PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities

Market Information for Common Stock

Our Class A common stock is listed on the NYSE under the symbol "SPIR". Our Class B common stock is not listed on any market.

Holders of Record

As of February 23, 2024, there were 150 holders of record of our Class A common stock. The actual number of stockholders is greater than this number of record holders and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees.

As of February 23, 2024, there were four holders of record of our Class B common stock. All shares of our Class B common stock are beneficially owned by Peter Platzer, Theresa Condor, Jeroen Cappaert and William Joel Spark, or their affiliates.

Dividend Policy

We have never declared or paid any cash dividends on our capital stock, and do not intend to pay cash dividends to our stockholders in the foreseeable future. We expect to retain all available funds and any future earnings to fund the growth and development of our business. Investors should not purchase our common stock with the expectation of receiving cash dividends. Any future determination to declare dividends will be made at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements, general business conditions, and other factors that our board of directors may deem relevant. In addition, the terms of the Blue Torch Financing Agreement contain restrictions on our ability to declare and pay cash dividends on our capital stock.

Repurchases of Securities

None.

Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with our audited consolidated financial statements as of and for the years ended December 31, 2023 and 2022 and the related notes appearing elsewhere in this Annual Report on Form 10-K. In addition to historical consolidated financial information, the following discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results could differ materially from those anticipated by these forward-looking statements as a result of many factors. We discuss factors that we believe could cause or contribute to these differences below and elsewhere in this Annual Report on Form 10-K, including those set forth in the sections titled "Risk Factors" and "Special Note Regarding Forward-Looking Statements." Our fiscal years ended December 31, 2023 and 2022 are referred to herein as fiscal year 2023 and fiscal year 2022, respectively. Unless the context otherwise requires, all references to "the Company," "we," "us," or "our" and similar terms refer to Spire and its subsidiaries.

Overview

Spire is a global provider of space-based data, analytics and space services, offering unique datasets and powerful insights about Earth so that organizations can make decisions with confidence in a rapidly changing world. Spire builds, owns, and operates a fully deployed satellite constellation. We believe it is one of the world's largest "listening" constellations, observing the Earth in real time using radio frequency technology.

The data acquired by our multipurpose satellites provide global weather intelligence, ship and plane movements, and spoofing and jamming detection to better predict how their patterns impact economies, global security, business operations and the environment. We also offer Space as a Service solutions that empower customers to leverage our established infrastructure to put their business in space. We provide customers these solutions through an application programming interface ("API") infrastructure.

Our platform applies our value-add insights and predictive analytics to this proprietary data to create commercially valuable datasets. We offer three data solutions to our customers, which vary in complexity and price and can be delivered in near real-time via our API that can be easily integrated into our customers' business operations:

- ***Maritime***: Precise space-based data used for highly accurate ship monitoring, ship safety and route optimization.
- ***Aviation***: Precise space-based data used for highly accurate aircraft monitoring, aircraft safety and route optimization.
- ***Weather***: Precise space-based data used for highly accurate weather forecasting.

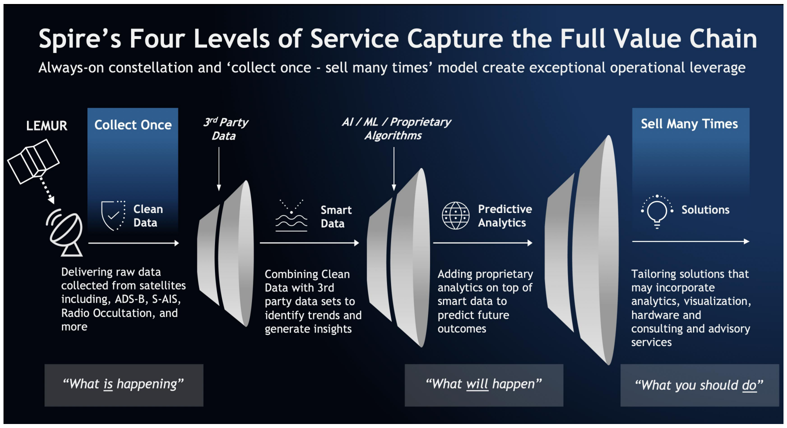
For each data solution, we have the capability to offer customers a variety of features and additional value. The four forms of data we monetize are:

•***Clean data***: Clean and structured data directly from our proprietary nanosatellites;

•***Smart data***: Clean data fused with third-party datasets and proprietary analysis to enhance value and provide insights;

•***Predictive solutions***: Big data, AI, and ML algorithms applied to fused data sets to create predictive analytics and insights; and

•***Solutions***: Data-driven actionable recommendations to solve specific business problems, utilizing the full spectrum of our data analytics suite.



These value-add data features allow customers to solve various use cases and provide a path to expand throughout the customer's relationship.

As our fourth solution, we are also pioneering an innovative business model through our Space Services solution. We leverage our fully deployed infrastructure and large-scale operations to enable our customers to obtain customized data through our API. Our customers can begin receiving data in less than a year after engaging with us and receive data by entering into a subscription agreement. Our Space Services offering provides our customers with fast, scalable and reliable access to space.

Our solutions are offered to customers across numerous industries and we not only have the opportunity to upsell within each one, but we also have the opportunity to cross-sell among all our solutions.

We provide our solutions to global customers either through a subscription or based on a specific project. We currently sell directly to end customers and utilize reseller partners when beneficial.

Highlights from Fiscal Year 2023

•Full year 2023 revenue was $105.7 million, an increase of 32% from fiscal year 2022.

•We secured a highly competitive $476 million NASA indefinite delivery, indefinite quantity ("IDIQ") contract, together with six other companies. Under this contract, we will provide NASA with our comprehensive catalog of Earth observation data that can improve global weather forecasting accuracy and climate research.

•We were awarded a contract extension by the National Reconnaissance Office (NRO) for commercial radio frequency remote sensing. The agency will continue to use our data to evaluate how commercial radio frequency will be integrated into its overhead architecture.

•We were awarded a Space Services contract by Lacuna Space, a leading satellite IoT connectivity provider. Under the agreement, Spire will initially build and launch six satellites carrying Lacuna Space's payload and antenna, with the opportunity to scale the constellation to dozens of satellites. Lacuna Space will operate its payloads and receive encrypted data at its Harwell headquarters.

•We announced the launch of our High Resolution Weather Forecast model, a differentiated regional high-resolution weather forecasting service designed to meet the critical demands of the energy and commodity markets. The solution provides more precise and customizable weather forecasts extending up to six days, with the capability to be run at resolutions as fine as one kilometer, covering any point on the globe, including the most remote regions and the open oceans.

•At the Space Tech Expo Europe, we unveiled Constellation Management Platform, a web-based app that simplifies satellite constellation operations through its user-friendly interface. The development of the platform is co-funded by the European Space Agency (ESA) under ARTES Core Competitiveness (CC) Programme with a €1.5 million award to Spire, along with support from the Luxembourg Space Agency (LSA).

•We were awarded a $2.8 million, 12-month contract by the National Oceanic and Atmospheric Administration ("NOAA") for satellite weather data. We will provide NOAA with Global Navigation Satellite System Reflectometry ("GNSS-R") observation data in near real-time, primarily focusing on ocean surface wind speeds. The initiative addresses NOAA's critical need for global sea-surface wind measurements essential for applications like marine weather forecasts, hurricane tracking, ocean current analysis and climate studies.

•We were awarded a $4.6 million, 12-month contract by NASA on behalf of NOAA to participate in NOAA's Sounder for Microwave-Based Applications ("SMBA") Phase-A study. Following the completion of the 12-month contract, a single sounder from the finalists may be selected for additional contract phases. The data collected from the final Microwave Sounder will be used towards advancing Earth observation, providing insights into various atmospheric properties such as temperature, humidity, cloud cover and composition.

•We announced that we will participate in a challenge to advance measurements of the Earth's magnetic field. As part of the challenge, we will receive monetary support from the National Geospatial-Intelligence Agency. We will design, develop and launch a satellite that will provide a novel approach to geomagnetic data collection for the World Magnetic Model (WMM).

•We signed an agreement with OroraTech to build, launch and operate an eight-satellite constellation dedicated to global temperature monitoring. OroraTech has successfully operated a precursor sensor in orbit on a satellite designed, built and operated by Spire for 18 months.

•We signed a renewed and increased contract from NASA as part of its Commercial Smallsat Data Acquisition program. The contract was increased to $6.5 million for one year of Earth observation data including: GNSS Radio Occultation, which can be assimilated into weather models; GNSS-Reflectometry, which can measure sea ice, soil moisture, and ocean surface wind speed; and space weather measurements.

•We announced a Space Services contract with GHGSat, a global leader in high-resolution greenhouse gas monitoring from space. Under the agreement, Spire will build, launch and operate four additional 16U satellites that will carry GHGSat payloads to monitor greenhouse gas emissions. This builds upon Spire's initial agreement with GHGSat for three 16U satellites.

•We announced a €16 million, three-year contract to design and demonstrate a satellite-based aviation surveillance system for ESA's EURIALO program. By independently verifying the location of a plane through geolocation technology, the most advanced and reliable system for aircraft tracking and surveillance, it is possible to track a plane in real time from takeoff to landing anywhere in the world. Following the initial design and demonstrator phases, there is a potential opportunity for Spire to be selected to build the full constellation, which could include a large number of satellites.

Macroeconomic and Geopolitical Impact

Over the past two years, we have been impacted by the macroeconomic environment, such as fluctuations in foreign currencies, increasing interest rates and geopolitical conflicts like the Russian invasion of Ukraine, Israel's war with Hamas and the increased tensions between China and the U.S.

