vancouver, British Columbia, Canada, V6C 1S4 and its registered and records office is located at 5300 Commerce Court West, 199 Bay Street, Toronto, ON M5L 1B9.

## **About the Explosives and Weapon Detection Market**

The aggregate markets associated with the explosives and weapon detection market is expected to total \$8 billion by 2020 and to over \$11 billion by 2025. This market includes North America, Europe, Asia-Pacific, Middle East/Africa, Latin America. The verticals most relevant to the growing Urban Security Market (“USM”) are public venues, secured perimeters & building, land transportation, government / Department of Homeland Security (“DHS”) 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 point solutions 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 USA 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.

## **About HEXWAVE**

The core technology behind HEXWAVE 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 tested. The test event was successful and provided a realistic electromagnetic environment to demonstrate how the system could function under operational conditions. This event was a key milestone for the technology and its potential to be part of a holistic, curb to platform, layered defense approach. The need for this type of layered threat detection capability has been publicly declared by the DHS’s Science and Technology Directorate (“S&T”).

Recognizing the public security need and market potential for the Urban Security environment, LDT was formed in April 2018. LDT trademarked HEXWAVE and the Company will look to bring this exciting product to market which is ideally suited to improve Urban Security weapon detection.

## **Current Alternatives**

The current alternatives in the USM are typically restricted to:

- principally focusing on metallic threats, therefore unmetallic threats can potentially go undetected
- airport solutions which aren’t able to be used across other verticals
- 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

## **HEXWAVE Key Discriminators**

Central to positioning HEXWAVE is building on its key discriminators. These are enabled by the system architecture that aligns to the market drivers for each of the verticals and will be validated during the Beta testing. These include:

- Detects metallic & non-metallic threat objects
- Detects both indoor and outdoor locations including both overt and covert application
- Protects privacy (no personal data is collected or analyzed)
- Smart functionality provides connectivity to existing security systems (VMS, door locks, networks)
- Accurately detects threat in real-time using AI and Deep Learning
- Routine Software & AI updates
- Operationally agile (mobile and deployable across detection space)
- High throughput (over 1,000 screens per hour) with precise secondary screening
- Venue-wide aggregate analytics
- Remote operation allowing for unmanned Concept of Operations (“CONOPS”)

MIT LL spent 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 technology behind HEXWAVE. The Company has already identified a number of refinements to the technology that will allow for its commercialization. With the license agreement in place, the Company has started developing the HEXWAVE product using the technology and concepts demonstrated by MIT LL. MIT assisted through the Technology Transfer Agreement (“TTA”) in transferring the intellectual property and understanding from MIT LL to LDT’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 has identified certain required changes and have entered into the Cooperative Research and Development Agreement (CRADA) with MIT LL to leverage off their existing experience and accelerate the development of certain aspects of HEXWAVE. Liberty has also started developing the Automatic Detection (AI: Deep Learning Software) system, with the help of image data provided by MIT LL under the TTA.

## **About Liberty’s Management Team**

Liberty has a leadership team with extensive and relevant experience in delivering new technology products, and bringing new businesses to market. Central to the team since 2018, is the collective technical expertise of the CEO, COO, and CTO each of which compliment each other’s product development backgrounds. Bill Riker (CEO) brings over three decades of product development from Research & Development (“R&D”) through fielding experience in defense and security original equipment manufacturer (“OEM”) roles. Aman Bhardwaj (COO and President of US operations) is the technology and product development lead for the business leveraging an especially relevant twenty-plus year in bringing software and hardware technologies to market, managing technology partners and building global teams to develop and launch high volume consumer products. As the CTO, Bart Smudde compliments the team as the senior engineer with over three decades of designing, testing and manufacturing products for the industrial, medical and military markets. In May 2019, Ron Solanki was appointed VP Operations. He has held leadership positions with major multi-national global electronics corporations such as Motorola, Panasonic, Flextronics and Hisense and brings over 30 years of experience in high-tech company operations, strategic business management and development, research and development, manufacturing, and supply chain. In July 2019, Bob Falk, was appointed VP of Sales and Business Development. He has over 20 years of experience in the detection and security inspection industry as well as in business development and sales. Bob’s experience will further enhance the initial customer experiences and help to drive the successful adoption of HEXWAVE. The development team also includes software (User Interface “UI”, and Artificial Intelligence “AI”), electrical including radio frequency engineering and mechanical engineering expertise.

Liberty runs its operations at the COE based out of Peachtree Corners, Georgia. This location was selected due to its proximity to the Atlanta technology corridor that includes engineering centric universities and local workforce / facilities that have the requisite local talent.

## **About Liberty’s Advisors**

Liberty has assembled a group of Advisors that can provide unprecedented market access to a number of our identified market verticals including stadiums (National Hockey League (“NHL”) and Federation Internationale de Football association (“FIFA”)) and shopping malls. A key aspect to Liberty’s success will be gaining access and developing the market for HEXWAVE. In addition to the reach achieved through our Board of Directors and Executive Management, the Company has an industry leading Board of Advisors to broaden its reach and provide unprecedented

market access. Management also includes David Albert, the VP of External Affairs with over twenty-five years of government relations at the federal and state level.