The U.S. dollar exhibited a modest increase in strength against the local functional currencies of our foreign subsidiaries for the fiscal year ended December 31, 2023, compared to the fiscal year ended December 31, 2022. This had a marginal negative impact on our revenue, as about one-third of our sales are conducted in foreign currencies. Conversely, it had a marginal favorable impact on our expenses, given that a majority of our workforce resides in countries other than the United States.

The macroeconomic environment has caused existing or potential customers to re-evaluate their decision to purchase our offerings, at times resulting in additional customer discounts, extended payment terms, longer sales cycles, and a few contract cancellations. Particularly, the U.S. Congress' delay in approving appropriations bills negatively impacted the timeliness of some of our U.S. federal government orders.

Increasing interest rates in the fiscal year ended December 31, 2023 resulted in higher interest expenses, as our credit facility is based on a floating interest rate. The Russian invasion of Ukraine and the continued conflict created additional global sanctions, which at times caused scheduling shifts or launch cancellations by third-party satellite launch providers, which delayed revenue recognition of certain sales contracts.

If any of these factors continue or worsen, and/or if new macroeconomic or geopolitical issues arise, our results and financial condition could be further negatively impacted. We cannot predict the timing, strength, or duration of any economic slowdown, downturn, instability, or recovery, generally or within any particular industry or geography. Any downturn of the general economy or industries in which we operate would adversely affect our business, financial condition, and results of operations.

Key Factors Affecting Our Performance

We believe that our current and future performance depend on many factors, including, but not limited to, those described below. While these areas present significant opportunity, they also present risks that we must manage to achieve successful results. For additional information about these risks, see the section titled "*Risk Factors.*" If we are unable to address these risks, our business and results of operations could be adversely affected.

Expansion of and Further Penetration of Our Customer Base

We employ a "land and expand" business model that focuses on efficiently acquiring new customers ("land") and then growing our relationships with these customers over time ("expand"). We have the capability to offer customers additional data sets and a variety of enhanced features that potentially grow the value of the services for which our customers contract with us. Our future revenue growth and our path to profitability are dependent upon our ability to continue to land new customers and then expand adoption of our solutions within their organizations.

We track our progress landing new customers by measuring the number of ARR Solution Customers we have from one fiscal year to the next. For instance, we have increased our number of ARR Solution Customers from 733 as of December 31, 2022 to 745 as of December 31, 2023. We track our progress in expanding our customer relationships by measuring our ARR Net Retention Rate. For the definition of ARR Net Retention Rate, see the section titled "—*Key Business Metrics.*" Our ARR Net Retention Rate was 98% for fiscal year 2023 and our organic ARR Net Retention Rate was 117% for fiscal year 2022.

Expansion into New Industries and Geographies

As our solutions have grown, we continue to focus on further penetration of our initial industries including maritime, aviation, logistics and government (civil and defense/intelligence) among others. We believe our technology and solutions give us the ability to also expand into additional industries, including energy, financial services, agriculture, transportation, and insurance, and into additional geographies, including Latin America, Africa, and the Middle East. Our revenue growth is dependent upon our ability to continue to expand into new industries and geographies. The costs associated with these expansions may adversely affect our results of operations.

Impact of the Solar Cycle on our Assets' Remaining Life

A stronger solar cycle has the potential to impact some of our satellites, accelerating their deorbiting and shortening their useful lives. The solar cycle is the cycle that the Sun's magnetic field goes through approximately every 11 years. In 2019, NOAA, NASA, and the International Space Environment Services panel forecasted that Solar Cycle 25 (December 2019 to approximately 2030) would be relatively weak after a relatively weak Solar Cycle 24 (December 2008 to December 2019). Subsequently, NOAA noted that Solar Cycle 24 was the weakest cycle in 100 years with sunspots reaching a maximum of 116 – below the average of 179. In October of 2023, NOAA updated their projection for the strength and duration of Solar Cycle 25, stating that the cycle [is expected to be more intense] than Cycle 24, and predicting that the peak of the cycle would be earlier, by [the end of 2024]. A stronger solar cycle may accelerate the deorbiting of our satellites sooner than expected or planned. Our ability to minimize the solar cycle impact, our ability to replenish our existing constellation in a timely manner and the costs associated with these actions may adversely affect our results of operations.

Investment in Growth

We continue investing in growing our business and capitalizing on our market opportunities while balancing the uncertainties from the macro-economic environment and geopolitical factors. We intend to continue to add headcount to our global sales and marketing teams to acquire new customers and to increase sales to existing customers. We also intend to continue to add headcount as needed to our research and development teams and otherwise invest to improve and innovate our nanosatellite, ground station and data analytics technologies. For fiscal year 2023, our spending on research and development increased by $3.8 million, or 11%, from fiscal year 2022. The costs of these investments may adversely affect our results of operations, but we believe that these investments will contribute to our long-term growth.

Acquisitions

Our business strategy may include acquiring other complementary solutions, technologies, or businesses that we believe will allow us to continue on our path to profitability, reduce the time or costs required to develop new technologies, incorporate enhanced functionality into and complement our existing solution offerings, augment our engineering workforce and enhance our technological capabilities.

Impact of Foreign Exchange Rates

We report in U.S. dollars, and the functional currency of our foreign operating subsidiaries is the local currency, including the Euro, the British Pound, the Singapore Dollar and the Canadian Dollar. The U.S. dollar remained strong against those currencies compared to fiscal year 2022. In fiscal year 2023, approximately 30% of our revenues were generated in non-U.S. dollar-denominated currencies. This compares to fiscal year 2022 when approximately 35% of our revenues were generated in non-U.S. dollar-denominated currencies. The financial statements of these subsidiaries are translated into U.S. dollars using exchange rates in effect at each balance sheet date for assets and liabilities and average exchange rates during the period for revenues and expenses. To the extent we experience significant currency fluctuations, our results of operations may be impacted.

Key Business Metrics

We review the following key business metrics to evaluate our business, measure our performance, identify trends affecting our business, formulate business plans, and make strategic decisions:

- ARR
- ARR Customers
- ARR Solution Customers
- ARR Net Retention Rate

Annual Recurring Revenue

We define ARR as our expected annualized revenue from customers that are under contracts with us at the end of the reporting period with a binding and renewable agreement for our subscription solutions or customers that are under a binding multi-year contract that can range from components of our Space Services solution to a project-based customer solution. Customers with project-based contracts are considered recurring when there is a multi-year binding agreement that has a renewable component in the contract. Customers are also considered recurring when they have multiple contracts over multiple years. Customer contracts for data trials and one-time transactions are excluded from the calculation of ARR.

Our ARR growth in 2023 was driven by landing new ARR Customers (as defined below) along with increasing the amount of ARR business with our existing customers. Due in part to the timing of some of our project-based contracts, including when engagements start and stop, our ARR has fluctuated from period to period in the past, and we expect our ARR to continue to fluctuate from period to period in the future. For example, NOAA awarded us an eight month, $9.4 million, radio occultation sales order on January 4, 2024. Due to the timing of this agreement, our ARR for fiscal year 2023 did not include revenue from this agreement. The ARR value related to this agreement is $14.1 million. ARR is a leading indicator and accordingly will tend to outpace the impact on our revenue as we recognize the contract value of various agreements over time.

The following table summarizes our ARR at each fiscal year end for the periods indicated.

	As of December 31,		
(dollars in thousands)	2023	2022	% Change
ARR	$ 106,827	$ 99,414	7 %

Number of ARR Customers and ARR Solution Customers

We define an ARR Customer as an entity that has a contract with us or through our reseller partners contracts, that is either a binding and renewable agreement for our subscription solutions, or a binding multi-year contract as of the measurement date independent of the number of solutions the entity has under contract. A single organization with separate subsidiaries, segments, or divisions may represent multiple customers, as we treat each entity that is invoiced separately as an individual customer. In cases where customers subscribe to our platform through our reseller partners, each end customer that meets the above definition is counted separately as an ARR Customer. All entities that have contracts for data trials and one-time transactions are excluded from the calculation of ARR Customers.

We define an ARR Solution Customer similarly to an ARR Customer, but we count every solution the customer has with us separately. As a result, the count of ARR Solution Customers exceeds the count of ARR Customers at each year end, as some customers contract with us for multiple solutions. Our multiple solutions customers are those that are under contract for at least two of our solutions: Maritime, Aviation, Weather, and Space Services. All entities that have contracts for data trials and one-time transactions are excluded from the calculation of ARR Solution Customers.

The growth in each of our ARR Customers and ARR Solution Customers in 2023 was driven by landing new ARR Customers across our four solutions (Maritime, Aviation, Weather and Space Services), expanding our industry and geographical footprints, and having a low number of customers who have not renewed their contracts with us. This was partially offset by our move to de-emphasize sales to customers with very low ARR or revenue. We expect this strategy to increase our ARR and revenue per customer, increase our ARR in total, and reduce our customer count as we drive towards the most efficient use of our resources.

The following table summarizes the number of our ARR Customers and ARR Solution Customers at the end of fiscal years 2023 and 2022.

	As of December 31,		
	2023	2022	% Change
ARR Customers	712	709	0 %
ARR Solution Customers	745	733	2 %

ARR Net Retention Rate

We calculate our ARR Net Retention Rate for a particular fiscal period end by dividing (i) our ARR from those ARR Customers at that fiscal period end that were also customers as of the last day of the prior fiscal period end by (ii) the ARR from all customers as of the last day of the prior fiscal period. This calculation measures the overall impact from increases in customer contract value (upsells), the decreases in customer contract value (downsells) and the decreases in customer value resulting from customers that have chosen not to renew their contracts with us (lost customers).

The following table summarizes our ARR Net Retention Rate for each of fiscal years 2023 and 2022. The ARR Net Retention Rate for 2022 excludes the Acquisition (as defined below) due to lack of comparable data, which would require 2021 data for renewal base calculations.

	Fiscal Year		
	2023	2022	% Change
ARR Net Retention Rate	98 %	117 %	(19)%

Our ARR Net Retention Rate can be impacted from period to period by large increases or decreases in customer contract value and large decreases in contract value from customers that have not renewed their contracts with us. An ARR Net Retention Rate greater than 100% is an indication that we are growing the value of the solutions our customers are purchasing from us from a fiscal period end versus the prior fiscal period end. An ARR Net Retention Rate less than 100% is an indication that we are reducing the value of the solutions our customers are purchasing from us from a fiscal period end versus the prior fiscal period end. For fiscal year 2023, our ARR Net Retention Rate was impacted by the temporary loss of our NOAA radio occultation order in July 2023 and the award of the $9.4 million order that was delayed until January 2024 as referenced above.

Components of Results of Operations

Revenue

We derive revenue from providing data, insights and access to our cloud-based technology platform sold on a subscription basis. Some of our customer arrangements include the delivery of specific performance obligations and subsequent customer acceptance of project-based deliverables, which may impact the timing of revenue recognition. Subscription periods for our solutions generally range from one to two years and are typically non-cancelable, with customers having the right to terminate their agreements only if we materially breach our obligations under the agreement. Our subscription fees are typically billed either monthly or quarterly in advance.

Cost of Revenue

Cost of revenue consists primarily of personnel costs, depreciation, hosted infrastructure and high-power computing costs, third-party operating and royalty costs associated with delivering our data and services to our customers and amortization of purchased intangibles associated with our acquisition of exactEarth in November 2021 (the "Acquisition"). Personnel costs are primarily related to the cost of our employees supporting and managing our constellation operations including satellite operations, ground station control and launch management. Costs associated with the manufacture and launch of our satellites, including personnel costs, are capitalized and depreciated upon placement in service, typically over a four-year expected useful life. As satellites reach the end of their expected useful life, they are generally replaced with replenishment satellites to maintain our constellation at optimal performance. Costs associated with the acquisition and development of new ground stations, including the bill of materials and labor to install the ground station, are capitalized and depreciated upon placement in service typically over a four-year to ten-year expected useful life. We anticipate ongoing capital spending to repair and replenish ground stations as they reach the end of their expected useful life to keep our ground station network at optimal performance. Our proprietary ground station network is primarily located in third-party locations where we incur lease and other operational charges. Cost of revenue also includes royalties associated with third-party data sets that we integrate into our data solutions.

Operating Expenses

Research and Development. Research and development expenses consist primarily of employee-related expenses, third-party consulting fees, and computing costs. Our research and development efforts are focused on improving our satellite technology, developing new data sets, developing new algorithms, enhancing our smart and predictive analytics, and enhancing the ease of use and utility of our space-based data solutions.

Sales and Marketing. Sales and marketing expenses consist primarily of employee-related expenses, sales commissions, marketing and advertising costs, costs incurred in the development of customer relationships, brand development costs, travel-related expenses and amortization of purchased intangible backlog associated with the Acquisition. Commission costs on new customer contract bookings are considered costs of obtaining customer contracts. Commission costs for multi-year deals are considered contract acquisition costs and are deferred and then amortized over the period of the contract excluding the last twelve months, which are expensed at the beginning of the final twelve-month period. Commission costs on contracts completed with a term of twelve months or less are expensed in the period incurred.

General and Administrative. General and administrative expenses consist of employee-related expenses for personnel in our executive, finance and accounting, facilities, legal, human resources, global supply chain, and management information systems functions, as well as other administrative employees. In addition, general and administrative expenses include fees related to third-party legal counsel, corporate insurance, fees related to accounting, tax and audit costs, office facilities costs, software subscription costs and other corporate costs.

Loss on Decommissioned Satellites. Loss on decommissioned satellites consists of the write-off of the remaining capitalized costs associated with the manufacture and launch of our satellites prior to the end of the satellite's useful life. We contract with third-party companies to launch, carry and deploy our satellites into space. A loss could result from a third-party launch or deployer failure, a technical failure of the satellite, or the deorbit or decommissioning of a satellite before the end of the satellite's useful life. A technical failure could include a satellite that is not able to communicate with our network of ground stations or fulfill its intended technical mission for a duration greater than one month. The loss amount is presented net of any insurance proceeds received. Due to the nature of these events, we cannot predict the magnitude or frequency of future satellite deorbit and launch failure losses. While we sometimes purchase launch insurance when financially practical, the proceeds from these policies will typically only cover a portion of our loss in the event of an unplanned satellite deorbit or launch failure. We incurred a $0.7 million loss on decommissioned satellites in fiscal year 2023 and a $0.5 million loss on decommissioned satellites in fiscal year 2022.

Other Income (Expense)

Interest Income. Interest income includes interest earned on our cash balances and short-term marketable securities.

Interest Expense. Interest expense includes interest costs associated with our promissory and convertible notes, and amortization of deferred financing costs.

Change in Fair Value of Contingent Earnout Liability. Change in fair value of contingent earnout liability includes mark-to-market adjustments to reflect changes in the fair value of the contingent earnout liability.

Change in Fair Value of Warrant Liabilities. Change in fair value of warrant liabilities includes mark-to-market adjustments to reflect changes in the fair value of warrant liabilities and the exchange of warrants for common stock.

Loss on Extinguishment of Debt. Loss on extinguishment of debt includes accelerated debt issuance expenses, legal and other fees associated with the payoff or refinancing of existing debt.

Other Expense, Net. Other expense, net consists primarily of tax credits, grant income, the impact of foreign exchange gains and losses, share of equity investment loss, all transaction costs and other administrative fees associated with the warrant exchange, sales and local taxes, and write-off of certain prepaid assets and legal settlements.

Income Tax Provision

Provision for income taxes consists of federal income taxes in the United States and income taxes in certain foreign jurisdictions. We do not provide for income taxes on undistributed earnings of our foreign subsidiaries since we intend to invest these earnings outside of the United States permanently. We account for income taxes using the asset and liability method, whereby deferred tax assets and liabilities are recognized based on differences between the financial reporting and tax bases of assets and liabilities and are measured using the enacted rates and laws that will be in effect when the differences are expected to reverse.

Results of Operations

Fiscal Year 2023 Compared to Fiscal Year 2022

The following tables set forth selected consolidated statements of operations data for each of the periods indicated:

	Years Ended December 31,	
(in thousands)	2023	2022
Revenue	$ 105,703	$ 80,268
Cost of revenue[(1)]	42,434	40,327
Gross profit	63,269	39,941
Operating expenses[(1)]**:**		
Research and development	38,923	35,153
Sales and marketing	25,754	28,502
General and administrative	42,494	44,831
Loss on decommissioned satellites	747	549
Total operating expenses	107,918	109,035
Loss from operations	(44,649)	(69,094)
Other income (expense):		
Interest income	2,332	948
Interest expense	(19,036)	(13,955)
Change in fair value of contingent earnout liability	129	9,677
Change in fair value of warrant liabilities	(1,597)	8,757
Loss on extinguishment of debt	—	(22,510)
Other expense, net	(1,063)	(2,912)
Total other expense, net	(19,235)	(19,995)
Loss before income taxes	(63,884)	(89,089)
Income tax provision	72	322
Net loss	$ (63,956)	$ (89,411)

(1)Includes stock-based compensation as follows:

	Years Ended December 31,	
(in thousands)	2023	2022
Cost of revenue	$ 197	$ 232
Research and development	3,474	3,154
Sales and marketing	2,707	2,822
General and administrative	6,600	5,283
Total stock-based compensation	$ 12,978	$ 11,491

Revenue

	Years Ended December 31,		
(dollars in thousands)	2023	2022	% Change
Revenue	$ 105,703	$ 80,268	32 %

Total revenue increased $25.4 million, or 32%, driven primarily by the growth in the number of ARR Customers combined with growth in revenue recognized for milestone-based projects.

For fiscal year 2023, we derived 56% of our revenue from the Americas, 35% of our revenue from Europe, the Middle East and Africa (“EMEA”), and 9% of our revenue from Asia Pacific (“APAC”). For fiscal year 2022 we derived 46% of our revenue from the Americas, 40% of our revenue from EMEA, and 14% of our revenue from APAC. For fiscal year 2023, we derived 64% of our revenue from subscription arrangements, compared to 71% for fiscal year 2022. This percentage mix can fluctuate significantly from period to period driven primarily by the timing of non-subscription revenue recognition in our contracts.

Cost of Revenue

(dollars in thousands)	Years Ended December 31, 2023	2022	% Change
Total cost of revenue	$ 42,434	$ 40,327	5 %
Gross profit	63,269	39,941	58 %
Gross margin	60 %	50 %	10 %
Headcount (at end of year)	33	44	(25)%

Cost of revenue increased $2.1 million, or 5%, primarily driven by an increase in depreciation expense of $3.0 million and an increase in third-party royalty costs of $1.0 million, partially offset by a decrease in personnel costs of $1.0 million and a decrease in computing costs of $0.9 million. The increase in depreciation expense was primarily driven by a reset of the estimated useful lives of our satellites to account for the potential impact of increased solar activity related to the current solar cycle. The increase in third-party royalty costs was driven by an increase in sales activity, resulting in higher payments to third-party data set providers as they augment our data solutions. The decrease in personnel costs was driven by an overall reduction in headcount. The decrease in computing costs was driven by cloud platform efficiencies.

Gross margin for fiscal years 2023 and 2022 was 60% and 50%, respectively. The increase in fiscal year 2023 compared to fiscal year 2022 was driven primarily by leverage from higher revenue. This metric can fluctuate significantly from period to period driven primarily by the amount and timing of the revenue as well as the timing of our technology investments.