### **Recent Updates & Developments**

Since December 2018, the Company continues to achieve a number of objectives and milestones including but not limited to:

- Appointed Bob Falk as VP of Sales & Business Development (July 2019)
- Completed Tech Transfer and Announced Antenna Array working at the COE (June 2019)
- Agreement with FC Bayern München to Beta Test HEXWAVE (June 2019)
- Testified before the House of Commons standing Committee on Health (June 2019)
- Signed MOU with the Utah Attorney General for HEXWAVE testing (May 2019)
- Appointed Jeremy Morton as Executive Chairman (May 2019)
- Commenced trading on the Frankfurt Stock Exchange (April 2019)
- Provided update of Sleiman Enterprises MOU to test HEXWAVE (April 2019)
- Outlined MOU strategy which includes the Vancouver Arena Limited Partnership (April 2019)
- Announced FCC Granting of Experimental License to Begin Testing HEXWAVE (April 2019)
- Commenced Trading on the TSXV under the symbol “SCAN” (April 2019)
- Completion of RTO (April 2019)
- Completed oversubscribed private placement QT financing for gross proceeds of CA\$7m (March 2019)

### **Going concern & Nature of Operations**

For the period ended June 30, 2019, the Company reported a \$6,977,224 loss (\$2,227,946 relating to RTO costs) and cash outflows from operating activities of \$4,366,793.

As at June 30, 2019, the Company had a positive working capital of \$4,057,331. Notwithstanding, in order to fully commercialize HEXWAVE, the Company will require additional funds to achieve its development timeline and bring HEXWAVE to market. While the Company has been successful in arranging financing in the past, the success of such initiatives cannot be assured.

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. These conditions cast significant doubt on the validity of the going concern assumption.

## **2 OUTLOOK**

We have set ourselves a very aggressive development schedule and are well on the way to achieving this in a very deliberate phased approach.

The definition & development phase (Phase I) will focus on refining the requirements, transferring the technology and establishing MOUs with early adopters and building the initial prototypes. We have enjoyed significant success in being able to identify a number of early adopters at high profile organizations that we are already interacting with to understand their operational requirements and how we can incorporate these requirements into the initial design of HEXWAVE. Having already completed the tech transfer from MIT for the Antenna Array (“AA”) and Transceiver we have already made significant strides, and will continue to utilize the expertise of MIT through our CRADA agreement for development of the transceiver. In parallel with the work on the AA and Transceiver subsystem, our AI team is making good process in developing the embedded AI analytical capability behind HEXWAVE. As mentioned above, the interaction with our early adopters have enabled us to identify a number of smart functionality that will be included in the initial design to better meet the end user requirements.

The end of September will represent a significant step for the Company as we anticipate having completed all the prototypes subsystems with the end-to-end Alpha testing (system integration and testing of full HEXWAVE unit) scheduled in the fourth quarter. The initial Beta testing will follow thereafter through our identified Beta partners across our various market verticals.

We hope to be able to add more agreements with early adopters to maximize the feedback from end users and validate

the application in the various verticals in the coming months to ensure that when the first generation of HEXWAVE units are launched, they have the best possible chance of early adoption in the critical USM.

We remain very focused on our product development timeframe and look forward to reporting against these milestones in due course.

### 3 FINANCIAL POSITION REVIEW

The following table sets out the assets of the Company on a quarterly basis since inception:

#### 3.1 Assets

<b>Table 1: Assets (\$)</b>	<b>Q218</b>	<b>Q318</b>	<b>Q418</b>	<b>Q119</b>	<b>Q219</b>
<b>Current assets</b>					
Cash and cash equivalents	663,571	664,483	3,664,397	1,501,179	3,896,657
Restricted cash	-	-	-	4,988,834	-
Receivable and prepaid expenses	674	27,152	252,119	820,150	863,936
Deferred financing fees	-	20,938	74,977	-	-
<b>Total current assets</b>	<b>664,245</b>	<b>712,573</b>	<b>3,991,493</b>	<b>7,310,163</b>	<b>4,760,593</b>
Intangible assets	-	89,784	115,143	115,143	115,143
Property & equipment	-	-	64,551	372,243	495,526
<b>Total assets</b>	<b>664,245</b>	<b>802,357</b>	<b>4,171,187</b>	<b>7,797,549</b>	<b>5,371,262</b>

Cash and cash equivalents receipts in Q2 and Q3 2018 relate to the initial seed financing of LPC. The increase in Q4 2018, was a result from proceeds obtained from the October 2018 financing, which was offset by a reduction on accounts payable and expenses. The decrease in Q1 2019 was due to development expenditures in the first quarter. In Q2 2019 cash and cash equivalents increased from the QT financing (8,826,640 units at CA\$0.80) that occurred and was offset by development expenditures for the second quarter.

Restricted cash arose in Q1 2019 due to the receipt of funds from the QT financing which was subject to completion of the RTO. The conditional precedents were met in Q2 2019 when the RTO was completed and therefore restricted cash decreased and increased cash and cash equivalents.

Receivables and prepaids increased in Q4 2018 mainly as a result of the prepayment of the first instalment under the CRADA, the benefit in which was recognized in the first quarter of 2019. The increase in Q1 2019 relates to a refund due on a termination of a marketing contract, which was subsequently received in Q2 2019. The prepaids balance at the end of Q2 2019 primarily relates to investor relation contracts that are prepaid in advanced as the Company became public as well as the third instalment under the CRADA, the benefit which will extend into the third quarter of 2019.

Deferred financing fees in Q4 2018 were debited to equity in Q1 2019 as a result of the closing of the Subscription Receipts financing.