We expect cost of revenue, including depreciation and amortization expenses, third-party operating costs and royalties, and high-powered computing costs, to increase in absolute dollars as our business grows.

Operating Expenses

Operating expenses consist of our research and development, our sales and marketing, and our general and administrative expenses. As we continue to invest in our growth, including through hiring additional personnel, we expect our operating expenses to increase in absolute dollars as revenue grows; however, we expect our operating expenses as a percentage of revenue to decrease over time.

Research and Development

(dollars in thousands)	Years Ended December 31, 2023	2022	% Change
Research and development	$ 38,923	$ 35,153	11 %
Percentage of total revenue	37 %	44 %	
Headcount (at end of year)	221	206	7 %

Research and development expenses increased $3.8 million, or 11%, primarily driven by an increase in personnel costs of $3.6 million and an increase in computing costs of $0.2 million to support customer growth. The increase in personnel costs was driven by overall growth in headcount, which was partially offset by lower bonus payouts to management.

We expect research and development expenses to increase in absolute dollars in future periods primarily due to higher headcount as we continue to invest in the development of our solutions offerings and new technologies; however, we expect research and development expenses to decrease as a percentage of revenue in future periods as our revenue growth exceeds our increase in research and development spend.

Sales and Marketing

(dollars in thousands)	Years Ended December 31, 2023	2022	% Change
Sales and marketing	$ 25,754	$ 28,502	(10)%
Percentage of total revenue	24 %	36 %	
Headcount (at end of year)	73	80	(9)%

Sales and marketing expenses decreased 2.7 million, or 10%, primarily driven by a decrease in amortization expenses of $2.9 million and a decrease in personnel costs of $0.5 million, partially offset by an increase in bad debt expenses of $0.6 million and an increase in other miscellaneous operating expenses of $0.1 million. The decrease in amortization expenses was due to the completion of purchased intangible amortization from the Acquisition, which was completed in the three-month period ended December 31, 2022. The decrease in personnel costs was driven by an overall reduction in headcount. The increase in bad debt expenses was primarily driven by a charge taken for a specific customer reserve.

We expect sales and marketing expenses to generally grow in absolute dollars in the future, primarily due to increased employee-related expenses as we grow our headcount, to support our sales and marketing efforts and our continued expansion of our sales capacity across our solutions; however, we expect sales and marketing expenses as a percentage of revenue to decrease in future periods as our revenue growth exceeds our increases in sales and marketing spend.

__General and Administrative__

	Years Ended December 31,		
(dollars in thousands)	2023	2022	% Change
General and administrative	$ 42,494	$ 44,831	(5)%
Percentage of total revenues	40 %	56 %	
Headcount (at end of year)	89	85	5 %

General and administrative expenses decreased $2.3 million, or 5%, primarily driven by a decrease in business insurance costs of $2.8 million and a decrease in professional services fees of $1.7 million, partially offset by an increase in facilities expenses of $0.8 million, an increase in software expenses of $0.8 million, an increase in personnel costs of $0.4 million and an increase in other miscellaneous operating expenses of $0.2 million. The decrease in business insurance costs was driven by an improvement in annual rates. The decrease in professional services fees was driven by lower third-party accounting, legal and other consulting services as compared to the prior year when there were increased costs related to the Acquisition and our merger with NavSight Holdings, Inc. on August 16, 2021 (the "Merger"). The increases in personnel costs and facilities expenses were driven by overall headcount growth which were partially offset by lower bonus payouts to management. The increase in software expenses was driven by headcount growth and scaling of operations.

We expect our general and administrative expenses to generally grow in absolute dollars in future periods as our employee-related expenses increase to support our revenue growth; however, we expect our general and administrative expenses as a percentage of revenue to decrease as revenue growth exceeds our increases in general and administrative spend.

__Loss on Decommissioned Satellites__

	Years Ended December 31,		
(dollars in thousands)	2023	2022	% Change
Loss on decommissioned satellites	$ 747	$ 549	36%
Percentage of total revenues	1 %	— %	*

In fiscal years 2023 and 2022, we recognized a non-cash expense of $0.7 million and $0.5 million, respectively, on decommissioned satellites prior to the ends of their useful lives.

Due to the nature of these events, we cannot predict the magnitude or frequency of future decommissioning losses. While we sometimes purchase launch insurance when financially practical, the proceeds from these policies will typically only cover a portion of our loss in the event of an unplanned satellite deorbit or launch failure.

__Other Income (Expense)__

	Years Ended December 31,		
(dollars in thousands)	2023	2022	% Change
Interest income	$ 2,332	$ 948	146 %
Interest expense	$ (19,036)	$ (13,955)	36 %
Change in fair value of contingent earnout liability	$ 129	$ 9,677	(99)%
Change in fair value of warrant liabilities	$ (1,597)	$ 8,757	(118)%
Loss on extinguishment of debt	$ —	$ (22,510)	*
Other expense, net	$ (1,063)	$ (2,912)	(63)%

******Not meaningful*

Interest income increased by $1.4 million as we drew down on the remaining portion of our Blue Torch term loan and shifted more liquid assets into short-term marketable securities that carried higher overall interest rates.

Interest expense increased $5.1 million, or 36%, primarily as a result of drawing down on our remaining balance of the Blue Torch Finance LLC ("Blue Torch") term loan and incurring higher interest and amortized debt issuance costs associated with the Blue Torch term loan.

Change in fair value of contingent earnout liability experienced a reduction year over year of $9.5 million driven by the mark-to-market adjustments in 2022 to reflect the fair market valuation of the underlying stock price not repeating in 2023. During 2023 the contingent earnout liability remained relatively flat, resulting in a moderate $0.1 million profit. For additional information, see Notes 2 and 8 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

Change in fair value of warrant liabilities was a loss of $1.6 million in fiscal year 2023 compared to a gain of $8.8 million in fiscal year 2022. The $1.6 million loss in fiscal year 2023 was primarily driven by mark-to-market adjustments. This was also impacted by the issuance of new warrants and reduction in the exercise price of the Blue Torch warrants in connection with the Waiver and Amendment (as defined below). For additional information, see Notes 2, 6 and 8 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

There was no extinguishment of debt in fiscal year 2023. The loss on extinguishment of debt in fiscal year 2022 was $22.5 million, driven by the acceleration of unamortized debt issuance costs and other administrative expenses associated with the extinguishment of the credit agreement with FP Credit Partners, L.P.

Other expense, net decreased by $1.8 million, or 63%, for fiscal year 2023, primarily due to a foreign exchange gain of $2.4 million driven by the strengthening of the U.S. dollar during the year relative to the local currencies of our subsidiaries, namely the Euro, British Pound Sterling, Singapore

Dollar, and Canadian Dollar and the impact on the customer receivables recorded upon initial sale, partially offset by a loss in Virgin Orbit launch prepayment of $1.1 million, higher financial transaction costs of $0.8 million, $0.2 million in higher loss associated with the equity investment in Myriota Pty Ltd and $0.2 million in higher loss associated with a provision on a credit from a launch provider that we do not expect to be able to recover.

Income Taxes

	Years Ended December 31,		
(dollars in thousands)	**2023**	**2022**	**% Change**
Income tax provision	$ 72	$ 322	(78)%

Income tax provision decreased $0.3 million, or 78%, primarily driven by the impact of higher tax credits.

Non-GAAP Financial Measures

We believe that in addition to our results determined in accordance with GAAP, non-GAAP Adjusted EBITDA is useful in evaluating our business, results of operations and financial condition. We believe that this non-GAAP financial measure may be helpful to investors because it provides consistency and comparability with past financial performance and facilitates period to period comparisons of operations, as this eliminates the effects of certain variables from period to period for reasons that we do not believe reflect our underlying business performance. In addition to our GAAP measures, we use this non-GAAP financial measure internally for budgeting and resource allocation purposes and in analyzing our financial results.

For the reasons set forth below, we believe that excluding the following items provides information that is helpful in understanding our results of operations, evaluating our future prospects, comparing our financial results across accounting periods, and comparing our financial results to our peers, many of which provide similar non-GAAP financial measures.

- Loss on satellite deorbit, launch failure and decommissioning. We exclude loss on satellite deorbit, launch failure and decommissioning because if there was no loss, the expense would be accounted for as depreciation and would also be excluded as part of our EBITDA calculation.
- Other (expense) income, net. We exclude other (expense) income, net because it includes unusual items that do not reflect the underlying operational results of our business. Examples of such expenses include prepayment penalties on outstanding debt and vendor dispute legal settlements.
- Stock-based compensation. We exclude stock-based compensation expenses primarily because they are non-cash expenses that we exclude from our internal management reporting processes. We also find it useful to exclude these expenses when we assess the appropriate level of various operating expenses and resource allocations when budgeting, planning, and forecasting future periods. Moreover, because of varying available valuation methodologies, subjective assumptions and the variety of award types that companies can use under Financial Accounting Standards Board ("FASB") ASC Topic 718, *Stock Compensation* ("ASC 718"), we believe excluding stock-based compensation expenses allows investors to make meaningful comparisons between our recurring core business results of operations and those of other companies.
- Change in fair value of warrant liabilities and contingent earnout liabilities. Spire excludes this as it does not reflect the underlying cash flows or operational results of the business.
- Loss on extinguishment of debt. We exclude this as it does not reflect the underlying cash flows or operational results of the business.
- Foreign exchange gain/loss. We are exposed to foreign currency gains or losses on outstanding foreign currency denominated receivables and payables related to certain customer sales agreements, product costs and other operating expenses. As we do not actively hedge these currency exposures, changes in the underlying currency rates relative to the U.S. Dollar may result in realized and unrealized foreign currency gains and losses between the time these receivables and payables arise and the time that they are settled in cash. Since such realized and unrealized foreign currency gains and losses are the result of macro-economic factors and can vary significantly from one period to the next, we believe that exclusion of such realized and unrealized gains and losses is useful to management and investors in evaluating the performance of our ongoing operations on a period-to-period basis.
- Amortization of purchased intangibles. We incur amortization expense for purchased intangible assets in connection with acquisitions of certain businesses and technologies. Amortization of intangible assets is a non-cash expense and is inconsistent in amount and frequency because it is significantly affected by the timing, size of acquisitions and the inherent subjective nature of purchase price allocations. Because these costs have already been incurred and cannot be recovered, and are non-cash expenses, we exclude these expenses for our internal management reporting processes. Our management also finds it useful to exclude these charges when assessing the appropriate level of various operating expenses and resource allocations when budgeting, planning and forecasting future periods. It is important to note that while this amortization expense is excluded for purposes of non-GAAP presentation, the revenue of the acquired businesses is reflected in the non-GAAP measures and that the assets contribute to revenue generation.
- Other acquisition accounting amortization. We incur amortization expense for purchased data rights in connection with the acquisition of exactEarth and certain technologies. Amortization of this asset is a non-cash expense that can be significantly affected by the inherent subjective nature of the assigned value and useful life. Because this cost has already been incurred and cannot be recovered, and is a non-cash expense, we exclude this expense for our internal management reporting processes. Our management also finds it useful to exclude this charge when assessing the appropriate level of various operating expenses and resource allocations when budgeting,