Property and equipment in 2018 primarily are a result of purchases made for the COE. On January 1, 2019 the Company adopted IFRS 16 which resulted in the capitalization of the lease payments associated with lease obligations at the COE and the recognition of a lease asset of \$319,157. In Q2 2019 the Company entered into another office lease increasing total PP&E by \$150,941.

### 3.2 Liabilities

<b>Table 2: Liabilities (\$)</b>	<b>Q218</b>	<b>Q318</b>	<b>Q418</b>	<b>Q119</b>	<b>Q219</b>
<b>Current liabilities</b>					
Accounts payable and accrued liabilities	257,811	1,046,004	437,210	893,621	574,676
Finance lease obligation	-	-	-	99,532	128,586
<b>Non-current Liabilities</b>					
Finance lease obligation	-	-	-	229,800	304,632
<b>Total Liabilities</b>	<b>257,811</b>	<b>1,046,004</b>	<b>437,210</b>	<b>1,222,953</b>	<b>1,007,894</b>

As of June 30, 2019, accounts payable was \$356,523 (Q418: \$345,830) and accruals were \$218,153 (Q418 \$91,380). A portion of the increase in accounts payables and accruals in Q1 2019 relates to costs associated with the RTO. The Q2 2019 accounts payable and accrued liabilities balance includes \$184k in payroll which was paid in May 2019.

The finance lease obligation increased due to the adoption of IFRS 16 leases (effective January 1, 2019), where any leases that are operating in nature for accounting purposes that have a lease period extending more than one year, are capitalized. The increase in Q2 2019 is a direct result of the aforementioned additional lease.

### 3.3 Equity

<b>Table 3: Equity (\$)</b>	<b>Q218</b>	<b>Q318</b>	<b>Q418</b>	<b>Q119</b>	<b>Q219</b>
<b>Shareholders' equity</b>					
Common shares	461,346	692,002	4,277,990	4,735,793	10,347,843
Contributed surplus	280,437	227,228	2,462,334	6,565,655	3,851,329
Accumulated other comprehensive income ("AOCI")	3,701	(8,049)	(227,955)	(127,793)	(46,975)
Deficit	(339,050)	(1,154,828)	(2,778,392)	(4,599,059)	(9,788,829)
<b>Total shareholders' equity</b>	<b>406,434</b>	<b>(243,647)</b>	<b>3,733,977</b>	<b>6,574,596</b>	<b>4,363,368</b>

#### Common Shares

<b>Table 4: Common shares</b>	<b>Q218</b>	<b>Q318</b>	<b>Q418</b>	<b>Q119</b>	<b>Q219</b>
Opening balance	-	15,000,000	27,530,000	51,311,525	53,111,525
Seed financing	15,000,000	6,250,000	-	-	-
Seed financing (warrants exercised)	-	6,280,000	14,970,000	-	-
Unit financing	-	-	8,811,525	-	-
Shares issued	-	-	-	1,800,000	-
QT financing	-	-	-	-	8,826,630
RTO - Gulfstream	-	-	-	-	3,444,403
RTO - Finders fee	-	-	-	-	1,167,163
<b>Total Common Shares as of June 30, 2019</b>	<b>15,000,000</b>	<b>27,530,000</b>	<b>51,311,525</b>	<b>53,111,525</b>	<b>66,549,721</b>

Initial seed unit financing totalling 21,250,000 units at a price of CA\$0.05 per unit for gross proceeds of \$836,747 was completed in Q2 2018 and Q3 2018. Each unit was comprised of one common share and one share purchase warrant, which were subsequently all exercised by December 31, 2018. Each share purchase warrant was exercisable at CA\$0.05 per common share.

In October 2018, the completion of a 8,811,525 unit financing at CA\$0.80 per unit was completed, recognizing total net proceeds of CA\$6.2 million. Each unit was comprised of one common share and one share purchase warrant. Each share purchase warrant is exercisable at CA\$1.10 per common share for a period of two years, subject to an accelerated exercise clause whereby if the daily volume-weighted average trading price for any 10 consecutive trading days is greater than CA\$2.00 per share, the Company may written return notice accelerate the expiry date of the warrants to 30 days after providing such notice.

In conjunction with the aforementioned financing, 144,900 warrants were issued with a deemed value of \$28,420 (booked to contributed surplus), entitling the holder to acquire one common share with the same terms as the October financing mentioned above. In addition, 292,087 Advisory and Broker warrants were issued with a deemed value of \$80,743 (also booked to contributed surplus) to purchase a unit at CA\$0.80. Each Broker warrant entitles the holder to purchase one common share and one share purchase warrant. Each share purchase warrant is on the same terms as October financing mentioned above.

Prior to December 31, 2018, agreements with a number of advisors required the issuance of shares and/or warrants for services to be performed. In January 31, 2019, 1,800,000 common shares with a fair value of \$457,803 (750,000 which have been valued on the same basis as the CA\$0.05 Unit offering as well as 1,050,000 valued based on the CA\$0.80 Unit offering exercisable at CA\$0.80) were issued.

On March 7, 2019, 503,935 Advisory and Broker warrants were issued with a fair value of \$121,530 (booked to contributed surplus) to purchase a unit at CA\$0.80. Each Broker warrant entitles the holder to purchase one common share and one share purchase warrant. Each share purchase warrant can be exercised for CA\$1.10. As at June 30, 2019 there were no Advisory and Broker warrants exercised. Furthermore, on March 7, 2019 an additional 8,826,630 warrants were issued relating to the QT financing all of which are booked as part of contributed surplus and can be exercised for CA\$1.10.

8,826,630 subscription receipts were issued upon completion of the RTO. On April 3, 2019, these subscription receipts converted into units of Liberty and were split between common shares (\$4,240,578) and contributed surplus (\$1,022,330). In conjunctions with the RTO a share consolidation of 2.5:1 occurred (note 3) reducing the issued and outstanding shares to 3,444,404 with a fair value of \$1,654,795 and a finders fee of 1,167,163 shares were issued with a fair value \$560,740.

As of June 30, 2019, the Company had 66,549,721 common shares issued and outstanding (Dec 31, 2018: 51,311,525).

## Warrants

The Company has issued warrants for both common shares and units (comprising one common share and one further common share warrant). As of June 30, 2019, the Company had 19,733,055 common share warrants and 796,022 unit warrants for a total of 21,325,099 dilutive securities.

As of June 30, 2019, the Company had the following warrants for common shares outstanding:

<b>Table 5: Warrants - Common Shares</b>	<b>Q218</b>	<b>Q318</b>	<b>Q418</b>	<b>Q119</b>	<b>Q219</b>
Opening Balance	-	15,000,000	14,970,000	8,956,425	10,906,425
Seed Unit Financing	15,000,000	6,250,000	-	-	-
Seed Unit Financing Warrants Exercised	-	(6,280,000)	(14,970,000)	-	-
Unit Financing	-	-	8,956,425	-	-
Board of Advisor Warrants	-	-	-	1,950,000	-
QT Financing	-	-	-	-	8,826,630
<b>Total as of June 30, 2019</b>	<b>15,000,000</b>	<b>14,970,000</b>	<b>8,956,425</b>	<b>10,906,425</b>	<b>19,733,055</b>

Prior to December 31, 2018 agreements with a number of advisors required the issuance of 1,950,000 warrants with a fair value of \$166,687 which was recorded in contributed surplus. In January 2019, these warrants were issued and are exercisable into one common share at an exercise price of CA\$0.80 for a period of three years.

Upon completion of the QT financing, a further 8,826,630 warrants at CA\$1.10 for a period of two years were issued subject to an accelerated exercise clause whereby if the daily volume-weighted average trading price for any 10 consecutive trading days is greater than CA \$2.00 per share, the Company may provide written notice to accelerate the expiry date of the warrants to 30 days after providing such notice.

As of June 30, 2019 the Company had the following warrants for units outstanding:

<b>Table 6: Warrants Outstanding - Units</b>	<b>Q218</b>	<b>Q318</b>	<b>Q418</b>	<b>Q119</b>	<b>Q219</b>
Opening Balance	-	-	-	292,087	796,022
Broker/Advisor Warrants	-	-	292,087	503,935	-
<b>Total as of June 30, 2019</b>	<b>-</b>	<b>-</b>	<b>292,087</b>	<b>796,022</b>	<b>796,022</b>

In conjunction with the QT financing (note 3) 503,935 Broker Unit warrants were issued. Each broker unit warrant entitles the holder to acquire one unit of the Company representing one common share and a further share purchase warrant for CA\$0.80 for a period of 2 years from March 7, 2019. Each share purchase warrant is exercisable at CA\$1.10 per common share for a period of 2 years, subject to an accelerated exercise clause whereby if the daily volume-weighted average trading price for any 10 consecutive trading days is greater than CA \$2.00 per share, the Company may provide written notice to accelerate the expiry date of the warrants to 30 days after providing such notice.

## Options

As of June 30, 2019 the Company had the following options for common shares outstanding:

<b>Table 7: Options</b>	<b>Q218</b>	<b>Q318</b>	<b>Q418</b>	<b>Q119</b>	<b>Q219</b>
Opening Balance	-	-	-	-	-
Issued	-	-	-	-	4,725,000
<b>Total as of June 30, 2019</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4,725,000</b>

In April 2019, Liberty issued 4,725,000 with an exercise price of CA\$0.80 to various employees, consultants, and directors with a deemed value of \$703,393. The purpose of the plan is to help attract and retain these individuals who will contribute to the Company's long-range success to provide incentives to these individuals that align with the interests of shareholders, and to promote the success of the Company's business. Furthermore, subsequent to Q2 2019, the Company issued a further 175,000 options.

<b>Table 8: Equity Instruments</b>	<b>December 31, 2018</b>	<b>June 30, 2019</b>
Common shares outstanding	51,311,525	66,549,721
Warrants outstanding – common shares	8,956,425	19,733,055
Weighted average price	CA\$1.10	CA\$1.07
Warrants outstanding – units	292,087	796,022
Weighted average price	CA\$0.80	CA\$0.80
Options outstanding	-	4,725,000
Weighted average price	-	CA\$0.80
Market capitalization	NA*	CA\$49,246,794
Closing share price	NA*	CA\$0.74
<b>Total Issued and Outstanding Warrants</b>		

\*Not Applicable (NA), as the Company wasn't public during this period

As of June 30, 2019 the Company had a closing share price of CA\$0.74 and a total market capitalization of CA\$49,246,794. Furthermore, the average weighted price for warrants and options outstanding are CA\$1.07 (December 31, 2018 CA\$1.10) and CA\$0.80 respectively.