planning and forecasting future periods. It is important to note that while this expense is excluded for purposes of non-GAAP presentation, the revenue of the acquired companies is reflected in the non-GAAP measures and that the assets contribute to revenue generation.

•Mergers and acquisition related expenses. We exclude these expenses as they are transaction costs and expenses associated with the transaction that are generally infrequent in nature and not reflective of the underlying operational results of our business. Examples of these types of expenses include legal, accounting, regulatory, other consulting services, severance, and other employee costs.

•Other unusual and infrequent costs. We exclude these as they are unusual items that do not reflect the ongoing operational results of our business. Examples of these types of expenses include accounting, legal and other professional fees associated with the preparation and filing of our September 2022 Form S-3 shelf registration statement and "at-the-market" ("ATM") offering prospectus supplement, and the December 2022 warrant exchange.

•EBITDA. We define EBITDA as net income (loss), plus depreciation and amortization expense, plus interest expense, and plus the provision for (or minus benefit from) income taxes.

•Adjusted EBITDA. We define Adjusted EBITDA as earnings before interest, taxes, depreciation and amortization, further adjusted for any loss on satellite deorbit, launch failure and decommissioning, change in fair value of warrant liabilities, change in fair value of contingent earnout liability, other (expense) income, net, stock-based compensation, loss on extinguishment of debt, foreign exchange gain/loss, other acquisition accounting amortization, mergers and acquisition related expenses, and other unusual costs. We believe Adjusted EBITDA can be useful in providing an understanding of the underlying results of operations and trends, an enhanced overall understanding of our financial performance and prospects for the future. While Adjusted EBITDA is not a recognized measure under GAAP, management uses this financial measure to evaluate and forecast business performance. Adjusted EBITDA is not intended to be a measure of liquidity or cash flows from operations or a measure comparable to net income as it does not take into account certain requirements, such as capital expenditures and related depreciation, principal and interest payments, and tax payments. Adjusted EBITDA is not a presentation made in accordance with GAAP, and our use of the term Adjusted EBITDA may vary from the use of similarly titled measures by others in our industry due to the potential inconsistencies in the method of calculation and differences due to items subject to interpretation.

•The presentation of non-GAAP financial information should not be considered in isolation or as a substitute for, or superior to, the financial information prepared and presented in accordance with GAAP. Investors should note that the excluded items may have had, and may in the future have, a material impact on our reported financial results. Investors should read this discussion and analysis of our financial condition and results of operations together with the consolidated financial statements and the related notes thereto also included within.

The following table outlines the reconciliation from net loss to Adjusted EBITDA for the periods indicated:

	Years Ended December 31,	
(in thousands)	**2023**	**2022**
Net loss	$ (63,956)	$ (89,411)
Depreciation & amortization	18,228	18,341
Interest, net	16,704	13,007
Taxes	72	322
EBITDA	(28,952)	(57,741)
Change in fair value of contingent earnout liability	(129)	(9,677)
Change in fair value of warrant liabilities	1,597	(8,757)
Loss on extinguishment of debt	—	22,510
Other expense, net	1,063	2,912
Stock-based compensation	12,978	11,491
Mergers and acquisition related expenses	1,015	5,371
Loss on decommissioned satellites	747	549
Other acquisition accounting amortization	679	699
Adjusted EBITDA	$ (11,002)	$ (32,643)

Limitations on the Use of Non-GAAP Financial Measures

There are limitations to using non-GAAP financial measures because non-GAAP financial measures are not prepared in accordance with GAAP and may be different from non-GAAP financial measures provided by other companies.

The non-GAAP financial measures are limited in value because they exclude certain items that may have a material impact upon our reported financial results. In addition, they are subject to inherent limitations as they reflect the exercise of judgments by management about which items are adjusted to calculate our non-GAAP financial measures. We compensate for these limitations by analyzing current and future results on a GAAP basis as well as a non-GAAP basis and also by providing GAAP measures in our public disclosures. Some of these limitations are:

•although depreciation and amortization are non-cash charges, the assets being depreciated and amortized may have to be replaced in the future, and Adjusted EBITDA does not reflect cash capital expenditure requirements for such replacements or for new capital expenditure requirements;

•Adjusted EBITDA does not reflect the significant interest expense, or the cash requirements necessary to service interest or principal payments, on our debt;

- Adjusted EBITDA does not reflect income tax payments that may represent a reduction in cash available to us; and
- Adjusted EBITDA does not reflect the decommissioned satellite deorbit, launch failure and decommissioning and does not reflect the cash capital expenditure requirements for the replacements of lost satellites. While these expenses could occur in a given year, the existence and magnitude of these costs could vary greatly and are unpredictable.

Non-GAAP financial measures should not be considered in isolation from, or as a substitute for, financial information prepared in accordance with GAAP. We encourage investors and others to review our financial information in its entirety, not to rely on any single financial measure to evaluate our business, and to view our non-GAAP financial measures in conjunction with the most directly comparable GAAP financial measures.

Liquidity and Capital Resources

Our principal sources of liquidity to fund our operations are from cash and cash equivalents, and marketable securities which totaled $40.9 million as of December 31, 2023, mainly from net proceeds from borrowings under the Blue Torch Credit Facility (as defined below) and the sale of common stock under the Equity Distribution Agreement with Canaccord Genuity LLC, as sales agent (the "Equity Distribution Agreement"). Of the $40.9 million total, $29.1 million was in cash and cash equivalents of which approximately $13.7 million was held outside of the United States. The remaining $11.7 million was held in short-term marketable securities, all of which was held in the United States and which can be converted to cash with minimal transaction costs. These amounts compare to cash and cash equivalents of $47.2 million as of December 31, 2022, of which $18.8 million was held outside of the United States. We had $23.1 million of short-term marketable securities as of December 31, 2022. The cash and cash equivalent amounts are exclusive of restricted cash which totaled $0.5 million as of December 31, 2023 and $0.4 million for December 31, 2022. Since our inception, we have been in an operating cash flow deficit as we have made significant investments in our technology infrastructure, built out our research and development foundation, grown sales and marketing resources to drive revenue, and scaled general and administrative functions to enable operating effectiveness.

On February 4, 2024, we entered into a securities purchase agreement for the issuance and sale of 833,333 shares of our Class A common stock to Signal Ocean Ltd at a price of $12.00 per share (the “Private Placement”). The Private Placement closed on February 8, 2024, resulting in gross proceeds to us of $10.0 million.

We expect that our principal source of liquidity will be our cash and cash equivalents balance. We currently believe that we will meet our minimum liquidity covenant, as well as all other financial covenants under the Blue Torch Financing Agreement (as defined below), at each applicable measurement point over the period of at least one year from the issuance of the December 31, 2023 consolidated financial statements, and that we will have sufficient working capital to operate for a period of at least one year from the issuance of the December 31, 2023 consolidated financial statements, in each case based on our current cash and cash equivalent balance and expected future financial results. The sufficiency of our working capital and our ability to meet our financial covenants will depend on many factors, including our growth rate, the timing and extent of spending to support solution development efforts, the expansion of sales and marketing activities, the ongoing investments in technology infrastructure, the introduction of new and enhanced solutions, and the continuing market acceptance of our solutions, all of which are subject to risks, uncertainties, and other factors that may cause actual results to differ materially. From time to time, we may seek additional equity or debt financing to fund capital expenditures, strategic initiatives or investments and our ongoing operations. In the event that we decide, or are required, to seek additional financing from outside sources, we may not be able to raise it on terms acceptable to us or at all. If we are unable to raise additional capital when desired or unable to meet the minimum liquidity covenant or other financial covenants under the Blue Torch Financing Agreement, our business, financial condition, and results of operations could be adversely affected.

Blue Torch Credit Agreement

On June 13, 2022, we, as borrower, and certain of our subsidiaries, as guarantors, entered into a financing agreement (the “Blue Torch Financing Agreement”) with Blue Torch Finance LLC, a Delaware limited liability company (“Blue Torch”), as administrative agent and collateral agent, and certain lenders (the “Lenders”). The Blue Torch Financing Agreement provides for, among other things, a term loan facility in an aggregate principal amount of up to $120.0 million (the “Blue Torch Credit Facility”). A portion of the proceeds of the term loan was used to repay our then-existing $70.0 million credit facility with FP Credit Partners, L.P., and the remainder of the proceeds of the term loan may be used for general corporate purposes.

The Blue Torch Credit Facility is scheduled to mature on June 13, 2026, upon which we must repay the outstanding principal amount of any outstanding loans thereunder, together with all accrued but unpaid interest, fees and other obligations owing under the Blue Torch Credit Facility. Subject to certain exceptions, prepayments of the Blue Torch Credit Facility will be subject to early termination fees in an amount equal to 3.0% of the principal prepaid if prepayment occurs on or prior to the first anniversary of the closing date, 2.0% of principal prepaid if prepayment occurs after the first anniversary of the closing date but on or prior to the second anniversary of the closing date and 1.0% of principal prepaid if prepayment occurs after the second anniversary of the closing date but on or prior to the third anniversary of the closing date, plus if prepayment occurs on or prior to the first anniversary of the closing date, a make-whole amount equal to the amount of interest that would have otherwise been payable through the maturity date of the Blue Torch Credit Facility.

The $120.0 million term loan was available and drawn at closing, of which $19.7 million was placed in an escrow account by Blue Torch with such amount to be released upon our achieving certain metrics related to annualized recurring revenue and a total annualized recurring revenue leverage ratio. These metrics were achieved and the $19.7 million was released from the escrow account and delivered to us in February 2023. The term loan accrues interest at a floating rate, to be based, at our election, on either a reference rate or a 3-month Term Secured Overnight Financing Rate ("SOFR") rate (subject to a 1.0% floor), plus an interest rate margin of 7.0% for reference rate borrowings and 8.0% for 3-month Term SOFR borrowings, plus an incremental Term SOFR margin of 0.26161%. We elected the Term SOFR rate which was 13.6408% as of December 31, 2023. Principal on the term loan is only payable at maturity and interest on the term loan is due and payable quarterly for Term SOFR borrowings. We are also required to pay other customary fees and costs in connection with the Blue Torch Credit Facility, including a commitment fee in an amount equal to $2.4 million on the closing date, a $0.3 million agency fee annually and an exit fee in an amount equal to $1.8 million upon termination of the Blue Torch Financing Agreement.

Our obligations under the Blue Torch Financing Agreement are or will be guaranteed by certain of our domestic and foreign subsidiaries meeting materiality thresholds set forth in the Blue Torch Financing Agreement. Such obligations, including the guarantees, are secured by substantially all of our personal property and that of our subsidiary guarantors, including pursuant to a Security Agreement entered into on June 13, 2022 among us, Spire Global Subsidiary, Inc., Austin Satellite Design, LLC and Blue Torch. As of the closing date, such subsidiary guarantors were Spire Global Subsidiary, Inc., Austin Satellite Design, LLC, Spire Global Canada Subsidiary Corp. and exactEarth Ltd.

The Blue Torch Financing Agreement contains customary affirmative and negative covenants limiting our ability and the ability of our subsidiaries to, among other things, dispose of assets, undergo a change in control, merge or consolidate, make acquisitions, incur debt, incur liens, pay dividends, repurchase stock and make investments, in each case subject to certain exceptions. We must also comply with a maximum debt to annualized recurring revenue leverage ratio financial covenant tested monthly during the first two years of the Blue Torch Financing Agreement, a maximum debt to EBITDA leverage ratio financial covenant tested monthly during the third and fourth years of the Blue Torch Financing Agreement and a minimum liquidity financial covenant tested at all times. As of December 31, 2023, we were in compliance with all applicable financial covenants under the Blue Torch Financing Agreement.

The Blue Torch Financing Agreement also contains customary events of default that include, among other things, certain payment defaults, cross defaults to other indebtedness, inaccuracy of representations and warranties, covenant defaults, change of control defaults, judgment defaults, and bankruptcy and insolvency defaults. If an event of default exists, Blue Torch as agent on behalf of the Lenders may require immediate payment of all obligations under the Blue Torch Financing Agreement and may exercise certain other rights and remedies provided for under the Blue Torch Financing Agreement, the other loan documents and applicable law. Under certain circumstances, a default interest rate will apply on all obligations during the existence of an event of default under the Blue Torch Financing Agreement at a per annum rate equal to 2.00% above the applicable interest rate.

On September 27, 2023, we entered into the Waiver and Amendment No. 2 to Financing Agreement (the “Waiver and Amendment”) with Blue Torch and the Lenders, which amends the Blue Torch Financing Agreement to (a) waive an event of default under the Blue Torch Financing Agreement arising out of the total annualized recurring revenue leverage ratio being greater than the permitted ratio, (b) amend the financial covenants to provide covenant relief from the maximum debt to annualized recurring revenue leverage ratio and the maximum debt to EBITDA leverage ratio set forth in the Blue Torch Financing Agreement for future periods, and (c) provide for a second amendment exit fee. The second amendment exit fee is $1.8 million (which is an amount equal to one and a half percent (1.50%) of the aggregate outstanding principal balance of the term loans on the effective date of the Waiver and Amendment), bears interest from the date of the Waiver and Amendment at the Adjusted Term SOFR for a 3-month interest period plus the applicable margin under the Financing Agreement, and is payable to Blue Torch by us in cash upon the termination of the Blue Torch Financing Agreement, either as a result of acceleration of the loans or at the final maturity date. The Waiver and Amendment required a repayment by the Company of $2.5 million of the outstanding principal balance of the term loans on October 2, 2023, with a prepayment premium of $0.05 million. The Waiver and Amendment also requires additional reporting if our liquidity level is less than $35.0 million at any time during a month and revises the minimum liquidity covenant to require liquidity of at least $30.0 million at all times, commencing on September 30, 2023 which in both cases represent a $5.0 million incremental change from the original requirements. We were in compliance with all applicable financial covenants as of December 31, 2023.

On June 13, 2022, in connection with the Blue Torch Financing Agreement, we issued warrants to affiliates of the Lenders to purchase shares of Class A common stock (the “2022 Blue Torch Warrants”), which were exercisable for an aggregate of 437,025 shares of our Class A common stock with a per share exercise price of $16.08.

In addition, on June 13, 2022, in connection with the closing of the financing, we paid Urgent Capital LLC, a Delaware limited liability company, a fee for introducing us to the Lenders, for the purpose of loan financing, in the amount equal to $0.6 million in cash and a warrant to purchase shares of Class A common stock (the “GPO Warrant” and, collectively with the 2022 Blue Torch Warrants and the 2023 Blue Torch Warrants (as defined below), the “Credit Agreement Warrants”), which is exercisable for an aggregate of 24,834 shares of our Class A common stock with a per share exercise price of $16.08.

On September 27, 2023, in connection with the Waiver and Amendment, we and certain affiliates of Blue Torch amended and restated the 2022 Blue Torch Warrants to reduce the per share exercise price from $16.08 to $5.44. We also concurrently issued new warrants to those affiliates that are exercisable for an additional 597,082 shares of the Company’s Class A common stock at a per share exercise price of $5.44 (the “2023 Blue Torch Warrants").

The Credit Agreement Warrants may be exercised on a cashless basis. The Credit Agreement Warrants are exercisable for a term beginning on the date of issuance and ending on the earlier to occur of ten years from the date of issuance or the consummation of certain of our acquisitions as set forth in the Credit Agreement Warrants. The number of shares for which the Credit Agreement Warrants are exercisable and the associated exercise price are subject to certain proportional adjustments as set forth in the Credit Agreement Warrants.

On December 29, 2023, we pre-paid $2.0 million on our outstanding balance to maintain compliance with the maximum debt to annualized recurring revenue leverage ratio financial covenant, which otherwise would have been short by $2.0 million as of December 31, 2023 due to the delay in the award of the $9.4 million radio occultation sales order by NOAA.

As of December 31, 2023, the outstanding principal balance under the Blue Torch Credit Facility was $115.5 million.

FP Credit Agreement

On April 15, 2021, we entered into a credit agreement with FP Credit Partners, L.P., as agent for several lenders (the “FP Lenders”) (as amended on May 17, 2021, the “FP Credit Agreement”), for a $70.0 million term loan facility (the “FP Term Loan”). Upon funding in May 2021, the FP Term Loan was used (i) to pay off our existing credit facilities with Eastward Fund Management, LLC and European Investment Bank and (ii) to fund working capital and for general corporate purposes. We incurred $12.3 million of debt issuance costs relating to the FP Term Loan. The FP Lenders were also entitled to a commitment fee of $1.75 million that was fully earned and paid upon signing the FP Credit Agreement. At the time of repayment, the FP Term Loan bore interest at a rate of 9.00% per annum. Prior to the Merger, the FP Term Loan bore interest at a rate of 8.50% per annum. Since the FP Lenders elected to exercise their conversion right in connection with the Merger, and we chose not to prepay the remaining, non-converted outstanding principal amount of the FP Term Loan at the closing of such transaction, our interest rate under the FP Term Loan increased to 9.0% per annum.

Interest on the FP Term Loan was payable quarterly in arrears. The total outstanding principal amount of the FP Term Loan was due and payable at maturity on April 15, 2026. We had the right to prepay the outstanding principal amount of the FP Term Loan at any time, in full but not in part. In addition, since the FP Lenders elected to exercise their conversion right in connection with the Merger, there was no premium or other contractual return in a prepayment. The aggregate amount required to be repaid in a prepayment to the FP Lenders would only have been the outstanding principal amount of the FP Term Loan and any accrued and unpaid interest thereon. Our obligations under the FP Credit Agreement were guaranteed by our material subsidiaries, as determined in accordance with the FP Credit Agreement, and secured by substantially all of our assets and the assets of the subsidiary guarantors.