## 4 EXPENDITURES REVIEW

The following table details the Company's expenditures to June 30, 2019 broken down into their functional areas of Brand & Market Awareness (costs associated with establishing a market for HEXWAVE and the brand HEXWAVE), Research and Development (costs associated with obtaining, refining and redesigning the product) and General and Administrative (costs associated with starting up the Company and running the Company from a corporate perspective).

As the Company is in a start-up phase, the Company has no revenues and does not expect any until it commercializes HEXWAVE.

From an operational standpoint, there are no comparatives that existed prior to Q2 2018 and therefore aren't included within this expenditure review.

### 4.1 Brand & Market Awareness

Table 9: Brand & Market Awareness (\$)	Quarterly					YTD	
	Q218	Q318	Q418	Q119	Q219	2018	2019
Legal fees	11,001	10,433	35,174	-	-	56,608	-
Marketing	-	-	-	148,343	351,366	-	499,709
Other Costs	-	3,570	-	-	206	3,570	206
Salaries & consulting Fees	64,348	97,708	116,280	23,394	21,495	278,337	44,889
Stock-based compensation	-	25,249	518,524	-	134,488	543,773	134,488
Travel & miscellaneous	-	14,857	-	44,300	34,419	14,857	78,719
<b>Total</b>	<b>75,349</b>	<b>151,817</b>	<b>669,978</b>	<b>216,037</b>	<b>541,974</b>	<b>897,144</b>	<b>758,011</b>

The ability to understand and develop the market as well as gain access to it will be a critical determinant for Liberty. The legal costs include costs associated with understanding the marketplace and developing a trademark.

Our marketing expenditures have benefits to both Brand and Market Awareness as well as investor and shareholder interest. For this reason we split our costs on marketing between Brand and Market Awareness, and also General & Administrative costs. Marketing costs include costs associated with promoting awareness of HEXWAVE and Liberty both from a product awareness and Company awareness perspective, as well as encouraging investment in the Company. During both Q1 2019 and Q2 2019, significant marketing costs were incurred to help promote its HEXWAVE brand and to provide awareness about the Company to its stakeholders. Costs increased significantly in Q2 2019 primarily as a result of entering into investor relation contracts once the company became public in April 2019.

Salary and consulting costs include a 20% allocation of the time of the CEO and in 2018 consulting fees included work done to initially understand the market place and gain access to key players. Therefore overall consulting fees decreased in Q1 2019 and Q2 2019 as these costs were no longer being incurred.

Stock-based compensation related to developing the brand is a non-cash expense and relates to the issuance of shares and warrants to certain advisors to the Company, as well as issuing stock options. The increase in stock-based compensation in Q4 2018, relates to shares and warrants that were subsequently issued in January 2019 to four new advisors that were introduced in Q4 2018. In April 2019, Liberty issued 4,725,000 stock options with an exercise price

of CA\$0.80 to various employees, consultants, and directors whom are associated with establishing Brand & Market Awareness and therefore increased stock-based compensation in Q2 2019.

Travel & miscellaneous expenses in both Q1 2019 & Q2 2019 increased due the increased activity with establishing a market for the HEXWAVE product and the brand HEXWAVE where management incurred a larger portion of travel costs. Travel costs weren't as prevalent in 2018 primarily due to the earlier stage of HEXWAVE.

## 4.2 Research and Development

<b>Table 10:</b> <b>Research &amp; Development (\$)</b>	<b>Quarterly</b>					<b>YTD</b>	
	<b>Q218</b>	<b>Q318</b>	<b>Q418</b>	<b>Q119</b>	<b>Q219</b>	<b>2018</b>	<b>2019</b>
Depreciation	-	-	8,168	30,104	31,821	8,168	61,925
Legal fees	25,255	57,582	9,767	7,959	31,651	92,604	39,610
Other	-	-	6,660	38,188	50,540	6,660	88,728
Salaries & consulting fees	87,213	194,938	369,342	497,555	701,019	651,493	1,198,574
Stock-based compensation	-	-	-	-	221,598	-	221,598
Technology costs	-	61,400	108,348	315,051	505,140	169,748	820,191
Travel & miscellaneous	-	34,082	36,269	16,354	14,211	70,351	30,565
<b>Total</b>	<b>112,468</b>	<b>348,002</b>	<b>538,554</b>	<b>905,211</b>	<b>1,555,980</b>	<b>999,024</b>	<b>2,461,191</b>

Research and Development costs relate principally to the costs of running our COE.

Depreciation increased in Q1 2019 & Q2 2019 mainly as a result of the depreciation on the financial lease of the COE.

Legal fees include the costs associated with drafting and developing the technology transfer and license agreements and also some initial costs associated with Cooperative Research and Development Agreement (“CRADA”). Legal fees increased during Q2 2019 as a result of work relating to Federal Communications Commission (“FCC”) certification.

Salary and consulting costs include 100% of the COO salary and a 30% allocation of the salary of the CEO. The increase from Q318 to Q418 is consistent with the build out of our development team as we transfer the technology from MIT and start building our initial prototype. There’s a consistent trend of salaries increasing quarter over quarter in 2019 due to the increased activity as we ramp up to commercialize.

Stock-based compensation is related to issuing stock options to various employees, consultants, and directors in Q2 2019.

Technology costs in Q318 and Q418 include \$61,400 and \$76,600 respectively for technology transfer costs associated with the TTA. Technology costs include software and hardware costs associated with developing the initial prototype which continue to be expensed as well as CRADA expenditures. Technology costs increased significantly in Q1 2019 mainly as a result of the Phase 1 CRADA costs. In addition technology costs in Q2 2019 increased as there were more prototype related costs incurred during the period.