The FP Credit Agreement contained customary affirmative and negative covenants, including covenants that limited our ability and our subsidiaries' ability to, among other things, incur additional indebtedness, grant liens, make investments, pay dividends or other distributions on our capital stock, dispose of assets, consummate mergers or acquisitions and enter into transactions with affiliates, subject in each case to customary exceptions and qualifications. Prior to the consummation of a Qualifying IPO (as defined in the FP Credit Agreement), which included the Merger, we were required to maintain, as of the last day of each fiscal quarter, minimum unrestricted cash of at least $15.0 million, as determined in accordance with the FP Credit Agreement, provided that this covenant did not apply following any fiscal quarter in which we achieved positive EBITDA so long as we continued to maintain positive EBITDA in subsequent fiscal quarters. After the Merger occurred, we were no longer required to maintain this financial covenant per the terms of the FP Credit Agreement.

The FP Credit Agreement included customary events of default, including, among other things, payment defaults, breaches of covenants or representations and warranties, cross-defaults with certain other indebtedness, bankruptcy and insolvency events and judgment defaults, subject to grace periods in certain instances. Upon the occurrence and during the continuance of an event of default, the FP Lenders could declare all or a portion of the outstanding obligations payable by us to be immediately due and payable, and exercise other rights and remedies provided for under the FP Credit Agreement. Under certain circumstances, a default interest rate would apply on all obligations during the existence of an event of default under the FP Credit Agreement at a per annum rate equal to 2% above the otherwise applicable interest rate.

On June 13, 2022, we repaid in full all obligations and all amounts borrowed, and all obligations have terminated, under the FP Credit Agreement, which was replaced by the Blue Torch Financing Agreement. The outstanding principal and interest under the FP Credit Agreement in an aggregate amount equal to approximately $72.8 million was repaid with proceeds of the term loan under the Blue Torch Credit Facility. We incurred no early termination penalties in connection with the termination of the FP Credit Agreement.

Government Loan

As part of the Acquisition in November 2021, we assumed a loan agreement with the Strategic Innovation Fund ("SIF") which was recorded at fair value of the debt. As of December 31, 2023, $5.1 million was included in long-term debt, non-current on our consolidated balance sheets related to the SIF loan agreement. Under this agreement and subsequent amendment, we were eligible to receive funding for certain expenditures incurred from February 13, 2018 to May 12, 2023, up to a maximum of $5.7 million. The loan is repayable in 15 annual payments beginning February 28, 2026 and has a stated interest rate of zero.

For additional detail regarding the terms associated with our financing arrangements, see Note 6 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

Equity Distribution Agreement

On September 14, 2022, we entered into the Equity Distribution Agreement with Canaccord Genuity LLC, as sales agent. In accordance with the terms of the Equity Distribution Agreement, we may offer and sell shares of our Class A common stock having an aggregate offering price of up to $85.0 million from time to time through the agent pursuant to a registration statement on Form S-3, which became effective on September 26, 2022. In June 2023, we sold approximately 2.2 million shares of our Class A common stock through this arrangement, resulting in net proceeds of $7.9 million. As of December 31, 2023, approximately $76.8 million of shares were remaining, but had not yet been sold, under the Equity Distribution Agreement.

Cash Flows

The following table summarizes our net cash used in operating activities, net cash used in investing activities, and net cash provided by financing activities for the periods indicated:

	Years Ended December 31,	
(in thousands)	**2023**	**2022**
Net cash used in operating activities	$ (23,622)	$ (47,820)
Net cash used in investing activities	$ (17,653)	$ (41,828)
Net cash provided by financing activities	$ 23,907	$ 26,373

Cash Flows from Operating Activities

Our largest source of operating cash inflows is cash collections from our customers. Our primary uses of cash from operating activities are for employee-related expenditures, expenses related to our technology infrastructure, expenses related to our computing infrastructure (including computing power, database storage and content delivery costs), building infrastructure costs (including leases for office space), fees for third-party services, and marketing program costs.

Net cash used in operating activities in fiscal year 2023 was $23.6 million. This reflected our net loss of 64.0 million, adjustments for non-cash items of $38.7 million and a net increase of $1.7 million in operating assets and liabilities. Non-cash items primarily consisted of $18.2 million of depreciation and amortization expense, $13.0 million of stock-based compensation expense, $2.9 million of amortization of operating lease right-of-use assets, $2.3 million of debt issuance amortization costs, $1.6 million change in fair value of warrant liabilities, and a $1.0 million loss on decommissioned satellites and impairment of assets, partially offset by $0.3 million of other, net, and a $0.1 million change in fair value of contingent earnout liability. Changes in operating assets and liabilities primarily included a $3.2 million increase in other current assets, a $2.8 million decrease in operating lease liabilities, a $2.7 million decrease in accrued wages and benefits, a $2.5 million increase in contract assets, and a $0.6 million decrease in other accrued expenses. This was partially offset by a $6.4 million increase in contract liabilities, a $4.1 million decrease in accounts receivable, net, a $1.7 million decrease in other long-term assets, and a $1.4 million increase in accounts payable.

Net cash used in operating activities in fiscal year 2022 was $47.8 million. This reflected our net loss of $89.4 million, adjustments for non-cash items of $40.6 million and a net increase of $1.0 million in operating assets and liabilities. Non-cash items primarily consisted of a $22.3 million loss on extinguishment of debt, $18.3 million of depreciation and amortization expense, $11.5 million of stock-based compensation expense, $3.8 million of debt issuance amortization costs, $2.3 million of amortization of operating lease assets, and a $0.8 million loss on impairment of assets, partially offset by a $9.7 million gain on change in fair value of contingent earnout liability and an $8.8 million gain on change in fair value of warrant liabilities. Changes in operating assets and liabilities primarily included a $4.2 million increase in accounts receivable, net, a $1.8 million decrease in accounts payable, a $1.6 million decrease in operating lease liabilities, a $1.4 million increase in contract assets, and a $0.9 million decrease in accrued wages and benefits. This was partially offset by a $7.8 million increase in contract liabilities, a $1.9 million decrease in other long-term assets, a $1.0 million increase in other accrued expenses, and a $0.3 million decrease in other current assets.

Cash Flows from Investing Activities

Cash flows from investing activities primarily relate to cash used for business acquisitions, the procurement, development, and deployment of capital assets, including satellites and related launch costs, ground stations, machinery and equipment, furniture, computer equipment and software, and leasehold improvements.

The following table summarizes our net cash used in investing activities relating to capital expenditures by source of spend:

(in thousands)	Q1'23	Q2'23	Q3'23	Q4'23	2023	% of Total
Spire platform / Infrastructure	$ 1,354	$ 1,629	$ 2,045	$ 646	$ 5,674	19%
Customer funded (Space Services)	3,295	6,399	8,972	5,697	24,363	81%
Total CapEx	$ 4,649	$ 8,028	$ 11,017	$ 6,343	$ 30,037	100%

(in thousands)	Q1'22	Q2'22	Q3'22	Q4'22	2022	% of Total
Spire platform / Infrastructure	$ 1,215	$ 2,560	$ 1,344	$ 994	$ 6,113	32%
Customer funded (Space Services)	3,028	5,682	2,117	1,975	12,802	68%
Total CapEx	$ 4,243	$ 8,242	$ 3,461	$ 2,969	$ 18,915	100%

Year-over-Year Variance	Q1'23 v 22	Q2'23 v 22	Q3'23 v 22	Q4'23 v 22	2023 v 2022
Spire platform / Infrastructure	11 %	(36)%	52 %	(35)%	(7)%
Customer funded (Space Services)	9 %	13 %	324 %	188 %	90 %
Total CapEx	10 %	(3)%	218 %	114 %	59 %

Net cash used in investing activities in fiscal year 2023 was $17.7 million. This was driven by purchases of $40.1 million in short-term investments and $30.0 million of investment in property and equipment, partially offset by $52.5 million in maturities of short-term investments.

Net cash used in investing activities in fiscal year 2022 was $41.8 million. This was driven by purchases of $40.2 million in short-term investments and $18.9 million of investment in property and equipment, partially offset by $17.3 million in maturities of short-term investments.

Cash Flows from Financing Activities

Cash flows from financing activities relate primarily to net proceeds from the issuance of long term debt, convertible notes and Class A common stock.

Net cash provided by financing activities in fiscal year 2023 was $23.9 million. This was driven by $19.9 million of proceeds from long-term debt, $7.9 million of proceeds from issuance of common stock, and $0.7 million of proceeds from the employee stock purchase plan, partially offset by $4.5 million of long-term debt repayments, and $0.1 million of payments of debt issuance costs.

Net cash provided by financing activities in fiscal year 2022 was $26.4 million. This was driven by $101.0 million of proceeds from long-term debt, $0.8 million of proceeds from stock option exercises and $0.6 million of proceeds from the employee stock purchase plan, partially offset by $71.5 million of payments on long-term debt, and $4.5 million of payments of debt issuance costs. The long-term debt and debt issuance cost items were driven by the Blue Torch loan transaction.

For additional information regarding the terms of our credit facilities and notes, see Note 6 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in accordance with GAAP. In the preparation of these consolidated financial statements, we are required to make certain estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, costs and expenses and related disclosures. On an ongoing basis, we evaluate our estimates and assumptions. Our actual results may differ from these estimates under different assumptions or conditions.

We believe that of our significant accounting policies, which are described in the notes to the consolidated financial statements, the following accounting policies involve a greater degree of judgment and estimates. Accordingly, these are the policies we believe are the most critical to aid in fully understanding and evaluating our consolidated financial condition and results of operations.

Revenue Recognition

Our contracts with customers may include promises to transfer multiple solutions and services to a customer. A performance obligation is a promise in a contract with a customer to transfer solutions or services that are capable of being distinct, whereby the customer can benefit from the solution or service either on its own or with other available resources, and are distinct in the context of the contract, whereby the transfer of the solution or service is separately identifiable from other promises in the contract. Determining whether solutions and services are distinct performance obligations that should be accounted for separately or combined as a single performance obligation involves significant judgement that requires us to assess the nature of the promise and value delivered to the customer. Certain of our contracts contain multiple project-based solutions and services promised to a customer over various phases (e.g., scoping, development, manufacturing, testing, launch, and/or satellite operations), which we assess at contract inception to determine which of the solutions and services promised in a contract are distinct in order to identify individual performance obligations.

For contracts with more than one performance obligation, the transaction price is allocated among the performance obligations using the relative standalone selling price ("SSP") of each obligation. Judgment is required to determine the SSP for each distinct performance obligation. SSP is generally estimated using cost plus a reasonable margin based on value added to the customer.

For certain project-based performance obligations, we recognize a portion of our revenue over time using the output method, specifically contract milestones, which we have determined to be the most direct and reasonable measure of progress as they reflect the results achieved and value transferred to the customer.

Business Combinations and Valuation of Goodwill and Acquired Intangible Assets

We allocate the purchase price of acquired companies to tangible and intangible assets acquired and liabilities assumed based upon their estimated fair values at the acquisition date. The purchase price allocation process requires management to make significant estimates and assumptions with respect to the valuation of intangible assets. Examples of critical estimates and assumptions in valuing certain of the intangible assets we have acquired or may acquire in the future include but are not limited to future revenue growth, margins, customer retention rates, technology life, royalty rates, expected use of acquired assets, and discount rates. These factors are also considered in determining the useful life of the acquired intangible assets. These estimates are based in part on historical experience, market conditions and information obtained from management of the acquired companies and are inherently uncertain. Goodwill represents the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recorded.

The Company estimates the fair value of its one reporting unit based on its consolidated market capitalization using the 30-day trading volume-weighted average price ("VWAP") and the stock price on the date of valuation as two independent data points. The results of the annual impairment test performed in the fourth quarter of fiscal year 2023 indicated that the estimated fair value of the Company's reporting unit exceeded its carrying value by more than 101% based on the 30-day trading VWAP and by more than 150% based on the stock price on the date of valuation. Therefore, the Company concluded there was no impairment of goodwill during the fourth quarter of 2023. There also was no goodwill impairment recorded during the year ended December 31, 2022. If the Company's market capitalization continues to decline, and if macroeconomic conditions worsen, the Company's reporting unit may be at risk for future goodwill impairments. The Company continues to monitor for potential impairment should impairment indicators arise.

Contingent Earnout Liability

In connection with the reverse recapitalization that was part of the Merger, eligible Spire equity holders are entitled to receive additional shares of our Class A common stock upon the achievement of certain earnout triggering events. In accordance with ASC 815-40, the earnout shares are not indexed to the Class A common stock and therefore are accounted for as a liability and an offset to additional paid-in capital on the consolidated balance sheets at the reverse recapitalization date and subsequently remeasured at each reporting date with changes in fair value recorded as a component of other income (expense) in the consolidated statements of operations.

The contingent earnout liability is categorized as a Level 3 fair value measurement using the Monte Carlo model because the Company estimates projections during the earnout period utilizing unobservable inputs. Contingent earnout payments involve certain assumptions requiring significant judgment and actual results may differ from assumed and estimated amounts. The assumptions utilized in the calculation are based on the achievement of certain stock price milestones, including the current price of our Class A common stock, expected volatility, risk-free rate, expected term and expected dividend yield.

Warrant Liability

We generally classify warrants for the purchase of shares of our Class A common stock as liabilities on our consolidated balance sheets unless the warrants meet certain specific criteria that require the warrants to be classified within stockholders' equity. Those warrants accounted for as liabilities are freestanding financial instruments that may require us to transfer assets upon exercise. The warrant liability is initially recorded at fair value upon the date of issuance of each warrant and is subsequently remeasured to fair value at each reporting date. Changes in the fair value of the warrant liabilities are recognized as a component in other income (expense) in the consolidated statements of operations. Changes in the fair value of the warrant liabilities will continue to be recognized until the warrants are exercised, expire or qualify for equity classification. Warrants classified as equity are initially recorded at fair value on the date of issuance and recorded in additional paid-in capital on our consolidated balance sheets until the warrants are exercised or expire.

Stock-Based Compensation

We have an equity incentive plan under which we grant stock-based awards to employees and non-employees. We account for stock-based awards in accordance with ASC 718, which requires the measurement and recognition of compensation expense, based on estimated fair values, for all stock-based awards made to employees and non-employees for stock options.

We recognize the cost of stock-based awards granted to our employees and non-employees based on the estimated grant-date fair value of the awards. For restricted stock units ("RSU") with service-based vesting conditions, the fair value is calculated based upon the Company's closing stock price on the date of grant using the intrinsic value method. We determine the fair value of stock options using the Black-Scholes option pricing model, which is impacted by the following assumptions:

- Common Stock Valuation—Prior to the closing date of the Merger, determining the fair value of the shares of common stock underlying our stock-based awards, which were not publicly traded, involved significant judgment and had historically been determined with the help of an independent third-party valuation firm. For awards granted subsequent to the closing date of the Merger, the fair value of our Class A common stock is based on the closing price of our Class A common stock, as reported on the NYSE, on the date of grant of the related stock-based award.
- Expected Term—Because of the lack of sufficient historical data, we use the simple average of the vesting period and the contractual term to estimate the period the stock options are expected to be outstanding.
- Expected Volatility—We determine the expected stock price volatility based on the historical volatility of our Class A common stock and the historical volatilities of an industry peer group.
- Expected Dividend Yield—The dividend rate used is zero as we have never paid any cash dividends on our Class A common stock and do not anticipate doing so in the foreseeable future.
- Risk-Free Interest Rate—The interest rates used are based on the implied yield available on U.S. Treasury zero-coupon issues with an equivalent remaining term equal to the expected life of the award.

Accounting Pronouncements Recently Adopted and Not Yet Adopted

See Note 2 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K for recently adopted accounting pronouncements and new accounting pronouncements not yet adopted as of the date of this Annual Report on Form 10-K.

Emerging Growth Company Status

We are an "emerging growth company," as defined in Section 2(a)(19) of the Securities Act, as modified by the Jumpstart our Business Startups Act (the "JOBS Act"). Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. We have elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date that we are (i) no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our consolidated financial statements may not be comparable to companies that comply with the new or revised accounting pronouncements as of public company effective dates.

Smaller Reporting Company Status

Additionally, we are a "smaller reporting company" as defined in Item 10(f)(1) of Regulation S-K. Smaller reporting companies may take advantage of certain reduced disclosure obligations, including, among other things, providing only two years of audited financial statements. We will remain a smaller reporting company until the last day of the fiscal year in which (i) the market value of our common stock held by non-affiliates exceeds $250 million as of the prior June 30, or (ii) our annual revenues exceeded $100 million during such completed fiscal year and the market value of our common stock held by non-affiliates exceeds $700 million as of the prior June 30.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Foreign currency exchange risk

Our results of operations and cash flows are subject to fluctuations due to changes in foreign currency exchange rates, particularly changes in the Euro, British Pound Sterling, Singapore Dollar, and Canadian Dollar and may be adversely affected in the future due to changes in foreign currency exchange rates. We continue to experience foreign currency fluctuations primarily due to the periodic re-measurement of our foreign currency monetary account balances that are denominated in currencies other than the functional currency of the entities in which they are recorded. Changes in exchange rates may negatively affect our revenue and other results of operations as expressed in U.S. dollars. We do not currently engage in foreign exchange hedging contracts. As we continue to expand our international presence, we will assess options for mitigating foreign exchange risk.

We have experienced and will continue to experience fluctuations in our net loss as a result of gains or losses related to revaluing certain asset and current liability balances that are denominated in currencies other than the functional currency of the entities in which they are recorded. For fiscal year 2023, we had a gain due to changes in foreign currency exchange rates of $1.5 million and for fiscal year 2022, we had a loss due to changes in foreign currency exchange rates of $0.9 million. A hypothetical 10% strengthening or weakening of the U.S. dollar relative to the currencies in which our revenue and expenses are denominated would have resulted in an increase or decrease in our reported fiscal year 2023 pre-tax loss of approximately $3.3 million.

Interest rate sensitivity

We had cash and cash equivalents totaling $29.1 million and short-term marketable securities of $11.7 million as of December 31, 2023. These amounts were held primarily in demand deposit accounts and short-term marketable securities. The cash and cash equivalents are held for working capital purposes or strategic investment purposes.

We are exposed to market risks related to fluctuations in interest rates related to the Blue Torch Credit Facility. The Blue Torch Credit Facility accrues interest at a floating rate, to be based, at our election, on either a reference rate or a 3-month Term SOFR rate (subject to a 1.0% floor), plus an interest rate margin of 7.0% for reference rate borrowings and 8.0% for 3-month Term SOFR borrowings, plus an incremental Term SOFR margin of 0.26161%. Accordingly, increases in SOFR could increase our interest payments under the Blue Torch Credit Facility. For example, a hypothetical increase of 100 basis points in the interest rate of the Blue Torch Credit Facility would have an approximately $1.2 million impact on an annual basis on our results of operations. The SIF loan is interest free.

Inflation Risk

We are exposed to inflation risk. Inflationary factors, such as increases in component parts, labor and other overhead expenses, could impair our operating results. Although there has been a significant increase in inflation in recent years, it has not had a substantial impact on our results of operations for fiscal years 2023 or 2022. However, a higher rate of inflation in the future may have a negative impact on our operational and capital expenditures, which we may not be able to pass along as cost increases to our customers.

Item 8. Financial Statements and Supplemental Data

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED FINANCIAL STATEMENTS