<b>Table 11:</b>	<b>Quarterly</b>					<b>YTD</b>	
<b>General and Administrative (\$)</b>	<b>Q218</b>	<b>Q318</b>	<b>Q418</b>	<b>Q119</b>	<b>Q219</b>	<b>2018</b>	<b>2019</b>
Depreciation	-	-	452	570	8,050	452	8,620
Foreign exchange loss	234	195	(1,048)	1,761	1,657	(619)	3,418
Legal fees	19,366	35,257	46,123	19,631	59,502	100,746	79,133
Marketing & Investor Relations	59,000	16,991	10,399	142,384	403,097	86,390	545,481
Other	541	702	37,112	31,170	33,173	38,355	64,343
RTO Transaction Costs	-	-	-	-	2,227,946	-	2,227,946
Salaries & consulting fees	51,357	260,030	207,114	299,760	150,414	518,501	450,174
Stock-based compensation	-	196	83,128	-	350,549	83,324	350,549
Travel & miscellaneous	20,735	2,587	31,753	11,985	31,806	55,075	43,791
<b>Total</b>	<b>151,233</b>	<b>315,959</b>	<b>415,033</b>	<b>507,261</b>	<b>3,266,194</b>	<b>882,224</b>	<b>3,773,455</b>

Depreciation increased in Q2 2019 mainly as a result of entering into the office lease in May 2019.

Legal fees principally relate to legal costs in the US of establishing our US subsidiary, LDT, and various US legal matters. Legal fees increased in Q2 2019 mainly as a result of Liberty becoming public.

Our marketing expenditures have benefits to both Brand and Market Awareness as well as investor and shareholder interest. For this reason we split our costs on marketing between Brand and Market Awareness, and also General & Administrative costs. The increase in marketing costs in Q2 2019 is primarily a result of the Company entering into several investor relation contracts as the company became public.

RTO transactions costs are costs that are associated with the reverse takeover that occurred between Liberty and LPC in Q2 2019. The main costs include the revalued shares that were issued to the former Liberty shareholders as well as the shares issued for the finders fee.

Salary and consulting costs include consulting fees to help stand-up and establish the Company from a corporate perspective in Q218 and Q318. Salary costs in Q318 include recruitment for the CEO. Salaries decreased in Q2 2019 as salaries in Q1 2019 included the severance payout for the LPC's former executive chairman.

Stock-based compensation is a non-cash expense and relates to the issuance of shares and warrants to certain advisors to the Company, as well as issuing stock options. Stock-based compensation in Q4 2018 principally relates to a signing bonus paid in shares rather than cash. Stock-based compensation increased in Q2 2019 as a result of issuing stock options to employees, consultants, and directors who are responsible for running the Company from a corporate and administrative perspective.

#### 4.4 Related Party Disclosure

<b>Table 12: Related Parties (\$)</b>	<b>Quarterly</b>					<b>YTD</b>	
<b>General and Administrative (\$)</b>	<b>Q218</b>	<b>Q318</b>	<b>Q418</b>	<b>Q119</b>	<b>Q219</b>	<b>2018</b>	<b>2019</b>
<b>Paid to related parties</b>							
Short-term employee benefits	167,602	329,706	379,039	351,460	192,921	876,347	544,381
Share-based payments	-	-	83,128	-	253,424	83,128	253,424
<b>Total</b>	<b>167,602</b>	<b>329,706</b>	<b>462,167</b>	<b>351,460</b>	<b>446,345</b>	<b>959,475</b>	<b>797,805</b>

Key management personnel include persons having the authority and responsibility for planning, directing and controlling the activities of the Company as a whole. The Company has determined that key management personnel consist of executive and non-executive members of the Board of Directors and corporate officers.

As at Q2 2019, a total of \$19,690 was expensed and or accrued relating to Makena Management Group Ltd., a company whose principal was a director of LPC.

#### **4.5 Financial Instruments**

As at June 30, 2019, the Company's financial instruments comprise of cash and cash equivalents, receivables, and accounts payable and accrued liabilities, none of which are valued at fair value. The fair values of receivables and accounts payable and accrued liabilities approximate their carrying values due to their short-term maturity.

## **5 RISKS FACTORS**

### **5.1 Disclosure Controls and Internal Control Financial Reporting**

The Company's disclosure controls and procedures are designed to provide reasonable assurance that all relevant information is communicated to senior management to allow timely decisions regarding required disclosure.

Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of the Company's financial reporting and the preparation of financial statements in compliance with IFRS. The Company's internal control over financial reporting includes policies and procedures that:

- pertain to the maintenance of records that accurately and fairly reflect the transactions of the Company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS;
- ensure the Company's receipts and expenditures are made only in accordance with authorization of management and the Company's directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized transactions that could have a material effect on the annual or interim financial statements.

Management has concluded that, as at June 30, 2019, the Company's internal control over financial reporting was not effective due to the existence of a material weakness. A material weakness existed in the design of internal control over financial reporting caused by a lack of adequate segregation of duties in the financial close process. The Chief Financial Officer is responsible for preparing, authorizing, and reviewing information that is key to the preparation of financial reports. He is also responsible for preparing and reviewing the resulting financial reports. This weakness has the potential to result in material misstatements in the Company's financial statements.

Management has concluded, and the Board has agreed, that taking into account the present stage of the Company's development, the Company does not have sufficient size and scale to warrant the hiring of additional staff to remediate the weakness at this time. There were no changes in the Company's internal controls over financial reporting during the period ended June 30, 2019 that have materially affected, or are reasonably likely to materially affect, its internal controls over financial reporting.

The Company's management, including the Chief Executive Officer and Chief Financial Officer, believe that any disclosure controls and procedures or internal control over financial reporting, no matter how well conceived and operated, can provide only reasonable and not absolute assurance that the objectives of the control system are met. Further, the design of a control system reflects the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, they cannot provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been prevented or detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by unauthorized override of the control. The design of any systems of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Accordingly, because of the inherent limitations in a cost effective control system, misstatements due to error or fraud may occur and not be detected.

## 5.2 Forward looking and third party information

This MD&A includes estimates, projections, and other forward-looking statements, within the meaning of applicable Canadian Securities Laws or United States securities legislation. All estimates, projections, and other forward-looking statements have been prepared by us on assumptions we consider reasonable, but these estimates, projections, and statements involve a high degree of risk and may not prove accurate. No representation is made as to the accuracy of such estimates, statements, or projections or their attainability, and nothing in this MD&A shall be relied upon as a promise or representation as to our future performance.

Statements that are not historical facts or that describe our plans, beliefs, goals, intentions, objectives, projections, expectations, assumptions, strategies, or future events are forward-looking statements. In addition, terms such as “will”, “believe”, “anticipate”, “estimate”, “plan”, “projects”, “continuing”, “ongoing”, “expect”, “intend”, “potential”, and similar expressions and discussions of our strategy or other intentions identify forward-looking statements. These statements involve estimates, assumptions and uncertainties that could cause actual results to differ materially from those expressed for the reasons described in this presentation. You should not place undue reliance on these forward-looking statements. The forward-looking statements speak only as of the date on which they are made, and, except as required by applicable law, we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors may cause actual results to differ materially from those contained in any forward-looking statements.

This MD&A includes certain statements and estimates provided by the Company with respect to the anticipated future performance on the Company. Such statements and estimates reflect various assumptions by the Company concerning anticipated results, which assumptions may or may not prove to be correct. No representations are made as to the accuracy of such statements and estimates, as well as the exercise of a substantial degree of judgment by management as to the scope and presentation of such information. Such statements and estimates are based on a number of assumptions, and subject to a number of risks and other factors, including those that are not in the control of management and which may not prove to be true. Actual results achieved during projection periods may differ substantially from those projected. Historical statements contained in this document regarding past trends or activities should not be taken as a representation that such trends or activities will continue in the future.

Certain of the information contained in this MD&A concerning industry trends and performance is based upon or derived from information provided by third-party consultants, variously publicly available sources, other industry sources and our research. Although the Company believes it to be reliable, the Company has not independently verified any of the data from third-party sources referred to in this presentation, or analyzed or verified the underlying reports relied upon or referred to by such sources, or ascertained the underlying assumptions relied upon by such sources. The Company does not make any representation as to the accuracy of such information. Statements containing forward-looking information are made as of the date of this MD&A.

## 5.3 Nature of Operations - Refer to Overview

## 5.4 Other Risk Factors

Reference should be made to the Company’s risk factors section at the December 31, 2018, Management Discussion and Analysis for a complete discussion of the risk factors associated with:

- **Limited operating history;**
- **History of losses;**
- **Negative cash flow for the foreseeable future;**
- **Reliance on management;**
- **Reliance on the successful development of prototype of HEXWAVE;**
- **Reliance on a single product, HEXWAVE, and a decline in the growth of demand for this product, would have a material adverse effect on the Company’s operating results and growth prospects;**
- **Because many of its expenses will be fixed, the Company may not be able to limit its losses if the Company fails to achieve forecasted revenue;**
- **Concealed weapons detection is a relatively new market and the rate of adoption and the Company’s associated growth in anticipated markets may not be representative of rates of adoption or future growth in other markets;**

- *Reliance on third parties (MIT and MIT LL);*
- *Growth may place significant demands on the Company's management and resources;*
- *Future acquisitions could disrupt the Company's business and harm the Company's financial condition and operating results;*
- *The impact of worldwide economic conditions, including the resulting effect on target market spending, may adversely affect the Company's business, operating results and financial condition;*
- *Failure to comply with various applicable laws, including the collection of sales or related taxes, could harm the Company's results of operations and financial condition;*
- *Failure to adequately protect the Company's intellectual property could substantially harm the Company's business and operating results;*
- *Confidentiality agreements with employees and others may not adequately prevent disclosure of trade secrets and other proprietary information;*
- *The Company's failure to raise additional capital necessary to expand the Company's operations and invest in the Company's business could reduce the Company's ability to compete successfully;*
- *The Company's business may require permits, certifications and licences;*
- *The Company's business is subject to regulatory changes;*
- *Low barriers to entry and high competition in the industry;*
- *Risks associated with brand development of the Company;*
- *The Company's business is subject to rapid technological change;*
- *The Company may become engaged in legal proceedings that could cause it to incur unforeseen expenses and could occupy a significant amount of the Company's management's time and attention;*
- *The Company's business is subject to the risks of earthquakes, fires, floods and other natural catastrophic events and to interruption by manmade problems such as computer viruses and terrorism;*
- *Risks associated with international operations of the Company;*
- *Internal controls; and*
- *Potential conflicts of interest of directors and officers of the Company*

## 6 CRITICAL ACCOUNTING ESTIMATES & POLICIES

For a full version of the critical accounting estimates and policies, reference should be made to the Company's audited financial statements for the period ended December 31, 2018, which are available on the Company's website at [www.libertydefense.com](http://www.libertydefense.com). In addition, reference should be made to the most recently filed Annual Information Form available on SEDAR at [www.sedar.com](http://www.sedar.com). The following list does not include the policies for **foreign currency translation, intangible assets, share-based payments, cash and cash equivalents, receivables, fixed assets, leases, accounts payable and accrued liabilities, share capital, financial assets, impairment of financial assets, derivative instruments, loss per share, income taxes, and investment tax credits**

### Basis of presentation

The consolidated financial statements associated with this MD&A have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board ("IFRS") applicable to the preparation of interim financial statements, including IAS 34, Interim Financial Reporting. These condensed interim consolidated financial statements are compliant with IAS 34 and do not include all the information required for full annual financial statements. These consolidated financial statements were approved for issuance by the Board of Directors on July 30, 2019.

### Consolidation

These consolidated financial statements include the accounts of the Company and its wholly-owned subsidiary, LDT. Subsidiaries are entities controlled by the Company. Control exists when the Company has the power to directly or indirectly govern the financial and operating policies of an entity so as to obtain benefits from its activities. In assessing control, potential voting rights that are currently exercisable or convertible are taken in account in the assessment of whether control exists. Subsidiaries are fully consolidated from the date on which control is transferred to the Company. They are deconsolidated from the date on which control ceases. All significant intercompany balances and transactions have been eliminated on consolidation.

### **Basis of measurement**

These consolidated financial statements have been prepared on the historical cost basis. In addition, these consolidated financial statements have been prepared using the accrual basis of accounting, except for cash flow information.

### **Estimates and use of judgement**

In preparing these consolidated financial statements, the Company has made judgments and estimates that affect the application of the Company's accounting policies and the reported amounts of assets, liabilities and expenses. Actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to estimates are made prospectively.

Development costs to develop products are capitalized to the extent that the criteria for recognition as intangible assets in IAS 38 Intangible Assets are met. Those criteria require that the product is technically and economically feasible, which management assessed based on the attributes of the development project, perceived user needs, industry trends and expected future economic conditions. Management considers these factors in aggregate and applies significant judgment to determine whether the product is feasible. The threshold for capitalizing has not yet been reached as of June 30, 2019.

### **Adoption in Accounting Policies – IFRS 16 Lease Accounting**

#### *Accounting policy*

Since inception, the Company has entered into multiple office lease contracts for fixed periods of three to five years. From January 1, 2019, leases are recognized as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Company. The assets and liabilities that arise from leases are initially measured on a present value basis. Lease liabilities include the present value of the following payments:

- Fixed payments, less any lease incentives receivable
- Variable lease payments that are based on an index or a rate, initially measured using an index or rate as at the commencement date
- Amounts expected to be payable by the Company under residual value guarantees

Lease payments are discounted using the incremental borrowing rate which is what the Company would have to pay to borrow funds necessary to obtain an asset of similar value to the right-to-use asset in a similar economic environmental with similar terms, security and conditions.

Some office leases contain variable lease payments including common area maintenance, utilities, and property taxes. These variable costs however are not based on an index or rate that can be measured on the commencement date and are therefore expensed as incurred.

Right-of-use assets are measured at cost comprising the following:

- The amount of the initial measurement of lease liability
- Any lease payments made at or before the commencement date less any lease incentives received
- Any initial direct costs, and
- Restoration costs.

Payments associated with short-term leases and leases of low-value assets are recognized on a straight-line basis as an expense in the statement of loss. Short-term leases are leases with a lease term of 12 months or less.

#### *Adjustments recognized on adoption*

The Company has adopted IFRS 16 retrospectively from January 1, 2019 but has not restated comparatives for the 2018 reporting period, as permitted under the specific transitional provisions in the standard. The reclassifications and the adjustments arising from the new leasing rules are therefore recognised in the opening balance sheet on January 1, 2019.

On adoption of IFRS 16, the Company recognised lease liabilities in relation to its office lease which had previously been classified as ‘operating leases’ under the principles of IAS 17 Leases. This liability was measured at the present value of the remaining lease payments, discounted using the lessee’s incremental borrowing rate as of January 1, 2019. The weighted average incremental borrowing rate applied to the lease liabilities on January 1, 2019 was 9.2%.

The associated right-of-use asset for the office lease was measured on a retrospective basis as if the new rules had always been applied.

Operating lease commitments disclosed as at 31 December 2018	408,729
Discounted using the lessee’s incremental borrowing rate of at the date of initial application	(56,360)
Lease liability recognised as at 1 January 2019	352,369
Of which are:	
Current lease liabilities	96,352
Non-current lease liabilities	256,017
	352,369

The company recognized a right-of-use asset relating to its office lease as at January 1, 2019 amounting to \$319,157. On January 1, 2019, the company recorded the following retrospective adjustment in relation to the adoption of IFRS 16.

<b>Retrospective Adjustment</b>	
Retained earnings (Debit)	33,213
Right-of-use asset (Debit)	319,156
Current finance lease obligation (Credit)	(96,352)
Non-current finance lease obligation (Credit)	(256,017)
Total	-